APPENDIX G Proposed ancillary facilities

Figure 5 Proposed ancillary facilities

APPENDIX H Predicted construction noise levels

The impacts presented in the following table are identified by colour coding of the text.

For **Standard Hours:**

- XX Complies with NML
- XX < 10dB(A) above NML - construction noise clearly audible
- XX > 10dB(A) above NML - construction noise moderately intrusive
- XX > 75dB(A) - highly noise affected

For **OOHW Evening, Shoulder and Night:**

- XX Complies with NML
- XX < 5 dB(A) above NML - construction noise noticeable
- XX 5 to 15 dB(A) above NML - construction noise clearly audible
- XX > 15 to 25 dB(A) above NML - construction noise moderately intrusive
- XX > 25 dB(A) above NML - construction noise highly intrusive

Table H: Predicted construction noise levels

Receiver					Predicted noise levels, dB(A)											
					Day (Standard)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
1	1_002	41 Memorial Avenue		Residential	59	73	74	79	80	76	68	73	76	68	60	65
1	1_003	2 Colonial Street	Post 2008 Development (Residence)	Residential	59	56	57	62	63	59	51	56	59	51	49	54
1	1_004	4 Colonial Street	Post 2008 Development (Residence)	Residential	59	54	55	60	61	57	49	54	57	49	48	53
1	1_005	10 Colonial Street	Post 2008 Development (Residence)	Residential	59	56	57	62	63	59	51	56	59	51	51	56
1	1_006	1 Brunner Count	Post 2008 Development (Residence)	Residential	59	55	56	61	62	58	50	55	58	50	50	55
1	1_007	2 Brunner Count	Post 2008 Development (Residence)	Residential	59	55	56	61	62	58	50	55	58	50	46	51
1	1_008	3 Brunner Count	Post 2008 Development (Residence)	Residential	59	55	56	61	62	58	50	55	58	50	50	55
1	1_009	4 Brunner Count	Post 2008 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	47	52
1	1_010	5 Brunner Count	Post 2008 Development (Residence)	Residential	59	56	57	62	63	59	51	56	59	51	51	56
1	1_011	6 Brunner Count	Post 2008 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	50	55
1	1_012	7 Brunner Count	Post 2008 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	51	56
1	1_013	8 Brunner Count	Post 2008 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	52	57
1	1_014	9 Brunner Count	Post 2008 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	52	57
1	1_015	10 Brunner Count	Post 2008 Development (Residence)	Residential	59	60	61	66	67	63	55	60	63	55	53	58
1	1_016	11 Brunner Count	Post 2008 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	53	58
1	1_017	12 Brunner Count	Post 2008 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	53	58
1	1_018	13 Brunner Count	Post 2008 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	53	58
1	1_019	14 Brunner Count	Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	54	59
1	1_020	15 Brunner Count	Post 2008 Development (Residence)	Residential	59	60	61	66	67	63	55	60	63	55	54	59
1	1_021	16 Brunner Count	Post 2008 Development (Residence)	Residential	59	65	66	71	72	68	60	65	68	60	54	59
1	1_022	17 Brunner Count	Post 2008 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	55	60
1	1_023	18 Brunner Count	Post 2008 Development (Residence)	Residential	59	67	68	73	74	70	62	67	70	62	55	60
1	1_024	20 Brunner Count	Post 2008 Development (Residence)	Residential	59	69	70	75	76	72	64	69	72	64	55	60
1	1_025	22 Brunner Count	Post 2008 Development (Residence)	Residential	59	71	72	77	78	74	66	71	74	66	56	61
1	1_026	24 Brunner Count	Post 2008 Development (Residence)	Residential	59	77	78	83	84	80	72	77	80	72	56	61
1	1_027	2 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	74	75	80	81	77	69	74	77	69	54	59
1	1_028	4 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	69	70	75	76	72	64	69	72	64	47	52
1	1_029	6 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	67	68	73	74	70	62	67	70	62	43	48
1	1_030	8 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	65	66	71	72	68	60	65	68	60	44	49
1	1_031	10 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	43	48
1	1_032	12 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	46	51
1	1_033	14 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	61	62	67	68	64	56	61	64	56	48	53
1	1_034	16 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	47	52
1	1_035	18 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	47	52
1	1_036	20 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	48	53
1	1_037	22 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	46	51
1	1_038	9 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	50	55
1	1_039	Arnold Avenue	Post 2008 Development (Residence)	Residential	59	61	62	67	68	64	56	61	64	56	49	54
1	1_040	13 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	48	53
1	1_041	15 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	49	54
1	1_042	3 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	41	46
1	1_043	5 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	56	57	62	63	59	51	56	59	51	44	49
1	1_044	7 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	44	49
1	1_045	9 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	42	47
1	1_046	11 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	41	46
1	1_047	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	74	75	80	81	77	69	74	77	69	46	51
1	1_048	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	74	75	80	81	77	69	74	77	69	47	52
1	1_049	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	48	53
1	1_050	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	61	62	67	68	64	56	61	64	56	46	51
1	1_051	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	44	49
1	1_052	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	44	49
1	1_053	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	67	68	73	74	70	62	67	70	62	48	53
1	1_054	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	65	66	71	72	68	60	65	68	60	47	52
1	1_055	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	61	62	67	68	64	56	61	64	56	46	51
1	1_056	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	43	48
1	1_057	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	42	47
1	1_058	3 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	66	67	72	73	69	61	66	69	61	42	47
1	1_059	5 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	65	66	71	72	68	60	65	68	60	42	47
1	1_060	6 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	60	61	66	67	63	55	60	63	55	45	50
1	1_062	1 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	52	53	58	59	55	47	52	55	47	48	53
1	1_063	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	75	76	81	82	78	70	75	78	70	48	53
1	1_064	4 JOHN HILLAS AVENUE	Post 2008 Development (Residence)	Residential	59	61	62	67	68	64	56	61	64	56	44	49
1	1_065	7 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	64	65	70	71	67	59	64	67	59	44	49
1	1_066	13 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	56	57	62	63	59	51	56	59	51	43	48

Table H: Predicted construction noise levels **MEMORIAL AVENUE**

Receiver					Evening (OOHW)												Night (OOHW)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
1	1_002	41 Memorial Avenue		Residential	51	73	74	79	80	76	68	73	76	68	60	65	42	73	74	79	80	76	68	73	76	68	60	65
1	1_003	2 Colonial Street	Post 2008 Development (Residence)	Residential	51	56	57	62	63	59	51	56	59	51	49	54	42	56	57	62	63	59	51	56	59	51	49	54
1	1_004	4 Colonial Street	Post 2008 Development (Residence)	Residential	51	54	55	60	61	57	49	54	57	49	48	53	42	54	55	60	61	57	49	54	57	49	48	53
1	1_005	10 Colonial Street	Post 2008 Development (Residence)	Residential	51	56	57	62	63	59	51	56	59	51	51	56	42	56	57	62	63	59	51	56	59	51	51	56
1	1_006	1 Brunner Count	Post 2008 Development (Residence)	Residential	51	55	56	61	62	58	50	55	58	50	50	55	42	55	56	61	62	58	50	55	58	50	50	55
1	1_007	2 Brunner Count	Post 2008 Development (Residence)	Residential	51	55	56	61	62	58	50	55	58	50	46	51	42	55	56	61	62	58	50	55	58	50	46	51
1	1_008	3 Brunner Count	Post 2008 Development (Residence)	Residential	51	55	56	61	62	58	50	55	58	50	50	55	42	55	56	61	62	58	50	55	58	50	50	55
1	1_009	4 Brunner Count	Post 2008 Development (Residence)	Residential	51	57	58	63	64	60	52	57	60	52	47	52	42	57	58	63	64	60	52	57	60	52	47	52
1	1_010	5 Brunner Count	Post 2008 Development (Residence)	Residential	51	56	57	62	63	59	51	56	59	51	51	56	42	56	57	62	63	59	51	56	59	51	51	56
1	1_011	6 Brunner Count	Post 2008 Development (Residence)	Residential	51	58	59	64	65	61	53	58	61	53	50	55	42	58	59	64	65	61	53	58	61	53	50	55
1	1_012	7 Brunner Count	Post 2008 Development (Residence)	Residential	51	57	58	63	64	60	52	57	60	52	51	56	42	57	58	63	64	60	52	57	60	52	51	56
1	1_013	8 Brunner Count	Post 2008 Development (Residence)	Residential	51	59	60	65	66	62	54	59	62	54	52	57	42	59	60	65	66	62	54	59	62	54	52	57
1	1_014	9 Brunner Count	Post 2008 Development (Residence)	Residential	51	57	58	63	64	60	52	57	60	52	52	57	42	57	58	63	64	60	52	57	60	52	52	57
1	1_015	10 Brunner Count	Post 2008 Development (Residence)	Residential	51	60	61	66	67	63	55	60	63	55	53	58	42	60	61	66	67	63	55	60	63	55	53	58
1	1_016	11 Brunner Count	Post 2008 Development (Residence)	Residential	51	58	59	64	65	61	53	58	61	53	53	58	42	58	59	64	65	61	53	58	61	53	53	58
1	1_017	12 Brunner Count	Post 2008 Development (Residence)	Residential	51	62	63	68	69	65	57	62	65	57	53	58	42	62	63	68	69	65	57	62	65	57	53	58
1	1_018	13 Brunner Count	Post 2008 Development (Residence)	Residential	51	59	60	65	66	62	54	59	62	54	53	58	42	59	60	65	66	62	54	59	62	54	53	58
1	1_019	14 Brunner Count	Post 2008 Development (Residence)	Residential	51	63	64	69	70	66	58	63	66	58	54	59	42	63	64	69	70	66	58	63	66	58	54	59
1	1_020	15 Brunner Count	Post 2008 Development (Residence)	Residential	51	60	61	66	67	63	55	60	63	55	54	59	42	60	61	66	67	63	55	60	63	55	54	59
1	1_021	16 Brunner Count	Post 2008 Development (Residence)	Residential	51	65	66	71	72	68	60	65	68	60	54	59	42	65	66	71	72	68	60	65	68	60	54	59
1	1_022	17 Brunner Count	Post 2008 Development (Residence)	Residential	51	62	63	68	69	65	57	62	65	57	55	60	42	62	63	68	69	65	57	62	65	57	55	60
1	1_023	18 Brunner Count	Post 2008 Development (Residence)	Residential	51	67	68	73	74	70	62	67	70	62	55	60	42	67	68	73	74	70	62	67	70	62	55	60
1	1_024	20 Brunner Count	Post 2008 Development (Residence)	Residential	51	69	70	75	76	72	64	69	72	64	55	60	42	69	70	75	76	72	64	69	72	64	55	60
1	1_025	22 Brunner Count	Post 2008 Development (Residence)	Residential	51	71	72	77	78	74	66	71	74	66	56	61	42	71	72	77	78	74	66	71	74	66	56	61
1	1_026	24 Brunner Count	Post 2008 Development (Residence)	Residential	51	77	78	83	84	80	72	77	80	72	56	61	42	77	78	83	84	80	72	77	80	72	56	61
1	1_027	2 Arnold Avenue	Post 2008 Development (Residence)	Residential	51	74	75	80	81	77	69	74	77	69	54	59	42	74	75	80	81	77	69	74	77	69	54	59
1	1_028	4 Arnold Avenue	Post 2008 Development (Residence)	Residential	51	69	70	75	76	72	64	69	72	64	47	52	42	69	70	75	76	72	64	69	72	64	47	52
1	1_029	6 Arnold Avenue	Post 2008 Development (Residence)	Residential	51	67	68	73	74	70	62	67	70	62	43	48	42	67	68	73	74	70	62	67	70	62	43	48
1	1_030	8 Arnold Avenue	Post 2008 Development (Residence)	Residential	51	65	66	71	72	68	60	65	68	60	44	49	42	65	66	71	72	68	60	65	68	60	44	49
1	1_031	10 Arnold Avenue	Post 2008 Development (Residence)	Residential	51	63	64	69	70	66	58	63	66	58	43	48	42	63	64	69	70	66	58	63	66	58	43	48
1	1_032	12 Arnold Avenue	Post 2008 Development (Residence)	Residential	51	62	63	68	69	65	57	62	65	57	46	51	42	62	63	68	69	65	57	62	65	57	46	51
1	1_033	14 Arnold Avenue	Post 2008 Development (Residence)	Residential	51	61	62	67	68	64	56	61	64	56	48	53	42	61	62	67	68	64	56	61	64	56	48	53
1	1_034	16 Arnold Avenue	Post 2008 Development (Residence)	Residential	51	59	60	65	66	62	54	59	62	54	47	52	42	59	60	65	66	62	54	59	62	54	47	52
1	1_035	18 Arnold Avenue	Post 2008 Development (Residence)	Residential	51	58	59	64	65	61	53	58	61	53	47	52	42	58	59	64	65	61	53	58	61	53	47	52
1	1_036	20 Arnold Avenue	Post 2008 Development (Residence)	Residential	51	57	58	63	64	60	52	57	60	52	48	53	42	57	58	63	64	60	52	57	60	52	48	53
1	1_037	22 Arnold Avenue	Post 2008 Development (Residence)	Residential	51	57	58	63	64	60	52	57	60	52	46	51	42	57	58	63	64	60	52	57	60	52	46	51
1	1_038	9 Arnold Avenue	Post 2008 Development (Residence)	Residential	51	63	64	69	70	66	58	63	66	58	50	55	42	63	64	69	70	66	58	63	66	58	50	55
1	1_039	Arnold Avenue	Post 2008 Development (Residence)	Residential	51	61	62	67	68	64	56	61	64	56	49	54	42	61	62	67	68	64	56	61	64	56	49	54
1	1_040	13 Arnold Avenue	Post 2008 Development (Residence)	Residential	51	59	60	65	66	62	54	59	62	54	48	53	42	59	60	65	66	62	54	59	62	54	48	53
1	1_041	15 Arnold Avenue	Post 2008 Development (Residence)	Residential	51	58	59	64	65	61	53	58	61	53	49	54	42	58	59	64	65	61	53	58	61	53	49	54
1	1_042	3 Half Penny Avenue	Post 2008 Development (Residence)	Residential	51	57	58	63	64	60	52	57	60	52	41	46	42	57	58	63	64	60	52	57	60	52	41	46
1	1_043	5 Half Penny Avenue	Post 2008 Development (Residence)	Residential	51	56	57	62	63	59	51	56	59	51	44	49	42	56	57	62	63	59	51	56	59	51	44	49
1	1_044	7 Half Penny Avenue	Post 2008 Development (Residence)	Residential	51	57	58	63	64	60	52	57	60	52	44	49	42	57	58	63	64	60	52	57	60	52	44	49
1	1_045	9 Half Penny Avenue	Post 2008 Development (Residence)	Residential	51	58	59	64	65	61	53	58	61	53	42	47	42	58	59	64	65	61	53	58	61	53	42	47
1	1_046	11 Half Penny Avenue	Post 2008 Development (Residence)	Residential	51	58	59	64	65	61	53	58	61	53	41	46	42	58	59	64	65	61	53	58	61	53	41	46
1	1_047	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	74	75	80	81	77	69	74	77	69	46	51	42	74	75	80	81	77	69	74	77	69	46	51
1	1_048	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	74	75	80	81	77	69	74	77	69	47	52	42	74	75	80	81	77	69	74	77	69	47	52
1	1_049	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	63	64	69	70	66	58	63	66	58	48	53	42	63	64	69	70	66	58	63	66	58	48	53
1	1_050	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	61	62	67	68	64	56	61	64	56	46	51	42	61	62	67	68	64	56	61	64	56	46	51
1	1_051	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	59	60	65	66	62	54	59	62	54	44	49	42	59	60	65	66	62	54	59	62	54	44	49
1	1_052	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	58	59	64	65	61	53	58	61	53	44	49	42	58	59	64	65	61	53	58	61	53	44	49
1	1_053	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	67	68	73	74	70	62	67	70	62	48	53	42	67	68	73	74	70	62	67	70	62	48	53
1	1_054	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	65	66	71	72	68	60	65	68	60	47	52	42	65	66	71	72	68	60	65	68	60	47	52
1	1_055	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	61	62	67	68	64	56	61	64	56	46	51	42	61	62	67	68	64	56	61	64	56	46	51
1	1_056	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	59	60	65	66	62	54	59	62	54	43	48	42	59	60	65	66	62	54	59	62	54	43	48
1	1_057	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	58	59	64	65	61	53	58	61	53	42	47	42	58	59	64	65	61	53	58	61	53	42	47
1	1_058	3 John Hillas Avenue	Post 2008 Development (Residence)	Residential	51	66	67	72	73	69	61	66	69	61	42	47	42	66	67	72	73	69	61	66	69	61	42	47
1	1_059	5 John Hillas Avenue	Post 2008 Development (Residence)	Residential	51	65	66	71	72	68	60	65	68	60	42	47	42	65	66	71	72	68	60	65	68	60	42	47
1	1_060	6 John Hillas Avenue	Post 2008 Development (Residence)	Residential	51	60	61	66	67	63	55	60	63	55	45	50	42	60	61	66	67	63	55	60	63	55	45	50
1	1_062	1 Half Penny Avenue	Post 2008 Development (Residence)	Residential	51	52	53	58	59	55	47	52	55	47	48	53	42	52	53	58	59	55	47	52	55	47	48	53
1	1_063	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	75	76	81	82	78	70	75	78	70	48	53	42	75	76	81	82	78	70	75	78	70	48	53
1	1_064	4 JOHN HILLAS AVENUE	Post 2008 Development (Residence)	Residential	51	61	62	67	68	64	56	61	64	56	44	49	42	61	62	67	68	64	56	61	64	56	44	49
1	1_065	7 John Hillas Avenue	Post 2008 Development (Residence)	Residential	51	64	65	70	71	67	59	64	67	59	44	49	42	64	65	70	71	67	59	64	67	59	44	49
1	1_066	13 Half Penny Avenue	Post 2008 Development (Residence)	Residential	51	56	57	62	63	59	51	56	59	51	43	48	42	56	57	62	63	59	51	56	59	51	43	48

Table H: Predicted construction noise levels

Receiver					Predicted noise levels, dB(A)											
					Day (Standard)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
1	1_067	17 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	55	56	61	62	58	50	55	58	50	39	44
1	1_068	14 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	55	56	61	62	58	50	55	58	50	39	44
1	1_069	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	74	75	80	81	77	69	74	77	69	45	50
1	1_070	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	74	75	80	81	77	69	74	77	69	44	49
1	1_071	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	74	75	80	81	77	69	74	77	69	44	49
1	1_072	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	74	75	80	81	77	69	74	77	69	46	51
1	1_073	11A John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	40	45
1	1_074	10 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	41	46
1	1_075	9 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	42	47
1	1_076	11 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	41	46
1	1_077	15 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	54	55	60	61	57	49	54	57	49	37	42
1	NEW_001		2019 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	44	49
1	NEW_002		2019 Development (Residence)	Residential	59	55	56	61	62	58	50	55	58	50	37	42
2	2_002	32 Memorial Avenue		Residential	59	52	53	58	59	55	47	52	55	47	45	50
2	2_003	40 Memorial Avenue		Residential	59	62	63	68	69	65	57	62	65	57	73	78
2	2_004	8 Free Settlers Dr	The Gracewood Community	Residential	59	76	77	82	83	79	71	76	79	71	52	57
2	2_005	8 Free Settlers Dr	The Gracewood Community	Residential	59	58	59	64	65	61	53	58	61	53	53	58
2	2_006	8 Free Settlers Dr	The Gracewood Community	Residential	59	58	59	64	65	61	53	58	61	53	49	54
2	2_007	8 Free Settlers Dr	The Gracewood Community	Residential	59	54	55	60	61	57	49	54	57	49	51	56
2	2_008	8 Free Settlers Dr	The Gracewood Community	Residential	59	54	55	60	61	57	49	54	57	49	53	58
2	NEW_079		2019 Development (Residence)	Residential	59	75	76	81	82	78	70	75	78	70	-	37
2	NEW_080		2019 Development (Residence)	Residential	59	70	71	76	77	73	65	70	73	65	-	37
2	NEW_081		2019 Development (Residence)	Residential	59	67	68	73	74	70	62	67	70	62	45	50
2	NEW_082		2019 Development (Residence)	Residential	59	65	66	71	72	68	60	65	68	60	46	51
2	NEW_083		2019 Development (Residence)	Residential	59	64	65	70	71	67	59	64	67	59	46	51
2	NEW_084		2019 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	46	51
2	NEW_085		2019 Development (Residence)	Residential	59	61	62	67	68	64	56	61	64	56	46	51
2	NEW_086		2019 Development (Residence)	Residential	59	60	61	66	67	63	55	60	63	55	46	51
2	NEW_087		2019 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	46	51
2	NEW_088		2019 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	46	51
2	NEW_089		2019 Development (Residence)	Residential	59	67	68	73	74	70	62	67	70	62	41	46
2	NEW_090		2019 Development (Residence)	Residential	59	69	70	75	76	72	64	69	72	64	41	46
2	NEW_091		2019 Development (Residence)	Residential	59	75	76	81	82	78	70	75	78	70	36	41
2	NEW_092		2019 Development (Residence)	Residential	59	65	66	71	72	68	60	65	68	60	44	49
2	NEW_093		2019 Development (Residence)	Residential	59	67	68	73	74	70	62	67	70	62	41	46
2	NEW_094		2019 Development (Residence)	Residential	59	68	69	74	75	71	63	68	71	63	40	45
2	NEW_095		2019 Development (Residence)	Residential	59	72	73	78	79	75	67	72	75	67	40	45
2	NEW_096		2019 Development (Residence)	Residential	59	72	73	78	79	75	67	72	75	67	40	45
2	NEW_097		2019 Development (Residence)	Residential	59	66	67	72	73	69	61	66	69	61	40	45
2	NEW_098		2019 Development (Residence)	Residential	59	64	65	70	71	67	59	64	67	59	41	46
2	NEW_099		2019 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	41	46
2	NEW_100		2019 Development (Residence)	Residential	59	61	62	67	68	64	56	61	64	56	43	48
2	NEW_101		2019 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	43	48
2	NEW_102		2019 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	43	48
2	NEW_103		2019 Development (Residence)	Residential	59	56	57	62	63	59	51	56	59	51	43	48
2	NEW_104		2019 Development (Residence)	Residential	59	55	56	61	62	58	50	55	58	50	43	48
2	NEW_105		2019 Development (Residence)	Residential	59	54	55	60	61	57	49	54	57	49	42	47
2	NEW_106		2019 Development (Residence)	Residential	59	54	55	60	61	57	49	54	57	49	42	47
2	NEW_107		2019 Development (Residence)	Residential	59	56	57	62	63	59	51	56	59	51	42	47
2	NEW_108		2019 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	42	47
2	NEW_109		2019 Development (Residence)	Residential	59	61	62	67	68	64	56	61	64	56	42	47
2	NEW_110		2019 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	42	47
2	NEW_111		2019 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	41	46
2	NEW_112		2019 Development (Residence)	Residential	59	65	66	71	72	68	60	65	68	60	40	45
2	NEW_113		2019 Development (Residence)	Residential	59	67	68	73	74	70	62	67	70	62	39	44
2	NEW_114		2019 Development (Residence)	Residential	59	74	75	80	81	77	69	74	77	69	38	43
3	3_003	25 Memorial Avenue		Residential	63	74	75	80	81	77	69	74	77	69	35	40
3	3_005	27 Memorial Avenue		Residential	63	71	72	77	78	74	66	71	74	66	34	39
3	3_006	91 Memorial Avenue		Residential	63	66	67	72	73	69	61	66	69	61	-	36
3	3_007	37 John Hillas Avenue		Residential	63	65	66	71	72	68	60	65	68	60	-	38
3	3_008	39 John Hillas Avenue		Residential	63	65	66	71	72	68	60	65	68	60	-	37
3	3_009	45 John Hillas Avenue		Residential	63	65	66	71	72	68	60	65	68	60	-	37
3	3_014	49 Water Creek Boulevard		Residential	63	42	43	48	49	45	37	42	45	37	-	35
3	3_015	30 Bruhn Circuit		Residential	63	75	76	81	82	78	70	75	78	70	36	41

Table H: Predicted construction noise levels **MEMORIAL AVENUE**

Receiver					Evening (OOHW)												Night (OOHW)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
1	1_067	17 Half Penny Avenue	Post 2008 Development (Residence)	Residential	51	55	56	61	62	58	50	55	58	50	39	44	42	55	56	61	62	58	50	55	58	50	39	44
1	1_068	14 John Hillas Avenue	Post 2008 Development (Residence)	Residential	51	55	56	61	62	58	50	55	58	50	39	44	42	55	56	61	62	58	50	55	58	50	39	44
1	1_069	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	74	75	80	81	77	69	74	77	69	45	50	42	74	75	80	81	77	69	74	77	69	45	50
1	1_070	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	74	75	80	81	77	69	74	77	69	44	49	42	74	75	80	81	77	69	74	77	69	44	49
1	1_071	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	74	75	80	81	77	69	74	77	69	44	49	42	74	75	80	81	77	69	74	77	69	44	49
1	1_072	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	51	74	75	80	81	77	69	74	77	69	46	51	42	74	75	80	81	77	69	74	77	69	46	51
1	1_073	11A John Hillas Avenue	Post 2008 Development (Residence)	Residential	51	63	64	69	70	66	58	63	66	58	40	45	42	63	64	69	70	66	58	63	66	58	40	45
1	1_074	10 John Hillas Avenue	Post 2008 Development (Residence)	Residential	51	58	59	64	65	61	53	58	61	53	41	46	42	58	59	64	65	61	53	58	61	53	41	46
1	1_075	9 John Hillas Avenue	Post 2008 Development (Residence)	Residential	51	63	64	69	70	66	58	63	66	58	42	47	42	63	64	69	70	66	58	63	66	58	42	47
1	1_076	11 John Hillas Avenue	Post 2008 Development (Residence)	Residential	51	62	63	68	69	65	57	62	65	57	41	46	42	62	63	68	69	65	57	62	65	57	41	46
1	1_077	15 Half Penny Avenue	Post 2008 Development (Residence)	Residential	51	54	55	60	61	57	49	54	57	49	37	42	42	54	55	60	61	57	49	54	57	49	37	42
1	NEW_001		2019 Development (Residence)	Residential	51	58	59	64	65	61	53	58	61	53	44	49	42	58	59	64	65	61	53	58	61	53	44	49
1	NEW_002		2019 Development (Residence)	Residential	51	55	56	61	62	58	50	55	58	50	37	42	42	55	56	61	62	58	50	55	58	50	37	42
2	2_002	32 Memorial Avenue		Residential	51	52	53	58	59	55	47	52	55	47	45	50	42	52	53	58	59	55	47	52	55	47	45	50
2	2_003	40 Memorial Avenue		Residential	51	62	63	68	69	65	57	62	65	57	73	78	42	62	63	68	69	65	57	62	65	57	73	78
2	2_004	8 Free Settlers Dr	The Gracewood Community	Residential	51	76	77	82	83	79	71	76	79	71	52	57	42	76	77	82	83	79	71	76	79	71	52	57
2	2_005	8 Free Settlers Dr	The Gracewood Community	Residential	51	58	59	64	65	61	53	58	61	53	53	58	42	58	59	64	65	61	53	58	61	53	53	58
2	2_006	8 Free Settlers Dr	The Gracewood Community	Residential	51	58	59	64	65	61	53	58	61	53	49	54	42	58	59	64	65	61	53	58	61	53	49	54
2	2_007	8 Free Settlers Dr	The Gracewood Community	Residential	51	54	55	60	61	57	49	54	57	49	51	56	42	54	55	60	61	57	49	54	57	49	51	56
2	2_008	8 Free Settlers Dr	The Gracewood Community	Residential	51	54	55	60	61	57	49	54	57	49	53	58	42	54	55	60	61	57	49	54	57	49	53	58
2	NEW_079		2019 Development (Residence)	Residential	51	75	76	81	82	78	70	75	78	70	-	37	42	75	76	81	82	78	70	75	78	70	-	37
2	NEW_080		2019 Development (Residence)	Residential	51	70	71	76	77	73	65	70	73	65	-	37	42	70	71	76	77	73	65	70	73	65	-	37
2	NEW_081		2019 Development (Residence)	Residential	51	67	68	73	74	70	62	67	70	62	45	50	42	67	68	73	74	70	62	67	70	62	45	50
2	NEW_082		2019 Development (Residence)	Residential	51	65	66	71	72	68	60	65	68	60	46	51	42	65	66	71	72	68	60	65	68	60	46	51
2	NEW_083		2019 Development (Residence)	Residential	51	64	65	70	71	67	59	64	67	59	46	51	42	64	65	70	71	67	59	64	67	59	46	51
2	NEW_084		2019 Development (Residence)	Residential	51	62	63	68	69	65	57	62	65	57	46	51	42	62	63	68	69	65	57	62	65	57	46	51
2	NEW_085		2019 Development (Residence)	Residential	51	61	62	67	68	64	56	61	64	56	46	51	42	61	62	67	68	64	56	61	64	56	46	51
2	NEW_086		2019 Development (Residence)	Residential	51	60	61	66	67	63	55	60	63	55	46	51	42	60	61	66	67	63	55	60	63	55	46	51
2	NEW_087		2019 Development (Residence)	Residential	51	59	60	65	66	62	54	59	62	54	46	51	42	59	60	65	66	62	54	59	62	54	46	51
2	NEW_088		2019 Development (Residence)	Residential	51	58	59	64	65	61	53	58	61	53	46	51	42	58	59	64	65	61	53	58	61	53	46	51
2	NEW_089		2019 Development (Residence)	Residential	51	67	68	73	74	70	62	67	70	62	41	46	42	67	68	73	74	70	62	67	70	62	41	46
2	NEW_090		2019 Development (Residence)	Residential	51	69	70	75	76	72	64	69	72	64	41	46	42	69	70	75	76	72	64	69	72	64	41	46
2	NEW_091		2019 Development (Residence)	Residential	51	75	76	81	82	78	70	75	78	70	36	41	42	75	76	81	82	78	70	75	78	70	36	41
2	NEW_092		2019 Development (Residence)	Residential	51	65	66	71	72	68	60	65	68	60	44	49	42	65	66	71	72	68	60	65	68	60	44	49
2	NEW_093		2019 Development (Residence)	Residential	51	67	68	73	74	70	62	67	70	62	41	46	42	67	68	73	74	70	62	67	70	62	41	46
2	NEW_094		2019 Development (Residence)	Residential	51	68	69	74	75	71	63	68	71	63	40	45	42	68	69	74	75	71	63	68	71	63	40	45
2	NEW_095		2019 Development (Residence)	Residential	51	72	73	78	79	75	67	72	75	67	40	45	42	72	73	78	79	75	67	72	75	67	40	45
2	NEW_096		2019 Development (Residence)	Residential	51	72	73	78	79	75	67	72	75	67	40	45	42	72	73	78	79	75	67	72	75	67	40	45
2	NEW_097		2019 Development (Residence)	Residential	51	66	67	72	73	69	61	66	69	61	40	45	42	66	67	72	73	69	61	66	69	61	40	45
2	NEW_098		2019 Development (Residence)	Residential	51	64	65	70	71	67	59	64	67	59	41	46	42	64	65	70	71	67	59	64	67	59	41	46
2	NEW_099		2019 Development (Residence)	Residential	51	63	64	69	70	66	58	63	66	58	41	46	42	63	64	69	70	66	58	63	66	58	41	46
2	NEW_100		2019 Development (Residence)	Residential	51	61	62	67	68	64	56	61	64	56	43	48	42	61	62	67	68	64	56	61	64	56	43	48
2	NEW_101		2019 Development (Residence)	Residential	51	58	59	64	65	61	53	58	61	53	43	48	42	58	59	64	65	61	53	58	61	53	43	48
2	NEW_102		2019 Development (Residence)	Residential	51	57	58	63	64	60	52	57	60	52	43	48	42	57	58	63	64	60	52	57	60	52	43	48
2	NEW_103		2019 Development (Residence)	Residential	51	56	57	62	63	59	51	56	59	51	43	48	42	56	57	62	63	59	51	56	59	51	43	48
2	NEW_104		2019 Development (Residence)	Residential	51	55	56	61	62	58	50	55	58	50	43	48	42	55	56	61	62	58	50	55	58	50	43	48
2	NEW_105		2019 Development (Residence)	Residential	51	54	55	60	61	57	49	54	57	49	42	47	42	54	55	60	61	57	49	54	57	49	42	47
2	NEW_106		2019 Development (Residence)	Residential	51	54	55	60	61	57	49	54	57	49	42	47	42	54	55	60	61	57	49	54	57	49	42	47
2	NEW_107		2019 Development (Residence)	Residential	51	56	57	62	63	59	51	56	59	51	42	47	42	56	57	62	63	59	51	56	59	51	42	47
2	NEW_108		2019 Development (Residence)	Residential	51	59	60	65	66	62	54	59	62	54	42	47	42	59	60	65	66	62	54	59	62	54	42	47
2	NEW_109		2019 Development (Residence)	Residential	51	61	62	67	68	64	56	61	64	56	42	47	42	61	62	67	68	64	56	61	64	56	42	47
2	NEW_110		2019 Development (Residence)	Residential	51	62	63	68	69	65	57	62	65	57	42	47	42	62	63	68	69	65	57	62	65	57	42	47
2	NEW_111		2019 Development (Residence)	Residential	51	63	64	69	70	66	58	63	66	58	41	46	42	63	64	69	70	66	58	63	66	58	41	46
2	NEW_112		2019 Development (Residence)	Residential	51	65	66	71	72	68	60	65	68	60	40	45	42	65	66	71	72	68	60	65	68	60	40	45
2	NEW_113		2019 Development (Residence)	Residential	51	67	68	73	74	70	62	67	70	62	39	44	42	67	68	73	74	70	62	67	70	62	39	44
2	NEW_114		2019 Development (Residence)	Residential	51	74	75	80	81	77	69	74	77	69	38	43	42	74	75	80	81	77	69	74	77	69	38	43
3	3_003	25 Memorial Avenue		Residential	55	74	75	80	81	77	69	74	77	69	35	40	46	74	75	80	81	77	69	74	77	69	35	40
3	3_005	27 Memorial Avenue		Residential	55	71	72	77	78	74	66	71	74	66	34	39	46	71	72	77	78	74	66	71	74	66	34	39
3	3_006	91 Memorial Avenue		Residential	55	66	67	72	73	69	61	66	69	61	-	36	46	66	67	72	73	69	61	66	69	61	-	36
3	3_007	37 John Hillas Avenue		Residential	55	65	66	71	72	68	60	65	68	60	-	38	46	65	66	71	72	68	60	65	68	60	-	38
3	3_008	39 John Hillas Avenue		Residential	55	65	66	71	72	68	60	65	68	60	-	37	46	65	66	71	72	68	60	65	68	60	-	37
3	3_009	45 John Hillas Avenue		Residential	55	65	66	71	72	68	60	65	68	60	-	37	46	65	66	71	72	68	60	65	68	60	-	37
3	3_014	49 Water Creek Boulevard		Residential	55	42	43	48	49	45	37	42	45	37	-	35	46	42	43	48	49	45	37	42	45	37	-	35
3	3_015	30 Bruhn Circuit		Residential	55	75	76	81	82	78	70	75	78	70	36	41	46	75	76	81	82	78	70	75	78	70	36	41

Table H: Predicted construction noise levels

Receiver					Predicted noise levels, dB(A)											
					Day (Standard)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
3	3_016	32 Bruhn Circuit		Residential	63	75	76	81	82	78	70	75	78	70	37	42
3	3_017	12 Butler Avenue		Residential	63	57	58	63	64	60	52	57	60	52	36	41
3	3_018	13 Butler Avenue		Residential	63	56	57	62	63	59	51	56	59	51	37	42
3	3_019	14 Butler Avenue		Residential	63	58	59	64	65	61	53	58	61	53	36	41
3	3_010	48 John Hillas Avenue		Residential	63	58	59	64	65	61	53	58	61	53	36	41
3	3_011	39 Water Creek Boulevard		Residential	63	64	65	70	71	67	59	64	67	59	37	42
3	3_012	43 Water Creek Boulevard		Residential	63	64	65	70	71	67	59	64	67	59	36	41
3	3_013	47 Water Creek Boulevard		Residential	63	74	75	80	81	77	69	74	77	69	-	38
3	NEW_003		2019 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	37	42
3	NEW_004		2019 Development (Residence)	Residential	63	56	57	62	63	59	51	56	59	51	35	40
3	NEW_005		2019 Development (Residence)	Residential	63	55	56	61	62	58	50	55	58	50	-	36
3	NEW_006		2019 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	-	37
3	NEW_007		2019 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	-	36
3	NEW_008		2019 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	-	36
3	NEW_009		2019 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	-	36
3	NEW_010		2019 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	-	34
3	NEW_011		2019 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	-	37
3	NEW_012		2019 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	-	38
3	NEW_013		2019 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	34	39
3	NEW_014		2019 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	35	40
3	NEW_015		2019 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	36	41
3	NEW_016		2019 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	37	42
3	NEW_017		2019 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	39	44
3	NEW_018		2019 Development (Residence)	Residential	63	64	65	70	71	67	59	64	67	59	38	43
3	NEW_019		2019 Development (Residence)	Residential	63	64	65	70	71	67	59	64	67	59	36	41
3	NEW_020		2019 Development (Residence)	Residential	63	66	67	72	73	69	61	66	69	61	35	40
3	NEW_021		2019 Development (Residence)	Residential	63	66	67	72	73	69	61	66	69	61	34	39
3	NEW_022		2019 Development (Residence)	Residential	63	64	65	70	71	67	59	64	67	59	34	39
3	NEW_023		2019 Development (Residence)	Residential	63	64	65	70	71	67	59	64	67	59	-	38
3	NEW_024		2019 Development (Residence)	Residential	63	64	65	70	71	67	59	64	67	59	34	39
3	NEW_025		2019 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	36	41
3	NEW_026		2019 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	36	41
3	NEW_027		2019 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	37	42
3	NEW_028		2019 Development (Residence)	Residential	63	75	76	81	82	78	70	75	78	70	37	42
3	NEW_029		2019 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	38	43
3	NEW_030		2019 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	38	43
3	NEW_031		2019 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	42	47
3	NEW_032		2019 Development (Residence)	Residential	63	75	76	81	82	78	70	75	78	70	43	48
3	NEW_033		2019 Development (Residence)	Residential	63	52	53	58	59	55	47	52	55	47	-	37
3	NEW_034		2019 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	-	37
3	NEW_035		2019 Development (Residence)	Residential	63	53	54	59	60	56	48	53	56	48	-	37
3	NEW_036		2019 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	-	37
3	NEW_037		2019 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	-	37
3	NEW_038		2019 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	-	34
3	NEW_039		2019 Development (Residence)	Residential	63	61	62	67	68	64	56	61	64	56	-	38
3	NEW_040		2019 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	-	38
3	NEW_041		2019 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	-	38
3	NEW_042		2019 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	-	37
3	NEW_043		2019 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	-	35
3	NEW_044		2019 Development (Residence)	Residential	63	56	57	62	63	59	51	56	59	51	-	35
3	NEW_045		2019 Development (Residence)	Residential	63	56	57	62	63	59	51	56	59	51	-	36
3	NEW_046		2019 Development (Residence)	Residential	63	55	56	61	62	58	50	55	58	50	-	37
3	NEW_047		2019 Development (Residence)	Residential	63	55	56	61	62	58	50	55	58	50	-	38
3	NEW_048		2019 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	35	40
3	NEW_049		2019 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	34	39
3	NEW_050		2019 Development (Residence)	Residential	63	50	51	56	57	53	45	50	53	45	-	37
3	NEW_051		2019 Development (Residence)	Residential	63	63	64	69	70	66	58	63	66	58	36	41
3	NEW_052		2019 Development (Residence)	Residential	63	73	74	79	80	76	68	73	76	68	-	38
3	NEW_053		2019 Development (Residence)	Residential	63	61	62	67	68	64	56	61	64	56	-	38
3	NEW_054		2019 Development (Residence)	Residential	63	64	65	70	71	67	59	64	67	59	34	39
3	NEW_055		2019 Development (Residence)	Residential	63	65	66	71	72	68	60	65	68	60	-	37
3	NEW_056		2019 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	34	39
3	NEW_057		2019 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	34	39
3	NEW_058		2019 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	36	41

Table H: Predicted construction noise levels **MEMORIAL AVENUE**

Receiver					Evening (OOHW)												Night (OOHW)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
3	3_016	32 Bruhn Circuit		Residential	55	75	76	81	82	78	70	75	78	70	37	42	46	75	76	81	82	78	70	75	78	70	37	42
3	3_017	12 Butler Avenue		Residential	55	57	58	63	64	60	52	57	60	52	36	41	46	57	58	63	64	60	52	57	60	52	36	41
3	3_018	13 Butler Avenue		Residential	55	56	57	62	63	59	51	56	59	51	37	42	46	56	57	62	63	59	51	56	59	51	37	42
3	3_019	14 Butler Avenue		Residential	55	58	59	64	65	61	53	58	61	53	36	41	46	58	59	64	65	61	53	58	61	53	36	41
3	3_010	48 John Hillas Avenue		Residential	55	58	59	64	65	61	53	58	61	53	36	41	46	58	59	64	65	61	53	58	61	53	36	41
3	3_011	39 Water Creek Boulevard		Residential	55	64	65	70	71	67	59	64	67	59	37	42	46	64	65	70	71	67	59	64	67	59	37	42
3	3_012	43 Water Creek Boulevard		Residential	55	64	65	70	71	67	59	64	67	59	36	41	46	64	65	70	71	67	59	64	67	59	36	41
3	3_013	47 Water Creek Boulevard		Residential	55	74	75	80	81	77	69	74	77	69	-	38	46	74	75	80	81	77	69	74	77	69	-	38
3	NEW_003		2019 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	37	42	46	54	55	60	61	57	49	54	57	49	37	42
3	NEW_004		2019 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	35	40	46	56	57	62	63	59	51	56	59	51	35	40
3	NEW_005		2019 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	-	36	46	55	56	61	62	58	50	55	58	50	-	36
3	NEW_006		2019 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	-	37	46	57	58	63	64	60	52	57	60	52	-	37
3	NEW_007		2019 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	-	36	46	57	58	63	64	60	52	57	60	52	-	36
3	NEW_008		2019 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	-	36	46	57	58	63	64	60	52	57	60	52	-	36
3	NEW_009		2019 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	-	36	46	57	58	63	64	60	52	57	60	52	-	36
3	NEW_010		2019 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	-	34	46	57	58	63	64	60	52	57	60	52	-	34
3	NEW_011		2019 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	-	37	46	60	61	66	67	63	55	60	63	55	-	37
3	NEW_012		2019 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	-	38	46	59	60	65	66	62	54	59	62	54	-	38
3	NEW_013		2019 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	34	39	46	59	60	65	66	62	54	59	62	54	34	39
3	NEW_014		2019 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	35	40	46	60	61	66	67	63	55	60	63	55	35	40
3	NEW_015		2019 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	36	41	46	59	60	65	66	62	54	59	62	54	36	41
3	NEW_016		2019 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	37	42	46	59	60	65	66	62	54	59	62	54	37	42
3	NEW_017		2019 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	39	44	46	58	59	64	65	61	53	58	61	53	39	44
3	NEW_018		2019 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	38	43	46	64	65	70	71	67	59	64	67	59	38	43
3	NEW_019		2019 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	36	41	46	64	65	70	71	67	59	64	67	59	36	41
3	NEW_020		2019 Development (Residence)	Residential	55	66	67	72	73	69	61	66	69	61	35	40	46	66	67	72	73	69	61	66	69	61	35	40
3	NEW_021		2019 Development (Residence)	Residential	55	66	67	72	73	69	61	66	69	61	34	39	46	66	67	72	73	69	61	66	69	61	34	39
3	NEW_022		2019 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	34	39	46	64	65	70	71	67	59	64	67	59	34	39
3	NEW_023		2019 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	-	38	46	64	65	70	71	67	59	64	67	59	-	38
3	NEW_024		2019 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	34	39	46	64	65	70	71	67	59	64	67	59	34	39
3	NEW_025		2019 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	36	41	46	74	75	80	81	77	69	74	77	69	36	41
3	NEW_026		2019 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	36	41	46	74	75	80	81	77	69	74	77	69	36	41
3	NEW_027		2019 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	37	42	46	74	75	80	81	77	69	74	77	69	37	42
3	NEW_028		2019 Development (Residence)	Residential	55	75	76	81	82	78	70	75	78	70	37	42	46	75	76	81	82	78	70	75	78	70	37	42
3	NEW_029		2019 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	38	43	46	74	75	80	81	77	69	74	77	69	38	43
3	NEW_030		2019 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	38	43	46	74	75	80	81	77	69	74	77	69	38	43
3	NEW_031		2019 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	42	47	46	74	75	80	81	77	69	74	77	69	42	47
3	NEW_032		2019 Development (Residence)	Residential	55	75	76	81	82	78	70	75	78	70	43	48	46	75	76	81	82	78	70	75	78	70	43	48
3	NEW_033		2019 Development (Residence)	Residential	55	52	53	58	59	55	47	52	55	47	-	37	46	52	53	58	59	55	47	52	55	47	-	37
3	NEW_034		2019 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	-	37	46	54	55	60	61	57	49	54	57	49	-	37
3	NEW_035		2019 Development (Residence)	Residential	55	53	54	59	60	56	48	53	56	48	-	37	46	53	54	59	60	56	48	53	56	48	-	37
3	NEW_036		2019 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	-	37	46	54	55	60	61	57	49	54	57	49	-	37
3	NEW_037		2019 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	-	37	46	54	55	60	61	57	49	54	57	49	-	37
3	NEW_038		2019 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	-	34	46	58	59	64	65	61	53	58	61	53	-	34
3	NEW_039		2019 Development (Residence)	Residential	55	61	62	67	68	64	56	61	64	56	-	38	46	61	62	67	68	64	56	61	64	56	-	38
3	NEW_040		2019 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	-	38	46	60	61	66	67	63	55	60	63	55	-	38
3	NEW_041		2019 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	-	38	46	59	60	65	66	62	54	59	62	54	-	38
3	NEW_042		2019 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	-	37	46	59	60	65	66	62	54	59	62	54	-	37
3	NEW_043		2019 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	-	35	46	58	59	64	65	61	53	58	61	53	-	35
3	NEW_044		2019 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	-	35	46	56	57	62	63	59	51	56	59	51	-	35
3	NEW_045		2019 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	-	36	46	56	57	62	63	59	51	56	59	51	-	36
3	NEW_046		2019 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	-	37	46	55	56	61	62	58	50	55	58	50	-	37
3	NEW_047		2019 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	-	38	46	55	56	61	62	58	50	55	58	50	-	38
3	NEW_048		2019 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	35	40	46	58	59	64	65	61	53	58	61	53	35	40
3	NEW_049		2019 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	34	39	46	54	55	60	61	57	49	54	57	49	34	39
3	NEW_050		2019 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	-	37	46	50	51	56	57	53	45	50	53	45	-	37
3	NEW_051		2019 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	36	41	46	63	64	69	70	66	58	63	66	58	36	41
3	NEW_052		2019 Development (Residence)	Residential	55	73	74	79	80	76	68	73	76	68	-	38	46	73	74	79	80	76	68	73	76	68	-	38
3	NEW_053		2019 Development (Residence)	Residential	55	61	62	67	68	64	56	61	64	56	-	38	46	61	62	67	68	64	56	61	64	56	-	38
3	NEW_054		2019 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	34	39	46	64	65	70	71	67	59	64	67	59	34	39
3	NEW_055		2019 Development (Residence)	Residential	55	65	66	71	72	68	60	65	68	60	-	37	46	65	66	71	72	68	60	65	68	60	-	37
3	NEW_056		2019 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	34	39	46	74	75	80	81	77	69	74	77	69	34	39
3	NEW_057		2019 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	34	39	46	74	75	80	81	77	69	74	77	69	34	39
3	NEW_058		2019 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	36	41	46	57	58	63	64	60	52	57	60	52	36	41

Table H: Predicted construction noise levels

Receiver					Predicted noise levels, dB(A)											
					Day (Standard)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
3	NEW_059		2019 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	36	41
3	NEW_060		2019 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	37	42
3	NEW_061		2019 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	37	42
3	NEW_062		2019 Development (Residence)	Residential	63	67	68	73	74	70	62	67	70	62	37	42
3	NEW_063		2019 Development (Residence)	Residential	63	70	71	76	77	73	65	70	73	65	37	42
3	NEW_064		2019 Development (Residence)	Residential	63	79	80	85	86	82	74	79	82	74	37	42
3	NEW_065		2019 Development (Residence)	Residential	63	73	74	79	80	76	68	73	76	68	37	42
3	NEW_066		2019 Development (Residence)	Residential	63	67	68	73	74	70	62	67	70	62	37	42
3	NEW_067		2019 Development (Residence)	Residential	63	64	65	70	71	67	59	64	67	59	37	42
3	NEW_068		2019 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	37	42
3	NEW_069		2019 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	38	43
3	NEW_070		2019 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	37	42
3	NEW_071		2019 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	38	43
3	NEW_072		2019 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	38	43
3	NEW_073		2019 Development (Residence)	Residential	63	68	69	74	75	71	63	68	71	63	37	42
3	NEW_074		2019 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	36	41
3	NEW_075		2019 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	35	40
3	NEW_076		2019 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	37	42
3	NEW_077		2019 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	39	44
3	NEW_078		2019 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	39	44
4	4_001	2 Rocks Street	Post 2008 Development (Residence)	Residential	63	70	71	76	77	73	65	70	73	65	34	39
4	4_002	4 Rocks Street	Post 2008 Development (Residence)	Residential	63	68	69	74	75	71	63	68	71	63	-	38
4	4_003	6 Rocks Street	Post 2008 Development (Residence)	Residential	63	66	67	72	73	69	61	66	69	61	34	39
4	4_004	8 Rocks Street	Post 2008 Development (Residence)	Residential	63	65	66	71	72	68	60	65	68	60	34	39
4	4_005	10 Rocks Street	Post 2008 Development (Residence)	Residential	63	64	65	70	71	67	59	64	67	59	34	39
4	4_006	12 Rocks Street	Post 2008 Development (Residence)	Residential	63	63	64	69	70	66	58	63	66	58	-	38
4	4_007	14 Rocks Street	Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	35	40
4	4_008	2 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	34	39
4	4_009	4 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	56	57	62	63	59	51	56	59	51	34	39
4	4_010	6 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	48	49	54	55	51	43	48	51	43	34	39
4	4_011	8 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	48	49	54	55	51	43	48	51	43	35	40
4	4_012	10 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	53	54	59	60	56	48	53	56	48	35	40
4	4_013	12 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	35	40
4	4_014	14 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	35	40
4	4_015	16 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	34	39
4	4_016	18 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	34	39
4	4_017	20 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	48	49	54	55	51	43	48	51	43	34	39
4	4_018	22 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	36	41
4	4_019	24 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	34	39
4	4_020	26 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	61	62	67	68	64	56	61	64	56	36	41
4	4_021	28 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	61	62	67	68	64	56	61	64	56	36	41
4	4_022	30 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	34	39
4	4_023	32 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	35	40
4	4_024	34 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	36	41
4	4_025	36 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	39	44
4	4_026	38 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	56	57	62	63	59	51	56	59	51	36	41
4	4_027	40 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	35	40
4	4_028	42 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	35	40
4	4_029	44 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	65	66	71	72	68	60	65	68	60	38	43
4	4_030	46 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	39	44
4	4_031	48 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	66	67	72	73	69	61	66	69	61	39	44
4	4_032	50 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	39	44
4	4_033	52 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	66	67	72	73	69	61	66	69	61	39	44
4	4_034	54 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	40	45
4	4_035	56 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	39	44
4	4_036	58 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	39	44
4	4_037	60 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	73	74	79	80	76	68	73	76	68	39	44
4	4_038	62 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	73	74	79	80	76	68	73	76	68	39	44
4	4_039	64 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	73	74	79	80	76	68	73	76	68	39	44
4	4_040	66 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	73	74	79	80	76	68	73	76	68	39	44
4	4_041	68 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	72	73	78	79	75	67	72	75	67	38	43
4	4_042	70 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	72	73	78	79	75	67	72	75	67	38	43
4	4_043	72 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	72	73	78	79	75	67	72	75	67	38	43
4	4_044	74 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	72	73	78	79	75	67	72	75	67	38	43

Table H: Predicted construction noise levels **MEMORIAL AVENUE**

Receiver					Evening (OOHW)												Night (OOHW)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
3	NEW_059		2019 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	36	41	46	59	60	65	66	62	54	59	62	54	36	41
3	NEW_060		2019 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	37	42	46	60	61	66	67	63	55	60	63	55	37	42
3	NEW_061		2019 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	37	42	46	62	63	68	69	65	57	62	65	57	37	42
3	NEW_062		2019 Development (Residence)	Residential	55	67	68	73	74	70	62	67	70	62	37	42	46	67	68	73	74	70	62	67	70	62	37	42
3	NEW_063		2019 Development (Residence)	Residential	55	70	71	76	77	73	65	70	73	65	37	42	46	70	71	76	77	73	65	70	73	65	37	42
3	NEW_064		2019 Development (Residence)	Residential	55	79	80	85	86	82	74	79	82	74	37	42	46	79	80	85	86	82	74	79	82	74	37	42
3	NEW_065		2019 Development (Residence)	Residential	55	73	74	79	80	76	68	73	76	68	37	42	46	73	74	79	80	76	68	73	76	68	37	42
3	NEW_066		2019 Development (Residence)	Residential	55	67	68	73	74	70	62	67	70	62	37	42	46	67	68	73	74	70	62	67	70	62	37	42
3	NEW_067		2019 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	37	42	46	64	65	70	71	67	59	64	67	59	37	42
3	NEW_068		2019 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	37	42	46	60	61	66	67	63	55	60	63	55	37	42
3	NEW_069		2019 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	38	43	46	58	59	64	65	61	53	58	61	53	38	43
3	NEW_070		2019 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	37	42	46	57	58	63	64	60	52	57	60	52	37	42
3	NEW_071		2019 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	38	43	46	60	61	66	67	63	55	60	63	55	38	43
3	NEW_072		2019 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	38	43	46	60	61	66	67	63	55	60	63	55	38	43
3	NEW_073		2019 Development (Residence)	Residential	55	68	69	74	75	71	63	68	71	63	37	42	46	68	69	74	75	71	63	68	71	63	37	42
3	NEW_074		2019 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	36	41	46	74	75	80	81	77	69	74	77	69	36	41
3	NEW_075		2019 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	35	40	46	74	75	80	81	77	69	74	77	69	35	40
3	NEW_076		2019 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	37	42	46	74	75	80	81	77	69	74	77	69	37	42
3	NEW_077		2019 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	39	44	46	59	60	65	66	62	54	59	62	54	39	44
3	NEW_078		2019 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	39	44	46	57	58	63	64	60	52	57	60	52	39	44
4	4_001	2 Rocks Street	Post 2008 Development (Residence)	Residential	55	70	71	76	77	73	65	70	73	65	34	39	46	70	71	76	77	73	65	70	73	65	34	39
4	4_002	4 Rocks Street	Post 2008 Development (Residence)	Residential	55	68	69	74	75	71	63	68	71	63	-	38	46	68	69	74	75	71	63	68	71	63	-	38
4	4_003	6 Rocks Street	Post 2008 Development (Residence)	Residential	55	66	67	72	73	69	61	66	69	61	34	39	46	66	67	72	73	69	61	66	69	61	34	39
4	4_004	8 Rocks Street	Post 2008 Development (Residence)	Residential	55	65	66	71	72	68	60	65	68	60	34	39	46	65	66	71	72	68	60	65	68	60	34	39
4	4_005	10 Rocks Street	Post 2008 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	34	39	46	64	65	70	71	67	59	64	67	59	34	39
4	4_006	12 Rocks Street	Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	-	38	46	63	64	69	70	66	58	63	66	58	-	38
4	4_007	14 Rocks Street	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	35	40	46	62	63	68	69	65	57	62	65	57	35	40
4	4_008	2 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	34	39	46	57	58	63	64	60	52	57	60	52	34	39
4	4_009	4 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	34	39	46	56	57	62	63	59	51	56	59	51	34	39
4	4_010	6 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	48	49	54	55	51	43	48	51	43	34	39	46	48	49	54	55	51	43	48	51	43	34	39
4	4_011	8 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	48	49	54	55	51	43	48	51	43	35	40	46	48	49	54	55	51	43	48	51	43	35	40
4	4_012	10 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	53	54	59	60	56	48	53	56	48	35	40	46	53	54	59	60	56	48	53	56	48	35	40
4	4_013	12 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	35	40	46	57	58	63	64	60	52	57	60	52	35	40
4	4_014	14 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	35	40	46	58	59	64	65	61	53	58	61	53	35	40
4	4_015	16 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	34	39	46	58	59	64	65	61	53	58	61	53	34	39
4	4_016	18 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	34	39	46	58	59	64	65	61	53	58	61	53	34	39
4	4_017	20 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	48	49	54	55	51	43	48	51	43	34	39	46	48	49	54	55	51	43	48	51	43	34	39
4	4_018	22 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	36	41	46	62	63	68	69	65	57	62	65	57	36	41
4	4_019	24 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	34	39	46	62	63	68	69	65	57	62	65	57	34	39
4	4_020	26 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	61	62	67	68	64	56	61	64	56	36	41	46	61	62	67	68	64	56	61	64	56	36	41
4	4_021	28 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	61	62	67	68	64	56	61	64	56	36	41	46	61	62	67	68	64	56	61	64	56	36	41
4	4_022	30 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	34	39	46	59	60	65	66	62	54	59	62	54	34	39
4	4_023	32 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	35	40	46	58	59	64	65	61	53	58	61	53	35	40
4	4_024	34 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	36	41	46	60	61	66	67	63	55	60	63	55	36	41
4	4_025	36 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	39	44	46	59	60	65	66	62	54	59	62	54	39	44
4	4_026	38 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	36	41	46	56	57	62	63	59	51	56	59	51	36	41
4	4_027	40 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	35	40	46	57	58	63	64	60	52	57	60	52	35	40
4	4_028	42 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	35	40	46	60	61	66	67	63	55	60	63	55	35	40
4	4_029	44 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	65	66	71	72	68	60	65	68	60	38	43	46	65	66	71	72	68	60	65	68	60	38	43
4	4_030	46 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	39	44	46	60	61	66	67	63	55	60	63	55	39	44
4	4_031	48 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	66	67	72	73	69	61	66	69	61	39	44	46	66	67	72	73	69	61	66	69	61	39	44
4	4_032	50 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	39	44	46	62	63	68	69	65	57	62	65	57	39	44
4	4_033	52 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	66	67	72	73	69	61	66	69	61	39	44	46	66	67	72	73	69	61	66	69	61	39	44
4	4_034	54 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	40	45	46	74	75	80	81	77	69	74	77	69	40	45
4	4_035	56 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	39	44	46	74	75	80	81	77	69	74	77	69	39	44
4	4_036	58 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	39	44	46	74	75	80	81	77	69	74	77	69	39	44
4	4_037	60 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	73	74	79	80	76	68	73	76	68	39	44	46	73	74	79	80	76	68	73	76	68	39	44
4	4_038	62 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	73	74	79	80	76	68	73	76	68	39	44	46	73	74	79	80	76	68	73	76	68	39	44
4	4_039	64 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	73	74	79	80	76	68	73	76	68	39	44	46	73	74	79	80	76	68	73	76	68	39	44
4	4_040	66 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	73	74	79	80	76	68	73	76	68	39	44	46	73	74	79	80	76	68	73	76	68	39	44
4	4_041	68 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	72	73	78	79	75	67	72	75	67	38	43	46	72	73	78	79	75	67	72	75	67	38	43
4	4_042	70 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	72	73	78	79	75	67	72	75	67	38	43	46	72	73	78	79	75	67	72	75	67	38	43
4	4_043	72 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	72	73	78	79	75	67	72	75	67	38	43	46	72	73	78	79	75	67	72	75	67	38	43
4	4_044	74 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	72	73	78	79	75	67	72	75	67	38	43	46	72	73	78	79	75	67	72	75	67	38	43

Table H: Predicted construction noise levels

Receiver					Predicted noise levels, dB(A)											
					Day (Standard)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_045	76 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	38	43
4	4_046	78 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	38	43
4	4_047	80 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	36	41
4	4_048	82 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	69	70	75	76	72	64	69	72	64	34	39
4	4_049	84 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	69	70	75	76	72	64	69	72	64	-	38
4	4_050	86 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	67	68	73	74	70	62	67	70	62	-	38
4	4_051	88 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	65	66	71	72	68	60	65	68	60	-	38
4	4_052	90 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	64	65	70	71	67	59	64	67	59	34	39
4	4_053	92 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	34	39
4	4_054	94 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	61	62	67	68	64	56	61	64	56	34	39
4	4_055	96 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	61	62	67	68	64	56	61	64	56	35	40
4	4_056	98 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	35	40
4	4_057	100 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	35	40
4	4_058	102 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	35	40
4	4_059	104 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	61	62	67	68	64	56	61	64	56	35	40
4	4_060	106 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	61	62	67	68	64	56	61	64	56	35	40
4	4_061	108 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	56	57	62	63	59	51	56	59	51	34	39
4	4_062	110 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	34	39
4	4_063	112 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	34	39
4	4_064	114 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	75	76	81	82	78	70	75	78	70	-	37
4	4_065	116 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	75	76	81	82	78	70	75	78	70	-	37
4	4_066	118 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	75	76	81	82	78	70	75	78	70	-	38
4	4_067	120 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	75	76	81	82	78	70	75	78	70	-	38
4	4_068	122 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	-	38
4	4_069	124 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	-	38
4	4_070	126 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	34	39
4	4_071	23 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	-	38
4	4_072	25 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	-	38
4	4_073	27 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	34	39
4	4_074	29 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	-	38
4	4_075	31 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	61	62	67	68	64	56	61	64	56	-	38
4	4_076	33 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	-	38
4	4_077	35 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	63	64	69	70	66	58	63	66	58	34	39
4	4_078	37 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	64	65	70	71	67	59	64	67	59	36	41
4	4_079	39 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	65	66	71	72	68	60	65	68	60	36	41
4	4_080	41 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	66	67	72	73	69	61	66	69	61	37	42
4	4_081	43 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	67	68	73	74	70	62	67	70	62	37	42
4	4_082	45 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	68	69	74	75	71	63	68	71	63	35	40
4	4_083	47 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	70	71	76	77	73	65	70	73	65	36	41
4	4_084	Grace Crescent	Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	45	50
4	4_085	Grace Crescent	Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	45	50
4	4_086	Grace Crescent	Post 2008 Development (Residence)	Residential	63	63	64	69	70	66	58	63	66	58	45	50
4	4_087	Grace Crescent	Post 2008 Development (Residence)	Residential	63	64	65	70	71	67	59	64	67	59	46	51
4	4_088	Grace Crescent	Post 2008 Development (Residence)	Residential	63	65	66	71	72	68	60	65	68	60	46	51
4	4_089	Grace Crescent	Post 2008 Development (Residence)	Residential	63	66	67	72	73	69	61	66	69	61	46	51
4	4_090	Grace Crescent	Post 2008 Development (Residence)	Residential	63	68	69	74	75	71	63	68	71	63	46	51
4	4_091	Grace Crescent	Post 2008 Development (Residence)	Residential	63	69	70	75	76	72	64	69	72	64	46	51
4	4_092	Grace Crescent	Post 2008 Development (Residence)	Residential	63	70	71	76	77	73	65	70	73	65	47	52
4	4_093	Grace Crescent	Post 2008 Development (Residence)	Residential	63	72	73	78	79	75	67	72	75	67	47	52
4	4_094	Grace Crescent	Post 2008 Development (Residence)	Residential	63	73	74	79	80	76	68	73	76	68	47	52
4	4_095	Grace Crescent	Post 2008 Development (Residence)	Residential	63	77	78	83	84	80	72	77	80	72	47	52
4	4_096	Grace Crescent	Post 2008 Development (Residence)	Residential	63	77	78	83	84	80	72	77	80	72	46	51
4	4_097	Grace Crescent	Post 2008 Development (Residence)	Residential	63	77	78	83	84	80	72	77	80	72	46	51
4	4_098	Grace Crescent	Post 2008 Development (Residence)	Residential	63	77	78	83	84	80	72	77	80	72	46	51
4	4_099	Grace Crescent	Post 2008 Development (Residence)	Residential	63	77	78	83	84	80	72	77	80	72	45	50
4	4_100	Grace Crescent	Post 2008 Development (Residence)	Residential	63	77	78	83	84	80	72	77	80	72	45	50
4	4_101	Grace Crescent	Post 2008 Development (Residence)	Residential	63	77	78	83	84	80	72	77	80	72	45	50
4	4_102	Grace Crescent	Post 2008 Development (Residence)	Residential	63	76	77	82	83	79	71	76	79	71	45	50
4	4_103	Grace Crescent	Post 2008 Development (Residence)	Residential	63	76	77	82	83	79	71	76	79	71	45	50
4	4_104	Grace Crescent	Post 2008 Development (Residence)	Residential	63	76	77	82	83	79	71	76	79	71	44	49
4	4_105	Grace Crescent	Post 2008 Development (Residence)	Residential	63	75	76	81	82	78	70	75	78	70	44	49
4	4_106	Grace Crescent	Post 2008 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	36	41
4	4_107	Grace Crescent	Post 2008 Development (Residence)	Residential	63	73	74	79	80	76	68	73	76	68	40	45
4	4_108	Grace Crescent	Post 2008 Development (Residence)	Residential	63	73	74	79	80	76	68	73	76	68	43	48

Table H: Predicted construction noise levels **MEMORIAL AVENUE**

Receiver					Evening (OOHW)												Night (OOHW)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_045	76 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	38	43	46	74	75	80	81	77	69	74	77	69	38	43
4	4_046	78 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	38	43	46	74	75	80	81	77	69	74	77	69	38	43
4	4_047	80 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	36	41	46	74	75	80	81	77	69	74	77	69	36	41
4	4_048	82 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	69	70	75	76	72	64	69	72	64	34	39	46	69	70	75	76	72	64	69	72	64	34	39
4	4_049	84 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	69	70	75	76	72	64	69	72	64	-	38	46	69	70	75	76	72	64	69	72	64	-	38
4	4_050	86 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	67	68	73	74	70	62	67	70	62	-	38	46	67	68	73	74	70	62	67	70	62	-	38
4	4_051	88 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	65	66	71	72	68	60	65	68	60	-	38	46	65	66	71	72	68	60	65	68	60	-	38
4	4_052	90 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	34	39	46	64	65	70	71	67	59	64	67	59	34	39
4	4_053	92 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	34	39	46	62	63	68	69	65	57	62	65	57	34	39
4	4_054	94 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	61	62	67	68	64	56	61	64	56	34	39	46	61	62	67	68	64	56	61	64	56	34	39
4	4_055	96 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	61	62	67	68	64	56	61	64	56	35	40	46	61	62	67	68	64	56	61	64	56	35	40
4	4_056	98 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	35	40	46	62	63	68	69	65	57	62	65	57	35	40
4	4_057	100 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	35	40	46	62	63	68	69	65	57	62	65	57	35	40
4	4_058	102 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	35	40	46	62	63	68	69	65	57	62	65	57	35	40
4	4_059	104 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	61	62	67	68	64	56	61	64	56	35	40	46	61	62	67	68	64	56	61	64	56	35	40
4	4_060	106 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	61	62	67	68	64	56	61	64	56	35	40	46	61	62	67	68	64	56	61	64	56	35	40
4	4_061	108 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	34	39	46	56	57	62	63	59	51	56	59	51	34	39
4	4_062	110 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	34	39	46	59	60	65	66	62	54	59	62	54	34	39
4	4_063	112 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	34	39	46	59	60	65	66	62	54	59	62	54	34	39
4	4_064	114 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	75	76	81	82	78	70	75	78	70	-	37	46	75	76	81	82	78	70	75	78	70	-	37
4	4_065	116 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	75	76	81	82	78	70	75	78	70	-	37	46	75	76	81	82	78	70	75	78	70	-	37
4	4_066	118 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	75	76	81	82	78	70	75	78	70	-	38	46	75	76	81	82	78	70	75	78	70	-	38
4	4_067	120 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	75	76	81	82	78	70	75	78	70	-	38	46	75	76	81	82	78	70	75	78	70	-	38
4	4_068	122 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	-	38	46	74	75	80	81	77	69	74	77	69	-	38
4	4_069	124 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	-	38	46	74	75	80	81	77	69	74	77	69	-	38
4	4_070	126 Rutherford Avenue	Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	34	39	46	74	75	80	81	77	69	74	77	69	34	39
4	4_071	23 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	-	38	46	59	60	65	66	62	54	59	62	54	-	38
4	4_072	25 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	-	38	46	59	60	65	66	62	54	59	62	54	-	38
4	4_073	27 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	34	39	46	60	61	66	67	63	55	60	63	55	34	39
4	4_074	29 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	-	38	46	60	61	66	67	63	55	60	63	55	-	38
4	4_075	31 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	55	61	62	67	68	64	56	61	64	56	-	38	46	61	62	67	68	64	56	61	64	56	-	38
4	4_076	33 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	-	38	46	62	63	68	69	65	57	62	65	57	-	38
4	4_077	35 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	34	39	46	63	64	69	70	66	58	63	66	58	34	39
4	4_078	37 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	36	41	46	64	65	70	71	67	59	64	67	59	36	41
4	4_079	39 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	55	65	66	71	72	68	60	65	68	60	36	41	46	65	66	71	72	68	60	65	68	60	36	41
4	4_080	41 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	55	66	67	72	73	69	61	66	69	61	37	42	46	66	67	72	73	69	61	66	69	61	37	42
4	4_081	43 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	55	67	68	73	74	70	62	67	70	62	37	42	46	67	68	73	74	70	62	67	70	62	37	42
4	4_082	45 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	55	68	69	74	75	71	63	68	71	63	35	40	46	68	69	74	75	71	63	68	71	63	35	40
4	4_083	47 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	55	70	71	76	77	73	65	70	73	65	36	41	46	70	71	76	77	73	65	70	73	65	36	41
4	4_084	Grace Crescent	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	45	50	46	62	63	68	69	65	57	62	65	57	45	50
4	4_085	Grace Crescent	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	45	50	46	62	63	68	69	65	57	62	65	57	45	50
4	4_086	Grace Crescent	Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	45	50	46	63	64	69	70	66	58	63	66	58	45	50
4	4_087	Grace Crescent	Post 2008 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	46	51	46	64	65	70	71	67	59	64	67	59	46	51
4	4_088	Grace Crescent	Post 2008 Development (Residence)	Residential	55	65	66	71	72	68	60	65	68	60	46	51	46	65	66	71	72	68	60	65	68	60	46	51
4	4_089	Grace Crescent	Post 2008 Development (Residence)	Residential	55	66	67	72	73	69	61	66	69	61	46	51	46	66	67	72	73	69	61	66	69	61	46	51
4	4_090	Grace Crescent	Post 2008 Development (Residence)	Residential	55	68	69	74	75	71	63	68	71	63	46	51	46	68	69	74	75	71	63	68	71	63	46	51
4	4_091	Grace Crescent	Post 2008 Development (Residence)	Residential	55	69	70	75	76	72	64	69	72	64	46	51	46	69	70	75	76	72	64	69	72	64	46	51
4	4_092	Grace Crescent	Post 2008 Development (Residence)	Residential	55	70	71	76	77	73	65	70	73	65	47	52	46	70	71	76	77	73	65	70	73	65	47	52
4	4_093	Grace Crescent	Post 2008 Development (Residence)	Residential	55	72	73	78	79	75	67	72	75	67	47	52	46	72	73	78	79	75	67	72	75	67	47	52
4	4_094	Grace Crescent	Post 2008 Development (Residence)	Residential	55	73	74	79	80	76	68	73	76	68	47	52	46	73	74	79	80	76	68	73	76	68	47	52
4	4_095	Grace Crescent	Post 2008 Development (Residence)	Residential	55	77	78	83	84	80	72	77	80	72	47	52	46	77	78	83	84	80	72	77	80	72	47	52
4	4_096	Grace Crescent	Post 2008 Development (Residence)	Residential	55	77	78	83	84	80	72	77	80	72	46	51	46	77	78	83	84	80	72	77	80	72	46	51
4	4_097	Grace Crescent	Post 2008 Development (Residence)	Residential	55	77	78	83	84	80	72	77	80	72	46	51	46	77	78	83	84	80	72	77	80	72	46	51
4	4_098	Grace Crescent	Post 2008 Development (Residence)	Residential	55	77	78	83	84	80	72	77	80	72	46	51	46	77	78	83	84	80	72	77	80	72	46	51
4	4_099	Grace Crescent	Post 2008 Development (Residence)	Residential	55	77	78	83	84	80	72	77	80	72	45	50	46	77	78	83	84	80	72	77	80	72	45	50
4	4_100	Grace Crescent	Post 2008 Development (Residence)	Residential	55	77	78	83	84	80	72	77	80	72	45	50	46	77	78	83	84	80	72	77	80	72	45	50
4	4_101	Grace Crescent	Post 2008 Development (Residence)	Residential	55	77	78	83	84	80	72	77	80	72	45	50	46	77	78	83	84	80	72	77	80	72	45	50
4	4_102	Grace Crescent	Post 2008 Development (Residence)	Residential	55	76	77	82	83	79	71	76	79	71	45	50	46	76	77	82	83	79	71	76	79	71	45	50
4	4_103	Grace Crescent	Post 2008 Development (Residence)	Residential	55	76	77	82	83	79	71	76	79	71	45	50	46	76	77	82	83	79	71	76	79	71	45	50
4	4_104	Grace Crescent	Post 2008 Development (Residence)	Residential	55	76	77	82	83	79	71	76	79	71	44	49	46	76	77	82	83	79	71	76	79	71	44	49
4	4_105	Grace Crescent	Post 2008 Development (Residence)	Residential	55	75	76	81	82	78	70	75	78	70	44	49	46	75	76	81	82	78	70	75	78	70	44	49
4	4_106	Grace Crescent	Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	36	41	46	74	75	80	81	77	69	74	77	69	36	41
4	4_107	Grace Crescent	Post 2008 Development (Residence)	Residential	55	73	74	79	80	76	68	73	76	68	40	45	46	73	74	79	80	76	68	73	76	68	40	45
4	4_108	Grace Crescent	Post 2008 Development (Residence)	Residential	55	73	74	79	80	76	68	73	76	68	43	48	46	73	74	79	80	76	68	73	76	68	43	48

Table H: Predicted construction noise levels

Receiver					Predicted noise levels, dB(A)											
					Day (Standard)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_109	Grace Crescent	Post 2008 Development (Residence)	Residential	63	72	73	78	79	75	67	72	75	67	43	48
4	4_110	Grace Crescent	Post 2008 Development (Residence)	Residential	63	71	72	77	78	74	66	71	74	66	-	35
4	4_111	Grace Crescent	Post 2008 Development (Residence)	Residential	63	70	71	76	77	73	65	70	73	65	39	44
4	4_112	Grace Crescent	Post 2008 Development (Residence)	Residential	63	70	71	76	77	73	65	70	73	65	39	44
4	4_113	Grace Crescent	Post 2008 Development (Residence)	Residential	63	67	68	73	74	70	62	67	70	62	38	43
4	4_114	Grace Crescent	Post 2008 Development (Residence)	Residential	63	66	67	72	73	69	61	66	69	61	-	34
4	4_115	Grace Crescent	Post 2008 Development (Residence)	Residential	63	66	67	72	73	69	61	66	69	61	38	43
4	4_116	Grace Crescent	Post 2008 Development (Residence)	Residential	63	65	66	71	72	68	60	65	68	60	38	43
4	4_117	Grace Crescent	Post 2008 Development (Residence)	Residential	63	64	65	70	71	67	59	64	67	59	35	40
4	4_118	Grace Crescent	Post 2008 Development (Residence)	Residential	63	63	64	69	70	66	58	63	66	58	36	41
4	4_119	Grace Crescent	Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	35	40
4	4_120	Grace Crescent	Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	35	40
4	4_121	Grace Crescent	Post 2008 Development (Residence)	Residential	63	61	62	67	68	64	56	61	64	56	-	38
4	4_122	Grace Crescent	Post 2008 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	-	38
4	4_123	Grace Crescent	Post 2008 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	-	36
4	4_124	Grace Crescent	Post 2008 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	-	38
4	4_125	Grace Crescent	Post 2008 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	-	38
4	4_126	Grace Crescent	Post 2008 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	-	38
4	4_127	Grace Crescent	Post 2008 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	-	37
4	4_128	Grace Crescent	Post 2008 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	-	37
4	4_129	Grace Crescent	Post 2008 Development (Residence)	Residential	63	56	57	62	63	59	51	56	59	51	-	36
4	4_130	Grace Crescent	Post 2008 Development (Residence)	Residential	63	56	57	62	63	59	51	56	59	51	-	36
4	4_131	Grace Crescent	Post 2008 Development (Residence)	Residential	63	55	56	61	62	58	50	55	58	50	-	35
4	4_132	Grace Crescent	Post 2008 Development (Residence)	Residential	63	55	56	61	62	58	50	55	58	50	-	36
4	4_133	Grace Crescent	Post 2008 Development (Residence)	Residential	63	55	56	61	62	58	50	55	58	50	-	35
4	4_134	Grace Crescent	Post 2008 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	34	39
4	4_135	Grace Crescent	Post 2008 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	34	39
4	4_136	Grace Crescent	Post 2008 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	34	39
4	4_137	Grace Crescent	Post 2008 Development (Residence)	Residential	63	67	68	73	74	70	62	67	70	62	41	46
4	4_138	Grace Crescent	Post 2008 Development (Residence)	Residential	63	67	68	73	74	70	62	67	70	62	-	36
4	4_139	Grace Crescent	Post 2008 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	37	42
4	4_140	Grace Crescent	Post 2008 Development (Residence)	Residential	63	65	66	71	72	68	60	65	68	60	40	45
4	4_141	Grace Crescent	Post 2008 Development (Residence)	Residential	63	66	67	72	73	69	61	66	69	61	40	45
4	4_142	Grace Crescent	Post 2008 Development (Residence)	Residential	63	51	52	57	58	54	46	51	54	46	-	36
4	4_143	Grace Crescent	Post 2008 Development (Residence)	Residential	63	64	65	70	71	67	59	64	67	59	40	45
4	4_144	Grace Crescent	Post 2008 Development (Residence)	Residential	63	65	66	71	72	68	60	65	68	60	39	44
4	4_145	Grace Crescent	Post 2008 Development (Residence)	Residential	63	52	53	58	59	55	47	52	55	47	-	34
4	4_146	Grace Crescent	Post 2008 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	37	42
4	4_147	Grace Crescent	Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	38	43
4	4_148	Grace Crescent	Post 2008 Development (Residence)	Residential	63	63	64	69	70	66	58	63	66	58	38	43
4	4_149	Grace Crescent	Post 2008 Development (Residence)	Residential	63	63	64	69	70	66	58	63	66	58	36	41
4	4_150	Grace Crescent	Post 2008 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	38	43
4	4_151	Grace Crescent	Post 2008 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	38	43
4	4_152	Grace Crescent	Post 2008 Development (Residence)	Residential	63	53	54	59	60	56	48	53	56	48	38	43
4	4_153	Grace Crescent	Post 2008 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	38	43
4	4_154	Grace Crescent	Post 2008 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	37	42
4	4_155	Grace Crescent	Post 2008 Development (Residence)	Residential	63	53	54	59	60	56	48	53	56	48	37	42
4	4_156	Grace Crescent	Post 2008 Development (Residence)	Residential	63	53	54	59	60	56	48	53	56	48	37	42
4	4_157	Grace Crescent	Post 2008 Development (Residence)	Residential	63	53	54	59	60	56	48	53	56	48	37	42
4	4_158	Grace Crescent	Post 2008 Development (Residence)	Residential	63	52	53	58	59	55	47	52	55	47	37	42
4	4_159	Grace Crescent	Post 2008 Development (Residence)	Residential	63	52	53	58	59	55	47	52	55	47	37	42
4	4_160	Grace Crescent	Post 2008 Development (Residence)	Residential	63	51	52	57	58	54	46	51	54	46	-	37
4	4_161	Grace Crescent	Post 2008 Development (Residence)	Residential	63	48	49	54	55	51	43	48	51	43	-	37
4	4_162	Grace Crescent	Post 2008 Development (Residence)	Residential	63	51	52	57	58	54	46	51	54	46	-	38
4	4_163	Grace Crescent	Post 2008 Development (Residence)	Residential	63	51	52	57	58	54	46	51	54	46	37	42
4	4_164	Grace Crescent	Post 2008 Development (Residence)	Residential	63	51	52	57	58	54	46	51	54	46	-	37
4	4_165	Grace Crescent	Post 2008 Development (Residence)	Residential	63	51	52	57	58	54	46	51	54	46	-	-
4	4_166	Grace Crescent	Post 2008 Development (Residence)	Residential	63	51	52	57	58	54	46	51	54	46	37	42
4	4_167	Grace Crescent	Post 2008 Development (Residence)	Residential	63	52	53	58	59	55	47	52	55	47	38	43
4	4_168	Grace Crescent	Post 2008 Development (Residence)	Residential	63	50	51	56	57	53	45	50	53	45	36	41
4	4_169	Grace Crescent	Post 2008 Development (Residence)	Residential	63	51	52	57	58	54	46	51	54	46	-	-
4	4_170	Grace Crescent	Post 2008 Development (Residence)	Residential	63	55	56	61	62	58	50	55	58	50	38	43
4	4_171	Grace Crescent	Post 2008 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	39	44
4	4_172	Grace Crescent	Post 2008 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	39	44

Table H: Predicted construction noise levels **MEMORIAL AVENUE**

Receiver					Evening (OOHW)												Night (OOHW)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_109	Grace Crescent	Post 2008 Development (Residence)	Residential	55	72	73	78	79	75	67	72	75	67	43	48	46	72	73	78	79	75	67	72	75	67	43	48
4	4_110	Grace Crescent	Post 2008 Development (Residence)	Residential	55	71	72	77	78	74	66	71	74	66	-	35	46	71	72	77	78	74	66	71	74	66	-	35
4	4_111	Grace Crescent	Post 2008 Development (Residence)	Residential	55	70	71	76	77	73	65	70	73	65	39	44	46	70	71	76	77	73	65	70	73	65	39	44
4	4_112	Grace Crescent	Post 2008 Development (Residence)	Residential	55	70	71	76	77	73	65	70	73	65	39	44	46	70	71	76	77	73	65	70	73	65	39	44
4	4_113	Grace Crescent	Post 2008 Development (Residence)	Residential	55	67	68	73	74	70	62	67	70	62	38	43	46	67	68	73	74	70	62	67	70	62	38	43
4	4_114	Grace Crescent	Post 2008 Development (Residence)	Residential	55	66	67	72	73	69	61	66	69	61	-	34	46	66	67	72	73	69	61	66	69	61	-	34
4	4_115	Grace Crescent	Post 2008 Development (Residence)	Residential	55	66	67	72	73	69	61	66	69	61	38	43	46	66	67	72	73	69	61	66	69	61	38	43
4	4_116	Grace Crescent	Post 2008 Development (Residence)	Residential	55	65	66	71	72	68	60	65	68	60	38	43	46	65	66	71	72	68	60	65	68	60	38	43
4	4_117	Grace Crescent	Post 2008 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	35	40	46	64	65	70	71	67	59	64	67	59	35	40
4	4_118	Grace Crescent	Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	36	41	46	63	64	69	70	66	58	63	66	58	36	41
4	4_119	Grace Crescent	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	35	40	46	62	63	68	69	65	57	62	65	57	35	40
4	4_120	Grace Crescent	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	35	40	46	62	63	68	69	65	57	62	65	57	35	40
4	4_121	Grace Crescent	Post 2008 Development (Residence)	Residential	55	61	62	67	68	64	56	61	64	56	-	38	46	61	62	67	68	64	56	61	64	56	-	38
4	4_122	Grace Crescent	Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	-	38	46	60	61	66	67	63	55	60	63	55	-	38
4	4_123	Grace Crescent	Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	-	36	46	60	61	66	67	63	55	60	63	55	-	36
4	4_124	Grace Crescent	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	-	38	46	59	60	65	66	62	54	59	62	54	-	38
4	4_125	Grace Crescent	Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	-	38	46	58	59	64	65	61	53	58	61	53	-	38
4	4_126	Grace Crescent	Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	-	38	46	58	59	64	65	61	53	58	61	53	-	38
4	4_127	Grace Crescent	Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	-	37	46	57	58	63	64	60	52	57	60	52	-	37
4	4_128	Grace Crescent	Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	-	37	46	57	58	63	64	60	52	57	60	52	-	37
4	4_129	Grace Crescent	Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	-	36	46	56	57	62	63	59	51	56	59	51	-	36
4	4_130	Grace Crescent	Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	-	36	46	56	57	62	63	59	51	56	59	51	-	36
4	4_131	Grace Crescent	Post 2008 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	-	35	46	55	56	61	62	58	50	55	58	50	-	35
4	4_132	Grace Crescent	Post 2008 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	-	36	46	55	56	61	62	58	50	55	58	50	-	36
4	4_133	Grace Crescent	Post 2008 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	-	35	46	55	56	61	62	58	50	55	58	50	-	35
4	4_134	Grace Crescent	Post 2008 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	34	39	46	54	55	60	61	57	49	54	57	49	34	39
4	4_135	Grace Crescent	Post 2008 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	34	39	46	54	55	60	61	57	49	54	57	49	34	39
4	4_136	Grace Crescent	Post 2008 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	34	39	46	54	55	60	61	57	49	54	57	49	34	39
4	4_137	Grace Crescent	Post 2008 Development (Residence)	Residential	55	67	68	73	74	70	62	67	70	62	41	46	46	67	68	73	74	70	62	67	70	62	41	46
4	4_138	Grace Crescent	Post 2008 Development (Residence)	Residential	55	67	68	73	74	70	62	67	70	62	-	36	46	67	68	73	74	70	62	67	70	62	-	36
4	4_139	Grace Crescent	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	37	42	46	59	60	65	66	62	54	59	62	54	37	42
4	4_140	Grace Crescent	Post 2008 Development (Residence)	Residential	55	65	66	71	72	68	60	65	68	60	40	45	46	65	66	71	72	68	60	65	68	60	40	45
4	4_141	Grace Crescent	Post 2008 Development (Residence)	Residential	55	66	67	72	73	69	61	66	69	61	40	45	46	66	67	72	73	69	61	66	69	61	40	45
4	4_142	Grace Crescent	Post 2008 Development (Residence)	Residential	55	51	52	57	58	54	46	51	54	46	-	36	46	51	52	57	58	54	46	51	54	46	-	36
4	4_143	Grace Crescent	Post 2008 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	40	45	46	64	65	70	71	67	59	64	67	59	40	45
4	4_144	Grace Crescent	Post 2008 Development (Residence)	Residential	55	65	66	71	72	68	60	65	68	60	39	44	46	65	66	71	72	68	60	65	68	60	39	44
4	4_145	Grace Crescent	Post 2008 Development (Residence)	Residential	55	52	53	58	59	55	47	52	55	47	-	34	46	52	53	58	59	55	47	52	55	47	-	34
4	4_146	Grace Crescent	Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	37	42	46	58	59	64	65	61	53	58	61	53	37	42
4	4_147	Grace Crescent	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	38	43	46	62	63	68	69	65	57	62	65	57	38	43
4	4_148	Grace Crescent	Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	38	43	46	63	64	69	70	66	58	63	66	58	38	43
4	4_149	Grace Crescent	Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	36	41	46	63	64	69	70	66	58	63	66	58	36	41
4	4_150	Grace Crescent	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	38	43	46	59	60	65	66	62	54	59	62	54	38	43
4	4_151	Grace Crescent	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	38	43	46	59	60	65	66	62	54	59	62	54	38	43
4	4_152	Grace Crescent	Post 2008 Development (Residence)	Residential	55	53	54	59	60	56	48	53	56	48	38	43	46	53	54	59	60	56	48	53	56	48	38	43
4	4_153	Grace Crescent	Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	38	43	46	57	58	63	64	60	52	57	60	52	38	43
4	4_154	Grace Crescent	Post 2008 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	37	42	46	54	55	60	61	57	49	54	57	49	37	42
4	4_155	Grace Crescent	Post 2008 Development (Residence)	Residential	55	53	54	59	60	56	48	53	56	48	37	42	46	53	54	59	60	56	48	53	56	48	37	42
4	4_156	Grace Crescent	Post 2008 Development (Residence)	Residential	55	53	54	59	60	56	48	53	56	48	37	42	46	53	54	59	60	56	48	53	56	48	37	42
4	4_157	Grace Crescent	Post 2008 Development (Residence)	Residential	55	53	54	59	60	56	48	53	56	48	37	42	46	53	54	59	60	56	48	53	56	48	37	42
4	4_158	Grace Crescent	Post 2008 Development (Residence)	Residential	55	52	53	58	59	55	47	52	55	47	37	42	46	52	53	58	59	55	47	52	55	47	37	42
4	4_159	Grace Crescent	Post 2008 Development (Residence)	Residential	55	52	53	58	59	55	47	52	55	47	37	42	46	52	53	58	59	55	47	52	55	47	37	42
4	4_160	Grace Crescent	Post 2008 Development (Residence)	Residential	55	51	52	57	58	54	46	51	54	46	-	37	46	51	52	57	58	54	46	51	54	46	-	37
4	4_161	Grace Crescent	Post 2008 Development (Residence)	Residential	55	48	49	54	55	51	43	48	51	43	-	37	46	48	49	54	55	51	43	48	51	43	-	37
4	4_162	Grace Crescent	Post 2008 Development (Residence)	Residential	55	51	52	57	58	54	46	51	54	46	-	38	46	51	52	57	58	54	46	51	54	46	-	38
4	4_163	Grace Crescent	Post 2008 Development (Residence)	Residential	55	51	52	57	58	54	46	51	54	46	37	42	46	51	52	57	58	54	46	51	54	46	37	42
4	4_164	Grace Crescent	Post 2008 Development (Residence)	Residential	55	51	52	57	58	54	46	51	54	46	-	37	46	51	52	57	58	54	46	51	54	46	-	37
4	4_165	Grace Crescent	Post 2008 Development (Residence)	Residential	55	51	52	57	58	54	46	51	54	46	-	-	46	51	52	57	58	54	46	51	54	46	-	-
4	4_166	Grace Crescent	Post 2008 Development (Residence)	Residential	55	51	52	57	58	54	46	51	54	46	37	42	46	51	52	57	58	54	46	51	54	46	37	42
4	4_167	Grace Crescent	Post 2008 Development (Residence)	Residential	55	52	53	58	59	55	47	52	55	47	38	43	46	52	53	58	59	55	47	52	55	47	38	43
4	4_168	Grace Crescent	Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	36	41	46	50	51	56	57	53	45	50	53	45	36	41
4	4_169	Grace Crescent	Post 2008 Development (Residence)	Residential	55	51	52	57	58	54	46	51	54	46	-	-	46	51	52	57	58	54	46	51	54	46	-	-
4	4_170	Grace Crescent	Post 2008 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	38	43	46	55	56	61	62	58	50	55	58	50	38	43
4	4_171	Grace Crescent	Post 2008 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	39	44	46	54	55	60	61	57	49	54	57	49	39	44
4	4_172	Grace Crescent	Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	39	44	46	58	59	64	65	61	53	58	61	53	39	44

Table H: Predicted construction noise levels

Receiver					Predicted noise levels, dB(A)											
					Day (Standard)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_173	Grace Crescent	Post 2008 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	-	35
4	4_174	Grace Crescent	Post 2008 Development (Residence)	Residential	63	52	53	58	59	55	47	52	55	47	39	44
4	4_175	Grace Crescent	Post 2008 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	40	45
4	4_176	Grace Crescent	Post 2008 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	40	45
4	4_177	Grace Crescent	Post 2008 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	-	37
4	4_178	Grace Crescent	Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	40	45
4	4_179	Grace Crescent	Post 2008 Development (Residence)	Residential	63	50	51	56	57	53	45	50	53	45	37	42
4	4_180	Grace Crescent	Post 2008 Development (Residence)	Residential	63	51	52	57	58	54	46	51	54	46	37	42
4	4_181	Grace Crescent	Post 2008 Development (Residence)	Residential	63	51	52	57	58	54	46	51	54	46	37	42
4	4_182	Grace Crescent	Post 2008 Development (Residence)	Residential	63	50	51	56	57	53	45	50	53	45	37	42
4	4_183	Grace Crescent	Post 2008 Development (Residence)	Residential	63	50	51	56	57	53	45	50	53	45	36	41
4	4_184	Grace Crescent	Post 2008 Development (Residence)	Residential	63	50	51	56	57	53	45	50	53	45	36	41
4	4_185	Grace Crescent	Post 2008 Development (Residence)	Residential	63	50	51	56	57	53	45	50	53	45	36	41
4	4_186	Grace Crescent	Post 2008 Development (Residence)	Residential	63	50	51	56	57	53	45	50	53	45	35	40
4	4_187	Grace Crescent	Post 2008 Development (Residence)	Residential	63	50	51	56	57	53	45	50	53	45	35	40
4	4_188	Grace Crescent	Post 2008 Development (Residence)	Residential	63	49	50	55	56	52	44	49	52	44	34	39
4	4_189	Grace Crescent	Post 2008 Development (Residence)	Residential	63	50	51	56	57	53	45	50	53	45	-	35
4	4_190	Grace Crescent	Post 2008 Development (Residence)	Residential	63	50	51	56	57	53	45	50	53	45	37	42
4	4_191	Grace Crescent	Post 2008 Development (Residence)	Residential	63	50	51	56	57	53	45	50	53	45	-	38
4	4_192	Grace Crescent	Post 2008 Development (Residence)	Residential	63	51	52	57	58	54	46	51	54	46	-	-
4	4_193	Grace Crescent	Post 2008 Development (Residence)	Residential	63	51	52	57	58	54	46	51	54	46	39	44
4	4_194	Grace Crescent	Post 2008 Development (Residence)	Residential	63	50	51	56	57	53	45	50	53	45	39	44
4	4_195	Grace Crescent	Post 2008 Development (Residence)	Residential	63	50	51	56	57	53	45	50	53	45	-	-
4	4_196	Grace Crescent	Post 2008 Development (Residence)	Residential	63	51	52	57	58	54	46	51	54	46	41	46
4	4_197	Grace Crescent	Post 2008 Development (Residence)	Residential	63	52	53	58	59	55	47	52	55	47	42	47
4	4_198	Grace Crescent	Post 2008 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	40	45
4	4_199	Grace Crescent	Post 2008 Development (Residence)	Residential	63	52	53	58	59	55	47	52	55	47	40	45
4	4_200	Grace Crescent	Post 2008 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	42	47
4	4_201	Grace Crescent	Post 2008 Development (Residence)	Residential	63	55	56	61	62	58	50	55	58	50	42	47
4	4_202	Grace Crescent	Post 2008 Development (Residence)	Residential	63	53	54	59	60	56	48	53	56	48	41	46
4	4_203	Grace Crescent	Post 2008 Development (Residence)	Residential	63	56	57	62	63	59	51	56	59	51	43	48
4	4_204	Grace Crescent	Post 2008 Development (Residence)	Residential	63	56	57	62	63	59	51	56	59	51	43	48
4	4_205	Grace Crescent	Post 2008 Development (Residence)	Residential	63	55	56	61	62	58	50	55	58	50	43	48
4	4_206	Grace Crescent	Post 2008 Development (Residence)	Residential	63	55	56	61	62	58	50	55	58	50	41	46
4	4_207	Grace Crescent	Post 2008 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	44	49
4	4_208	Grace Crescent	Post 2008 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	44	49
4	4_209	Grace Crescent	Post 2008 Development (Residence)	Residential	63	56	57	62	63	59	51	56	59	51	42	47
4	4_210	Grace Crescent	Post 2008 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	44	49
4	4_211		Post 2008 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	35	40
4	4_212		Post 2008 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	35	40
4	4_213		Post 2008 Development (Residence)	Residential	63	74	75	80	81	77	69	74	77	69	34	39
4	4_214		Post 2008 Development (Residence)	Residential	63	73	74	79	80	76	68	73	76	68	34	39
4	4_215		Post 2008 Development (Residence)	Residential	63	69	70	75	76	72	64	69	72	64	34	39
4	4_216		Post 2008 Development (Residence)	Residential	63	67	68	73	74	70	62	67	70	62	34	39
4	4_217		Post 2008 Development (Residence)	Residential	63	66	67	72	73	69	61	66	69	61	34	39
4	4_218		Post 2008 Development (Residence)	Residential	63	64	65	70	71	67	59	64	67	59	34	39
4	4_219		Post 2008 Development (Residence)	Residential	63	63	64	69	70	66	58	63	66	58	34	39
4	4_220		Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	34	39
4	4_221		Post 2008 Development (Residence)	Residential	63	61	62	67	68	64	56	61	64	56	35	40
4	4_222		Post 2008 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	36	41
4	4_223		Post 2008 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	35	40
4	4_224		Post 2008 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	36	41
4	4_225		Post 2008 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	37	42
4	4_226		Post 2008 Development (Residence)	Residential	63	57	58	63	64	60	52	57	60	52	35	40
4	4_227		Post 2008 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	36	41
4	4_228		Post 2008 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	37	42
4	4_229		Post 2008 Development (Residence)	Residential	63	58	59	64	65	61	53	58	61	53	39	44
4	4_230		Post 2008 Development (Residence)	Residential	63	59	60	65	66	62	54	59	62	54	38	43
4	4_231		Post 2008 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	38	43
4	4_232		Post 2008 Development (Residence)	Residential	63	60	61	66	67	63	55	60	63	55	38	43
4	4_233		Post 2008 Development (Residence)	Residential	63	61	62	67	68	64	56	61	64	56	38	43
4	4_234		Post 2008 Development (Residence)	Residential	63	62	63	68	69	65	57	62	65	57	38	43
4	4_235		Post 2008 Development (Residence)	Residential	63	63	64	69	70	66	58	63	66	58	37	42
4	4_236		Post 2008 Development (Residence)	Residential	63	64	65	70	71	67	59	64	67	59	37	42

Table H: Predicted construction noise levels **MEMORIAL AVENUE**

Receiver					Evening (OOHW)												Night (OOHW)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_173	Grace Crescent	Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	-	35	46	57	58	63	64	60	52	57	60	52	-	35
4	4_174	Grace Crescent	Post 2008 Development (Residence)	Residential	55	52	53	58	59	55	47	52	55	47	39	44	46	52	53	58	59	55	47	52	55	47	39	44
4	4_175	Grace Crescent	Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	40	45	46	58	59	64	65	61	53	58	61	53	40	45
4	4_176	Grace Crescent	Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	40	45	46	60	61	66	67	63	55	60	63	55	40	45
4	4_177	Grace Crescent	Post 2008 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	-	37	46	54	55	60	61	57	49	54	57	49	-	37
4	4_178	Grace Crescent	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	40	45	46	62	63	68	69	65	57	62	65	57	40	45
4	4_179	Grace Crescent	Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	37	42	46	50	51	56	57	53	45	50	53	45	37	42
4	4_180	Grace Crescent	Post 2008 Development (Residence)	Residential	55	51	52	57	58	54	46	51	54	46	37	42	46	51	52	57	58	54	46	51	54	46	37	42
4	4_181	Grace Crescent	Post 2008 Development (Residence)	Residential	55	51	52	57	58	54	46	51	54	46	37	42	46	51	52	57	58	54	46	51	54	46	37	42
4	4_182	Grace Crescent	Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	37	42	46	50	51	56	57	53	45	50	53	45	37	42
4	4_183	Grace Crescent	Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	36	41	46	50	51	56	57	53	45	50	53	45	36	41
4	4_184	Grace Crescent	Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	36	41	46	50	51	56	57	53	45	50	53	45	36	41
4	4_185	Grace Crescent	Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	36	41	46	50	51	56	57	53	45	50	53	45	36	41
4	4_186	Grace Crescent	Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	35	40	46	50	51	56	57	53	45	50	53	45	35	40
4	4_187	Grace Crescent	Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	35	40	46	50	51	56	57	53	45	50	53	45	35	40
4	4_188	Grace Crescent	Post 2008 Development (Residence)	Residential	55	49	50	55	56	52	44	49	52	44	34	39	46	49	50	55	56	52	44	49	52	44	34	39
4	4_189	Grace Crescent	Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	-	35	46	50	51	56	57	53	45	50	53	45	-	35
4	4_190	Grace Crescent	Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	37	42	46	50	51	56	57	53	45	50	53	45	37	42
4	4_191	Grace Crescent	Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	-	38	46	50	51	56	57	53	45	50	53	45	-	38
4	4_192	Grace Crescent	Post 2008 Development (Residence)	Residential	55	51	52	57	58	54	46	51	54	46	-	-	46	51	52	57	58	54	46	51	54	46	-	-
4	4_193	Grace Crescent	Post 2008 Development (Residence)	Residential	55	51	52	57	58	54	46	51	54	46	39	44	46	51	52	57	58	54	46	51	54	46	39	44
4	4_194	Grace Crescent	Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	39	44	46	50	51	56	57	53	45	50	53	45	39	44
4	4_195	Grace Crescent	Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	-	-	46	50	51	56	57	53	45	50	53	45	-	-
4	4_196	Grace Crescent	Post 2008 Development (Residence)	Residential	55	51	52	57	58	54	46	51	54	46	41	46	46	51	52	57	58	54	46	51	54	46	41	46
4	4_197	Grace Crescent	Post 2008 Development (Residence)	Residential	55	52	53	58	59	55	47	52	55	47	42	47	46	52	53	58	59	55	47	52	55	47	42	47
4	4_198	Grace Crescent	Post 2008 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	40	45	46	54	55	60	61	57	49	54	57	49	40	45
4	4_199	Grace Crescent	Post 2008 Development (Residence)	Residential	55	52	53	58	59	55	47	52	55	47	40	45	46	52	53	58	59	55	47	52	55	47	40	45
4	4_200	Grace Crescent	Post 2008 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	42	47	46	54	55	60	61	57	49	54	57	49	42	47
4	4_201	Grace Crescent	Post 2008 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	42	47	46	55	56	61	62	58	50	55	58	50	42	47
4	4_202	Grace Crescent	Post 2008 Development (Residence)	Residential	55	53	54	59	60	56	48	53	56	48	41	46	46	53	54	59	60	56	48	53	56	48	41	46
4	4_203	Grace Crescent	Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	43	48	46	56	57	62	63	59	51	56	59	51	43	48
4	4_204	Grace Crescent	Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	43	48	46	56	57	62	63	59	51	56	59	51	43	48
4	4_205	Grace Crescent	Post 2008 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	43	48	46	55	56	61	62	58	50	55	58	50	43	48
4	4_206	Grace Crescent	Post 2008 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	41	46	46	55	56	61	62	58	50	55	58	50	41	46
4	4_207	Grace Crescent	Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	44	49	46	58	59	64	65	61	53	58	61	53	44	49
4	4_208	Grace Crescent	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	44	49	46	59	60	65	66	62	54	59	62	54	44	49
4	4_209	Grace Crescent	Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	42	47	46	56	57	62	63	59	51	56	59	51	42	47
4	4_210	Grace Crescent	Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	44	49	46	60	61	66	67	63	55	60	63	55	44	49
4	4_211		Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	35	40	46	74	75	80	81	77	69	74	77	69	35	40
4	4_212		Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	35	40	46	74	75	80	81	77	69	74	77	69	35	40
4	4_213		Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	34	39	46	74	75	80	81	77	69	74	77	69	34	39
4	4_214		Post 2008 Development (Residence)	Residential	55	73	74	79	80	76	68	73	76	68	34	39	46	73	74	79	80	76	68	73	76	68	34	39
4	4_215		Post 2008 Development (Residence)	Residential	55	69	70	75	76	72	64	69	72	64	34	39	46	69	70	75	76	72	64	69	72	64	34	39
4	4_216		Post 2008 Development (Residence)	Residential	55	67	68	73	74	70	62	67	70	62	34	39	46	67	68	73	74	70	62	67	70	62	34	39
4	4_217		Post 2008 Development (Residence)	Residential	55	66	67	72	73	69	61	66	69	61	34	39	46	66	67	72	73	69	61	66	69	61	34	39
4	4_218		Post 2008 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	34	39	46	64	65	70	71	67	59	64	67	59	34	39
4	4_219		Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	34	39	46	63	64	69	70	66	58	63	66	58	34	39
4	4_220		Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	34	39	46	62	63	68	69	65	57	62	65	57	34	39
4	4_221		Post 2008 Development (Residence)	Residential	55	61	62	67	68	64	56	61	64	56	35	40	46	61	62	67	68	64	56	61	64	56	35	40
4	4_222		Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	36	41	46	60	61	66	67	63	55	60	63	55	36	41
4	4_223		Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	35	40	46	60	61	66	67	63	55	60	63	55	35	40
4	4_224		Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	36	41	46	59	60	65	66	62	54	59	62	54	36	41
4	4_225		Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	37	42	46	58	59	64	65	61	53	58	61	53	37	42
4	4_226		Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	35	40	46	57	58	63	64	60	52	57	60	52	35	40
4	4_227		Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	36	41	46	58	59	64	65	61	53	58	61	53	36	41
4	4_228		Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	37	42	46	58	59	64	65	61	53	58	61	53	37	42
4	4_229		Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	39	44	46	58	59	64	65	61	53	58	61	53	39	44
4	4_230		Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	38	43	46	59	60	65	66	62	54	59	62	54	38	43
4	4_231		Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	38	43	46	60	61	66	67	63	55	60	63	55	38	43
4	4_232		Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	38	43	46	60	61	66	67	63	55	60	63	55	38	43
4	4_233		Post 2008 Development (Residence)	Residential	55	61	62	67	68	64	56	61	64	56	38	43	46	61	62	67	68	64	56	61	64	56	38	43
4	4_234		Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	38	43	46	62	63	68	69	65	57	62	65	57	38	43
4	4_235		Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	37	42	46	63	64	69	70	66	58	63	66	58	37	42
4	4_236		Post 2008 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	37	42	46	64	65	70	71	67	59	64	67	59	37	42

Table H: Predicted construction noise levels

Receiver					Predicted noise levels, dB(A)											
					Day (Standard)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_237		Post 2008 Development (Residence)	Residential	63	65	66	71	72	68	60	65	68	60	36	41
4	4_238		Post 2008 Development (Residence)	Residential	63	67	68	73	74	70	62	67	70	62	35	40
4	4_239		Post 2008 Development (Residence)	Residential	63	69	70	75	76	72	64	69	72	64	35	40
4	4_240		Post 2008 Development (Residence)	Residential	63	56	57	62	63	59	51	56	59	51	36	41
4	4_241		Post 2008 Development (Residence)	Residential	63	55	56	61	62	58	50	55	58	50	36	41
4	4_242		Post 2008 Development (Residence)	Residential	63	56	57	62	63	59	51	56	59	51	36	41
4	4_243		Post 2008 Development (Residence)	Residential	63	55	56	61	62	58	50	55	58	50	38	43
4	4_244		Post 2008 Development (Residence)	Residential	63	53	54	59	60	56	48	53	56	48	38	43
4	4_245		Post 2008 Development (Residence)	Residential	63	55	56	61	62	58	50	55	58	50	39	44
4	4_246		Post 2008 Development (Residence)	Residential	63	56	57	62	63	59	51	56	59	51	39	44
4	4_247		Post 2008 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	34	39
4	4_248		Post 2008 Development (Residence)	Residential	63	47	48	53	54	50	42	47	50	42	34	39
4	4_249		Post 2008 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	37	42
4	4_250		Post 2008 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	-	38
4	4_251		Post 2008 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	39	44
4	4_252		Post 2008 Development (Residence)	Residential	63	54	55	60	61	57	49	54	57	49	38	43
4	4_253		Post 2008 Development (Residence)	Residential	63	53	54	59	60	56	48	53	56	48	39	44
4	4_254		Post 2008 Development (Residence)	Residential	63	53	54	59	60	56	48	53	56	48	38	43
4	4_255		Post 2008 Development (Residence)	Residential	63	49	50	55	56	52	44	49	52	44	37	42
4	4_256		Post 2008 Development (Residence)	Residential	63	46	47	52	53	49	41	46	49	41	39	44
4	4_257		Post 2008 Development (Residence)	Residential	63	46	47	52	53	49	41	46	49	41	39	44
4	4_258		Post 2008 Development (Residence)	Residential	63	51	52	57	58	54	46	51	54	46	40	45
5	5_001	75 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	54	55	60	61	57	49	54	57	49	44	49
5	5_002	77 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	55	56	61	62	58	50	55	58	50	47	52
5	5_003	79 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	56	57	62	63	59	51	56	59	51	52	57
5	5_004	81 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	60	61	66	67	63	55	60	63	55	55	60
5	5_005	83 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	58	63
5	5_006	85 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	64	65	70	71	67	59	64	67	59	59	64
5	5_007	87 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	68	69	74	75	71	63	68	71	63	60	65
5	5_008	89 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	74	75	80	81	77	69	74	77	69	63	68
5	5_009	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	50	51	56	57	53	45	50	53	45	47	52
5	5_010	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	50	51	56	57	53	45	50	53	45	48	53
5	5_011	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	52	53	58	59	55	47	52	55	47	48	53
5	5_012	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	49	54
5	5_013	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	48	53
5	5_014	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	60	61	66	67	63	55	60	63	55	52	57
5	5_015	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	49	54
5	5_016	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	60	65
5	5_017	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	68	69	74	75	71	63	68	71	63	62	67
5	5_018	3 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	56	57	62	63	59	51	56	59	51	53	58
5	5_019	5 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	54	59
5	5_020	7 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	52	57
5	5_021	9 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	60	61	66	67	63	55	60	63	55	57	62
5	5_022	10 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	55	60
5	5_023	11 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	58	63
5	5_024	12 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	56	61
5	5_025	13 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	64	65	70	71	67	59	64	67	59	59	64
5	5_026	14 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	58	63
5	5_027	15 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	66	67	72	73	69	61	66	69	61	61	66
5	5_028	16 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	67	68	73	74	70	62	67	70	62	62	67
5	5_029	17 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	74	75	80	81	77	69	74	77	69	66	71
5	5_030	19 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	74	75	80	81	77	69	74	77	69	66	71
5	5_031	21 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	75	76	81	82	78	70	75	78	70	66	71
5	5_032	10 Burns Rd	Post 2008 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	57	62
5	5_033	12 Burns Rd	Post 2008 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	55	60
5	5_034	Burns Road	Post 2008 Development (Residence)	Residential	59	75	76	81	82	78	70	75	78	70	65	70
5	5_035	Burns Road	Post 2008 Development (Residence)	Residential	59	75	76	81	82	78	70	75	78	70	64	69
5	5_036	Burns Road	Post 2008 Development (Residence)	Residential	59	75	76	81	82	78	70	75	78	70	63	68
5	5_037	Burns Road	Post 2008 Development (Residence)	Residential	59	75	76	81	82	78	70	75	78	70	64	69
5	5_038	Burns Road	Post 2008 Development (Residence)	Residential	59	76	77	82	83	79	71	76	79	71	67	72
5	5_039	Burns Road	Post 2008 Development (Residence)	Residential	59	77	78	83	84	80	72	77	80	72	72	77
5	5_040	Burns Road	Post 2008 Development (Residence)	Residential	59	67	68	73	74	70	62	67	70	62	62	67
5	5_041	Burns Road	Post 2008 Development (Residence)	Residential	59	65	66	71	72	68	60	65	68	60	60	65
5	5_042	Burns Road	Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	59	64

Table H: Predicted construction noise levels **MEMORIAL AVENUE**

Receiver					Evening (OOHW)												Night (OOHW)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_237		Post 2008 Development (Residence)	Residential	55	65	66	71	72	68	60	65	68	60	36	41	46	65	66	71	72	68	60	65	68	60	36	41
4	4_238		Post 2008 Development (Residence)	Residential	55	67	68	73	74	70	62	67	70	62	35	40	46	67	68	73	74	70	62	67	70	62	35	40
4	4_239		Post 2008 Development (Residence)	Residential	55	69	70	75	76	72	64	69	72	64	35	40	46	69	70	75	76	72	64	69	72	64	35	40
4	4_240		Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	36	41	46	56	57	62	63	59	51	56	59	51	36	41
4	4_241		Post 2008 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	36	41	46	55	56	61	62	58	50	55	58	50	36	41
4	4_242		Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	36	41	46	56	57	62	63	59	51	56	59	51	36	41
4	4_243		Post 2008 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	38	43	46	55	56	61	62	58	50	55	58	50	38	43
4	4_244		Post 2008 Development (Residence)	Residential	55	53	54	59	60	56	48	53	56	48	38	43	46	53	54	59	60	56	48	53	56	48	38	43
4	4_245		Post 2008 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	39	44	46	55	56	61	62	58	50	55	58	50	39	44
4	4_246		Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	39	44	46	56	57	62	63	59	51	56	59	51	39	44
4	4_247		Post 2008 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	34	39	46	54	55	60	61	57	49	54	57	49	34	39
4	4_248		Post 2008 Development (Residence)	Residential	55	47	48	53	54	50	42	47	50	42	34	39	46	47	48	53	54	50	42	47	50	42	34	39
4	4_249		Post 2008 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	37	42	46	54	55	60	61	57	49	54	57	49	37	42
4	4_250		Post 2008 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	-	38	46	54	55	60	61	57	49	54	57	49	-	38
4	4_251		Post 2008 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	39	44	46	54	55	60	61	57	49	54	57	49	39	44
4	4_252		Post 2008 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	38	43	46	54	55	60	61	57	49	54	57	49	38	43
4	4_253		Post 2008 Development (Residence)	Residential	55	53	54	59	60	56	48	53	56	48	39	44	46	53	54	59	60	56	48	53	56	48	39	44
4	4_254		Post 2008 Development (Residence)	Residential	55	53	54	59	60	56	48	53	56	48	38	43	46	53	54	59	60	56	48	53	56	48	38	43
4	4_255		Post 2008 Development (Residence)	Residential	55	49	50	55	56	52	44	49	52	44	37	42	46	49	50	55	56	52	44	49	52	44	37	42
4	4_256		Post 2008 Development (Residence)	Residential	55	46	47	52	53	49	41	46	49	41	39	44	46	46	47	52	53	49	41	46	49	41	39	44
4	4_257		Post 2008 Development (Residence)	Residential	55	46	47	52	53	49	41	46	49	41	39	44	46	46	47	52	53	49	41	46	49	41	39	44
4	4_258		Post 2008 Development (Residence)	Residential	55	51	52	57	58	54	46	51	54	46	40	45	46	51	52	57	58	54	46	51	54	46	40	45
5	5_001	75 Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	54	55	60	61	57	49	54	57	49	44	49	49	54	55	60	61	57	49	54	57	49	44	49
5	5_002	77 Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	47	52	49	55	56	61	62	58	50	55	58	50	47	52
5	5_003	79 Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	52	57	49	56	57	62	63	59	51	56	59	51	52	57
5	5_004	81 Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	55	60	49	60	61	66	67	63	55	60	63	55	55	60
5	5_005	83 Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	58	63	49	62	63	68	69	65	57	62	65	57	58	63
5	5_006	85 Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	59	64	49	64	65	70	71	67	59	64	67	59	59	64
5	5_007	87 Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	68	69	74	75	71	63	68	71	63	60	65	49	68	69	74	75	71	63	68	71	63	60	65
5	5_008	89 Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	63	68	49	74	75	80	81	77	69	74	77	69	63	68
5	5_009	Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	47	52	49	50	51	56	57	53	45	50	53	45	47	52
5	5_010	Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	48	53	49	50	51	56	57	53	45	50	53	45	48	53
5	5_011	Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	52	53	58	59	55	47	52	55	47	48	53	49	52	53	58	59	55	47	52	55	47	48	53
5	5_012	Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	49	54	49	57	58	63	64	60	52	57	60	52	49	54
5	5_013	Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	48	53	49	59	60	65	66	62	54	59	62	54	48	53
5	5_014	Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	52	57	49	60	61	66	67	63	55	60	63	55	52	57
5	5_015	Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	49	54	49	62	63	68	69	65	57	62	65	57	49	54
5	5_016	Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	60	65	49	63	64	69	70	66	58	63	66	58	60	65
5	5_017	Hartigan Avenue	Post 2008 Development (Residence)	Residential	55	68	69	74	75	71	63	68	71	63	62	67	49	68	69	74	75	71	63	68	71	63	62	67
5	5_018	3 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	53	58	49	56	57	62	63	59	51	56	59	51	53	58
5	5_019	5 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	54	59	49	57	58	63	64	60	52	57	60	52	54	59
5	5_020	7 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	52	57	49	57	58	63	64	60	52	57	60	52	52	57
5	5_021	9 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	57	62	49	60	61	66	67	63	55	60	63	55	57	62
5	5_022	10 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	55	60	49	58	59	64	65	61	53	58	61	53	55	60
5	5_023	11 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	58	63	49	62	63	68	69	65	57	62	65	57	58	63
5	5_024	12 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	56	61	49	59	60	65	66	62	54	59	62	54	56	61
5	5_025	13 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	59	64	49	64	65	70	71	67	59	64	67	59	59	64
5	5_026	14 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	58	63	49	62	63	68	69	65	57	62	65	57	58	63
5	5_027	15 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	66	67	72	73	69	61	66	69	61	61	66	49	66	67	72	73	69	61	66	69	61	61	66
5	5_028	16 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	67	68	73	74	70	62	67	70	62	62	67	49	67	68	73	74	70	62	67	70	62	62	67
5	5_029	17 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	66	71	49	74	75	80	81	77	69	74	77	69	66	71
5	5_030	19 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	66	71	49	74	75	80	81	77	69	74	77	69	66	71
5	5_031	21 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	75	76	81	82	78	70	75	78	70	66	71	49	75	76	81	82	78	70	75	78	70	66	71
5	5_032	10 Burns Rd	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	57	62	49	62	63	68	69	65	57	62	65	57	57	62
5	5_033	12 Burns Rd	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	55	60	49	59	60	65	66	62	54	59	62	54	55	60
5	5_034	Burns Road	Post 2008 Development (Residence)	Residential	55	75	76	81	82	78	70	75	78	70	65	70	49	75	76	81	82	78	70	75	78	70	65	70
5	5_035	Burns Road	Post 2008 Development (Residence)	Residential	55	75	76	81	82	78	70	75	78	70	64	69	49	75	76	81	82	78	70	75	78	70	64	69
5	5_036	Burns Road	Post 2008 Development (Residence)	Residential	55	75	76	81	82	78	70	75	78	70	63	68	49	75	76	81	82	78	70	75	78	70	63	68
5	5_037	Burns Road	Post 2008 Development (Residence)	Residential	55	75	76	81	82	78	70	75	78	70	64	69	49	75	76	81	82	78	70	75	78	70	64	69
5	5_038	Burns Road	Post 2008 Development (Residence)	Residential	55	76	77	82	83	79	71	76	79	71	67	72	49	76	77	82	83	79	71	76	79	71	67	72
5	5_039	Burns Road	Post 2008 Development (Residence)	Residential	55	77	78	83	84	80	72	77	80	72	72	77	49	77	78	83	84	80	72	77	80	72	72	77
5	5_040	Burns Road	Post 2008 Development (Residence)	Residential	55	67	68	73	74	70	62	67	70	62	62	67	49	67	68	73	74	70	62	67	70	62	62	67
5	5_041	Burns Road	Post 2008 Development (Residence)	Residential	55	65	66	71	72	68	60	65	68	60	60	65	49	65	66	71	72	68	60	65	68	60	60	65
5	5_042	Burns Road	Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	59	64	49	63	64	69	70	66	58	63	66	58	59	64

Table H: Predicted construction noise levels

Receiver					Predicted noise levels, dB(A)											
					Day (Standard)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
5	5_043	Burns Road	Post 2008 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	58	63
5	5_044	Burns Road	Post 2008 Development (Residence)	Residential	59	60	61	66	67	63	55	60	63	55	57	62
5	5_045	Burns Road	Post 2008 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	56	61
5	5_046	Burns Road	Post 2008 Development (Residence)	Residential	59	67	68	73	74	70	62	67	70	62	67	72
5	5_047	Burns Road	Post 2008 Development (Residence)	Residential	59	56	57	62	63	59	51	56	59	51	58	63
5	5_048	Burns Road	Post 2008 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	50	55
5	5_049	Burns Road	Post 2008 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	49	54
5	5_050	Burns Road	Post 2008 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	48	53
5	5_051	Burns Road	Post 2008 Development (Residence)	Residential	59	60	61	66	67	63	55	60	63	55	47	52
5	5_052	Burns Road	Post 2008 Development (Residence)	Residential	59	56	57	62	63	59	51	56	59	51	53	58
5	5_053	Burns Road	Post 2008 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	54	59
5	5_054	Burns Road	Post 2008 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	43	48
5	5_055	Burns Road	Post 2008 Development (Residence)	Residential	59	53	54	59	60	56	48	53	56	48	42	47
5	5_056	Burns Road	Post 2008 Development (Residence)	Residential	59	53	54	59	60	56	48	53	56	48	41	46
5	5_057	6 Windsor Road		Residential	59	75	76	81	82	78	70	75	78	70	100	105
5	5_058	8 Windsor Road		Residential	59	77	78	83	84	80	72	77	80	72	75	80
5	5_059	10 Windsor Road		Residential	59	77	78	83	84	80	72	77	80	72	68	73
5	5_060	12 Windsor Road		Residential	59	77	78	83	84	80	72	77	80	72	63	68
5	5_062	18-20 Windsor Road		Residential	59	76	77	82	83	79	71	76	79	71	58	63
5	5_063	1 Arnold Avenue		Residential	59	75	76	81	82	78	70	75	78	70	48	53
5	5_064	22 Windsor Road		Residential	59	75	76	81	82	78	70	75	78	70	54	59
5	5_065	24 Windsor Road		Residential	59	77	78	83	84	80	72	77	80	72	54	59
5	5_066	26 Windsor Road		Residential	59	72	73	78	79	75	67	72	75	67	52	57
5	5_067	28 Windsor Road		Residential	59	68	69	74	75	71	63	68	71	63	49	54
5	5_068		Post 2008 Development (Residence)	Residential	59	67	68	73	74	70	62	67	70	62	47	52
5	5_069		Post 2008 Development (Residence)	Residential	59	65	66	71	72	68	60	65	68	60	41	46
5	5_070		Post 2008 Development (Residence)	Residential	59	64	65	70	71	67	59	64	67	59	41	46
5	5_071		Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	43	48
5	5_072		Post 2008 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	41	46
5	5_073		Post 2008 Development (Residence)	Residential	59	60	61	66	67	63	55	60	63	55	40	45
5	5_074		Post 2008 Development (Residence)	Residential	59	60	61	66	67	63	55	60	63	55	42	47
5	5_075		Post 2008 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	42	47
5	5_076		Post 2008 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	40	45
5	5_077		Post 2008 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	38	43
5	5_078		Post 2008 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	39	44
5	5_079		Post 2008 Development (Residence)	Residential	59	56	57	62	63	59	51	56	59	51	43	48
5	5_080		Post 2008 Development (Residence)	Residential	59	69	70	75	76	72	64	69	72	64	48	53
5	5_081		Post 2008 Development (Residence)	Residential	59	66	67	72	73	69	61	66	69	61	44	49
5	5_082		Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	43	48
5	5_083		Post 2008 Development (Residence)	Residential	59	61	62	67	68	64	56	61	64	56	42	47
5	5_084		Post 2008 Development (Residence)	Residential	59	79	80	85	86	82	74	79	82	74	49	54
5	5_085		Post 2008 Development (Residence)	Residential	59	79	80	85	86	82	74	79	82	74	49	54
5	5_086		Post 2008 Development (Residence)	Residential	59	76	77	82	83	79	71	76	79	71	48	53
5	5_087		Post 2008 Development (Residence)	Residential	59	74	75	80	81	77	69	74	77	69	48	53
5	5_088		Post 2008 Development (Residence)	Residential	59	71	72	77	78	74	66	71	74	66	48	53
5	5_089		Post 2008 Development (Residence)	Residential	59	69	70	75	76	72	64	69	72	64	47	52
5	5_090		Post 2008 Development (Residence)	Residential	59	66	67	72	73	69	61	66	69	61	46	51
5	5_091		Post 2008 Development (Residence)	Residential	59	65	66	71	72	68	60	65	68	60	46	51
5	5_092		Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	46	51
5	5_093		Post 2008 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	45	50
5	5_094	31 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	42	47
5	5_095	35 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	46	51
5	5_096	43 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	53	54	59	60	56	48	53	56	48	45	50
5	5_097		Post 2008 Development (Residence)	Residential	59	55	56	61	62	58	50	55	58	50	52	57
5	5_098		Post 2008 Development (Residence)	Residential	59	55	56	61	62	58	50	55	58	50	52	57
5	5_099		Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	58	63
5	5_100		Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	60	65
5	5_101		Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	61	66
5	5_102		Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	63	68
5	5_103		Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	64	69
5	5_104		Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	66	71
5	5_105		Post 2008 Development (Residence)	Residential	59	65	66	71	72	68	60	65	68	60	69	74
5	5_106		Post 2008 Development (Residence)	Residential	59	65	66	71	72	68	60	65	68	60	72	77
5	5_107		Post 2008 Development (Residence)	Residential	59	78	79	84	85	81	73	78	81	73	89	94

Table H: Predicted construction noise levels **MEMORIAL AVENUE**

Receiver					Evening (OOHW)												Night (OOHW)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
5	5_043	Burns Road	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	58	63	49	62	63	68	69	65	57	62	65	57	58	63
5	5_044	Burns Road	Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	57	62	49	60	61	66	67	63	55	60	63	55	57	62
5	5_045	Burns Road	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	56	61	49	59	60	65	66	62	54	59	62	54	56	61
5	5_046	Burns Road	Post 2008 Development (Residence)	Residential	55	67	68	73	74	70	62	67	70	62	67	72	49	67	68	73	74	70	62	67	70	62	67	72
5	5_047	Burns Road	Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	58	63	49	56	57	62	63	59	51	56	59	51	58	63
5	5_048	Burns Road	Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	50	55	49	58	59	64	65	61	53	58	61	53	50	55
5	5_049	Burns Road	Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	49	54	49	57	58	63	64	60	52	57	60	52	49	54
5	5_050	Burns Road	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	48	53	49	59	60	65	66	62	54	59	62	54	48	53
5	5_051	Burns Road	Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	47	52	49	60	61	66	67	63	55	60	63	55	47	52
5	5_052	Burns Road	Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	53	58	49	56	57	62	63	59	51	56	59	51	53	58
5	5_053	Burns Road	Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	54	59	49	57	58	63	64	60	52	57	60	52	54	59
5	5_054	Burns Road	Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	43	48	49	58	59	64	65	61	53	58	61	53	43	48
5	5_055	Burns Road	Post 2008 Development (Residence)	Residential	55	53	54	59	60	56	48	53	56	48	42	47	49	53	54	59	60	56	48	53	56	48	42	47
5	5_056	Burns Road	Post 2008 Development (Residence)	Residential	55	53	54	59	60	56	48	53	56	48	41	46	49	53	54	59	60	56	48	53	56	48	41	46
5	5_057	6 Windsor Road		Residential	55	75	76	81	82	78	70	75	78	70	100	105	49	75	76	81	82	78	70	75	78	70	100	105
5	5_058	8 Windsor Road		Residential	55	77	78	83	84	80	72	77	80	72	75	80	49	77	78	83	84	80	72	77	80	72	75	80
5	5_059	10 Windsor Road		Residential	55	77	78	83	84	80	72	77	80	72	68	73	49	77	78	83	84	80	72	77	80	72	68	73
5	5_060	12 Windsor Road		Residential	55	77	78	83	84	80	72	77	80	72	63	68	49	77	78	83	84	80	72	77	80	72	63	68
5	5_062	18-20 Windsor Road		Residential	55	76	77	82	83	79	71	76	79	71	58	63	49	76	77	82	83	79	71	76	79	71	58	63
5	5_063	1 Arnold Avenue		Residential	55	75	76	81	82	78	70	75	78	70	48	53	49	75	76	81	82	78	70	75	78	70	48	53
5	5_064	22 Windsor Road		Residential	55	75	76	81	82	78	70	75	78	70	54	59	49	75	76	81	82	78	70	75	78	70	54	59
5	5_065	24 Windsor Road		Residential	55	77	78	83	84	80	72	77	80	72	54	59	49	77	78	83	84	80	72	77	80	72	54	59
5	5_066	26 Windsor Road		Residential	55	72	73	78	79	75	67	72	75	67	52	57	49	72	73	78	79	75	67	72	75	67	52	57
5	5_067	28 Windsor Road		Residential	55	68	69	74	75	71	63	68	71	63	49	54	49	68	69	74	75	71	63	68	71	63	49	54
5	5_068		Post 2008 Development (Residence)	Residential	55	67	68	73	74	70	62	67	70	62	47	52	49	67	68	73	74	70	62	67	70	62	47	52
5	5_069		Post 2008 Development (Residence)	Residential	55	65	66	71	72	68	60	65	68	60	41	46	49	65	66	71	72	68	60	65	68	60	41	46
5	5_070		Post 2008 Development (Residence)	Residential	55	64	65	70	71	67	59	64	67	59	41	46	49	64	65	70	71	67	59	64	67	59	41	46
5	5_071		Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	43	48	49	63	64	69	70	66	58	63	66	58	43	48
5	5_072		Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	41	46	49	62	63	68	69	65	57	62	65	57	41	46
5	5_073		Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	40	45	49	60	61	66	67	63	55	60	63	55	40	45
5	5_074		Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	42	47	49	60	61	66	67	63	55	60	63	55	42	47
5	5_075		Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	42	47	49	59	60	65	66	62	54	59	62	54	42	47
5	5_076		Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	40	45	49	58	59	64	65	61	53	58	61	53	40	45
5	5_077		Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	38	43	49	57	58	63	64	60	52	57	60	52	38	43
5	5_078		Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	39	44	49	57	58	63	64	60	52	57	60	52	39	44
5	5_079		Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	43	48	49	56	57	62	63	59	51	56	59	51	43	48
5	5_080		Post 2008 Development (Residence)	Residential	55	69	70	75	76	72	64	69	72	64	48	53	49	69	70	75	76	72	64	69	72	64	48	53
5	5_081		Post 2008 Development (Residence)	Residential	55	66	67	72	73	69	61	66	69	61	44	49	49	66	67	72	73	69	61	66	69	61	44	49
5	5_082		Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	43	48	49	63	64	69	70	66	58	63	66	58	43	48
5	5_083		Post 2008 Development (Residence)	Residential	55	61	62	67	68	64	56	61	64	56	42	47	49	61	62	67	68	64	56	61	64	56	42	47
5	5_084		Post 2008 Development (Residence)	Residential	55	79	80	85	86	82	74	79	82	74	49	54	49	79	80	85	86	82	74	79	82	74	49	54
5	5_085		Post 2008 Development (Residence)	Residential	55	79	80	85	86	82	74	79	82	74	49	54	49	79	80	85	86	82	74	79	82	74	49	54
5	5_086		Post 2008 Development (Residence)	Residential	55	76	77	82	83	79	71	76	79	71	48	53	49	76	77	82	83	79	71	76	79	71	48	53
5	5_087		Post 2008 Development (Residence)	Residential	55	74	75	80	81	77	69	74	77	69	48	53	49	74	75	80	81	77	69	74	77	69	48	53
5	5_088		Post 2008 Development (Residence)	Residential	55	71	72	77	78	74	66	71	74	66	48	53	49	71	72	77	78	74	66	71	74	66	48	53
5	5_089		Post 2008 Development (Residence)	Residential	55	69	70	75	76	72	64	69	72	64	47	52	49	69	70	75	76	72	64	69	72	64	47	52
5	5_090		Post 2008 Development (Residence)	Residential	55	66	67	72	73	69	61	66	69	61	46	51	49	66	67	72	73	69	61	66	69	61	46	51
5	5_091		Post 2008 Development (Residence)	Residential	55	65	66	71	72	68	60	65	68	60	46	51	49	65	66	71	72	68	60	65	68	60	46	51
5	5_092		Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	46	51	49	63	64	69	70	66	58	63	66	58	46	51
5	5_093		Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	45	50	49	62	63	68	69	65	57	62	65	57	45	50
5	5_094	31 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	42	47	49	63	64	69	70	66	58	63	66	58	42	47
5	5_095	35 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	46	51	49	59	60	65	66	62	54	59	62	54	46	51
5	5_096	43 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	53	54	59	60	56	48	53	56	48	45	50	49	53	54	59	60	56	48	53	56	48	45	50
5	5_097		Post 2008 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	52	57	49	55	56	61	62	58	50	55	58	50	52	57
5	5_098		Post 2008 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	52	57	49	55	56	61	62	58	50	55	58	50	52	57
5	5_099		Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	58	63	49	63	64	69	70	66	58	63	66	58	58	63
5	5_100		Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	60	65	49	63	64	69	70	66	58	63	66	58	60	65
5	5_101		Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	61	66	49	63	64	69	70	66	58	63	66	58	61	66
5	5_102		Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	63	68	49	63	64	69	70	66	58	63	66	58	63	68
5	5_103		Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	64	69	49	63	64	69	70	66	58	63	66	58	64	69
5	5_104		Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	66	71	49	63	64	69	70	66	58	63	66	58	66	71
5	5_105		Post 2008 Development (Residence)	Residential	55	65	66	71	72	68	60	65	68	60	69	74	49	65	66	71	72	68	60	65	68	60	69	74
5	5_106		Post 2008 Development (Residence)	Residential	55	65	66	71	72	68	60	65	68	60	72	77	49	65	66	71	72	68	60	65	68	60	72	77
5	5_107		Post 2008 Development (Residence)	Residential	55	78	79	84	85	81	73	78	81	73	89	94	49	78	79	84	85	81	73	78	81	73	89	94

Table H: Predicted construction noise levels

Receiver					Predicted noise levels, dB(A)											
					Day (Standard)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
5	5_108		Post 2008 Development (Residence)	Residential	59	76	77	82	83	79	71	76	79	71	62	67
5	5_109		Post 2008 Development (Residence)	Residential	59	72	73	78	79	75	67	72	75	67	62	67
5	5_110		Post 2008 Development (Residence)	Residential	59	69	70	75	76	72	64	69	72	64	62	67
5	5_111		Post 2008 Development (Residence)	Residential	59	68	69	74	75	71	63	68	71	63	62	67
5	5_112		Post 2008 Development (Residence)	Residential	59	55	56	61	62	58	50	55	58	50	50	55
5	5_113		Post 2008 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	40	45
5	5_114		Post 2008 Development (Residence)	Residential	59	59	60	65	66	62	54	59	62	54	40	45
5	5_115		Post 2008 Development (Residence)	Residential	59	60	61	66	67	63	55	60	63	55	39	44
5	5_116		Post 2008 Development (Residence)	Residential	59	61	62	67	68	64	56	61	64	56	39	44
5	5_117		Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	57	62
5	5_118		Post 2008 Development (Residence)	Residential	59	63	64	69	70	66	58	63	66	58	54	59
5	5_119		Post 2008 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	54	59
5	5_120		Post 2008 Development (Residence)	Residential	59	60	61	66	67	63	55	60	63	55	53	58
5	5_121		Post 2008 Development (Residence)	Residential	59	50	51	56	57	53	45	50	53	45	40	45
5	5_122		Post 2008 Development (Residence)	Residential	59	46	47	52	53	49	41	46	49	41	36	41
5	5_123		Post 2008 Development (Residence)	Residential	59	45	46	51	52	48	40	45	48	40	41	46
5	5_124		Post 2008 Development (Residence)	Residential	59	53	54	59	60	56	48	53	56	48	48	53
5	5_125		Post 2008 Development (Residence)	Residential	59	56	57	62	63	59	51	56	59	51	49	54
5	5_126		Post 2008 Development (Residence)	Residential	59	60	61	66	67	63	55	60	63	55	42	47
5	5_127		Post 2008 Development (Residence)	Residential	59	58	59	64	65	61	53	58	61	53	43	48
5	5_128	33 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	62	63	68	69	65	57	62	65	57	47	52
5	5_129	29 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	66	67	72	73	69	61	66	69	61	48	53
5	5_130	37 Gormon Avenue		Residential	59	58	59	64	65	61	53	58	61	53	-	38
5	5_131	3 Dunn Way		Residential	59	55	56	61	62	58	50	55	58	50	41	46
5	5_132	4 Dunn Way		Residential	59	58	59	64	65	61	53	58	61	53	43	48
5	5_133	5 Dunn Way		Residential	59	56	57	62	63	59	51	56	59	51	43	48
5	NEW_115		2019 Development (Residence)	Residential	59	73	74	79	80	76	68	73	76	68	61	66
5	NEW_116		2019 Development (Residence)	Residential	59	73	74	79	80	76	68	73	76	68	59	64
5	NEW_117		2019 Development (Residence)	Residential	59	57	58	63	64	60	52	57	60	52	53	58
6	6_001	2 Hector Court		Residential	57	68	69	74	75	71	63	68	71	63	48	53
6	6_002	2A Hector Court		Residential	57	62	63	68	69	65	57	62	65	57	46	51
6	NEW_118		2019 Development (Residence)	Residential	57	54	55	60	61	57	49	54	57	49	61	66
6	NEW_119		2019 Development (Residence)	Residential	57	54	55	60	61	57	49	54	57	49	60	65
6	NEW_120		2019 Development (Residence)	Residential	57	54	55	60	61	57	49	54	57	49	59	64
6	NEW_121		2019 Development (Residence)	Residential	57	54	55	60	61	57	49	54	57	49	58	63
6	NEW_122		2019 Development (Residence)	Residential	57	55	56	61	62	58	50	55	58	50	57	62
6	NEW_123		2019 Development (Residence)	Residential	57	57	58	63	64	60	52	57	60	52	56	61
6	NEW_124		2019 Development (Residence)	Residential	57	59	60	65	66	62	54	59	62	54	55	60
6	NEW_125		2019 Development (Residence)	Residential	57	61	62	67	68	64	56	61	64	56	55	60
6	NEW_126		2019 Development (Residence)	Residential	57	64	65	70	71	67	59	64	67	59	54	59
6	NEW_127		2019 Development (Residence)	Residential	57	65	66	71	72	68	60	65	68	60	53	58
6	NEW_128		2019 Development (Residence)	Residential	57	67	68	73	74	70	62	67	70	62	53	58
6	NEW_129		2019 Development (Residence)	Residential	57	69	70	75	76	72	64	69	72	64	52	57
6	NEW_130		2019 Development (Residence)	Residential	57	76	77	82	83	79	71	76	79	71	51	56
6	NEW_131		2019 Development (Residence)	Residential	57	76	77	82	83	79	71	76	79	71	48	53
6	NEW_132		2019 Development (Residence)	Residential	57	75	76	81	82	78	70	75	78	70	48	53
6	NEW_133		2019 Development (Residence)	Residential	57	74	75	80	81	77	69	74	77	69	48	53
6	NEW_134		2019 Development (Residence)	Residential	57	66	67	72	73	69	61	66	69	61	51	56
7	7_008	1 President Road		Residential	65	66	67	72	73	69	61	66	69	61	48	53
7	7_009	1B President Road		Residential	65	69	70	75	76	72	64	69	72	64	47	52
7	7_011	Lot 9 Windsor Road	Residence (Dilapidated)	Residential	65	81	82	87	88	84	76	81	84	76	55	60
7	7_014	12 Benalla Ave		Residential	65	67	68	73	74	70	62	67	70	62	48	53
7	7_015	14 Benalla Ave		Residential	65	69	70	75	76	72	64	69	72	64	51	56
7	7_016	16 Benalla Ave		Residential	65	69	70	75	76	72	64	69	72	64	47	52
7	7_017	18 Benalla Ave		Residential	65	75	76	81	82	78	70	75	78	70	57	62
7	7_018	20 Benalla Ave		Residential	65	76	77	82	83	79	71	76	79	71	60	65
7	7_019	22 Benalla Ave		Residential	65	77	78	83	84	80	72	77	80	72	63	68
7	7_020	24 Benalla Ave		Residential	65	77	78	83	84	80	72	77	80	72	65	70
7	7_021	26 Benalla Ave		Residential	65	67	68	73	74	70	62	67	70	62	55	60
7	7_022	28 Benalla Ave		Residential	65	67	68	73	74	70	62	67	70	62	53	58
7	7_023	30 Benalla Ave		Residential	65	69	70	75	76	72	64	69	72	64	62	67
7	7_024	32 Benalla Ave		Residential	65	69	70	75	76	72	64	69	72	64	55	60
7	7_025	34 Benalla Ave		Residential	65	70	71	76	77	73	65	70	73	65	64	69
7	7_026	36 Benalla Ave		Residential	65	79	80	85	86	82	74	79	82	74	69	74

Table H: Predicted construction noise levels **MEMORIAL AVENUE**

Receiver					Evening (OOHW)												Night (OOHW)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
5	5_108		Post 2008 Development (Residence)	Residential	55	76	77	82	83	79	71	76	79	71	62	67	49	76	77	82	83	79	71	76	79	71	62	67
5	5_109		Post 2008 Development (Residence)	Residential	55	72	73	78	79	75	67	72	75	67	62	67	49	72	73	78	79	75	67	72	75	67	62	67
5	5_110		Post 2008 Development (Residence)	Residential	55	69	70	75	76	72	64	69	72	64	62	67	49	69	70	75	76	72	64	69	72	64	62	67
5	5_111		Post 2008 Development (Residence)	Residential	55	68	69	74	75	71	63	68	71	63	62	67	49	68	69	74	75	71	63	68	71	63	62	67
5	5_112		Post 2008 Development (Residence)	Residential	55	55	56	61	62	58	50	55	58	50	50	55	49	55	56	61	62	58	50	55	58	50	50	55
5	5_113		Post 2008 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	40	45	49	57	58	63	64	60	52	57	60	52	40	45
5	5_114		Post 2008 Development (Residence)	Residential	55	59	60	65	66	62	54	59	62	54	40	45	49	59	60	65	66	62	54	59	62	54	40	45
5	5_115		Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	39	44	49	60	61	66	67	63	55	60	63	55	39	44
5	5_116		Post 2008 Development (Residence)	Residential	55	61	62	67	68	64	56	61	64	56	39	44	49	61	62	67	68	64	56	61	64	56	39	44
5	5_117		Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	57	62	49	63	64	69	70	66	58	63	66	58	57	62
5	5_118		Post 2008 Development (Residence)	Residential	55	63	64	69	70	66	58	63	66	58	54	59	49	63	64	69	70	66	58	63	66	58	54	59
5	5_119		Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	54	59	49	62	63	68	69	65	57	62	65	57	54	59
5	5_120		Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	53	58	49	60	61	66	67	63	55	60	63	55	53	58
5	5_121		Post 2008 Development (Residence)	Residential	55	50	51	56	57	53	45	50	53	45	40	45	49	50	51	56	57	53	45	50	53	45	40	45
5	5_122		Post 2008 Development (Residence)	Residential	55	46	47	52	53	49	41	46	49	41	36	41	49	46	47	52	53	49	41	46	49	41	36	41
5	5_123		Post 2008 Development (Residence)	Residential	55	45	46	51	52	48	40	45	48	40	41	46	49	45	46	51	52	48	40	45	48	40	41	46
5	5_124		Post 2008 Development (Residence)	Residential	55	53	54	59	60	56	48	53	56	48	48	53	49	53	54	59	60	56	48	53	56	48	48	53
5	5_125		Post 2008 Development (Residence)	Residential	55	56	57	62	63	59	51	56	59	51	49	54	49	56	57	62	63	59	51	56	59	51	49	54
5	5_126		Post 2008 Development (Residence)	Residential	55	60	61	66	67	63	55	60	63	55	42	47	49	60	61	66	67	63	55	60	63	55	42	47
5	5_127		Post 2008 Development (Residence)	Residential	55	58	59	64	65	61	53	58	61	53	43	48	49	58	59	64	65	61	53	58	61	53	43	48
5	5_128	33 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	62	63	68	69	65	57	62	65	57	47	52	49	62	63	68	69	65	57	62	65	57	47	52
5	5_129	29 Gorman Avenue	Post 2008 Development (Residence)	Residential	55	66	67	72	73	69	61	66	69	61	48	53	49	66	67	72	73	69	61	66	69	61	48	53
5	5_130	37 Gormon Avenue		Residential	55	58	59	64	65	61	53	58	61	53	-	38	49	58	59	64	65	61	53	58	61	53	-	38
5	5_131	3 Dunn Way		Residential	55	55	56	61	62	58	50	55	58	50	41	46	49	55	56	61	62	58	50	55	58	50	41	46
5	5_132	4 Dunn Way		Residential	55	58	59	64	65	61	53	58	61	53	43	48	49	58	59	64	65	61	53	58	61	53	43	48
5	5_133	5 Dunn Way		Residential	55	56	57	62	63	59	51	56	59	51	43	48	49	56	57	62	63	59	51	56	59	51	43	48
5	NEW_115		2019 Development (Residence)	Residential	55	73	74	79	80	76	68	73	76	68	61	66	49	73	74	79	80	76	68	73	76	68	61	66
5	NEW_116		2019 Development (Residence)	Residential	55	73	74	79	80	76	68	73	76	68	59	64	49	73	74	79	80	76	68	73	76	68	59	64
5	NEW_117		2019 Development (Residence)	Residential	55	57	58	63	64	60	52	57	60	52	53	58	49	57	58	63	64	60	52	57	60	52	53	58
6	6_001	2 Hector Court		Residential	50	68	69	74	75	71	63	68	71	63	48	53	39	68	69	74	75	71	63	68	71	63	48	53
6	6_002	2A Hector Court		Residential	50	62	63	68	69	65	57	62	65	57	46	51	39	62	63	68	69	65	57	62	65	57	46	51
6	NEW_118		2019 Development (Residence)	Residential	50	54	55	60	61	57	49	54	57	49	61	66	39	54	55	60	61	57	49	54	57	49	61	66
6	NEW_119		2019 Development (Residence)	Residential	50	54	55	60	61	57	49	54	57	49	60	65	39	54	55	60	61	57	49	54	57	49	60	65
6	NEW_120		2019 Development (Residence)	Residential	50	54	55	60	61	57	49	54	57	49	59	64	39	54	55	60	61	57	49	54	57	49	59	64
6	NEW_121		2019 Development (Residence)	Residential	50	54	55	60	61	57	49	54	57	49	58	63	39	54	55	60	61	57	49	54	57	49	58	63
6	NEW_122		2019 Development (Residence)	Residential	50	55	56	61	62	58	50	55	58	50	57	62	39	55	56	61	62	58	50	55	58	50	57	62
6	NEW_123		2019 Development (Residence)	Residential	50	57	58	63	64	60	52	57	60	52	56	61	39	57	58	63	64	60	52	57	60	52	56	61
6	NEW_124		2019 Development (Residence)	Residential	50	59	60	65	66	62	54	59	62	54	55	60	39	59	60	65	66	62	54	59	62	54	55	60
6	NEW_125		2019 Development (Residence)	Residential	50	61	62	67	68	64	56	61	64	56	55	60	39	61	62	67	68	64	56	61	64	56	55	60
6	NEW_126		2019 Development (Residence)	Residential	50	64	65	70	71	67	59	64	67	59	54	59	39	64	65	70	71	67	59	64	67	59	54	59
6	NEW_127		2019 Development (Residence)	Residential	50	65	66	71	72	68	60	65	68	60	53	58	39	65	66	71	72	68	60	65	68	60	53	58
6	NEW_128		2019 Development (Residence)	Residential	50	67	68	73	74	70	62	67	70	62	53	58	39	67	68	73	74	70	62	67	70	62	53	58
6	NEW_129		2019 Development (Residence)	Residential	50	69	70	75	76	72	64	69	72	64	52	57	39	69	70	75	76	72	64	69	72	64	52	57
6	NEW_130		2019 Development (Residence)	Residential	50	76	77	82	83	79	71	76	79	71	51	56	39	76	77	82	83	79	71	76	79	71	51	56
6	NEW_131		2019 Development (Residence)	Residential	50	76	77	82	83	79	71	76	79	71	48	53	39	76	77	82	83	79	71	76	79	71	48	53
6	NEW_132		2019 Development (Residence)	Residential	50	75	76	81	82	78	70	75	78	70	48	53	39	75	76	81	82	78	70	75	78	70	48	53
6	NEW_133		2019 Development (Residence)	Residential	50	74	75	80	81	77	69	74	77	69	48	53	39	74	75	80	81	77	69	74	77	69	48	53
6	NEW_134		2019 Development (Residence)	Residential	50	66	67	72	73	69	61	66	69	61	51	56	39	66	67	72	73	69	61	66	69	61	51	56
7	7_008	1 President Road		Residential	55	66	67	72	73	69	61	66	69	61	48	53	39	66	67	72	73	69	61	66	69	61	48	53
7	7_009	1B President Road		Residential	55	69	70	75	76	72	64	69	72	64	47	52	39	69	70	75	76	72	64	69	72	64	47	52
7	7_011	Lot 9 Windsor Road	Residence (Dilapidated)	Residential	55	81	82	87	88	84	76	81	84	76	55	60	39	81	82	87	88	84	76	81	84	76	55	60
7	7_014	12 Benalla Ave		Residential	55	67	68	73	74	70	62	67	70	62	48	53	39	67	68	73	74	70	62	67	70	62	48	53
7	7_015	14 Benalla Ave		Residential	55	69	70	75	76	72	64	69	72	64	51	56	39	69	70	75	76	72	64	69	72	64	51	56
7	7_016	16 Benalla Ave		Residential	55	69	70	75	76	72	64	69	72	64	47	52	39	69	70	75	76	72	64	69	72	64	47	52
7	7_017	18 Benalla Ave		Residential	55	75	76	81	82	78	70	75	78	70	57	62	39	75	76	81	82	78	70	75	78	70	57	62
7	7_018	20 Benalla Ave		Residential	55	76	77	82	83	79	71	76	79	71	60	65	39	76	77	82	83	79	71	76	79	71	60	65
7	7_019	22 Benalla Ave		Residential	55	77	78	83	84	80	72	77	80	72	63	68	39	77	78	83	84	80	72	77	80	72	63	68
7	7_020	24 Benalla Ave		Residential	55	77	78	83	84	80	72	77	80	72	65	70	39	77	78	83	84	80	72	77	80	72	65	70
7	7_021	26 Benalla Ave		Residential	55	67	68	73	74	70	62	67	70	62	55	60	39	67	68	73	74	70	62	67	70	62	55	60
7	7_022	28 Benalla Ave		Residential	55	67	68	73	74	70	62	67	70	62	53	58	39	67	68	73	74	70	62	67	70	62	53	58
7	7_023	30 Benalla Ave		Residential	55	69	70	75	76	72	64	69	72	64	62	67	39	69	70	75	76	72	64	69	72	64	62	67
7	7_024	32 Benalla Ave		Residential	55	69	70	75	76	72	64	69	72	64	55	60	39	69	70	75	76	72	64	69	72	64	55	60
7	7_025	34 Benalla Ave		Residential	55	70	71	76	77	73	65	70	73	65	64	69	39	70	71	76	77	73	65	70	73	65	64	69
7	7_026	36 Benalla Ave		Residential	55	79	80	85	86	82	74	79	82	74	69	74	39	79	80	85	86	82	74	79	82	74	69	74

Table H: Predicted construction noise levels

Receiver					Predicted noise levels, dB(A)											
					Day (Standard)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
7	7_027	38 Benalla Ave		Residential	65	77	78	83	84	80	72	77	80	72	68	73
7	7_028	40 Benalla Ave		Residential	65	78	79	84	85	81	73	78	81	73	66	71
7	7_029	42 Benalla Ave		Residential	65	80	81	86	87	83	75	80	83	75	64	69
7	7_030	44 Benalla Ave		Residential	65	69	70	75	76	72	64	69	72	64	63	68
7	7_031	46 Benalla Ave		Residential	65	68	69	74	75	71	63	68	71	63	58	63
7	7_032	48 Benalla Ave		Residential	65	64	65	70	71	67	59	64	67	59	52	57
7	7_033	50 Benalla Ave		Residential	65	62	63	68	69	65	57	62	65	57	53	58
7	7_034	Lot 1 Windsor Road		Residential	65	74	75	80	81	77	69	74	77	69	56	61
7	7_035	10 Hart Place		Residential	65	65	66	71	72	68	60	65	68	60	41	46
7	7_036	12 Hart Place		Residential	65	68	69	74	75	71	63	68	71	63	47	52
7	7_037	16 Hart Place		Residential	65	75	76	81	82	78	70	75	78	70	47	52
7	7_038	17 Hart Place		Residential	65	68	69	74	75	71	63	68	71	63	48	53
7	7_039	18 Hart Place		Residential	65	75	76	81	82	78	70	75	78	70	46	51
7	7_040	20 Hart Place		Residential	65	77	78	83	84	80	72	77	80	72	52	57
7	7_041	22 Hart Place		Residential	65	69	70	75	76	72	64	69	72	64	47	52
7	7_042	2 Wrights Road		Residential	65	73	74	79	80	76	68	73	76	68	47	52
7	7_043	4 Wrights Road		Residential	65	67	68	73	74	70	62	67	70	62	47	52
7	7_044	6 Wrights Road		Residential	65	63	64	69	70	66	58	63	66	58	44	49
7	7_046			Residential	65	60	61	66	67	63	55	60	63	55	48	53
7	7_047			Residential	65	60	61	66	67	63	55	60	63	55	48	53
7	7_048			Residential	65	60	61	66	67	63	55	60	63	55	48	53
7	7_049			Residential	65	60	61	66	67	63	55	60	63	55	49	54
7	7_050			Residential	65	60	61	66	67	63	55	60	63	55	49	54
7	7_051			Residential	65	60	61	66	67	63	55	60	63	55	50	55
7	7_052			Residential	65	49	50	55	56	52	44	49	52	44	42	47
7	7_053			Residential	65	48	49	54	55	51	43	48	51	43	43	48
7	7_054			Residential	65	55	56	61	62	58	50	55	58	50	44	49
7	7_055			Residential	65	50	51	56	57	53	45	50	53	45	45	50
7	7_056			Residential	65	50	51	56	57	53	45	50	53	45	47	52
7	7_057			Residential	65	58	59	64	65	61	53	58	61	53	47	52
7	7_058			Residential	65	53	54	59	60	56	48	53	56	48	48	53
7	7_059			Residential	65	45	46	51	52	48	40	45	48	40	38	43
7	7_062			Residential	65	52	53	58	59	55	47	52	55	47	48	53
7	7_063			Residential	65	52	53	58	59	55	47	52	55	47	48	53
7	7_064			Residential	65	52	53	58	59	55	47	52	55	47	43	48
7	7_065			Residential	65	-	34	39	-	36	-	-	36	-	-	-
7	7_066			Residential	65	50	51	56	57	53	45	50	53	45	44	49
7	7_067			Residential	65	48	49	54	55	51	43	48	51	43	44	49
7	7_068			Residential	65	53	54	59	60	56	48	53	56	48	41	46
7	7_069			Residential	65	54	55	60	61	57	49	54	57	49	50	55
7	7_070			Residential	65	54	55	60	61	57	49	54	57	49	50	55
7	7_071			Residential	65	54	55	60	61	57	49	54	57	49	50	55
7	7_072			Residential	65	54	55	60	61	57	49	54	57	49	50	55
7	7_073			Residential	65	54	55	60	61	57	49	54	57	49	48	53
7	7_074			Residential	65	54	55	60	61	57	49	54	57	49	48	53
7	7_075			Residential	65	54	55	60	61	57	49	54	57	49	50	55
7	7_076			Residential	65	50	51	56	57	53	45	50	53	45	45	50
7	7_077			Residential	65	47	48	53	54	50	42	47	50	42	45	50
7	7_078			Residential	65	48	49	54	55	51	43	48	51	43	43	48
7	7_079			Residential	65	52	53	58	59	55	47	52	55	47	46	51
7	7_080			Residential	65	52	53	58	59	55	47	52	55	47	46	51
7	7_081			Residential	65	52	53	58	59	55	47	52	55	47	47	52
7	7_082			Residential	65	52	53	58	59	55	47	52	55	47	47	52
7	7_083			Residential	65	50	51	56	57	53	45	50	53	45	44	49
7	7_084			Residential	65	47	48	53	54	50	42	47	50	42	45	50
7	7_085			Residential	65	46	47	52	53	49	41	46	49	41	44	49
7	7_086			Residential	65	48	49	54	55	51	43	48	51	43	43	48
7	7_087			Residential	65	59	60	65	66	62	54	59	62	54	51	56
7	7_088			Residential	65	61	62	67	68	64	56	61	64	56	44	49
7	7_089			Residential	65	60	61	66	67	63	55	60	63	55	47	52
7	7_090			Residential	65	53	54	59	60	56	48	53	56	48	51	56
7	7_091			Residential	65	54	55	60	61	57	49	54	57	49	48	53
7	7_092			Residential	65	55	56	61	62	58	50	55	58	50	43	48
7	7_093			Residential	65	56	57	62	63	59	51	56	59	51	41	46

Table H: Predicted construction noise levels **MEMORIAL AVENUE**

Receiver					Evening (OOHW)												Night (OOHW)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
7	7_027	38 Benalla Ave		Residential	55	77	78	83	84	80	72	77	80	72	68	73	39	77	78	83	84	80	72	77	80	72	68	73
7	7_028	40 Benalla Ave		Residential	55	78	79	84	85	81	73	78	81	73	66	71	39	78	79	84	85	81	73	78	81	73	66	71
7	7_029	42 Benalla Ave		Residential	55	80	81	86	87	83	75	80	83	75	64	69	39	80	81	86	87	83	75	80	83	75	64	69
7	7_030	44 Benalla Ave		Residential	55	69	70	75	76	72	64	69	72	64	63	68	39	69	70	75	76	72	64	69	72	64	63	68
7	7_031	46 Benalla Ave		Residential	55	68	69	74	75	71	63	68	71	63	58	63	39	68	69	74	75	71	63	68	71	63	58	63
7	7_032	48 Benalla Ave		Residential	55	64	65	70	71	67	59	64	67	59	52	57	39	64	65	70	71	67	59	64	67	59	52	57
7	7_033	50 Benalla Ave		Residential	55	62	63	68	69	65	57	62	65	57	53	58	39	62	63	68	69	65	57	62	65	57	53	58
7	7_034	Lot 1 Windsor Road		Residential	55	74	75	80	81	77	69	74	77	69	56	61	39	74	75	80	81	77	69	74	77	69	56	61
7	7_035	10 Hart Place		Residential	55	65	66	71	72	68	60	65	68	60	41	46	39	65	66	71	72	68	60	65	68	60	41	46
7	7_036	12 Hart Place		Residential	55	68	69	74	75	71	63	68	71	63	47	52	39	68	69	74	75	71	63	68	71	63	47	52
7	7_037	16 Hart Place		Residential	55	75	76	81	82	78	70	75	78	70	47	52	39	75	76	81	82	78	70	75	78	70	47	52
7	7_038	17 Hart Place		Residential	55	68	69	74	75	71	63	68	71	63	48	53	39	68	69	74	75	71	63	68	71	63	48	53
7	7_039	18 Hart Place		Residential	55	75	76	81	82	78	70	75	78	70	46	51	39	75	76	81	82	78	70	75	78	70	46	51
7	7_040	20 Hart Place		Residential	55	77	78	83	84	80	72	77	80	72	52	57	39	77	78	83	84	80	72	77	80	72	52	57
7	7_041	22 Hart Place		Residential	55	69	70	75	76	72	64	69	72	64	47	52	39	69	70	75	76	72	64	69	72	64	47	52
7	7_042	2 Wrights Road		Residential	55	73	74	79	80	76	68	73	76	68	47	52	39	73	74	79	80	76	68	73	76	68	47	52
7	7_043	4 Wrights Road		Residential	55	67	68	73	74	70	62	67	70	62	47	52	39	67	68	73	74	70	62	67	70	62	47	52
7	7_044	6 Wrights Road		Residential	55	63	64	69	70	66	58	63	66	58	44	49	39	63	64	69	70	66	58	63	66	58	44	49
7	7_046			Residential	55	60	61	66	67	63	55	60	63	55	48	53	39	60	61	66	67	63	55	60	63	55	48	53
7	7_047			Residential	55	60	61	66	67	63	55	60	63	55	48	53	39	60	61	66	67	63	55	60	63	55	48	53
7	7_048			Residential	55	60	61	66	67	63	55	60	63	55	48	53	39	60	61	66	67	63	55	60	63	55	48	53
7	7_049			Residential	55	60	61	66	67	63	55	60	63	55	49	54	39	60	61	66	67	63	55	60	63	55	49	54
7	7_050			Residential	55	60	61	66	67	63	55	60	63	55	49	54	39	60	61	66	67	63	55	60	63	55	49	54
7	7_051			Residential	55	60	61	66	67	63	55	60	63	55	50	55	39	60	61	66	67	63	55	60	63	55	50	55
7	7_052			Residential	55	49	50	55	56	52	44	49	52	44	42	47	39	49	50	55	56	52	44	49	52	44	42	47
7	7_053			Residential	55	48	49	54	55	51	43	48	51	43	43	48	39	48	49	54	55	51	43	48	51	43	43	48
7	7_054			Residential	55	55	56	61	62	58	50	55	58	50	44	49	39	55	56	61	62	58	50	55	58	50	44	49
7	7_055			Residential	55	50	51	56	57	53	45	50	53	45	45	50	39	50	51	56	57	53	45	50	53	45	45	50
7	7_056			Residential	55	50	51	56	57	53	45	50	53	45	47	52	39	50	51	56	57	53	45	50	53	45	47	52
7	7_057			Residential	55	58	59	64	65	61	53	58	61	53	47	52	39	58	59	64	65	61	53	58	61	53	47	52
7	7_058			Residential	55	53	54	59	60	56	48	53	56	48	48	53	39	53	54	59	60	56	48	53	56	48	48	53
7	7_059			Residential	55	45	46	51	52	48	40	45	48	40	38	43	39	45	46	51	52	48	40	45	48	40	38	43
7	7_062			Residential	55	52	53	58	59	55	47	52	55	47	48	53	39	52	53	58	59	55	47	52	55	47	48	53
7	7_063			Residential	55	52	53	58	59	55	47	52	55	47	48	53	39	52	53	58	59	55	47	52	55	47	48	53
7	7_064			Residential	55	52	53	58	59	55	47	52	55	47	43	48	39	52	53	58	59	55	47	52	55	47	43	48
7	7_065			Residential	55	-	34	39	-	36	-	-	36	-	-	-	39	-	34	39	-	36	-	-	36	-	-	-
7	7_066			Residential	55	50	51	56	57	53	45	50	53	45	44	49	39	50	51	56	57	53	45	50	53	45	44	49
7	7_067			Residential	55	48	49	54	55	51	43	48	51	43	44	49	39	48	49	54	55	51	43	48	51	43	44	49
7	7_068			Residential	55	53	54	59	60	56	48	53	56	48	41	46	39	53	54	59	60	56	48	53	56	48	41	46
7	7_069			Residential	55	54	55	60	61	57	49	54	57	49	50	55	39	54	55	60	61	57	49	54	57	49	50	55
7	7_070			Residential	55	54	55	60	61	57	49	54	57	49	50	55	39	54	55	60	61	57	49	54	57	49	50	55
7	7_071			Residential	55	54	55	60	61	57	49	54	57	49	50	55	39	54	55	60	61	57	49	54	57	49	50	55
7	7_072			Residential	55	54	55	60	61	57	49	54	57	49	50	55	39	54	55	60	61	57	49	54	57	49	50	55
7	7_073			Residential	55	54	55	60	61	57	49	54	57	49	48	53	39	54	55	60	61	57	49	54	57	49	48	53
7	7_074			Residential	55	54	55	60	61	57	49	54	57	49	48	53	39	54	55	60	61	57	49	54	57	49	48	53
7	7_075			Residential	55	54	55	60	61	57	49	54	57	49	50	55	39	54	55	60	61	57	49	54	57	49	50	55
7	7_076			Residential	55	50	51	56	57	53	45	50	53	45	45	50	39	50	51	56	57	53	45	50	53	45	45	50
7	7_077			Residential	55	47	48	53	54	50	42	47	50	42	45	50	39	47	48	53	54	50	42	47	50	42	45	50
7	7_078			Residential	55	48	49	54	55	51	43	48	51	43	43	48	39	48	49	54	55	51	43	48	51	43	43	48
7	7_079			Residential	55	52	53	58	59	55	47	52	55	47	46	51	39	52	53	58	59	55	47	52	55	47	46	51
7	7_080			Residential	55	52	53	58	59	55	47	52	55	47	46	51	39	52	53	58	59	55	47	52	55	47	46	51
7	7_081			Residential	55	52	53	58	59	55	47	52	55	47	47	52	39	52	53	58	59	55	47	52	55	47	47	52
7	7_082			Residential	55	52	53	58	59	55	47	52	55	47	47	52	39	52	53	58	59	55	47	52	55	47	47	52
7	7_083			Residential	55	50	51	56	57	53	45	50	53	45	44	49	39	50	51	56	57	53	45	50	53	45	44	49
7	7_084			Residential	55	47	48	53	54	50	42	47	50	42	45	50	39	47	48	53	54	50	42	47	50	42	45	50
7	7_085			Residential	55	46	47	52	53	49	41	46	49	41	44	49	39	46	47	52	53	49	41	46	49	41	44	49
7	7_086			Residential	55	48	49	54	55	51	43	48	51	43	43	48	39	48	49	54	55	51	43	48	51	43	43	48
7	7_087			Residential	55	59	60	65	66	62	54	59	62	54	51	56	39	59	60	65	66	62	54	59	62	54	51	56
7	7_088			Residential	55	61	62	67	68	64	56	61	64	56	44	49	39	61	62	67	68	64	56	61	64	56	44	49
7	7_089			Residential	55	60	61	66	67	63	55	60	63	55	47	52	39	60	61	66	67	63	55	60	63	55	47	52
7	7_090			Residential	55	53	54	59	60	56	48	53	56	48	51	56	39	53	54	59	60	56	48	53	56	48	51	56
7	7_091			Residential	55	54	55	60	61	57	49	54	57	49	48	53	39	54	55	60	61	57	49	54	57	49	48	53
7	7_092			Residential	55	55	56	61	62	58	50	55	58	50	43	48	39	55	56	61	62	58	50	55	58	50	43	48
7	7_093			Residential	55	56	57	62	63	59	51	56	59	51	41	46	39	56	57	62	63	59	51	56	59	51	41	46

Table H: Predicted construction noise levels

Receiver					Predicted noise levels, dB(A)											
					Day (Standard)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
7	7_094			Residential	65	57	58	63	64	60	52	57	60	52	45	50
7	7_095			Residential	65	59	60	65	66	62	54	59	62	54	46	51
7	7_096			Residential	65	61	62	67	68	64	56	61	64	56	54	59
7	7_097			Residential	65	61	62	67	68	64	56	61	64	56	46	51
7	7_098			Residential	65	61	62	67	68	64	56	61	64	56	45	50
7	7_099			Residential	65	60	61	66	67	63	55	60	63	55	42	47
7	7_100			Residential	65	59	60	65	66	62	54	59	62	54	49	54
7	7_101			Residential	65	52	53	58	59	55	47	52	55	47	48	53
7	7_102			Residential	65	55	56	61	62	58	50	55	58	50	44	49
7	7_103			Residential	65	52	53	58	59	55	47	52	55	47	47	52
7	7_104			Residential	65	53	54	59	60	56	48	53	56	48	47	52
7	7_105			Residential	65	54	55	60	61	57	49	54	57	49	47	52
7	7_106			Residential	65	59	60	65	66	62	54	59	62	54	43	48
7	7_107			Residential	65	52	53	58	59	55	47	52	55	47	47	52
7	7_108			Residential	65	63	64	69	70	66	58	63	66	58	49	54
7	7_109			Residential	65	61	62	67	68	64	56	61	64	56	50	55
7	7_110			Residential	65	60	61	66	67	63	55	60	63	55	43	48
7	7_111			Residential	65	59	60	65	66	62	54	59	62	54	47	52
7	7_112			Residential	65	52	53	58	59	55	47	52	55	47	43	48
7	7_113			Residential	65	57	58	63	64	60	52	57	60	52	37	42
7	7_114			Residential	65	57	58	63	64	60	52	57	60	52	43	48
7	7_115			Residential	65	57	58	63	64	60	52	57	60	52	35	40
7	7_116			Residential	65	59	60	65	66	62	54	59	62	54	47	52
7	7_117			Residential	65	61	62	67	68	64	56	61	64	56	46	51
7	7_118			Residential	65	60	61	66	67	63	55	60	63	55	40	45
7	7_119			Residential	65	63	64	69	70	66	58	63	66	58	49	54
7	7_120			Residential	65	63	64	69	70	66	58	63	66	58	47	52
7	7_121			Residential	65	61	62	67	68	64	56	61	64	56	44	49
7	7_122			Residential	65	60	61	66	67	63	55	60	63	55	45	50
7	7_123			Residential	65	58	59	64	65	61	53	58	61	53	44	49
7	7_124			Residential	65	57	58	63	64	60	52	57	60	52	34	39
7	7_125			Residential	65	57	58	63	64	60	52	57	60	52	-	36
7	7_126			Residential	65	57	58	63	64	60	52	57	60	52	37	42
7	7_127			Residential	65	60	61	66	67	63	55	60	63	55	41	46
7	7_128			Residential	65	62	63	68	69	65	57	62	65	57	46	51
8	8_010	36 Kentwell Crescent		Residential	59	54	55	60	61	57	49	54	57	49	38	43
8	8_014	43 Kentwell Crescent		Residential	59	59	60	65	66	62	54	59	62	54	42	47
8	8_015	49 Kentwell Crescent		Residential	59	66	67	72	73	69	61	66	69	61	44	49
8	8_016	45 Kentwell Crescent		Residential	59	63	64	69	70	66	58	63	66	58	42	47
8	8_017	47 Kentwell Crescent		Residential	59	67	68	73	74	70	62	67	70	62	43	48
8	8_018	51 Kentwell Crescent		Residential	59	66	67	72	73	69	61	66	69	61	42	47
8	8_019	53 Kentwell Crescent		Residential	59	63	64	69	70	66	58	63	66	58	37	42
8	8_020	55 Kentwell Crescent		Residential	59	63	64	69	70	66	58	63	66	58	40	45
8	8_022	6 Meldon Place		Residential	59	61	62	67	68	64	56	61	64	56	-	37
8	8_023	8 Meldon Place		Residential	59	61	62	67	68	64	56	61	64	56	42	47
8	8_024	9 Meldon Place		Residential	59	59	60	65	66	62	54	59	62	54	39	44
8	8_025	10 Meldon Place		Residential	59	61	62	67	68	64	56	61	64	56	44	49
8	8_026	11 Meldon Place		Residential	59	65	66	71	72	68	60	65	68	60	44	49
8	8_027	12 Meldon Place		Residential	59	61	62	67	68	64	56	61	64	56	38	43
8	8_028	13 Meldon Place		Residential	59	67	68	73	74	70	62	67	70	62	44	49
8	8_029	14 Meldon Place		Residential	59	64	65	70	71	67	59	64	67	59	47	52
8	8_030	15 Meldon Place		Residential	59	72	73	78	79	75	67	72	75	67	45	50
8	8_031	16 Meldon Place		Residential	59	65	66	71	72	68	60	65	68	60	48	53
8	8_032	17 Meldon Place		Residential	59	70	71	76	77	73	65	70	73	65	44	49
8	8_033	19 Meldon Place		Residential	59	73	74	79	80	76	68	73	76	68	45	50
8	8_034	21 Meldon Place		Residential	59	71	72	77	78	74	66	71	74	66	45	50
8	8_035	23 Meldon Place		Residential	59	69	70	75	76	72	64	69	72	64	45	50
8	8_036	25 Meldon Place		Residential	59	68	69	74	75	71	63	68	71	63	45	50
8	8_037	27 Meldon Place		Residential	59	71	72	77	78	74	66	71	74	66	48	53
8	8_038	29 Meldon Place		Residential	59	69	70	75	76	72	64	69	72	64	48	53
8	8_039	1 Carolyn Court	Post 2008 Development (Residence)	Residential	59	65	66	71	72	68	60	65	68	60	49	54
8	8_040	3 Carolyn Court	Post 2008 Development (Residence)	Residential	59	68	69	74	75	71	63	68	71	63	50	55
8	8_041	15 Carolyn Court		Residential	59	73	74	79	80	76	68	73	76	68	58	63
8	8_042	2 Jakob Way		Residential	59	62	63	68	69	65	57	62	65	57	49	54

Table H: Predicted construction noise levels **MEMORIAL AVENUE**

Receiver					Evening (OOHW)												Night (OOHW)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
7	7_094			Residential	55	57	58	63	64	60	52	57	60	52	45	50	39	57	58	63	64	60	52	57	60	52	45	50
7	7_095			Residential	55	59	60	65	66	62	54	59	62	54	46	51	39	59	60	65	66	62	54	59	62	54	46	51
7	7_096			Residential	55	61	62	67	68	64	56	61	64	56	54	59	39	61	62	67	68	64	56	61	64	56	54	59
7	7_097			Residential	55	61	62	67	68	64	56	61	64	56	46	51	39	61	62	67	68	64	56	61	64	56	46	51
7	7_098			Residential	55	61	62	67	68	64	56	61	64	56	45	50	39	61	62	67	68	64	56	61	64	56	45	50
7	7_099			Residential	55	60	61	66	67	63	55	60	63	55	42	47	39	60	61	66	67	63	55	60	63	55	42	47
7	7_100			Residential	55	59	60	65	66	62	54	59	62	54	49	54	39	59	60	65	66	62	54	59	62	54	49	54
7	7_101			Residential	55	52	53	58	59	55	47	52	55	47	48	53	39	52	53	58	59	55	47	52	55	47	48	53
7	7_102			Residential	55	55	56	61	62	58	50	55	58	50	44	49	39	55	56	61	62	58	50	55	58	50	44	49
7	7_103			Residential	55	52	53	58	59	55	47	52	55	47	47	52	39	52	53	58	59	55	47	52	55	47	47	52
7	7_104			Residential	55	53	54	59	60	56	48	53	56	48	47	52	39	53	54	59	60	56	48	53	56	48	47	52
7	7_105			Residential	55	54	55	60	61	57	49	54	57	49	47	52	39	54	55	60	61	57	49	54	57	49	47	52
7	7_106			Residential	55	59	60	65	66	62	54	59	62	54	43	48	39	59	60	65	66	62	54	59	62	54	43	48
7	7_107			Residential	55	52	53	58	59	55	47	52	55	47	47	52	39	52	53	58	59	55	47	52	55	47	47	52
7	7_108			Residential	55	63	64	69	70	66	58	63	66	58	49	54	39	63	64	69	70	66	58	63	66	58	49	54
7	7_109			Residential	55	61	62	67	68	64	56	61	64	56	50	55	39	61	62	67	68	64	56	61	64	56	50	55
7	7_110			Residential	55	60	61	66	67	63	55	60	63	55	43	48	39	60	61	66	67	63	55	60	63	55	43	48
7	7_111			Residential	55	59	60	65	66	62	54	59	62	54	47	52	39	59	60	65	66	62	54	59	62	54	47	52
7	7_112			Residential	55	52	53	58	59	55	47	52	55	47	43	48	39	52	53	58	59	55	47	52	55	47	43	48
7	7_113			Residential	55	57	58	63	64	60	52	57	60	52	37	42	39	57	58	63	64	60	52	57	60	52	37	42
7	7_114			Residential	55	57	58	63	64	60	52	57	60	52	43	48	39	57	58	63	64	60	52	57	60	52	43	48
7	7_115			Residential	55	57	58	63	64	60	52	57	60	52	35	40	39	57	58	63	64	60	52	57	60	52	35	40
7	7_116			Residential	55	59	60	65	66	62	54	59	62	54	47	52	39	59	60	65	66	62	54	59	62	54	47	52
7	7_117			Residential	55	61	62	67	68	64	56	61	64	56	46	51	39	61	62	67	68	64	56	61	64	56	46	51
7	7_118			Residential	55	60	61	66	67	63	55	60	63	55	40	45	39	60	61	66	67	63	55	60	63	55	40	45
7	7_119			Residential	55	63	64	69	70	66	58	63	66	58	49	54	39	63	64	69	70	66	58	63	66	58	49	54
7	7_120			Residential	55	63	64	69	70	66	58	63	66	58	47	52	39	63	64	69	70	66	58	63	66	58	47	52
7	7_121			Residential	55	61	62	67	68	64	56	61	64	56	44	49	39	61	62	67	68	64	56	61	64	56	44	49
7	7_122			Residential	55	60	61	66	67	63	55	60	63	55	45	50	39	60	61	66	67	63	55	60	63	55	45	50
7	7_123			Residential	55	58	59	64	65	61	53	58	61	53	44	49	39	58	59	64	65	61	53	58	61	53	44	49
7	7_124			Residential	55	57	58	63	64	60	52	57	60	52	34	39	39	57	58	63	64	60	52	57	60	52	34	39
7	7_125			Residential	55	57	58	63	64	60	52	57	60	52	-	36	39	57	58	63	64	60	52	57	60	52	-	36
7	7_126			Residential	55	57	58	63	64	60	52	57	60	52	37	42	39	57	58	63	64	60	52	57	60	52	37	42
7	7_127			Residential	55	60	61	66	67	63	55	60	63	55	41	46	39	60	61	66	67	63	55	60	63	55	41	46
7	7_128			Residential	55	62	63	68	69	65	57	62	65	57	46	51	39	62	63	68	69	65	57	62	65	57	46	51
8	8_010	36 Kentwell Crescent		Residential	53	54	55	60	61	57	49	54	57	49	38	43	43	54	55	60	61	57	49	54	57	49	38	43
8	8_014	43 Kentwell Crescent		Residential	53	59	60	65	66	62	54	59	62	54	42	47	43	59	60	65	66	62	54	59	62	54	42	47
8	8_015	49 Kentwell Crescent		Residential	53	66	67	72	73	69	61	66	69	61	44	49	43	66	67	72	73	69	61	66	69	61	44	49
8	8_016	45 Kentwell Crescent		Residential	53	63	64	69	70	66	58	63	66	58	42	47	43	63	64	69	70	66	58	63	66	58	42	47
8	8_017	47 Kentwell Crescent		Residential	53	67	68	73	74	70	62	67	70	62	43	48	43	67	68	73	74	70	62	67	70	62	43	48
8	8_018	51 Kentwell Crescent		Residential	53	66	67	72	73	69	61	66	69	61	42	47	43	66	67	72	73	69	61	66	69	61	42	47
8	8_019	53 Kentwell Crescent		Residential	53	63	64	69	70	66	58	63	66	58	37	42	43	63	64	69	70	66	58	63	66	58	37	42
8	8_020	55 Kentwell Crescent		Residential	53	63	64	69	70	66	58	63	66	58	40	45	43	63	64	69	70	66	58	63	66	58	40	45
8	8_022	6 Meldon Place		Residential	53	61	62	67	68	64	56	61	64	56	-	37	43	61	62	67	68	64	56	61	64	56	-	37
8	8_023	8 Meldon Place		Residential	53	61	62	67	68	64	56	61	64	56	42	47	43	61	62	67	68	64	56	61	64	56	42	47
8	8_024	9 Meldon Place		Residential	53	59	60	65	66	62	54	59	62	54	39	44	43	59	60	65	66	62	54	59	62	54	39	44
8	8_025	10 Meldon Place		Residential	53	61	62	67	68	64	56	61	64	56	44	49	43	61	62	67	68	64	56	61	64	56	44	49
8	8_026	11 Meldon Place		Residential	53	65	66	71	72	68	60	65	68	60	44	49	43	65	66	71	72	68	60	65	68	60	44	49
8	8_027	12 Meldon Place		Residential	53	61	62	67	68	64	56	61	64	56	38	43	43	61	62	67	68	64	56	61	64	56	38	43
8	8_028	13 Meldon Place		Residential	53	67	68	73	74	70	62	67	70	62	44	49	43	67	68	73	74	70	62	67	70	62	44	49
8	8_029	14 Meldon Place		Residential	53	64	65	70	71	67	59	64	67	59	47	52	43	64	65	70	71	67	59	64	67	59	47	52
8	8_030	15 Meldon Place		Residential	53	72	73	78	79	75	67	72	75	67	45	50	43	72	73	78	79	75	67	72	75	67	45	50
8	8_031	16 Meldon Place		Residential	53	65	66	71	72	68	60	65	68	60	48	53	43	65	66	71	72	68	60	65	68	60	48	53
8	8_032	17 Meldon Place		Residential	53	70	71	76	77	73	65	70	73	65	44	49	43	70	71	76	77	73	65	70	73	65	44	49
8	8_033	19 Meldon Place		Residential	53	73	74	79	80	76	68	73	76	68	45	50	43	73	74	79	80	76	68	73	76	68	45	50
8	8_034	21 Meldon Place		Residential	53	71	72	77	78	74	66	71	74	66	45	50	43	71	72	77	78	74	66	71	74	66	45	50
8	8_035	23 Meldon Place		Residential	53	69	70	75	76	72	64	69	72	64	45	50	43	69	70	75	76	72	64	69	72	64	45	50
8	8_036	25 Meldon Place		Residential	53	68	69	74	75	71	63	68	71	63	45	50	43	68	69	74	75	71	63	68	71	63	45	50
8	8_037	27 Meldon Place		Residential	53	71	72	77	78	74	66	71	74	66	48	53	43	71	72	77	78	74	66	71	74	66	48	53
8	8_038	29 Meldon Place		Residential	53	69	70	75	76	72	64	69	72	64	48	53	43	69	70	75	76	72	64	69	72	64	48	53
8	8_039	1 Carolyn Court	Post 2008 Development (Residence)	Residential	53	65	66	71	72	68	60	65	68	60	49	54	43	65	66	71	72	68	60	65	68	60	49	54
8	8_040	3 Carolyn Court	Post 2008 Development (Residence)	Residential	53	68	69	74	75	71	63	68	71	63	50	55	43	68	69	74	75	71	63	68	71	63	50	55
8	8_041	15 Carolyn Court		Residential	53	73	74	79	80	76	68	73	76	68	58	63	43	73	74	79	80	76	68	73	76	68	58	63
8	8_042	2 Jakob Way		Residential	53	62	63	68	69	65	57	62	65	57	49	54	43	62	63	68	69	65	57	62	65	57	49	54

Table H: Predicted construction noise levels

Receiver					Predicted noise levels, dB(A)											
					Day (Standard)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
8	8_043	3 Jakob Way		Residential	59	71	72	77	78	74	66	71	74	66	57	62
8	8_044	4 Jakob Way		Residential	59	64	65	70	71	67	59	64	67	59	51	56
8	8_045	5 Jakob Way		Residential	59	71	72	77	78	74	66	71	74	66	57	62
8	8_046	7 Jakob Way		Residential	59	71	72	77	78	74	66	71	74	66	57	62
8	8_047	3 Rory Court		Residential	59	65	66	71	72	68	60	65	68	60	53	58
8	8_048	4 Rory Court		Residential	59	65	66	71	72	68	60	65	68	60	53	58
8	8_049	6 Rory Court		Residential	59	69	70	75	76	72	64	69	72	64	57	62
8	8_050	8 Rory Court		Residential	59	72	73	78	79	75	67	72	75	67	58	63
8	8_051	10 Rory Court		Residential	59	74	75	80	81	77	69	74	77	69	59	64
8	8_052	12 Rory Court		Residential	59	73	74	79	80	76	68	73	76	68	58	63
8	8_054	8 Rothwell Circuit		Residential	59	64	65	70	71	67	59	64	67	59	52	57
8	8_055	10 Rothwell Circuit		Residential	59	73	74	79	80	76	68	73	76	68	58	63
8	8_056	12 Rothwell Circuit		Residential	59	77	78	83	84	80	72	77	80	72	59	64
8	8_057	14 Rothwell Circuit		Residential	59	70	71	76	77	73	65	70	73	65	57	62
8	8_058	16 Rothwell Circuit		Residential	59	70	71	76	77	73	65	70	73	65	57	62
8	8_059	16A Rothwell Circuit		Residential	59	76	77	82	83	79	71	76	79	71	59	64
8	8_060	18 Rothwell Circuit		Residential	59	67	68	73	74	70	62	67	70	62	55	60
8	8_061	18A Rothwell Circuit		Residential	59	75	76	81	82	78	70	75	78	70	59	64
8	8_062	20 Rothwell Circuit		Residential	59	68	69	74	75	71	63	68	71	63	53	58
8	8_063	22 Rothwell Circuit		Residential	59	75	76	81	82	78	70	75	78	70	59	64
8	8_064	24 Rothwell Circuit		Residential	59	73	74	79	80	76	68	73	76	68	58	63
8	8_065	26 Rothwell Circuit		Residential	59	68	69	74	75	71	63	68	71	63	55	60
OSR	3_001	15-17 Memorial Avenue (Front)	Post 2008 Development (Hills Clinic)	Hospital ward	65	78	79	84	85	81	73	78	81	73	45	50
OSR	3_002	15-17 Memorial Avenue (Rear)	Post 2008 Development (Hills Clinic)	Hospital ward	65	65	66	71	72	68	60	65	68	60	45	50
OSR	1_061b	7 Arnold Avenue	Gracelands Early Education Centre	Childcare Indoor Play	55	72	73	78	79	75	67	72	75	67	50	55
OSR	6_004	Memorial Avenue	Kellyville Cricket Club	Open Space (Active)	65	66	67	72	73	69	61	66	69	61	67	72
OSR	7_045b	3-5 President Road	Kellyville Preschool Kindergarten	Childcare Indoor Play	55	64	65	70	71	67	59	64	67	59	47	52
OSR	7_060	President Road	MET School	School Classroom	55	55	56	61	62	58	50	55	58	50	48	53
OSR	7_061	President Road	MET School Church	Places of worship	55	50	51	56	57	53	45	50	53	45	48	53
OSR	8_053b	6 Rothwell Circuit	Fit Kidz Day Care Centre	Childcare Indoor Play	55	64	65	70	71	67	59	64	67	59	51	56
OSR	NEW_135	43 Memorial Avenue	Industrial	Industrial	75	63	64	69	70	66	58	63	66	58	59	64
OSR	NEW_136	3 Windsor Road	Repco	Commercial	70	77	78	83	84	80	72	77	80	72	56	61
OSR	NEW_137	5 Windsor Road	Caltex	Commercial	70	82	83	88	89	85	77	82	85	77	61	66

Table H: Predicted construction noise levels **MEMORIAL AVENUE**

Receiver					Evening (OOHW)												Night (OOHW)											
NCA	NCA ID	Address	Description	Receiver type	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	NML	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
8	8_043	3 Jakob Way		Residential	53	71	72	77	78	74	66	71	74	66	57	62	43	71	72	77	78	74	66	71	74	66	57	62
8	8_044	4 Jakob Way		Residential	53	64	65	70	71	67	59	64	67	59	51	56	43	64	65	70	71	67	59	64	67	59	51	56
8	8_045	5 Jakob Way		Residential	53	71	72	77	78	74	66	71	74	66	57	62	43	71	72	77	78	74	66	71	74	66	57	62
8	8_046	7 Jakob Way		Residential	53	71	72	77	78	74	66	71	74	66	57	62	43	71	72	77	78	74	66	71	74	66	57	62
8	8_047	3 Rory Court		Residential	53	65	66	71	72	68	60	65	68	60	53	58	43	65	66	71	72	68	60	65	68	60	53	58
8	8_048	4 Rory Court		Residential	53	65	66	71	72	68	60	65	68	60	53	58	43	65	66	71	72	68	60	65	68	60	53	58
8	8_049	6 Rory Court		Residential	53	69	70	75	76	72	64	69	72	64	57	62	43	69	70	75	76	72	64	69	72	64	57	62
8	8_050	8 Rory Court		Residential	53	72	73	78	79	75	67	72	75	67	58	63	43	72	73	78	79	75	67	72	75	67	58	63
8	8_051	10 Rory Court		Residential	53	74	75	80	81	77	69	74	77	69	59	64	43	74	75	80	81	77	69	74	77	69	59	64
8	8_052	12 Rory Court		Residential	53	73	74	79	80	76	68	73	76	68	58	63	43	73	74	79	80	76	68	73	76	68	58	63
8	8_054	8 Rothwell Circuit		Residential	53	64	65	70	71	67	59	64	67	59	52	57	43	64	65	70	71	67	59	64	67	59	52	57
8	8_055	10 Rothwell Circuit		Residential	53	73	74	79	80	76	68	73	76	68	58	63	43	73	74	79	80	76	68	73	76	68	58	63
8	8_056	12 Rothwell Circuit		Residential	53	77	78	83	84	80	72	77	80	72	59	64	43	77	78	83	84	80	72	77	80	72	59	64
8	8_057	14 Rothwell Circuit		Residential	53	70	71	76	77	73	65	70	73	65	57	62	43	70	71	76	77	73	65	70	73	65	57	62
8	8_058	16 Rothwell Circuit		Residential	53	70	71	76	77	73	65	70	73	65	57	62	43	70	71	76	77	73	65	70	73	65	57	62
8	8_059	16A Rothwell Circuit		Residential	53	76	77	82	83	79	71	76	79	71	59	64	43	76	77	82	83	79	71	76	79	71	59	64
8	8_060	18 Rothwell Circuit		Residential	53	67	68	73	74	70	62	67	70	62	55	60	43	67	68	73	74	70	62	67	70	62	55	60
8	8_061	18A Rothwell Circuit		Residential	53	75	76	81	82	78	70	75	78	70	59	64	43	75	76	81	82	78	70	75	78	70	59	64
8	8_062	20 Rothwell Circuit		Residential	53	68	69	74	75	71	63	68	71	63	53	58	43	68	69	74	75	71	63	68	71	63	53	58
8	8_063	22 Rothwell Circuit		Residential	53	75	76	81	82	78	70	75	78	70	59	64	43	75	76	81	82	78	70	75	78	70	59	64
8	8_064	24 Rothwell Circuit		Residential	53	73	74	79	80	76	68	73	76	68	58	63	43	73	74	79	80	76	68	73	76	68	58	63
8	8_065	26 Rothwell Circuit		Residential	53	68	69	74	75	71	63	68	71	63	55	60	43	68	69	74	75	71	63	68	71	63	55	60
OSR	3_001	15-17 Memorial Avenue (Front)	Post 2008 Development (Hills Clinic)	Hospital ward	65	78	79	84	85	81	73	78	81	73	45	50	65	78	79	84	85	81	73	78	81	73	45	50
OSR	3_002	15-17 Memorial Avenue (Rear)	Post 2008 Development (Hills Clinic)	Hospital ward	65	65	66	71	72	68	60	65	68	60	45	50	65	65	66	71	72	68	60	65	68	60	45	50
OSR	1_061b	7 Arnold Avenue	Gracelands Early Education Centre	Childcare Indoor Play	55	72	73	78	79	75	67	72	75	67	50	55	55	72	73	78	79	75	67	72	75	67	50	55
OSR	6_004	Memorial Avenue	Kellyville Cricket Club	Open Space (Active)	65	66	67	72	73	69	61	66	69	61	67	72	65	66	67	72	73	69	61	66	69	61	67	72
OSR	7_045b	3-5 President Road	Kellyville Preschool Kindergarten	Childcare Indoor Play	55	64	65	70	71	67	59	64	67	59	47	52	55	64	65	70	71	67	59	64	67	59	47	52
OSR	7_060	President Road	MET School	School Classroom	55	55	56	61	62	58	50	55	58	50	48	53	55	55	56	61	62	58	50	55	58	50	48	53
OSR	7_061	President Road	MET School Church	Places of worship	55	50	51	56	57	53	45	50	53	45	48	53	55	50	51	56	57	53	45	50	53	45	48	53
OSR	8_053b	6 Rothwell Circuit	Fit Kidz Day Care Centre	Childcare Indoor Play	55	64	65	70	71	67	59	64	67	59	51	56	55	64	65	70	71	67	59	64	67	59	51	56
OSR	NEW_135	43 Memorial Avenue	Industrial	Industrial	75	63	64	69	70	66	58	63	66	58	59	64	75	63	64	69	70	66	58	63	66	58	59	64
OSR	NEW_136	3 Windsor Road	Repco	Commercial	70	77	78	83	84	80	72	77	80	72	56	61	70	77	78	83	84	80	72	77	80	72	56	61
OSR	NEW_137	5 Windsor Road	Caltex	Commercial	70	82	83	88	89	85	77	82	85	77	61	66	70	82	83	88	89	85	77	82	85	77	61	66

APPENDIX I Additional noise mitigation and consultation

In accordance with the RMS Construction Noise and Vibration Guideline, the figure below identifies the additional mitigation measures to be applied at (airborne) construction noise affected receivers when, after applying all feasible and reasonable mitigation measures, noise levels still exceed the NMLs. The legend below identifies the notations in the tables that follow.

When is the work being undertaken?	How much does the predicted noise level exceed the ANML by?	Identify additional management measures to be implemented	Additional mitigation measure code
All Hours	75 dB(A) or greater	V, N, PC, RO	AM2
Standard Hours M-F 7am to 6pm Sat 8am to 6pm	0 dB(A)	-	-
	≤ 10 dB(A)	-	-
	10 to 20 dB(A)	V, N	AM1
	> 20 dB(A)	V, N	AM1
OOHW Period 1 M-F 6pm to 10pm Sat 6pm to 10pm Sun/ PH 8am to 10pm	< 5 dB(A)	-	-
	5 to 15 dB(A)	N, R1, DR	AM3
	15 to 25 dB(A)	V, N, R1, DR	AM4
	> 25 dB(A)	V, N, SN, IB, PC, R1, DR	AM5
OOHW Period 2* M-F 10pm to 7am Sat 10pm to 8am Sun/ PH 6pm to 8am	< 5 dB(A)	N	AM6
	5 to 15 dB(A)	V, N, R2, DR	AM7
	15 to 25 dB(A)	V, N, SN, IB, PC, R2, DR	AM8
	> 25 dB(A)	AA, V, N, SN, IB, PC, R2, DR	AM9

Notes: Use the abbreviation codes in the table above to confirm management measures required

* Where OOHW occur in the evening/night shoulder period (10pm to 12am) or the night/morning shoulder period (5am to 7am) apply additional airborne mitigation measures from the OOHW Period 2, excluding AA.

N = Notification (should be issued a minimum of five working days prior to the start of works)

SN = Specific notifications (issued no later than seven calendar days ahead of construction activities)

IB = Individual briefing PC = Phone Call

AA = Alternative accommodation** RO = Project specific respite offer R1 = Respite period 1

V = Verification of predicted noise DR = Duration respite R2 = Respite period 2

** Where construction activity impacts receiver for more than two consecutive nights. AA is not applicable to shoulder periods.

Table I: Additional noise mitigation and receiver notifications

Receiver					Additional noise mitigation and receiver notifications										
					Day (Standard)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
1	1_002	41 Memorial Avenue		Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
1	1_003	2 Colonial Street	Post 2008 Development (Residence)	Residential											
1	1_004	4 Colonial Street	Post 2008 Development (Residence)	Residential											
1	1_005	10 Colonial Street	Post 2008 Development (Residence)	Residential											
1	1_006	1 Brunner Count	Post 2008 Development (Residence)	Residential											
1	1_007	2 Brunner Count	Post 2008 Development (Residence)	Residential											
1	1_008	3 Brunner Count	Post 2008 Development (Residence)	Residential											
1	1_009	4 Brunner Count	Post 2008 Development (Residence)	Residential											
1	1_010	5 Brunner Count	Post 2008 Development (Residence)	Residential											
1	1_011	6 Brunner Count	Post 2008 Development (Residence)	Residential											
1	1_012	7 Brunner Count	Post 2008 Development (Residence)	Residential											
1	1_013	8 Brunner Count	Post 2008 Development (Residence)	Residential											
1	1_014	9 Brunner Count	Post 2008 Development (Residence)	Residential											
1	1_015	10 Brunner Count	Post 2008 Development (Residence)	Residential											
1	1_016	11 Brunner Count	Post 2008 Development (Residence)	Residential											
1	1_017	12 Brunner Count	Post 2008 Development (Residence)	Residential											
1	1_018	13 Brunner Count	Post 2008 Development (Residence)	Residential											
1	1_019	14 Brunner Count	Post 2008 Development (Residence)	Residential				AM1							
1	1_020	15 Brunner Count	Post 2008 Development (Residence)	Residential											
1	1_021	16 Brunner Count	Post 2008 Development (Residence)	Residential			AM1	AM1							
1	1_022	17 Brunner Count	Post 2008 Development (Residence)	Residential											
1	1_023	18 Brunner Count	Post 2008 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
1	1_024	20 Brunner Count	Post 2008 Development (Residence)	Residential		AM1	AM1	AM2	AM1			AM1			
1	1_025	22 Brunner Count	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
1	1_026	24 Brunner Count	Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		
1	1_027	2 Arnold Avenue	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
1	1_028	4 Arnold Avenue	Post 2008 Development (Residence)	Residential		AM1	AM1	AM2	AM1			AM1			
1	1_029	6 Arnold Avenue	Post 2008 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
1	1_030	8 Arnold Avenue	Post 2008 Development (Residence)	Residential			AM1	AM1							
1	1_031	10 Arnold Avenue	Post 2008 Development (Residence)	Residential				AM1							
1	1_032	12 Arnold Avenue	Post 2008 Development (Residence)	Residential											
1	1_033	14 Arnold Avenue	Post 2008 Development (Residence)	Residential											
1	1_034	16 Arnold Avenue	Post 2008 Development (Residence)	Residential											
1	1_035	18 Arnold Avenue	Post 2008 Development (Residence)	Residential											
1	1_036	20 Arnold Avenue	Post 2008 Development (Residence)	Residential											
1	1_037	22 Arnold Avenue	Post 2008 Development (Residence)	Residential											
1	1_038	9 Arnold Avenue	Post 2008 Development (Residence)	Residential				AM1							
1	1_039	Arnold Avenue	Post 2008 Development (Residence)	Residential											
1	1_040	13 Arnold Avenue	Post 2008 Development (Residence)	Residential											
1	1_041	15 Arnold Avenue	Post 2008 Development (Residence)	Residential											
1	1_042	3 Half Penny Avenue	Post 2008 Development (Residence)	Residential											
1	1_043	5 Half Penny Avenue	Post 2008 Development (Residence)	Residential											
1	1_044	7 Half Penny Avenue	Post 2008 Development (Residence)	Residential											
1	1_045	9 Half Penny Avenue	Post 2008 Development (Residence)	Residential											
1	1_046	11 Half Penny Avenue	Post 2008 Development (Residence)	Residential											
1	1_047	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
1	1_048	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
1	1_049	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential				AM1							
1	1_050	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential											
1	1_051	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential											
1	1_052	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential											
1	1_053	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
1	1_054	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential			AM1	AM1							
1	1_055	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential											
1	1_056	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential											
1	1_057	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential											
1	1_058	3 John Hillas Avenue	Post 2008 Development (Residence)	Residential			AM1	AM1							
1	1_059	5 John Hillas Avenue	Post 2008 Development (Residence)	Residential			AM1	AM1							
1	1_060	6 John Hillas Avenue	Post 2008 Development (Residence)	Residential											
1	1_062	1 Half Penny Avenue	Post 2008 Development (Residence)	Residential											
1	1_063	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2	AM1	AM1	AM2	AM1		
1	1_064	4 JOHN HILLAS AVENUE	Post 2008 Development (Residence)	Residential											
1	1_065	7 John Hillas Avenue	Post 2008 Development (Residence)	Residential			AM1	AM1							
1	1_066	13 Half Penny Avenue	Post 2008 Development (Residence)	Residential											

Table I: Additional noise mitigation and receiver notifications **MEMORIAL AVENUE**

Receiver					Evening (OOHW)											Night (OOHW)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
1	1_002	41 Memorial Avenue		Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM3	AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM5	AM5
1	1_003	2 Colonial Street	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
1	1_004	4 Colonial Street	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM4	AM4
1	1_005	10 Colonial Street	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
1	1_006	1 Brunner Count	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
1	1_007	2 Brunner Count	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4
1	1_008	3 Brunner Count	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
1	1_009	4 Brunner Count	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4
1	1_010	5 Brunner Count	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
1	1_011	6 Brunner Count	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM4	AM4
1	1_012	7 Brunner Count	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
1	1_013	8 Brunner Count	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3			AM3	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM4	AM4
1	1_014	9 Brunner Count	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3			AM3	AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
1	1_015	10 Brunner Count	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3			AM3	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM4	AM5
1	1_016	11 Brunner Count	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3			AM3	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM4	AM5
1	1_017	12 Brunner Count	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3		AM3	AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4	AM4	AM5
1	1_018	13 Brunner Count	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3			AM3	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM4	AM5
1	1_019	14 Brunner Count	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3		AM3	AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM5
1	1_020	15 Brunner Count	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3			AM3	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM4	AM5
1	1_021	16 Brunner Count	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3		AM3	AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM5
1	1_022	17 Brunner Count	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3		AM3	AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4	AM4	AM5
1	1_023	18 Brunner Count	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3	AM5	N/A	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM5
1	1_024	20 Brunner Count	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
1	1_025	22 Brunner Count	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
1	1_026	24 Brunner Count	Post 2008 Development (Residence)	Residential	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM4	AM5
1	1_027	2 Arnold Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM4	AM5
1	1_028	4 Arnold Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM3	AM4
1	1_029	6 Arnold Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM3	AM4
1	1_030	8 Arnold Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM3	AM4
1	1_031	10 Arnold Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM3	AM4
1	1_032	12 Arnold Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4	AM3	AM4
1	1_033	14 Arnold Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4	AM4	AM4
1	1_034	16 Arnold Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
1	1_035	18 Arnold Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
1	1_036	20 Arnold Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
1	1_037	22 Arnold Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4
1	1_038	9 Arnold Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
1	1_039	Arnold Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4	AM4	AM4
1	1_040	13 Arnold Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM4	AM4
1	1_041	15 Arnold Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM4	AM4
1	1_042	3 Half Penny Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4		AM3
1	1_043	5 Half Penny Avenue	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4
1	1_044	7 Half Penny Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4
1	1_045	9 Half Penny Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
1	1_046	11 Half Penny Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
1	1_047	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM3	AM4
1	1_048	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM3	AM4
1	1_049	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
1	1_050	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4	AM3	AM4
1	1_051	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
1	1_052	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
1	1_053	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM4
1	1_054	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM3	AM4
1	1_055	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4	AM3	AM4
1	1_056	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
1	1_057	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
1	1_058	3 John Hillas Avenue	Post 2008 Development (Residence)	Residential	AM3	AM4	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		AM3
1	1_059	5 John Hillas Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		AM3
1	1_060	6 John Hillas Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
1	1_062	1 Half Penny Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3	AM4	AM4
1	1_063	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM4	AM4
1	1_064	4 JOHN HILLAS AVENUE	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4	AM3	AM4
1	1_065	7 John Hillas Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM3	AM4
1	1_066	13 Half Penny Avenue	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4

Table I: Additional noise mitigation and receiver notifications

Receiver					Additional noise mitigation and receiver notifications										
					Day (Standard)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
1	1_067	17 Half Penny Avenue	Post 2008 Development (Residence)	Residential											
1	1_068	14 John Hillas Avenue	Post 2008 Development (Residence)	Residential											
1	1_069	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
1	1_070	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
1	1_071	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
1	1_072	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
1	1_073	11A John Hillas Avenue	Post 2008 Development (Residence)	Residential				AM1							
1	1_074	10 John Hillas Avenue	Post 2008 Development (Residence)	Residential											
1	1_075	9 John Hillas Avenue	Post 2008 Development (Residence)	Residential				AM1							
1	1_076	11 John Hillas Avenue	Post 2008 Development (Residence)	Residential											
1	1_077	15 Half Penny Avenue	Post 2008 Development (Residence)	Residential											
1	NEW_001		2019 Development (Residence)	Residential											
1	NEW_002		2019 Development (Residence)	Residential											
2	2_002	32 Memorial Avenue		Residential											
2	2_003	40 Memorial Avenue		Residential										AM1	AM2
2	2_004	8 Free Settlers Dr	The Gracewood Community	Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		
2	2_005	8 Free Settlers Dr	The Gracewood Community	Residential											
2	2_006	8 Free Settlers Dr	The Gracewood Community	Residential											
2	2_007	8 Free Settlers Dr	The Gracewood Community	Residential											
2	2_008	8 Free Settlers Dr	The Gracewood Community	Residential											
2	NEW_079		2019 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2	AM1	AM1	AM2	AM1		
2	NEW_080		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
2	NEW_081		2019 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
2	NEW_082		2019 Development (Residence)	Residential			AM1	AM1							
2	NEW_083		2019 Development (Residence)	Residential			AM1	AM1							
2	NEW_084		2019 Development (Residence)	Residential											
2	NEW_085		2019 Development (Residence)	Residential											
2	NEW_086		2019 Development (Residence)	Residential											
2	NEW_087		2019 Development (Residence)	Residential											
2	NEW_088		2019 Development (Residence)	Residential											
2	NEW_089		2019 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
2	NEW_090		2019 Development (Residence)	Residential		AM1	AM1	AM2	AM1			AM1			
2	NEW_091		2019 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2	AM1	AM1	AM2	AM1		
2	NEW_092		2019 Development (Residence)	Residential			AM1	AM1							
2	NEW_093		2019 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
2	NEW_094		2019 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
2	NEW_095		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
2	NEW_096		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
2	NEW_097		2019 Development (Residence)	Residential			AM1	AM1							
2	NEW_098		2019 Development (Residence)	Residential			AM1	AM1							
2	NEW_099		2019 Development (Residence)	Residential				AM1							
2	NEW_100		2019 Development (Residence)	Residential											
2	NEW_101		2019 Development (Residence)	Residential											
2	NEW_102		2019 Development (Residence)	Residential											
2	NEW_103		2019 Development (Residence)	Residential											
2	NEW_104		2019 Development (Residence)	Residential											
2	NEW_105		2019 Development (Residence)	Residential											
2	NEW_106		2019 Development (Residence)	Residential											
2	NEW_107		2019 Development (Residence)	Residential											
2	NEW_108		2019 Development (Residence)	Residential											
2	NEW_109		2019 Development (Residence)	Residential											
2	NEW_110		2019 Development (Residence)	Residential											
2	NEW_111		2019 Development (Residence)	Residential				AM1							
2	NEW_112		2019 Development (Residence)	Residential			AM1	AM1							
2	NEW_113		2019 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
2	NEW_114		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
3	3_003	25 Memorial Avenue		Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
3	3_005	27 Memorial Avenue		Residential			AM2	AM2	AM1			AM1			
3	3_006	91 Memorial Avenue		Residential											
3	3_007	37 John Hillas Avenue		Residential											
3	3_008	39 John Hillas Avenue		Residential											
3	3_009	45 John Hillas Avenue		Residential											
3	3_014	49 Water Creek Boulevard		Residential											
3	3_015	30 Bruhn Circuit		Residential	AM1	AM2	AM2	AM2	AM2		AM1	AM2			

Table I: Additional noise mitigation and receiver notifications **MEMORIAL AVENUE**

Receiver					Evening (OOHW)											Night (OOHW)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
1	1_067	17 Half Penny Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		AM3
1	1_068	14 John Hillas Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		AM3
1	1_069	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM3	AM4
1	1_070	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM3	AM4
1	1_071	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM3	AM4
1	1_072	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM3	AM4
1	1_073	11A John Hillas Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		AM3
1	1_074	10 John Hillas Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
1	1_075	9 John Hillas Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		AM3
1	1_076	11 John Hillas Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		AM3
1	1_077	15 Half Penny Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
1	NEW_001		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
1	NEW_002		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
2	2_002	32 Memorial Avenue		Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM4	AM3	AM4
2	2_003	40 Memorial Avenue		Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3	AM4	AM5	AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4	N/A	N/A
2	2_004	8 Free Settlers Dr	The Gracewood Community	Residential	AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4		AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM4	AM4
2	2_005	8 Free Settlers Dr	The Gracewood Community	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3			AM3	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM4	AM5
2	2_006	8 Free Settlers Dr	The Gracewood Community	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM4	AM4
2	2_007	8 Free Settlers Dr	The Gracewood Community	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM4	AM4
2	2_008	8 Free Settlers Dr	The Gracewood Community	Residential			AM3	AM3	AM3			AM3			AM3	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM4	AM5
2	NEW_079		2019 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
2	NEW_080		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
2	NEW_081		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM3	AM4
2	NEW_082		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM3	AM4
2	NEW_083		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM3	AM4
2	NEW_084		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4	AM3	AM4
2	NEW_085		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4	AM3	AM4
2	NEW_086		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
2	NEW_087		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
2	NEW_088		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
2	NEW_089		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5		AM3
2	NEW_090		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		AM3
2	NEW_091		2019 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
2	NEW_092		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM3	AM4
2	NEW_093		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5		AM3
2	NEW_094		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		AM3
2	NEW_095		2019 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		AM3
2	NEW_096		2019 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		AM3
2	NEW_097		2019 Development (Residence)	Residential	AM3	AM4	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		AM3
2	NEW_098		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		AM3
2	NEW_099		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		AM3
2	NEW_100		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4	AM3	AM4
2	NEW_101		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
2	NEW_102		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4
2	NEW_103		2019 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4
2	NEW_104		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4
2	NEW_105		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		AM3
2	NEW_106		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		AM3
2	NEW_107		2019 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		AM3
2	NEW_108		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
2	NEW_109		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4		AM3
2	NEW_110		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		AM3
2	NEW_111		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		AM3
2	NEW_112		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		AM3
2	NEW_113		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5		AM3
2	NEW_114		2019 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		AM3
3	3_003	25 Memorial Avenue		Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	3_005	27 Memorial Avenue		Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5		
3	3_006	91 Memorial Avenue		Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		
3	3_007	37 John Hillas Avenue		Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4		
3	3_008	39 John Hillas Avenue		Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4		
3	3_009	45 John Hillas Avenue		Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4		
3	3_014	49 Water Creek Boulevard		Residential														AM3	AM3							
3	3_015	30 Bruhn Circuit		Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		

Table I: Additional noise mitigation and receiver notifications

Receiver					Additional noise mitigation and receiver notifications										
					Day (Standard)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
3	3_016	32 Bruhn Circuit		Residential	AM1	AM2	AM2	AM2	AM2		AM1	AM2			
3	3_017	12 Butler Avenue		Residential											
3	3_018	13 Butler Avenue		Residential											
3	3_019	14 Butler Avenue		Residential											
3	3_010	48 John Hillas Avenue		Residential											
3	3_011	39 Water Creek Boulevard		Residential											
3	3_012	43 Water Creek Boulevard		Residential											
3	3_013	47 Water Creek Boulevard		Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
3	NEW_003		2019 Development (Residence)	Residential											
3	NEW_004		2019 Development (Residence)	Residential											
3	NEW_005		2019 Development (Residence)	Residential											
3	NEW_006		2019 Development (Residence)	Residential											
3	NEW_007		2019 Development (Residence)	Residential											
3	NEW_008		2019 Development (Residence)	Residential											
3	NEW_009		2019 Development (Residence)	Residential											
3	NEW_010		2019 Development (Residence)	Residential											
3	NEW_011		2019 Development (Residence)	Residential											
3	NEW_012		2019 Development (Residence)	Residential											
3	NEW_013		2019 Development (Residence)	Residential											
3	NEW_014		2019 Development (Residence)	Residential											
3	NEW_015		2019 Development (Residence)	Residential											
3	NEW_016		2019 Development (Residence)	Residential											
3	NEW_017		2019 Development (Residence)	Residential											
3	NEW_018		2019 Development (Residence)	Residential											
3	NEW_019		2019 Development (Residence)	Residential											
3	NEW_020		2019 Development (Residence)	Residential											
3	NEW_021		2019 Development (Residence)	Residential											
3	NEW_022		2019 Development (Residence)	Residential											
3	NEW_023		2019 Development (Residence)	Residential											
3	NEW_024		2019 Development (Residence)	Residential											
3	NEW_025		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
3	NEW_026		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
3	NEW_027		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
3	NEW_028		2019 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2		AM1	AM2			
3	NEW_029		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
3	NEW_030		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
3	NEW_031		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
3	NEW_032		2019 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2		AM1	AM2			
3	NEW_033		2019 Development (Residence)	Residential											
3	NEW_034		2019 Development (Residence)	Residential											
3	NEW_035		2019 Development (Residence)	Residential											
3	NEW_036		2019 Development (Residence)	Residential											
3	NEW_037		2019 Development (Residence)	Residential											
3	NEW_038		2019 Development (Residence)	Residential											
3	NEW_039		2019 Development (Residence)	Residential											
3	NEW_040		2019 Development (Residence)	Residential											
3	NEW_041		2019 Development (Residence)	Residential											
3	NEW_042		2019 Development (Residence)	Residential											
3	NEW_043		2019 Development (Residence)	Residential											
3	NEW_044		2019 Development (Residence)	Residential											
3	NEW_045		2019 Development (Residence)	Residential											
3	NEW_046		2019 Development (Residence)	Residential											
3	NEW_047		2019 Development (Residence)	Residential											
3	NEW_048		2019 Development (Residence)	Residential											
3	NEW_049		2019 Development (Residence)	Residential											
3	NEW_050		2019 Development (Residence)	Residential											
3	NEW_051		2019 Development (Residence)	Residential											
3	NEW_052		2019 Development (Residence)	Residential		AM1	AM2	AM2	AM2			AM2			
3	NEW_053		2019 Development (Residence)	Residential											
3	NEW_054		2019 Development (Residence)	Residential											
3	NEW_055		2019 Development (Residence)	Residential											
3	NEW_056		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
3	NEW_057		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
3	NEW_058		2019 Development (Residence)	Residential											

Table I: Additional noise mitigation and receiver notifications **MEMORIAL AVENUE**

Receiver					Evening (OOHW)											Night (OOHW)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
3	3_016	32 Bruhn Circuit		Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	3_017	12 Butler Avenue		Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
3	3_018	13 Butler Avenue		Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		
3	3_019	14 Butler Avenue		Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
3	3_010	48 John Hillas Avenue		Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
3	3_011	39 Water Creek Boulevard		Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
3	3_012	43 Water Creek Boulevard		Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
3	3_013	47 Water Creek Boulevard		Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	NEW_003		2019 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
3	NEW_004		2019 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		
3	NEW_005		2019 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
3	NEW_006		2019 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
3	NEW_007		2019 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
3	NEW_008		2019 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
3	NEW_009		2019 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
3	NEW_010		2019 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
3	NEW_011		2019 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_012		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_013		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_014		2019 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_015		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_016		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_017		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
3	NEW_018		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
3	NEW_019		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
3	NEW_020		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		
3	NEW_021		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		
3	NEW_022		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
3	NEW_023		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
3	NEW_024		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
3	NEW_025		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	NEW_026		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	NEW_027		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	NEW_028		2019 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	NEW_029		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	NEW_030		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	NEW_031		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM3	
3	NEW_032		2019 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM3	
3	NEW_033		2019 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
3	NEW_034		2019 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
3	NEW_035		2019 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
3	NEW_036		2019 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
3	NEW_037		2019 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
3	NEW_038		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
3	NEW_039		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_040		2019 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_041		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_042		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_043		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
3	NEW_044		2019 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		
3	NEW_045		2019 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		
3	NEW_046		2019 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
3	NEW_047		2019 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
3	NEW_048		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
3	NEW_049		2019 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
3	NEW_050		2019 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
3	NEW_051		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
3	NEW_052		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	NEW_053		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_054		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
3	NEW_055		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4		
3	NEW_056		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	NEW_057		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	NEW_058		2019 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		

Table I: Additional noise mitigation and receiver notifications

Receiver					Additional noise mitigation and receiver notifications										
					Day (Standard)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
3	NEW_059		2019 Development (Residence)	Residential											
3	NEW_060		2019 Development (Residence)	Residential											
3	NEW_061		2019 Development (Residence)	Residential											
3	NEW_062		2019 Development (Residence)	Residential				AM1							
3	NEW_063		2019 Development (Residence)	Residential			AM2	AM2							
3	NEW_064		2019 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		
3	NEW_065		2019 Development (Residence)	Residential		AM1	AM2	AM2	AM2			AM2			
3	NEW_066		2019 Development (Residence)	Residential				AM1							
3	NEW_067		2019 Development (Residence)	Residential											
3	NEW_068		2019 Development (Residence)	Residential											
3	NEW_069		2019 Development (Residence)	Residential											
3	NEW_070		2019 Development (Residence)	Residential											
3	NEW_071		2019 Development (Residence)	Residential											
3	NEW_072		2019 Development (Residence)	Residential											
3	NEW_073		2019 Development (Residence)	Residential			AM1	AM1							
3	NEW_074		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
3	NEW_075		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
3	NEW_076		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
3	NEW_077		2019 Development (Residence)	Residential											
3	NEW_078		2019 Development (Residence)	Residential											
4	4_001	2 Rocks Street	Post 2008 Development (Residence)	Residential			AM2	AM2							
4	4_002	4 Rocks Street	Post 2008 Development (Residence)	Residential			AM1	AM1							
4	4_003	6 Rocks Street	Post 2008 Development (Residence)	Residential											
4	4_004	8 Rocks Street	Post 2008 Development (Residence)	Residential											
4	4_005	10 Rocks Street	Post 2008 Development (Residence)	Residential											
4	4_006	12 Rocks Street	Post 2008 Development (Residence)	Residential											
4	4_007	14 Rocks Street	Post 2008 Development (Residence)	Residential											
4	4_008	2 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_009	4 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_010	6 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_011	8 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_012	10 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_013	12 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_014	14 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_015	16 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_016	18 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_017	20 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_018	22 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_019	24 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_020	26 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_021	28 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_022	30 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_023	32 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_024	34 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_025	36 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_026	38 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_027	40 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_028	42 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_029	44 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_030	46 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_031	48 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_032	50 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_033	52 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_034	54 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
4	4_035	56 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
4	4_036	58 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
4	4_037	60 Rutherford Avenue	Post 2008 Development (Residence)	Residential		AM1	AM2	AM2	AM2			AM2			
4	4_038	62 Rutherford Avenue	Post 2008 Development (Residence)	Residential		AM1	AM2	AM2	AM2			AM2			
4	4_039	64 Rutherford Avenue	Post 2008 Development (Residence)	Residential		AM1	AM2	AM2	AM2			AM2			
4	4_040	66 Rutherford Avenue	Post 2008 Development (Residence)	Residential		AM1	AM2	AM2	AM2			AM2			
4	4_041	68 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM2	AM2	AM1			AM1			
4	4_042	70 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM2	AM2	AM1			AM1			
4	4_043	72 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM2	AM2	AM1			AM1			
4	4_044	74 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM2	AM2	AM1			AM1			

Table I: Additional noise mitigation and receiver notifications **MEMORIAL AVENUE**

Receiver					Evening (OOHW)											Night (OOHW)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
3	NEW_059		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_060		2019 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_061		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
3	NEW_062		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		
3	NEW_063		2019 Development (Residence)	Residential	AM3	AM4	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		
3	NEW_064		2019 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
3	NEW_065		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	NEW_066		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		
3	NEW_067		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
3	NEW_068		2019 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_069		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
3	NEW_070		2019 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
3	NEW_071		2019 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_072		2019 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_073		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		
3	NEW_074		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	NEW_075		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	NEW_076		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
3	NEW_077		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
3	NEW_078		2019 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_001	2 Rocks Street	Post 2008 Development (Residence)	Residential	AM3	AM4	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		
4	4_002	4 Rocks Street	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		
4	4_003	6 Rocks Street	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_004	8 Rocks Street	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_005	10 Rocks Street	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_006	12 Rocks Street	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_007	14 Rocks Street	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_008	2 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_009	4 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_010	6 Rutherford Avenue	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM3		AM3	AM3			
4	4_011	8 Rutherford Avenue	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM3		AM3	AM3			
4	4_012	10 Rutherford Avenue	Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_013	12 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_014	14 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_015	16 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_016	18 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_017	20 Rutherford Avenue	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM3		AM3	AM3			
4	4_018	22 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_019	24 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_020	26 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_021	28 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_022	30 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_023	32 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_024	34 Rutherford Avenue	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_025	36 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_026	38 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_027	40 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_028	42 Rutherford Avenue	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_029	44 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_030	46 Rutherford Avenue	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_031	48 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_032	50 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_033	52 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_034	54 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_035	56 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_036	58 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_037	60 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_038	62 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_039	64 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_040	66 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_041	68 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_042	70 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_043	72 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_044	74 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		

Table I: Additional noise mitigation and receiver notifications

Receiver					Additional noise mitigation and receiver notifications										
					Day (Standard)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_045	76 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
4	4_046	78 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
4	4_047	80 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
4	4_048	82 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM1	AM2							
4	4_049	84 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM1	AM2							
4	4_050	86 Rutherford Avenue	Post 2008 Development (Residence)	Residential				AM1							
4	4_051	88 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_052	90 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_053	92 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_054	94 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_055	96 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_056	98 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_057	100 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_058	102 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_059	104 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_060	106 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_061	108 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_062	110 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_063	112 Rutherford Avenue	Post 2008 Development (Residence)	Residential											
4	4_064	114 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2		AM1	AM2			
4	4_065	116 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2		AM1	AM2			
4	4_066	118 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2		AM1	AM2			
4	4_067	120 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2		AM1	AM2			
4	4_068	122 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
4	4_069	124 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
4	4_070	126 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
4	4_071	23 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential											
4	4_072	25 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential											
4	4_073	27 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential											
4	4_074	29 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential											
4	4_075	31 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential											
4	4_076	33 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential											
4	4_077	35 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential											
4	4_078	37 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential											
4	4_079	39 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential											
4	4_080	41 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential											
4	4_081	43 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential				AM1							
4	4_082	45 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential			AM1	AM1							
4	4_083	47 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential			AM2	AM2							
4	4_084	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_085	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_086	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_087	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_088	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_089	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_090	Grace Crescent	Post 2008 Development (Residence)	Residential			AM1	AM1							
4	4_091	Grace Crescent	Post 2008 Development (Residence)	Residential			AM1	AM2							
4	4_092	Grace Crescent	Post 2008 Development (Residence)	Residential			AM2	AM2							
4	4_093	Grace Crescent	Post 2008 Development (Residence)	Residential			AM2	AM2	AM1			AM1			
4	4_094	Grace Crescent	Post 2008 Development (Residence)	Residential		AM1	AM2	AM2	AM2			AM2			
4	4_095	Grace Crescent	Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
4	4_096	Grace Crescent	Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
4	4_097	Grace Crescent	Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
4	4_098	Grace Crescent	Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
4	4_099	Grace Crescent	Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
4	4_100	Grace Crescent	Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
4	4_101	Grace Crescent	Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
4	4_102	Grace Crescent	Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
4	4_103	Grace Crescent	Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
4	4_104	Grace Crescent	Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
4	4_105	Grace Crescent	Post 2008 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2		AM1	AM2			
4	4_106	Grace Crescent	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
4	4_107	Grace Crescent	Post 2008 Development (Residence)	Residential		AM1	AM2	AM2	AM2			AM2			
4	4_108	Grace Crescent	Post 2008 Development (Residence)	Residential		AM1	AM2	AM2	AM2			AM2			

Table I: Additional noise mitigation and receiver notifications **MEMORIAL AVENUE**

Receiver					Evening (OOHW)											Night (OOHW)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_045	76 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_046	78 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_047	80 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_048	82 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		
4	4_049	84 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		
4	4_050	86 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		
4	4_051	88 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_052	90 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_053	92 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_054	94 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_055	96 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_056	98 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_057	100 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_058	102 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_059	104 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_060	106 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_061	108 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_062	110 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_063	112 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_064	114 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_065	116 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_066	118 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_067	120 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_068	122 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_069	124 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_070	126 Rutherford Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_071	23 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_072	25 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_073	27 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_074	29 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_075	31 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_076	33 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_077	35 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_078	37 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_079	39 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_080	41 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_081	43 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		
4	4_082	45 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		
4	4_083	47 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	AM3	AM4	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		
4	4_084	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
4	4_085	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
4	4_086	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
4	4_087	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
4	4_088	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4		AM3
4	4_089	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		AM3
4	4_090	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		AM3
4	4_091	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		AM3
4	4_092	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM4	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM3	AM4
4	4_093	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM3	AM4
4	4_094	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM3	AM4
4	4_095	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM3	AM4
4	4_096	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		AM3
4	4_097	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		AM3
4	4_098	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		AM3
4	4_099	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		AM3
4	4_100	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		AM3
4	4_101	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		AM3
4	4_102	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		AM3
4	4_103	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		AM3
4	4_104	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		AM3
4	4_105	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		AM3
4	4_106	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_107	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_108	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		AM3

Table I: Additional noise mitigation and receiver notifications

Receiver					Additional noise mitigation and receiver notifications										
					Day (Standard)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_109	Grace Crescent	Post 2008 Development (Residence)	Residential			AM2	AM2	AM1			AM1			
4	4_110	Grace Crescent	Post 2008 Development (Residence)	Residential			AM2	AM2	AM1			AM1			
4	4_111	Grace Crescent	Post 2008 Development (Residence)	Residential			AM2	AM2							
4	4_112	Grace Crescent	Post 2008 Development (Residence)	Residential			AM2	AM2							
4	4_113	Grace Crescent	Post 2008 Development (Residence)	Residential				AM1							
4	4_114	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_115	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_116	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_117	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_118	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_119	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_120	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_121	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_122	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_123	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_124	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_125	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_126	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_127	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_128	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_129	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_130	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_131	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_132	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_133	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_134	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_135	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_136	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_137	Grace Crescent	Post 2008 Development (Residence)	Residential				AM1							
4	4_138	Grace Crescent	Post 2008 Development (Residence)	Residential				AM1							
4	4_139	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_140	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_141	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_142	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_143	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_144	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_145	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_146	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_147	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_148	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_149	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_150	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_151	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_152	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_153	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_154	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_155	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_156	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_157	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_158	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_159	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_160	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_161	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_162	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_163	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_164	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_165	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_166	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_167	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_168	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_169	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_170	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_171	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_172	Grace Crescent	Post 2008 Development (Residence)	Residential											

Table I: Additional noise mitigation and receiver notifications **MEMORIAL AVENUE**

Receiver					Evening (OOHW)											Night (OOHW)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_109	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		AM3
4	4_110	Grace Crescent	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5		
4	4_111	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM4	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		
4	4_112	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM4	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		
4	4_113	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		
4	4_114	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_115	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_116	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_117	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_118	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_119	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_120	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_121	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_122	Grace Crescent	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_123	Grace Crescent	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_124	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_125	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_126	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_127	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_128	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_129	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_130	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_131	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_132	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_133	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_134	Grace Crescent	Post 2008 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_135	Grace Crescent	Post 2008 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_136	Grace Crescent	Post 2008 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_137	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		
4	4_138	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		
4	4_139	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_140	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_141	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_142	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM4	AM4	AM4	AM4		AM3	AM4			
4	4_143	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_144	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_145	Grace Crescent	Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_146	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_147	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_148	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_149	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_150	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_151	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_152	Grace Crescent	Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_153	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_154	Grace Crescent	Post 2008 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_155	Grace Crescent	Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_156	Grace Crescent	Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_157	Grace Crescent	Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_158	Grace Crescent	Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_159	Grace Crescent	Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_160	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM4	AM4	AM4	AM4		AM3	AM4			
4	4_161	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM3		AM3	AM3			
4	4_162	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM4	AM4	AM4	AM4		AM3	AM4			
4	4_163	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM4	AM4	AM4	AM4		AM3	AM4			
4	4_164	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM4	AM4	AM4	AM4		AM3	AM4			
4	4_165	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM4	AM4	AM4	AM4		AM3	AM4			
4	4_166	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM4	AM4	AM4	AM4		AM3	AM4			
4	4_167	Grace Crescent	Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_168	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
4	4_169	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM4	AM4	AM4	AM4		AM3	AM4			
4	4_170	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_171	Grace Crescent	Post 2008 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_172	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		

Table I: Additional noise mitigation and receiver notifications

Receiver					Additional noise mitigation and receiver notifications										
					Day (Standard)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_173	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_174	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_175	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_176	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_177	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_178	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_179	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_180	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_181	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_182	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_183	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_184	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_185	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_186	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_187	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_188	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_189	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_190	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_191	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_192	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_193	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_194	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_195	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_196	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_197	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_198	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_199	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_200	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_201	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_202	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_203	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_204	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_205	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_206	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_207	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_208	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_209	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_210	Grace Crescent	Post 2008 Development (Residence)	Residential											
4	4_211		Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
4	4_212		Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
4	4_213		Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
4	4_214		Post 2008 Development (Residence)	Residential		AM1	AM2	AM2	AM2			AM2			
4	4_215		Post 2008 Development (Residence)	Residential			AM1	AM2							
4	4_216		Post 2008 Development (Residence)	Residential				AM1							
4	4_217		Post 2008 Development (Residence)	Residential											
4	4_218		Post 2008 Development (Residence)	Residential											
4	4_219		Post 2008 Development (Residence)	Residential											
4	4_220		Post 2008 Development (Residence)	Residential											
4	4_221		Post 2008 Development (Residence)	Residential											
4	4_222		Post 2008 Development (Residence)	Residential											
4	4_223		Post 2008 Development (Residence)	Residential											
4	4_224		Post 2008 Development (Residence)	Residential											
4	4_225		Post 2008 Development (Residence)	Residential											
4	4_226		Post 2008 Development (Residence)	Residential											
4	4_227		Post 2008 Development (Residence)	Residential											
4	4_228		Post 2008 Development (Residence)	Residential											
4	4_229		Post 2008 Development (Residence)	Residential											
4	4_230		Post 2008 Development (Residence)	Residential											
4	4_231		Post 2008 Development (Residence)	Residential											
4	4_232		Post 2008 Development (Residence)	Residential											
4	4_233		Post 2008 Development (Residence)	Residential											
4	4_234		Post 2008 Development (Residence)	Residential											
4	4_235		Post 2008 Development (Residence)	Residential											
4	4_236		Post 2008 Development (Residence)	Residential											

Table I: Additional noise mitigation and receiver notifications **MEMORIAL AVENUE**

Receiver					Evening (OOHW)											Night (OOHW)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_173	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_174	Grace Crescent	Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_175	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_176	Grace Crescent	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_177	Grace Crescent	Post 2008 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_178	Grace Crescent	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_179	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
4	4_180	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM4	AM4	AM4	AM4		AM3	AM4			
4	4_181	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM4	AM4	AM4	AM4		AM3	AM4			
4	4_182	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
4	4_183	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
4	4_184	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
4	4_185	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
4	4_186	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
4	4_187	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
4	4_188	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
4	4_189	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
4	4_190	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
4	4_191	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
4	4_192	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM4	AM4	AM4	AM4		AM3	AM4			
4	4_193	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM4	AM4	AM4	AM4		AM3	AM4			
4	4_194	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
4	4_195	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
4	4_196	Grace Crescent	Post 2008 Development (Residence)	Residential												AM3	AM4	AM4	AM4	AM4		AM3	AM4			
4	4_197	Grace Crescent	Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3
4	4_198	Grace Crescent	Post 2008 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_199	Grace Crescent	Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_200	Grace Crescent	Post 2008 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3
4	4_201	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		AM3
4	4_202	Grace Crescent	Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_203	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		AM3
4	4_204	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		AM3
4	4_205	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		AM3
4	4_206	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_207	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		AM3
4	4_208	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		AM3
4	4_209	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		AM3
4	4_210	Grace Crescent	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		AM3
4	4_211		Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_212		Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_213		Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_214		Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		
4	4_215		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		
4	4_216		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		
4	4_217		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_218		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_219		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_220		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_221		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_222		Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_223		Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_224		Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_225		Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_226		Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_227		Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_228		Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_229		Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
4	4_230		Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_231		Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_232		Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_233		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
4	4_234		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_235		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
4	4_236		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		

Table I: Additional noise mitigation and receiver notifications

Receiver					Additional noise mitigation and receiver notifications										
					Day (Standard)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_237		Post 2008 Development (Residence)	Residential											
4	4_238		Post 2008 Development (Residence)	Residential				AM1							
4	4_239		Post 2008 Development (Residence)	Residential			AM1	AM2							
4	4_240		Post 2008 Development (Residence)	Residential											
4	4_241		Post 2008 Development (Residence)	Residential											
4	4_242		Post 2008 Development (Residence)	Residential											
4	4_243		Post 2008 Development (Residence)	Residential											
4	4_244		Post 2008 Development (Residence)	Residential											
4	4_245		Post 2008 Development (Residence)	Residential											
4	4_246		Post 2008 Development (Residence)	Residential											
4	4_247		Post 2008 Development (Residence)	Residential											
4	4_248		Post 2008 Development (Residence)	Residential											
4	4_249		Post 2008 Development (Residence)	Residential											
4	4_250		Post 2008 Development (Residence)	Residential											
4	4_251		Post 2008 Development (Residence)	Residential											
4	4_252		Post 2008 Development (Residence)	Residential											
4	4_253		Post 2008 Development (Residence)	Residential											
4	4_254		Post 2008 Development (Residence)	Residential											
4	4_255		Post 2008 Development (Residence)	Residential											
4	4_256		Post 2008 Development (Residence)	Residential											
4	4_257		Post 2008 Development (Residence)	Residential											
4	4_258		Post 2008 Development (Residence)	Residential											
5	5_001	75 Hartigan Avenue	Post 2008 Development (Residence)	Residential											
5	5_002	77 Hartigan Avenue	Post 2008 Development (Residence)	Residential											
5	5_003	79 Hartigan Avenue	Post 2008 Development (Residence)	Residential											
5	5_004	81 Hartigan Avenue	Post 2008 Development (Residence)	Residential											
5	5_005	83 Hartigan Avenue	Post 2008 Development (Residence)	Residential											
5	5_006	85 Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM1	AM1							
5	5_007	87 Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
5	5_008	89 Hartigan Avenue	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
5	5_009	Hartigan Avenue	Post 2008 Development (Residence)	Residential											
5	5_010	Hartigan Avenue	Post 2008 Development (Residence)	Residential											
5	5_011	Hartigan Avenue	Post 2008 Development (Residence)	Residential											
5	5_012	Hartigan Avenue	Post 2008 Development (Residence)	Residential											
5	5_013	Hartigan Avenue	Post 2008 Development (Residence)	Residential											
5	5_014	Hartigan Avenue	Post 2008 Development (Residence)	Residential											
5	5_015	Hartigan Avenue	Post 2008 Development (Residence)	Residential											
5	5_016	Hartigan Avenue	Post 2008 Development (Residence)	Residential				AM1							
5	5_017	Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
5	5_018	3 Gorman Avenue	Post 2008 Development (Residence)	Residential											
5	5_019	5 Gorman Avenue	Post 2008 Development (Residence)	Residential											
5	5_020	7 Gorman Avenue	Post 2008 Development (Residence)	Residential											
5	5_021	9 Gorman Avenue	Post 2008 Development (Residence)	Residential											
5	5_022	10 Gorman Avenue	Post 2008 Development (Residence)	Residential											
5	5_023	11 Gorman Avenue	Post 2008 Development (Residence)	Residential											
5	5_024	12 Gorman Avenue	Post 2008 Development (Residence)	Residential											
5	5_025	13 Gorman Avenue	Post 2008 Development (Residence)	Residential			AM1	AM1							
5	5_026	14 Gorman Avenue	Post 2008 Development (Residence)	Residential											
5	5_027	15 Gorman Avenue	Post 2008 Development (Residence)	Residential			AM1	AM1							
5	5_028	16 Gorman Avenue	Post 2008 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
5	5_029	17 Gorman Avenue	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			AM1
5	5_030	19 Gorman Avenue	Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			AM1
5	5_031	21 Gorman Avenue	Post 2008 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2	AM1	AM1	AM2	AM1		AM1
5	5_032	10 Burns Rd	Post 2008 Development (Residence)	Residential											
5	5_033	12 Burns Rd	Post 2008 Development (Residence)	Residential											
5	5_034	Burns Road	Post 2008 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2	AM1	AM1	AM2	AM1		AM1
5	5_035	Burns Road	Post 2008 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2	AM1	AM1	AM2	AM1		
5	5_036	Burns Road	Post 2008 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2	AM1	AM1	AM2	AM1		
5	5_037	Burns Road	Post 2008 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2	AM1	AM1	AM2	AM1		
5	5_038	Burns Road	Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		AM1
5	5_039	Burns Road	Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1	AM1	AM2
5	5_040	Burns Road	Post 2008 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
5	5_041	Burns Road	Post 2008 Development (Residence)	Residential			AM1	AM1							
5	5_042	Burns Road	Post 2008 Development (Residence)	Residential				AM1							

Table I: Additional noise mitigation and receiver notifications **MEMORIAL AVENUE**

Receiver					Evening (OOHW)											Night (OOHW)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
4	4_237		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4		
4	4_238		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		
4	4_239		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		
4	4_240		Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_241		Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_242		Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_243		Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_244		Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_245		Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_246		Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		
4	4_247		Post 2008 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_248		Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM3		AM3	AM3			
4	4_249		Post 2008 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_250		Post 2008 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_251		Post 2008 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_252		Post 2008 Development (Residence)	Residential				AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_253		Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_254		Post 2008 Development (Residence)	Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
4	4_255		Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
4	4_256		Post 2008 Development (Residence)	Residential													AM3	AM4	AM4	AM3			AM3			
4	4_257		Post 2008 Development (Residence)	Residential													AM3	AM4	AM4	AM3			AM3			
4	4_258		Post 2008 Development (Residence)	Residential												AM3	AM4	AM4	AM4	AM4		AM3	AM4			
5	5_001	75 Hartigan Avenue	Post 2008 Development (Residence)	Residential				AM3								AM3	AM4	AM4	AM4	AM4		AM3	AM4			
5	5_002	77 Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3
5	5_003	79 Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM3	AM4
5	5_004	81 Hartigan Avenue	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM4	AM4
5	5_005	83 Hartigan Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3			AM3	AM4	AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4
5	5_006	85 Hartigan Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3			AM3	AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
5	5_007	87 Hartigan Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3		AM3	AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4	AM4	AM5
5	5_008	89 Hartigan Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3	AM3	AM3	AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM5
5	5_009	Hartigan Avenue	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM3		AM3	AM3			AM3
5	5_010	Hartigan Avenue	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM3		AM3	AM3			AM3
5	5_011	Hartigan Avenue	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			AM3
5	5_012	Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3
5	5_013	Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		AM3
5	5_014	Hartigan Avenue	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM3	AM4
5	5_015	Hartigan Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3
5	5_016	Hartigan Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3			AM3	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM5
5	5_017	Hartigan Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3	AM3	AM3	AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4	AM4	AM5
5	5_018	3 Gorman Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM3	AM4
5	5_019	5 Gorman Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM3	AM4
5	5_020	7 Gorman Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM3	AM4
5	5_021	9 Gorman Avenue	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3			AM3	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM4	AM4
5	5_022	10 Gorman Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3	AM4	AM4
5	5_023	11 Gorman Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3			AM3	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
5	5_024	12 Gorman Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3			AM3	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3	AM4	AM4
5	5_025	13 Gorman Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3			AM3	AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
5	5_026	14 Gorman Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3			AM3	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
5	5_027	15 Gorman Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3	AM3	AM3	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM4	AM5
5	5_028	16 Gorman Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3	AM3	AM3	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM4	AM5
5	5_029	17 Gorman Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3	AM3	AM4	AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM5	AM5
5	5_030	19 Gorman Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3	AM3	AM4	AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM5	AM5
5	5_031	21 Gorman Avenue	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3	AM3	AM4	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM5	AM5
5	5_032	10 Burns Rd	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3			AM3	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
5	5_033	12 Burns Rd	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3	AM4	AM4
5	5_034	Burns Road	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3	AM3	AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM5	AM5
5	5_035	Burns Road	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3	AM3	AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
5	5_036	Burns Road	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3	AM3	AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
5	5_037	Burns Road	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3	AM3	AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
5	5_038	Burns Road	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM3	AM4	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM5	AM5
5	5_039	Burns Road	Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM4	AM4	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM5	N/A
5	5_040	Burns Road	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3	AM3	AM3	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM4	AM5
5	5_041	Burns Road	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3			AM3	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM4	AM5
5	5_042	Burns Road	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3			AM3	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4

Table I: Additional noise mitigation and receiver notifications

Receiver					Additional noise mitigation and receiver notifications										
					Day (Standard)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
5	5_043	Burns Road	Post 2008 Development (Residence)	Residential											
5	5_044	Burns Road	Post 2008 Development (Residence)	Residential											
5	5_045	Burns Road	Post 2008 Development (Residence)	Residential											
5	5_046	Burns Road	Post 2008 Development (Residence)	Residential			AM1	AM1	AM1			AM1			AM1
5	5_047	Burns Road	Post 2008 Development (Residence)	Residential											
5	5_048	Burns Road	Post 2008 Development (Residence)	Residential											
5	5_049	Burns Road	Post 2008 Development (Residence)	Residential											
5	5_050	Burns Road	Post 2008 Development (Residence)	Residential											
5	5_051	Burns Road	Post 2008 Development (Residence)	Residential											
5	5_052	Burns Road	Post 2008 Development (Residence)	Residential											
5	5_053	Burns Road	Post 2008 Development (Residence)	Residential											
5	5_054	Burns Road	Post 2008 Development (Residence)	Residential											
5	5_055	Burns Road	Post 2008 Development (Residence)	Residential											
5	5_056	Burns Road	Post 2008 Development (Residence)	Residential											
5	5_057	6 Windsor Road		Residential	AM1	AM2	AM2	AM2	AM2	AM1	AM1	AM2	AM1	AM2	AM2
5	5_058	8 Windsor Road		Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1	AM1	AM2
5	5_059	10 Windsor Road		Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		AM1
5	5_060	12 Windsor Road		Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		
5	5_062	18-20 Windsor Road		Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		
5	5_063	1 Arnold Avenue		Residential	AM1	AM2	AM2	AM2	AM2	AM1	AM1	AM2	AM1		
5	5_064	22 Windsor Road		Residential	AM1	AM2	AM2	AM2	AM2	AM1	AM1	AM2	AM1		
5	5_065	24 Windsor Road		Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		
5	5_066	26 Windsor Road		Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
5	5_067	28 Windsor Road		Residential			AM1	AM1	AM1			AM1			
5	5_068		Post 2008 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
5	5_069		Post 2008 Development (Residence)	Residential			AM1	AM1							
5	5_070		Post 2008 Development (Residence)	Residential			AM1	AM1							
5	5_071		Post 2008 Development (Residence)	Residential				AM1							
5	5_072		Post 2008 Development (Residence)	Residential											
5	5_073		Post 2008 Development (Residence)	Residential											
5	5_074		Post 2008 Development (Residence)	Residential											
5	5_075		Post 2008 Development (Residence)	Residential											
5	5_076		Post 2008 Development (Residence)	Residential											
5	5_077		Post 2008 Development (Residence)	Residential											
5	5_078		Post 2008 Development (Residence)	Residential											
5	5_079		Post 2008 Development (Residence)	Residential											
5	5_080		Post 2008 Development (Residence)	Residential		AM1	AM1	AM2	AM1			AM1			
5	5_081		Post 2008 Development (Residence)	Residential			AM1	AM1							
5	5_082		Post 2008 Development (Residence)	Residential				AM1							
5	5_083		Post 2008 Development (Residence)	Residential											
5	5_084		Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		
5	5_085		Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		
5	5_086		Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		
5	5_087		Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
5	5_088		Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
5	5_089		Post 2008 Development (Residence)	Residential		AM1	AM1	AM2	AM1			AM1			
5	5_090		Post 2008 Development (Residence)	Residential			AM1	AM1							
5	5_091		Post 2008 Development (Residence)	Residential			AM1	AM1							
5	5_092		Post 2008 Development (Residence)	Residential				AM1							
5	5_093		Post 2008 Development (Residence)	Residential											
5	5_094	31 Gorman Avenue	Post 2008 Development (Residence)	Residential				AM1							
5	5_095	35 Gorman Avenue	Post 2008 Development (Residence)	Residential											
5	5_096	43 Gorman Avenue	Post 2008 Development (Residence)	Residential											
5	5_097		Post 2008 Development (Residence)	Residential											
5	5_098		Post 2008 Development (Residence)	Residential											
5	5_099		Post 2008 Development (Residence)	Residential				AM1							
5	5_100		Post 2008 Development (Residence)	Residential				AM1							
5	5_101		Post 2008 Development (Residence)	Residential				AM1							
5	5_102		Post 2008 Development (Residence)	Residential				AM1							
5	5_103		Post 2008 Development (Residence)	Residential				AM1							
5	5_104		Post 2008 Development (Residence)	Residential				AM1							AM1
5	5_105		Post 2008 Development (Residence)	Residential			AM1	AM1							AM1
5	5_106		Post 2008 Development (Residence)	Residential			AM1	AM1						AM1	AM2
5	5_107		Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1	AM2	AM2

Table I: Additional noise mitigation and receiver notifications **MEMORIAL AVENUE**

Receiver					Evening (OOHW)											Night (OOHW)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
5	5_043	Burns Road	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3			AM3	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
5	5_044	Burns Road	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3			AM3	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM4	AM4
5	5_045	Burns Road	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3			AM3	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3	AM4	AM4
5	5_046	Burns Road	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3	AM3	AM4	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM5	AM5
5	5_047	Burns Road	Post 2008 Development (Residence)	Residential			AM3	AM3							AM3	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM4	AM4
5	5_048	Burns Road	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3	AM3	AM4
5	5_049	Burns Road	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3
5	5_050	Burns Road	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		AM3
5	5_051	Burns Road	Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		AM3
5	5_052	Burns Road	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM3	AM4
5	5_053	Burns Road	Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM3	AM4
5	5_054	Burns Road	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
5	5_055	Burns Road	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
5	5_056	Burns Road	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			
5	5_057	6 Windsor Road		Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3	AM5	AM5	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	N/A	N/A
5	5_058	8 Windsor Road		Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM4	AM4	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	N/A	N/A
5	5_059	10 Windsor Road		Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM3	AM4	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM5	AM5
5	5_060	12 Windsor Road		Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM3	AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
5	5_062	18-20 Windsor Road		Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM4
5	5_063	1 Arnold Avenue		Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		AM3
5	5_064	22 Windsor Road		Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM3	AM4
5	5_065	24 Windsor Road		Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM3	AM4
5	5_066	26 Windsor Road		Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM3	AM4
5	5_067	28 Windsor Road		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4		AM3
5	5_068		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
5	5_069		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
5	5_070		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
5	5_071		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
5	5_072		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
5	5_073		Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
5	5_074		Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
5	5_075		Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		
5	5_076		Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
5	5_077		Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
5	5_078		Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
5	5_079		Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
5	5_080		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		AM3
5	5_081		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
5	5_082		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
5	5_083		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
5	5_084		Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		AM3
5	5_085		Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		AM3
5	5_086		Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5		AM3
5	5_087		Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5		AM3
5	5_088		Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5		AM3
5	5_089		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		AM3
5	5_090		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
5	5_091		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
5	5_092		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		AM3
5	5_093		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		AM3
5	5_094	31 Gorman Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
5	5_095	35 Gorman Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		AM3
5	5_096	43 Gorman Avenue	Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			AM3
5	5_097		Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM3	AM4
5	5_098		Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM3	AM4
5	5_099		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3			AM3	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
5	5_100		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3			AM3	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM5
5	5_101		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3		AM3	AM3	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM5
5	5_102		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3		AM3	AM3	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM5
5	5_103		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3		AM3	AM3	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM5
5	5_104		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3		AM3	AM4	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM5	AM5
5	5_105		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3		AM3	AM4	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM5	AM5
5	5_106		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3		AM4	AM4	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM5	N/A
5	5_107		Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM5	AM5	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	N/A	N/A

Table I: Additional noise mitigation and receiver notifications

Receiver					Additional noise mitigation and receiver notifications										
					Day (Standard)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
5	5_108		Post 2008 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		
5	5_109		Post 2008 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
5	5_110		Post 2008 Development (Residence)	Residential		AM1	AM1	AM2	AM1			AM1			
5	5_111		Post 2008 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
5	5_112		Post 2008 Development (Residence)	Residential											
5	5_113		Post 2008 Development (Residence)	Residential											
5	5_114		Post 2008 Development (Residence)	Residential											
5	5_115		Post 2008 Development (Residence)	Residential											
5	5_116		Post 2008 Development (Residence)	Residential											
5	5_117		Post 2008 Development (Residence)	Residential				AM1							
5	5_118		Post 2008 Development (Residence)	Residential				AM1							
5	5_119		Post 2008 Development (Residence)	Residential											
5	5_120		Post 2008 Development (Residence)	Residential											
5	5_121		Post 2008 Development (Residence)	Residential											
5	5_122		Post 2008 Development (Residence)	Residential											
5	5_123		Post 2008 Development (Residence)	Residential											
5	5_124		Post 2008 Development (Residence)	Residential											
5	5_125		Post 2008 Development (Residence)	Residential											
5	5_126		Post 2008 Development (Residence)	Residential											
5	5_127		Post 2008 Development (Residence)	Residential											
5	5_128	33 Gorman Avenue	Post 2008 Development (Residence)	Residential											
5	5_129	29 Gorman Avenue	Post 2008 Development (Residence)	Residential			AM1	AM1							
5	5_130	37 Gormon Avenue		Residential											
5	5_131	3 Dunn Way		Residential											
5	5_132	4 Dunn Way		Residential											
5	5_133	5 Dunn Way		Residential											
5	NEW_115		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
5	NEW_116		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
5	NEW_117		2019 Development (Residence)	Residential											
6	6_001	2 Hector Court		Residential	AM1	AM1	AM1	AM1	AM1		AM1	AM1			
6	6_002	2A Hector Court		Residential			AM1	AM1							
6	NEW_118		2019 Development (Residence)	Residential											
6	NEW_119		2019 Development (Residence)	Residential											
6	NEW_120		2019 Development (Residence)	Residential											
6	NEW_121		2019 Development (Residence)	Residential											
6	NEW_122		2019 Development (Residence)	Residential											
6	NEW_123		2019 Development (Residence)	Residential											
6	NEW_124		2019 Development (Residence)	Residential											
6	NEW_125		2019 Development (Residence)	Residential				AM1							
6	NEW_126		2019 Development (Residence)	Residential			AM1	AM1							
6	NEW_127		2019 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
6	NEW_128		2019 Development (Residence)	Residential		AM1	AM1	AM1	AM1			AM1			
6	NEW_129		2019 Development (Residence)	Residential	AM1	AM1	AM1	AM2	AM1		AM1	AM1			
6	NEW_130		2019 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		
6	NEW_131		2019 Development (Residence)	Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		
6	NEW_132		2019 Development (Residence)	Residential	AM1	AM2	AM2	AM2	AM2	AM1	AM1	AM2	AM1		
6	NEW_133		2019 Development (Residence)	Residential	AM1	AM1	AM2	AM2	AM2	AM1	AM1	AM2	AM1		
6	NEW_134		2019 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
7	7_008	1 President Road		Residential											
7	7_009	1B President Road		Residential				AM2							
7	7_011	Lot 9 Windsor Road	Residence (Dilapidated)	Residential	AM2	AM2	AM2	AM2	AM2	AM2	AM2	AM2	AM2		
7	7_014	12 Benalla Ave		Residential											
7	7_015	14 Benalla Ave		Residential				AM2							
7	7_016	16 Benalla Ave		Residential				AM2							
7	7_017	18 Benalla Ave		Residential		AM2	AM2	AM2	AM2			AM2			
7	7_018	20 Benalla Ave		Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
7	7_019	22 Benalla Ave		Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
7	7_020	24 Benalla Ave		Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
7	7_021	26 Benalla Ave		Residential											
7	7_022	28 Benalla Ave		Residential											
7	7_023	30 Benalla Ave		Residential				AM2							
7	7_024	32 Benalla Ave		Residential				AM2							
7	7_025	34 Benalla Ave		Residential			AM2	AM2							
7	7_026	36 Benalla Ave		Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			

Table I: Additional noise mitigation and receiver notifications **MEMORIAL AVENUE**

Receiver					Evening (OOHW)											Night (OOHW)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
5	5_108		Post 2008 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM3	AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
5	5_109		Post 2008 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM3	AM3	AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM5
5	5_110		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3	AM3	AM3	AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4	AM4	AM5
5	5_111		Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3	AM3	AM3	AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4	AM4	AM5
5	5_112		Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM3	AM4
5	5_113		Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
5	5_114		Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		
5	5_115		Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
5	5_116		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
5	5_117		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3			AM3	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
5	5_118		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4
5	5_119		Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4
5	5_120		Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM3	AM4
5	5_121		Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM3		AM3	AM3			
5	5_122		Post 2008 Development (Residence)	Residential														AM3	AM3							
5	5_123		Post 2008 Development (Residence)	Residential														AM3	AM3							
5	5_124		Post 2008 Development (Residence)	Residential												AM3	AM3	AM4	AM4	AM4		AM3	AM4			AM3
5	5_125		Post 2008 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3
5	5_126		Post 2008 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3				AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
5	5_127		Post 2008 Development (Residence)	Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
5	5_128	33 Gorman Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		AM3
5	5_129	29 Gorman Avenue	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
5	5_130	37 Gormon Avenue		Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
5	5_131	3 Dunn Way		Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
5	5_132	4 Dunn Way		Residential			AM3	AM3	AM3			AM3				AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
5	5_133	5 Dunn Way		Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
5	NEW_115		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM3	AM3	AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM5
5	NEW_116		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3	AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM4
5	NEW_117		2019 Development (Residence)	Residential			AM3	AM3								AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM3	AM4
6	6_001	2 Hector Court		Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM4
6	6_002	2A Hector Court		Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM4
6	NEW_118		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3		AM3	AM4	AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM5	N/A
6	NEW_119		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3		AM3	AM3	AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM5	N/A
6	NEW_120		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3		AM3	AM3	AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM5	AM5
6	NEW_121		2019 Development (Residence)	Residential			AM3	AM3	AM3			AM3		AM3	AM3	AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM5	AM5
6	NEW_122		2019 Development (Residence)	Residential		AM3	AM3	AM3	AM3			AM3		AM3	AM3	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM5	AM5
6	NEW_123		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3		AM3	AM3	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM5	AM5
6	NEW_124		2019 Development (Residence)	Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3			AM3	AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4	AM5	AM5
6	NEW_125		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3		AM3	AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM5	AM5
6	NEW_126		2019 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3		AM3	AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM5
6	NEW_127		2019 Development (Residence)	Residential	AM3	AM4	AM4	AM4	AM4	AM3	AM3	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
6	NEW_128		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
6	NEW_129		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
6	NEW_130		2019 Development (Residence)	Residential	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM4	AM5
6	NEW_131		2019 Development (Residence)	Residential	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM4	AM4
6	NEW_132		2019 Development (Residence)	Residential	AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM4	AM4
6	NEW_133		2019 Development (Residence)	Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM4	AM4
6	NEW_134		2019 Development (Residence)	Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
7	7_008	1 President Road		Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM4
7	7_009	1B President Road		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM4
7	7_011	Lot 9 Windsor Road	Residence (Dilapidated)	Residential	AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM5	AM5
7	7_014	12 Benalla Ave		Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM4
7	7_015	14 Benalla Ave		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
7	7_016	16 Benalla Ave		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM4
7	7_017	18 Benalla Ave		Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM5	AM5
7	7_018	20 Benalla Ave		Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM5	N/A
7	7_019	22 Benalla Ave		Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM3	AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM5	N/A
7	7_020	24 Benalla Ave		Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM3	AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	7_021	26 Benalla Ave		Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM5	AM5
7	7_022	28 Benalla Ave		Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
7	7_023	30 Benalla Ave		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3	AM3	AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM5	N/A
7	7_024	32 Benalla Ave		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM5	AM5
7	7_025	34 Benalla Ave		Residential	AM3	AM4	AM4	AM4	AM4	AM3	AM3	AM4	AM3	AM3	AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM5	N/A
7	7_026	36 Benalla Ave		Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table I: Additional noise mitigation and receiver notifications

Receiver					Additional noise mitigation and receiver notifications										
					Day (Standard)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
7	7_027	38 Benalla Ave		Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
7	7_028	40 Benalla Ave		Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
7	7_029	42 Benalla Ave		Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
7	7_030	44 Benalla Ave		Residential				AM2							
7	7_031	46 Benalla Ave		Residential											
7	7_032	48 Benalla Ave		Residential											
7	7_033	50 Benalla Ave		Residential											
7	7_034	Lot 1 Windsor Road		Residential			AM2	AM2	AM2			AM2			
7	7_035	10 Hart Place		Residential											
7	7_036	12 Hart Place		Residential											
7	7_037	16 Hart Place		Residential		AM2	AM2	AM2	AM2			AM2			
7	7_038	17 Hart Place		Residential											
7	7_039	18 Hart Place		Residential		AM2	AM2	AM2	AM2			AM2			
7	7_040	20 Hart Place		Residential	AM2	AM2	AM2	AM2	AM2		AM2	AM2			
7	7_041	22 Hart Place		Residential				AM2							
7	7_042	2 Wrights Road		Residential			AM2	AM2	AM2			AM2			
7	7_043	4 Wrights Road		Residential											
7	7_044	6 Wrights Road		Residential											
7	7_046			Residential											
7	7_047			Residential											
7	7_048			Residential											
7	7_049			Residential											
7	7_050			Residential											
7	7_051			Residential											
7	7_052			Residential											
7	7_053			Residential											
7	7_054			Residential											
7	7_055			Residential											
7	7_056			Residential											
7	7_057			Residential											
7	7_058			Residential											
7	7_059			Residential											
7	7_062			Residential											
7	7_063			Residential											
7	7_064			Residential											
7	7_066			Residential											
7	7_067			Residential											
7	7_068			Residential											
7	7_069			Residential											
7	7_070			Residential											
7	7_071			Residential											
7	7_072			Residential											
7	7_073			Residential											
7	7_074			Residential											
7	7_075			Residential											
7	7_076			Residential											
7	7_077			Residential											
7	7_078			Residential											
7	7_079			Residential											
7	7_080			Residential											
7	7_081			Residential											
7	7_082			Residential											
7	7_083			Residential											
7	7_084			Residential											
7	7_085			Residential											
7	7_086			Residential											
7	7_087			Residential											
7	7_088			Residential											
7	7_089			Residential											
7	7_090			Residential											
7	7_091			Residential											
7	7_092			Residential											
7	7_093			Residential											
7	7_094			Residential											

Table I: Additional noise mitigation and receiver notifications **MEMORIAL AVENUE**

Receiver					Evening (OOHW)											Night (OOHW)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
7	7_027	38 Benalla Ave		Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM3	AM4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	7_028	40 Benalla Ave		Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	7_029	42 Benalla Ave		Residential	AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM5	N/A
7	7_030	44 Benalla Ave		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3	AM3	AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM5	N/A
7	7_031	46 Benalla Ave		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM5	AM5
7	7_032	48 Benalla Ave		Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM5
7	7_033	50 Benalla Ave		Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM5
7	7_034	Lot 1 Windsor Road		Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM5	AM5
7	7_035	10 Hart Place		Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM3	AM4
7	7_036	12 Hart Place		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM4
7	7_037	16 Hart Place		Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM4	AM4
7	7_038	17 Hart Place		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM4
7	7_039	18 Hart Place		Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM4	AM4
7	7_040	20 Hart Place		Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM4	AM5
7	7_041	22 Hart Place		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM4
7	7_042	2 Wrights Road		Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM4	AM4
7	7_043	4 Wrights Road		Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM4
7	7_044	6 Wrights Road		Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM3	AM4
7	7_046			Residential		AM3	AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
7	7_047			Residential		AM3	AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
7	7_048			Residential		AM3	AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
7	7_049			Residential		AM3	AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
7	7_050			Residential		AM3	AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
7	7_051			Residential		AM3	AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM5
7	7_052			Residential												AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3	AM3	AM4
7	7_053			Residential												AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3	AM3	AM4
7	7_054			Residential			AM3	AM3								AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
7	7_055			Residential												AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM4	AM4
7	7_056			Residential												AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM4	AM4
7	7_057			Residential			AM3	AM3	AM3			AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4	AM4	AM4
7	7_058			Residential												AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
7	7_059			Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3
7	7_062			Residential												AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
7	7_063			Residential												AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
7	7_064			Residential												AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4
7	7_066			Residential												AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM3	AM4
7	7_067			Residential												AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3	AM3	AM4
7	7_068			Residential												AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4
7	7_069			Residential				AM3								AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM5
7	7_070			Residential				AM3								AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM5
7	7_071			Residential				AM3								AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM5
7	7_072			Residential				AM3								AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM5
7	7_073			Residential				AM3								AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
7	7_074			Residential				AM3								AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
7	7_075			Residential				AM3								AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM5
7	7_076			Residential												AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM4	AM4
7	7_077			Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM4	AM4
7	7_078			Residential												AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3	AM3	AM4
7	7_079			Residential												AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
7	7_080			Residential												AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
7	7_081			Residential												AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
7	7_082			Residential												AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
7	7_083			Residential												AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM3	AM4
7	7_084			Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM4	AM3	AM4
7	7_085			Residential												AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM3	AM4
7	7_086			Residential												AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3	AM3	AM4
7	7_087			Residential			AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4	AM4	AM5
7	7_088			Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM3	AM4
7	7_089			Residential		AM3	AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
7	7_090			Residential												AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM5
7	7_091			Residential				AM3								AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
7	7_092			Residential			AM3	AM3								AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
7	7_093			Residential			AM3	AM3								AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
7	7_094			Residential			AM3	AM3								AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM4	AM4

Table I: Additional noise mitigation and receiver notifications

Receiver					Additional noise mitigation and receiver notifications										
					Day (Standard)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
7	7_095			Residential											
7	7_096			Residential											
7	7_097			Residential											
7	7_098			Residential											
7	7_099			Residential											
7	7_100			Residential											
7	7_101			Residential											
7	7_102			Residential											
7	7_103			Residential											
7	7_104			Residential											
7	7_105			Residential											
7	7_106			Residential											
7	7_107			Residential											
7	7_108			Residential											
7	7_109			Residential											
7	7_110			Residential											
7	7_111			Residential											
7	7_112			Residential											
7	7_113			Residential											
7	7_114			Residential											
7	7_115			Residential											
7	7_116			Residential											
7	7_117			Residential											
7	7_118			Residential											
7	7_119			Residential											
7	7_120			Residential											
7	7_121			Residential											
7	7_122			Residential											
7	7_123			Residential											
7	7_124			Residential											
7	7_125			Residential											
7	7_126			Residential											
7	7_127			Residential											
7	7_128			Residential											
8	8_010	36 Kentwell Crescent		Residential											
8	8_014	43 Kentwell Crescent		Residential											
8	8_015	49 Kentwell Crescent		Residential			AM1	AM1							
8	8_016	45 Kentwell Crescent		Residential				AM1							
8	8_017	47 Kentwell Crescent		Residential			AM1	AM1	AM1			AM1			
8	8_018	51 Kentwell Crescent		Residential			AM1	AM1							
8	8_019	53 Kentwell Crescent		Residential				AM1							
8	8_020	55 Kentwell Crescent		Residential				AM1							
8	8_022	6 Meldon Place		Residential											
8	8_023	8 Meldon Place		Residential											
8	8_024	9 Meldon Place		Residential											
8	8_025	10 Meldon Place		Residential											
8	8_026	11 Meldon Place		Residential			AM1	AM1							
8	8_027	12 Meldon Place		Residential											
8	8_028	13 Meldon Place		Residential			AM1	AM1	AM1			AM1			
8	8_029	14 Meldon Place		Residential			AM1	AM1							
8	8_030	15 Meldon Place		Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
8	8_031	16 Meldon Place		Residential			AM1	AM1							
8	8_032	17 Meldon Place		Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
8	8_033	19 Meldon Place		Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
8	8_034	21 Meldon Place		Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
8	8_035	23 Meldon Place		Residential		AM1	AM1	AM2	AM1			AM1			
8	8_036	25 Meldon Place		Residential			AM1	AM1	AM1			AM1			
8	8_037	27 Meldon Place		Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
8	8_038	29 Meldon Place		Residential		AM1	AM1	AM2	AM1			AM1			
8	8_039	1 Carolyn Court	Post 2008 Development (Residence)	Residential			AM1	AM1							
8	8_040	3 Carolyn Court	Post 2008 Development (Residence)	Residential			AM1	AM1	AM1			AM1			
8	8_041	15 Carolyn Court		Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
8	8_042	2 Jakob Way		Residential											
8	8_043	3 Jakob Way		Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			

Table I: Additional noise mitigation and receiver notifications **MEMORIAL AVENUE**

Receiver					Evening (OOHW)											Night (OOHW)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
7	7_095			Residential			AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4	AM4	AM4
7	7_096			Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM5
7	7_097			Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
7	7_098			Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
7	7_099			Residential		AM3	AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM3	AM4
7	7_100			Residential			AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4	AM4	AM4
7	7_101			Residential												AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
7	7_102			Residential			AM3	AM3								AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
7	7_103			Residential												AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
7	7_104			Residential												AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
7	7_105			Residential				AM3								AM4	AM5	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
7	7_106			Residential			AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4	AM3	AM4
7	7_107			Residential												AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM4	AM4
7	7_108			Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM4
7	7_109			Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM5
7	7_110			Residential		AM3	AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM3	AM4
7	7_111			Residential			AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4	AM4	AM4
7	7_112			Residential												AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM4
7	7_113			Residential			AM3	AM3								AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
7	7_114			Residential			AM3	AM3								AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
7	7_115			Residential			AM3	AM3								AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
7	7_116			Residential			AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4	AM4	AM4
7	7_117			Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
7	7_118			Residential		AM3	AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM3	AM4
7	7_119			Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM4
7	7_120			Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM4
7	7_121			Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM3	AM4
7	7_122			Residential		AM3	AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
7	7_123			Residential			AM3	AM3	AM3			AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4	AM3	AM4
7	7_124			Residential			AM3	AM3								AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
7	7_125			Residential			AM3	AM3								AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
7	7_126			Residential			AM3	AM3								AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
7	7_127			Residential		AM3	AM3	AM3	AM3			AM3				AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM3	AM4
7	7_128			Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM4
8	8_010	36 Kentwell Crescent		Residential			AM3	AM3								AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		
8	8_014	43 Kentwell Crescent		Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
8	8_015	49 Kentwell Crescent		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM3	AM4
8	8_016	45 Kentwell Crescent		Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	N/A	N/A	N/A	AM5	AM4	AM5	AM5	AM4	AM3
8	8_017	47 Kentwell Crescent		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		AM3
8	8_018	51 Kentwell Crescent		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5		AM3
8	8_019	53 Kentwell Crescent		Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		
8	8_020	55 Kentwell Crescent		Residential	AM3	AM3	AM4	AM4	AM3		AM3	AM3				AM5	AM5	N/A	N/A	AM5	AM4	AM5	AM5	AM4		AM3
8	8_022	6 Meldon Place		Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
8	8_023	8 Meldon Place		Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
8	8_024	9 Meldon Place		Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		AM3
8	8_025	10 Meldon Place		Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4	AM3	AM4
8	8_026	11 Meldon Place		Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM3	AM4
8	8_027	12 Meldon Place		Residential	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
8	8_028	13 Meldon Place		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM3	AM4
8	8_029	14 Meldon Place		Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM3	AM4
8	8_030	15 Meldon Place		Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM3	AM4
8	8_031	16 Meldon Place		Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM3	AM4
8	8_032	17 Meldon Place		Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM3	AM4
8	8_033	19 Meldon Place		Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM3	AM4
8	8_034	21 Meldon Place		Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM3	AM4
8	8_035	23 Meldon Place		Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM3	AM4
8	8_036	25 Meldon Place		Residential	AM3	AM4	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM3	AM4
8	8_037	27 Meldon Place		Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM3	AM4
8	8_038	29 Meldon Place		Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM3	AM4
8	8_039	1 Carolyn Court	Post 2008 Development (Residence)	Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
8	8_040	3 Carolyn Court	Post 2008 Development (Residence)	Residential	AM3	AM4	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM4
8	8_041	15 Carolyn Court		Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3	AM3		N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
8	8_042	2 Jakob Way		Residential	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM5	AM5	AM5	N/A	AM5	AM4	AM5	AM5	AM4	AM4	AM4
8	8_043	3 Jakob Way		Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3	AM3		N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5

Table I: Additional noise mitigation and receiver notifications

Receiver					Additional noise mitigation and receiver notifications										
					Day (Standard)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
8	8_044	4 Jakob Way		Residential			AM1	AM1							
8	8_045	5 Jakob Way		Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
8	8_046	7 Jakob Way		Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
8	8_047	3 Rory Court		Residential			AM1	AM1							
8	8_048	4 Rory Court		Residential			AM1	AM1							
8	8_049	6 Rory Court		Residential		AM1	AM1	AM2	AM1			AM1			
8	8_050	8 Rory Court		Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
8	8_051	10 Rory Court		Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
8	8_052	12 Rory Court		Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
8	8_054	8 Rothwell Circuit		Residential			AM1	AM1							
8	8_055	10 Rothwell Circuit		Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
8	8_056	12 Rothwell Circuit		Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		
8	8_057	14 Rothwell Circuit		Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
8	8_058	16 Rothwell Circuit		Residential	AM1	AM1	AM2	AM2	AM1		AM1	AM1			
8	8_059	16A Rothwell Circuit		Residential	AM2	AM2	AM2	AM2	AM2	AM1	AM2	AM2	AM1		
8	8_060	18 Rothwell Circuit		Residential			AM1	AM1	AM1			AM1			
8	8_061	18A Rothwell Circuit		Residential	AM1	AM2	AM2	AM2	AM2	AM1	AM1	AM2	AM1		
8	8_062	20 Rothwell Circuit		Residential			AM1	AM1	AM1			AM1			
8	8_063	22 Rothwell Circuit		Residential	AM1	AM2	AM2	AM2	AM2	AM1	AM1	AM2	AM1		
8	8_064	24 Rothwell Circuit		Residential	AM1	AM1	AM2	AM2	AM2		AM1	AM2			
8	8_065	26 Rothwell Circuit		Residential			AM1	AM1	AM1			AM1			
OSR	3_001	15-17 Memorial Avenue (Front)	Post 2008 Development (Hills Clinic)	Hospital ward	AM1	AM1	AM1	AM1	AM1		AM1	AM1			
OSR	3_002	15-17 Memorial Avenue (Rear)	Post 2008 Development (Hills Clinic)	Hospital ward											
OSR	1_061b	7 Arnold Avenue	Gracelands Early Education Centre	Childcare Indoor Play	AM1	AM1	AM1	AM1	AM1	AM1	AM1	AM1	AM1		
OSR	6_004	Memorial Avenue	Kellyville Cricket Club	Open Space (Active)											
OSR	7_045b	3-5 President Road	Kellyville Preschool Kindergarten	Childcare Indoor Play			AM1	AM1	AM1			AM1			
OSR	7_060	President Road	MET School	School Classroom											
OSR	7_061	President Road	MET School Church	Places of worship											
OSR	8_053b	6 Rothwell Circuit	Fit Kidz Day Care Centre	Childcare Indoor Play			AM1	AM1	AM1			AM1			
OSR	NEW_136	3 Windsor Road	Repco	Commercial			AM1	AM1							
OSR	NEW_137	5 Windsor Road	Caltex	Commercial	AM1	AM1	AM1	AM1	AM1		AM1	AM1			

Table I: Additional noise mitigation and receiver notifications **MEMORIAL AVENUE**

Receiver					Evening (OOHW)											Night (OOHW)										
NCA	NCA ID	Address	Description	Receiver type	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE	M&SE	UPSA	CCSR	CCHD	RC	BLK	DI	PA	RF	COMP	COMP-SE
8	8_044	4 Jakob Way		Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
8	8_045	5 Jakob Way		Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
8	8_046	7 Jakob Way		Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
8	8_047	3 Rory Court		Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
8	8_048	4 Rory Court		Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
8	8_049	6 Rory Court		Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
8	8_050	8 Rory Court		Residential	AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
8	8_051	10 Rory Court		Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM3	AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM5	AM5
8	8_052	12 Rory Court		Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
8	8_054	8 Rothwell Circuit		Residential	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM5	AM5	N/A	N/A	AM5	AM5	AM5	AM5	AM5	AM4	AM4
8	8_055	10 Rothwell Circuit		Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
8	8_056	12 Rothwell Circuit		Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM5	AM5
8	8_057	14 Rothwell Circuit		Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
8	8_058	16 Rothwell Circuit		Residential	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
8	8_059	16A Rothwell Circuit		Residential	AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4	AM3	AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM5	AM5
8	8_060	18 Rothwell Circuit		Residential	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3		AM3	AM5	AM5	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM5
8	8_061	18A Rothwell Circuit		Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM3	AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM5	AM5
8	8_062	20 Rothwell Circuit		Residential	AM3	AM4	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	N/A	AM4	AM4
8	8_063	22 Rothwell Circuit		Residential	AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4	AM3	AM3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	AM5	AM5
8	8_064	24 Rothwell Circuit		Residential	AM4	AM4	AM5	AM5	AM4	AM3	AM4	AM4	AM3		AM3	N/A	N/A	N/A	N/A	N/A	AM5	N/A	N/A	AM5	AM4	AM5
8	8_065	26 Rothwell Circuit		Residential	AM3	AM4	AM4	AM4	AM4	AM3	AM3	AM4	AM3		AM3	AM5	N/A	N/A	N/A	N/A	AM5	AM5	N/A	AM5	AM4	AM5
OSR	3_001	15-17 Memorial Avenue (Front)	Post 2008 Development (Hills Clinic)	Hospital ward	AM3	AM3	AM4	AM4	AM4	AM3	AM3	AM4	AM3			AM4	AM4	AM5	AM5	AM5	AM4	AM4	AM5	AM4		
OSR	3_002	15-17 Memorial Avenue (Rear)	Post 2008 Development (Hills Clinic)	Hospital ward			AM3	AM3									AM3	AM4	AM4	AM3			AM3			
OSR	1_061b	7 Arnold Avenue	Gracelands Early Education Centre	Childcare Indoor Play	AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3			AM5	AM5	AM5	AM5	AM5	AM4	AM5	AM5	AM4		
OSR	6_004	Memorial Avenue	Kellyville Cricket Club	Open Space (Active)			AM3	AM3							AM3	AM3	AM3	AM4	AM4	AM3		AM3	AM3		AM3	AM4
OSR	7_045b	3-5 President Road	Kellyville Preschool Kindergarten	Childcare Indoor Play	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		
OSR	7_060	President Road	MET School	School Classroom			AM3	AM3									AM3	AM4	AM4	AM3			AM3			
OSR	7_061	President Road	MET School Church	Places of worship														AM3	AM3							
OSR	8_053b	6 Rothwell Circuit	Fit Kidz Day Care Centre	Childcare Indoor Play	AM3	AM3	AM3	AM4	AM3		AM3	AM3				AM4	AM4	AM4	AM5	AM4	AM3	AM4	AM4	AM3		AM3
OSR	NEW_136	3 Windsor Road	Repco	Commercial	AM3	AM3	AM3	AM3	AM3		AM3	AM3				AM4	AM4	AM4	AM4	AM4	AM3	AM4	AM4	AM3		
OSR	NEW_137	5 Windsor Road	Caltex	Commercial	AM3	AM3	AM4	AM4	AM3	AM3	AM3	AM3	AM3			AM4	AM4	AM5	AM5	AM4	AM4	AM4	AM4	AM4		

Appendix E

Early Works Acoustic Report

RENZO TONIN & ASSOCIATES
inspired to achieve

Acoustics
Vibration
Structural Dynamics

MEMORIAL AVENUE UPGRADE

Early Works Construction N&V Assessment

13 June 2019

Roads and Maritime Services

TH310-04F01 Early Works Construction r1

35 1982-2017 ACOUSTIC ENGINEERING EXCELLENCE

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13.06.2019	Draft	0	1	A Morris	M Gange	M Gange

Contents

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1 Introduction

Renzo Tonin & Associates completed a noise and vibration assessment of the Memorial Avenue Upgrade in October 2014. The assessment formed part of the project Review of Environmental Factors (REF) and was put on public display in November 2014.

An Addendum noise and vibration assessment has also been conducted in 2019 to address key design changes since the display of the REF. The Addendum included an updated construction noise and vibration assessment in accordance with current RMS requirements. The construction assessment did not include early works construction.

This report assesses early works construction which primarily involves under bore and trenching works for watermain realignment and relocation of electrical transmission lines underground. Figure 1 shows the project noise catchment areas (NCAs) for reference.

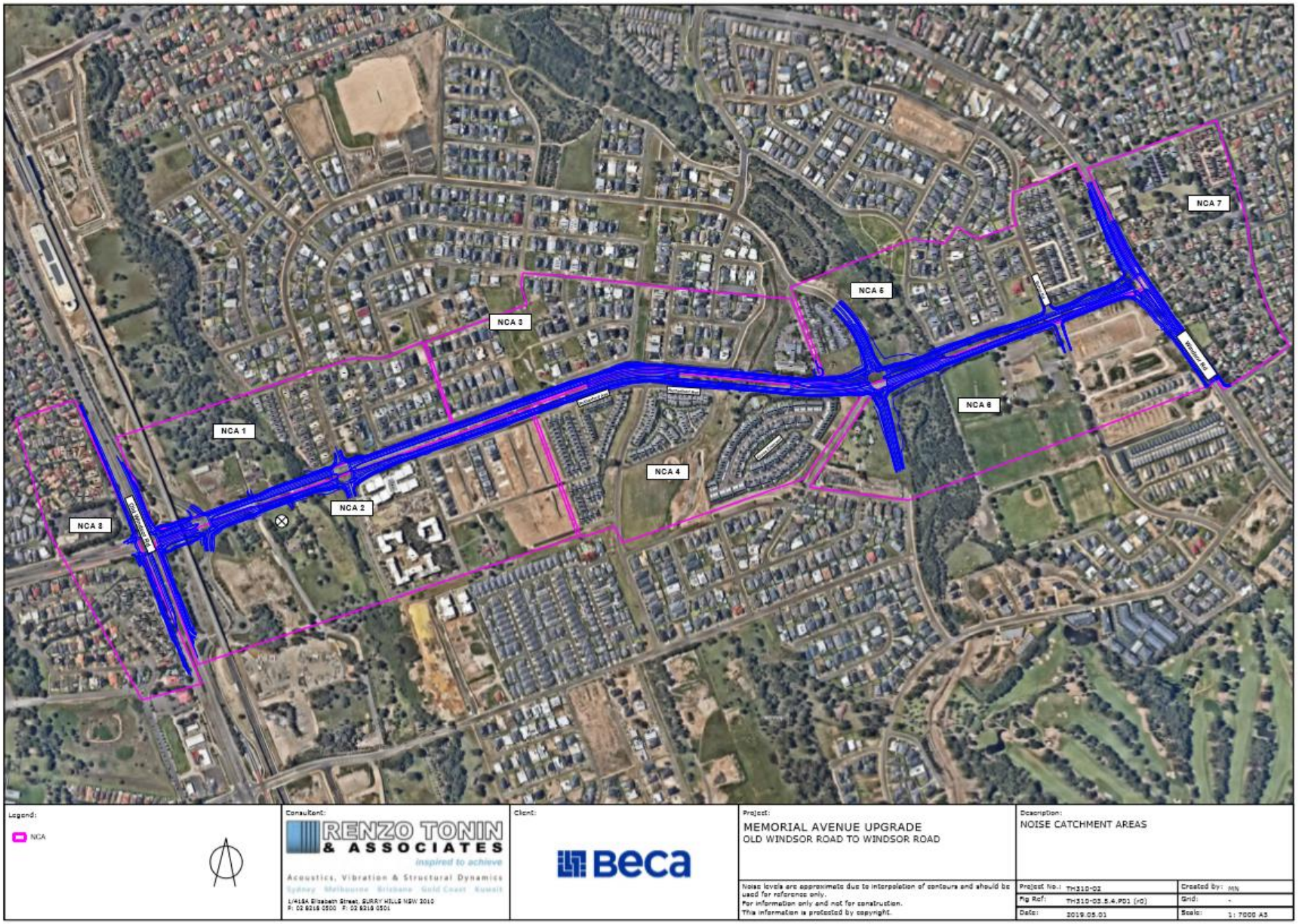


Figure 1 Noise Catchment Areas

2 Early works activities

The scope of electrical work to be undertaken as 'early works' is as follows;

33Kv Transmission cables - The existing overhead 33Kv cables that run along the northern side of Memorial Avenue between the Bus T-Way and Arnold Avenue will be placed underground. This work will be undertaken using an under bore to avoid excavating a trench along the existing road. An entry pit and exit pit are required for the under bore. These pits will consist of an open excavation with the entry pit located in Memorial Avenue just east of the Bus T-Way and the exit pit located in Arnold Avenue. The majority of the work will be undertaken as night works as it will be required to close one of the traffic lanes on Memorial Avenue to construct the entry/exit pits.

11Kv Distribution Network - The early works involves removing the existing overhead cables that run along the length of Memorial Avenue between Old Windsor Road and Windsor Road and replacing them with new cables placed underground to suit the new road widening. The new cables will be placed underground using both open trench excavation and also under boring under existing intersections, in areas that are too deep to excavate a trench and also creek crossings. The majority of this work will be undertaken during normal working hours however there will be areas that will require nightworks.

LV Street Lighting - New low voltage street lighting cables will be installed as early works across all four approaches to both the Old Windsor Road and Windsor Road intersections with Memorial Avenue. These cables will be installed in open trench excavation.

All of the above works are highlighted on the electrical drawings in Appendix B. Blue markings are trenching as early works. Pink markings are under bore as early works. Green and purple markings are not early works and will be carried out after the award of the main Civil Contract by RMS.

Potable Water Main - A description of the potable water main design changes is in Appendix C. The trenching works for the water main changes are in the vicinity of the electrical work trenching locations.

3 Construction noise objectives

3.1 Construction noise management levels

In the Project REF, construction noise objectives were set in accordance with the NSW Interim Construction Nosie Guideline 2009 (ICNG). RMS has since released their Construction Noise and Vibration Guideline 2016 (CNVG) for assessment of construction noise and vibration for Roads and Maritime projects. This guideline refers to the ICNG for the setting of noise management levels (NMLs).

The Addendum noise and vibration assessment presented an updated table of NMLs for each noise catchment area (NCA). The NMLs used for this early works construction assessment are the same as those set out in the Addendum noise and vibration assessment, and are reproduced below in Table 1. Noise management levels for other sensitive receivers (non-residential) are as per the Project REF.

Table 1 Construction noise management levels at residential receivers

NCA	L_{A90} Rating Background Level (RBL)			Noise Management Level $L_{Aeq(15min)}$[1]		
	Day	Evening	Night	Day	Evening	Night
1	49	46	37	59	51	42
2	49	46	37	59	51	42
3	53	50	41	63	55	46
4	53	50	41	63	55	46
5	49	50	44	59	55	49
6	47	45	34	57	50	39
7	55	50	34	65	55	39
8	49	48	38	59	53	43

3.2 Sleep disturbance

The Addendum noise and vibration assessment updated the sleep disturbance criteria for construction activities to be consistent with the EPA's current policy on sleep disturbance. The sleep disturbance criterion of (L_{Amax} or $L_{A1(1min))}$ ≤ $L_{A90(15min)}$ + 15 dB(A) is also applied to these early works.

Table 2 presents the sleep disturbance noise management levels established for the NCAs based upon the results of noise monitoring conducted in the study area.

Table 2 Sleep disturbance noise management levels

NCA	Sleep disturbance criteria, 10pm to 7am, $L_{A1,1min}$ (or L_{Amax}), dB(A)
	$L_{A90(15min)}$ + 15 dB
1	52
2	52
3	56
4	56

NCA	Sleep disturbance criteria, 10pm to 7am, $L_{A1,1min}$ (or L_{Amax}), dB(A)
	$L_{A90(15min)}$ + 15 dB
5	59
6	49
7	49
8	53

4 Construction noise assessment

4.1 Noise assessment methodology

An assessment on the potential level of construction noise impact has been carried out to determine whether mitigation would be required, and to determine appropriate management controls.

Modelling and assessment of airborne noise impacts from activities associated with the early works construction were determined by modelling the noise sources, receiver locations, topographical features, and possible noise mitigation measures using a 'CadnaA' computer noise model developed for this project. The model calculates the contribution of each noise source at identified sensitive receiver locations and allows for the prediction of the total noise from a site for the various stages of the construction works.

The noise prediction models take into account:

- Location of noise sources and sensitive receiver locations
- Height of sources and receivers referenced to one metre digital ground contours for the site area and surrounding area
- Sound Power Levels (L_w) of plant and equipment likely to be used during the construction activities
- Separation distances between sources and receivers
- Ground type between sources and receivers
- Shielding from existing buildings and barriers.

4.2 Construction activities and noise sources

Table 3 presents a list of the construction activities and respective sound power levels of indicative plant and equipment that will be used to complete the early works. To identify the potential level of impact associated with the construction works, the assessment assumes all equipment would be operating concurrently (i.e. a 'worst case' scenario).

Table 3 Construction activities and equipment

Activity	Plant/Equipment	Sound power levels, dB(A)$L_{Aeq,15min}$	Assumed No. units
Trenching (TRENCH)	Truck	106	1
	Excavator 12T	103	1
Under bore site compound (HDD)	HDD (horizontal directional drilling)	105	1
	Truck	106	1
	Excavator 12T	103	1

4.3 Predicted noise levels

Noise emissions were determined by modelling the noise sources, receiver locations, and operating activities, based on the information presented in Section 4.2. Detailed results of predicted construction noise levels at each receiver are presented in APPENDIX D.

Table 4 presents a summary of the predicted noise impacts from construction activities. The colours in the table indicate whether receivers in the NCA comply with the NML and, where exceedance of the NML occurs, the perceived impact of the exceedance. These summary results represent the impacts at the nearest receivers to the early works.

The impacts presented are as follow for **Standard Hours:**

- Complies with NML
- < 10dB(A) above NML - construction noise clearly audible
- > 10dB(A) above NML - construction noise moderately intrusive
- > 75dB(A) - highly noise affected

The impacts presented are as follows for all **OOH periods:**

- Below NML
- < 5dB(A) above NML - construction noise noticeable
- 5 to 15dB(A) above NML - construction noise clearly audible
- > 15 to 25dB(A) above NML - construction noise moderately intrusive
- >25dB(A) above NML - construction noise highly intrusive

Table 4 Compliance with NMLs at nearest sensitive receivers

NCA	Level of compliance with NML					
	TRENCH			HDD		
	D	E	N	D	E	N
1	●	◆	■	◔	◆	■
2	◔	◆	■	◆	■	□
3	●	◔	◆	●	◔	◆
4	◔	■	□	◔	■	□
5	◆	■	■	◆	■	■
6	◔	◆	■	◔	◆	□
7	◔	■	□	◔	◆	□
8	●	●	◆	●	●	◔
OSR	◔	◔	◔	◔	◆	◆

4.4 Sleep disturbance

The principal activities likely to occur during the night period are the under boring works for the 33kV transmission cables, although some trenching activities may also occur in selected areas. During night works nearby residences may experience instantaneous noise events generated by the works. These events may result in an elevated risk of sleep disturbance.

Table 5 presents the sleep disturbance noise management levels, and the predicted L_{Amax} noise levels for the under bore and trenching activities.

To mitigate the potential for sleep disturbance, work activities should be scheduled for standard hours as much as possible. Refer to Section 11 of the Addendum noise and vibration assessment for noise controls to minimise sleep disturbance. Heavy vehicle movements should also be limited as much as practicable. Out-of-hours works should not be scheduled for more than two consecutive nights to allow respite to nearby residences.

Table 5 Predicted sleep disturbance impacts

NCA	Sleep disturbance criteria, 10pm to 7am, $L_{A1,1min}$ (or L_{Amax}), dB(A)	Highest predicted instantaneous level, dB(A) L_{Amax}	
	$L_{A90(15min)}$ + 15 dB	TRENCH	HDD
1	52	65	66
2	52	70	76
3	56	65	62
4	56	78	77
5	59	80	76
6	49	68	69
7	49	79	70
8	53	59	48

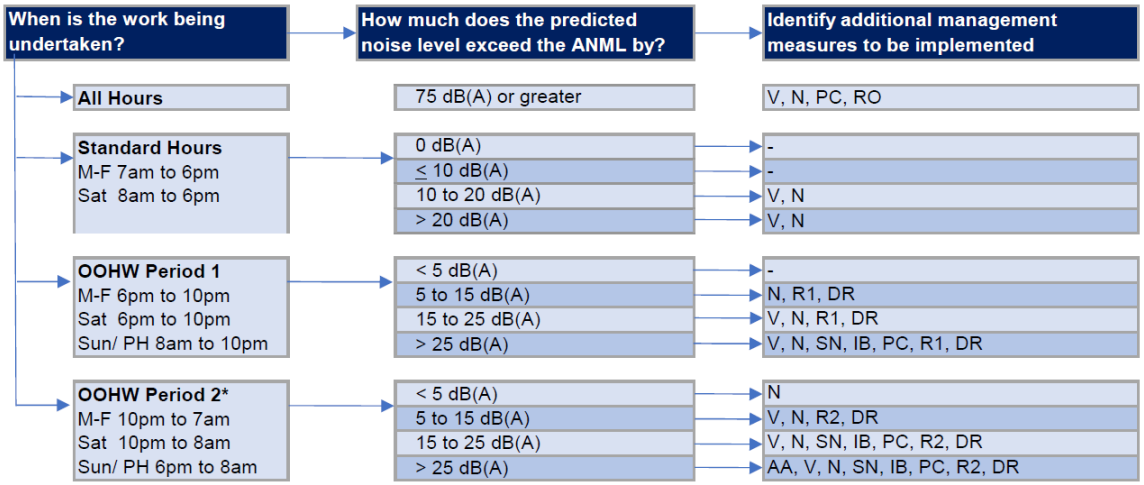
4.5 Standard noise and vibration mitigation measures

The CNVG recommends standard actions and mitigation measures that should be implemented on all RMS construction projects. These measures are summarised in the Addendum noise and vibration assessment.

4.6 Additional noise mitigation measures

The CNVG provides details of additional noise mitigation measures to be applied when there are still exceedances of the NMLs after all the appropriate standard mitigation measures have been applied.

The flow chart in Figure 2 describes the process of applying particular mitigation measures according to the time period when the works are being undertaken and the exceedance of the NML.



Notes: Use the abbreviation codes in the table above to confirm management measures required
* Where OOHW occur in the evening/night shoulder period (10pm to 12am) or the night/morning shoulder period (5am to 7am) apply additional airborne mitigation measures from the OOHW Period 2, excluding AA.
N = Notification (should be issued a minimum of five working days prior to the start of works)
SN = Specific notifications (issued no later than seven calendar days ahead of construction activities)
IB = Individual briefing PC = Phone Call
AA = Alternative accommodation** RO = Project specific respite offer R1 = Respite period 1
V = Verification of predicted noise DR = Duration respite R2 = Respite period 2
** Where construction activity impacts receiver for more than two consecutive nights. AA is not applicable to shoulder periods.

Figure 2 Additional airborne noise mitigation measures

APPENDIX E presents a summary of the additional noise mitigation measures applicable for each receiver where, after application of all reasonable and feasible mitigation options, construction noise levels still exceed the NMLs.

5 Construction vibration

Construction vibration objectives for potential human response and structural damage during construction works are presented in Section 7.3 of the Addendum noise and vibration assessment.

The construction plant used for the early works activities such as excavators, trucks, and directional drilling machine for under bore, are not considered to be vibration intensive plant.

The nearest receiver to any trenching location is approximately 4m, which is the Caltex service station building in NCA7. All residential buildings are estimated to be at least 5m from any trenching location. The closest distance from any building to an under bore site where the directional drilling machine would be located is estimated to be 14m.

At these distances, any vibration generated by the early works activities are expected to be very low, and there is a low risk of any complaints due to vibration. Trenching activities commonly occur in residential areas and in close proximity to residences without any adverse vibration impacts.

6 Conclusion

Early works construction involving under bore and trenching works are proposed for the Memorial Avenue upgrade project. These works are for watermain realignment and relocation of electrical transmission lines underground. Some activities such as under boring will occur outside of standard hours to reduce traffic disruptions on Memorial Avenue.

Additional noise modelling has been conducted to supplement the Project's REF and Addendum noise and vibration assessment. Noise levels during early works construction are predicted to exceed the nominated noise management levels (NMLs), but are generally less than the main road works construction noise levels report in the Addendum noise and vibration assessment.

Standard noise mitigation measures as outlined in the RMS Construction Noise and Vibration Guideline (CNVG) and summarised in the Addendum noise and vibration assessment should be applied during these early works activities. This report also provides details of additional noise mitigation measures to be implemented when there are still exceedances of the NMLs after all standard mitigation measures have been applied.

APPENDIX A Glossary of terminology

The following is a brief description of the technical terms used to describe noise to assist in understanding the technical issues presented.

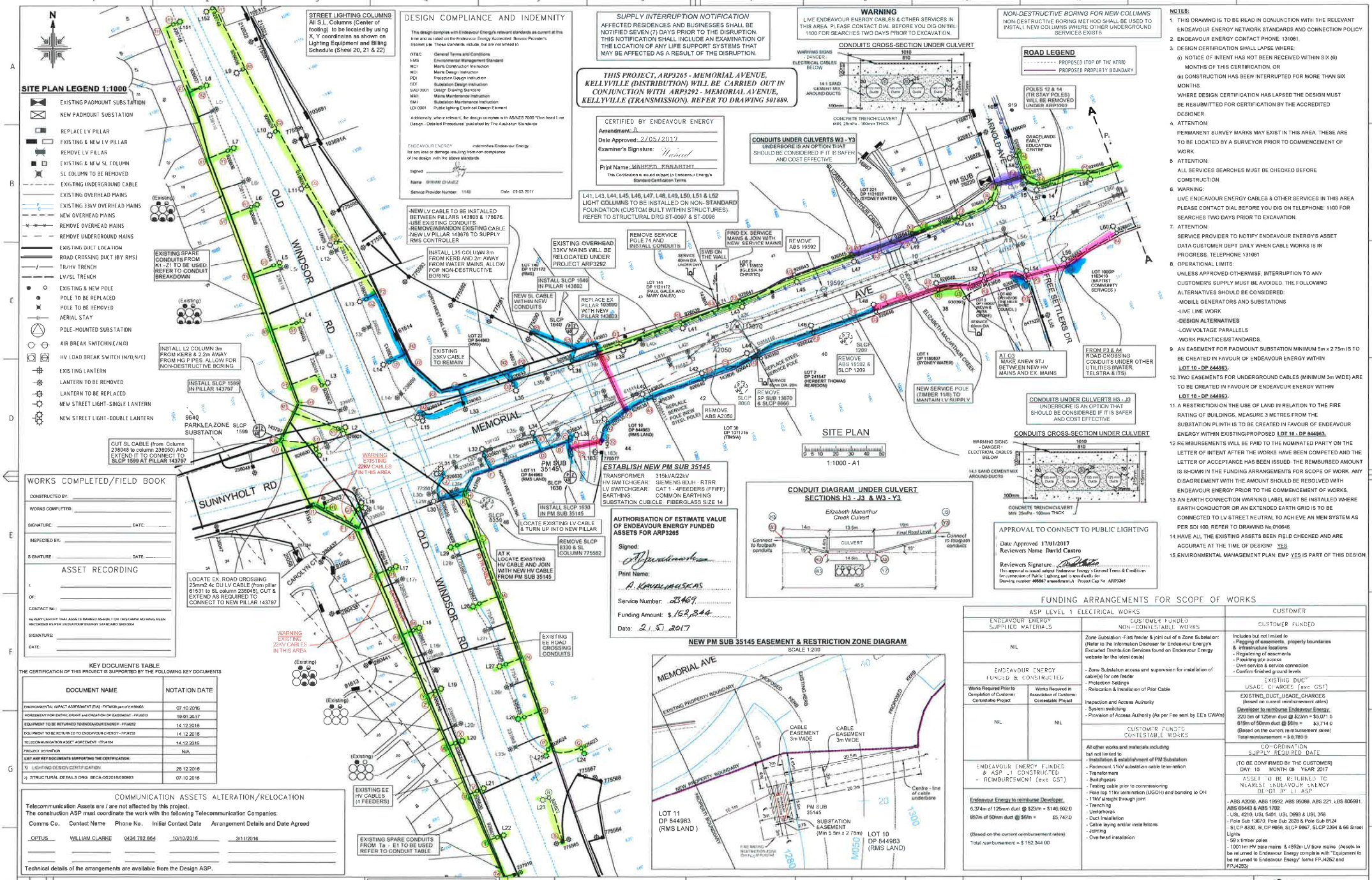
Adverse weather	Weather effects that enhance noise (that is, wind and temperature inversions) that occur at a site for a significant period of time (that is, wind occurring more than 30% of the time in any assessment period in any season and/or temperature inversions occurring more than 30% of the nights in winter).
Ambient noise	The all-encompassing noise associated within a given environment at a given time, usually composed of sound from all sources near and far.
Assessment period	The period in a day over which assessments are made.
Assessment Point	A point at which noise measurements are taken or estimated. A point at which noise measurements are taken or estimated.
Background noise	Background noise is the term used to describe the underlying level of noise present in the ambient noise, measured in the absence of the noise under investigation, when extraneous noise is removed. It is described as the average of the minimum noise levels measured on a sound level meter and is measured statistically as the A-weighted noise level exceeded for ninety percent of a sample period. This is represented as the L90 noise level (see below).
Decibel [dB]	The units that sound is measured in. The following are examples of the decibel readings of common sounds in our daytime environment:

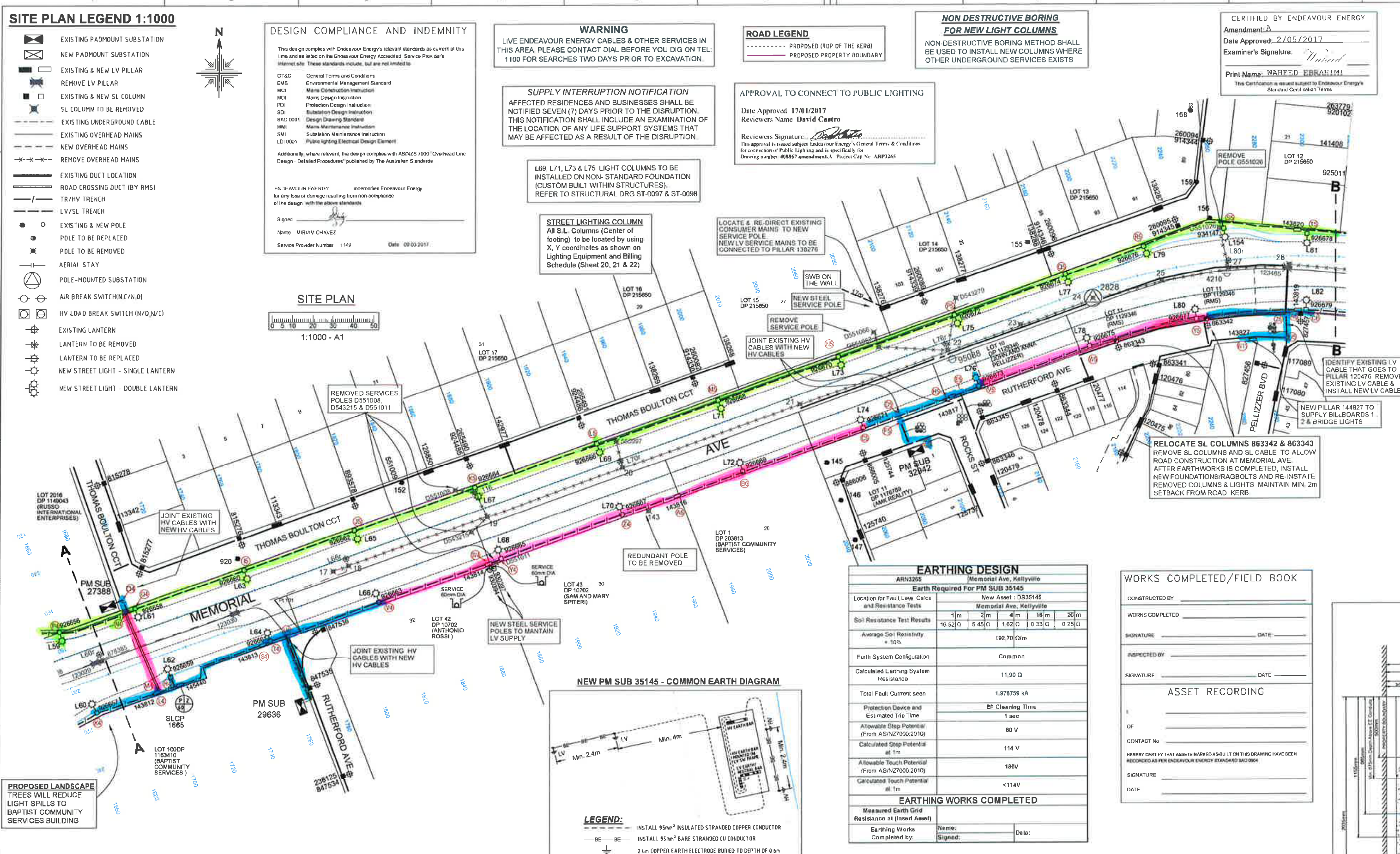
threshold of hearing	0 dB	The faintest sound we can hear
	10 dB	Human breathing
almost silent	20 dB	
	30 dB	Quiet bedroom or in a quiet national park location
generally quiet	40 dB	Library
	50 dB	Typical office space or ambience in the city at night
moderately loud	60 dB	CBD mall at lunch time
	70 dB	The sound of a car passing on the street
loud	80 dB	Loud music played at home
	90 dB	The sound of a truck passing on the street
very loud	100 dB	Indoor rock band concert
	110 dB	Operating a chainsaw or jackhammer
extremely loud	120 dB	Jet plane take-off at 100m away
threshold of pain	130 dB	
	140 dB	Military jet take-off at 25m away

dB(A)	A-weighted decibels. The A- weighting noise filter simulates the response of the human ear at relatively low levels, where the ear is not as effective in hearing low frequency sounds as it is in hearing high frequency sounds. That is, low frequency sounds of the same dB level are not heard as loud as high frequency sounds. The sound level meter replicates the human response of the ear by using an electronic filter which is called the "A" filter. A sound level measured with this filter switched on is denoted as dB(A). Practically all noise is measured using the A filter.
dB(C)	C-weighted decibels. The C-weighting noise filter simulates the response of the human ear at relatively high levels, where the human ear is nearly equally effective at hearing from mid-low frequency (63Hz) to mid-high frequency (4kHz), but is less effective outside these frequencies.

Frequency	Frequency is synonymous to pitch. Sounds have a pitch which is peculiar to the nature of the sound generator. For example, the sound of a tiny bell has a high pitch and the sound of a bass drum has a low pitch. Frequency or pitch can be measured on a scale in units of Hertz or Hz.
Impulsive noise	Having a high peak of short duration or a sequence of such peaks. A sequence of impulses in rapid succession is termed repetitive impulsive noise.
Intermittent noise	The level suddenly drops to that of the background noise several times during the period of observation. The time during which the noise remains at levels different from that of the ambient is one second or more.
L_{Max}	The maximum sound pressure level measured over a given period.
L_{Min}	The minimum sound pressure level measured over a given period.
L_1	The sound pressure level that is exceeded for 1% of the time for which the given sound is measured.
L_{10}	The sound pressure level that is exceeded for 10% of the time for which the given sound is measured.
L_{90}	The level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L90 noise level expressed in units of dB(A).
L_{eq}	The "equivalent noise level" is the summation of noise events and integrated over a selected period of time.
Reflection	Sound wave changed in direction of propagation due to a solid object obscuring its path.
SEL	Sound Exposure Level (SEL) is the constant sound level which, if maintained for a period of 1 second would have the same acoustic energy as the measured noise event. SEL noise measurements are useful as they can be converted to obtain Leq sound levels over any period of time and can be used for predicting noise at various locations.
Sound	A fluctuation of air pressure which is propagated as a wave through air.
Sound absorption	The ability of a material to absorb sound energy through its conversion into thermal energy.
Sound level meter	An instrument consisting of a microphone, amplifier and indicating device, having a declared performance and designed to measure sound pressure levels.
Sound pressure level	The level of noise, usually expressed in decibels, as measured by a standard sound level meter with a microphone.
Sound power level	Ten times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power.
Tonal noise	Containing a prominent frequency and characterised by a definite pitch.

APPENDIX B Electrical early works


SITE PLAN LEGEND 1:1000
EXISTING PADMOUNT SUBSTATION
NEW PADMOUNT SUBSTATION
REPLACE LV PILLAR
EXISTING & NEW LV PILLAR
REMOVE LV PILLAR
EXISTING & NEW SL COLUMN
SL COLUMN TO BE REMOVED
EXISTING UNDERGROUND CABLE
EXISTING OVERHEAD MAINS
EXISTING 33kV OVERHEAD MAINS
NEW OVERHEAD MAINS
REMOVE OVERHEAD MAINS
REMOVE UNDERGROUND MAINS
EXISTING DUCT LOCATION
ROAD CROSSING DUCT (BY RMS)
TR/HV TRENCH
LV/SL TRENCH
EXISTING & NEW POLE
POLE TO BE REPLACED
POLE TO BE REMOVED
AERIAL STAY
POLE-MOUNTED SUBSTATION
AIR BREAK SWITCH(N/C/NO)
HV LOAD BREAK SWITCH (N/O/N/C)
EXISTING LANTERN
LANTERN TO BE REMOVED
LANTERN TO BE REPLACED
NEW STREET LIGHT-SINGLE LANTERN
NEW STREET LIGHT-DOUBLE LANTERN
STREET LIGHTING COLUMNS
All S.L. Columns (Center of footing) to be located by using X, Y coordinates as shown on Lighting Equipment and Billing Schedule (Sheet 20, 21 & 22)
DESIGN COMPLIANCE AND INDEMNITY
SUPPLY INTERRUPTION NOTIFICATION
AFFECTED RESIDENCES AND BUSINESSES SHALL BE NOTIFIED SEVEN (7) DAYS PRIOR TO THE DISRUPTION. THIS NOTIFICATION SHALL INCLUDE AN EXAMINATION OF THE LOCATION OF ANY LIFE SUPPORT SYSTEMS THAT MAY BE AFFECTED AS A RESULT OF THE DISRUPTION.
WARNING
LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA. PLEASE CONTACT DIAL BEFORE YOU DIG ON 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.
NON-DESTRUCTIVE BORING FOR NEW COLUMNS
NON-DESTRUCTIVE BORING METHOD SHALL BE USED TO INSTALL NEW COLUMNS WHERE OTHER UNDERGROUND SERVICES EXISTS
THIS PROJECT, ARP3265 - MEMORIAL AVENUE, KELLYVILLE (DISTRIBUTION) WILL BE CARRIED OUT IN CONJUNCTION WITH ARP3292 - MEMORIAL AVENUE, KELLYVILLE (TRANSMISSION). REFER TO DRAWING 501889.
CERTIFIED BY ENDEAVOUR ENERGY
Amendment: A
Date Approved: 2/05/2017
Examiner's Signature:
Print Name: WAHEED FARAHMIT
This Certification is issued subject to Endeavour Energy's Standard Certification Terms
CONDUITS CROSS-SECTION UNDER CULVERT
ROAD LEGEND
PROPOSED (TOP OF THE KERB)
PROPOSED PROPERTY BOUNDARY
POLES 12 & 14 (TR STAY POLES) WILL BE REMOVED UNDER ARP3393
CONDUITS UNDER CULVERTS W3 - Y3
UNDERBORE IS AN OPTION THAT SHOULD BE CONSIDERED IF IT IS SAFER AND COST EFFECTIVE
L41, L43, L44, L45, L46, L47, L48, L49, L50, L51 & L52 LIGHT COLUMNS TO BE INSTALLED ON NON-STANDARD FOUNDATION (CUSTOM BUILT WITHIN STRUCTURES). REFER TO STRUCTURAL DRG ST-0097 & ST-0098
-NEW LV CABLE TO BE INSTALLED BETWEEN PILLARS 143803 & 178676.
-USE EXISTING CONDUITS.
-REMOVE/ABANDON EXISTING CABLE.
-NEW LV PILLAR 143676 TO SUPPLY RMS CONTROLLER
INSTALL L35 COLUMN 3m FROM KERB AND 2m AWAY FROM WATER MAINS. ALLOW FOR NON-DESTRUCTIVE BORING
EXISTING OVERHEAD 33kV MAINS WILL BE RELOCATED UNDER PROJECT ARP3292
REMOVE SERVICE POLE 74 AND INSTALL CONDUITS
FIND EX. SERVICE MAINS & JOIN WITH NEW SERVICE MAINS
REMOVE ABS 19592
EXISTING SPARE CONDUITS FROM K1 - Z1 TO BE USED. REFER TO CONDUIT BREAKDOWN
INSTALL L2 COLUMN 3m FROM KERB & 2.2m AWAY FROM HG PIPES. ALLOW FOR NON-DESTRUCTIVE BORING
INSTALL SLCP 1599 IN PILLAR 143797
INSTALL SLCP 1640 IN PILLAR 143802
NEW SL CABLE WITHIN NEW CONDUITS
REPLACE EX. PILLAR 103890 WITH NEW PILLAR 143803
EXISTING 33kV CABLE TO REMAIN
REMOVE SP SUB 13670 & SLCP 8666
REMOVE ABS A2050
REMOVE ABS 19592 & SLCP 1209
NEW SERVICE POLE (TIMBER 11/8) TO MAINTAIN LV SUPPLY
AT Q3 MAKE ANEW STJ BETWEEN NEW HV MAINS AND EX. MAINS
FROM P3 & A4 ROAD CROSSING CONDUITS UNDER OTHER UTILITIES (WATER, TELSTRA & ITS)
CONDUITS UNDER CULVERTS H3 - J3
UNDERBORE IS AN OPTION THAT SHOULD BE CONSIDERED IF IT IS SAFER AND COST EFFECTIVE
CONDUITS CROSS-SECTION UNDER CULVERT
SITE PLAN
1:1000 - A1
CUT SL CABLE (from Column 238048 to column 238050) AND EXTEND IT TO CONNECT TO SLCP 1599 AT PILLAR 143797
WARNING EXISTING 22kV CABLES IN THIS AREA
ESTABLISH NEW PM SUB 35145
TRANSFORMER: 315kVA/22kV
HV SWITCHGEAR: SIEMENS 8DJH - RTRR
LV SWITCHGEAR: CAT 1 - 4FEEDERS (FFIFF)
EARTHING: COMMON EARTHING
SUBSTATION CUBICLE: FIBERGLASS SIZE 14
INSTALL SLCP 1630 IN PM SUB 35145
LOCATE EXISTING LV CABLE & TURN UP INTO NEW PILLAR
REMOVE SLCP 8330 & SL COLUMN 775582
AT K LOCATE EXISTING HV CABLE AND JOIN WITH NEW HV CABLE FROM PM SUB 35145
LOCATE EX. ROAD CROSSING 25mm2 4c CU LV CABLE (from pillar 81531 to SL column 238048), CUT & EXTEND AS REQUIRED TO CONNECT TO NEW PILLAR 143797
EXISTING EE ROAD CROSSING CONDUITS
EXISTING EE HV CABLES (4 FEEDERS)
EXISTING SPARE CONDUITS FROM Te - E1 TO BE USED REFER TO CONDUIT TABLE
AUTHORISATION OF ESTIMATE VALUE OF ENDEAVOUR ENERGY FUNDED ASSETS FOR ARP3265
Signed:
Print Name: A. KAVALIAUSKAS
Service Number: 83469
Funding Amount: $ 152,344
Date: 21.07.2017
CONDUIT DIAGRAM UNDER CULVERT SECTIONS H3 - J3 & W3 - Y3
Elizabeth Macarthur Creek Culvert
Connect to footpath conduits
CULVERT
Final Road Level
APPROVAL TO CONNECT TO PUBLIC LIGHTING
Date Approved 17/01/2017
Reviewers Name David Castro
Reviewers Signature
NEW PM SUB 35145 EASEMENT & RESTRICTION ZONE DIAGRAM
SCALE 1:200
MEMORIAL AVE
EXISTING PROPERTY BOUNDARY
PROPOSED KERB
EXISTING KERB
CABLE EASEMENT 3m WIDE
NEW PROPERTY BOUNDARY
PM SUB 35145
SUBSTATION EASEMENT (Min 3.5m x 7.75m)
Centre - line of cable underbore
LOT 11 DP 844963 (RMS LAND)
LOT 10 DP 844963 (RMS LAND)
WORKS COMPLETED/FIELD BOOK
CONSTRUCTED BY:
WORKS COMPLETED:
SIGNATURE: DATE:
INSPECTED BY:
SIGNATURE: DATE:
ASSET RECORDING
I:
OF:
CONTACT No:
HEREBY CERTIFY THAT ASSETS MARKED AS BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOUR ENERGY STANDARD SAD 0004
SIGNATURE:
DATE:
KEY DOCUMENTS TABLE
THE CERTIFICATION OF THIS PROJECT IS SUPPORTED BY THE FOLLOWING KEY DOCUMENTS
DOCUMENT NAME
NOTATION DATE
ENVIRONMENTAL IMPACT ASSESSMENT (EIA) - FAT0038 part of EWB003
07.10.2016
AGREEMENT FOR ENTRY, GRANT and CREATION OF EASEMENT - FPJ4003
19.01.2017
EQUIPMENT TO BE RETURNED TO ENDEAVOUR ENERGY - FPJ4252
14.12.2016
EQUIPMENT TO BE RETURNED TO ENDEAVOUR ENERGY - FPJ4253
14.12.2016
TELECOMMUNICATION ASSET AGREEMENT - FPJ4184
14.12.2016
PROJECT DEFINITION
N/A
LIST ANY KEY DOCUMENTS SUPPORTING THE CERTIFICATION:
1) LIGHTING DESIGN CERTIFICATION
28.12.2016
2) STRUCTURAL DETAILS DRG BECA-DS2016/000903
07.10.2016
COMMUNICATION ASSETS ALTERATION/RELOCATION
Telecommunication Assets are / are not affected by this project.
The construction ASP must coordinate the work with the following Telecommunication Companies:
Comms Co. | Contact Name | Phone No. | Initial Contact Date | Arrangement Details and Date Agreed
OPTUS | WILLIAM CLARKE | 0434 782 864 | 10/10/2016 | 3/11/2016
Technical details of the arrangements are available from the Design ASP.
FUNDING ARRANGEMENTS FOR SCOPE OF WORKS
ASP LEVEL 1 ELECTRICAL WORKS
ENDEAVOUR ENERGY SUPPLIED MATERIALS
NIL
ENDEAVOUR ENERGY FUNDED & CONSTRUCTED
Works Required Prior to Completion of Customer Contestable Project
Works Required in Association of Customer Contestable Project
NIL
NIL
ENDEAVOUR ENERGY FUNDED & ASP L1 CONSTRUCTED - REIMBURSMENT (exc GST)
Endeavour Energy to reimburse Developer.
6.374m of 125mm duct @ $23/m = $146,602.0
957m of 50mm duct @ $6/m = $5,742.0
(Based on the current reimbursement rates)
Total reimbursement = $ 152,344.00
CUSTOMER FUNDED NON-CONTESTABLE WORKS
Zone Substation -First feeder & joint out of a Zone Substation: (Refer to the Information Discloser for Endeavour Energy's Excluded Distribution Services found on Endeavour Energy website for the latest costs)
- Zone Substation access and supervision for installation of cable(s) for one feeder
- Protection Settings
- Relocation & Installation of Pilot Cable
Inspection and Access Authority
- System switching
- Provision of Access Authority (As per Fee sent by EE's CWA's)
CUSTOMER FUNDED CONTESTABLE WORKS
All other works and materials including but not limited to:
- Installation & establishment of PM Substation
- Padmount 11kV substation cable termination
- Transformers
- Switchgears
- Testing cable prior to commissioning
- Pole top 11kV termination (UGOH) and bonding to OH
- 11kV straight through joint
- Trenching
- Underbores
- Duct installation
- Cable laying and/or installations
- Jointing
- Overhead installation
CUSTOMER
CUSTOMER FUNDED
Includes but not limited to
- Pegging of easements, property boundaries & infrastructure locations
- Registering of easements
- Providing site access
- Own service connection
- Confirm finished ground levels
EXISTING DUCT USAGE CHARGES (exc GST)
EXISTING_DUCT_USAGE_CHARGES (based on current reimbursement rates)
Developer to reimburse Endeavour Energy:
220.5m of 125mm duct @ $23/m = $5,071.5
619m of 50mm duct @ $6/m = $3,714.0
(Based on the current reimbursement rates)
Total reimbursement = $ 8,785.5
CO-ORDINATION SUPPLY REQUIRED DATE
(TO BE CONFIRMED BY THE CUSTOMER)
DAY: 15 MONTH: 08 YEAR: 2017
ASSET TO BE RETURNED TO NEAREST ENDEAVOUR ENERGY DEPOT BY LI ASP
- ABS A2050, ABS 19592, ABS 95088, ABS 221, LBS 806991, ABS 65443 & ABS 1702
- LBS, 4210, USL 5401, USL 0693 & USL 358
- Pole Sub 13670, Pole Sub 2628 & Pole Sub 8124
- SLCP 8330, SLCP 8666, SLCP 9867, SLCP 2394 & 66 Street Lights
- 99 x timber poles
- 1001m HV bare mains & 4652m LV bare mains (Assets to be returned to Endeavour Energy complete with "Equipment to be returned to Endeavour Energy" forms FPJ4252 and FPJ4253)
NOTES:
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT ENDEAVOUR ENERGY NETWORK STANDARDS AND CONNECTION POLICY.
2. ENDEAVOUR ENERGY CONTACT PHONE: 131081.
3. DESIGN CERTIFICATION SHALL LAPSE WHERE:
(i) NOTICE OF INTENT HAS NOT BEEN RECEIVED WITHIN SIX (6) MONTHS OF THIS CERTIFICATION, OR
(ii) CONSTRUCTION HAS BEEN INTERRUPTED FOR MORE THAN SIX MONTHS.
WHERE DESIGN CERTIFICATION HAS LAPSED THE DESIGN MUST BE RESUBMITTED FOR CERTIFICATION BY THE ACCREDITED DESIGNER.
4. ATTENTION:
PERMANENT SURVEY MARKS MAY EXIST IN THIS AREA. THESE ARE TO BE LOCATED BY A SURVEYOR PRIOR TO COMMENCEMENT OF WORK.
5. ATTENTION:
ALL SERVICES SEARCHES MUST BE CHECKED BEFORE CONSTRUCTION.
6. WARNING:
LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA. PLEASE CONTACT DIAL BEFORE YOU DIG ON TELEPHONE: 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.
7. ATTENTION:
SERVICE PROVIDER TO NOTIFY ENDEAVOUR ENERGY'S ASSET DATA CUSTOMER DEPT DAILY WHEN CABLE WORKS IS IN PROGRESS. TELEPHONE 131081
8. OPERATIONAL LIMITS:
UNLESS APPROVED OTHERWISE, INTERRUPTION TO ANY CUSTOMER'S SUPPLY MUST BE AVOIDED. THE FOLLOWING ALTERNATIVES SHOULD BE CONSIDERED:
-MOBILE GENERATORS AND SUBSTATIONS
-LIVE LINE WORK
-DESIGN ALTERNATIVES
-LOW VOLTAGE PARALLELS
-WORK PRACTICES/STANDARDS.
9. AN EASEMENT FOR PADMOUNT SUBSTATION MINIMUM 5m x 2.75m IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN LOT 10 - DP 844963.
10. TWO EASEMENTS FOR UNDERGROUND CABLES (MINIMUM 3m WIDE) ARE TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN LOT 10 - DP 844963.
11. A RESTRICTION ON THE USE OF LAND IN RELATION TO THE FIRE RATING OF BUILDINGS, MEASURE 3 METRES FROM THE SUBSTATION PLINTH IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN EXISTING/PROPOSED LOT 10 - DP 844963.
12. REIMBURSEMENTS WILL BE PAID TO THE NOMINATED PARTY ON THE LETTER OF INTENT AFTER THE WORKS HAVE BEEN COMPETED AND THE LETTER OF ACCEPTANCE HAS BEEN ISSUED. THE REIMBURSED AMOUNT IS SHOWN IN THE FUNDING ARRANGEMENTS FOR SCOPE OF WORK. ANY DISAGREEMENT WITH THE AMOUNT SHOULD BE RESOLVED WITH ENDEAVOUR ENERGY PRIOR TO THE COMMENCEMENT OF WORKS.
13. AN EARTH CONNECTION WARNING LABEL MUST BE INSTALLED WHERE EARTH CONDUCTOR OR AN EXTENDED EARTH GRID IS TO BE CONNECTED TO LV STREET NEUTRAL TO ACHIEVE AN MEN SYSTEM AS PER SDI 100, REFER TO DRAWING No.010646.
14. HAVE ALL THE EXISTING ASSETS BEEN FIELD CHECKED AND ARE ACCURATE AT THE TIME OF DESIGN? YES
15. ENVIRONMENTAL MANAGEMENT PLAN: EMP YES IS PART OF THIS DESIGN.
Endeavour Energy
ABN 59253130878
51 Huntingwood Drive, Huntingwood NSW 2148
PO Box 811, Seven Hills - NSW
T: 131 081 F: (02) 9853 6000
REFERENCE DRAWINGS
ST -0097 & 0098 | BECA - DS2016/000903 | STRUCTURAL DETAILS
WORK ORDERS
GENERAL
OVERHEAD
UNDERGROUND
SUBSTATIONS
CAP / SAMP No. ARP3265
AM PROJ. No. ARNP0002
HV SWITCHING PARKLEA 4
UBD/PENGUIN REF 14.9 H9-J9
GIS MAP No U916021
HV OP DIAGRAM PARKLEA 4
LOCAL GOV AREA THE HILLS SHIRE C
ORIGINAL SCALE 1:1000
DRAWN MC
DATE 08.12.2016
CHD JP
DESIGN MC
DO NOT SCALE
DIMENSIONS IN METRES
AMENDMENTS
ORIGINAL ISSUE
DRAFT No. 01
MEMORIAL AVENUE
KELLYVILLE
ARP3265
ASSET RELOCATION
SITE PLAN 1
Endeavour Energy
A1
408867
A
SHEET No 1 OF 22 SHEETS
45731



NEW PM SUB 35145 - COMMON EARTH DIAGRAM

LEGEND:

INSTALL 95mm² INSULATED STRANDED COPPER CONDUCTOR

INSTALL 95mm² BARE STRANDED CU CONDUCTOR

2.4m COPPER EARTH ELECTRODE BURIED TO DEPTH OF 0.6m

EARTHING DESIGN

ARN3265	Memorial Ave, Kellyville				
Earth Required For PM SUB 35145					
Location for Fault Level Calcs and Resistance Tests	New Asset : DS35145 Memorial Ave, Kellyville				
Soil Resistance Test Results	1 m: 16.52 Ω	2 m: 5.45 Ω	4 m: 1.62 Ω	16 m: 0.33 Ω	20 m: 0.25 Ω
Average Soil Resistivity ± 10%	192.70 Ω/m				
Earth System Configuration	Common				
Calculated Earthing System Resistance	11.90 Ω				
Total Fault Current seen	1.976759 kA				
Protection Device and Estimated Trip Time	EF Clearing Time 1 sec				
Allowable Step Potential (From AS/NZ7000:2010)	80 V				
Calculated Step Potential at 1m	114 V				
Allowable Touch Potential (From AS/NZ7000:2010)	180V				
Calculated Touch Potential at 1m	<114V				

EARTHING WORKS COMPLETED

Measured Earth Grid Resistance at (Insert Asset)		
Earthing Works Completed by:	Name: / Signed:	Date:

WORKS COMPLETED/FIELD BOOK

CONSTRUCTED BY

WORKS COMPLETED

SIGNATURE ______ DATE ______

INSPECTED BY

SIGNATURE ______ DATE ______

ASSET RECORDING

I

OF

CONTACT No

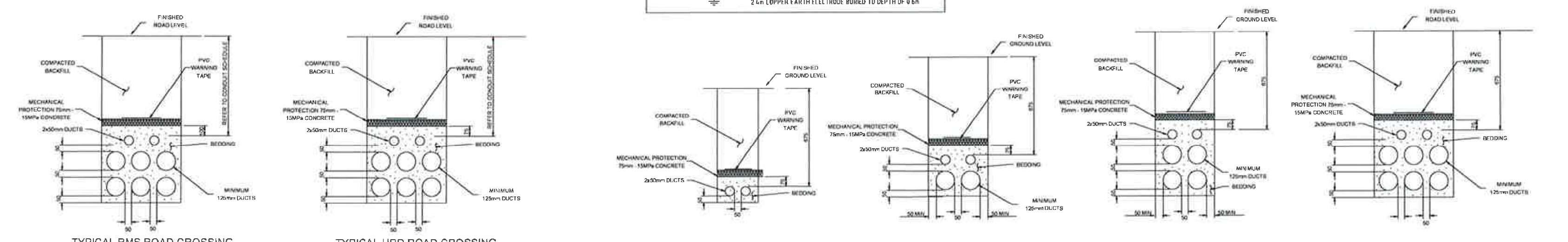
HEREBY CERTIFY THAT ASSETS MARKED AS-BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOUR ENERGY STANDARD SAD 0004

SIGNATURE

DATE

NOTES:

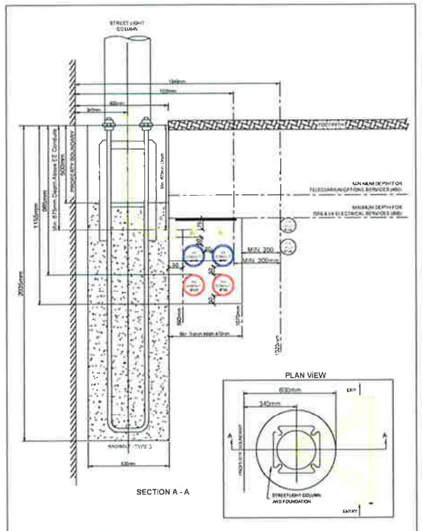
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT ENDEAVOUR ENERGY NETWORK STANDARDS AND CONNECTION POLICY.
2. ENDEAVOUR ENERGY CONTACT PHONE. 131081.
3. DESIGN CERTIFICATION SHALL LAPSE WHERE:
   (i) NOTICE OF INTENT HAS NOT BEEN RECEIVED WITHIN SIX (6) MONTHS OF THIS CERTIFICATION, OR
   (ii) CONSTRUCTION HAS BEEN INTERRUPTED FOR MORE THAN SIX MONTHS. WHERE DESIGN CERTIFICATION HAS LAPSED THE DESIGN MUST BE RESUBMITTED FOR CERTIFICATION BY THE ACCREDITED DESIGNER.
4. ATTENTION:
   PERMANENT SURVEY MARKS MAY EXIST IN THIS AREA. THESE ARE TO BE LOCATED BY A SURVEYOR PRIOR TO COMMENCEMENT OF WORK.
5. ATTENTION:
   ALL SERVICES SEARCHES MUST BE CHECKED BEFORE CONSTRUCTION.
6. WARNING:
   LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA. PLEASE CONTACT DIAL BEFORE YOU DIG ON TELEPHONE: 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.
7. ATTENTION:
   SERVICE PROVIDER TO NOTIFY ENDEAVOUR ENERGY'S ASSET DATA CUSTOMER DEPT DAILY WHEN CABLE WORKS IS IN PROGRESS. TELEPHONE 131081
8. OPERATIONAL LIMITS:
   UNLESS APPROVED OTHERWISE, INTERRUPTION TO ANY CUSTOMER'S SUPPLY MUST BE AVOIDED. THE FOLLOWING ALTERNATIVES SHOULD BE CONSIDERED:
   -MOBILE GENERATORS AND SUBSTATIONS
   -LIVE LINE WORK
   -DESIGN ALTERNATIVES
   -LOW VOLTAGE PARALLELS
   -WORK PRACTICES/STANDARDS
9. REIMBURSEMENTS WILL BE PAID TO THE NOMINATED PARTY ON THE LETTER OF INTENT AFTER THE WORKS HAVE BEEN COMPETED AND THE LETTER OF ACCEPTANCE HAS BEEN ISSUED. THE REIMBURSED AMOUNT IS SHOWN IN THE FUNDING ARRANGEMENTS FOR SCOPE OF WORK. ANY DISAGREEMENT WITH THE AMOUNT SHOULD BE RESOLVED WITH ENDEAVOUR ENERGY PRIOR TO THE COMMENCEMENT OF WORKS.
10. AN EARTH CONNECTION WARNING LABEL MUST BE INSTALLED WHERE EARTH CONDUCTOR OR AN EXTENDED EARTH GRID IS TO BE CONNECTED TO LV STREET NEUTRAL TO ACHIEVE AN MEN SYSTEM AS PER SDI 100. REFER TO DRAWING No 010646.
11. HAVE ALL THE EXISTING ASSETS BEEN FIELD CHECKED AND ARE ACCURATE AT THE TIME OF DESIGN? YES
12. ENVIRONMENTAL MANAGEMENT PLAN: EMP YES IS PART OF THIS DESIGN.



TYPICAL RMS ROAD CROSSING TRENCH CROSS SECTION

TYPICAL URD ROAD CROSSING TRENCH CROSS SECTION

TYPICAL FOOTPATH TRENCH CROSS SECTION



PROPOSED ENDEAVOUR ENERGY FOOTPATH ALLOCATION

REFERENCE DRAWING'S		WORK ORDERS	
ST -0097 & 0098	BECA - DS2016/000903	GENERAL	
	STRUCTURAL DETAILS	OVERHEAD	
		UNDERGROUND	
		SUBSTATIONS	

CAP / SAMP No.	ARP3265
AM PROJ. No.	ARNP0002
HV SWITCHING	PARKLEA 4
UBD/PENGUIN REF	149 K9-L9
GIS MAP No	U916783
HV OP DIAGRAM	PARKLEA 4
LOCAL GOV AREA	THE HILLS SHIRE C

ORIGINAL SCALE 1:1000 | DRAWN MC | DATE 08.12.2016 | CH'D JP | DESIGN MC

DO NOT SCALE. DIMENSIONS IN METRES

MEMORIAL AVENUE
KELLYVILLE
ARP3265
ASSET RELOCATION
SITE PLAN 2

Endeavour Energy

A1 408867 A

SHEET No 2 OF 22 SHEETS

Endeavour Energy
ABN 59253130878
51 Huntingwood Drive, Huntingwood NSW 2148
PO Box 811, Seven Hills - NSW
T: 131 081 F: (02) 9853 6000

SITE PLAN LEGEND 1:1000

- EXISTING PADMOUNT SUBSTATION
- NEW PADMOUNT SUBSTATION
- EXISTING & NEW LV PILLAR
- REMOVE LV PILLAR
- EXISTING & NEW SL COLUMN
- SL COLUMN TO BE REMOVED
- EXISTING UNDERGROUND CABLE
- EXISTING OVERHEAD MAINS
- NEW OVERHEAD MAINS
- REMOVE OVERHEAD MAINS
- EXISTING DUCT LOCATION
- ROAD CROSSING DUCT (BY RMS)
- TR/HV TRENCH
- LV/SL TRENCH
- EXISTING & NEW POLE
- POLE TO BE REPLACED
- POLE TO BE REMOVED
- AERIAL STAY
- POLE-MOUNTED SUBSTATION
- AIR BREAK SWITCH(NF/N.O)
- HV LOAD BREAK SWITCH (N/O,N/C)
- EXISTING LANTERN
- LANTERN TO BE REMOVED
- LANTERN TO BE REPLACED
- NEW STREET LIGHT - SINGLE LANTERN
- NEW STREET LIGHT - DOUBLE LANTERN

N

DESIGN COMPLIANCE AND INDEMNITY

This design complies with Endeavour Energy's relevant standards as current at the time and as listed on the Endeavour Energy Accredited Service Provider's Interest site. These standards include, but are not limited to

GTSC	General Terms and Conditions
EMS	Environmental Management Standard
MC	Mains Construction Instruction
MD	Mains Design Instruction
PDI	Protection Design Instruction
SDI	Substation Design Instruction
SAD 0001	Design Drawing Standard
MMI	Mains Maintenance Instruction
SMI	Substation Maintenance Instruction
LDI 0001	Public lighting Electrical Design Element

Additionally, where relevant, the design complies with AS/NZS 7000 "Overhead Line Design - Detailed Procedures" published by The Australian Standards

ENDEAVOUR ENERGY indemnifies Endeavour Energy for any loss or damage resulting from non-compliance of the design with the above standards

Signed: _____

Name: MIRIAM CHAVEZ

Service Provider Number: 1145 Date: 08.03.2017

ROAD LEGEND

PROPOSED (TOP OF THE KERB)

PROPOSED PROPERTY BOUNDARY

NON DESTRUCTIVE BORING FOR NEW LIGHT COLUMNS

NON-DESTRUCTIVE BORING METHOD SHALL BE USED TO INSTALL NEW COLUMNS WHERE OTHER UNDERGROUND SERVICES EXISTS

CERTIFIED BY ENDEAVOUR ENERGY

Amendment: A

Date Approved: 2/05/2017

Examiner's Signature: _____

Print Name: WAHEED EBRAHIMI

This Certification is issued subject to Endeavour Energy's Standard Certification Terms

WARNING

LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA. PLEASE CONTACT DIAL BEFORE YOU DIG ON TEL. 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.

SUPPLY INTERRUPTION NOTIFICATION

AFFECTED RESIDENCES AND BUSINESSES SHALL BE NOTIFIED SEVEN (7) DAYS PRIOR TO THE DISRUPTION. THIS NOTIFICATION SHALL INCLUDE AN EXAMINATION OF THE LOCATION OF ANY LIFE SUPPORT SYSTEMS THAT MAY BE AFFECTED AS A RESULT OF THE DISRUPTION.

APPROVAL TO CONNECT TO PUBLIC LIGHTING

Date Approved 17/01/2017

Reviewers Name David Castro

Reviewers Signature: _____

This approval is issued subject Endeavour Energy's General Terms & Conditions for connection of Public Lighting and is specifically for Drawing number 408867 amendment A Project/Cap No: ARP3265

WORKS COMPLETED/FIELD BOOK

CONSTRUCTED BY _____

WORKS COMPLETED _____

SIGNATURE _____ DATE _____

INSPECTED BY _____

SIGNATURE _____ DATE _____

ASSET RECORDING

I _____

OF _____

CONTACT No _____

HEREBY CERTIFY THAT ASSETS MARKED AS BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOUR ENERGY STANDARD SAD 0004

SIGNATURE _____

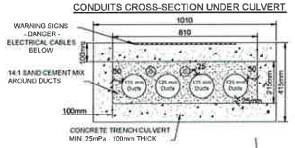
DATE _____

NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT ENDEAVOUR ENERGY NETWORK STANDARDS AND CONNECTION POLICY.
2. ENDEAVOUR ENERGY CONTACT PHONE: 131081.
3. DESIGN CERTIFICATION SHALL LAPSE WHERE:
   (i) NOTICE OF INTENT HAS NOT BEEN RECEIVED WITHIN SIX (6) MONTHS OF THIS CERTIFICATION, OR
   (ii) CONSTRUCTION HAS BEEN INTERRUPTED FOR MORE THAN SIX MONTHS. WHERE DESIGN CERTIFICATION HAS LAPSED THE DESIGN MUST BE RESUBMITTED FOR CERTIFICATION BY THE ACCREDITED DESIGNER.
4. ATTENTION:
   PERMANENT SURVEY MARKS MAY EXIST IN THIS AREA. THESE ARE TO BE LOCATED BY A SURVEYOR PRIOR TO COMMENCEMENT OF WORK.
5. ATTENTION:
   ALL SERVICES SEARCHES MUST BE CHECKED BEFORE CONSTRUCTION.
6. WARNING:
   LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA. PLEASE CONTACT DIAL BEFORE YOU DIG ON TELEPHONE: 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.
7. ATTENTION:
   SERVICE PROVIDER TO NOTIFY ENDEAVOUR ENERGY'S ASSET DATA CUSTOMER DEPT DAILY WHEN CABLE WORKS IS IN PROGRESS. TELEPHONE 131081
8. OPERATIONAL LIMITS:
   UNLESS APPROVED OTHERWISE, INTERRUPTION TO ANY CUSTOMER'S SUPPLY MUST BE AVOIDED. THE FOLLOWING ALTERNATIVES SHOULD BE CONSIDERED:
   -MOBILE GENERATORS AND SUBSTATIONS
   -LIVE LINE WORK
   -DESIGN ALTERNATIVES
   -LOW VOLTAGE PARALLELS
   -WORK PRACTICES/STANDARDS.
9. REIMBURSEMENTS WILL BE PAID TO THE NOMINATED PARTY ON THE LETTER OF INTENT AFTER THE WORKS HAVE BEEN COMPETED AND THE LETTER OF ACCEPTANCE HAS BEEN ISSUED. THE REIMBURSED AMOUNT IS SHOWN IN THE FUNDING ARRANGEMENTS FOR SCOPE OF WORK. ANY DISAGREEMENT WITH THE AMOUNT SHOULD BE RESOLVED WITH ENDEAVOUR ENERGY PRIOR TO THE COMMENCEMENT OF WORKS.
10. AN EARTH CONNECTION WARNING LABEL MUST BE INSTALLED WHERE EARTH CONDUCTOR OR AN EXTENDED EARTH GRID IS TO BE CONNECTED TO LV STREET NEUTRAL TO ACHIEVE AN MEN SYSTEM AS PER SDI 100. REFER TO DRAWING No.010846.
11. HAVE ALL THE EXISTING ASSETS BEEN FIELD CHECKED AND ARE ACCURATE AT THE TIME OF DESIGN? YES
12. ENVIRONMENTAL MANAGEMENT PLAN: EMP YES IS PART OF THIS DESIGN.

CONDUITS UNDER CULVERTS T6 - U6
UNDERBORE IS AN OPTION THAT SHOULD BE CONSIDERED IF IT IS SAFER AND COST EFFECTIVE

CONDUITS CROSS-SECTION UNDER CULVERT



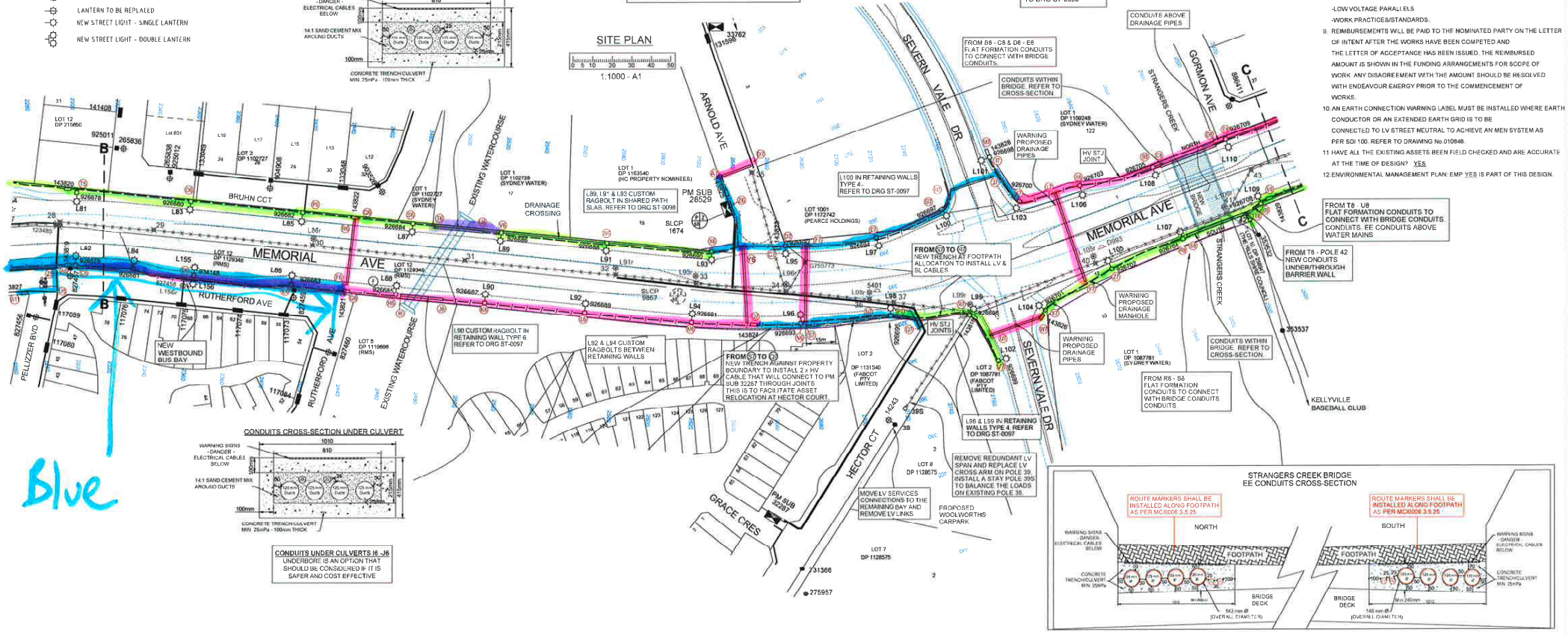
L89, L90, L91, L92, L94, L96, L97, L98, L99, L100, L107 & L108 LIGHT COLUMNS TO BE INSTALLED ON NON- STANDARD FOUNDATION (CUSTOM BUILT WITH IN STRUCTURES). REFER TO STRUCTURAL DRG ST-0097 & ST-0098

STREET LIGHTING COLUMN
All S.L. Columns (Center of footing) to be located by using X, Y coordinates as shown on Lighting Equipment and Billing Schedule (Sheet 20, 21 & 22)

LIGHTS L107- L110 TO BE INCORPORATED ON BARRIER. REFER TO DRG ST-0098

SITE PLAN

1:1000 - A1



CONDUITS CROSS-SECTION UNDER CULVERT

CONDUITS UNDER CULVERTS I6 -J6
UNDERBORE IS AN OPTION THAT SHOULD BE CONSIDERED IF IT IS SAFER AND COST EFFECTIVE

Blue

STRANGERS CREEK BRIDGE EE CONDUITS CROSS-SECTION

AMENDMENTS	ORIGINAL ISSUE	A	DRAFT No: 01		

Endeavour Energy
ABN 59253130878
51 Huntingwood Drive, Huntingwood NSW 2148
PO Box 811, Seven Hills - NSW
T: 131 081 F: (02) 9853 6000

REPLACES VERSION No: 3.5

REFERENCE DRAWINGS		WORK ORDERS	
ST -0097 & 0098	BECA - DS2016/000903	GENERAL	
	STRUCTURAL DETAILS	OVERHEAD	
		UNDERGROUND	
		SUBSTATIONS	

CAP / SAMP No.	ARP3265
AM PROJ. No	ARNP0002
HV SWITCHING	PARKLEA 4
UBO/PENGUIN REF	14.9 MB-N8
GIS MAP No	D916783
HV DP DIAGRAM	PARKLEA 4
LOCAL GOV AREA	THE HILLS SHIRE C

ORIGINAL SCALE 1:1000

DRAWN MC

DATE 08.12.2016

CH'D JP

DESIGN ME

DO NOT SCALE DIMENSIONS IN METRES

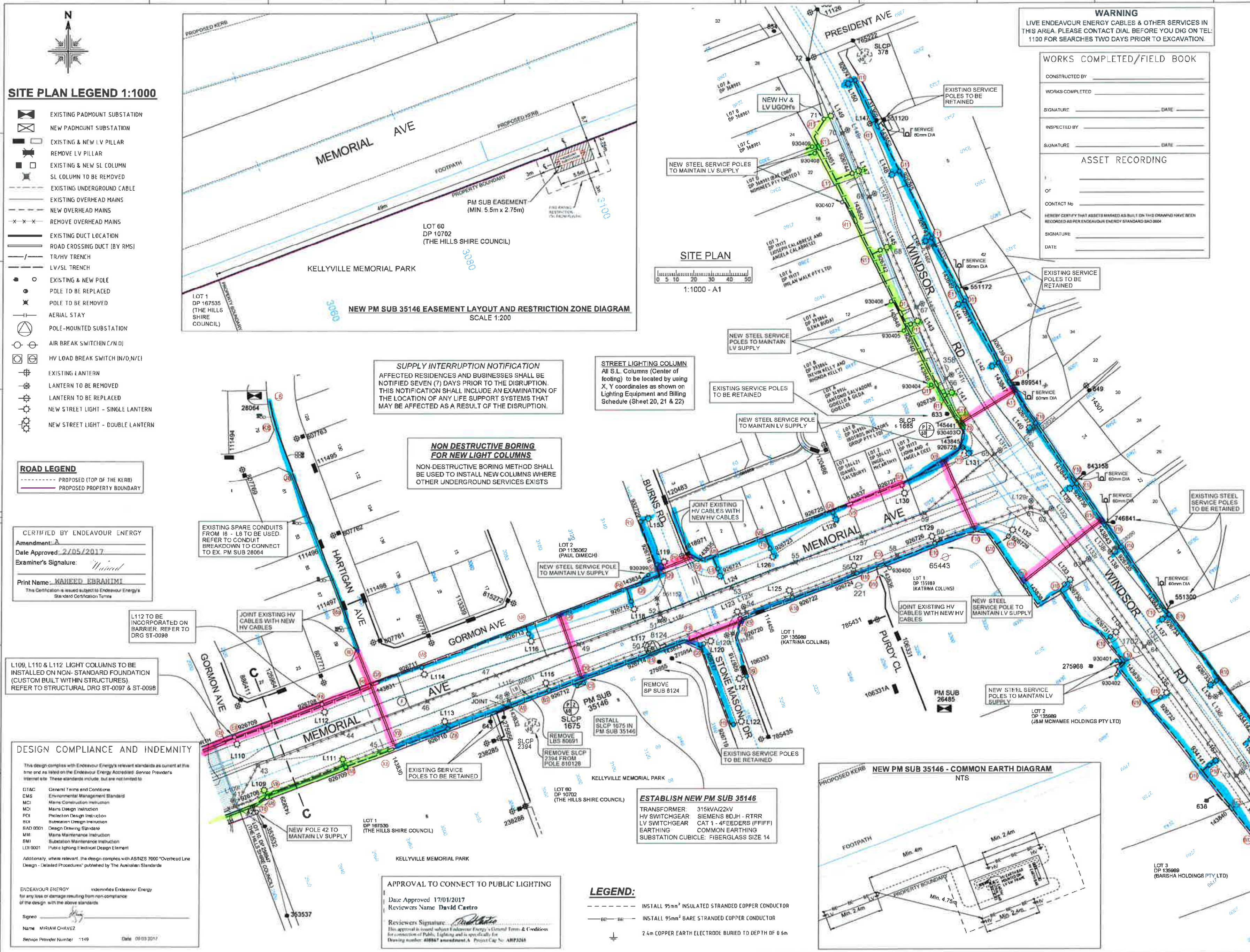
MEMORIAL AVENUE
KELLYVILLE
ARP3265
ASSET RELOCATION
SITE PLAN 3

Endeavour Energy

A1 408867 A

SHEET No 3 OF 24 SHEETS

45791



NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT ENDEAVOUR ENERGY NETWORK STANDARDS AND CONNECTION POLICY.
2. ENDEAVOUR ENERGY CONTACT PHONE: 131081.
3. DESIGN CERTIFICATION SHALL LAPSE WHERE:
   (i) NOTICE OF INTENT HAS NOT BEEN RECEIVED WITHIN SIX (6) MONTHS OF THIS CERTIFICATION, OR
   (ii) CONSTRUCTION HAS BEEN INTERRUPTED FOR MORE THAN SIX MONTHS.
   WHERE DESIGN CERTIFICATION HAS LAPSED THE DESIGN MUST BE RESUBMITTED FOR CERTIFICATION BY THE ACCREDITED DESIGNER.
4. ATTENTION:
   PERMANENT SURVEY MARKS MAY EXIST IN THIS AREA. THESE ARE TO BE LOCATED BY A SURVEYOR PRIOR TO COMMENCEMENT OF WORK.
5. ATTENTION:
   ALL SERVICES SEARCHES MUST BE CHECKED BEFORE CONSTRUCTION.
6. WARNING:
   LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA. PLEASE CONTACT DIAL BEFORE YOU DIG ON TELEPHONE: 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.
7. ATTENTION:
   SERVICE PROVIDER TO NOTIFY ENDEAVOUR ENERGY'S ASSET DATA CUSTOMER DEPT DAILY WHEN CABLE WORKS IS IN PROGRESS. TELEPHONE 131081
8. OPERATIONAL LIMITS:
   UNLESS APPROVED OTHERWISE, INTERRUPTION TO ANY CUSTOMER'S SUPPLY MUST BE AVOIDED. THE FOLLOWING ALTERNATIVES SHOULD BE CONSIDERED:
   -MOBILE GENERATORS AND SUBSTATIONS
   -LIVE LINE WORK
   -DESIGN ALTERNATIVES
   -LOW VOLTAGE PARALLELS
   -WORK PRACTICES/STANDARDS.
9. AN EASEMENT FOR PADMOUNT SUBSTATIONS OF 5.5m x 2.75m TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN EXISTING **LOT 60 - DP 10702 (THE HILLS SHIRE COUNCIL).**
10. A RESTRICTION ON THE USE OF LAND IN RELATION TO THE FIRE RATING OF BUILDINGS, MEASURE 3 METRES FROM THE SUBSTATION PLINTH IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN EXISTING **LOT 60 - DP 10702 (THE HILLS SHIRE COUNCIL).**
11. REIMBURSEMENTS WILL BE PAID TO THE NOMINATED PARTY ON THE LETTER OF INTENT AFTER THE WORKS HAVE BEEN COMPETED AND THE LETTER OF ACCEPTANCE HAS BEEN ISSUED. THE REIMBURSED AMOUNT IS SHOWN IN THE FUNDING ARRANGEMENTS FOR SCOPE OF WORK. ANY DISAGREEMENT WITH THE AMOUNT SHOULD BE RESOLVED WITH ENDEAVOUR ENERGY PRIOR TO THE COMMENCEMENT OF WORKS.
12. AN EARTH CONNECTION WARNING LABEL MUST BE INSTALLED WHERE EARTH CONDUCTOR OR AN EXTENDED EARTH GRID IS TO BE CONNECTED TO LV STREET NEUTRAL TO ACHIEVE AN MEN SYSTEM AS PER SDI 100. REFER TO DRAWING No.010646.
13. HAVE ALL THE EXISTING ASSETS BEEN FIELD CHECKED AND ARE ACCURATE AT THE TIME OF DESIGN? YES
14. ENVIRONMENTAL MANAGEMENT PLAN: EMP YES IS PART OF THIS DESIGN.

AMENDMENTS		
A	ORIGINAL ISSUE	DRAFT No. 01

Endeavour Energy
ABN 59253130878
51 Huntingwood Drive, Huntingwood NSW 2148
PO Box 811, Seven Hills - NSW
T: 131 081 F: (02) 9853 6000

TEMPLATE VERSION No 3.5

REFERENCE DRAWING'S		WORK ORDERS	
ST -0097 & 0098	BECA - DS2016/000903	GENERAL	
	STRUCTURAL DETAILS	OVERHEAD	
		UNDERGROUND	
		SUBSTATIONS	

CAP / SAMP No.	ARP3265
AM PROJ. No	ARNP0002
HV SWITCHING	PARKLEA 4
UBD/PENGUIN REF	149 Q8 & 150 A7-A8
GIS MAP No	U916784
HV OP DIAGRAM	PARKLEA 4
LOCAL GOV AREA	THE HILLS SHIRE C

ORIGINAL SCALE	1:1000
DRAWN	MC
DATE	08.12.2016
CH'D	JP
DESIGN	MC

DO NOT SCALE
DIMENSIONS IN METRES

MEMORIAL AVENUE
KELLYVILLE
ARP3265
ASSET RELOCATION
SITE PLAN 4

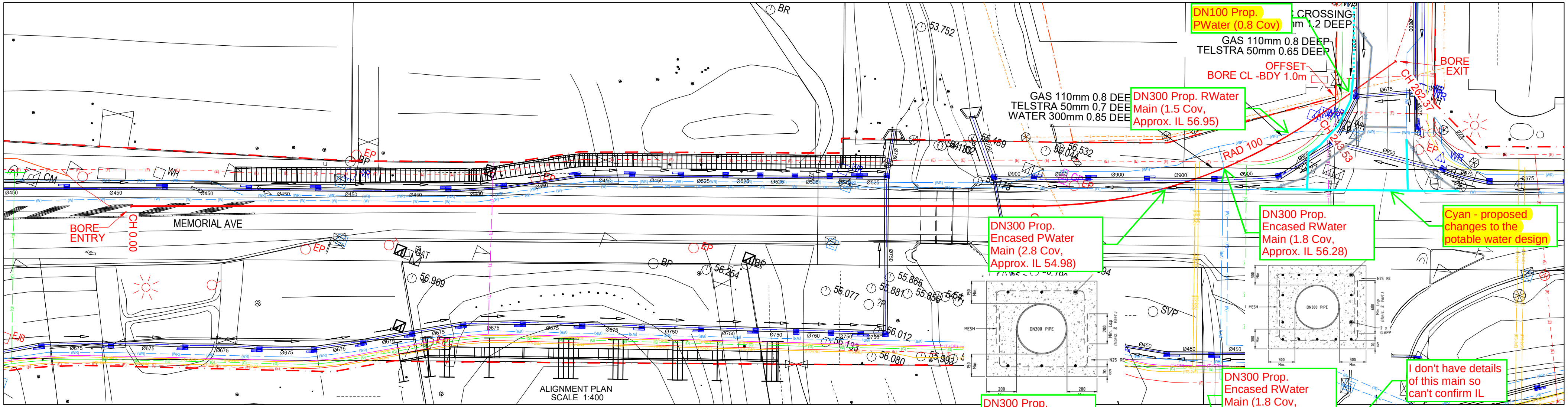
Endeavour Energy

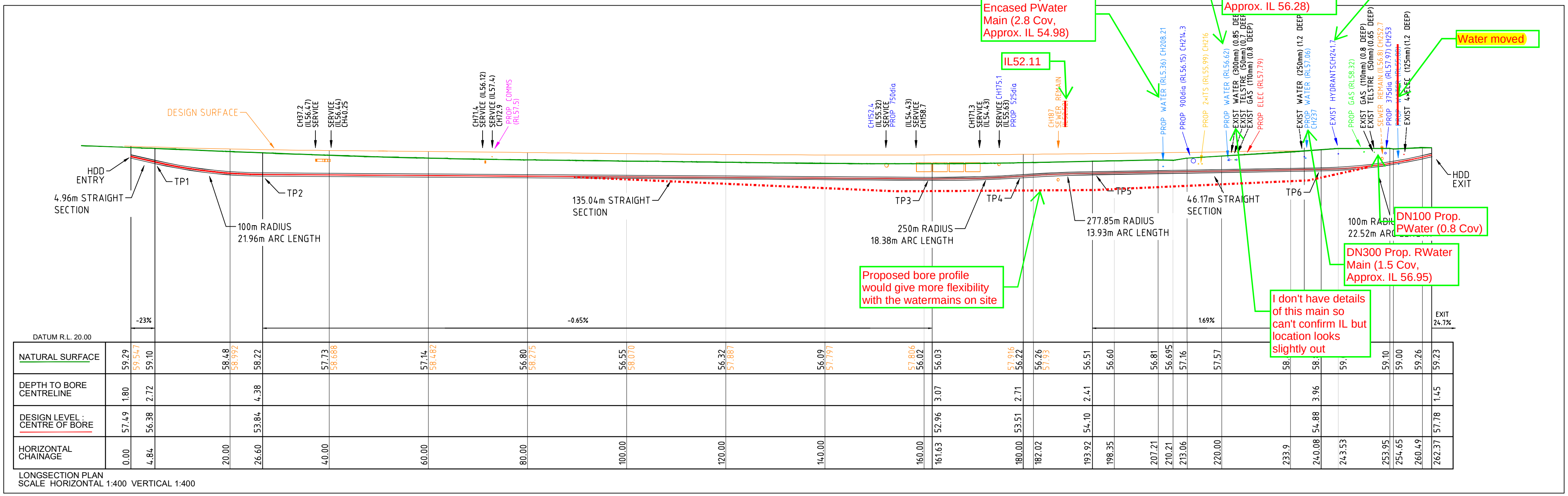
A1 | 408867 | A

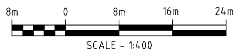
SHEET No 4 OF 24 SHEETS

45771

APPENDIX C Water main early works

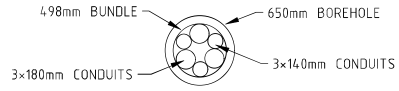






WARNING :
A CURRENT SERVICES SEARCH, INCLUDING 'DIAL BEFORE YOU DIG' SERVICES PLANS, AND SITE CHECKING OF ALL EXISTING SERVICES WILL BE NECESSARY PRIOR TO COMMENCING ANY WORK. APPROPRIATE PROCEDURES, PRECAUTIONS AND CARE TO BE TAKEN WHEN IN CLOSE PROXIMITY TO ANY SERVICE.

NOTE :
THE LOCATION OF FEATURES, TANGENT POINTS AND DIMENSIONS HAVE IN SOME INSTANCES BEEN OBTAINED FROM EXISTING DRAWINGS. CONSEQUENTLY THEY ARE APPROXIMATE ONLY AND MAY BE DIFFERENT TO CONDITIONS ON SITE. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND THE LOCATIONS OF FEATURES PRIOR TO THE COMMENCEMENT OF ANY INTERNAL WORK.



BORE SECTION
NTS

CLIENT:

DIAL BEFORE YOU DIG www.1100.com.au

ALL UNDERGROUND SERVICES SHOULD BE LOCATED ON SITE BY RELEVANT AUTHORITIES BEFORE ANY WORK IS COMMENCED

REV.	DESCRIPTION	DRAWN	DESIGN	APPR.	DATE
B	PRELIMINARY	G.B.	DG	--	24/04/19
A	PRELIMINARY	G.B.	DG	--	17/04/19

DESIGNED BY: D. GUNNELL
DRAFTED BY: G. BAKER
DESIGN CHECKED BY:
APPROVED BY:

TRENCHLESS ADVISOR
P.O.BOX 6225
YATALA DC
4207

DATE: 17.04.2019
SHEET SIZE: A1
HORIZ DATUM: XX
LEVEL DATUM: XX

PROJECT: MEMORIAL DRIVE AND ARNOLD AVE, ASSET RELOCATION

TITLE: MEMORIAL DRIVE AND ARNOLD AVE ASSET RELOCATION ALIGNMENT AND LONGSECTION PLAN

PROJECT No. XX
SCALE: 1: 400
SHEET 1 OF 1
REV B
DRAWING No. 001

APPENDIX D Predicted contruction noise levels

Table D: Predicted construction noise levels **MEMORIAL AVENUE**

Receiver					Predicted noise levels, dB(A)								
					Day (Standard)			Evening (OOHW)			Night (OOHW)		
NCA	NCA ID	Address	Description	Receiver type	NML	TRENCH	HDD	NML	TRENCH	HDD	NML	TRENCH	HDD
1	1_002	41 Memorial Avenue		Residential	59	54	53	51	54	53	42	54	53
1	1_003	2 Colonial Street	Post 2008 Development (Residence)	Residential	59	45	47	51	45	47	42	45	47
1	1_004	4 Colonial Street	Post 2008 Development (Residence)	Residential	59	44	46	51	44	46	42	44	46
1	1_005	10 Colonial Street	Post 2008 Development (Residence)	Residential	59	44	45	51	44	45	42	44	45
1	1_006	1 Brunner Count	Post 2008 Development (Residence)	Residential	59	42	44	51	42	44	42	42	44
1	1_007	2 Brunner Count	Post 2008 Development (Residence)	Residential	59	43	46	51	43	46	42	43	46
1	1_008	3 Brunner Count	Post 2008 Development (Residence)	Residential	59	43	45	51	43	45	42	43	45
1	1_009	4 Brunner Count	Post 2008 Development (Residence)	Residential	59	41	46	51	41	46	42	41	46
1	1_010	5 Brunner Count	Post 2008 Development (Residence)	Residential	59	44	45	51	44	45	42	44	45
1	1_011	6 Brunner Count	Post 2008 Development (Residence)	Residential	59	42	47	51	42	47	42	42	47
1	1_012	7 Brunner Count	Post 2008 Development (Residence)	Residential	59	46	45	51	46	45	42	46	45
1	1_013	8 Brunner Count	Post 2008 Development (Residence)	Residential	59	44	48	51	44	48	42	44	48
1	1_014	9 Brunner Count	Post 2008 Development (Residence)	Residential	59	46	47	51	46	47	42	46	47
1	1_015	10 Brunner Count	Post 2008 Development (Residence)	Residential	59	46	49	51	46	49	42	46	49
1	1_016	11 Brunner Count	Post 2008 Development (Residence)	Residential	59	47	47	51	47	47	42	47	47
1	1_017	12 Brunner Count	Post 2008 Development (Residence)	Residential	59	47	50	51	47	50	42	47	50
1	1_018	13 Brunner Count	Post 2008 Development (Residence)	Residential	59	47	48	51	47	48	42	47	48
1	1_019	14 Brunner Count	Post 2008 Development (Residence)	Residential	59	49	54	51	49	54	42	49	54
1	1_020	15 Brunner Count	Post 2008 Development (Residence)	Residential	59	48	49	51	48	49	42	48	49
1	1_021	16 Brunner Count	Post 2008 Development (Residence)	Residential	59	50	56	51	50	56	42	50	56
1	1_022	17 Brunner Count	Post 2008 Development (Residence)	Residential	59	49	51	51	49	51	42	49	51
1	1_023	18 Brunner Count	Post 2008 Development (Residence)	Residential	59	51	57	51	51	57	42	51	57
1	1_024	20 Brunner Count	Post 2008 Development (Residence)	Residential	59	54	59	51	54	59	42	54	59
1	1_025	22 Brunner Count	Post 2008 Development (Residence)	Residential	59	56	60	51	56	60	42	56	60
1	1_026	24 Brunner Count	Post 2008 Development (Residence)	Residential	59	57	61	51	57	61	42	57	61
1	1_027	2 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	59	59	51	59	59	42	59	59
1	1_028	4 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	53	56	51	53	56	42	53	56
1	1_029	6 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	52	54	51	52	54	42	52	54
1	1_030	8 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	51	53	51	51	53	42	51	53
1	1_031	10 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	50	52	51	50	52	42	50	52
1	1_032	12 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	49	51	51	49	51	42	49	51
1	1_033	14 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	48	50	51	48	50	42	48	50
1	1_034	16 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	47	49	51	47	49	42	47	49
1	1_035	18 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	46	49	51	46	49	42	46	49
1	1_036	20 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	45	48	51	45	48	42	45	48
1	1_037	22 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	45	47	51	45	47	42	45	47
1	1_038	9 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	53	55	51	53	55	42	53	55
1	1_039	Arnold Avenue	Post 2008 Development (Residence)	Residential	59	51	53	51	51	53	42	51	53
1	1_040	13 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	47	46	51	47	46	42	47	46
1	1_041	15 Arnold Avenue	Post 2008 Development (Residence)	Residential	59	47	49	51	47	49	42	47	49
1	1_042	3 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	39	49	51	39	49	42	39	49
1	1_043	5 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	41	49	51	41	49	42	41	49
1	1_044	7 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	42	49	51	42	49	42	42	49
1	1_045	9 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	42	47	51	42	47	42	42	47
1	1_046	11 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	40	41	51	40	41	42	40	41
1	1_047	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	59	60	51	59	60	42	59	60
1	1_048	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	59	59	51	59	59	42	59	59
1	1_049	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	49	54	51	49	54	42	49	54
1	1_050	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	50	53	51	50	53	42	50	53
1	1_051	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	49	52	51	49	52	42	49	52
1	1_052	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	41	51	51	41	51	42	41	51
1	1_053	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	53	58	51	53	58	42	53	58
1	1_054	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	51	56	51	51	56	42	51	56
1	1_055	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	46	53	51	46	53	42	46	53
1	1_056	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	44	51	51	44	51	42	44	51
1	1_057	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	43	50	51	43	50	42	43	50
1	1_058	3 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	51	51	51	51	51	42	51	51
1	1_059	5 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	51	52	51	51	52	42	51	52
1	1_060	6 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	45	43	51	45	43	42	45	43
1	1_062	1 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	41	42	51	41	42	42	41	42
1	1_063	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	59	62	51	59	62	42	59	62
1	1_064	4 JOHN HILLAS AVENUE	Post 2008 Development (Residence)	Residential	59	43	42	51	43	42	42	43	42
1	1_065	7 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	49	56	51	49	56	42	49	56
1	1_066	13 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	42	46	51	42	46	42	42	46
1	1_067	17 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	35	41	51	35	41	42	35	41
1	1_068	14 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	36	-	51	36	-	42	36	-
1	1_069	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	57	61	51	57	61	42	57	61
1	1_070	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	54	60	51	54	60	42	54	60
1	1_071	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	55	61	51	55	61	42	55	61
1	1_072	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential	59	58	61	51	58	61	42	58	61
1	1_073	11A John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	39	40	51	39	40	42	39	40
1	1_074	10 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	41	42	51	41	42	42	41	42
1	1_075	9 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	40	51	51	40	51	42	40	51
1	1_076	11 John Hillas Avenue	Post 2008 Development (Residence)	Residential	59	38	42	51	38	42	42	38	42
1	1_077	15 Half Penny Avenue	Post 2008 Development (Residence)	Residential	59	-	44	51	-	44	42	-	44
1	NEW_001		2019 Development (Residence)	Residential	59	43	52	51	43	52	42	43	52
1	NEW_002		2019 Development (Residence)	Residential	59	34	40	51	34	40	42	34	40
2	2_002	32 Memorial Avenue		Residential	59	-	47	51	-	47	42	-	47
2	2_003	40 Memorial Avenue		Residential	59	53	55	51	53	55	42	53	55
2	2_004	8 Free Settlers Dr	The Gracewood Community	Residential	59	64	70	51	64	70	42	64	70
2	2_005	8 Free Settlers Dr	The Gracewood Community	Residential	59	52	49	51	52	49	42	52	49
2	2_006	8 Free Settlers Dr	The Gracewood Community	Residential	59	48	46	51	48	46	42	48	46
2	2_007	8 Free Settlers Dr	The Gracewood Community	Residential	59	38	-	51	38	-	42	38	-
2	2_008	8 Free Settlers Dr	The Gracewood Community	Residential	59	47	48	51	47	48	42	47	48
2	NEW_079		2019 Development (Residence)	Residential	59	64	72	51	64	72	42	64	72

Receiver					Predicted noise levels, dB(A)								
					Day (Standard)			Evening (OOHW)			Night (OOHW)		
NCA	NCA ID	Address	Description	Receiver type	NML	TRENCH	HDD	NML	TRENCH	HDD	NML	TRENCH	HDD
2	NEW_080		2019 Development (Residence)	Residential	59	57	66	51	57	66	42	57	66
2	NEW_081		2019 Development (Residence)	Residential	59	54	64	51	54	64	42	54	64
2	NEW_082		2019 Development (Residence)	Residential	59	52	61	51	52	61	42	52	61
2	NEW_083		2019 Development (Residence)	Residential	59	50	56	51	50	56	42	50	56
2	NEW_084		2019 Development (Residence)	Residential	59	48	58	51	48	58	42	48	58
2	NEW_085		2019 Development (Residence)	Residential	59	47	57	51	47	57	42	47	57
2	NEW_086		2019 Development (Residence)	Residential	59	46	56	51	46	56	42	46	56
2	NEW_087		2019 Development (Residence)	Residential	59	45	54	51	45	54	42	45	54
2	NEW_088		2019 Development (Residence)	Residential	59	44	44	51	44	44	42	44	44
2	NEW_089		2019 Development (Residence)	Residential	59	45	63	51	45	63	42	45	63
2	NEW_090		2019 Development (Residence)	Residential	59	51	66	51	51	66	42	51	66
2	NEW_091		2019 Development (Residence)	Residential	59	59	70	51	59	70	42	59	70
2	NEW_092		2019 Development (Residence)	Residential	59	36	44	51	36	44	42	36	44
2	NEW_093		2019 Development (Residence)	Residential	59	38	46	51	38	46	42	38	46
2	NEW_094		2019 Development (Residence)	Residential	59	40	49	51	40	49	42	40	49
2	NEW_095		2019 Development (Residence)	Residential	59	53	63	51	53	63	42	53	63
2	NEW_096		2019 Development (Residence)	Residential	59	50	58	51	50	58	42	50	58
2	NEW_097		2019 Development (Residence)	Residential	59	40	50	51	40	50	42	40	50
2	NEW_098		2019 Development (Residence)	Residential	59	36	44	51	36	44	42	36	44
2	NEW_099		2019 Development (Residence)	Residential	59	36	41	51	36	41	42	36	41
2	NEW_100		2019 Development (Residence)	Residential	59	-	39	51	-	39	42	-	39
2	NEW_101		2019 Development (Residence)	Residential	59	-	-	51	-	-	42	-	-
2	NEW_102		2019 Development (Residence)	Residential	59	-	41	51	-	41	42	-	41
2	NEW_103		2019 Development (Residence)	Residential	59	-	40	51	-	40	42	-	40
2	NEW_104		2019 Development (Residence)	Residential	59	-	39	51	-	39	42	-	39
2	NEW_105		2019 Development (Residence)	Residential	59	-	-	51	-	-	42	-	-
2	NEW_106		2019 Development (Residence)	Residential	59	-	-	51	-	-	42	-	-
2	NEW_107		2019 Development (Residence)	Residential	59	-	-	51	-	-	42	-	-
2	NEW_108		2019 Development (Residence)	Residential	59	36	-	51	36	-	42	36	-
2	NEW_109		2019 Development (Residence)	Residential	59	42	-	51	42	-	42	42	-
2	NEW_110		2019 Development (Residence)	Residential	59	46	39	51	46	39	42	46	39
2	NEW_111		2019 Development (Residence)	Residential	59	48	44	51	48	44	42	48	44
2	NEW_112		2019 Development (Residence)	Residential	59	49	49	51	49	49	42	49	49
2	NEW_113		2019 Development (Residence)	Residential	59	49	49	51	49	49	42	49	49
2	NEW_114		2019 Development (Residence)	Residential	59	49	55	51	49	55	42	49	55
3	3_003	25 Memorial Avenue		Residential	63	49	48	55	49	48	46	49	48
3	3_005	27 Memorial Avenue		Residential	63	42	41	55	42	41	46	42	41
3	3_006	91 Memorial Avenue		Residential	63	48	39	55	48	39	46	48	39
3	3_007	37 John Hillas Avenue		Residential	63	37	-	55	37	-	46	37	-
3	3_008	39 John Hillas Avenue		Residential	63	36	-	55	36	-	46	36	-
3	3_009	45 John Hillas Avenue		Residential	63	37	-	55	37	-	46	37	-
3	3_014	49 Water Creek Boulevard		Residential	63	-	-	55	-	-	46	-	-
3	3_015	30 Bruhn Circuit		Residential	63	47	49	55	47	49	46	47	49
3	3_016	32 Bruhn Circuit		Residential	63	46	50	55	46	50	46	46	50
3	3_017	12 Butler Avenue		Residential	63	-	-	55	-	-	46	-	-
3	3_018	13 Butler Avenue		Residential	63	-	-	55	-	-	46	-	-
3	3_019	14 Butler Avenue		Residential	63	-	-	55	-	-	46	-	-
3	3_010	48 John Hillas Avenue		Residential	63	-	-	55	-	-	46	-	-
3	3_011	39 Water Creek Boulevard		Residential	63	34	45	55	34	45	46	34	45
3	3_012	43 Water Creek Boulevard		Residential	63	37	43	55	37	43	46	37	43
3	3_013	47 Water Creek Boulevard		Residential	63	45	45	55	45	45	46	45	45
3	NEW_003		2019 Development (Residence)	Residential	63	34	-	55	34	-	46	34	-
3	NEW_004		2019 Development (Residence)	Residential	63	38	-	55	38	-	46	38	-
3	NEW_005		2019 Development (Residence)	Residential	63	37	-	55	37	-	46	37	-
3	NEW_006		2019 Development (Residence)	Residential	63	38	-	55	38	-	46	38	-
3	NEW_007		2019 Development (Residence)	Residential	63	37	-	55	37	-	46	37	-
3	NEW_008		2019 Development (Residence)	Residential	63	38	-	55	38	-	46	38	-
3	NEW_009		2019 Development (Residence)	Residential	63	38	-	55	38	-	46	38	-
3	NEW_010		2019 Development (Residence)	Residential	63	37	-	55	37	-	46	37	-
3	NEW_011		2019 Development (Residence)	Residential	63	35	-	55	35	-	46	35	-
3	NEW_012		2019 Development (Residence)	Residential	63	38	-	55	38	-	46	38	-
3	NEW_013		2019 Development (Residence)	Residential	63	35	-	55	35	-	46	35	-
3	NEW_014		2019 Development (Residence)	Residential	63	38	-	55	38	-	46	38	-
3	NEW_015		2019 Development (Residence)	Residential	63	37	-	55	37	-	46	37	-
3	NEW_016		2019 Development (Residence)	Residential	63	38	-	55	38	-	46	38	-
3	NEW_017		2019 Development (Residence)	Residential	63	39	-	55	39	-	46	39	-
3	NEW_018		2019 Development (Residence)	Residential	63	38	39	55	38	39	46	38	39
3	NEW_019		2019 Development (Residence)	Residential	63	37	-	55	37	-	46	37	-
3	NEW_020		2019 Development (Residence)	Residential	63	37	-	55	37	-	46	37	-
3	NEW_021		2019 Development (Residence)	Residential	63	34	-	55	34	-	46	34	-
3	NEW_022		2019 Development (Residence)	Residential	63	35	-	55	35	-	46	35	-
3	NEW_023		2019 Development (Residence)	Residential	63	35	-	55	35	-	46	35	-
3	NEW_024		2019 Development (Residence)	Residential	63	41	40	55	41	40	46	41	40
3	NEW_025		2019 Development (Residence)	Residential	63	45	43	55	45	43	46	45	43
3	NEW_026		2019 Development (Residence)	Residential	63	46	43	55	46	43	46	46	43
3	NEW_027		2019 Development (Residence)	Residential	63	45	44	55	45	44	46	45	44
3	NEW_028		2019 Development (Residence)	Residential	63	44	46	55	44	46	46	44	46
3	NEW_029		2019 Development (Residence)	Residential	63	44	49	55	44	49	46	44	49
3	NEW_030		2019 Development (Residence)	Residential	63	46	51	55	46	51	46	46	51
3	NEW_031		2019 Development (Residence)	Residential	63	47	52	55	47	52	46	47	52
3	NEW_032		2019 Development (Residence)	Residential	63	53	58	55	53	58	46	53	58
3	NEW_033		2019 Development (Residence)	Residential	63	-	-	55	-	-	46	-	-
3	NEW_034		2019 Development (Residence)	Residential	63	-	-	55	-	-	46	-	-
3	NEW_035		2019 Development (Residence)	Residential	63	-	-	55	-	-	46	-	-
3	NEW_036		2019 Development (Residence)	Residential	63	-	-	55	-	-	46	-	-
3	NEW_037		2019 Development (Residence)	Residential	63	-	-	55	-	-	46	-	-

Receiver					Predicted noise levels, dB(A)								
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NCA	NCA ID	Address	Description	Receiver type	NML	TRENCH	HDD	NML	TRENCH	HDD	NML	TRENCH	HDD
3	NEW_038		2019 Development (Residence)	Residential	63	-	-	55	-	-	46	-	-
3	NEW_039		2019 Development (Residence)	Residential	63	37	-	55	37	-	46	37	-
3	NEW_040		2019 Development (Residence)	Residential	63	34	-	55	34	-	46	34	-
3	NEW_041		2019 Development (Residence)	Residential	63	35	-	55	35	-	46	35	-
3	NEW_042		2019 Development (Residence)	Residential	63	35	-	55	35	-	46	35	-
3	NEW_043		2019 Development (Residence)	Residential	63	34	-	55	34	-	46	34	-
3	NEW_044		2019 Development (Residence)	Residential	63	-	-	55	-	-	46	-	-
3	NEW_045		2019 Development (Residence)	Residential	63	-	-	55	-	-	46	-	-
3	NEW_046		2019 Development (Residence)	Residential	63	-	-	55	-	-	46	-	-
3	NEW_047		2019 Development (Residence)	Residential	63	42	-	55	42	-	46	42	-
3	NEW_048		2019 Development (Residence)	Residential	63	46	-	55	46	-	46	46	-
3	NEW_049		2019 Development (Residence)	Residential	63	43	-	55	43	-	46	43	-
3	NEW_050		2019 Development (Residence)	Residential	63	-	-	55	-	-	46	-	-
3	NEW_051		2019 Development (Residence)	Residential	63	53	-	55	53	-	46	53	-
3	NEW_052		2019 Development (Residence)	Residential	63	56	44	55	56	44	46	56	44
3	NEW_053		2019 Development (Residence)	Residential	63	37	41	55	37	41	46	37	41
3	NEW_054		2019 Development (Residence)	Residential	63	45	-	55	45	-	46	45	-
3	NEW_055		2019 Development (Residence)	Residential	63	47	-	55	47	-	46	47	-
3	NEW_056		2019 Development (Residence)	Residential	63	50	46	55	50	46	46	50	46
3	NEW_057		2019 Development (Residence)	Residential	63	51	48	55	51	48	46	51	48
3	NEW_058		2019 Development (Residence)	Residential	63	41	-	55	41	-	46	41	-
3	NEW_059		2019 Development (Residence)	Residential	63	45	39	55	45	39	46	45	39
3	NEW_060		2019 Development (Residence)	Residential	63	45	41	55	45	41	46	45	41
3	NEW_061		2019 Development (Residence)	Residential	63	46	42	55	46	42	46	46	42
3	NEW_062		2019 Development (Residence)	Residential	63	47	40	55	47	40	46	47	40
3	NEW_063		2019 Development (Residence)	Residential	63	52	46	55	52	46	46	52	46
3	NEW_064		2019 Development (Residence)	Residential	63	59	47	55	59	47	46	59	47
3	NEW_065		2019 Development (Residence)	Residential	63	55	49	55	55	49	46	55	49
3	NEW_066		2019 Development (Residence)	Residential	63	50	40	55	50	40	46	50	40
3	NEW_067		2019 Development (Residence)	Residential	63	47	42	55	47	42	46	47	42
3	NEW_068		2019 Development (Residence)	Residential	63	44	40	55	44	40	46	44	40
3	NEW_069		2019 Development (Residence)	Residential	63	39	39	55	39	39	46	39	39
3	NEW_070		2019 Development (Residence)	Residential	63	35	-	55	35	-	46	35	-
3	NEW_071		2019 Development (Residence)	Residential	63	37	39	55	37	39	46	37	39
3	NEW_072		2019 Development (Residence)	Residential	63	36	42	55	36	42	46	36	42
3	NEW_073		2019 Development (Residence)	Residential	63	45	52	55	45	52	46	45	52
3	NEW_074		2019 Development (Residence)	Residential	63	51	52	55	51	52	46	51	52
3	NEW_075		2019 Development (Residence)	Residential	63	52	52	55	52	52	46	52	52
3	NEW_076		2019 Development (Residence)	Residential	63	53	51	55	53	51	46	53	51
3	NEW_077		2019 Development (Residence)	Residential	63	39	41	55	39	41	46	39	41
3	NEW_078		2019 Development (Residence)	Residential	63	38	40	55	38	40	46	38	40
4	4_001	2 Rocks Street	Post 2008 Development (Residence)	Residential	63	63	68	55	63	68	46	63	68
4	4_002	4 Rocks Street	Post 2008 Development (Residence)	Residential	63	62	65	55	62	65	46	62	65
4	4_003	6 Rocks Street	Post 2008 Development (Residence)	Residential	63	60	63	55	60	63	46	60	63
4	4_004	8 Rocks Street	Post 2008 Development (Residence)	Residential	63	58	61	55	58	61	46	58	61
4	4_005	10 Rocks Street	Post 2008 Development (Residence)	Residential	63	56	60	55	56	60	46	56	60
4	4_006	12 Rocks Street	Post 2008 Development (Residence)	Residential	63	55	59	55	55	59	46	55	59
4	4_007	14 Rocks Street	Post 2008 Development (Residence)	Residential	63	54	54	55	54	54	46	54	54
4	4_008	2 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	51	-	55	51	-	46	51	-
4	4_009	4 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	41	-	55	41	-	46	41	-
4	4_010	6 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	37	-	55	37	-	46	37	-
4	4_011	8 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	38	-	55	38	-	46	38	-
4	4_012	10 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	38	-	55	38	-	46	38	-
4	4_013	12 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	38	-	55	38	-	46	38	-
4	4_014	14 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	36	-	55	36	-	46	36	-
4	4_015	16 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	37	-	55	37	-	46	37	-
4	4_016	18 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	37	-	55	37	-	46	37	-
4	4_017	20 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	35	-	55	35	-	46	35	-
4	4_018	22 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	45	39	55	45	39	46	45	39
4	4_019	24 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	44	40	55	44	40	46	44	40
4	4_020	26 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	42	40	55	42	40	46	42	40
4	4_021	28 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	42	39	55	42	39	46	42	39
4	4_022	30 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	41	39	55	41	39	46	41	39
4	4_023	32 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	40	39	55	40	39	46	40	39
4	4_024	34 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	42	44	55	42	44	46	42	44
4	4_025	36 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	44	41	55	44	41	46	44	41
4	4_026	38 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	46	40	55	46	40	46	46	40
4	4_027	40 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	47	-	55	47	-	46	47	-
4	4_028	42 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	53	42	55	53	42	46	53	42
4	4_029	44 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	54	42	55	54	42	46	54	42
4	4_030	46 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	37	43	55	37	43	46	37	43
4	4_031	48 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	39	44	55	39	44	46	39	44
4	4_032	50 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	38	46	55	38	46	46	38	46
4	4_033	52 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	49	62	55	49	62	46	49	62
4	4_034	54 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	66	68	55	66	68	46	66	68
4	4_035	56 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	66	66	55	66	66	46	66	66
4	4_036	58 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	66	64	55	66	64	46	66	64
4	4_037	60 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	66	63	55	66	63	46	66	63
4	4_038	62 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	65	61	55	65	61	46	65	61
4	4_039	64 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	65	60	55	65	60	46	65	60
4	4_040	66 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	65	59	55	65	59	46	65	59
4	4_041	68 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	65	58	55	65	58	46	65	58
4	4_042	70 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	65	57	55	65	57	46	65	57
4	4_043	72 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	65	57	55	65	57	46	65	57
4	4_044	74 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	65	56	55	65	56	46	65	56
4	4_045	76 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	66	55	55	66	55	46	66	55

Receiver					Predicted noise levels, dB(A)								
					Day (Standard)			Evening (OOHW)			Night (OOHW)		
NCA	NCA ID	Address	Description	Receiver type	NML	TRENCH	HDD	NML	TRENCH	HDD	NML	TRENCH	HDD
4	4_046	78 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	66	54	55	66	54	46	66	54
4	4_047	80 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	64	57	55	64	57	46	64	57
4	4_048	82 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	62	40	55	62	40	46	62	40
4	4_049	84 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	61	-	55	61	-	46	61	-
4	4_050	86 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	59	-	55	59	-	46	59	-
4	4_051	88 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	58	-	55	58	-	46	58	-
4	4_052	90 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	57	-	55	57	-	46	57	-
4	4_053	92 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	56	-	55	56	-	46	56	-
4	4_054	94 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	55	39	55	55	39	46	55	39
4	4_055	96 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	54	43	55	54	43	46	54	43
4	4_056	98 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	53	47	55	53	47	46	53	47
4	4_057	100 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	53	58	55	53	58	46	53	58
4	4_058	102 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	52	46	55	52	46	46	52	46
4	4_059	104 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	51	41	55	51	41	46	51	41
4	4_060	106 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	51	-	55	51	-	46	51	-
4	4_061	108 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	50	-	55	50	-	46	50	-
4	4_062	110 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	46	-	55	46	-	46	46	-
4	4_063	112 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	50	48	55	50	48	46	50	48
4	4_064	114 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	56	60	55	56	60	46	56	60
4	4_065	116 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	56	61	55	56	61	46	56	61
4	4_066	118 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	57	63	55	57	63	46	57	63
4	4_067	120 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	59	64	55	59	64	46	59	64
4	4_068	122 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	60	66	55	60	66	46	60	66
4	4_069	124 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	62	68	55	62	68	46	62	68
4	4_070	126 Rutherford Avenue	Post 2008 Development (Residence)	Residential	63	63	71	55	63	71	46	63	71
4	4_071	23 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	53	-	55	53	-	46	53	-
4	4_072	25 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	54	-	55	54	-	46	54	-
4	4_073	27 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	55	-	55	55	-	46	55	-
4	4_074	29 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	55	-	55	55	-	46	55	-
4	4_075	31 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	56	-	55	56	-	46	56	-
4	4_076	33 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	57	-	55	57	-	46	57	-
4	4_077	35 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	58	-	55	58	-	46	58	-
4	4_078	37 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	59	-	55	59	-	46	59	-
4	4_079	39 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	60	39	55	60	39	46	60	39
4	4_080	41 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	62	41	55	62	41	46	62	41
4	4_081	43 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	63	42	55	63	42	46	63	42
4	4_082	45 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	65	39	55	65	39	46	65	39
4	4_083	47 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential	63	67	39	55	67	39	46	67	39
4	4_084	Grace Crescent	Post 2008 Development (Residence)	Residential	63	49	52	55	49	52	46	49	52
4	4_085	Grace Crescent	Post 2008 Development (Residence)	Residential	63	49	53	55	49	53	46	49	53
4	4_086	Grace Crescent	Post 2008 Development (Residence)	Residential	63	50	53	55	50	53	46	50	53
4	4_087	Grace Crescent	Post 2008 Development (Residence)	Residential	63	51	54	55	51	54	46	51	54
4	4_088	Grace Crescent	Post 2008 Development (Residence)	Residential	63	51	55	55	51	55	46	51	55
4	4_089	Grace Crescent	Post 2008 Development (Residence)	Residential	63	52	57	55	52	57	46	52	57
4	4_090	Grace Crescent	Post 2008 Development (Residence)	Residential	63	54	59	55	54	59	46	54	59
4	4_091	Grace Crescent	Post 2008 Development (Residence)	Residential	63	55	60	55	55	60	46	55	60
4	4_092	Grace Crescent	Post 2008 Development (Residence)	Residential	63	57	61	55	57	61	46	57	61
4	4_093	Grace Crescent	Post 2008 Development (Residence)	Residential	63	62	62	55	62	62	46	62	62
4	4_094	Grace Crescent	Post 2008 Development (Residence)	Residential	63	64	65	55	64	65	46	64	65
4	4_095	Grace Crescent	Post 2008 Development (Residence)	Residential	63	68	73	55	68	73	46	68	73
4	4_096	Grace Crescent	Post 2008 Development (Residence)	Residential	63	64	73	55	64	73	46	64	73
4	4_097	Grace Crescent	Post 2008 Development (Residence)	Residential	63	63	72	55	63	72	46	63	72
4	4_098	Grace Crescent	Post 2008 Development (Residence)	Residential	63	61	70	55	61	70	46	61	70
4	4_099	Grace Crescent	Post 2008 Development (Residence)	Residential	63	60	69	55	60	69	46	60	69
4	4_100	Grace Crescent	Post 2008 Development (Residence)	Residential	63	59	67	55	59	67	46	59	67
4	4_101	Grace Crescent	Post 2008 Development (Residence)	Residential	63	57	65	55	57	65	46	57	65
4	4_102	Grace Crescent	Post 2008 Development (Residence)	Residential	63	56	63	55	56	63	46	56	63
4	4_103	Grace Crescent	Post 2008 Development (Residence)	Residential	63	55	61	55	55	61	46	55	61
4	4_104	Grace Crescent	Post 2008 Development (Residence)	Residential	63	55	60	55	55	60	46	55	60
4	4_105	Grace Crescent	Post 2008 Development (Residence)	Residential	63	54	60	55	54	60	46	54	60
4	4_106	Grace Crescent	Post 2008 Development (Residence)	Residential	63	50	53	55	50	53	46	50	53
4	4_107	Grace Crescent	Post 2008 Development (Residence)	Residential	63	49	53	55	49	53	46	49	53
4	4_108	Grace Crescent	Post 2008 Development (Residence)	Residential	63	48	55	55	48	55	46	48	55
4	4_109	Grace Crescent	Post 2008 Development (Residence)	Residential	63	48	55	55	48	55	46	48	55
4	4_110	Grace Crescent	Post 2008 Development (Residence)	Residential	63	48	55	55	48	55	46	48	55
4	4_111	Grace Crescent	Post 2008 Development (Residence)	Residential	63	48	56	55	48	56	46	48	56
4	4_112	Grace Crescent	Post 2008 Development (Residence)	Residential	63	49	56	55	49	56	46	49	56
4	4_113	Grace Crescent	Post 2008 Development (Residence)	Residential	63	49	57	55	49	57	46	49	57
4	4_114	Grace Crescent	Post 2008 Development (Residence)	Residential	63	49	57	55	49	57	46	49	57
4	4_115	Grace Crescent	Post 2008 Development (Residence)	Residential	63	49	58	55	49	58	46	49	58
4	4_116	Grace Crescent	Post 2008 Development (Residence)	Residential	63	49	58	55	49	58	46	49	58
4	4_117	Grace Crescent	Post 2008 Development (Residence)	Residential	63	49	58	55	49	58	46	49	58
4	4_118	Grace Crescent	Post 2008 Development (Residence)	Residential	63	48	58	55	48	58	46	48	58
4	4_119	Grace Crescent	Post 2008 Development (Residence)	Residential	63	48	57	55	48	57	46	48	57
4	4_120	Grace Crescent	Post 2008 Development (Residence)	Residential	63	47	57	55	47	57	46	47	57
4	4_121	Grace Crescent	Post 2008 Development (Residence)	Residential	63	47	57	55	47	57	46	47	57
4	4_122	Grace Crescent	Post 2008 Development (Residence)	Residential	63	46	56	55	46	56	46	46	56
4	4_123	Grace Crescent	Post 2008 Development (Residence)	Residential	63	46	55	55	46	55	46	46	55
4	4_124	Grace Crescent	Post 2008 Development (Residence)	Residential	63	45	55	55	45	55	46	45	55
4	4_125	Grace Crescent	Post 2008 Development (Residence)	Residential	63	44	54	55	44	54	46	44	54
4	4_126	Grace Crescent	Post 2008 Development (Residence)	Residential	63	44	53	55	44	53	46	44	53
4	4_127	Grace Crescent	Post 2008 Development (Residence)	Residential	63	43	53	55	43	53	46	43	53
4	4_128	Grace Crescent	Post 2008 Development (Residence)	Residential	63	43	52	55	43	52	46	43	52
4	4_129	Grace Crescent	Post 2008 Development (Residence)	Residential	63	42	52	55	42	52	46	42	52
4	4_130	Grace Crescent	Post 2008 Development (Residence)	Residential	63	42	51	55	42	51	46	42	51
4	4_131	Grace Crescent	Post 2008 Development (Residence)	Residential	63	41	51	55	41	51	46	41	51

Receiver					Predicted noise levels, dB(A)								
					Day (Standard)			Evening (OOHW)			Night (OOHW)		
NCA	NCA ID	Address	Description	Receiver type	NML	TRENCH	HDD	NML	TRENCH	HDD	NML	TRENCH	HDD
4	4_132	Grace Crescent	Post 2008 Development (Residence)	Residential	63	41	50	55	41	50	46	41	50
4	4_133	Grace Crescent	Post 2008 Development (Residence)	Residential	63	40	50	55	40	50	46	40	50
4	4_134	Grace Crescent	Post 2008 Development (Residence)	Residential	63	40	49	55	40	49	46	40	49
4	4_135	Grace Crescent	Post 2008 Development (Residence)	Residential	63	40	49	55	40	49	46	40	49
4	4_136	Grace Crescent	Post 2008 Development (Residence)	Residential	63	40	49	55	40	49	46	40	49
4	4_137	Grace Crescent	Post 2008 Development (Residence)	Residential	63	48	54	55	48	54	46	48	54
4	4_138	Grace Crescent	Post 2008 Development (Residence)	Residential	63	39	42	55	39	42	46	39	42
4	4_139	Grace Crescent	Post 2008 Development (Residence)	Residential	63	39	44	55	39	44	46	39	44
4	4_140	Grace Crescent	Post 2008 Development (Residence)	Residential	63	39	42	55	39	42	46	39	42
4	4_141	Grace Crescent	Post 2008 Development (Residence)	Residential	63	39	42	55	39	42	46	39	42
4	4_142	Grace Crescent	Post 2008 Development (Residence)	Residential	63	36	41	55	36	41	46	36	41
4	4_143	Grace Crescent	Post 2008 Development (Residence)	Residential	63	40	43	55	40	43	46	40	43
4	4_144	Grace Crescent	Post 2008 Development (Residence)	Residential	63	41	42	55	41	42	46	41	42
4	4_145	Grace Crescent	Post 2008 Development (Residence)	Residential	63	41	44	55	41	44	46	41	44
4	4_146	Grace Crescent	Post 2008 Development (Residence)	Residential	63	39	53	55	39	53	46	39	53
4	4_147	Grace Crescent	Post 2008 Development (Residence)	Residential	63	42	47	55	42	47	46	42	47
4	4_148	Grace Crescent	Post 2008 Development (Residence)	Residential	63	42	47	55	42	47	46	42	47
4	4_149	Grace Crescent	Post 2008 Development (Residence)	Residential	63	41	45	55	41	45	46	41	45
4	4_150	Grace Crescent	Post 2008 Development (Residence)	Residential	63	43	47	55	43	47	46	43	47
4	4_151	Grace Crescent	Post 2008 Development (Residence)	Residential	63	42	46	55	42	46	46	42	46
4	4_152	Grace Crescent	Post 2008 Development (Residence)	Residential	63	40	47	55	40	47	46	40	47
4	4_153	Grace Crescent	Post 2008 Development (Residence)	Residential	63	42	47	55	42	47	46	42	47
4	4_154	Grace Crescent	Post 2008 Development (Residence)	Residential	63	40	46	55	40	46	46	40	46
4	4_155	Grace Crescent	Post 2008 Development (Residence)	Residential	63	39	46	55	39	46	46	39	46
4	4_156	Grace Crescent	Post 2008 Development (Residence)	Residential	63	40	45	55	40	45	46	40	45
4	4_157	Grace Crescent	Post 2008 Development (Residence)	Residential	63	39	46	55	39	46	46	39	46
4	4_158	Grace Crescent	Post 2008 Development (Residence)	Residential	63	38	44	55	38	44	46	38	44
4	4_159	Grace Crescent	Post 2008 Development (Residence)	Residential	63	38	46	55	38	46	46	38	46
4	4_160	Grace Crescent	Post 2008 Development (Residence)	Residential	63	38	44	55	38	44	46	38	44
4	4_161	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	-	55	37	-	46	37	-
4	4_162	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	41	55	37	41	46	37	41
4	4_163	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	41	55	37	41	46	37	41
4	4_164	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	40	55	37	40	46	37	40
4	4_165	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	41	55	37	41	46	37	41
4	4_166	Grace Crescent	Post 2008 Development (Residence)	Residential	63	38	41	55	38	41	46	38	41
4	4_167	Grace Crescent	Post 2008 Development (Residence)	Residential	63	38	41	55	38	41	46	38	41
4	4_168	Grace Crescent	Post 2008 Development (Residence)	Residential	63	38	41	55	38	41	46	38	41
4	4_169	Grace Crescent	Post 2008 Development (Residence)	Residential	63	38	40	55	38	40	46	38	40
4	4_170	Grace Crescent	Post 2008 Development (Residence)	Residential	63	38	40	55	38	40	46	38	40
4	4_171	Grace Crescent	Post 2008 Development (Residence)	Residential	63	38	44	55	38	44	46	38	44
4	4_172	Grace Crescent	Post 2008 Development (Residence)	Residential	63	38	39	55	38	39	46	38	39
4	4_173	Grace Crescent	Post 2008 Development (Residence)	Residential	63	38	39	55	38	39	46	38	39
4	4_174	Grace Crescent	Post 2008 Development (Residence)	Residential	63	38	41	55	38	41	46	38	41
4	4_175	Grace Crescent	Post 2008 Development (Residence)	Residential	63	40	49	55	40	49	46	40	49
4	4_176	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	40	55	37	40	46	37	40
4	4_177	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	39	55	37	39	46	37	39
4	4_178	Grace Crescent	Post 2008 Development (Residence)	Residential	63	41	50	55	41	50	46	41	50
4	4_179	Grace Crescent	Post 2008 Development (Residence)	Residential	63	36	44	55	36	44	46	36	44
4	4_180	Grace Crescent	Post 2008 Development (Residence)	Residential	63	36	44	55	36	44	46	36	44
4	4_181	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	44	55	37	44	46	37	44
4	4_182	Grace Crescent	Post 2008 Development (Residence)	Residential	63	36	44	55	36	44	46	36	44
4	4_183	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	43	55	37	43	46	37	43
4	4_184	Grace Crescent	Post 2008 Development (Residence)	Residential	63	36	44	55	36	44	46	36	44
4	4_185	Grace Crescent	Post 2008 Development (Residence)	Residential	63	36	42	55	36	42	46	36	42
4	4_186	Grace Crescent	Post 2008 Development (Residence)	Residential	63	36	43	55	36	43	46	36	43
4	4_187	Grace Crescent	Post 2008 Development (Residence)	Residential	63	36	40	55	36	40	46	36	40
4	4_188	Grace Crescent	Post 2008 Development (Residence)	Residential	63	36	42	55	36	42	46	36	42
4	4_189	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	43	55	37	43	46	37	43
4	4_190	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	44	55	37	44	46	37	44
4	4_191	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	43	55	37	43	46	37	43
4	4_192	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	43	55	37	43	46	37	43
4	4_193	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	42	55	37	42	46	37	42
4	4_194	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	41	55	37	41	46	37	41
4	4_195	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	40	55	37	40	46	37	40
4	4_196	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	41	55	37	41	46	37	41
4	4_197	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	42	55	37	42	46	37	42
4	4_198	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	46	55	37	46	46	37	46
4	4_199	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	40	55	37	40	46	37	40
4	4_200	Grace Crescent	Post 2008 Development (Residence)	Residential	63	38	49	55	38	49	46	38	49
4	4_201	Grace Crescent	Post 2008 Development (Residence)	Residential	63	39	50	55	39	50	46	39	50
4	4_202	Grace Crescent	Post 2008 Development (Residence)	Residential	63	37	43	55	37	43	46	37	43
4	4_203	Grace Crescent	Post 2008 Development (Residence)	Residential	63	40	50	55	40	50	46	40	50
4	4_204	Grace Crescent	Post 2008 Development (Residence)	Residential	63	40	51	55	40	51	46	40	51
4	4_205	Grace Crescent	Post 2008 Development (Residence)	Residential	63	35	43	55	35	43	46	35	43
4	4_206	Grace Crescent	Post 2008 Development (Residence)	Residential	63	-	-	55	-	-	46	-	-
4	4_207	Grace Crescent	Post 2008 Development (Residence)	Residential	63	43	52	55	43	52	46	43	52
4	4_208	Grace Crescent	Post 2008 Development (Residence)	Residential	63	41	53	55	41	53	46	41	53
4	4_209	Grace Crescent	Post 2008 Development (Residence)	Residential	63	34	40	55	34	40	46	34	40
4	4_210	Grace Crescent	Post 2008 Development (Residence)	Residential	63	46	54	55	46	54	46	46	54
4	4_211		Post 2008 Development (Residence)	Residential	63	63	60	55	63	60	46	63	60
4	4_212		Post 2008 Development (Residence)	Residential	63	65	62	55	65	62	46	65	62
4	4_213		Post 2008 Development (Residence)	Residential	63	69	64	55	69	64	46	69	64
4	4_214		Post 2008 Development (Residence)	Residential	63	72	67	55	72	67	46	72	67
4	4_215		Post 2008 Development (Residence)	Residential	63	60	65	55	60	65	46	60	65
4	4_216		Post 2008 Development (Residence)	Residential	63	59	63	55	59	63	46	59	63
4	4_217		Post 2008 Development (Residence)	Residential	63	57	62	55	57	62	46	57	62

Receiver					Predicted noise levels, dB(A)								
					Day (Standard)			Evening (OOHW)			Night (OOHW)		
NCA	NCA ID	Address	Description	Receiver type	NML	TRENCH	HDD	NML	TRENCH	HDD	NML	TRENCH	HDD
4	4_218		Post 2008 Development (Residence)	Residential	63	56	60	55	56	60	46	56	60
4	4_219		Post 2008 Development (Residence)	Residential	63	55	59	55	55	59	46	55	59
4	4_220		Post 2008 Development (Residence)	Residential	63	53	58	55	53	58	46	53	58
4	4_221		Post 2008 Development (Residence)	Residential	63	52	57	55	52	57	46	52	57
4	4_222		Post 2008 Development (Residence)	Residential	63	51	56	55	51	56	46	51	56
4	4_223		Post 2008 Development (Residence)	Residential	63	50	55	55	50	55	46	50	55
4	4_224		Post 2008 Development (Residence)	Residential	63	50	55	55	50	55	46	50	55
4	4_225		Post 2008 Development (Residence)	Residential	63	49	54	55	49	54	46	49	54
4	4_226		Post 2008 Development (Residence)	Residential	63	48	53	55	48	53	46	48	53
4	4_227		Post 2008 Development (Residence)	Residential	63	41	47	55	41	47	46	41	47
4	4_228		Post 2008 Development (Residence)	Residential	63	41	41	55	41	41	46	41	41
4	4_229		Post 2008 Development (Residence)	Residential	63	34	42	55	34	42	46	34	42
4	4_230		Post 2008 Development (Residence)	Residential	63	44	46	55	44	46	46	44	46
4	4_231		Post 2008 Development (Residence)	Residential	63	45	46	55	45	46	46	45	46
4	4_232		Post 2008 Development (Residence)	Residential	63	47	45	55	47	45	46	47	45
4	4_233		Post 2008 Development (Residence)	Residential	63	48	46	55	48	46	46	48	46
4	4_234		Post 2008 Development (Residence)	Residential	63	48	45	55	48	45	46	48	45
4	4_235		Post 2008 Development (Residence)	Residential	63	46	46	55	46	46	46	46	46
4	4_236		Post 2008 Development (Residence)	Residential	63	45	49	55	45	49	46	45	49
4	4_237		Post 2008 Development (Residence)	Residential	63	45	46	55	45	46	46	45	46
4	4_238		Post 2008 Development (Residence)	Residential	63	46	49	55	46	49	46	46	49
4	4_239		Post 2008 Development (Residence)	Residential	63	47	49	55	47	49	46	47	49
4	4_240		Post 2008 Development (Residence)	Residential	63	46	51	55	46	51	46	46	51
4	4_241		Post 2008 Development (Residence)	Residential	63	42	51	55	42	51	46	42	51
4	4_242		Post 2008 Development (Residence)	Residential	63	41	-	55	41	-	46	41	-
4	4_243		Post 2008 Development (Residence)	Residential	63	40	42	55	40	42	46	40	42
4	4_244		Post 2008 Development (Residence)	Residential	63	38	39	55	38	39	46	38	39
4	4_245		Post 2008 Development (Residence)	Residential	63	36	40	55	36	40	46	36	40
4	4_246		Post 2008 Development (Residence)	Residential	63	35	39	55	35	39	46	35	39
4	4_247		Post 2008 Development (Residence)	Residential	63	45	49	55	45	49	46	45	49
4	4_248		Post 2008 Development (Residence)	Residential	63	36	-	55	36	-	46	36	-
4	4_249		Post 2008 Development (Residence)	Residential	63	35	-	55	35	-	46	35	-
4	4_250		Post 2008 Development (Residence)	Residential	63	35	-	55	35	-	46	35	-
4	4_251		Post 2008 Development (Residence)	Residential	63	36	-	55	36	-	46	36	-
4	4_252		Post 2008 Development (Residence)	Residential	63	36	-	55	36	-	46	36	-
4	4_253		Post 2008 Development (Residence)	Residential	63	37	-	55	37	-	46	37	-
4	4_254		Post 2008 Development (Residence)	Residential	63	38	-	55	38	-	46	38	-
4	4_255		Post 2008 Development (Residence)	Residential	63	43	-	55	43	-	46	43	-
4	4_256		Post 2008 Development (Residence)	Residential	63	37	-	55	37	-	46	37	-
4	4_257		Post 2008 Development (Residence)	Residential	63	-	-	55	-	-	46	-	-
4	4_258		Post 2008 Development (Residence)	Residential	63	-	-	55	-	-	46	-	-
5	5_001	75 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	56	49	55	56	49	49	56	49
5	5_002	77 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	59	50	55	59	50	49	59	50
5	5_003	79 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	65	44	55	65	44	49	65	44
5	5_004	81 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	70	56	55	70	56	49	70	56
5	5_005	83 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	70	58	55	70	58	49	70	58
5	5_006	85 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	69	60	55	69	60	49	69	60
5	5_007	87 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	68	50	55	68	50	49	68	50
5	5_008	89 Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	70	72	55	70	72	49	70	72
5	5_009	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	36	40	55	36	40	49	36	40
5	5_010	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	54	41	55	54	41	49	54	41
5	5_011	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	59	42	55	59	42	49	59	42
5	5_012	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	65	53	55	65	53	49	65	53
5	5_013	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	66	54	55	66	54	49	66	54
5	5_014	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	65	55	55	65	55	49	65	55
5	5_015	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	66	58	55	66	58	49	66	58
5	5_016	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	64	55	55	64	55	49	64	55
5	5_017	Hartigan Avenue	Post 2008 Development (Residence)	Residential	59	66	63	55	66	63	49	66	63
5	5_018	3 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	44	51	55	44	51	49	44	51
5	5_019	5 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	47	53	55	47	53	49	47	53
5	5_020	7 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	46	51	55	46	51	49	46	51
5	5_021	9 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	49	56	55	49	56	49	49	56
5	5_022	10 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	44	54	55	44	54	49	44	54
5	5_023	11 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	51	58	55	51	58	49	51	58
5	5_024	12 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	47	55	55	47	55	49	47	55
5	5_025	13 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	53	60	55	53	60	49	53	60
5	5_026	14 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	51	58	55	51	58	49	51	58
5	5_027	15 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	55	63	55	55	63	49	55	63
5	5_028	16 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	59	63	55	59	63	49	59	63
5	5_029	17 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	65	68	55	65	68	49	65	68
5	5_030	19 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	65	63	55	65	63	49	65	63
5	5_031	21 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	67	68	55	67	68	49	67	68
5	5_032	10 Burns Rd	Post 2008 Development (Residence)	Residential	59	51	53	55	51	53	49	51	53
5	5_033	12 Burns Rd	Post 2008 Development (Residence)	Residential	59	50	52	55	50	52	49	50	52
5	5_034	Burns Road	Post 2008 Development (Residence)	Residential	59	71	70	55	71	70	49	71	70
5	5_035	Burns Road	Post 2008 Development (Residence)	Residential	59	72	66	55	72	66	49	72	66
5	5_036	Burns Road	Post 2008 Development (Residence)	Residential	59	72	61	55	72	61	49	72	61
5	5_037	Burns Road	Post 2008 Development (Residence)	Residential	59	74	60	55	74	60	49	74	60
5	5_038	Burns Road	Post 2008 Development (Residence)	Residential	59	74	60	55	74	60	49	74	60
5	5_039	Burns Road	Post 2008 Development (Residence)	Residential	59	74	62	55	74	62	49	74	62
5	5_040	Burns Road	Post 2008 Development (Residence)	Residential	59	62	65	55	62	65	49	62	65
5	5_041	Burns Road	Post 2008 Development (Residence)	Residential	59	57	62	55	57	62	49	57	62
5	5_042	Burns Road	Post 2008 Development (Residence)	Residential	59	55	60	55	55	60	49	55	60
5	5_043	Burns Road	Post 2008 Development (Residence)	Residential	59	54	58	55	54	58	49	54	58
5	5_044	Burns Road	Post 2008 Development (Residence)	Residential	59	52	57	55	52	57	49	52	57
5	5_045	Burns Road	Post 2008 Development (Residence)	Residential	59	50	55	55	50	55	49	50	55

Receiver					Predicted noise levels, dB(A)								
					Day (Standard)			Evening (OOHW)			Night (OOHW)		
NCA	NCA ID	Address	Description	Receiver type	NML	TRENCH	HDD	NML	TRENCH	HDD	NML	TRENCH	HDD
5	5_046	Burns Road	Post 2008 Development (Residence)	Residential	59	55	61	55	55	61	49	55	61
5	5_047	Burns Road	Post 2008 Development (Residence)	Residential	59	43	50	55	43	50	49	43	50
5	5_048	Burns Road	Post 2008 Development (Residence)	Residential	59	42	46	55	42	46	49	42	46
5	5_049	Burns Road	Post 2008 Development (Residence)	Residential	59	41	44	55	41	44	49	41	44
5	5_050	Burns Road	Post 2008 Development (Residence)	Residential	59	41	44	55	41	44	49	41	44
5	5_051	Burns Road	Post 2008 Development (Residence)	Residential	59	40	44	55	40	44	49	40	44
5	5_052	Burns Road	Post 2008 Development (Residence)	Residential	59	47	52	55	47	52	49	47	52
5	5_053	Burns Road	Post 2008 Development (Residence)	Residential	59	48	53	55	48	53	49	48	53
5	5_054	Burns Road	Post 2008 Development (Residence)	Residential	59	38	-	55	38	-	49	38	-
5	5_055	Burns Road	Post 2008 Development (Residence)	Residential	59	35	-	55	35	-	49	35	-
5	5_056	Burns Road	Post 2008 Development (Residence)	Residential	59	36	-	55	36	-	49	36	-
5	5_057	6 Windsor Road		Residential	59	66	68	55	66	68	49	66	68
5	5_058	8 Windsor Road		Residential	59	60	65	55	60	65	49	60	65
5	5_059	10 Windsor Road		Residential	59	54	61	55	54	61	49	54	61
5	5_060	12 Windsor Road		Residential	59	53	57	55	53	57	49	53	57
5	5_062	18-20 Windsor Road		Residential	59	55	53	55	55	53	49	55	53
5	5_063	1 Arnold Avenue		Residential	59	66	68	55	66	68	49	66	68
5	5_064	22 Windsor Road		Residential	59	51	47	55	51	47	49	51	47
5	5_065	24 Windsor Road		Residential	59	52	50	55	52	50	49	52	50
5	5_066	26 Windsor Road		Residential	59	54	47	55	54	47	49	54	47
5	5_067	28 Windsor Road		Residential	59	48	44	55	48	44	49	48	44
5	5_068		Post 2008 Development (Residence)	Residential	59	58	67	55	58	67	49	58	67
5	5_069		Post 2008 Development (Residence)	Residential	59	54	65	55	54	65	49	54	65
5	5_070		Post 2008 Development (Residence)	Residential	59	53	63	55	53	63	49	53	63
5	5_071		Post 2008 Development (Residence)	Residential	59	51	61	55	51	61	49	51	61
5	5_072		Post 2008 Development (Residence)	Residential	59	50	60	55	50	60	49	50	60
5	5_073		Post 2008 Development (Residence)	Residential	59	45	57	55	45	57	49	45	57
5	5_074		Post 2008 Development (Residence)	Residential	59	44	49	55	44	49	49	44	49
5	5_075		Post 2008 Development (Residence)	Residential	59	46	56	55	46	56	49	46	56
5	5_076		Post 2008 Development (Residence)	Residential	59	46	55	55	46	55	49	46	55
5	5_077		Post 2008 Development (Residence)	Residential	59	45	54	55	45	54	49	45	54
5	5_078		Post 2008 Development (Residence)	Residential	59	44	53	55	44	53	49	44	53
5	5_079		Post 2008 Development (Residence)	Residential	59	43	52	55	43	52	49	43	52
5	5_080		Post 2008 Development (Residence)	Residential	59	57	63	55	57	63	49	57	63
5	5_081		Post 2008 Development (Residence)	Residential	59	52	56	55	52	56	49	52	56
5	5_082		Post 2008 Development (Residence)	Residential	59	49	50	55	49	50	49	49	50
5	5_083		Post 2008 Development (Residence)	Residential	59	48	50	55	48	50	49	48	50
5	5_084		Post 2008 Development (Residence)	Residential	59	57	59	55	57	59	49	57	59
5	5_085		Post 2008 Development (Residence)	Residential	59	53	57	55	53	57	49	53	57
5	5_086		Post 2008 Development (Residence)	Residential	59	52	56	55	52	56	49	52	56
5	5_087		Post 2008 Development (Residence)	Residential	59	50	55	55	50	55	49	50	55
5	5_088		Post 2008 Development (Residence)	Residential	59	48	54	55	48	54	49	48	54
5	5_089		Post 2008 Development (Residence)	Residential	59	47	53	55	47	53	49	47	53
5	5_090		Post 2008 Development (Residence)	Residential	59	45	52	55	45	52	49	45	52
5	5_091		Post 2008 Development (Residence)	Residential	59	43	51	55	43	51	49	43	51
5	5_092		Post 2008 Development (Residence)	Residential	59	40	47	55	40	47	49	40	47
5	5_093		Post 2008 Development (Residence)	Residential	59	38	45	55	38	45	49	38	45
5	5_094	31 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	45	53	55	45	53	49	45	53
5	5_095	35 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	50	52	55	50	52	49	50	52
5	5_096	43 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	48	46	55	48	46	49	48	46
5	5_097		Post 2008 Development (Residence)	Residential	59	41	51	55	41	51	49	41	51
5	5_098		Post 2008 Development (Residence)	Residential	59	45	51	55	45	51	49	45	51
5	5_099		Post 2008 Development (Residence)	Residential	59	43	51	55	43	51	49	43	51
5	5_100		Post 2008 Development (Residence)	Residential	59	45	52	55	45	52	49	45	52
5	5_101		Post 2008 Development (Residence)	Residential	59	46	53	55	46	53	49	46	53
5	5_102		Post 2008 Development (Residence)	Residential	59	48	55	55	48	55	49	48	55
5	5_103		Post 2008 Development (Residence)	Residential	59	49	56	55	49	56	49	49	56
5	5_104		Post 2008 Development (Residence)	Residential	59	50	57	55	50	57	49	50	57
5	5_105		Post 2008 Development (Residence)	Residential	59	52	58	55	52	58	49	52	58
5	5_106		Post 2008 Development (Residence)	Residential	59	53	59	55	53	59	49	53	59
5	5_107		Post 2008 Development (Residence)	Residential	59	73	65	55	73	65	49	73	65
5	5_108		Post 2008 Development (Residence)	Residential	59	55	55	55	55	55	49	55	55
5	5_109		Post 2008 Development (Residence)	Residential	59	49	55	55	49	55	49	49	55
5	5_110		Post 2008 Development (Residence)	Residential	59	47	55	55	47	55	49	47	55
5	5_111		Post 2008 Development (Residence)	Residential	59	46	55	55	46	55	49	46	55
5	5_112		Post 2008 Development (Residence)	Residential	59	45	51	55	45	51	49	45	51
5	5_113		Post 2008 Development (Residence)	Residential	59	36	39	55	36	39	49	36	39
5	5_114		Post 2008 Development (Residence)	Residential	59	-	-	55	-	-	49	-	-
5	5_115		Post 2008 Development (Residence)	Residential	59	-	-	55	-	-	49	-	-
5	5_116		Post 2008 Development (Residence)	Residential	59	34	-	55	34	-	49	34	-
5	5_117		Post 2008 Development (Residence)	Residential	59	41	50	55	41	50	49	41	50
5	5_118		Post 2008 Development (Residence)	Residential	59	40	48	55	40	48	49	40	48
5	5_119		Post 2008 Development (Residence)	Residential	59	38	48	55	38	48	49	38	48
5	5_120		Post 2008 Development (Residence)	Residential	59	37	47	55	37	47	49	37	47
5	5_121		Post 2008 Development (Residence)	Residential	59	-	-	55	-	-	49	-	-
5	5_122		Post 2008 Development (Residence)	Residential	59	-	-	55	-	-	49	-	-
5	5_123		Post 2008 Development (Residence)	Residential	59	34	-	55	34	-	49	34	-
5	5_124		Post 2008 Development (Residence)	Residential	59	39	42	55	39	42	49	39	42
5	5_125		Post 2008 Development (Residence)	Residential	59	40	43	55	40	43	49	40	43
5	5_126		Post 2008 Development (Residence)	Residential	59	34	-	55	34	-	49	34	-
5	5_127		Post 2008 Development (Residence)	Residential	59	34	-	55	34	-	49	34	-
5	5_128	33 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	46	52	55	46	52	49	46	52
5	5_129	29 Gorman Avenue	Post 2008 Development (Residence)	Residential	59	46	53	55	46	53	49	46	53
5	5_130	37 Gormon Avenue		Residential	59	54	51	55	54	51	49	54	51
5	5_131	3 Dunn Way		Residential	59	54	41	55	54	41	49	54	41
5	5_132	4 Dunn Way		Residential	59	57	45	55	57	45	49	57	45

Receiver					Predicted noise levels, dB(A)								
					Day (Standard)			Evening (OOHW)			Night (OOHW)		
NCA	NCA ID	Address	Description	Receiver type	NML	TRENCH	HDD	NML	TRENCH	HDD	NML	TRENCH	HDD
5	5_133	5 Dunn Way		Residential	59	48	49	55	48	49	49	48	49
5	NEW_115		2019 Development (Residence)	Residential	59	55	66	55	55	66	49	55	66
5	NEW_116		2019 Development (Residence)	Residential	59	52	61	55	52	61	49	52	61
5	NEW_117		2019 Development (Residence)	Residential	59	48	53	55	48	53	49	48	53
6	6_001	2 Hector Court		Residential	57	57	59	50	57	59	39	57	59
6	6_002	2A Hector Court		Residential	57	51	52	50	51	52	39	51	52
6	NEW_118		2019 Development (Residence)	Residential	57	44	48	50	44	48	39	44	48
6	NEW_119		2019 Development (Residence)	Residential	57	44	48	50	44	48	39	44	48
6	NEW_120		2019 Development (Residence)	Residential	57	43	48	50	43	48	39	43	48
6	NEW_121		2019 Development (Residence)	Residential	57	43	48	50	43	48	39	43	48
6	NEW_122		2019 Development (Residence)	Residential	57	44	47	50	44	47	39	44	47
6	NEW_123		2019 Development (Residence)	Residential	57	44	47	50	44	47	39	44	47
6	NEW_124		2019 Development (Residence)	Residential	57	45	48	50	45	48	39	45	48
6	NEW_125		2019 Development (Residence)	Residential	57	47	49	50	47	49	39	47	49
6	NEW_126		2019 Development (Residence)	Residential	57	49	52	50	49	52	39	49	52
6	NEW_127		2019 Development (Residence)	Residential	57	51	52	50	51	52	39	51	52
6	NEW_128		2019 Development (Residence)	Residential	57	52	52	50	52	52	39	52	52
6	NEW_129		2019 Development (Residence)	Residential	57	53	52	50	53	52	39	53	52
6	NEW_130		2019 Development (Residence)	Residential	57	61	48	50	61	48	39	61	48
6	NEW_131		2019 Development (Residence)	Residential	57	60	48	50	60	48	39	60	48
6	NEW_132		2019 Development (Residence)	Residential	57	60	47	50	60	47	39	60	47
6	NEW_133		2019 Development (Residence)	Residential	57	59	47	50	59	47	39	59	47
6	NEW_134		2019 Development (Residence)	Residential	57	41	49	50	41	49	39	41	49
7	7_008	1 President Road		Residential	65	46	40	55	46	40	39	46	40
7	7_009	1B President Road		Residential	65	55	42	55	55	42	39	55	42
7	7_011	Lot 9 Windsor Road	Residence (Dilapidated)	Residential	65	73	50	55	73	50	39	73	50
7	7_014	12 Benalla Ave		Residential	65	51	46	55	51	46	39	51	46
7	7_015	14 Benalla Ave		Residential	65	52	52	55	52	52	39	52	52
7	7_016	16 Benalla Ave		Residential	65	50	52	55	50	52	39	50	52
7	7_017	18 Benalla Ave		Residential	65	62	56	55	62	56	39	62	56
7	7_018	20 Benalla Ave		Residential	65	64	58	55	64	58	39	64	58
7	7_019	22 Benalla Ave		Residential	65	64	59	55	64	59	39	64	59
7	7_020	24 Benalla Ave		Residential	65	64	62	55	64	62	39	64	62
7	7_021	26 Benalla Ave		Residential	65	48	56	55	48	56	39	48	56
7	7_022	28 Benalla Ave		Residential	65	45	48	55	45	48	39	45	48
7	7_023	30 Benalla Ave		Residential	65	52	59	55	52	59	39	52	59
7	7_024	32 Benalla Ave		Residential	65	51	51	55	51	51	39	51	51
7	7_025	34 Benalla Ave		Residential	65	52	60	55	52	60	39	52	60
7	7_026	36 Benalla Ave		Residential	65	64	66	55	64	66	39	64	66
7	7_027	38 Benalla Ave		Residential	65	62	64	55	62	64	39	62	64
7	7_028	40 Benalla Ave		Residential	65	64	61	55	64	61	39	64	61
7	7_029	42 Benalla Ave		Residential	65	67	58	55	67	58	39	67	58
7	7_030	44 Benalla Ave		Residential	65	50	52	55	50	52	39	50	52
7	7_031	46 Benalla Ave		Residential	65	48	53	55	48	53	39	48	53
7	7_032	48 Benalla Ave		Residential	65	46	45	55	46	45	39	46	45
7	7_033	50 Benalla Ave		Residential	65	45	45	55	45	45	39	45	45
7	7_034	Lot 1 Windsor Road		Residential	65	61	56	55	61	56	39	61	56
7	7_035	10 Hart Place		Residential	65	46	44	55	46	44	39	46	44
7	7_036	12 Hart Place		Residential	65	50	46	55	50	46	39	50	46
7	7_037	16 Hart Place		Residential	65	62	49	55	62	49	39	62	49
7	7_038	17 Hart Place		Residential	65	54	43	55	54	43	39	54	43
7	7_039	18 Hart Place		Residential	65	63	50	55	63	50	39	63	50
7	7_040	20 Hart Place		Residential	65	65	51	55	65	51	39	65	51
7	7_041	22 Hart Place		Residential	65	54	47	55	54	47	39	54	47
7	7_042	2 Wrights Road		Residential	65	58	47	55	58	47	39	58	47
7	7_043	4 Wrights Road		Residential	65	45	41	55	45	41	39	45	41
7	7_044	6 Wrights Road		Residential	65	41	43	55	41	43	39	41	43
7	7_046			Residential	65	43	43	55	43	43	39	43	43
7	7_047			Residential	65	43	43	55	43	43	39	43	43
7	7_048			Residential	65	44	44	55	44	44	39	44	44
7	7_049			Residential	65	44	44	55	44	44	39	44	44
7	7_050			Residential	65	45	44	55	45	44	39	45	44
7	7_051			Residential	65	45	44	55	45	44	39	45	44
7	7_052			Residential	65	36	-	55	36	-	39	36	-
7	7_053			Residential	65	36	39	55	36	39	39	36	39
7	7_054			Residential	65	36	39	55	36	39	39	36	39
7	7_055			Residential	65	38	40	55	38	40	39	38	40
7	7_056			Residential	65	38	40	55	38	40	39	38	40
7	7_057			Residential	65	38	40	55	38	40	39	38	40
7	7_058			Residential	65	41	45	55	41	45	39	41	45
7	7_059			Residential	65	34	-	55	34	-	39	34	-
7	7_062			Residential	65	39	42	55	39	42	39	39	42
7	7_063			Residential	65	38	41	55	38	41	39	38	41
7	7_064			Residential	65	36	-	55	36	-	39	36	-
7	7_065			Residential	65	-	-	55	-	-	39	-	-
7	7_066			Residential	65	37	39	55	37	39	39	37	39
7	7_067			Residential	65	37	39	55	37	39	39	37	39
7	7_068			Residential	65	38	-	55	38	-	39	38	-
7	7_069			Residential	65	40	42	55	40	42	39	40	42
7	7_070			Residential	65	40	42	55	40	42	39	40	42
7	7_071			Residential	65	40	42	55	40	42	39	40	42
7	7_072			Residential	65	40	43	55	40	43	39	40	43
7	7_073			Residential	65	40	43	55	40	43	39	40	43
7	7_074			Residential	65	41	44	55	41	44	39	41	44
7	7_075			Residential	65	40	42	55	40	42	39	40	42
7	7_076			Residential	65	38	40	55	38	40	39	38	40

Receiver					Predicted noise levels, dB(A)								
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NCA	NCA ID	Address	Description	Receiver type	NML	TRENCH	HDD	NML	TRENCH	HDD	NML	TRENCH	HDD
7	7_077			Residential	65	38	41	55	38	41	39	38	41
7	7_078			Residential	65	35	39	55	35	39	39	35	39
7	7_079			Residential	65	40	42	55	40	42	39	40	42
7	7_080			Residential	65	39	42	55	39	42	39	39	42
7	7_081			Residential	65	40	43	55	40	43	39	40	43
7	7_082			Residential	65	39	42	55	39	42	39	39	42
7	7_083			Residential	65	36	39	55	36	39	39	36	39
7	7_084			Residential	65	38	41	55	38	41	39	38	41
7	7_085			Residential	65	37	40	55	37	40	39	37	40
7	7_086			Residential	65	36	-	55	36	-	39	36	-
7	7_087			Residential	65	41	44	55	41	44	39	41	44
7	7_088			Residential	65	42	40	55	42	40	39	42	40
7	7_089			Residential	65	38	-	55	38	-	39	38	-
7	7_090			Residential	65	41	45	55	41	45	39	41	45
7	7_091			Residential	65	40	43	55	40	43	39	40	43
7	7_092			Residential	65	36	40	55	36	40	39	36	40
7	7_093			Residential	65	35	40	55	35	40	39	35	40
7	7_094			Residential	65	38	40	55	38	40	39	38	40
7	7_095			Residential	65	37	40	55	37	40	39	37	40
7	7_096			Residential	65	45	49	55	45	49	39	45	49
7	7_097			Residential	65	39	41	55	39	41	39	39	41
7	7_098			Residential	65	42	49	55	42	49	39	42	49
7	7_099			Residential	65	41	39	55	41	39	39	41	39
7	7_100			Residential	65	41	46	55	41	46	39	41	46
7	7_101			Residential	65	40	45	55	40	45	39	40	45
7	7_102			Residential	65	39	44	55	39	44	39	39	44
7	7_103			Residential	65	39	43	55	39	43	39	39	43
7	7_104			Residential	65	40	45	55	40	45	39	40	45
7	7_105			Residential	65	40	43	55	40	43	39	40	43
7	7_106			Residential	65	36	43	55	36	43	39	36	43
7	7_107			Residential	65	38	43	55	38	43	39	38	43
7	7_108			Residential	65	47	44	55	47	44	39	47	44
7	7_109			Residential	65	46	48	55	46	48	39	46	48
7	7_110			Residential	65	39	-	55	39	-	39	39	-
7	7_111			Residential	65	40	45	55	40	45	39	40	45
7	7_112			Residential	65	34	42	55	34	42	39	34	42
7	7_113			Residential	65	38	-	55	38	-	39	38	-
7	7_114			Residential	65	40	43	55	40	43	39	40	43
7	7_115			Residential	65	37	-	55	37	-	39	37	-
7	7_116			Residential	65	39	42	55	39	42	39	39	42
7	7_117			Residential	65	43	45	55	43	45	39	43	45
7	7_118			Residential	65	41	39	55	41	39	39	41	39
7	7_119			Residential	65	49	48	55	49	48	39	49	48
7	7_120			Residential	65	44	47	55	44	47	39	44	47
7	7_121			Residential	65	40	44	55	40	44	39	40	44
7	7_122			Residential	65	43	44	55	43	44	39	43	44
7	7_123			Residential	65	40	40	55	40	40	39	40	40
7	7_124			Residential	65	36	-	55	36	-	39	36	-
7	7_125			Residential	65	36	-	55	36	-	39	36	-
7	7_126			Residential	65	36	-	55	36	-	39	36	-
7	7_127			Residential	65	39	40	55	39	40	39	39	40
7	7_128			Residential	65	43	44	55	43	44	39	43	44
8	8_010	36 Kentwell Crescent		Residential	59	35	-	53	35	-	43	35	-
8	8_014	43 Kentwell Crescent		Residential	59	37	-	53	37	-	43	37	-
8	8_015	49 Kentwell Crescent		Residential	59	40	-	53	40	-	43	40	-
8	8_016	45 Kentwell Crescent		Residential	59	38	-	53	38	-	43	38	-
8	8_017	47 Kentwell Crescent		Residential	59	41	39	53	41	39	43	41	39
8	8_018	51 Kentwell Crescent		Residential	59	35	-	53	35	-	43	35	-
8	8_019	53 Kentwell Crescent		Residential	59	-	-	53	-	-	43	-	-
8	8_020	55 Kentwell Crescent		Residential	59	38	-	53	38	-	43	38	-
8	8_022	6 Meldon Place		Residential	59	-	-	53	-	-	43	-	-
8	8_023	8 Meldon Place		Residential	59	41	-	53	41	-	43	41	-
8	8_024	9 Meldon Place		Residential	59	34	-	53	34	-	43	34	-
8	8_025	10 Meldon Place		Residential	59	39	-	53	39	-	43	39	-
8	8_026	11 Meldon Place		Residential	59	41	39	53	41	39	43	41	39
8	8_027	12 Meldon Place		Residential	59	-	-	53	-	-	43	-	-
8	8_028	13 Meldon Place		Residential	59	41	39	53	41	39	43	41	39
8	8_029	14 Meldon Place		Residential	59	44	40	53	44	40	43	44	40
8	8_030	15 Meldon Place		Residential	59	42	40	53	42	40	43	42	40
8	8_031	16 Meldon Place		Residential	59	45	41	53	45	41	43	45	41
8	8_032	17 Meldon Place		Residential	59	41	-	53	41	-	43	41	-
8	8_033	19 Meldon Place		Residential	59	42	-	53	42	-	43	42	-
8	8_034	21 Meldon Place		Residential	59	43	-	53	43	-	43	43	-
8	8_035	23 Meldon Place		Residential	59	43	-	53	43	-	43	43	-
8	8_036	25 Meldon Place		Residential	59	44	-	53	44	-	43	44	-
8	8_037	27 Meldon Place		Residential	59	50	42	53	50	42	43	50	42
8	8_038	29 Meldon Place		Residential	59	49	42	53	49	42	43	49	42
8	8_039	1 Carolyn Court	Post 2008 Development (Residence)	Residential	59	47	39	53	47	39	43	47	39
8	8_040	3 Carolyn Court	Post 2008 Development (Residence)	Residential	59	47	39	53	47	39	43	47	39
8	8_041	15 Carolyn Court		Residential	59	53	43	53	53	43	43	53	43
8	8_042	2 Jakob Way		Residential	59	46	-	53	46	-	43	46	-
8	8_043	3 Jakob Way		Residential	59	51	43	53	51	43	43	51	43
8	8_044	4 Jakob Way		Residential	59	46	-	53	46	-	43	46	-
8	8_045	5 Jakob Way		Residential	59	49	40	53	49	40	43	49	40
8	8_046	7 Jakob Way		Residential	59	48	43	53	48	43	43	48	43
8	8_047	3 Rory Court		Residential	59	38	-	53	38	-	43	38	-

Receiver					Predicted noise levels, dB(A)								
					Day (Standard)			Evening (OOHW)			Night (OOHW)		
NCA	NCA ID	Address	Description	Receiver type	NML	TRENCH	HDD	NML	TRENCH	HDD	NML	TRENCH	HDD
8	8_048	4 Rory Court		Residential	59	39	-	53	39	-	43	39	-
8	8_049	6 Rory Court		Residential	59	40	-	53	40	-	43	40	-
8	8_050	8 Rory Court		Residential	59	44	43	53	44	43	43	44	43
8	8_051	10 Rory Court		Residential	59	48	44	53	48	44	43	48	44
8	8_052	12 Rory Court		Residential	59	48	43	53	48	43	43	48	43
8	8_054	8 Rothwell Circuit		Residential	59	36	-	53	36	-	43	36	-
8	8_055	10 Rothwell Circuit		Residential	59	38	41	53	38	41	43	38	41
8	8_056	12 Rothwell Circuit		Residential	59	43	42	53	43	42	43	43	42
8	8_057	14 Rothwell Circuit		Residential	59	-	-	53	-	-	43	-	-
8	8_058	16 Rothwell Circuit		Residential	59	37	-	53	37	-	43	37	-
8	8_059	16A Rothwell Circuit		Residential	59	44	43	53	44	43	43	44	43
8	8_060	18 Rothwell Circuit		Residential	59	38	-	53	38	-	43	38	-
8	8_061	18A Rothwell Circuit		Residential	59	44	43	53	44	43	43	44	43
8	8_062	20 Rothwell Circuit		Residential	59	37	40	53	37	40	43	37	40
8	8_063	22 Rothwell Circuit		Residential	59	45	43	53	45	43	43	45	43
8	8_064	24 Rothwell Circuit		Residential	59	44	43	53	44	43	43	44	43
8	8_065	26 Rothwell Circuit		Residential	59	36	-	53	36	-	43	36	-
OSR	3_001	15-17 Memorial Avenue (Front)	Post 2008 Development (Hills Clinic)	Hospital ward	65	62	72	65	62	72	65	62	72
OSR	3_002	15-17 Memorial Avenue (Rear)	Post 2008 Development (Hills Clinic)	Hospital ward	65	55	64	65	55	64	65	55	64
OSR	1_061b	24 Arnold Avenue	Gracelands Early Education Centre	Childcare Indoor F	55	56	60	55	56	60	55	56	60
OSR	6_004	Memorial Avenue	Kellyville Cricket Club	Open Space (Activ	65	53	55	65	53	55	65	53	55
OSR	7_045b	3-5 President Road	Kellyville Preschool Kindergarten	Childcare Indoor F	55	48	42	55	48	42	55	48	42
OSR	7_060	President Road	MET School	School Classroom	55	40	44	55	40	44	55	40	44
OSR	7_061	President Road	MET School Church	Places of worship	55	39	42	55	39	42	55	39	42
OSR	8_053b	6 Rothwell Circuit	Fit Kidz Day Care Centre	Childcare Indoor F	55	36	-	55	36	-	55	36	-
OSR	NEW_135	43 Memorial Avenue	Industrial	Industrial	75	56	55	75	56	55	75	56	55
OSR	NEW_136	3 Windsor Road	Repco	Commercial	70	63	51	70	63	51	70	63	51
OSR	NEW_137	5 Windsor Road	Caltex	Commercial	70	72	56	70	72	56	70	72	56

APPENDIX E Additional noise mitigation and receiver notifications

In accordance with the RMS Construction Noise and Vibration Guideline, the figure below identifies the additional mitigation measures to be applied at (airborne) construction noise affected receivers when, after applying all feasible and reasonable mitigation measures, noise levels still exceed the NMLs. The legend below identifies the notations in the tables that follow.

When is the work being undertaken?	How much does the predicted noise level exceed the ANML by?	Identify additional management measures to be implemented	Additional mitigation measure code
All Hours	75 dB(A) or greater	V, N, PC, RO	AM2
Standard Hours M-F 7am to 6pm Sat 8am to 6pm	0 dB(A)	-	-
	≤ 10 dB(A)	-	-
	10 to 20 dB(A)	V, N	AM1
	> 20 dB(A)	V, N	AM1
OOHW Period 1 M-F 6pm to 10pm Sat 6pm to 10pm Sun/ PH 8am to 10pm	< 5 dB(A)	-	-
	5 to 15 dB(A)	N, R1, DR	AM3
	15 to 25 dB(A)	V, N, R1, DR	AM4
	> 25 dB(A)	V, N, SN, IB, PC, R1, DR	AM5
OOHW Period 2* M-F 10pm to 7am Sat 10pm to 8am Sun/ PH 6pm to 8am	< 5 dB(A)	N	AM6
	5 to 15 dB(A)	V, N, R2, DR	AM7
	15 to 25 dB(A)	V, N, SN, IB, PC, R2, DR	AM8
	> 25 dB(A)	AA, V, N, SN, IB, PC, R2, DR	AM9

Notes: Use the abbreviation codes in the table above to confirm management measures required

* Where OOHW occur in the evening/night shoulder period (10pm to 12am) or the night/morning shoulder period (5am to 7am) apply additional airborne mitigation measures from the OOHW Period 2, excluding AA.

N = Notification (should be issued a minimum of five working days prior to the start of works)

SN = Specific notifications (issued no later than seven calendar days ahead of construction activities)

IB = Individual briefing PC = Phone Call

AA = Alternative accommodation** RO = Project specific respite offer R1 = Respite period 1

V = Verification of predicted noise DR = Duration respite R2 = Respite period 2

** Where construction activity impacts receiver for more than two consecutive nights. AA is not applicable to shoulder periods.

Table E: Additional noise mitigation and receiver notifications **MEMORIAL AVENUE**

Receiver					Additional noise mitigation and receiver notifications					
					Day (Standard)		Evening (OOHW)		Night (OOHW)	
NCA	NCA ID	Address	Description	Receiver type	TRENCH	HDD	TRENCH	HDD	TRENCH	HDD
1	1_002	41 Memorial Avenue		Residential					AM4	AM4
1	1_003	2 Colonial Street	Post 2008 Development (Residence)	Residential					AM3	AM3
1	1_004	4 Colonial Street	Post 2008 Development (Residence)	Residential					AM3	AM3
1	1_005	10 Colonial Street	Post 2008 Development (Residence)	Residential					AM3	AM3
1	1_006	1 Brunner Count	Post 2008 Development (Residence)	Residential						AM3
1	1_007	2 Brunner Count	Post 2008 Development (Residence)	Residential					AM3	AM3
1	1_008	3 Brunner Count	Post 2008 Development (Residence)	Residential					AM3	AM3
1	1_009	4 Brunner Count	Post 2008 Development (Residence)	Residential						AM3
1	1_010	5 Brunner Count	Post 2008 Development (Residence)	Residential					AM3	AM3
1	1_011	6 Brunner Count	Post 2008 Development (Residence)	Residential						AM3
1	1_012	7 Brunner Count	Post 2008 Development (Residence)	Residential					AM3	AM3
1	1_013	8 Brunner Count	Post 2008 Development (Residence)	Residential					AM3	AM4
1	1_014	9 Brunner Count	Post 2008 Development (Residence)	Residential					AM3	AM3
1	1_015	10 Brunner Count	Post 2008 Development (Residence)	Residential					AM3	AM4
1	1_016	11 Brunner Count	Post 2008 Development (Residence)	Residential					AM3	AM3
1	1_017	12 Brunner Count	Post 2008 Development (Residence)	Residential					AM3	AM4
1	1_018	13 Brunner Count	Post 2008 Development (Residence)	Residential					AM3	AM4
1	1_019	14 Brunner Count	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_020	15 Brunner Count	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_021	16 Brunner Count	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_022	17 Brunner Count	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_023	18 Brunner Count	Post 2008 Development (Residence)	Residential				AM3	AM4	AM4
1	1_024	20 Brunner Count	Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
1	1_025	22 Brunner Count	Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
1	1_026	24 Brunner Count	Post 2008 Development (Residence)	Residential			AM3	AM3	AM4	AM5
1	1_027	2 Arnold Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
1	1_028	4 Arnold Avenue	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_029	6 Arnold Avenue	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_030	8 Arnold Avenue	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_031	10 Arnold Avenue	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_032	12 Arnold Avenue	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_033	14 Arnold Avenue	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_034	16 Arnold Avenue	Post 2008 Development (Residence)	Residential					AM3	AM4
1	1_035	18 Arnold Avenue	Post 2008 Development (Residence)	Residential					AM3	AM4
1	1_036	20 Arnold Avenue	Post 2008 Development (Residence)	Residential					AM3	AM4
1	1_037	22 Arnold Avenue	Post 2008 Development (Residence)	Residential					AM3	AM3
1	1_038	9 Arnold Avenue	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_039	Arnold Avenue	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_040	13 Arnold Avenue	Post 2008 Development (Residence)	Residential					AM3	AM3
1	1_041	15 Arnold Avenue	Post 2008 Development (Residence)	Residential					AM3	AM4
1	1_042	3 Half Penny Avenue	Post 2008 Development (Residence)	Residential						AM4
1	1_043	5 Half Penny Avenue	Post 2008 Development (Residence)	Residential						AM4
1	1_044	7 Half Penny Avenue	Post 2008 Development (Residence)	Residential						AM4
1	1_045	9 Half Penny Avenue	Post 2008 Development (Residence)	Residential						AM3
1	1_047	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
1	1_048	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
1	1_049	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_050	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_051	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_052	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential						AM4
1	1_053	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
1	1_054	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_055	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential					AM3	AM4
1	1_056	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential					AM3	AM4
1	1_057	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential					AM3	AM4
1	1_058	3 John Hillas Avenue	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_059	5 John Hillas Avenue	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_060	6 John Hillas Avenue	Post 2008 Development (Residence)	Residential					AM3	AM3
1	1_063	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
1	1_064	4 JOHN HILLAS AVENUE	Post 2008 Development (Residence)	Residential					AM3	
1	1_065	7 John Hillas Avenue	Post 2008 Development (Residence)	Residential					AM4	AM4
1	1_066	13 Half Penny Avenue	Post 2008 Development (Residence)	Residential						AM3
1	1_069	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential			AM3	AM3	AM4	AM5
1	1_070	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
1	1_071	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
1	1_072	Thomas Boulton Circuit	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
1	1_075	9 John Hillas Avenue	Post 2008 Development (Residence)	Residential						AM4
1	1_077	15 Half Penny Avenue	Post 2008 Development (Residence)	Residential						AM3
1	NEW_001		2019 Development (Residence)	Residential					AM3	AM4
2	2_002	32 Memorial Avenue		Residential						AM3
2	2_003	40 Memorial Avenue		Residential					AM4	AM4
2	2_004	8 Free Settlers Dr	The Gracewood Community	Residential		AM1	AM3	AM4	AM5	N/A
2	2_005	8 Free Settlers Dr	The Gracewood Community	Residential					AM4	AM4
2	2_006	8 Free Settlers Dr	The Gracewood Community	Residential					AM4	AM3
2	2_008	8 Free Settlers Dr	The Gracewood Community	Residential					AM3	AM4
2	NEW_079		2019 Development (Residence)	Residential		AM1	AM3	AM4	AM5	N/A
2	NEW_080		2019 Development (Residence)	Residential			AM3	AM3	AM4	AM5
2	NEW_081		2019 Development (Residence)	Residential				AM3	AM4	AM5
2	NEW_082		2019 Development (Residence)	Residential				AM3	AM4	AM5
2	NEW_083		2019 Development (Residence)	Residential					AM4	AM4
2	NEW_084		2019 Development (Residence)	Residential				AM3	AM4	AM5

Receiver					Additional noise mitigation and receiver notifications					
					Day (Standard)		Evening (OOHW)		Night (OOHW)	
NCA	NCA ID	Address	Description	Receiver type	TRENCH	HDD	TRENCH	HDD	TRENCH	HDD
2	NEW_085		2019 Development (Residence)	Residential				AM3	AM3	AM4
2	NEW_086		2019 Development (Residence)	Residential					AM3	AM4
2	NEW_087		2019 Development (Residence)	Residential					AM3	AM4
2	NEW_088		2019 Development (Residence)	Residential					AM3	AM3
2	NEW_089		2019 Development (Residence)	Residential				AM3	AM3	AM5
2	NEW_090		2019 Development (Residence)	Residential				AM3	AM4	AM5
2	NEW_091		2019 Development (Residence)	Residential		AM1	AM3	AM4	AM5	N/A
2	NEW_092		2019 Development (Residence)	Residential						AM3
2	NEW_093		2019 Development (Residence)	Residential						AM3
2	NEW_094		2019 Development (Residence)	Residential						AM4
2	NEW_095		2019 Development (Residence)	Residential				AM3	AM4	AM5
2	NEW_096		2019 Development (Residence)	Residential				AM3	AM4	AM5
2	NEW_097		2019 Development (Residence)	Residential						AM4
2	NEW_098		2019 Development (Residence)	Residential						AM3
2	NEW_110		2019 Development (Residence)	Residential					AM3	
2	NEW_111		2019 Development (Residence)	Residential					AM4	AM3
2	NEW_112		2019 Development (Residence)	Residential					AM4	AM4
2	NEW_113		2019 Development (Residence)	Residential					AM4	AM4
2	NEW_114		2019 Development (Residence)	Residential					AM4	AM4
3	3_003	25 Memorial Avenue		Residential					AM3	AM3
3	3_006	91 Memorial Avenue		Residential					AM3	
3	3_015	30 Bruhn Circuit		Residential					AM3	AM3
3	3_016	32 Bruhn Circuit		Residential						AM3
3	NEW_029		2019 Development (Residence)	Residential						AM3
3	NEW_030		2019 Development (Residence)	Residential						AM3
3	NEW_031		2019 Development (Residence)	Residential					AM3	AM4
3	NEW_032		2019 Development (Residence)	Residential					AM4	AM4
3	NEW_051		2019 Development (Residence)	Residential					AM4	
3	NEW_052		2019 Development (Residence)	Residential					AM4	
3	NEW_055		2019 Development (Residence)	Residential					AM3	
3	NEW_056		2019 Development (Residence)	Residential					AM3	
3	NEW_057		2019 Development (Residence)	Residential					AM3	AM3
3	NEW_062		2019 Development (Residence)	Residential					AM3	
3	NEW_063		2019 Development (Residence)	Residential					AM4	
3	NEW_064		2019 Development (Residence)	Residential					AM4	AM3
3	NEW_065		2019 Development (Residence)	Residential					AM4	AM3
3	NEW_066		2019 Development (Residence)	Residential					AM3	
3	NEW_067		2019 Development (Residence)	Residential					AM3	
3	NEW_073		2019 Development (Residence)	Residential						AM4
3	NEW_074		2019 Development (Residence)	Residential					AM3	AM4
3	NEW_075		2019 Development (Residence)	Residential					AM4	AM4
3	NEW_076		2019 Development (Residence)	Residential					AM4	AM3
4	4_001	2 Rocks Street	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
4	4_002	4 Rocks Street	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
4	4_003	6 Rocks Street	Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
4	4_004	8 Rocks Street	Post 2008 Development (Residence)	Residential				AM3	AM4	AM4
4	4_005	10 Rocks Street	Post 2008 Development (Residence)	Residential					AM4	AM4
4	4_006	12 Rocks Street	Post 2008 Development (Residence)	Residential					AM4	AM4
4	4_007	14 Rocks Street	Post 2008 Development (Residence)	Residential					AM4	AM4
4	4_008	2 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM3	
4	4_027	40 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM3	
4	4_028	42 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM4	
4	4_029	44 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM4	
4	4_033	52 Rutherford Avenue	Post 2008 Development (Residence)	Residential				AM3	AM3	AM5
4	4_034	54 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
4	4_035	56 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
4	4_036	58 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
4	4_037	60 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
4	4_038	62 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM4
4	4_039	64 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	AM4
4	4_040	66 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	AM4
4	4_041	68 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	AM4
4	4_042	70 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	AM4
4	4_043	72 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	AM4
4	4_044	74 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	AM4
4	4_045	76 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	AM4
4	4_046	78 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	AM4
4	4_047	80 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	AM4
4	4_048	82 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	
4	4_049	84 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3		AM4	
4	4_050	86 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM4	
4	4_051	88 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM4	
4	4_052	90 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM4	
4	4_053	92 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM4	
4	4_054	94 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM4	
4	4_055	96 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM4	
4	4_056	98 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM4	AM3
4	4_057	100 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM4	AM4
4	4_058	102 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM4	
4	4_059	104 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM3	
4	4_060	106 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM3	
4	4_061	108 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM3	

Receiver					Additional noise mitigation and receiver notifications					
					Day (Standard)		Evening (OOHW)		Night (OOHW)	
NCA	NCA ID	Address	Description	Receiver type	TRENCH	HDD	TRENCH	HDD	TRENCH	HDD
4	4_063	112 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM3	AM3
4	4_064	114 Rutherford Avenue	Post 2008 Development (Residence)	Residential					AM4	AM4
4	4_065	116 Rutherford Avenue	Post 2008 Development (Residence)	Residential				AM3	AM4	AM4
4	4_066	118 Rutherford Avenue	Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
4	4_067	120 Rutherford Avenue	Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
4	4_068	122 Rutherford Avenue	Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
4	4_069	124 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
4	4_070	126 Rutherford Avenue	Post 2008 Development (Residence)	Residential			AM3	AM4	AM5	AM5
4	4_071	23 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential					AM4	
4	4_072	25 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential					AM4	
4	4_073	27 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential					AM4	
4	4_074	29 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential					AM4	
4	4_075	31 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential					AM4	
4	4_076	33 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential					AM4	
4	4_077	35 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential					AM4	
4	4_078	37 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential					AM4	
4	4_079	39 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential					AM4	
4	4_080	41 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential			AM3		AM5	
4	4_081	43 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential			AM3		AM5	
4	4_082	45 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential			AM3		AM5	
4	4_083	47 Pellizzer Boulevard	Post 2008 Development (Residence)	Residential			AM3		AM5	
4	4_084	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_085	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_086	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_087	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_088	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_089	Grace Crescent	Post 2008 Development (Residence)	Residential					AM4	AM4
4	4_090	Grace Crescent	Post 2008 Development (Residence)	Residential					AM4	AM4
4	4_091	Grace Crescent	Post 2008 Development (Residence)	Residential					AM4	AM4
4	4_092	Grace Crescent	Post 2008 Development (Residence)	Residential				AM3	AM4	AM4
4	4_093	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
4	4_094	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
4	4_095	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM4	AM5	N/A
4	4_096	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM4	AM5	N/A
4	4_097	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM4	AM5	N/A
4	4_098	Grace Crescent	Post 2008 Development (Residence)	Residential			AM3	AM3	AM4	AM5
4	4_099	Grace Crescent	Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
4	4_100	Grace Crescent	Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
4	4_101	Grace Crescent	Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
4	4_102	Grace Crescent	Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
4	4_103	Grace Crescent	Post 2008 Development (Residence)	Residential				AM3	AM4	AM4
4	4_104	Grace Crescent	Post 2008 Development (Residence)	Residential					AM4	AM4
4	4_105	Grace Crescent	Post 2008 Development (Residence)	Residential					AM4	AM4
4	4_106	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_107	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_108	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_109	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_110	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_111	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_112	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_113	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_114	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_115	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_116	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_117	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_118	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_119	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_120	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_121	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_122	Grace Crescent	Post 2008 Development (Residence)	Residential						AM4
4	4_123	Grace Crescent	Post 2008 Development (Residence)	Residential						AM4
4	4_124	Grace Crescent	Post 2008 Development (Residence)	Residential						AM4
4	4_125	Grace Crescent	Post 2008 Development (Residence)	Residential						AM4
4	4_126	Grace Crescent	Post 2008 Development (Residence)	Residential						AM4
4	4_127	Grace Crescent	Post 2008 Development (Residence)	Residential						AM4
4	4_128	Grace Crescent	Post 2008 Development (Residence)	Residential						AM4
4	4_129	Grace Crescent	Post 2008 Development (Residence)	Residential						AM4
4	4_130	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_131	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_132	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_133	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_134	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_135	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_136	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_137	Grace Crescent	Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_146	Grace Crescent	Post 2008 Development (Residence)	Residential						AM4
4	4_147	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_148	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_150	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_152	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_153	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_175	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3

Receiver					Additional noise mitigation and receiver notifications					
					Day (Standard)		Evening (OOHW)		Night (OOHW)	
NCA	NCA ID	Address	Description	Receiver type	TRENCH	HDD	TRENCH	HDD	TRENCH	HDD
4	4_178	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_200	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_201	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_203	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_204	Grace Crescent	Post 2008 Development (Residence)	Residential						AM3
4	4_207	Grace Crescent	Post 2008 Development (Residence)	Residential						AM4
4	4_208	Grace Crescent	Post 2008 Development (Residence)	Residential						AM4
4	4_210	Grace Crescent	Post 2008 Development (Residence)	Residential						AM4
4	4_211		Post 2008 Development (Residence)	Residential			AM3		AM5	AM4
4	4_212		Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
4	4_213		Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
4	4_214		Post 2008 Development (Residence)	Residential			AM4	AM3	N/A	AM5
4	4_215		Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
4	4_216		Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
4	4_217		Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
4	4_218		Post 2008 Development (Residence)	Residential					AM4	AM4
4	4_219		Post 2008 Development (Residence)	Residential					AM4	AM4
4	4_220		Post 2008 Development (Residence)	Residential					AM4	AM4
4	4_221		Post 2008 Development (Residence)	Residential					AM4	AM4
4	4_222		Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_223		Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_224		Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_225		Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_226		Post 2008 Development (Residence)	Residential					AM3	AM4
4	4_227		Post 2008 Development (Residence)	Residential						AM3
4	4_232		Post 2008 Development (Residence)	Residential					AM3	
4	4_233		Post 2008 Development (Residence)	Residential					AM3	
4	4_234		Post 2008 Development (Residence)	Residential					AM3	
4	4_236		Post 2008 Development (Residence)	Residential						AM3
4	4_238		Post 2008 Development (Residence)	Residential						AM3
4	4_239		Post 2008 Development (Residence)	Residential					AM3	AM3
4	4_240		Post 2008 Development (Residence)	Residential						AM3
4	4_241		Post 2008 Development (Residence)	Residential						AM3
4	4_247		Post 2008 Development (Residence)	Residential						AM3
5	5_001	75 Hartigan Avenue	Post 2008 Development (Residence)	Residential					AM4	
5	5_002	77 Hartigan Avenue	Post 2008 Development (Residence)	Residential					AM4	AM3
5	5_003	79 Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	
5	5_004	81 Hartigan Avenue	Post 2008 Development (Residence)	Residential	AM1		AM3		AM5	AM4
5	5_005	83 Hartigan Avenue	Post 2008 Development (Residence)	Residential	AM1		AM3		AM5	AM4
5	5_006	85 Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	AM4
5	5_007	87 Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	AM3
5	5_008	89 Hartigan Avenue	Post 2008 Development (Residence)	Residential	AM1	AM1	AM3	AM4	AM5	AM5
5	5_010	Hartigan Avenue	Post 2008 Development (Residence)	Residential					AM3	
5	5_011	Hartigan Avenue	Post 2008 Development (Residence)	Residential					AM4	
5	5_012	Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	AM3
5	5_013	Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	AM3
5	5_014	Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	AM4
5	5_015	Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM3		AM5	AM4
5	5_016	Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM3		AM4	AM4
5	5_017	Hartigan Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM4
5	5_018	3 Gorman Avenue	Post 2008 Development (Residence)	Residential						AM3
5	5_019	5 Gorman Avenue	Post 2008 Development (Residence)	Residential						AM3
5	5_020	7 Gorman Avenue	Post 2008 Development (Residence)	Residential						AM3
5	5_021	9 Gorman Avenue	Post 2008 Development (Residence)	Residential						AM4
5	5_022	10 Gorman Avenue	Post 2008 Development (Residence)	Residential						AM3
5	5_023	11 Gorman Avenue	Post 2008 Development (Residence)	Residential					AM3	AM4
5	5_024	12 Gorman Avenue	Post 2008 Development (Residence)	Residential						AM4
5	5_025	13 Gorman Avenue	Post 2008 Development (Residence)	Residential					AM3	AM4
5	5_026	14 Gorman Avenue	Post 2008 Development (Residence)	Residential					AM3	AM4
5	5_027	15 Gorman Avenue	Post 2008 Development (Residence)	Residential				AM3	AM4	AM4
5	5_028	16 Gorman Avenue	Post 2008 Development (Residence)	Residential				AM3	AM4	AM4
5	5_029	17 Gorman Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
5	5_030	19 Gorman Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM4
5	5_031	21 Gorman Avenue	Post 2008 Development (Residence)	Residential			AM3	AM3	AM5	AM5
5	5_032	10 Burns Rd	Post 2008 Development (Residence)	Residential					AM3	AM3
5	5_033	12 Burns Rd	Post 2008 Development (Residence)	Residential					AM3	AM3
5	5_034	Burns Road	Post 2008 Development (Residence)	Residential	AM1	AM1	AM4	AM3	AM5	AM5
5	5_035	Burns Road	Post 2008 Development (Residence)	Residential	AM1		AM4	AM3	AM5	AM5
5	5_036	Burns Road	Post 2008 Development (Residence)	Residential	AM1		AM4	AM3	AM5	AM4
5	5_037	Burns Road	Post 2008 Development (Residence)	Residential	AM1		AM4		AM5	AM4
5	5_038	Burns Road	Post 2008 Development (Residence)	Residential	AM1		AM4		AM5	AM4
5	5_039	Burns Road	Post 2008 Development (Residence)	Residential	AM1		AM4	AM3	AM5	AM4
5	5_040	Burns Road	Post 2008 Development (Residence)	Residential			AM3	AM3	AM4	AM5
5	5_041	Burns Road	Post 2008 Development (Residence)	Residential				AM3	AM4	AM4
5	5_042	Burns Road	Post 2008 Development (Residence)	Residential					AM4	AM4
5	5_043	Burns Road	Post 2008 Development (Residence)	Residential					AM3	AM4
5	5_044	Burns Road	Post 2008 Development (Residence)	Residential					AM3	AM4
5	5_045	Burns Road	Post 2008 Development (Residence)	Residential					AM3	AM4
5	5_046	Burns Road	Post 2008 Development (Residence)	Residential				AM3	AM4	AM4
5	5_047	Burns Road	Post 2008 Development (Residence)	Residential						AM3
5	5_052	Burns Road	Post 2008 Development (Residence)	Residential						AM3
5	5_053	Burns Road	Post 2008 Development (Residence)	Residential						AM3

Receiver					Additional noise mitigation and receiver notifications					
					Day (Standard)		Evening (OOHW)		Night (OOHW)	
NCA	NCA ID	Address	Description	Receiver type	TRENCH	HDD	TRENCH	HDD	TRENCH	HDD
5	5_057	6 Windsor Road		Residential			AM3	AM3	AM5	AM5
5	5_058	8 Windsor Road		Residential				AM3	AM4	AM5
5	5_059	10 Windsor Road		Residential				AM3	AM3	AM4
5	5_060	12 Windsor Road		Residential					AM3	AM4
5	5_062	18-20 Windsor Road		Residential					AM4	AM3
5	5_063	1 Arnold Avenue		Residential			AM3	AM3	AM5	AM5
5	5_064	22 Windsor Road		Residential					AM3	
5	5_065	24 Windsor Road		Residential					AM3	AM3
5	5_066	26 Windsor Road		Residential					AM3	
5	5_068		Post 2008 Development (Residence)	Residential				AM3	AM4	AM5
5	5_069		Post 2008 Development (Residence)	Residential				AM3	AM3	AM5
5	5_070		Post 2008 Development (Residence)	Residential				AM3	AM3	AM4
5	5_071		Post 2008 Development (Residence)	Residential				AM3	AM3	AM4
5	5_072		Post 2008 Development (Residence)	Residential					AM3	AM4
5	5_073		Post 2008 Development (Residence)	Residential						AM4
5	5_075		Post 2008 Development (Residence)	Residential						AM4
5	5_076		Post 2008 Development (Residence)	Residential						AM4
5	5_077		Post 2008 Development (Residence)	Residential						AM3
5	5_078		Post 2008 Development (Residence)	Residential						AM3
5	5_079		Post 2008 Development (Residence)	Residential						AM3
5	5_080		Post 2008 Development (Residence)	Residential				AM3	AM4	AM4
5	5_081		Post 2008 Development (Residence)	Residential					AM3	AM4
5	5_082		Post 2008 Development (Residence)	Residential						AM3
5	5_083		Post 2008 Development (Residence)	Residential						AM3
5	5_084		Post 2008 Development (Residence)	Residential					AM4	AM4
5	5_085		Post 2008 Development (Residence)	Residential					AM3	AM4
5	5_086		Post 2008 Development (Residence)	Residential					AM3	AM4
5	5_087		Post 2008 Development (Residence)	Residential					AM3	AM4
5	5_088		Post 2008 Development (Residence)	Residential						AM3
5	5_089		Post 2008 Development (Residence)	Residential						AM3
5	5_090		Post 2008 Development (Residence)	Residential						AM3
5	5_091		Post 2008 Development (Residence)	Residential						AM3
5	5_094	31 Gorman Avenue	Post 2008 Development (Residence)	Residential						AM3
5	5_095	35 Gorman Avenue	Post 2008 Development (Residence)	Residential					AM3	AM3
5	5_097		Post 2008 Development (Residence)	Residential						AM3
5	5_098		Post 2008 Development (Residence)	Residential						AM3
5	5_099		Post 2008 Development (Residence)	Residential						AM3
5	5_100		Post 2008 Development (Residence)	Residential						AM3
5	5_101		Post 2008 Development (Residence)	Residential						AM3
5	5_102		Post 2008 Development (Residence)	Residential						AM4
5	5_103		Post 2008 Development (Residence)	Residential						AM4
5	5_104		Post 2008 Development (Residence)	Residential					AM3	AM4
5	5_105		Post 2008 Development (Residence)	Residential					AM3	AM4
5	5_106		Post 2008 Development (Residence)	Residential					AM3	AM4
5	5_107		Post 2008 Development (Residence)	Residential	AM1		AM4	AM3	AM5	AM5
5	5_108		Post 2008 Development (Residence)	Residential					AM4	AM4
5	5_109		Post 2008 Development (Residence)	Residential						AM4
5	5_110		Post 2008 Development (Residence)	Residential						AM4
5	5_111		Post 2008 Development (Residence)	Residential						AM4
5	5_112		Post 2008 Development (Residence)	Residential						AM3
5	5_117		Post 2008 Development (Residence)	Residential						AM3
5	5_128	33 Gorman Avenue	Post 2008 Development (Residence)	Residential						AM3
5	5_129	29 Gorman Avenue	Post 2008 Development (Residence)	Residential						AM3
5	5_130	37 Gormon Avenue		Residential					AM3	AM3
5	5_131	3 Dunn Way		Residential					AM3	
5	5_132	4 Dunn Way		Residential					AM4	
5	NEW_115		2019 Development (Residence)	Residential				AM3	AM4	AM5
5	NEW_116		2019 Development (Residence)	Residential				AM3	AM3	AM4
5	NEW_117		2019 Development (Residence)	Residential						AM3
6	6_001	2 Hector Court		Residential			AM3	AM3	AM5	AM5
6	6_002	2A Hector Court		Residential					AM4	AM4
6	NEW_118		2019 Development (Residence)	Residential					AM3	AM4
6	NEW_119		2019 Development (Residence)	Residential					AM3	AM4
6	NEW_120		2019 Development (Residence)	Residential					AM3	AM4
6	NEW_121		2019 Development (Residence)	Residential					AM3	AM4
6	NEW_122		2019 Development (Residence)	Residential					AM3	AM4
6	NEW_123		2019 Development (Residence)	Residential					AM3	AM4
6	NEW_124		2019 Development (Residence)	Residential					AM4	AM4
6	NEW_125		2019 Development (Residence)	Residential					AM4	AM4
6	NEW_126		2019 Development (Residence)	Residential					AM4	AM4
6	NEW_127		2019 Development (Residence)	Residential					AM4	AM4
6	NEW_128		2019 Development (Residence)	Residential					AM4	AM4
6	NEW_129		2019 Development (Residence)	Residential					AM4	AM4
6	NEW_130		2019 Development (Residence)	Residential			AM3		AM5	AM4
6	NEW_131		2019 Development (Residence)	Residential			AM3		AM5	AM4
6	NEW_132		2019 Development (Residence)	Residential			AM3		AM5	AM4
6	NEW_133		2019 Development (Residence)	Residential			AM3		AM5	AM4
6	NEW_134		2019 Development (Residence)	Residential					AM3	AM4
7	7_008	1 President Road		Residential					AM4	AM3
7	7_009	1B President Road		Residential					AM5	AM3
7	7_011	Lot 9 Windsor Road	Residence (Dilapidated)	Residential			AM4		N/A	AM4
7	7_014	12 Benalla Ave		Residential					AM4	AM4

Receiver					Additional noise mitigation and receiver notifications					
					Day (Standard)		Evening (OOHW)		Night (OOHW)	
NCA	NCA ID	Address	Description	Receiver type	TRENCH	HDD	TRENCH	HDD	TRENCH	HDD
7	7_015	14 Benalla Ave		Residential					AM4	AM4
7	7_016	16 Benalla Ave		Residential					AM4	AM4
7	7_017	18 Benalla Ave		Residential			AM3		AM5	AM5
7	7_018	20 Benalla Ave		Residential			AM3		AM5	AM5
7	7_019	22 Benalla Ave		Residential			AM3		AM5	AM5
7	7_020	24 Benalla Ave		Residential			AM3	AM3	AM5	AM5
7	7_021	26 Benalla Ave		Residential					AM4	AM5
7	7_022	28 Benalla Ave		Residential					AM4	AM4
7	7_023	30 Benalla Ave		Residential					AM4	AM5
7	7_024	32 Benalla Ave		Residential					AM4	AM4
7	7_025	34 Benalla Ave		Residential					AM4	AM5
7	7_026	36 Benalla Ave		Residential			AM3	AM3	AM5	N/A
7	7_027	38 Benalla Ave		Residential			AM3	AM3	AM5	AM5
7	7_028	40 Benalla Ave		Residential			AM3	AM3	AM5	AM5
7	7_029	42 Benalla Ave		Residential			AM3		N/A	AM5
7	7_030	44 Benalla Ave		Residential					AM4	AM4
7	7_031	46 Benalla Ave		Residential					AM4	AM4
7	7_032	48 Benalla Ave		Residential					AM4	AM4
7	7_033	50 Benalla Ave		Residential					AM4	AM4
7	7_034	Lot 1 Windsor Road		Residential			AM3		AM5	AM5
7	7_035	10 Hart Place		Residential					AM4	AM3
7	7_036	12 Hart Place		Residential					AM4	AM4
7	7_037	16 Hart Place		Residential			AM3		AM5	AM4
7	7_038	17 Hart Place		Residential					AM4	AM3
7	7_039	18 Hart Place		Residential			AM3		AM5	AM4
7	7_040	20 Hart Place		Residential			AM3		N/A	AM4
7	7_041	22 Hart Place		Residential					AM4	AM4
7	7_042	2 Wrights Road		Residential					AM5	AM4
7	7_043	4 Wrights Road		Residential					AM4	AM3
7	7_044	6 Wrights Road		Residential					AM3	AM3
7	7_046			Residential					AM3	AM3
7	7_047			Residential					AM3	AM3
7	7_048			Residential					AM3	AM3
7	7_049			Residential					AM3	AM3
7	7_050			Residential					AM4	AM3
7	7_051			Residential					AM4	AM3
7	7_055			Residential						AM3
7	7_056			Residential						AM3
7	7_057			Residential						AM3
7	7_058			Residential					AM3	AM4
7	7_062			Residential						AM3
7	7_063			Residential						AM3
7	7_069			Residential					AM3	AM3
7	7_070			Residential					AM3	AM3
7	7_071			Residential					AM3	AM3
7	7_072			Residential					AM3	AM3
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7	7_076			Residential						AM3
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7	7_079			Residential					AM3	AM3
7	7_080			Residential						AM3
7	7_081			Residential					AM3	AM3
7	7_082			Residential						AM3
7	7_084			Residential						AM3
7	7_085			Residential						AM3
7	7_087			Residential					AM3	AM3
7	7_088			Residential					AM3	AM3
7	7_090			Residential					AM3	AM4
7	7_091			Residential					AM3	AM3
7	7_092			Residential						AM3
7	7_093			Residential						AM3
7	7_094			Residential						AM3
7	7_095			Residential						AM3
7	7_096			Residential					AM4	AM4
7	7_097			Residential						AM3
7	7_098			Residential					AM3	AM4
7	7_099			Residential					AM3	
7	7_100			Residential					AM3	AM4
7	7_101			Residential					AM3	AM4
7	7_102			Residential						AM3
7	7_103			Residential						AM3
7	7_104			Residential					AM3	AM4
7	7_105			Residential					AM3	AM3
7	7_106			Residential						AM3
7	7_107			Residential						AM3
7	7_108			Residential					AM4	AM3
7	7_109			Residential					AM4	AM4
7	7_111			Residential					AM3	AM4
7	7_112			Residential						AM3
7	7_114			Residential					AM3	AM3

Receiver					Additional noise mitigation and receiver notifications					
					Day (Standard)		Evening (OOHW)		Night (OOHW)	
NCA	NCA ID	Address	Description	Receiver type	TRENCH	HDD	TRENCH	HDD	TRENCH	HDD
7	7_116			Residential						AM3
7	7_117			Residential					AM3	AM4
7	7_118			Residential					AM3	
7	7_119			Residential					AM4	AM4
7	7_120			Residential					AM3	AM4
7	7_121			Residential					AM3	AM3
7	7_122			Residential					AM3	AM3
7	7_123			Residential					AM3	AM3
7	7_127			Residential						AM3
7	7_128			Residential					AM3	AM3
8	8_029	14 Meldon Place		Residential					AM3	
8	8_031	16 Meldon Place		Residential					AM3	
8	8_036	25 Meldon Place		Residential					AM3	
8	8_037	27 Meldon Place		Residential					AM4	
8	8_038	29 Meldon Place		Residential					AM4	
8	8_039	1 Carolyn Court	Post 2008 Development (Residence)	Residential					AM3	
8	8_040	3 Carolyn Court	Post 2008 Development (Residence)	Residential					AM3	
8	8_041	15 Carolyn Court		Residential					AM4	
8	8_042	2 Jakob Way		Residential					AM3	
8	8_043	3 Jakob Way		Residential					AM4	
8	8_044	4 Jakob Way		Residential					AM3	
8	8_045	5 Jakob Way		Residential					AM4	
8	8_046	7 Jakob Way		Residential					AM3	
8	8_050	8 Rory Court		Residential					AM3	
8	8_051	10 Rory Court		Residential					AM3	AM3
8	8_052	12 Rory Court		Residential					AM3	
8	8_059	16A Rothwell Circuit		Residential					AM3	
8	8_061	18A Rothwell Circuit		Residential					AM3	
8	8_063	22 Rothwell Circuit		Residential					AM3	
8	8_064	24 Rothwell Circuit		Residential					AM3	
OSR	3_001	15-17 Memorial Avenue (Front)	Post 2008 Development (Hills Clinic)	Hospital ward			AM3			AM4
OSR	1_061b	24 Arnold Avenue	Gracelands Early Education Centre	Childcare Indoor Play					AM3	AM3
OSR	NEW_137	5 Windsor Road	Caltex	Commercial					AM3	

Appendix F

Addendum Biodiversity Assessment

Transport
Roads & Maritime
Services

Biodiversity Assessment Template for REFs

Biodiversity Assessment Practice Note – EIA- N06 - Resource 4

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Memorial Avenue Upgrade
Updated Addendum REF
Biodiversity Assessment

April 2019

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Roads and Maritime Services

Memorial Avenue Upgrade Updated Addendum REF

Biodiversity Assessment

8/04/2019

Prepared by Biosis

Contents

Glossary of terms for this template

Definitions

Cumulative impact	The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Refer to Clause 228(2) of the EP&A Regulation 2000 for cumulative impact assessment requirements.
Direct impact	Where a primary action is a substantial cause of a secondary event or circumstance which has an impact on a protected matter (ref http://www.environment.gov.au/system/files/resources/0b0cfb1e-6e28-4b23-9a97-fdadda0f111c/files/environment-assessment-manual.pdf).
Habitat	An area or areas occupied, or periodically or occasionally occupied, by a species, population or ecological community, including any biotic or abiotic component (OEH 2014a).
Indirect impact	Where an event or circumstance is a direct consequence of the action (ref http://www.environment.gov.au/system/files/resources/0b0cfb1e-6e28-4b23-9a97-fdadda0f111c/files/environment-assessment-manual.pdf).
Matters of NES	A matter of national environmental significance (NES) protected by a provision of Part 3 of the EPBC Act
Mitchell landscape	Landscapes with relatively homogeneous geomorphology, soils and broad vegetation types, mapped at a scale of 1:250,000 (OEH 2014a).
Mitigation	Action to reduce the severity of an impact. (OEH 2014a).
Mitigation measure	Any measure that facilitates the safe movement of wildlife and/or prevents wildlife mortality.
Project REF Boundary	Area of land that is the subject of the Memorial Avenue Upgrade REF (Hyder 2014)
Addendum REF Boundary	Area of land that is the subject of the Memorial Avenue Upgrade Addendum REF (Biosis 2016)
Updated Addendum REF Boundary	Area of extended project boundary not previously assessed for impact which is the subject of this updated document
Population	All the individuals that interbreed within a given area.
Proposal area/ Proposal site	The area of land that is directly impacted on by a proposed Major Proposal that is under the EP&A Act, including access roads, and areas used to store construction materials (OEH 2014a).
Site premises boundary	Area in which proposed road construction activities will occur.
Study area	The area directly affected by the development and any additional areas likely to be affected by the development, either directly or indirectly (OEH 2014a).
Target species	A species that is the focus of a study or intended beneficiary of a conservation action or connectivity measure.

Abbreviations

BAM	Biodiversity Assessment Method
BBCC	BioBanking Credit Calculator
BC Act	Biodiversity Conservation Act 2016 (NSW) (replaced TSC Act (NSW))
BVT	Biometric Vegetation Type
CEEC	Critically Endangered Ecological Community
CEMP	Construction Environmental Management Plan
DP&E	Department of Planning and Environment
DPI	Department of Primary Industries
EEC	Endangered ecological community
EIS	Environmental Impact Statement
EPBC Act	Environmental Protection and Biodiversity Conservation Act 1999 (Federal).

Abbreviations

FBA	Framework for Biodiversity Assessment
FM Act	Fisheries Management Act 1994 (NSW)
GDE	Groundwater dependent ecosystems
IBRA	Interim Biogeographically Regionalisation of Australia
MNES	Matters of National Environmental Significance
OEH	Office of Environment and Heritage
PCT	Plant Community Type
REF	Review of Environmental Factors
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
TECs	Threatened Ecological Communities
TSC Act	Threatened Species Conservation Act 1995 (NSW).
TSPD	Threatened Species Profile Database
VIS	Vegetation information system

1 Introduction

1.1 Proposal background

The New South Wales Roads and Maritime Services (Roads and Maritime) have proposed to undertake upgrades to Memorial Road, between Old Windsor Road and Windsor Road, Kellyville. Roads and Maritime have submitted and received determination on a Review of Environmental Factors (REF) for the proposal which was prepared by Hyder (2014) (herein referred to as Project REF). An addendum Biodiversity Assessment to the Project REF was produced by Biosis (2016) which incorporated a number of design amendments to the previously assessed project area (herein referred to as Addendum REF). This Biodiversity Assessment (herein referred to as Updated Addendum REF) is an update to the Addendum REF required due to further design amendments and comments on the extent of the impact of proposed works. This Updated Addendum REF aims to consolidate and update the findings of both prior investigations, and to provide an assessment of the total impacts of the proposed road upgrades.

Memorial Avenue is an arterial road connecting Sunnyholt Road and Old Windsor Road to Windsor Road. Memorial Avenue is bordered by recent urban development and semi-agricultural land uses (Figure 1). The proposed road upgrades are to support the future development of the Balmoral Road Release Area.

The study area for the current assessment is defined as the entire area to be impacted by the proposed works along Memorial Road, between Old Windsor Road and Windsor Road, and includes additional adjacent areas either potentially indirectly impacted by the works, or assessed to provide broader context to the current impact assessment.

1.2 The proposal

The Updated Addendum REF (Biodiversity Assessment) covers areas of land which occur outside of the Project REF boundary as defined by the 2019 Project Boundary, as illustrated in Figure 2. The Updated Addendum REF project area was typically consistent with the Project REF project boundary with four notable areas of difference and additional narrow tracts of land parallel and contiguous with the Project REF assessment area.
The four larger additional areas, which were the primary subject of the Addendum REF, are two sites proposed as ancillary areas and two sites where drainage is proposed to be extended into Sydney Water leased areas, including:

- Proposed ancillary facility at Kellyville Park, requiring vegetation removal.
- Proposed ancillary facility between Memorial Avenue and Balmoral Road, excluding areas subject to an environmental protection zone.
- Stormwater connection to Strangers Creek from the proposed intersections of Severn Vale Drive and Memorial Avenue.
- Stormwater connections to a tributary of Strangers Creek.

The proposed impacts at these four areas has increased since the Addendum REF was completed in 2016, along with other minor changes to the project footprint. These increases, as well as the total footprint of the proposed works, represented by the 2019 Project Boundary in Figure 1 (referred to herein as the study area), and are the subject of this Updated Addendum REF.

1.3 Legislative context

A REF is prepared to satisfy Roads and Maritime Services duties under s.5.5 of the EP&A Act to “examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity” and s.5.7 in making decisions on the likely significance of any environmental impacts. This Biodiversity Assessment for the Updated Addendum REF for the Memorial Avenue Upgrade, assesses the biodiversity impacts of the proposal to meet the requirements of the EP&A Act.

Section 1.7 of the EP&A Act states the Act has effect subject to the provisions of Part 7 of the BC Act and Part 7A of the FM Act in connection with the terrestrial and aquatic environment, which include the preparation of a Test of Significance (BC Act) or Assessment of Significance (FM Act) for assessment of impacts to threatened species, populations and endangered ecological communities listed under those Acts. Where a significant impact is likely to occur, a species impact statement (SIS) or Biodiversity Development Assessment Report (BDAR) must be prepared.

In September 2015, a "strategic assessment" approval was granted by the Federal Minister in accordance with the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The approval applies to Roads and Maritime activities being assessed under Part 5 of the EP&A Act with respect to potential impacts on nationally listed threatened species, ecological communities and migratory species.

As a result, Roads and Maritime proposals assessed via a REF:

- Must address and consider potential impacts on nationally listed threatened species, populations, ecological communities and migratory species, including application of the "avoid, minimise, mitigate and offset" hierarchy.
- Do not require referral to the Federal Department of the Environment and Energy (DEE) for these matters, even if the activity is likely to have a significant impact.

Roads and Maritime must consider impacts to nationally listed threatened species, ecological communities and migratory species as part of the approval process under the strategic assessment. To assist with this, assessments are required to be undertaken in accordance with the *Matters of National Environmental Significance: Significant impact guidelines 1.1. Environment Protection and Biodiversity Conservation Act 1999* (DoE 2013).

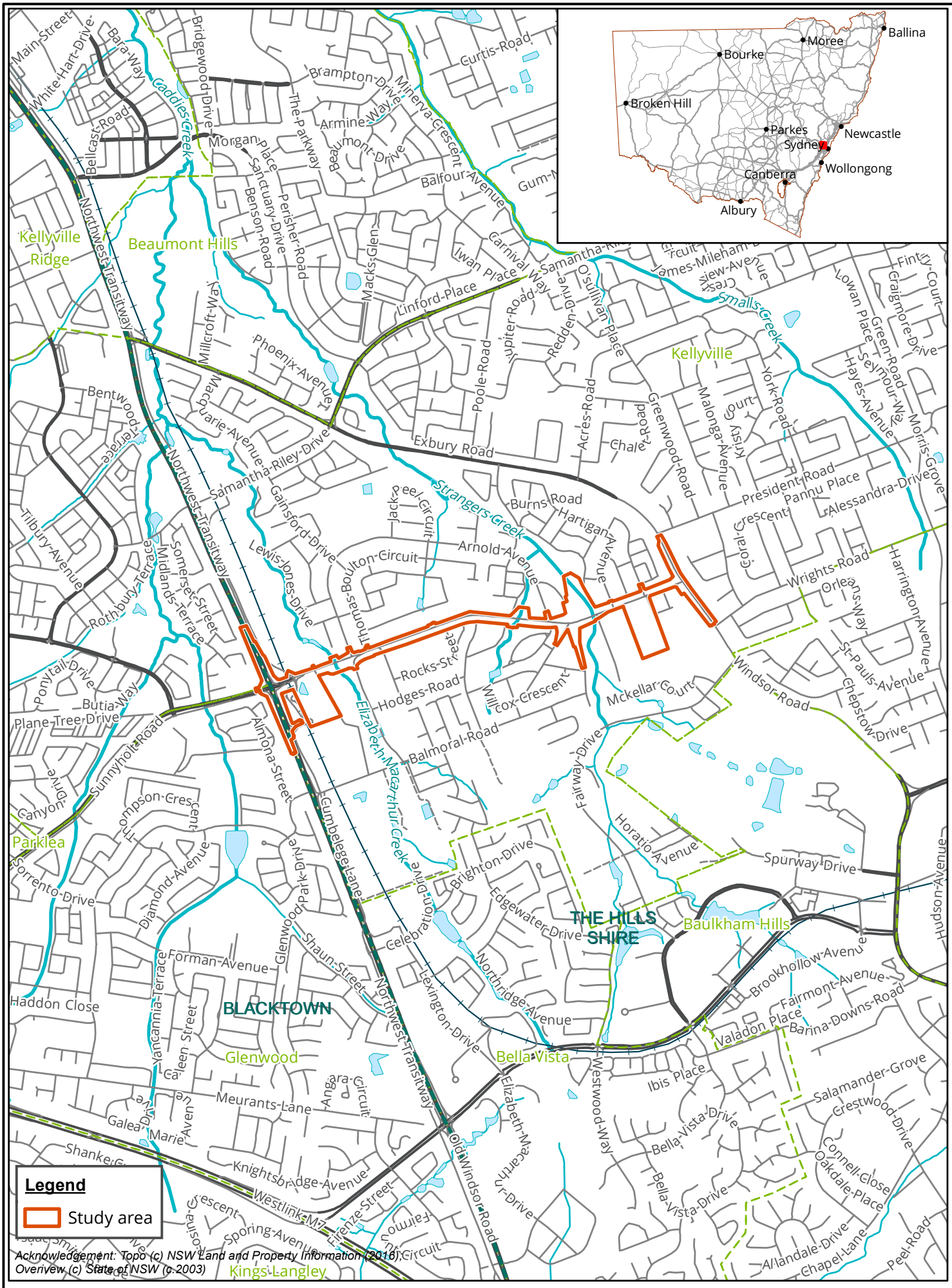
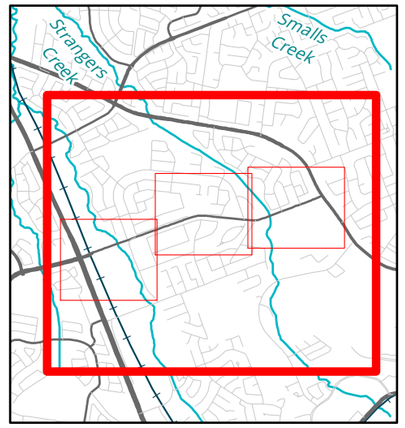


Figure 1 Location of the study area

Biosis Pty Ltd
Albury, Ballarat, Melbourne,
Newcastle, Sydney, Wangaratta & Wollongong

Matter: 29606
Date: 08 April 2019,
Checked by: LSW, Drawn by: AEDM, Last edited by: amurray
Location:P:\29600s\29606\Mapping\

Scale 1:25,000 @ A4, GDA 1994 MGA Zone 56



Legend

- Study area
- 2019 Boundary
- 2016 Boundary
- Original REF boundary

Figure 2.1 Study area

0 80 160 240 320 400

Metres
Scale: 1:8,500 @ A3
Coordinate System: GDA 1994 MGA Zone 56

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Newcastle, Sydney, Wangaratta & Wollongong

Matter: 29606
Date: 08 April 2019,
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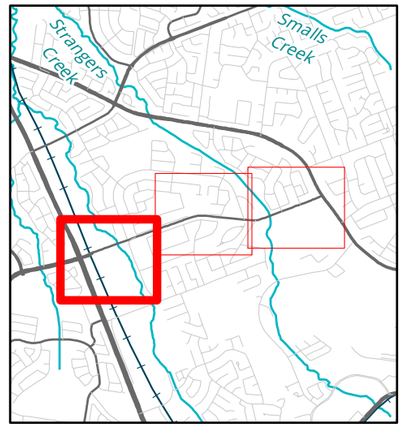

Legend

- Study area
- 2019 Boundary
- 2016 Boundary
- Original REF boundary

Figure 2.2 Study area

0 25 50 75 100 125

Metres
Scale: 1:2,500 @ A3
Coordinate System: GDA 1994 MGA Zone 56

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Matter: 29606
Date: 08 April 2019,
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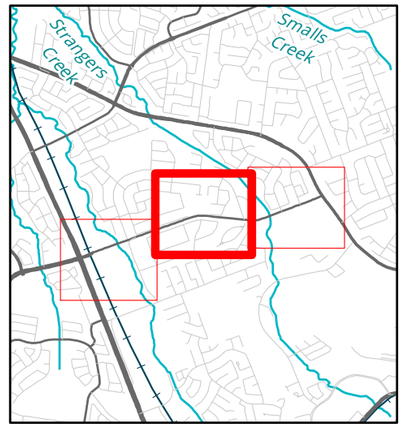

Legend

- Study area
- 2019 Boundary
- 2016 Boundary
- Original REF boundary

Figure 2.3 Study area

0 25 50 75 100 125

Metres

Scale: 1:2,500 @ A3

Coordinate System: GDA 1994 MGA Zone 56

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Newcastle, Sydney, Wangaratta & Wollongong

Matter: 29606
Date: 08 April 2019,
Checked by: LSW, Drawn by: AEDM, Last edited by: amurray
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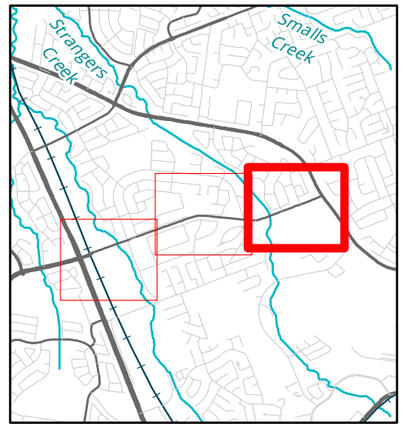
29606_F2_StudyArea



Legend

- Study area
- 2019 Boundary
- 2016 Boundary
- Original REF boundary

Figure 2.4 Study area

0 25 50 75 100 125

Metres

Scale: 1:2,500 @ A3

Coordinate System: GDA 1994 MGA Zone 56

N

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Albury, Ballarat, Melbourne,
Newcastle, Sydney, Wangaratta & Wollongong

Matter: 29606
Date: 08 April 2019,
Checked by: LSW, Drawn by: AEDM, Last edited by: amurray
Location:P:\29600s\29606\Mapping
29606_F2_StudyArea

2 Methods

2.1 Personnel

The field assessment and reporting of the biodiversity values of the study area for the Updated Addendum REF has been undertaken by Callan Wharfe (Senior Ecologist) and Laura Watts (Botanist), both of Biosis Pty Ltd. Survey and assessment of the study area was carried out in 2016 for the Addendum REF by Tony Cable (Senior Aquatic Ecologist) and Mathew Misdale (Botanist), both of Biosis Pty Ltd.

2.2 Background research

Background research is required to collect and review information on the presence or likelihood of occurrence of:

- Threatened and protected terrestrial and aquatic flora and fauna species and their habitat.
- Endangered populations.
- Threatened ecological communities (TECs).
- Important habitat for migratory species.
- Areas of outstanding biodiversity value.
- Priority weeds.

The Project REF (Hyder 2014) was reviewed in addition to the following databases during background research within a search area of 10 kilometres (13/03/2019):

- BioNet- the website for the Atlas of NSW Wildlife and NSW Office of Environment and Heritage (OEH) BioBanking Threatened Species Profile Database: http://www.bionet.nsw.gov.au/
- The DEE Protected Matters Search Tool: http://environment.gov.au/erin/ert/epbc/index.html
- Register of Declared Areas of Outstanding Biodiversity Value available on the OEH website at https://www.environment.nsw.gov.au/criticalhabitat/CriticalHabitatProtectionByDoctype.htm
- Critical habitat register available on the DPI NSW (Fisheries) website at http://www.dpi.nsw.gov.au/fisheries/species-protection/conservation/what/register
- OEH Bionet Vegetation Classification database: https://www.environment.nsw.gov.au/NSWVCA20PRapp/LoginPR.aspx
- The federal Bureau of Meteorology's Atlas of Groundwater Dependent Ecosystems (GDE): http://www.bom.gov.au/water/groundwater/gde/map.shtml

2.3 Habitat assessment

Terrestrial and aquatic flora and fauna habitats present within the study area were investigated on 8 November 2016 and 21 March 2019 to determine the suitability of the study area to support locally occurring threatened species. The types and qualities of habitat(s) present were assessed and the investigation focussed on locations containing stands of vegetation, waterbodies and locations of potential connectivity links. Particular attention was given to searching for threatened biota and their habitats.

2.4 Field survey

2.4.1 Flora assessment

Flora assessments were undertaken on 8 November 2016 and 21 March 2019 using a combination of floristic plots and random meander searches (Cropper 1993).

The general condition of vegetation present within the study area was observed as well as the effects of current seasonal conditions. Notes were made on specific issues such as priority

weed infestations, evidence of management works, current grazing impacts and the regeneration capacity of the vegetation.

General classification of native vegetation in NSW used in this report is based on the classification system in Keith (2004) which uses three groupings of vegetation: vegetation formation, vegetation class and vegetation type, with vegetation type the finest grouping. The grouping referred to in this report is vegetation type.

Native vegetation has been classified to Plant Community Types (PCTs) using the BioNet Vegetation Classification database. Native vegetation within this report means any of the following types of indigenous vegetation:

- trees (including any sapling or shrub, or any scrub).
- understorey plants.
- groundcover (being any type of herbaceous vegetation).
- plants occurring in a wetland.

A list of flora species was compiled for each vegetation type using a combination of BioBanking plots (OEH 2014a) during the 2016 investigation and *Biodiversity Assessment Method* (BAM) plots (OEH 2016), and standalone 20 x 20 metre full floristic plots in 2019. Plot data was collected to identify the PCTs present, collect vegetation condition data and to determine the presence of TECs.

A total of five floristic plots were completed across the study area in 2016, with a further two completed in 2019 in order to clarify PCT identities throughout the study area. Records of flora species will be submitted to OEH for incorporation into the BioNet Wildlife Atlas.

Areas where native vegetation was present in a derived form, i.e. grassland or shrubland were assessed with regard to the potential to be derived from the adjacent vegetation type. Areas of non-native or planted / landscaped vegetation were identified and mapped incidentally.

2.4.2 Targeted flora surveys

Habitat assessment concluded that the vegetation within the study area, due to being highly modified, only provides marginal habitat for threatened flora species. Species considered as having the highest potential to occur within native vegetation remnants within the study area included:

- Austral Pillwort *Pilularia novae-hollandiae*
- Brown Pomaderris *Pomaderris brunnea*.
- Downy Wattle *Acacia pubescens*
- Juniper-leaved Grevillea *Grevillea juniperina* subsp. *juniperina*
- *Pultenaea parviflora*
- Spiked Rice-flower *Pimelea spicata*
- Tangled Bedstraw *Galium australe*

These species were targeted during the field investigations, with surveys generally being in accordance with the *NSW Guide to Surveying Threatened Plants* (OEH 2016).

2.4.3 Fauna assessment

The study area was investigated on 8 November 2016 and 21 March 2019 to determine its values for locally occurring fauna species. These were determined primarily on the basis of the types and qualities of habitats present. All species of fauna observed during the assessment were noted and active searching for fauna was undertaken. This included direct observation, searching under rocks and logs, examination of tracks and scats and identifying calls. Particular attention was given to searching for threatened biota and their habitats. Fauna species were recorded with a view to characterising the values of the site and the investigation was not intended to provide a comprehensive survey of all fauna that has potential to utilise the site over time.

Terrestrial fauna records will be submitted to OEH for incorporation into the NSW BioNet Wildlife Atlas. Aquatic fauna records will also be submitted to NSW DPI Fisheries.

2.4.4 Targeted fauna surveys

Based on the findings of the fauna habitat assessments, no threatened fauna listed under the EPBC Act or BC Act were considered to have a moderate or high likelihood of occurrence within the study area, therefore no targeted fauna surveys were required.

2.4.5 Aquatic Surveys

Additional stormwater drainage connections are proposed and have been assessed as part of the Updated Addendum REF, however the aquatic habitat to be impacted has not changed, as such there were no additional aquatic surveys were completed during the 2019 field survey. The aquatic survey effort undertaken in 2016 is outlined below.

Aquatic survey was undertaken to determine the presence of Type 1, Type 2, Class 1 or Class 2 waterways as per the *Policy and guidelines for fish habitat conservation and management* (DPI 2013). The following information was collected for Strangers Creek and its tributary:

- The ecosystem type (eg wetlands, floodplains, streams, estuaries, lakes).
- Dimensions of waterway and depth of water.
- Flow characteristics and hydrological features of aquatic habitat, including changes to drainage and filtration and flow regime.
- Bed substrate (eg rocks, coral, gravel, sand, mud).
- Habitat features (eg pools, riffles, billabongs, reefs).
- Existing infrastructure and barriers to fish movement (natural or artificial).
- Width and species composition of riparian vegetation including the type of vegetation present (eg macrophytes, snags, seaweeds, seagrasses, mangroves, saltmarsh) and condition.

2.4.6 Permits and Licences

The flora and fauna assessment was conducted under the terms of Biosis' Scientific Licence issued by OEH under the *National Parks and Wildlife Act 1974* (SL100758, expiry date 31 March 2020). Fauna survey was conducted under approval 11/355 from the NSW Animal Care and Ethics Committee (expiry date 31 January 2020).

Aquatic ecological assessment was conducted under NSW DPI Fisheries - Licence Numbers PO05/0016 & OUT10/4198, *NSW National Parks and Wildlife Act 1974* - License Number S10318 and a Certificate of Approval under the *NSW Animal Research Act 1985*.

2.4.7 Limitations

Ecological surveys provide a sampling of flora and fauna at a given time and season. There are a number of reasons why not all species will be detected at a site during survey, such as species dormancy, seasonal conditions, ephemeral status of waterbodies and migration and breeding behaviours of some fauna. Given the condition of the study area and the scope of works, these factors do not present a significant limitation to assessing the overall biodiversity values of a site. Database searches, and associated conclusions on the likelihood of species to occur within the study area, are reliant upon external data sources and information managed by third parties.

2.5 Field survey undertaken for the Project REF (Hyder 2014)

Survey of the study area was conducted over three days and two nights from 19 to 21 March 2014 by Hyder. The survey methodology complied with the Threatened Biodiversity Survey and Assessment Guidelines for Developments and Activities (Working draft) (DEC 2004) (Hyder 2014).

The flora survey involved floristic plots, assessing the vegetation condition and targeted searches for threatened plant species with potential habitat within the study area. Fauna survey included recording of all species observed and evidence of fauna presence, placing ultrasonic bat call detection equipment (Anabat) in potential flyways and making a general assessment of fauna habitat types occurring within the study area. Aquatic assessments were carried out at Elizabeth Macarthur Creek and Strangers Creek and included recording of channel features, including channel width, substrate, water colour and turbidity, instream habitat assessment, and recording the presence of other riparian features (Hyder 2014).

3 Existing environment

The current assessment for the Updated Addendum REF has updated the findings of the Project REF (Hyder 2014) and the Addendum REF (Biosis 2016), to account for changes in the existing environment since the original 2014 assessment, and includes a broader study area (outside the area to be directly impacted) in places to ensure the assessment of biodiversity values is accurate and in accordance with the BC Act, FM Act and EPBC Act. The sections below describe the existing environment as recorded during the current assessment, a brief summary of updates since the 2014 Project REF assessment, is provided in Section 3.7.

3.1 Plant community types

The following PCTs were recorded as present within the study area during the current 2019 survey.

Forest Red Gum – Rough-barked Apple Grassy Woodland on Alluvial Flats of the Cumberland Plain, Sydney Basin

Vegetation formation: Forested Wetlands

Vegetation class: Coastal Floodplain Wetlands

PCT ID: 835

Condition: Various including – Moderate; Poor; Regenerating; Revegetated.

All condition states are considered to meet the NSW Framework for Biodiversity Assessment (FBA) (OEH 2014b) definition of Moderate to Good condition and as such impacts may be subject to offsetting requirements as outlined in Table 1 of the Roads and Maritime Guidelines for Biodiversity Offsets (Roads and Maritime 2016).

Conservation status: BC Act – Endangered Ecological Community (EEC) River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions; EPBC Act – Critically Endangered Ecological Community (CEEC) Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest

Estimate of PCT percent cleared: 93%

Extent in the study area: 1.77 hectares

Table 3.1: Impacts on vegetation

Structure	Average height and height range (m)	Average cover and cover range	Typical native species within the study area
Trees	6 (2-7)	35 (15-55)	*Eucalyptus amplifolia, Eucalyptus tereticornis*
Small trees	4 (2-5)	10 (5-15)	*Acacia decurrens*
Shrubs	2 (1-3)	5 (1–10)	*Bursaria spinosa, Acacia floribunda*
Ground covers	1 (0.3 – 1.2)	2 (1-5)	*Themeda australis, Lomandra longifolia, Aristida vagans, Eindia hastata, Microlaena stipoides* and *Dichondra repens.*
Vines & climbers	0	0	

Description:
The vegetation occurring adjacent to Strangers Creek consists of remnant regrowth and regenerating Cabbage Gum *Eucalyptus amplifolia*, Forest Red Gum *Eucalyptus tereticornis* and Black Wattle *Acacia decurrens* between 1m and 5m tall. The midstorey was open and consisted of an occasional Blackthorn *Bursaria spinosa* with a highly modified ground cover mostly dominated by Kikuya *Cenchrus clandestinum*. The area has been revegetated with evidence of planting of species such as Swamp Oak *Casuarina glauca* and *Melaleuca decora*. Revegetation has continued downstream and the vegetation to be impacted is connected to another patch of very large remnant Cabbage Gums approximately 150 metres to the north.

The understorey present within the larger connected patch is dominated by native species as a result of the revegetation works and includes species such as Blady Grass *Imperata cylindrica*, Barbed Wire Grass *Cymbopogon refractus,* Kangaroo Grass *Themeda australis* Blackthorn, White Sally *Acacia floribunda* and Black Wattle.

Patches of vegetation to the west of Strangers Creek have been mapped as Regenerating where they occur as stands of Black Wattle and *Melaleuca decora* along Memorial Avenue, or regenerating Cabbage Gums further north, outside the impact area.

On the southern side of Memorial Avenue surrounding Strangers Creek within a Sydney Water flood storage basin, PCT 835 vegetation has been mapped as Revegetated. Within this area highly successful revegetation works have occurred and the vegetation occurs in relatively high ecological condition with an abundance and diversity on native species in all strata.

Justification for inclusion of these patches of vegetation as TECs is provided in Section 3.2.

Photograph 1: Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin – Moderate (outside impacted area)

Photograph 2: Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin – Moderate (inside impacted area)

Grey Box – Forest Red Gum Grassy Woodland on Flats of the Cumberland Plain, Sydney Basin

Vegetation formation: Grassy Woodland

Vegetation class: Coastal Valley Grassy Woodlands

PCT ID: 849

Condition: Moderate, Poor; Remnant tree

All condition states are considered to meet the NSW Framework for Biodiversity Assessment (FBA) (OEH 2014) definition of Moderate to Good condition and as such impacts may be subject to offsetting requirements as outlined in Table 1 of the Roads and Maritime Guidelines for Biodiversity Offsets (Roads and Maritime 2016).

Conservation status: BC Act – Not listed; EPBC Act – Not listed

Estimate of PCT percent cleared: 93%

Extent in the study area: 0.55 hectares

Table 3.2: Impacts on vegetation **Structure**	**Average height and height range (m)**	**Average cover and cover range**	**Typical native species within the study area**
Trees	6(2-15)	20	*Eucalyptus crebra, Eucalyptus tereticornis*
Small trees	0	0	
Shrubs	0	0	
Ground covers	0	0	
Vines & climbers	0	0	

Description:
Vegetation mapped as 849 Poor occurs on either side of Memorial Avenue, near the western end of Rutherford Avenue, where it occurs as remnant Forest Red Gums *Eucalyptus tereticornis* and River Oak *Casuarina cunninghamiana* over a disturbed understorey of exotic grasses. PCT 849 in this condition state also occurs as a stand of Forest Red Gums within the ancillary area at the eastern extent of the study area. In this location the trees are also present above an exotic dominated grassy understorey.

A single remnant Narrow-leaved Ironbark *Eucalyptus crebra* at the western end of the study area has been mapped as 849 Remnant tree. The tree occurs over a disturbed and managed understorey with little vegetation cover, adjacent to linear landscape plantings associated with the bus transit way and along Old Windsor Road.

Vegetation mapped as 849 Moderate occurs within the boundary of the western ancillary area, between Memorial Avenue and Balmoral Road, and is the subject of an existing 'Environmental Protection Zone'. The vegetation has been excluded from the area proposed to be used as an ancillary site and will be retained. This area was not assessed on foot, however existing vegetation mapping (OEH 2013) was confirmed via the use of high resolution aerial imagery interpretation. Remnant eucalypts are present over a somewhat disturbed understorey.

Justification for inclusion of these patches of vegetation as TECs is provided in Section 3.2.

Photograph 3: Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin – Poor (eastern ancillary area)

Photograph 4: Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin – Remnant tree

Cumberland Swamp Oak Riparian Forest

Vegetation formation: Forested Wetlands

Vegetation class: Coastal Floodplain Wetlands

PCT ID: 1800

Conservation status: BC Act – EEC Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions; EPBC Act – Not listed

Estimate of percent cleared: 60%

Condition: Poor

Extent in the study area: 0.22 hectares

Table 3.3: Impacts on vegetation **Structure**	**Average height and height range (m)**	**Average cover and cover range**	**Typical native species within the study area**
Trees	9 (7-12)	70(65-80)	*Casuarina glauca, Eucalyptus tereticornis*
Small trees	2	1	*Pittsporum undlatum*
Shrubs	0	0	
Ground covers	0.3 (0.1-2)	2 (1-5)	*Cynodon dactylon, Commelina cyanea, Typha orientalis, Centella asiatica, Brunoniella australis*
Vines & climbers			

Description:
The vegetation north of Memorial Avenue surrounding Elizabeth Macarthur Creek, supported a dense canopy of Swamp Oak and a highly modified groundcover of mostly Trad *Tradescantia fluminensis.* Other common species included Climbing Nightshade *Solanum seaforthianum* and Bridal Creeper *Asparagus asparagoides*. Little midstorey was present, only occasional juvenile Swamp Oaks, Sweet Pittosporum *Pittosporum undulatum,* Small-leaf Privet *Ligustrum sinense* and Broad-leaf Privet *Ligustrum lucidum* were recorded. Native groundcover diversity was restricted to a few species, including Common Couch *Cynodon dactylon,* Scurvy Weed *Commelina cyanea,* and Indian Pennywort *Centella asiatica.* Vegetation south of Memorial Avenue, was smaller in area and subject to greater edge/ light disturbance, and a subsequent increase in Kikuyu cover. A single Forest Red Gum was recorded on the creekbank and has been incorporated in the extent of PCT 1800 in this area. This is based on the species' association with this community as outlined in the BioNet Vegetation Classification database.

Justification for inclusion of these patches of vegetation as a TEC is provided in Section 3.2.

Photograph 5: Cumberland Swamp Oak Riparian Forest – Poor

Urban native / exotic

Vegetation formation: n/a

Vegetation class: n/a

PCT ID: n/a

Conservation status: Not listed

Estimate of percent cleared: n/a

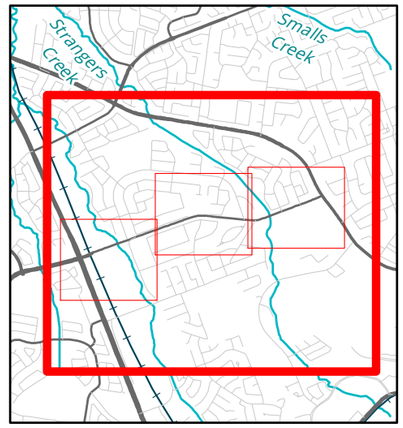
Condition: Poor

Extent in the study area: 11.44 hectares

Table 3.4: Impact on vegetation Structure	Average height and height range (m)	Average cover and cover range	Typical species within the study area
Trees	10 (8-12)	<5 (1-5)	*Pinus radiata, Eucalyptus crebra, Corymbia citriodora, Callitris galucophylla, Corymbia maculata*
Small trees	3(3)	<1	*Angophora floribunda, Podocarpus elatus*
Shrubs	2 (1-2)	<1	*Callistemon salignus, Grevillea spp.,*
Ground covers	0.3 (0.1-1.2)	90 (80-100)	*Pennisetum clandestinum, Paspalum dilatatum, Bromus molliformis, Cynodon dactylon, Briza subaristata, Cirsium vaulgare, Centella asiatica*
Vines & climbers	1 (0.1-1.5)	2 (1-5)	*Rubus fruticosa* sp aggregate

Description:
Urban native/exotic comprises the areas within the study area that occur as recent (10 – 15 years old) revegetation adjacent to Old Windsor Road and Memorial Avenue, as well as older incidental plantings in the road verge, vegetation in the gardens of properties adjacent to the roadway and areas of exotic grassland. There is generally a mix of native species, some local to the area, in the canopy and midstorey, with exotic grasses, small shrubs and herbaceous annuals dominating the ground-layer. This vegetation does not conform to a PCT, and support little to no habitat for threatened species due to historical disturbance.

Photograph 6: Urban native/exotic



Legend

- Study area
- 2019 Boundary
- 2016 Boundary
- Original REF boundary
- Environmental protection zone
- Plot

Vegetation communities

- PCT 1800 Poor
- PCT 835 Moderate
- PCT 835 Poor
- PCT 835 Regenerating
- PCT 835 Revegetated
- PCT 849 Remnant tree
- PCT 849 Moderate
- PCT 849 Poor
- Urban native/exotics
- Disturbed land
- Narrow-leaved Black Peppermint

Figure 3.1 Ecological features of the study area

0 80 160 240 320 400

Metres
Scale: 1:8,500 @ A3
Coordinate System: GDA 1994 MGA Zone 56

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Matter: 29606
Date: 15 April 2019,
Checked by: LSW, Drawn by: AEDM, Last edited by: amurray
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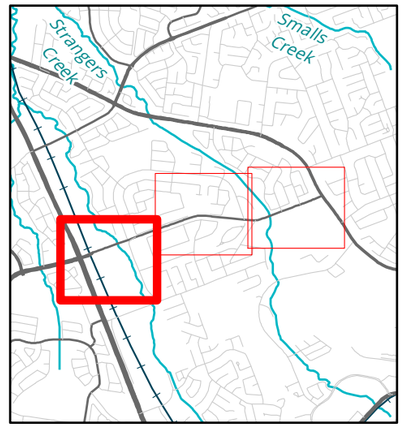
29606_F3_Ecofeatures



Legend

- Study area
- 2019 Boundary
- 2016 Boundary
- Original REF boundary
- Environmental protection zone
- Plot

Vegetation communities

- PCT 1800 Poor
- PCT 849 Remnant tree
- PCT 849 Moderate
- PCT 849 Poor
- Urban native/exotics
- Disturbed land

Figure 3.2 Ecological features of the study area

0 25 50 75 100 125

Metres

Scale: 1:2,500 @ A3

Coordinate System: GDA 1994 MGA Zone 56

N

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Acknowledgements: Basemap © Land and Property Information 2016

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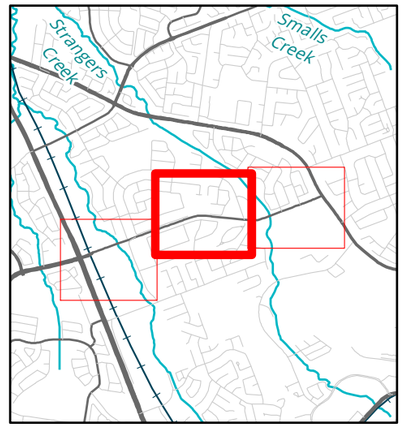

Legend

- Study area
- 2019 Boundary
- 2016 Boundary
- Original REF boundary

Vegetation communities

- PCT 849 Poor
- Urban native/exotics

Figure 3.3 Ecological features of the study area

0 25 50 75 100 125

Metres
Scale: 1:2,500 @ A3
Coordinate System: GDA 1994 MGA Zone 56

N

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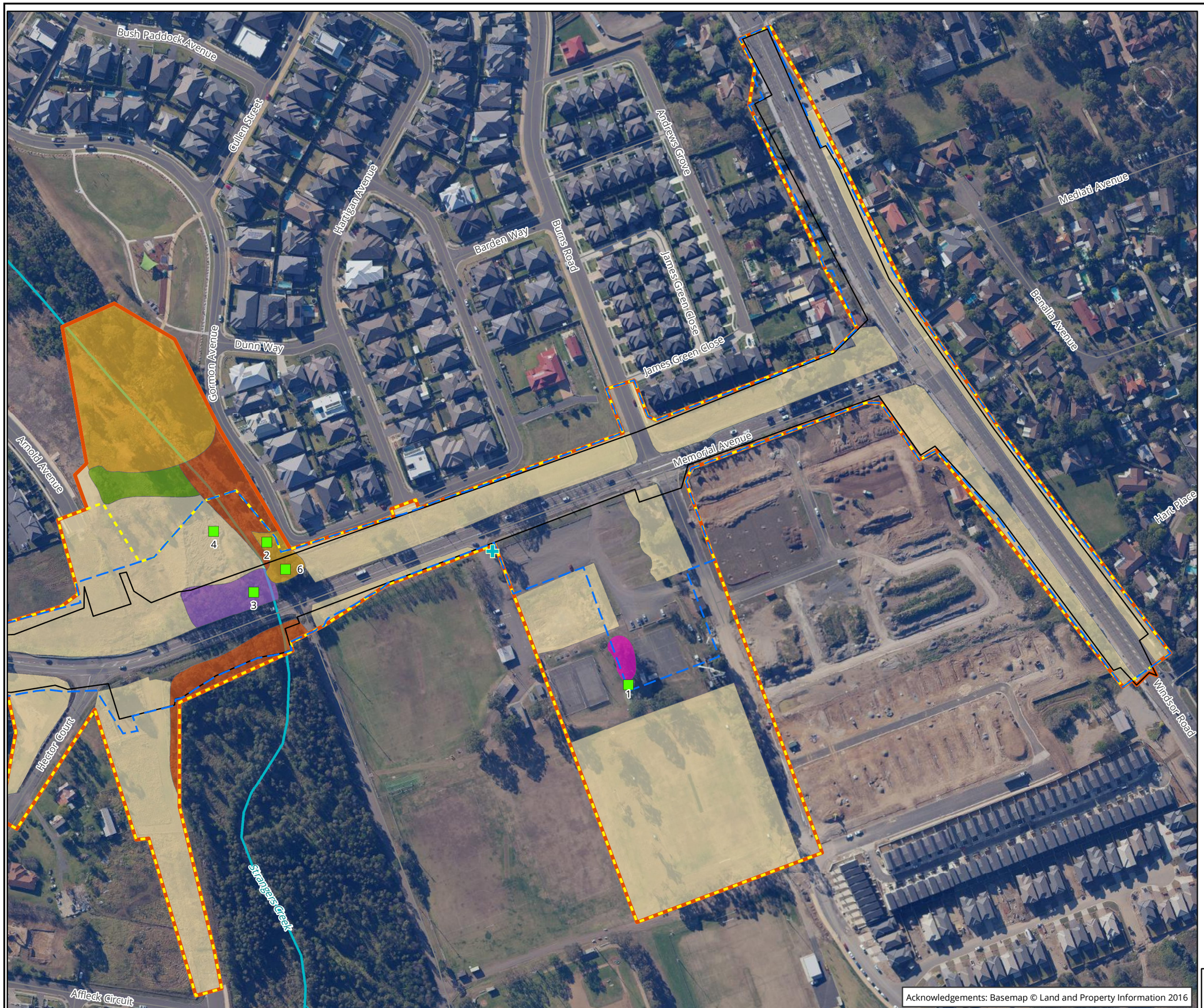

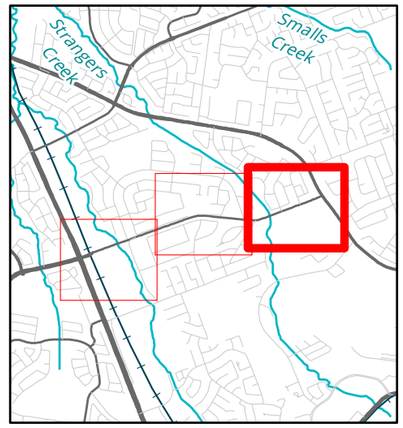

Legend

- Study area
- 2019 Boundary
- 2016 Boundary
- Original REF boundary
- Plot

Vegetation communities

- PCT 835 Moderate
- PCT 835 Poor
- PCT 835 Regenerating
- PCT 835 Revegetated
- PCT 849 Poor
- Urban native/exotics
- Narrow-leaved Black Peppermint

Figure 3.4 Ecological features of the study area

0 25 50 75 100 125

Metres

Scale: 1:2,500 @ A3

Coordinate System: GDA 1994 MGA Zone 56

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Location:P:\29600s\29606\Mapping
29606_F3_Ecofeatures

Legend

- Study area
- 2019 Boundary
- 2016 Boundary
- Original REF boundary
- Environmental protection zone

TECs (BC Act)

- Cumberland Plain Woodland
- Riverflat Eucalypt Forest
- Swamp Oak Floodplain Forest

TECs (EPBC Act)

- Cumberland Plain Shale Woodland & Shale Gravel Transition Forest

Figure 4.1 Threatened ecological communities

0 80 160 240 320 400

Metres

Scale: 1:8,500 @ A3

Coordinate System: GDA 1994 MGA Zone 56

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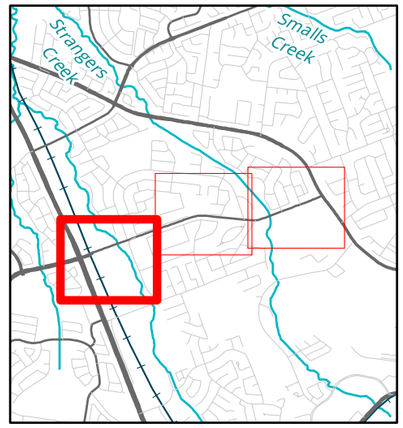

Legend

- Study area
- 2019 Boundary
- 2016 Boundary
- Original REF boundary
- Environmental protection zone

TECs (BC Act)

- Cumberland Plain Woodland
- Swamp Oak Floodplain Forest

Figure 4.2 Threatened ecological communities

0 25 50 75 100 125

Metres

Scale: 1:2,500 @ A3

Coordinate System: GDA 1994 MGA Zone 56

N

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Matter: 29606
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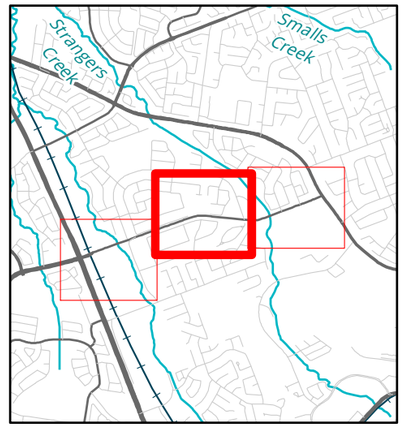

Legend

- Study area
- 2019 Boundary
- 2016 Boundary
- Original REF boundary

TECs (BC Act)

- Cumberland Plain Woodland

Figure 4.3 Threatened ecological communities

0 25 50 75 100 125

Metres

Scale: 1:2,500 @ A3

Coordinate System: GDA 1994 MGA Zone 56

N

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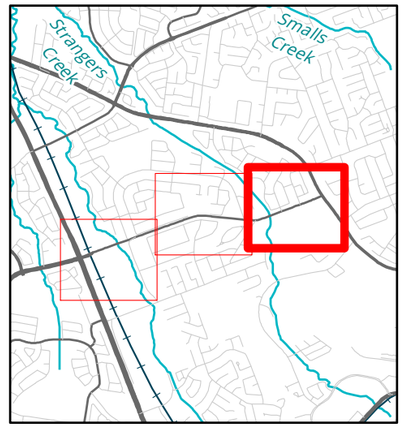

Legend

- Study area
- 2019 Boundary
- 2016 Boundary
- Original REF boundary

TECs (BC Act)

- Cumberland Plain Woodland
- Riverflat Eucalypt Forest

TECs (EPBC Act)

- Cumberland Plain Shale Woodland & Shale Gravel Transition Forest

Figure 4.4 Threatened ecological communities

0 25 50 75 100 125

Metres

Scale: 1:2,500 @ A3

Coordinate System: GDA 1994 MGA Zone 56

N

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Location:P:\29600s\29606\Mapping
29606_F4_TECs

3.2 Threatened ecological communities

The table below outlines the TECs (BC Act and EPBC Act) assessed as present in the study area and provides information relating to which PCTs, in which condition states, conform to those TECs.

Table 3.5: Threatened ecology communities summary

BC Act TEC	PCT and condition
River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	835 Moderate 835 Poor 835 Regenerating 835 Revegetated
Cumberland Plain Woodland in the Sydney Basin Bioregion	849 Moderate 849 Poor
Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	1800 Poor
EPBC Act TEC	**PCT and condition**
Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest	835 Moderate 835 Poor 835 Regenerating 835 Revegetated

River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions

All occurrences of PCT 835 within the study area have been assessed as conforming to the BC Act listing criteria for River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions (River-flat Eucalypt Forest) as per the TEC's Final Determination.

Each patch of PCT 835 supports species listed in the Final Determination as the dominant species and the landscape position, adjacent to creeklines and on alluvial flats, is also consistent with the characteristics of the TEC.

The patch of vegetation mapped as 835 Revegetated adjacent to Strangers Creek, south of Memorial Avenue, is considered to be of an ecological condition high enough, evidenced through healthy native species dominating each strata and the presence of seedling recruitment, to meet the requirements for listing as a TEC under the BC Act.

Patches of vegetation mapped as 835 Regenerating are considered to meet the listing criteria for the TEC based on the presence of characteristic species and the contiguous nature of these patches to other patched of the TEC in higher condition states.

Cumberland Plain Woodland in the Sydney Basin Bioregion

Vegetation mapped as 849 Poor is considered to meet the listing criteria for Cumberland Plain Woodland in the Sydney Basin Bioregion (Cumberland Plain Woodland – BC Act) as outlined in the TEC's Final Determination. This is due to the presence of remnant Forest Red Gums characteristic of the threatened community, the landscape position of the vegetation away from the floodplains of the higher order creeks (Strangers Creek), the presence of soils derived from Wiannamatta Group shales (Bannerman and Hazelton 1990), and the assessment that it could be reasonably expected that after cessation of management native groundcover species would likely regenerate.

Vegetation mapped as 849 Moderate has been assumed to meet the listing criteria for Cumberland Plain Woodland – BC Act due to the presence of characteristic eucalypt trees in a

mostly intact canopy layer. It has also been assumed that native species are present in the understorey, which is considered highly likely due to the good canopy cover of the remnant.

As a single remnant tree present with no understorey in a modified landscaped setting, the vegetation mapped as 849 Remnant tree is not considered to meet the listing requirements as a TEC under the BC Act.

Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions

PCT 1800 within the study area is dominated by Swamp Oak, the species most characteristic of Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions (Swamp Oak Floodplain Forest), and occurs in the correct landscape position, adjacent to Elizabeth Macarthur Creek.

The vegetation does not conform to the EPBC Act listing for Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community, as the understory does not support the minimum requirement of 20% native species.

Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest

The broader patch of PCT 835 vegetation surrounding Strangers Creek, on the northern side of Memorial Avenue, has been assessed as conforming to EPBC Act listed CEEC Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest (Cumberland Plain Woodland – EPBC Act).

The vegetation is considered to meet the Key Diagnostic Characteristics of the TEC as it supports remnant trees listed as characteristic to the TEC in Appendix A of the EPBC Act Listing Advice (Threatened Species Scientific Committee 2009), which comprise more than 10% projected foliage cover, a sparse lower tree layer of Acacias is present, and characteristic native species are present in the understorey.

Further, the broader vegetation patch meets the required Condition Thresholds as it is greater than 0.5 hectares in size, the perennial understory is considered to be greater than 30% native species, and large trees (≥80 centimetres diameter breast height) containing hollows are present. This broader patch includes the remnant vegetation within the proposed impact areas and also includes the large remnant Cabbage Gums to the north of the proposed works. These patches of remnant trees are connected by areas of revegetation and regenerating native species, characteristic of the TEC, and as such the entire patch has been assessed as a single vegetation unit, and as conforming to the EPBC Act listing criteria.

It should be noted that there is currently no EPBC Act listing for River-flat Eucalypt Forest, the BC Act TEC most aligned with PCT 835. However, the floristics, ecological condition and landscape position of the vegetation present in the study area conform to the listing requirements of Cumberland Plain Woodland – EPBC Act (as outlined above), despite being more aligned with PCT 835, at the lower PCT level.

The vegetation mapped as 835 Revegetated on the southern side of Memorial Avenue within and surrounding the Sydney Water flood storage basin, is not considered to meet the listing criteria for Cumberland Plain Woodland – EPBC Act as the vegetation is not considered to be “remnant”. The intent of the EPBC Act listing of vegetation as threatened is to protect *the most valuable elements of Australia’s natural environment* (Commonwealth of Australia 2009), and revegetated vegetation is not considered to meet this requirement.

None of the vegetation mapped as PCT 849 within the study area is considered to meet the listening requirements for Cumberland Plain woodland – EPBC Act, due to the small and isolated nature of the patches, and the dominance of exotic species in the understorey of the two smaller patches towards the eastern end of the study area.

3.3 Threatened species and populations

The current 2019 and 2016 field investigation recorded a single Narrow-leaved Black Peppermint *Eucalyptus nicholii,* listed as Vulnerable under the BC Act and EPBC Act within the study area, near Strangers Creek (Figure 3). This species naturally occurs in the Northern Tablelands of NSW, over 700 kilometres from the study area, and is a common street tree landscape planting. As the species is present outside its natural range and as a planted a specimen no further consideration of impacts to the species area required.

As outlined in Section 2.4, targeted flora searches and fauna habitat assessments were undertaken to determine the presence, or suitable habitat for, locally occurring threatened species determined to have some potential to be present within the study area. The study area was supports very limited habitat for threatened flora species due to the highly disturbed nature of the study area. There is considered little opportunities within the area to be impacted for the presence of a soil stored seedbank that may contained propagules of threatened plants, and no extant individuals were recorded during any of the field survey work undertaken at the study area.

Threatened fauna habitat was also found to be lacking within the study area. The largely disturbed and managed nature of the study area means there was little fauna habitat present suitable to support resident locally occurring threatened species, such as large woody debris, dense leaf litter, or old hollow-bearing trees, especially within the area to be impacted. Larger trees supporting hollows occur within the study area, outside the impact area to the north of Strangers Creek, and these may support threatened microbats, or potentially threatened parrots, or owls. Flowering eucalypts and riparian corridors may provide forage opportunities for such species within the study area, however these resources are not lacking in the broader landscape, and any impacts as a result of the project would be negligible to these species.

The Project REF (Hyder 2014) also notes the presence of Narrow-leaved Black Peppermint within the study area and lists the presence of another threatened flora species, occurring as a planted specimen outside its natural range. Magenta Lilly Pilly *Syzygium paniculatum* was recorded by Hyder (2014) as a fenceline planting, and as noted above, due to its occurrence outside its natural range, of coastal rainforest communities, does not require further consideration of impacts.

Fauna surveys during the Project REF (Hyder 2014) found the study area to provide known and potential habitat for a number of threatened microbat species listed as Vulnerable under the BC Act. These included:

- Eastern Freetail Bat *Mormopterus norfolkensis* (recoded as present)
- Eastern False Pipstrelle *Falsistrellus tasmaniensis*
- Large-footed Myotis *Myotis macropus*
- Eastern Bentwing-bat *Miniopterus schreibersii oceanensis*
- Little Bentwing Bat *Miniopterus australis*
- Yellow-bellied Sheathtail-bat *Saccolaimus flaviventris*
- Greater Broad-nosed Bat *Scoteanax rueppellii*

The Project REF (Hyder 2014) also found potential habitat within the study area for Grey-headed Flying-fox, listed a Vulnerable under the BC act and EPBC Act.

Assessments of Significance under the current, *Threatened Species Conservation Act 1995* were undertaken to determine the significance if impact to these threaten fauna species as part of the Project REF. The Project Ref (Hyder 2014) concluded that due to the limited level of impacts to the habitats of these species, when considered at the extent to which these highly mobile species occur, the Project was unlikely to result in a significant impact to any of the above species.

It is the conclusion of this Updated Addendum REF that due to the broad consistency of the Project's impacts to threatened fauna habitat between those assessed in the current report,

and those included in the Project REF (Hyder 2014), that these conclusions remain valid and no further assessment of impact is required under the BC Act or EPBC Act.

3.4 Areas of Outstanding Biodiversity Value

Background research did not identify any declared Areas of Outstanding Biodiversity Value within, or in the vicinity of, the study area.

3.5 Aquatic habitat

Aquatic habitats within the study area are considered to be in a highly disturbed nature, however they do present habitat value for aquatic species. Strangers Creek at the time of survey had minor stream flow evident and is considered to be a seasonal waterway dominated by isolated pools during nominal flows. The tributary of Strangers Creek had a poorly defined channel and is not considered to provide aquatic fauna habitat, however as this channel flows into Strangers Creek consideration of impacts to this drainage line are considered in section 4.

Strangers Creek during field survey contained a series of pools, typically 1.5 metres wide and 5 metres long, connected by small flowing channel sections. Pools were shaded by predominantly exotic vegetation including Willows, Camphor Laurel and Small-leaved Privet, with instream vegetation consisting of Typha, Common Reed and Sedges (*Carex* spp.).

Large flow attenuation structures occurred upstream of the existing culvert which further reduce the connectivity of Strangers Creek. Large sections of eroded bank were visible, which are indicative of poor bank stability during higher seasonal flow periods, with considered to be a result of the poor riparian vegetation structure and increased flows associated with the urbanisation of waterways.

High abundances of Carp and Gambusia, both listed as noxious under the FM Act were observed within the pools upstream and downstream of the existing culvert. The presence of these species in conjunction with the disturbed nature of the waterway are indicative of low quality aquatic habitats.

3.6 Matters of National Environmental Significance

As outlined in Section 3.2 above, the vegetation present surrounding Strangers Creek, on the northern side of Memorial Avenue is considered to conform to Cumberland Plain Woodland – EPBC Act, as it meets the Key Diagnostic Characteristics and Condition Thresholds for listing of the vegetation as the CEEC as outlined in the EPBC Act Listing Advice (Commonwealth of Australia 2009).

The study area is not considered to support any habitat for threatened flora species as listed under the EPBC Act, and only limited habitat for EPBC Act listed fauna, which may forage within the study area as part of their larger home range.

3.7 Updates from Project REF to the Updated Addendum REF

The scale of the impacts to biodiversity values associated with the proposed road upgrade has increased slightly since the Project REF was prepared in 2014. There are minor increases along the length of the project footprint with the most significant increases being the inclusion of the two ancillary areas, and increased impacts at Strangers Creek, and it's unnamed tributary approximately 400 metres to the west. The majority of these increased impacts areas will not substantially impact upon biodiversity values, however more substantial increases to threatened biodiversity will occur at Strangers Creek and within the eastern ancillary area.

The other main update made by the current assessment from previous assessments of the study area is the assessment of the vegetation at Strangers Creek as PCT 835, and the associated TECs, River-flat Eucalypt Forest (BC Act) and Cumberland Plain Woodland – EPBC Act. This conclusion was made based on the presence of Cabbage Gums within the

Strangers Creek riparian zone confirmed as such by the trees being in bud at the time of survey. Previous assessments recorded all the trees in the area to be Forrest Red Gums, with the two species being superficially similar and hard to distinguish without the presence of flower buds. The presence and age of regenerating and revegetated native vegetation has also increase since previous studies and assessment of the connected patches of riparian vegetation downstream along Strangers Creek, undertaken as part of the current assessment, led to the conclusion of the vegetation meeting EPBC Act listing requirements. As outlined above, vegetation on the southern side of Memorial Avenue, within the Sydney Water flood storage basin, was assessed as revegetated and not meeting the requirements for listing the vegetation under the EPBC Act, as part of the current assessment.

4 Impact assessment

The potential impacts associated with the construction and operation of the Memorial Avenue Upgrade have been adequately assessed within the Project REF (Hyder 2014), however areas of additional vegetation clearance, stormwater connections and additional weed species are identified below.

4.1 Construction impacts

4.1.1 Removal of native vegetation

Vegetation proposed to be removed is identified in Table 4.1 with three plant community types identified, in various conditions, and modified land.

Table 4.1: Impacts on vegetation

Plant community type (PCT)	Status		Proposal area[1] (hectares)	Percent cleared [2]
	BC Act	EPBC Act		
Forest Red Gum – Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin (PCT 835)	Yes	Yes (partial)	0.54	93
Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin (PCT 849)	Yes	No	0.20	93
Cumberland Swamp Oak Riparian Forest (PCT1800)	Yes	No	0.22	60
Disturbed land	n/a	n/a	1.42	n/a
Urban native/exotics	n/a	n/a	11.44	n/a
Total			13.82	

1- Area to be cleared based on ground-truthed vegetation mapping within the study area.
2- Based on BioNet Vegetation Classification database.

An assessment of the significance of the impacts to state and Commonwealth listed TECs is provided in Appendix C, and is discussed in Sections 4.3 and 4.4 below.

4.1.2 Removal of threatened fauna habitat

Threatened fauna habitat to be removed within the study area comprises low to moderate quality forage habitat for highly mobile species likely to be present in the locality. Impacts to threatened fauna species were assessed as part of the Project REF (Hyder 2014) and were not found to be significant. As potential impacts associated with the current 2019 Project Boundary are of a similar scale to 2014, and the condition of the habitats has remained consistent since that assessment, no additional impact assessment is considered necessary, and the conclusions made in the Project REF (Hyder 2014), are supported.

4.1.3 Removal of threatened flora

No threatened flora species were identified as likely to occur within the study area, and potential habitat was found to be of a low quality for species considered to have some potential to occur. As such, no further assessment has been undertaken, and potential impacts to threatened flora is considered to be negligible.

4.1.4 Aquatic impacts

The proposed additions of the three stormwater connections from Memorial Avenue are considered in addition to those identified in the Project REF (Hyder 2014). The potential impacts are considered to be both short and long term in nature.

Short term impacts are considered likely to affect Strangers Creek only, with localised increases in turbidity, displacement of habitat and noise/vibration associated with civil works. The highly disturbed nature of the Strangers Creek and the prevalence of noxious species indicates that these short term impacts are unlikely to have any residual effects on the existing aquatic ecological community.

Long term impacts to Strangers Creek and its tributary are associated with alterations to the existing hydrological and hydraulic characteristics of these waterways. Increased stream flow as a result of stormwater influence will result in the higher flow velocities and volumes during rainfall events.

Adherence to the Sydney Water guide for Stormwater Connections specifies revegetation and design considerations which are considered likely to result in local improvements in the value of these aquatic habitats and also in the resilience of these aquatic communities.

4.2 Indirect/operational impacts

4.2.1 Injury and mortality of fauna

Potential injury and mortality of fauna is considered most likely to occur during the clearance of vegetation, however as no substantial fauna habitat was identified during surveys, the potential for this impact to occur is considered low. However, smaller fauna species including reptiles and frogs could potentially be injured during the clearance of vegetation due to their reduced capacity to avoid machinery and plant.

4.2.2 Wildlife connectivity and habitat fragmentation

The study area occurs within a highly disturbed and modified urban environment with some remnant isolated patches of native vegetation. The proposal is not considered likely to result in a further reduction in the connectivity of fauna habitats throughout the landscape.

4.2.3 Invasion and spread of weeds

Four Weeds of National Significance (WoNS) were recorded within the study area and include:

- Blackberry *Rubus fruticose* sp. aggregate
- Bridal Creeper *Asparagus asparagoides*
- Ground Asparagus *Asparagus aethiopicus*
- Willows *Salix* sp.

These plants are regarded as some of the worst weeds in Australia because of their invasiveness, potential for spread, and economic and environmental impacts (DPI 2019).

A further five priority weed species within Sydney MetropolitanLocal Land Services Area and Hills Shire LGA (DPI 2019) were recorded within the study area and include:

- African Olive *Olea europaea* subsp. *cuspidata*
- Fireweed *Senecio madagascariensis*
- Giant Reed *Arundo donax*
- Green Cestrum *Cestrum parquii*
- Prickly Pear – common pear *Opuntia stricta*
- Scotch Broom *Cytisus scoparius* subsp. *scoparius.*

The weeds were mainly found dispersed along the roadside corridor, remnant vegetation and others areas not managed via regular slashing. Management requirements for each of these species varies.

The key responsibility of the client is to undertake works in a manner that will not enable priority weeds to spread from the works areas. Recommendations for dealing with these weeds are provided in Section 5.2.

4.3 Significant Impact Criteria assessment

A Significant Impact Criteria (SIC) assessment has been prepared for impacts to Cumberland Plain Woodland – EPBC Act, and it was concluded that a significant impact to the Federally listed CEEC was not likely to occur (Appendix C). The proposed works will remove 0.22 hectares of vegetation listed as the CEEC under the EPBC Act, however the great majority of the connected patch of vegetation will not be directly or indirectly impacted.

4.4 Test of significance assessments

Tests of Significance (ToS) have been prepared to assess the level of impact to state listed River-flat Eucalypt Forest, Swamp Oak Riparian Forest and Cumberland Plain Woodland – BC Act (Appendix D).

The assessments for River-flat Eucalypt Forest and Swamp Oak Riparian Forest concluded that a significant impact was unlikely due to the majority of the local occurrence of the TEC not be directly or indirectly impacted by the Project.

The assessment for Cumberland Plain Woodland – BC Act concluded that a significant impact was unlikely to occur as the Project will avoid impacts to the largest patch of the TEC within the study area.

No additional threatened species or communities listed under the BC Act or FM Act, in addition to those identified and assessed in the Project REF (Hyder 2014), are considered likely to occur within the study area. As such additional assessments of significance are not required.

4.5 Impact summary

Table 4.5 provides the standard impacts to be considered in the assessment, but also provides a summary of the impact assessment and if residual impacts require offsetting.

Table 4.5: Summary of impacts

Impact	Biodiversity values	Nature of impact	Extent of impact	Duration	Does the proposal constitute or exacerbate a key threatening process?	Confidence in assessment
Clearing of EPBC Act and BC Act listed TECs	• Cumberland Plain Woodland (EPBC Act) • Cumberland Plain woodland (BC Act) • Swamp Oak Riparian Forest (BC Act) • River-flat Eucalypt Forest (BC Act)	Direct loss of • 0.22 ha • 0.20 ha • 0.22 ha • 0.54 ha	Local	Long term	• Clearing of native vegetation	Known
Removal of native vegetation	• PCT 835 • PCT 849 • PCT1800	Direct loss of • 0.54 ha • 0.20 ha • 0.22 ha	Local	Long term	• Clearing of native vegetation	Known
Removal of threatened fauna forage habitat	Native vegetation	Direct loss of 0.96 ha	Local	Long term	• Clearing of native vegetation	Unpredictable
Aquatic impacts	Deterioration of water quality	Direct	Local	Short term		Unpredictable
	Alterations to stream flow	Direct	Local	Long term	• Instream structures and other mechanisms that alter natural flow	Unpredictable
	Noise and vibration	Indirect	Local	Short term		Known
Injury and mortality of fauna	Small fauna species	Direct	Local	Short term		Unpredictable
Invasion and spread of weeds	Native vegetation	Indirect	Local	Short term	• Invasion and establishment of exotic vines and scramblers • Invasion and establishment of Scotch broom (*Cytisus scoparius*) • Invasion of native plant communities by African Olive (*Olea europaea* L. subsp. *cuspidata)* • Invasion, establishment and spread of	Known

Impact	Biodiversity values	Nature of impact	Extent of impact	Duration	Does the proposal constitute or exacerbate a key threatening process?	Confidence in assessment
					Lantana camara • Invasion of native plant communities by Bitou bush and Boneseed *(Chrysanthemoides monilifera*) • Invasion of native plant communities by exotic perennial grasses • Loss and degradation of native plant and animal habitat by invasion of escaped garden plants, including aquatic plants	
Changes to hydrology		Direct/ indirect		Long term	• Alteration to the natural flow regimes of rivers and streams and their floodplains and wetlands	Unpredictable

5 Avoid, minimise and mitigate impacts

5.1 Avoidance and minimisation

Due to the linear nature of the project there are limited opportunities for avoidance of impact to biodiversity values. However clearing of vegetation will be kept to the minimum required to complete the project and generally ancillary areas have been located in already cleared areas, and/or excluded the native vegetation present within them from impacts. This is highlighted by the exclusions of the largest patch of Cumberland Plain Woodland – BC Act from the land proposed for an ancillary area between Memorial Avenue and Balmoral Road, at the western end of the study area.

Further avoidance and minimisation of impacts to biodiversity could be achieved by retaining and protecting the patch of Cumberland Plain Woodland – BC Act within the eastern ancillary area. The patch of TEC vegetation occurs as a small isolated stand of trees that could be protected through erection of fencing at the extent of the tree protection zones for the duration of the project works.

5.2 Mitigation measures

There are requirements for clearing of vegetation, and likely trimming of shrubs and minor clearing of native ground cover species. No additional safeguards and management measures for biodiversity are considered to be required, beyond those identified in the Project REF (Hyder 2014). However, the following general recommendations have been made:

- Minimise to the fullest extent practicable disturbance to native vegetation within and/or adjacent to the study area.
- Establish exclusion fencing outside the tree protection zones in areas containing CEEC and EECs and display appropriate signage such as 'Environmental No Go Area'.
- Revegetation of areas adjacent to CEEC and EECs to provide a vegetated buffer between development and TECs.
- Minimise topsoil transportation within, into or out of the study area to reduce the spread of weeds.
- Four WoNS and five priority weeds were identified within the study area (Section 4.2.2). Appropriate measures should be implemented to minimise the spread of these species.
- Adherence to the Sydney Water Policy *Stormwater connections to natural waterways,* which provides guidance and management measures to be implemented when connecting to Sydney Water assets to minimise impacts to aquatic ecological values and water infrastructure.
- Where possible, stockpiling or storage of construction materials should occur in areas already cleared, such as the footpath.
- Appropriate erosion and sediment control measures should be installed at all sites to avoid sedimentation of receiving water bodies or other indirect impacts to surrounding biodiversity values.

6 Offset strategy

6.1 Quantification of impacts and offsets

The Project has been assessed as unlikely to result in a significant impact to threatened species or ecological communities listed under the BC Act or EPBC Act. However, as outlined in Table 1 of *Guidelines for Biodiversity Offsets* (Roads and Maritime 2016), biodiversity impacts assessed by a REF are required to consider offsets *where there is any clearing of a CEEC in moderate to good condition.*

Cumberland Plain Woodland – BC Act and Cumberland Plain Woodland – EPBC Act are both present within the study area in condition states that meet the FBA definition for vegetation in moderate to good condition, and therefore offsets are to be considered.

Impacts as a result of the project include:

- 0.20 hectares of impact to Cumberland Plain Woodland – BC Act
- 0.22 hectares of impact to Cumberland Plain Woodland – EPBC Act

It should be noted that there is no overlap in these two areas.

There is the potential for avoidance of impact to Cumberland Plain Woodland – BC Act by retaining the patch of CEEC vegetation within the eastern ancillary compound and this is a recommendation of this biodiversity assessment report.

7 Conclusion

In summary the following represents the key findings of this Updated Addendum REF:

- Three BC Act TECs were identified during the assessment and were:
  - Cumberland Plain Woodland.
  - River-flat Eucalypt Forest.
  - Swamp Oak Floodplain Forest
- One EPBC Act TEC, Cumberland Plain Woodland, was found to be present within the study area.
- No additional threatened flora or fauna species or high quality habitat were identified within the study area, other than those considered in the Project REF (Hyder 2014)
- None of the above listed TECs or threatened species are considered likely to be significantly impacted by the proposed works.
- The project area occurs within a highly disturbed and modified landscape. Minor additional clearing of native vegetation is proposed and minor additional disturbance to waterways is proposed.
- Provided the avoidance and mitigation measures specified herein and in the Project REF (Hyder 2014) no additional impacts to biodiversity, other than required vegetation clearance, are considered likely to occur.
- A reduction of impacts to BC Act listed Cumbered Plain Woodland CEEC could be achieved through retention of the patch mapped within the eastern Ancillary area.

8 References

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Appendix A – Species recorded

Recorded flora

Family	Scientific Name	Common name	Status		Abundance in each plot							Incidental observation
			TSC Act	EPBC Act	1	2	3	4	5	6	7	
Acanthaceae	*Pseuderanthemum variabile*	Pastel Flower									5	
Amaryllidaceae	*Agapanthus praecox*	Blue Lily								5		
Amaranthaceae	*Alternatha denticulate*	Lesser Joyweed									2	
Apiaceae	*Centella asiatica*	Indian Pennywort				10		20				
Apiaceae	*Foeniculum vulgare*	Fennel								1		
Apocynaceae	*Araujia sericifera*	Moth Vine					10		20	2	5	
Apocynaceae	*Vinca major*	Greater Periwinkle									10	
Asparagaceae	*Asparagus asparagoides*	Bridal Creeper							1000	5	2	
Asparagceae	*Asparagus aethiopicus*	Asparagus fern								1	5	
Asparagaceae	*Lomandra longifolia*	Spiny-headed Mat-rush								5		
Asteraceae	*Aster subulatus*	Wild Aster								10		
Asteraceae	*Bidens pilosa*	Cobbler's Pegs								20	10	Incidental
Asteraceae	*Cirsium vulgare*	Spear Thistle				10	10	20		10		
Asteraceae	*Hypochaeris radicata*	Catsear			500							
Asteraceae	*Senecio madagascariensis*	Fireweed				10		100		5		
Asteraceae	*Senecio quadridentatus*	Cotton Fireweed				50	10	500				
Asteraceae	*Sigesbeckia orientalis*	Indian Weed									2	
Asteraceae	*Sonchus asper* subsp. *asper*	Prickly Sowthistle										Incidental
Asteraceae	*Sonchus oleraceus*	Common Sowthistle										Incidental
Brassicaceae	*Lepidium africanum*	Common Peppercress										Incidental
Brassicaceae	*Brassica nigra*	Black Mustard								10		
Cactaceae	*Opuntia stricta*	Common Prickly Pear, Smooth Pest Pear										Incidental
Casuarinaceae	*Casuarina glauca*	Swamp Oak							50	2	50	
Chenopodiaceae	*Einadia hastata*	Berry Saltbush				50	10					
Commelinaceae	*Commelina cyanea*	Native Wandering Jew							20	10		
Commelinaceae	*Tradescantia fluminensis*	Wandering Jew							1000	20	100	
Convolvulaceae	*Dichondra repens*	Kidney Weed				50	10			50	5	
Fabaceae	*Glycine tabacina*	Variable Glycine								50	5	

Family	Scientific Name	Common name	Status		Abundance in each plot							Incidental observation
			TSC Act	EPBC Act	1	2	3	4	5	6	7	
Fabaceae (Faboideae)	*Trifolium repens*	White Clover			100							
Fabaceae (Faboideae)	*Vicia sativa*	Common Vetch						50				
Fabaceae (Mimosoideae)	*Acacia decurrens*	Black Wattle					50			20		
Fabaceae (Mimosoideae)	*Acacia floribunda*	White Sally								1		Incidental
Fabaceae (Mimosoideae)	*Acacia parramattensis*	Parramatta Wattle				10				1		
Hamamelidaceae	*Liquidambar styraciflua*	Sweetgum				10						
Juncaceae	*Juncus acutus*								1000		2	
Malvaceae	*Malva parviflora*	Small-flowered Mallow				20		20		5		
Malvaceae	*Sida rhombifolia*	Paddy's Lucerne								5	5	
Moraceae	*Morus alba*	White Mulberry								1		
Myrtaceae	*Callistemon* sp.	Bottlebrush										Incidental
Myrtaceae	*Corymbia maculata*	Spotted Gum			1							
Myrtaceae	*Eucalyptus amplifolia*	Cabbage Gum								8		
Myrtaceae	*Eucalyptus crebra*	Narrow-leaved Ironbark										Incidental
Myrtaceae	*Eucalyptus grandis*	Flooded Gum			1							
Myrtaceae	*Eucalyptus nicholii*	Narrow-leaved Black Peppermint	V	VU								Incidental
Myrtaceae	*Eucalyptus tereticornis*	Forest Red Gum			6	10				2		
Myrtaceae	*Melaleuca armillaris*	Bracelet Honey-myrtle										Incidental
Myrtaceae	*Melaleuca decora*									2		
Ochnaceae	*Ochna serrulata*	Mickey Mouse Plant							20	5	20	
Oleaceae	*Ligustrum lucidum*	Large-leaved Privet					10		20	5	5	
Oleaceae	*Ligustrum sinense*	Small-leaved Privet				10	10			10	5	
Oxalidaceae	*Oxalis corniculata*	Creeping Oxalis			500							
Passifloraceae	*Passiflora caerulea*	Blue Passionflower							5			
Pittosporaceae	*Bursaria spinosa*	Native Blackthorn				10	10			10		
Pittosporaceae	*Pittosporum undulatum*	Sweet Pittosporum									1	
Plantaginaceae	*Plantago lanceolata*	Lamb's Tongues				50		10		20		
Poaceae	*Aristida vagans*	Threeawn Speargrass				50						
Poaceae	*Briza minor*	Shivery Grass						100				

Family	Scientific Name	Common name	Status		Abundance in each plot							Incidental observation
			TSC Act	EPBC Act	1	2	3	4	5	6	7	
Poaceae	*Briza subaristata*							100				
Poaceae	*Bromus catharticus*	Praire Grass								10		Incidental
Poaceae	*Bromus molliformis*	Soft Brome				50		50				
Poaceae	*Chloris gayana*	Rhodes Grass				50						
Poaceae	*Cynodon dactylon*	Common Couch			500		10	100	50	20		
Poaceae	*Dichelachne micrantha*	Shorthair Plumegrass					1					
Poaceae	*Ehrharta erecta*	Panic Veldtgrass							100	100	20	
Poaceae	*Eragrostis curvula*	African Lovegrass					20	20				
Poaceae	*Lolium perenne*	Perennial Ryegrass			1000	50		500				
Poaceae	*Microlaena stipoides*	Weeping Grass					50	100		50	5	
Poaceae	*Microlaena stipoides* var. *stipoides*	Weeping Grass				10						
Poaceae	*Oplismenus imbecillis*	Basket Grass									5	
Poaceae	*Paspalum dilatatum*	Paspalum						10	20	20	1	
Poaceae	*Pennisetum clandestinum*	Kikuyu Grass			100	100	10			50		
Poaceae	*Setaria gracilis*	Slender Pigeon Grass								10		
Poaceae	*Sporobolus africanus*	Parramatta Grass			50							
Poaceae	*Themeda triandra*	Kangaroo grass				10						
Polygonaceae	*Persicaria decipiens*	Slender Knotweed								5		
Polygonaceae	*Rumex conglomeratus*	Clustered Dock				20		20				
Ranunculaceae	*Ranunculus spp.*									10		
Rosaceae	*Rubus fruticosus* spp. aggregate	Blackberry								20		
Salicaceae	*Salix spp.*	Willow								3		
Solanaceae	*Cestrum parqui*	Green Cestrum									2	
Solanaceae	*Solanum pseudocapsicum*	Madeira Winter Cherry									1	
Solanaceae	*Solanum seaforthianum*	Brazilian Nightshade									5	
Thypaceae	*Typha australis*									50		
Verbenaceae	*Verbena bonariensis*	Purpletop								5		

Recorded fauna

Taxa/Fauna group	Scientific Name	Common name	Status	
			TSC Act	EPBC Act
Bird	Anthochaera carunculata	Red Wattlebird		
Bird	Columba livia	Rock Dove		
Bird	Coracina novaehollandiae	Black-faced Cuckoo-shrike		
Bird	Corvus coronoides	Australian Raven		
Bird	Cracticus tibicen	Australian Magpie		
Bird	Dacelo novaeguineae	Laughing Kookaburra		
Bird	Eolophus roseicapillus	Galah		
Bird	Eudynamys orientalis	Eastern Koel		
Bird	Malurus cyaneus	Superb Fairy-wren		
Bird	Manorina melanocephala	Noisy Miner		
Bird	Rhipidura leucophrys	Willie Wagtail		
Bird	Sturnus tristis	Common Myna		
Bird	Sturnus vulgaris	Common Starling		
Bird	Threskiornis molucca	Australian White Ibis		
Bird	Trichoglossus haematodus	Rainbow Lorikeet		
Bird	Trichoglossus chlorolepidotus	Scaly-breasted Lorikeet		
Fish	Cyprinus carpio	Carp		
Fish	Gambusia holbrooki	Mosquito Fish		
Rep	Lampropholis guichenoti	Pale-flecked Garden Sunskink		

Appendix B – Habitat assessment table

Likelihood of occurrence criteria

Likelihood	Criteria
Recorded	The species was observed in the study area during the current survey
High	It is highly likely that a species inhabits the study area and is dependent on identified suitable habitat (ie. for breeding or important life cycle periods such as winter flowering resources), has been recorded recently in the locality (10km) and is known or likely to maintain resident populations in the study area. Also includes species known or likely to visit the study area during regular seasonal movements or migration.
Moderate	Potential habitat is present in the study area. Species unlikely to maintain sedentary populations, however may seasonally use resources within the study area opportunistically or during migration. The species is unlikely to be dependent (ie. for breeding or important life cycle periods such as winter flowering resources) on habitat within the study area, or habitat is in a modified or degraded state. Includes cryptic flowering flora species that were not seasonally targeted by surveys and that have not been recorded.
Low	It is unlikely that the species inhabits the study area and has not been recorded recently in the locality (10km). It may be an occasional visitor, but habitat similar to the study area is widely distributed in the local area, meaning that the species is not dependent (ie. for breeding or important life cycle periods such as winter flowering resources) on available habitat. Specific habitat is not present in the study area or the species are a non-cryptic perennial flora species that were specifically targeted by surveys and not recorded.
None	Suitable habitat is absent from the study area.

Habitat assessment table

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
Fauna					
Large-eared Pied Bat (*Chalinolobus dwyeri*)	V	V	Forage habitat primarily dry sclerophyll forests and woodlands. Roosts in colonies of between three and 80 in caves, Fairy Martin nests and mines, and beneath rock overhangs, but usually less than 10 individuals. The only known existing maternity roost is in a sandstone cave near Coonabarabran.	6 (OEH database)	Low
Spotted-tailed Quoll (*Dasyurus maculatus*)	E	V	Uses a range of forest and woodland habitats but typically associated with larger intact areas of habitat. Habitat requirements include suitable den sites, including hollow logs, rock	8 (OEH database)	Low

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			crevices and caves, an abundance of food and an area of intact vegetation in which to forage. Not commonly encountered in urban areas due to impacts such as habitat removal and fragmentation, foxes, dogs and road mortality.		
Eastern False Pipistrelle (*Falsistrellus tasmaniensis*)	V	-	Prefers wet forests with a dense understorey but also found in open forests at lower altitudes. Apparently hibernates in winter. Roosts in tree hollows and sometimes in buildings in colonies of between 3 and 80 individuals. Often change roosts every night. Has a large foraging range, up to 136 ha. Records show movements of up to 12 km between roosting and foraging sites.	33 (OEH database)	Moderate
Little Bentwing-bat (*Miniopterus australis*)	V	-	Forages beneath canopy of densely vegetated habitats. Prefers well timbered forest habitats. Roost sites include caves, tunnels and stormwater drains. Breeds in large maternity colonies in caves in summer.	19 (OEH database)	Moderate
Eastern Bentwing-bat (*Miniopterus schreibersii oceanensis*)	V	-	Forages above canopy and along waterways in a range of forest communities and open grasslands. Forms large maternity roosts (up to 100,000 individuals) in caves and mines in spring and summer. Individuals may fly several hundred kilometres to their wintering sites, where they roost in caves, culverts, buildings, and bridges.	100 (OEH database)	Moderate
Eastern Freetail-bat (*Mormopterus norfolkensis*)	V	-	Inhabits dry eucalypt forests and woodland. Forages in natural and artificial openings in forests. Typically roosts in hollow spouts of large mature eucalypts, including paddock trees.	61 (OEH database)	Present
Large-footed Myotis (*Myotis macropus*)	V	-	Roosts in caves, mines or tunnels, under bridges, in buildings, tree hollows, and even in dense foliage. Colonies occur close to water bodies, ranging from rainforest streams	37 (OEH database)	Moderate

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			to large lakes and reservoirs. Forages over water bodies for flying and aquatic insects and small fish.		
Greater Glider (*Petauroides volans*)	-	V	Inhabits a variety of eucalypt forests and woodlands. Presence and density is dependent on soil fertility, eucalypt tree species, disturbance history and density of suitable tree hollows.	1 (OEH database)	None
Yellow-bellied Glider (*Petaurus australis*)	V	-	Inhabits productive, tall open sclerophyll forests where mature trees provide shelter and nesting hollows. Critical elements of habitat include sap-site trees, winter flowering eucalypts, mature trees with hollows suitable for den sites and a mosaic of different forest types. Family groups of 2-6 individuals occupy exclusive home ranges of 30-60 ha. Very large expanses of forest (>15,000 ha) are required to conserve viable populations.	7 (OEH database)	None
Brush-tailed Rock-wallaby (*Petrogale penicillata*)	V	E	Habitats range from rainforest to open woodland. It is found in areas with numerous ledges, caves and crevices, particularly where these have a northerly aspect.	0 (OEH database)	None
Koala (*Phascolarctos cinereus*)	V	V	Forage almost exclusively on eucalypt foliage, and their preferences vary regionally. Primary feed trees include *Eucalyptus robusta, E. tereticornis, E. punctata, E. haemostoma* and *E. signata.*	7 (OEH database)	Low
New Holland Mouse (*Pseudomys novaehollandiae*)	-	V	Inhabits open heathlands, open woodlands with a heathland understorey, and vegetated sand dunes.	0 (OEH database)	None
Grey-headed Flying-fox (*Pteropus poliocephalus*)	V	V	Forages on fruit and nectar of trees in a wide range of habitats, including urban development. Roosts and breeds in large colonies (camps), commonly in dense riparian vegetation. Bats commute daily to	101 (OEH database)	Moderate

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			foraging areas, usually within 15 km of the day roost although some individuals may travel up to 70 km.		
Yellow-bellied Sheathtail-bat (*Saccolaimus flaviventris*)	V	-	Forages above canopy in wet and dry sclerophyll forest and open woodland. Typically roosts in tree hollows in colonies of up to 30 (but more usually two to six).	20 (OEH database)	Moderate
Greater Broad-nosed Bat (Scoteanax rueppillii)	V	-	Occurs in woodland and rainforest, but prefers open habitats or natural or human-made openings in wetter forests. Often hunts along creeks or river corridors. Flies slowly and directly at a height of 30 m or so foraging on beetles and other large, flying insects. Also known to eat other bats and spiders. Roosts in hollow tree trunks and branches.	27 (OEH database)	Moderate
Eastern Cave Bat (*Vespadelus troughtoni*)	V	-	Roosts in small groups, often in well-lit overhangs and caves, mine tunnels, road culverts, and occasionally in buildings.	1 (OEH database)	Low
Magpie Goose (*Anseranas semipalmata*)	V	-	Inhabits shallow wetlands (less than 1 m deep) with dense growth of rushes or sedges. They are often seen walking and grazing on land; feeds on grasses, bulbs and rhizomes. Breeding is unlikely to occur in south-eastern NSW.	1 (OEH database)	None
Regent Honeyeater (*Anthochaera phrygia*)	CE	CE	A semi-nomadic species occurring in temperate eucalypt woodlands and open forests. Most records are from box-ironbark eucalypt forest associations and wet lowland coastal forests. Key eucalypt species include Mugga Ironbark, Yellow Box, Blakely's Red Gum, White Box and Swamp Mahogany. Also utilises: *E. microcarpa, E. punctata, E. polyanthemos, E. mollucana, Corymbia robusta, E. crebra, E. caleyi, C. maculata, E. mckieana, E. macrorhyncha, E. laevopinea* and *Angophora floribunda*. Nectar and fruit from the mistletoes *Amyema. miquelii, A.*	21 (OEH database)	Low

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			pendula and *A. cambagei* are also eaten during the breeding season. Usually nest in horizontal branches or forks in tall mature eucalypts and sheoaks. Also nest in mistletoe haustoria.		
Australasian Bittern (*Botaurus poiciloptilus*)	E	E	Forages for frogs, fish and invertebrates in terrestrial and estuarine wetlands, generally where there is permanent water with tall, dense vegetation including *Typha* spp. and *Eleoacharis* spp. Typically forages at night and remains inconspicuous during the day. Nests are built amongst dense vegetation on a flattened platform of reeds.	2 (OEH database)	None
Curlew Sandpiper (*Calidris ferruginea*)	E	CE	Inhabits sheltered intertidal mudflats. Also non-tidal swamps, lagoons and lakes near the coast. Infrequently recorded inland.	0 (OEH database)	None
Gang Gang Cockatoo (*Callocephalon fimbriatum*)	V	-	In summer, occupies tall montane forests and woodlands, particularly in heavily timbered and mature wet sclerophyll forests. Also occur in subalpine Snow Gum woodland and occasionally in temperate or regenerating forest. In winter, occurs at lower altitudes in drier, more open eucalypt forests and woodlands, particularly in box-ironbark assemblages, or in dry forest in coastal areas. It requires tree hollows in which to breed.	21 (OEH database)	Low
Glossy Black Cockatoo (*Calyptorhynchus lathami*)	V	-	Inhabits forest with low nutrients, characteristically with key *Allocasuarina* species. Tends to prefer drier forest types. Often confined to remnant patches in hills and gullies. Breed in hollows stumps or limbs, either living or dead.	20 (OEH database)	Low
Speckled Warbler (*Chthonicola sagittata*)	V	-	This species occurs in eucalypt and cypress woodlands with a grassy understorey, often on ridges or gullies.	4 (OEH database)	Low

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
Spotted Harrier (*Circus assimilis*)	V	-	Inhabits open and wooded country with grassland nearby for hunting. Habitat types include open grasslands, acacia and mallee remnants, spinifex, open shrublands, saltbush, very open woodlands, crops and similar low vegetation. Nests are built in trees in open or remnant woodland.	10 (OEH database)	Low
Brown Treecreeper *Climacteris picumnus victoriae*	V	-	Lives in eucalypt woodlands, especially areas of relatively flat open woodland typically lacking a dense shrub layer, with short grass or bare ground and with fallen logs or dead trees present.	11 (OEH database)	Low
Varied Sittella (*Daphoenositta chrysoptera*)	V	-	Inhabits a wide variety of dry eucalypt forests and woodlands, usually with either shrubby understorey or grassy ground cover or both. Usually inhabit areas with rough-barked trees, such as stringybarks or ironbarks, but also in mallee and acacia woodlands, paperbarks or mature Eucalypts.	(OEH database)	Low
Eastern Bristlebird (*Dasyornis brachypterus*)	E	E	Found in coastal woodlands, dense scrub and heathlands, particularly where it borders taller woodlands.	0 (OEH database)	None
Black Falcon (*Falco subniger*)	V	-	Forages in woodlands and open country.. Often associated with swamps, rivers and wetlands. Nest in tall trees along watercourses.	4 (OEH database)	Low
Little Lorikeet (*Glossopsitta pusilla*)	V	-	Inhabits dry, open eucalypt forests and woodlands. Forages primarily on nectar and pollen in the tree canopy. Nest hollows are located at heights of between 2 m and 15 m, mostly in living, smooth-barked eucalypts. Most breeding records come from the western slopes.	34 (OEH database)	Low
Painted Honeyeater (*Grantiella picta*)	V	V	Found mainly in dry open woodlands and forests, where it is strongly associated with mistletoe. Often found on plains with	0 (OEH database)	None

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			scattered eucalypts and remnant trees on farmlands.		
Little Eagle (*Hieraaetus morphnoides*)	V	-	Inhabits lightly timbered areas with open areas nearby providing an abundance of prey species. Forages in grasslands, crops, treeless dune fields, and recently logged areas. Nests are built in tall living trees within farmland, woodland and forests.	39 (OEH database)	Low
Comb-crested Jacana (*Irediparra gallinacea*)	V	-	Occurs in freshwater wetlands, lagoons, billabongs, swamps, lakes, rivers and reservoirs, generally with abundant floating aquatic vegetation.	2 (OEH database)	None
Black Bittern (*Ixobrychus flavicollis*)	V	-	Inhabits terrestrial and estuarine wetlands such as flooded grasslands, forests, woodlands, rainforests and mangroves with permanent water and dense waterside vegetation. Typically roosts on the ground or in trees during the day and forages at night on frogs, reptiles, fish and invertebrates. Nests are constructed of reeds and sticks in branches overhanging the water.	13 (OEH database)	None
Swift Parrot (*Lathamus discolor*)	E	CE	Inhabits woodlands and forests of NSW from May to August, where it feeds on eucalypt nectar, pollen and associated insects. Dependent on flowering resources across a wide range of habitats in its wintering grounds in NSW. This species is migratory, breeding in Tasmania and also nomadic, moving about in response to changing food availability.	38 (OEH database)	Low
Square-tailed Kite (*Lophoictinia isura*)	V	-	Typically inhabits coastal forested and wooded lands of tropical and temperate Australia. In NSW it is often associated with ridge and gully forests dominated by *Eucalyptus longifolia, Corymbia maculata, E. elata, or E. smithii.* Requires large hunting ranges of more than 100 km2. Nests are built	36 (OEH database)	Low

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			in large living trees for breeding, particularly near water with surrounding woodland /forest close by for foraging habitat. Nest sites are generally located along or near watercourses.		
Hooded Robin (*Melanodryas cucullata cucullata*)	V	-	This species lives in a wide range of temperate woodland habitats, and a range of woodlands and shrublands in semi-arid areas.	1 (OEH database)	Low
Black-chinned Honeyeater (*Melithreptus gularis gularis*)	V	-	Found mostly in open forests and woodlands dominated by box and ironbark eucalypts. It is rarely recorded east of the Great Dividing Range.	2 (OEH database)	Low
Turquoise Parrot (*Neophema pulchella*)	V	-	Occurs in open woodlands and eucalypt forests with a ground cover of grasses and understorey of low shrubs. Generally found in the foothills of the Great Divide, including steep rocky ridges and gullies. Nest in hollow-bearing trees, either dead or alive; also in hollows in tree stumps. Prefer to breed in open grassy forests and woodlands, and gullies that are moist.	1 (OEH database)	Low
Barking Owl (*Ninox connivens*)	V	-	Generally found in open forests, woodlands, swamp woodlands and dense scrub. Can also be found in the foothills and timber along watercourses in otherwise open country. Territories are typically 2000 ha in NSW habitats.	7 (OEH database)	Low
Powerful Owl (*Ninox strenua*)	V	-	The Powerful Owl occupies wet and dry eucalypt forests and rainforests. It may inhabit both un-logged and lightly logged forests as well as undisturbed forests where it usually roosts on the limbs of dense trees in gully areas. Large mature trees with hollows at least 0.5 m deep are required for nesting. Tree hollows are particularly important for the Powerful Owl because a	196 (OEH database)	Low

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			large proportion of the diet is made up of hollow-dependent arboreal marsupials. Nest trees for this species are usually emergent with a diameter at breast height of at least 100 cm. It has a large home range of between 450 and 1450 ha.		
Eastern Curlew (*Numenius madagascariensis*)	-	CE	Occurs in sheltered coasts, especially estuaries, bays, harbours, inlets and coastal lagoons with large intertidal mudflats or sandflats often with beds of seagrass.	0 (OEH database)	None
Blue-billed Duck (*Oxyura australis*)	V	-	Almost wholly aquatic, preferring deep water in large, permanent wetlands with an abundant aquatic flora.	2 (OEH database)	None
Osprey (*Pandion cristatus*)	V	-	Found in coastal waters, inlets, estuaries and offshore islands. Occasionally found 100 km inland along larger rivers. Forages for fish in clear, open water. It is a predominantly coastal species, generally using marine cliffs as nesting and roosting sites. Nests can also be made high up in dead trees or in dead crowns of live trees, usually within one kilometre of the sea.	0 (OEH database)	None
Scarlet Robin (*Petroica boodang*)	V	-	During breeding season inhabits eucalypt forests and temperate woodlands, often on ridges and slopes. During autumn and winter it moves to more open and cleared areas. It has dispersive or locally migratory seasonal movements. Forages amongst logs and woody debris for insects which make up the majority of its diet. It is conspicuous in open and suburban habitats.	15 (OEH database)	Low
Flame Robin (*Petroica phoenicea*)	V	-	In summer inhabits moist eucalyptus forests and open woodlands, whilst in winter prefers open woodlands and farmlands. It is considered migratory.	2 (OEH database)	Low
Pink Robin	V	-	Inhabits dense, dank forests and tree-fern	2	Low

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
(*Petroica rodinogaster*)			gullies. Rarely occurs in locality during winter dispersal into more open forests, woodlands and scrublands.	(OEH database)	
Superb Parrot (*Polytelis swainsonii*)	V	V	Typically found in open, tall riparian River Red Gum forest or woodland. Often found in farmland including grazing land with patches of remnant vegetation. Breeds in hollow branches of tall Eucalypt trees within 9 km of feeding areas. Outside of typical species distribution, records from locality likely to be aviary escapees.	3 (OEH database)	None
Wompoo Fruit-dove (*Ptilinopus magnificus*)	V	-	Mainly occurs in large undisturbed patches of tall tropical or subtropical rainforest. Occasionally occurs in patches of monsoon forest, closed gallery forest, wet sclerophyll forest, tall open forest, open woodland or vine thickets near rainforest. Outside of typical species distribution, records from locality likely to be vagrant only.	1 (OEH database)	None
Superb Fruit-dove (*Ptilinopus superbus*)	V	-	Mainly occurs in rainforests, closed forests (including mesophyll vine forests) and sometimes in eucalypt and acacia woodlands where there are fruit-bearing trees. Forages in the canopy of fruiting trees such as figs and palms. Nests are constructed high in the canopy throughout September to January. Rare vagrant to this locality.	1 (OEH database)	None
Painted Snipe (*Rostratula australis*)	E	E	Usually found in shallow inland wetlands including farm dams, lakes, rice crops, swamps and waterlogged grassland. They prefer freshwater wetlands, ephemeral or permanent, although they have been recorded in brackish waters.	4 (OEH database)	None
Diamond Firetail (*Stagonopleura guttata*)	V	-	Found in a range of habitat types including open eucalypt forest, mallee and acacia scrubs. Often occur in vegetation along watercourses. Typically occurs west of the	1 (OEH database)	Low

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			locality, so records of this species in the locality may be aviary escapees.		
Masked Owl (*Tyto novaehollandiae*)	V	-	Inhabits a diverse range of wooded habitat that provide tall or dense mature trees with hollows suitable for nesting and roosting. It has mostly been recorded in open forests and woodlands adjacent to cleared lands. Nests in hollows, in trunks and in near vertical spouts or large trees, usually living but sometimes dead. The nest hollows are usually located within dense forests or woodlands. Usually preys on terrestrial mammals. It has a large home range of between 500 to 1000 ha.	3 (OEH database)	Low
Sooty Owl (*Tyto tenebricosa*)	V	-	Inhabits tall old-growth forests, including temperate and subtropical rainforests. In NSW it is mostly found on escarpments with a mean altitude <500 m. Nests and roosts in hollows of tall emergent trees, mainly eucalypts, often located in gullies. Nests have been located in trees 125 to 161 cm in diameter.	1 (OEH database)	None
Giant Burrowing Frog (*Heleioporus australiacus*)	V	V	Prefers hanging swamps on sandstone shelves adjacent to perennial non-flooding creeks. Can also occur within shale outcrops within sandstone formations. Known from wet and dry forests and montane woodland in the southern part range. Individuals can be found around sandy creek banks or foraging along ridge-tops during or directly after heavy rain. Males often call from burrows located in sandy banks next to water. Spends the majority of its time in non-breeding habitat 20-250m from breeding sites.	1 (OEH database)	None
Green and Golden Bell Frog (*Litoria aurea*)	E	V	Most existing locations for the species occur as small, coastal, or near coastal populations. Inhabits marshes, dams and	9 (OEH database)	Low

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			stream sides, particularly those containing bullrushes or spikerushes. Preferred habitat contains water bodies that are unshaded, are free of predatory fish, have a grassy area nearby and have diurnal sheltering sites nearby such as vegetation or rocks, although the species has also been recorded from highly disturbed areas including disused industrial sites, brick pits, landfill areas and cleared land.		
Stuttering Frog (*Mixophyes balbus*)	E	V	Inhabits mountain streams, wet mountain forests and rainforests. It rarely moves very far from the banks of permanent forest streams, although it will forage on nearby forest floors. Eggs are deposited in leaf litter on the banks of streams and are washed into the water during heavy rains.	0 (OEH database)	None
Red-crowned Toadlet (*Pseudophryne australis*)	V	-	Occurs on wetter ridge tops and upper slopes of sandstone formations on which the predominant vegetation is dry open forests and heaths. This species typically breeds within small ephemeral creeks characterised by a series of shallow pools that feed into larger semi-perennial streams. Breeds all year round. Species is not tolerant of poor water quality.	20 (OEH database)	None
Macquarie Perch *Macquaria australasica*		E	Macquarie Perch are found in the Murray-Darling Basin (particularly upstream reaches) of the Lachlan, Murrumbidgee and Murray rivers, and parts of south-eastern coastal NSW, including the Hawkesbury and Shoalhaven catchments. Macquarie perch are found in both river and lake habitats, especially the upper reaches of rivers and their tributaries	0 (OEH database)	None
Australian Greyling (*Prototroctes maraena*)			The Australian Grayling occurs in streams and rivers on the eastern and southern flanks	0 (OEH	None

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			of the Great Dividing Range from Sydney southwards to the Otway Ranges in Victoria, and Tasmania. Australian grayling do not occur in the inland Murray–Darling Basin system. Grayling is a diadromous species; migrating between freshwater streams and the ocean. This species has been found in clear, gravel-bottomed streams with alternating pools and riffles, and granite outcrops, and also in muddy-bottomed, heavily silted habitats.	database)	
Cumberland Plain Land Snail (*Meridolum corneovirens*)	E	-	Most likely restricted to Cumberland Plain, Castlereagh Woodlands and boundaries between River-flat Forest and Cumberland Plain Woodland. It is normally found beneath logs, debris and amongst accumulated leaf and bark particularly at the base of trees. May also use soil cracks for refuge.	145 (OEH database)	Low
Dural Woodland Snail (*Pommerhelix duralensis*)	-	E	The species is a shale-influenced-habitat specialist, which occurs in low densities along the western and northwest fringes of the Cumberland IBRA subregion on shale-sandstone transitional landscapes. The species has a strong affinity for communities in the interface region between shale-derived and sandstone-derived soils, with forested habitats that have good native cover and woody debris. It favours sheltering under rocks or inside curled-up bark. It does not burrow nor climb. The species has also been observed resting in exposed areas, such as on exposed rock or leaf litter, however it will also shelter beneath leaves, rocks and light woody debris.	16 (OEH database)	None
Broad-headed Snake (*Hoplocephalus bungaroides*)	E	V	Mainly occurs in association with communities occurring on Triassic sandstone within the Sydney Basin. Typically found	0 (OEH database)	None

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			among exposed sandstone outcrops with vegetation types ranging from woodland to heath. Within these habitats they generally use rock crevices and exfoliating rock during the cooler months and tree hollows during summer.		
Flora					
Bynoe's Wattle *(Acacia bynoeana)*	E1	VU	Semi prostrate shrub growing in central eastern NSW spanning from the Hunter District, west to the Blue Mountains and south to the Southern Highlands. Grows in a variety of communities including; Southern Tableland Dry Sclerophyll Forests, Sydney Hinterland Dry Sclerophyll Forests, Coastal Valley Grassy Woodlands and Sydney Coastal Heaths. Prefers open, slightly disturbed sites on sandy soils.	16 (OEH database)	None
(Acacia gordonii)	E1	EN	Erect or spreading shrub confined to a disjunct distribution in the Lower Blue Mountains and the Maroota-Glenorie area. Grows on sandstone outcrops and platforms in Sydney Coastal Dry Sclerophyll Forests, Sydney Hinterland Dry Sclerophyll Forests, Coastal Heath Swamps, Sydney Coastal Heaths and Sydney Montane Heaths. Grows on shallow soils.	1 (OEH database)	Low
Boree *(Acacia pendula)*	E2	-	Erect or spreading tree known from six locations in the Hunter Valley from Warkworth in the east, Muswellbrook to the north-west and Wybong to the west. Grows near river systems in Western Slopes Dry Sclerophyll Forests and Coastal Valley Grassy Woodlands. Grows on floodplains in heavy clay soils.	1 (OEH database)	None
(Gosford Wattle) *Acacia prominens*	E2	-	Erect or spreading tree growing in a few sites at Carss Park and along the railway line at Penshurst. Grows in a variety of communities	4 (OEH database)	None

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			including Cumberland Dry Sclerophyll Forests, Sydney Coastal Dry Sclerophyll Forests, Eastern Riverine Forests and Northern Hinterland Wet Sclerophyll Forests. Grows in moist, protected areas in loamy and clay soils.		
Downy Wattle *(Acacia pubescens)*	V	VU	A spreading shrub primarily confined to the Bankstown-Fairfield-Rookwood area and the Pitt Town area, with outliers at Barden Ridge, Oakdale and Mountain Lagoon. Grows in Cooks/River Castlereagh Ironbark Forest, Shale/Gravel Transition Forest and Cumberland Plain Woodland, usually within roadside and bushland remnants. Grows on shale, sandstone, alluvium and gravely soils, often including ironstone.	14 (OEH database)	Low
(Allocasuarina glareicola)	E1	EN	Small, depauperate shrub restricted to a few populations in the Richmond district with an outlier population at Voyager Point in Liverpool. Grows in Castlereagh Woodlands, Cumberland Dry Sclerophyll Forest, Sydney Hinterland Dry Sclerophyll Forest, Sydney Sand Flats Dry Sclerophyll Forests. Grows in lateritic soil.	0 (OEH database)	None
(Darwinia biflora)	V	VU	Erect shrub distributed in the Ku-ring-gai, Hornsby, Baulkham Hills and Ryde local government areas. Grows on edges of weathered shale capped ridges in the vicinity of an intergrade with Hawkesbury sandstone in Sydney Coastal Dry Sclerophyll Forests, Sydney Hinterland Dry Sclerophyll Forests and Sydney Coastal Heaths. Grows in shale-sandstone transitional soils.	407 (OEH database)	None
(Dillwynia tenuifolia)	V/E2	-	Low, spreading shrub restricted to the Cumberland Plain in Western Sydney. Grows in scrubby or heathy areas within a variety of communities including Castlereagh Ironbark	35 (OEH database)	Low

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			Forest, Shale Gravel Transition Forest, Castlereagh Scribbly Gum Woodland and Sydney Hinterland Dry Sclerophyll Forests. Grows on tertiary alluvium, laterised clays and in shale-sandstone transitions.		
(Epacris purpurascens var. *purpurascens)*	V	-	Erect shrub distributed from Gosford in the north, Silverdale to the west, Narrabeen in the east and Avon Dam in the south. Grows in scrubs and swamps in a variety of communities including Cumberland Dry, Sydney Hinterland Dry, Northern Hinterland Wet, and Southern Tableland Wet Sclerophyll Forests, Eastern Riverine Forests, and Coastal Valley Grassy Woodlands. Grows in soils with a strong shale influence on sandstone substrates.	253 (OEH database)	Low
Heart-leaved Stringybark *(Eucalyptus camfieldii)*	V	VU	Mallee tree restricted to a narrow band stretching from Raymond Terrace to the north and Waterfall in the south. Grows in scattered, localised distributions including sites at Norah Head, Terrey Hills, North Head, Menai, Mt Colah, Peats Ridge and Elvina Bay Trail. Grows in scattered stands near the boundries of tall coastal heath and low open woodland in a variety of communities including Sydney Coastal Dry Sclerophyll Forests, Eastern Riverine Forests, Sydney Coastal Heaths and Wallum Sand Heaths. Grows in sandy soils on Hawkesbury sandstone.	1 (OEH database)	Low
Narrow-leaved Black Peppermint *(Eucalyptus nicholii)*	V	VU	Medium sized tree, sparsely distributed from Nundle through to the north of Tenterfield, also in urban tree plantings. Grows on slopes and ridges in a variety of communities including New England Dry Sclerophyll Forests, Western Slopes Dry Sclerophyll Forests, New England Grassy Woodlands	7 (OEH database)	Present

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			and Tableland Clay Grassy Woodlands. Grows on shallow, infertile soils on shale substrates.		
Wallangarra White Gum *(Eucalyptus scoparia)*	E1	VU	Small tree restricted to three populations near Tenterfield including within Bald Rock National Park. Grows on rocky outcrops, hilltops and slopes in a variety of communities including New England Dry Sclerophyll Forests, Tableland Clay Grassy Woodlands, Northern Tableland Wet Sclerophyll Forests and Northern Escarpment Dry Sclerophyll Forests. Grows on granite or rhyolite substrates in well drained soils.	1 (OEH database)	Low
(Eucalyptus sp. *Cattai)*	E1	-	Small tree or mallee distributed between Colo Heights and Castle Hill in north-western Sydney. Grows as an emergent tree on flats and ridgetops in Sydney Coastal Dry Sclerophyll Forests, Sydney Hinterland Dry Sclerophyll Forests and Sydney Coastal Heaths. Grows on sandstone substrates in laterised clays and occasionaly on sandy soils.	49 (OEH database)	Low
Tangled Bedstraw *(Galium australe)*	E1	-	Straggling, twining herb with an extant population in Nadgee Nature Reserve and historically recorded at Nowra and Narooma. Grows in a variety of communities including North Coast Wet Sclerophyll Forests, South Coast Sands Dry Sclerophyll Forests, Eastern Riverine Forests, Coastal Valley Grassy Woodlands and Coastal Headland Heaths.	1 (OEH database)	Low
Bauer's Midge Orchid *(Genoplesium baueri)*	E1	EN	Terrestrial orchid with 13 populations totalling 200 plants distributed between Ulladulla and Port Stephens. Grows on moss gardens in a variety of communities including Sydney Coastal Dry sclerophyll Forests, Sydney	1 (OEH database)	None

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			Coastal Heaths, Sydney Montane Heaths, Southern Lowland Wet Sclerophyll Forests and Sydney Hinterland Dry Sclerophyll Forests. Grows on sandstone substrates		
Juniper-leaved Grevillea *(Grevillea juniperina* subsp*. juniperina)*	V	-	Spreading to erect medium sized shrub endemic to Western Sydney with a distribution spanning from Blacktown, Erskine Park, Londonderry and Windsor and outlying populations at Kemps Creek and Pitt Town. Grows at elevations <50 m in Cumberland Plain Woodland, Castlereagh Ironbark Forest, Castlereagh Scribbly Gum Woodland, Shale/Gravel Transition Forest, Sydney Sand Flats Dry Sclerophyll Forests and Coastal Valley Grassy Woodlands. Grows in sandy to clay loam soils and red pseudolateritic gravels derived from Wianamatta Shale and Tertiary Alluvium.	76 (OEH database)	Low
(Hibbertia superans)	E1		Low spreading shrub recorded from 16 sites with a distribution spanning from Baulkham Hills to South Maroota. Grows on sandstone ridgetops near shale/sandstone transitions in Sydney Coastal Dry Sclerophyll Forests, Sydney Hinterland Dry Sclerophyll Forests, Northern Hinterlands Wet Sclerophyll Forests, Coastal Valley Grassy Woodlands, and Sydney Coastal Heaths. Grows on sandstone substrates.	191 (OEH database)	Low
(Lasiopetalum joyceae)	V	VU	Erect, medium sized shrub restricted to 34 sites within the Hornsby Plateau from Berrilee to Duffys Forest. Grows on lateritic or shale influenced ridgetops in Sydney Coastal Dry Sclerophyll Forests, Sydney Hinterland Dry Sclerophyll Forests and Sydney Coastal Heaths. Grows on sandstone substrates.	5 (OEH database)	Low
(Leucopogon fletcheri	E1	-	Erect, densely branched shrub restricted to	27	Low

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
subsp. *fletcheri)*			north-west Sydney between St Albans in the north to Annangrove in the south. Grows along ridges and spurs on flat to gently sloping terrain in Sydney Coastal Dry Sclerophyll Forests, Sydney Hinterland Dry Sclerophyll Forests, Coastal Valley Grassy Woodlands and Sydney Coastal Heaths. Grows on lateritic soils.	(OEH database)	
Deane's Paperbark *(Melaleuca deanei)*	V	VU	Medium sized shrub found growing in two distinct populations in the Ku-ring-gai/Berowra and Holsworthy/Wedderburn areas along with a few outliers at Springwood and in the Wollemi National Park, Yalwal and the Central Coast regions. Grows in ridgetop woodland in a variety of communities including Sydney Coastal Dry Sclerophyll Forests, South East Dry Sclerophyll Forests, Sydney HInterland Dry Sclerophyll Forests, Coastal Valley Grassy Woodlands, Sydney Coastal Heaths. Grows on sandstone substrates in alluvial soils.	6 (OEH database)	Low
(Micromyrtus minutiflora)	E1	VU	Slender, spreading shrub restricted to the western edge of the Cumberland Plain between Richmond and Penrith. Grows in Cumberland Dry Sclerophyll Forests and Sydney Sand Flats Dry Sclerophyll Forests including Castlereagh Scribbly Gum Woodlands, Castlereagh Ironbark Forests, and Shale/Gravel Transition Forests. Grows in tertiary alluvium and consolidated river sediments.	6 (OEH database)	Low

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
Hairy Geebung *(Persoonia hirsuta)*	E1	EN	Spreading, hairy shrub with a scattered distribution throughout Sydney from Singleton to the north, the east coast of Bargo to the south and the Blue Mountains to the west. Grows at elevations between 350 - 600 metres in a variety of communities including Southern Tableland Dry Sclerophyll Forests, Sydney Hinterland Dry Sclerophyll Forests, Western Slopes Dry Sclerophyll Forests, Coastal Valley Grassy Woodlands, Sydney Coastal Heaths and Southern Escarpment Wet Sclerophyll Forests. Grows in sandy soils on sandstone substrates.	23 (OEH database)	Low
(Persoonia mollis subsp. *maxima)*	E1	EN	Tall, spreading shrub restricted to three populations in the Hornsby Heights - Mount Colah area. Grows in sheltered aspects of deep gullies or on the steep upper hillsides of narrow gullies in Sydney Coastal Dry Sclerophyll Forests, Eastern Riverine Forests and North Coast Wet Sclerophyll Forests. Grows on Hawkesbury sandstone substrates.	4 (OEH database)	Low
Nodding Geebung *(Persoonia nutans)*	E1	EN	Erect or spreading shrub with a disjunct distribution restricted to the Cumberland Plain between Richmond in the north and Macquarie Fields in the south with core distribution occurring in the Penrith and to a lesser extent, Hawkesbury regions. Grows in Cumberland Dry Sclerophyll Forests including Agnes Banks Woodland, Castlereagh Scribbly Gum Woodland, Cooks River/Castlereagh Ironbark Forest and Shale-Sandstone Transition Forest as wel as Sydney Sand Flats Dry Sclerophyll Forests and Coastal Valley Grassy Woodlands. Grows in sandy soils derived from aeolian or	3 (OEH database)	Low

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			alluvial sediments as well as in tertiary alluviums to the south of its range.		
Austral Pillwort *(Pilularia novae-hollandiae)*	E1	-	Semi-aquatic fern with the only extant populations located at Lake Cowal and Oolambeyan National Park. Historical distribution ranged from Sydney, Khancoban, The Riverina near Albury and Urana. Grows in seasonally dry depressions, drainage lines, margins of marshes, shallow swamps and waterways in a variety of communities including Inland Riverine Forests, Inland Floodplain Swamps, Southern Tableland Dry Sclerophyll Forests, Coastal Floodplain Wetlands, Coastal Swamp Forests, Coastal Freshwater Lagoons. Grows in mud amongst grasses and sedges.	1 (OEH database)	Low
(Pimelea curviflora var. *curviflora)*	V	VU	Small to medium sized shrub restricted to the coastal areas of Sydney between northern Sydney and Maroota with an outlying population at Croom Reserve near Albion Park in the Illawarra region. Grows on ridgetops and upper slopes amongst grasses and sedges in a variety of communities including Cumberland Dry Sclerophyll Forests, Sydney Hinterland Dry Sclerophyll Forests, Coastal Valley Grassy Woodlands, Sydney Coastal Heaths and Northern Hinterland Wet Sclerophyll Forests. Can be inconspicuous amongst grasses and sedges although easier to find in October to May when flowering. Grows on sandstone substrates in shale/lateritic soils and shale/sandstone transition soils.	62 (OEH database)	Low
Spiked Rice-flower *(Pimelea spicata)*	E1	EN	Small erect or spreading shrub with populations occurring in two disjunct areas, one occurring on the Cumberland Plain from Marayong and Prospect Reservoir south to	80 (OEH database)	Low

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			Narellan and Douglas Park, and the other occurring in the Illawarra from Landsdowne to Shellharbour and north Kiama. Grows in Maritime Grasslands and Coastal Valley Grassy Woodlands including Cumberland Plain Woodlands and Moist Shale Woodlands within the Cumberland Basin and in Coast Banksia Open Woodland Coastal Grasslands in the Illawarra region. Grows on well structured clay soils.		
Brown Pomaderris *(Pomaderris brunnea)*	E1	V	Medium sized shrub with a distribution limited to the area around the Colo, Nepean and Hawkesbury Rivers including the Bargo area and near Camden. Grows on floodplains and creeklines in a variety of communities including Sydney Hinterland Dry Sclerophyll Forests, Central Gorge Dry Sclerophyll Forests, Coastal Floodplain Wetlands, Coastal Valley Grasslands and North Coast Wet Sclerophyll Forests. Grows in clay and alluvial soils.	1 (OEH database)	Low
Sydney Plains Greenhood *(Pterostylis saxicola)*	E1	EN	Deciduous terrestrial orchid restricted to a few small populations located in Western Sydney between Freemans Reach in the north and Picton in the south including Georges River National Park. Found growing near streams in depression on sandstone rock shelves above cliff lines faces, moist, sheltered ridges and creek banks on mossy rocks in Temperate Montane Grasslands, Northern Warm Temperate Rainforests, Southern Warm Temperate Rainforests and Southern Tableland Wet Sclerophyll Forests. Grows in small pockets of shallow shale or shale/sandstone transition soils over sandstone substrates.	1 (OEH database)	None
(Pultenaea parviflora)	E1	VU	Small erect, branching shrub endemic to the	22	Low

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			Cumberland Plain from Windsor to Penrith east to Dean Park with outlying populations at Kemps Creek and Wilberforce. Found growing in Cumberland Dry Sclerophyll Forests including Castlereagh Ironbark Forest, Shale Gravel Transition Forest and Castlereagh Scribbly Gum Woodland, Sydney Coastal Dry Sclerophyll Forests, Sydney Sand Flats Dry Sclerophyll Forests, Coastal Valley Grassy Woodlands and Southern Lowland Wet Sclerophyll Forests. Grows in soils derived from Wianamatta shale, laterite or alluvium.	(OEH database)	
Magenta Lilly Pilly *(Syzygium paniculatum)*	E1	VU	Small to medium sized rainforest tree restricted to a narrow, linear coastal strip from Upper Lansdowne to Conjola State Forest. Found growing on stabilized dunes near the sea in South Coast Sands Dry Sclerophyll Forests, Coastal Swamp Forests, Coastal Headland Heaths, Littoral Rainforests, Northern Hinterland Wet Sclerophyll Forests and Southern Lowland Wet Sclerophyll Forests. Grows on grey sandy, gravelly, silty or clay soils over sandstone substrates.	6 (OEH database)	Present
(Tetratheca glandulosa)	V	-	Small, spreading shrub with 150 populations confined to the Baulkham Hills, Gosford, Hawkesbury, Ku-ring-gai, Pittwater, Ryde and Wyong Local Government Areas. Found growing in a variety of communities including Sydney Sandstone Ridgetop Woodland, Sydney Coastal Dry Sclerophyll Forests, Eastern Riverine Forests, Coastal Valley Grassy Woodlands, Sydney Montane Heaths and North Coast Wet Sclerophyll Forests. Grows in the shallow, yellow clay/sandy loams that are typical of shale/sandstone	73 (OEH database)	Low

Common Name *(Scientific Name)*	TSC Act	EPBC Act	Habitat requirements	Number of records (source)	Likelihood of occurrence
			transition soils where shale caps occur over sandstone substrates such as the Lucas Heights, Gymea, Lambert and Faulconbridge soil landscapes.		
Austral Toadflax *(Thesium australe)*	V	VU	Small, straggling herb with a distribution comprising of small populations scattered along the coast of eastern NSW including the Northern and Southern Tablelands, Tasmania, Queensland and eastern Asia. A root parasite found growing on damp sites in grassland, grassy woodlands and coastal headlands often in association with Kangaroo Grass Themeda triandra in a variety of communities including New England Dry Sclerophyll Forests, Western Slopes Grasslands, Northern Tableland Wet Sclerophyll Forests, Brigalow Clay Plain Woodlands, Subalpine Woodlands and Maritime Grasslands.	0 (OEH database)	Low

Appendix C – EPBC Act SIC assessments

Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest

The Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest (Cumberland PLAin Woodland) represents certain occurrences of the coastal plain grassy eucalypt woodlands that are endemic to the shale hills and plains of the Sydney Basin Bioregion in NSW and which occur primarily in, but not limited to, the Cumberland Sub-region. The ecological community ranges from grassy woodland to forest, with the understorey (i.e. the ground plus shrub layers) varying from predominately grassy to predominately shrubby. For the purposes of listing under the EPBC Act, the ecological community always has upper tree layer species present and either a shrub or ground layer present.

The tree canopy is typically dominated by Coastal Grey Box *Eucalyptus moluccana*, Forest Red Gum and/or Red Ironbark *Eucalyptus fibrosa*. Other canopy species may occur in association with typical dominants and may be locally dominant at some sites. A sparse smaller tree stratum, typically with young eucalypts and Acacia species, may also be present. The understorey typically is dominated by the ground layer and comprises a variety of perennial native grasses, grasslike plants and other non-woody plants. A shrub layer may also be present, to variable extent, and is usually dominated by Blackthorn. (Commonwealth of Australia 2009)

The Project has the potential to result in the clearing of approximately 0.22 hectares of EBC Act listed Cumberland Plain Woodland CEEC.

The Matters of National Environmental Significance Significant impact guidelines (Commonwealth of Australia 2013) state that, an action is likely to have a significant impact on a critically endangered or endangered ecological community if there is a real chance or possibility that it will:

- reduce the extent of an ecological community

When assessed at both the local and national scale the proposed impacts of the Project will not result in a substantial reduction to the extent of EPBC Act Cumberland Plain Woodland. A total of 1.53 hectares of the TEC is present within the study area, and of that, 0.22 hectares is proposed for removal. The area to be removed is in poor condition and edge affected. The Listing Advice for the TEC states that in 2009 approximately 12,300 hectares of EPBC Act listed Cumberland Plain Woodland occurred across its range (Commonwealth of Australia 2009), as such the removal of 0.22 hectares if the community will not substantially alter the extent of the community.

- fragment or increase fragmentation of an ecological community, for example by clearing vegetation for roads or transmission lines

The Listing Advice for the TEC states that the TEC occurs in a highly fragmented state and generally as small remnants. The proposed removal of the TEC within the study area includes areas along a road verge at the edge of the existing patch. Connectivity will be maintained downstream, along Strangers Creek, where the higher quality remnant vegetation occurs. As such, fragmentation will not be increased as a result of the proposed works.

- adversely affect habitat critical to the survival of an ecological community

The habitat to be removed is highly disturbed and occurs along the Memorial Avenue road verge. As such it is not considered to be critical to the survival of EPBC Act listed Cumberland Plain Woodland.

- modify or destroy abiotic (non-living) factors (such as water, nutrients, or soil) necessary for an ecological community's survival, including reduction of groundwater levels, or substantial alteration of surface water drainage patterns

Road upgrades may result in minor alterations to the surface drainage patters relative to the patch of EPBC Act listed Cumberland Plain Woodland in the study area. However, the majority of the patch, and the vegetation in the highest quality, is far enough away from the proposed impact (>100 metres) to not be impacted by any minor alterations to drainage that may occur. Further, it is considered highly unlikely that any changes to hydrology will result in substantial negative indirect impact to the retained vegetation, be it immediately adjacent to the proposed works, or over 100 metres from the direct impacts.

- cause a substantial change in the species composition of an occurrence of an ecological community, including causing a decline or loss of functionally important species, for example through regular burning or flora or fauna harvesting

Species to be impacted by the proposed works are present in similar cover and abundance within the retained vegetation. As such substantial impacts relating to composition and function are not expected to occur.

- cause a substantial reduction in the quality or integrity of an occurrence of an ecological community, including, but not limited to: assisting invasive species, that are harmful to the listed ecological community, to become established, or

The patch of EPBC Act listed Cumberland Plain Woodland to be impacts by the proposed works is in poor condition and is impacted by edge effects. The vegetation of highest quality occurs downstream, where large remnant Cabbage Gums are present in a relatively high abundance. These trees and the surrounding vegetation will not be directly or indirectly impacted by the works. There is a potential for disturbances associated with road construction to result in the germination of exotic species in the area, however these will be managed through a Construction Environment Management Plan. Weeds are already present within the TEC patch and the proposed works are highly unlikely to substantially increase the occurrence of exotic species within the retained vegetation.

- causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the ecological community which kill or inhibit the growth of species in the ecological community, or

This will not occur as a result of the proposed works.

- interfere with the recovery of an ecological community

The proposed works will remove a small area of EPBC Act listed Cumberland Plain Woodland in poor condition and the associated low quality habitat present along a road verge. It is not considered likely that these impacts would interfere with the recovery of the ecological community.

Appendix D – BC Act ToS assessments

The following section provides for *Test for determining whether proposed development or activity likely to significantly affect threatened species or ecological communities, or their habitats* under Part 7 Biodiversity assessment and approvals under Planning Act of the NSW BC Act.

Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions

Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions (Swamp Oak Floodplain Forest) is an Endangered Ecological Community (EEC) dominated by Swamp Oak *Casuarina glauca* and/or Swamp Paperbark *Melaleuca ericifolia* and found in close proximity to rivers and estuaries. Generally it is associated with humic clay and sandy loam soils on waterlogged or periodically flooded areas with saline influence (OEH 2007). The NSW Scientific Committees final determination of Swamp Oak Floodplain Forest does not delineate between higher and lower quality remnants of this community. Where this community has been reduced to scattered trees due to partial clearing, the disturbed or degraded community is still considered part of the EEC (OEH 2007).
The Project has the potential to result in the clearing of approximately 0.22 hectares of Swamp Oak Floodplain Forest EEC.

In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.

N/A

In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

- ***I. is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or***
- ***II. is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.***

The local occurrence of Swamp Oak Floodplain Forest is defined as the patch of the community that occurs within the study area and extends into adjacent areas in a contiguous manner without major breaks in connectivity. In the case of the current assessment that is considered to be the vegetation extending along Elizabeth Macarthur Creek, to the north and south of Memorial Avenue, with a total area of approximately 0.78 hectares.

Removal of 0.22 hectares of the patch is not considered likely to have an adverse effect t on the extent of the local occurrence of the TEC, such that it's local occurrence is placed at risk of extinction, as approximately 0.51 hectares of the TEC will not be removed.
As the local occurrence of the TEC is present in Low condition, the proposed impacts are unlikely to substantially and adversely modify the composition of the ecological community, as the species to be removed are present at similar cover and abundance throughout both the area to be removed and retained.

In relation to the habitat of a threatened species or ecological community:

- ***I. the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and***
- ***II. whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and***
- ***III. the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality.***

Up to 0.22 hectares of Swamp Oak Floodplain Forest habitat may be permanently removed as a result of the proposed works. This habitat removal will result in minor disruptions to connectivity of the vegetation and minor fragmentation of habitats.

Although it is likely that all 0.22 hectares of this habitat will be removed, the patch of vegetation to be impacted is contiguous with Swamp Oak Floodplain Forest that follows the riparian corridor to the north and south of the study area. The proposed works will not impact upon approximately 0.51 hectares of habitat, or result in this habitat type becoming isolated and will only cause minor fragmentation.

The vegetation to be removed is poor condition Swamp Oak Floodplain Forest, due to the lack of a native species in the midstorey and groundlayer. The mature trees to be removed are unlikely to significantly increase edge effects to this patch and fauna which utilise this habitat are currently persisting in a highly modified landscape, therefore the removal of a strip of mature native trees is unlikely to reduce the long-term survival of species in the locality.
The impacts on habitat will not be of a magnitude likely to effect the long-term survival of the community in the locality.

Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly).

The proposed works will not impact on an area declared as of outstanding biodiversity value (either directly or indirectly).

Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.

The proposed works have the potential to result in the following key threatening processes which are listed under the Schedule 4 of the BC Act and which are considered relevant to Swamp Oak Floodplain Forest:

- Clearing of native vegetation.

However the degree to which the above key threatened process will be enacted as a result of the proposed works is minor and not considered likely to result in a significant impact to this community.

Conclusion

The proposed works are unlikely to significantly impact Swamp Oak Floodplain Forest for the following reasons:

- The proposed works are localised and small-scale, and the study area has already been exposed to a number of disturbances which are unlikely to be further exacerbated by the proposed works.
- The proposed works is unlikely to significantly alter floristic or structural diversity of the retained portions of the TEC.
- The localised nature of the proposed works will not significantly trigger or exacerbate any key threatening processes.

Therefore further assessment in the form of a Biodiversity Development Assessment Report or a Species Impact Statement is not required.

River-flat Eucalypt Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions

River-flat Eucalypt Forest on Costal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions (River-flat Eucalypt Forest) is listed as an Endangered Ecological Community under Schedule 2 of the NSW BC Act. River-flat Eucalypt Forest is found on river flats of coastal floodplains across eastern NSW and is characterised by tall open canopies of Eucalypts, typically occurring as part of a mosaic with other floodplain forest communities. The composition of the tree stratum varies considerably across the range of the community however the most widespread and abundant dominant trees include Forest Red Gum, Cabbage Gum, Rough-barked Apple *Angophora floribunda* and Broad-leaved Apple *Angophora subvelutina*, Blue Box *Eucalyptus baueriana*, Bangalay *Eucalyptus botryoides*, River Peppermint *Eucalyptus elata*, Swamp Gum *Eucalyptus ovata*, Sydney Blue Gum *Eucalyptus saligna*, and Flooded Gum *Eucalyptus grandis* (OEH 2018).

The Project has the potential to result in the clearing of approximately 0.54 hectares of River-flat Eucalypt Forest EEC.

In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.

N/A

In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

- ***I. is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or***
- ***II. is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.***

The local occurrence of River-flat Eucalypt Forest is defined as the patch of the community that occurs within the study area and extends into adjacent areas in a contiguous manner without major breaks in connectivity. In the case of the current assessment that is considered to be the vegetation extending along Strangers Creek, to the north and south of Memorial Avenue, as well as a small stand of remnant trees west of Strangers Creek, with a total area of approximately 6.35 hectares.
Removal of 0.54 hectares of River-flat Eucalypt Forest vegetation disturbed by edge effects will not result in impacts likely to substantially effect the extent or composition of the community such that its local occurrence is placed at risk of extinction.

In relation to the habitat of a threatened species or ecological community:

- ***I. the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and***
- ***II. whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and***
- ***III. the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality.***

Up to 0.54 hectares of River-flat Eucalypt Forest habitat may be permanently removed as a result of the proposed works. This is a small portion of the approximately 6.35 hectare patch representing the local occurrence of the TEC. This habitat removal will result in minor disruptions to connectivity of the vegetation and minor fragmentation of habitats.

Although it is likely that 0.54 hectares of this habitat will be removed, both larger patches of River flat-Eucalypt Forest are contiguous with riparian vegetation of the same vegetation community that

extends outside of the proposed works, meaning that mobile fauna will still be able to utilise River-flat Eucalypt Forest habitat in the area. The smaller stand of River-flat Eucalypt Forest which is to be cleared is already isolated from any surrounding vegetation, and therefore the removal of these trees is unlikely to significantly disrupt faunal movement along the road boundary. Additionally, due to the highly modified and fragmented landscape within which the proposed works will occur, flora and fauna that are currently persisting in the area are likely to be somewhat resilient to the pressures of fragmentation and are unlikely to be significantly impacted by the extent of clearing required for the proposed works.
The impacts on habitat will not be of a magnitude likely to effect the long-term survival of the community in the locality.

Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly).

The proposed works will not impact on an area declared as of outstanding biodiversity value (either directly or indirectly).

Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.

The proposed works have the potential to result in the following key threatening processes which are listed under the Schedule 4 of the BC Act and which are considered relevant to River-flat Eucalypt Forest:

- Clearing of native vegetation.

However the degree to which the above key threatened process will be enacted as a result of the proposed works is minor and not considered likely to result in a significant impact to this community.

Conclusion

The proposed works are unlikely to significantly impact River-flat Eucalypt Forest for the following reasons:

- The proposed works are localised and the study area has already been exposed to a number of disturbances which are unlikely to be further exacerbated by the proposed works.
- The proposed works is unlikely to significantly alter floristic or structural diversity of the retained patches of the TEC.
- The localised nature of the proposed works will not significantly trigger or exacerbate any key threatening processes.

Therefore further assessment in the form of a Biodiversity Development Assessment Report or a Species Impact Statement is not required.

Cumberland Plain Woodland in the Sydney Basin Bioregion

Cumberland Plain Woodland in the Sydney Basin Bioregion (Cumberland Plain Woodland) is listed as a Critically Endangered Ecological Community under Schedule 2 of the NSW BC Act. Cumberland Plain Woodland is found on coastal plain grassy eucalypt woodlands that are endemic to the shale hills and plains of the Sydney Basin Bioregion in NSW. Cumberland Plain Woodland ranges from grassy woodland to forest, with the understorey varying from predominantly grassy to predominantly shrubby. The composition of the tree stratum varies considerably across the range of the community however the most widespread and abundant dominant trees include Coastal Grey Box *Eucalyptus moluccana*, Forest Red Gum and/or Red Ironbark *Eucalyptus fibrosa.* Other species may be locally dominant or may occur in association with the typical dominant species at some sites depending on the extent of shale influence and other factors. (OEH 2018).

The Project has the potential to result in the clearing of approximately 0.20 hectares of Cumberland Plain Woodland CEEC.

In the case of a threatened species, whether the proposed development or activity is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.

N/A

In the case of an endangered ecological community or critically endangered ecological community, whether the proposed development or activity:

- ***I. is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or***
- ***II. is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.***

The local occurrence of Cumberland Plain Woodland is defined as the patch of the community that occurs within the study area and extends into adjacent areas in a contiguous manner without major breaks in connectivity. In the case of the current assessment that is considered to be the vegetation present within the road verge adjacent near Rutherford Avenue, the isolated patch in the eastern ancillary area, the two patches within the environmental protection zone in the western ancillary area, the contagious vegetation to the south of the western ancillary area. In total the area of the local occurrence of Cumberland Plain Woodland is 0.79 hectares.

Removal of 0.20 hectares of disturbed and isolated Cumberland Plain Woodland from a total patch of 0.79 hectares will not result in adverse effects to the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

The proposed removal will impacts upon Forest Red Gum trees over an exotic dominated understory. Forest Red Gum is a very common tree ion Cumberland Plain Woodland and it is highly likely to be present in the retained patches of the TEC in the western ancillary area. as such it is not considered likely that the proposed works will substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

In relation to the habitat of a threatened species or ecological community:

- ***I. the extent to which habitat is likely to be removed or modified as a result of the proposed development or activity, and***
- ***II. whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed development or activity, and***
- ***III. the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species or ecological community in the locality.***

Up to 0.20 hectares of Cumberland Plain Woodland habitat will be permanently removed as a result of the proposed works, approximately 0.77 hectares of habitat supporting the local of the TEC will be retained. This level of habitat removal will result in minor disruptions to connectivity of the vegetation and minor fragmentation of habitats.

Although it is likely that all 0.20 hectares of this habitat will be removed, the largest patch of Cumberland Plain Woodland will be retained, meaning that mobile fauna will still be able to utilise Cumberland Plain Woodland habitat in the area. The smaller stands of Cumberland Plain Woodland to be cleared are already isolated from any surrounding vegetation, and therefore the removal of these trees is unlikely to significantly disrupt faunal movement along the road boundary.

Additionally, due to the highly modified and fragmented landscape within which the proposed works will occur, flora and fauna that are currently persisting in the area are likely to be somewhat resilient to the pressures of fragmentation and are unlikely to be significantly impacted by the extent of clearing required for the proposed works.

The impacts on habitat will not be of a magnitude likely to effect the long-term survival of the community in the locality.

Whether the proposed development or activity is likely to have an adverse effect on any declared area of outstanding biodiversity value (either directly or indirectly).

The proposed works will not impact on an area declared as of outstanding biodiversity value (either directly or indirectly).

Whether the proposed development or activity is or is part of a key threatening process or is likely to increase the impact of a key threatening process.

The proposed works have the potential to result in the following key threatening processes which are listed under the Schedule 4 of the BC Act and which are considered relevant to Cumberland Plain Woodland:

- Clearing of native vegetation.

However the degree to which the above key threatened process will be enacted as a result of the proposed works is minor and not considered likely to result in a significant impact to this community.

Conclusion

The proposed works are unlikely to significantly impact Cumberland Plain Woodland for the following reasons:

- The proposed works are localised and the study area has already been exposed to a number of disturbances which are unlikely to be further exacerbated by the proposed works.
- The proposed works will not impact upon the largest and highest quality patch of the TEC within the study area.
- The proposed works is unlikely to significantly alter floristic or structural diversity of the local occurrence of the TEC.
- The localised nature of the proposed works will not significantly trigger or exacerbate any key threatening processes.

Therefore further assessment in the form of a Biodiversity Development Assessment Report or a Species Impact Statement is not required.

About this release

Reference number	
Title	Biodiversity Impact Assessment template
Parent procedure	EIA-N06

Approval and authorisation	
Prepared by	Environment Officer Senior Environmental Specialist (Biodiversity)
Approved by	General Manager Environment

Objective location
n/a

Document status	**Date**
1.1	September 2017

Version	**Date**	**Revision description**
1.0	04/12/15	First issue
1.1	17/10/16	Updated based on consultation outcomes and feedback

Your comments and suggestions to improve this or any of the EIA guidelines may be sent to:

Senior Environmental Specialist (Biodiversity)
Customer, Engagement and Planning Division
Roads and Maritime Services
Level 3, 27 Argyle Street
Parramatta, NSW 2150
Ph: 8843 3052

Delete this page from the REF.

rms.nsw.gov.au

contactus@rms.nsw.gov.au

Customer feedback
Roads and Maritime
Locked Bag 928,
North Sydney NSW 2059

Transport
Roads & Maritime
Services

Appendix G

Kellyville Park In-principle Lease Agreement

Appendix H

Early Works Electrical Drawings by Ausconnex

SITE PLAN LEGEND 1:1000

- EXISTING PADMOUNT SUBSTATION
- NEW PADMOUNT SUBSTATION
- REPLACE LV PILLAR
- EXISTING & NEW LV PILLAR
- REMOVE LV PILLAR
- EXISTING & NEW SL COLUMN
- SL COLUMN TO BE REMOVED
- EXISTING UNDERGROUND CABLE
- EXISTING OVERHEAD MAINS
- EXISTING 33kV OVERHEAD MAINS
- NEW OVERHEAD MAINS
- REMOVE OVERHEAD MAINS
- REMOVE UNDERGROUND MAINS
- EXISTING DUCT LOCATION
- ROAD CROSSING DUCT (BY RMS)
- TR/HV TRENCH
- LV/SL TRENCH
- EXISTING & NEW POLE
- POLE TO BE REPLACED
- POLE TO BE REMOVED
- AERIAL STAY
- POLE-MOUNTED SUBSTATION
- AIR BREAK SWITCH(N/O)
- HV LOAD BREAK SWITCH (N/O,N/C)
- EXISTING LANTERN
- LANTERN TO BE REMOVED
- LANTERN TO BE REPLACED
- NEW STREET LIGHT-SINGLE LANTERN
- NEW STREET LIGHT-DOUBLE LANTERN

STREET LIGHTING COLUMNS
All S.L. Columns (Center of footing) to be located by using X, Y coordinates as shown on Lighting Equipment and Billing Schedule (Sheet 20, 21 & 22)

DESIGN COMPLIANCE AND INDEMNITY

This design complies with Endeavour Energy's relevant standards as current at this time and as listed on the Endeavour Energy Accredited Service Provider's Internet site. These standards include, but are not limited to

GT&C	General Terms and Conditions
EMS	Environmental Management Standard
MCI	Mains Construction Instruction
MDI	Mains Design Instruction
PDI	Protection Design Instruction
SDI	Substation Design Instruction
SAD 0001	Design Drawing Standard
MMI	Mains Maintenance Instruction
SMI	Substation Maintenance Instruction
LDI 0001	Public lighting Electrical Design Element

Additionally, where relevant, the design complies with AS/NZS 7000 "Overhead Line Design - Detailed Procedures" published by The Australian Standards

ENDEAVOUR ENERGY indemnifies Endeavour Energy for any loss or damage resulting from non-compliance of the design with the above standards

Signed: _____
Name: MIRIAM CHAVEZ
Service Provider Number: 1148 Date: 09.03.2017

SUPPLY INTERRUPTION NOTIFICATION
AFFECTED RESIDENCES AND BUSINESSES SHALL BE NOTIFIED SEVEN (7) DAYS PRIOR TO THE DISRUPTION. THIS NOTIFICATION SHALL INCLUDE AN EXAMINATION OF THE LOCATION OF ANY LIFE SUPPORT SYSTEMS THAT MAY BE AFFECTED AS A RESULT OF THE DISRUPTION.

WARNING
LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA. PLEASE CONTACT DIAL BEFORE YOU DIG ON TEL: 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.

NON-DESTRUCTIVE BORING FOR NEW COLUMNS
NON-DESTRUCTIVE BORING METHOD SHALL BE USED TO INSTALL NEW COLUMNS WHERE OTHER UNDERGROUND SERVICES EXISTS

THIS PROJECT, ARP3265 - MEMORIAL AVENUE, KELLYVILLE (DISTRIBUTION) WILL BE CARRIED OUT IN CONJUNCTION WITH ARP3292 - MEMORIAL AVENUE, KELLYVILLE (TRANSMISSION). REFER TO DRAWING 501889.

CERTIFIED BY ENDEAVOUR ENERGY
Amendment: A
Date Approved: 2/05/2017
Examiner's Signature: Waheed
Print Name: WAHEED EBRAHIMI
This Certification is issued subject to Endeavour Energy's Standard Certification Terms.

L41, L43, L44, L45, L46, L47, L48, L49, L50, L51 & L52 LIGHT COLUMNS TO BE INSTALLED ON NON- STANDARD FOUNDATION (CUSTOM BUILT WITHIN STRUCTURES). REFER TO STRUCTURAL DRG ST-0097 & ST-0098

CONDUITS UNDER CULVERTS W3 - Y3
UNDERBORE IS AN OPTION THAT SHOULD BE CONSIDERED IF IT IS SAFER AND COST EFFECTIVE

ROAD LEGEND
PROPOSED (TOP OF THE KERB)
PROPOSED PROPERTY BOUNDARY

POLES 12 & 14 (TR STAY POLES) WILL BE REMOVED UNDER ARP3292

-NEW LV CABLE TO BE INSTALLED BETWEEN PILLARS 143803 & 178676.
-USE EXISTING CONDUITS
-REMOVE/ABANDON EXISTING CABLE
-NEW LV PILLAR 148676 TO SUPPLY RMS CONTROLLER

INSTALL L35 COLUMN 3m FROM KERB AND 2m AWAY FROM WATER MAINS. ALLOW FOR NON-DESTRUCTIVE BORING

EXISTING OVERHEAD 33KV MAINS WILL BE RELOCATED UNDER PROJECT ARP3292

REMOVE SERVICE POLE 74 AND INSTALL CONDUITS

FIND EX. SERVICE MAINS & JOIN WITH NEW SERVICE MAINS

REMOVE ABS 19592

SWB ON THE WALL

INSTALL SLCP 1640 IN PILLAR 143802

NEW SL CABLE WITHIN NEW CONDUITS

REPLACE EX PILLAR 103690 WITH NEW PILLAR 143803

EXISTING SPARE CONDUITS FROM K1 - Z1 TO BE USED. REFER TO CONDUIT BREAKDOWN

INSTALL L2 COLUMN 3m FROM KERB & 2.2m AWAY FROM HG PIPES. ALLOW FOR NON-DESTRUCTIVE BORING

EXISTING 33KV CABLE TO REMAIN

INSTALL SLCP 1599 IN PILLAR 143797

9640 PARKLEA ZONE SUBSTATION SLCP 1599

CUT SL CABLE (from Column 238048 to column 238050) AND EXTEND IT TO CONNECT TO SLCP 1599 AT PILLAR 143797

WARNING EXISTING 22kV CABLES IN THIS AREA

LOCATE EX. ROAD CROSSING 25mm2 4c CU LV CABLE (from pillar 61531 to SL column 238048), CUT & EXTEND AS REQUIRED TO CONNECT TO NEW PILLAR 143797

INSTALL SLCP 1630 IN PM SUB 35145

LOCATE EXISTING LV CABLE & TURN UP INTO NEW PILLAR

REMOVE SLCP 8330 & SL COLUMN 775582

AT K LOCATE EXISTING HV CABLE AND JOIN WITH NEW HV CABLE FROM PM SUB 35145

EXISTING EE ROAD CROSSING CONDUITS

EXISTING EE HV CABLES (4 FEEDERS)

EXISTING SPARE CONDUITS FROM Ta - E1 TO BE USED REFER TO CONDUIT TABLE

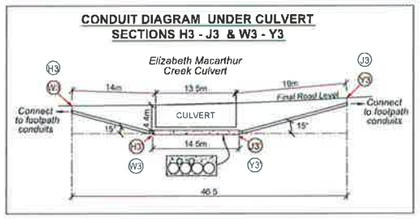
ESTABLISH NEW PM SUB 35145

TRANSFORMER	315kVA/22kV
HV SWITCHGEAR:	SIEMENS 8DJH - RTRR
LV SWITCHGEAR:	CAT 1 - 4FEEDERS (FFIFF)
EARTHING:	COMMON EARTHING
SUBSTATION CUBICLE:	FIBERGLASS SIZE 14

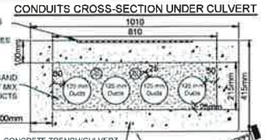
AUTHORISATION OF ESTIMATE VALUE OF ENDEAVOUR ENERGY FUNDED ASSETS FOR ARP3265

Signed: _____
Print Name: A. KAVALIAUSKAS
Service Number: 23469
Funding Amount: $ 152,344
Date: 21.ST.2017

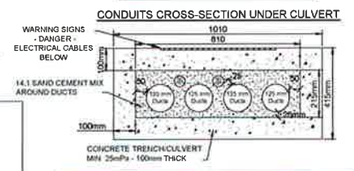
CONDUIT DIAGRAM UNDER CULVERT SECTIONS H3 - J3 & W3 - Y3



CONDUITS CROSS-SECTION UNDER CULVERT

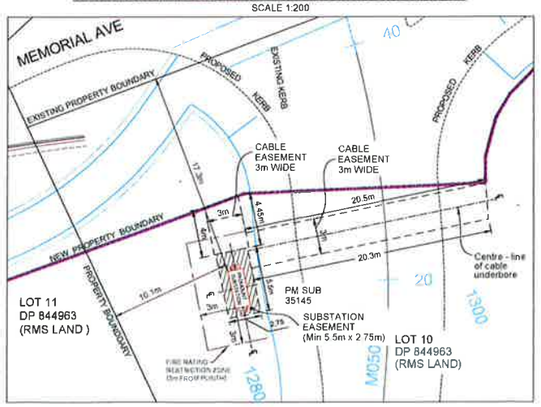


CONDUITS CROSS-SECTION UNDER CULVERT



CONDUITS UNDER CULVERTS H3 - J3
UNDERBORE IS AN OPTION THAT SHOULD BE CONSIDERED IF IT IS SAFER AND COST EFFECTIVE

NEW PM SUB 35145 EASEMENT & RESTRICTION ZONE DIAGRAM
SCALE 1:200



SITE PLAN
1:1000 - A1

CONDUIT DIAGRAM UNDER CULVERT SECTIONS H3 - J3 & W3 - Y3

APPROVAL TO CONNECT TO PUBLIC LIGHTING
Date Approved 17/01/2017
Reviewers Name David Castro
Reviewers Signature: _____
This approval is issued subject Endeavour Energy's General Terms & Conditions for connection of Public Lighting and is specifically for Drawing number 408867 amendment A Project Cap No ARP3265

NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT ENDEAVOUR ENERGY NETWORK STANDARDS AND CONNECTION POLICY.
2. ENDEAVOUR ENERGY CONTACT PHONE: 131081.
3. DESIGN CERTIFICATION SHALL LAPSE WHERE:
   (i) NOTICE OF INTENT HAS NOT BEEN RECEIVED WITHIN SIX (6) MONTHS OF THIS CERTIFICATION, OR
   (ii) CONSTRUCTION HAS BEEN INTERRUPTED FOR MORE THAN SIX MONTHS.
   WHERE DESIGN CERTIFICATION HAS LAPSED THE DESIGN MUST BE RESUBMITTED FOR CERTIFICATION BY THE ACCREDITED DESIGNER.
4. ATTENTION:
   PERMANENT SURVEY MARKS MAY EXIST IN THIS AREA. THESE ARE TO BE LOCATED BY A SURVEYOR PRIOR TO COMMENCEMENT OF WORK.
5. ATTENTION:
   ALL SERVICES SEARCHES MUST BE CHECKED BEFORE CONSTRUCTION.
6. WARNING:
   LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA. PLEASE CONTACT DIAL BEFORE YOU DIG ON TELEPHONE: 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.
7. ATTENTION:
   SERVICE PROVIDER TO NOTIFY ENDEAVOUR ENERGY'S ASSET DATA CUSTOMER DEPT DAILY WHEN CABLE WORKS IS IN PROGRESS. TELEPHONE 131081
8. OPERATIONAL LIMITS:
   UNLESS APPROVED OTHERWISE, INTERRUPTION TO ANY CUSTOMER'S SUPPLY MUST BE AVOIDED. THE FOLLOWING ALTERNATIVES SHOULD BE CONSIDERED:
   -MOBILE GENERATORS AND SUBSTATIONS
   -LIVE LINE WORK
   -DESIGN ALTERNATIVES
   -LOW VOLTAGE PARALLELS
   -WORK PRACTICES/STANDARDS.
9. AN EASEMENT FOR PADMOUNT SUBSTATION MINIMUM 6m x 2.75m IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN **LOT 10 - DP 844963.**
10. TWO EASEMENTS FOR UNDERGROUND CABLES (MINIMUM 3m WIDE) ARE TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN **LOT 10 - DP 844963.**
11. A RESTRICTION ON THE USE OF LAND IN RELATION TO THE FIRE RATING OF BUILDINGS, MEASURE 3 METRES FROM THE SUBSTATION PLINTH IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN EXISTING/PROPOSED **LOT 10 - DP 844963.**
12. REIMBURSEMENTS WILL BE PAID TO THE NOMINATED PARTY ON THE LETTER OF INTENT AFTER THE WORKS HAVE BEEN COMPETED AND THE LETTER OF ACCEPTANCE HAS BEEN ISSUED. THE REIMBURSED AMOUNT IS SHOWN IN THE FUNDING ARRANGEMENTS FOR SCOPE OF WORK. ANY DISAGREEMENT WITH THE AMOUNT SHOULD BE RESOLVED WITH ENDEAVOUR ENERGY PRIOR TO THE COMMENCEMENT OF WORKS.
13. AN EARTH CONNECTION WARNING LABEL MUST BE INSTALLED WHERE EARTH CONDUCTOR OR AN EXTENDED EARTH GRID IS TO BE CONNECTED TO LV STREET NEUTRAL TO ACHIEVE AN MEN SYSTEM AS PER SDI 100. REFER TO DRAWING No.010646.
14. HAVE ALL THE EXISTING ASSETS BEEN FIELD CHECKED AND ARE ACCURATE AT THE TIME OF DESIGN? YES
15. ENVIRONMENTAL MANAGEMENT PLAN: EMP YES IS PART OF THIS DESIGN.

WORKS COMPLETED/FIELD BOOK

CONSTRUCTED BY: _____
WORKS COMPLETED: _____
SIGNATURE: _____ DATE: _____
INSPECTED BY: _____
SIGNATURE: _____ DATE: _____

ASSET RECORDING

I: _____
OF: _____
CONTACT No: _____

HEREBY CERTIFY THAT ASSETS MARKED AS-BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOUR ENERGY STANDARD SAD 0004

SIGNATURE: _____
DATE: _____

KEY DOCUMENTS TABLE

THE CERTIFICATION OF THIS PROJECT IS SUPPORTED BY THE FOLLOWING KEY DOCUMENTS

DOCUMENT NAME	NOTATION DATE
ENVIRONMENTAL IMPACT ASSESSMENT (EIA) - FAT0038 part of EM50003	07.10.2016
AGREEMENT FOR ENTRY, GRANT and CREATION OF EASEMENT - FPJ4013	19.01.2017
EQUIPMENT TO BE RETURNED TO ENDEAVOUR ENERGY - FPJ4252	14.12.2016
EQUIPMENT TO BE RETURNED TO ENDEAVOUR ENERGY - FPJ4253	14.12.2016
TELECOMMUNICATION ASSET AGREEMENT - FPJ4184	14.12.2016
PROJECT DEFINITION	N/A
LIST ANY KEY DOCUMENTS SUPPORTING THE CERTIFICATION:	
1) LIGHTING DESIGN CERTIFICATION	28.12.2016
2) STRUCTURAL DETAILS DRG BECA-DS2016/000903	07.10.2016

COMMUNICATION ASSETS ALTERATION/RELOCATION

Telecommunication Assets are / are not affected by this project.
The construction ASP must coordinate the work with the following Telecommunication Companies:

Comms Co.	Contact Name	Phone No.	Initial Contact Date	Arrangement Details and Date Agreed
OPTUS	WILLIAM CLARKE	0434 782 864	10/10/2016	3/11/2016

Technical details of the arrangements are available from the Design ASP.

FUNDING ARRANGEMENTS FOR SCOPE OF WORKS

ASP LEVEL 1 ELECTRICAL WORKS		CUSTOMER
ENDEAVOUR ENERGY SUPPLIED MATERIALS	CUSTOMER FUNDED NON-CONTESTABLE WORKS	CUSTOMER FUNDED
NIL	Zone Substation -First feeder & joint out of a Zone Substation: (Refer to the Information Discloser for Endeavour Energy's Excluded Distribution Services found on Endeavour Energy website for the latest costs) - Zone Substation access and supervision for installation of cable(s) for one feeder - Protection Settings - Relocation & Installation of Pilot Cable Inspection and Access Authority - System switching - Provision of Access Authority (As per Fee sent by EE's CWA's)	Includes but not limited to - Pegging of easements, property boundaries & infrastructure locations - Registering of easements - Providing site access - Own service & service connection - Confirm finished ground levels
ENDEAVOUR ENERGY FUNDED & CONSTRUCTED		EXISTING DUCT USAGE CHARGES (exc GST)
Works Required Prior to Completion of Customer Contestable Project: NIL	Works Required in Association of Customer Contestable Project: NIL	EXISTING_DUCT_USAGE_CHARGES (based on current reimbursement rates) Developer to reimburse Endeavour Energy: 220 5m of 125mm duct @ $23/m = $5,071 5 61 9m of 50mm duct @ $6/m = $3,714 0 (Based on the current reimbursement rates) Total reimbursement = $ 8,785 5
	CUSTOMER FUNDED CONTESTABLE WORKS	CO-ORDINATION SUPPLY REQUIRED DATE
ENDEAVOUR ENERGY FUNDED & ASP L1 CONSTRUCTED - REIMBURSEMENT (exc GST)	All other works and materials including but not limited to - Installation & establishment of PM Substation - Padmount 11kV substation cable termination - Transformers - Switchgears - Testing cable prior to commissioning - Pole top 11kV termination (UGOH) and bonding to OH - 11kV straight through joint - Trenching - Underbores - Duct installation - Cable laying and/or installations - Jointing - Overhead installation	(TO BE CONFIRMED BY THE CUSTOMER) DAY 15 MONTH 08 YEAR: 2017
Endeavour Energy to reimburse Developer: 6,374m of 125mm duct @ $23/m = $146,602 0 957m of 50mm duct @ $6/m = $5,742 0 (Based on the current reimbursement rates) Total reimbursement = $ 152,344 00		ASSET TO BE RETURNED TO NEAREST ENDEAVOUR ENERGY DEPOT BY LI ASP - ABS A2050, ABS 19592, ABS 95088, ABS 221, LBS 806991, ABS 65443 & ABS 1702 - USL 4210, USL 5401, USL D993 & USL 358 - Pole Sub 13670, Pole Sub 2828 & Pole Sub 8124 - SLCP 8330, SLCP 8666, SLCP 9867, SLCP 2394 & 66 Street Lights - 59 x timber poles - 10011m HV bare mains & 4852m LV bare mains (Assets to be returned to Endeavour Energy complete with "Equipment to be returned to Endeavour Energy" forms FPJ4252 and FPJ4253)

AMENDMENTS: A ORIGINAL ISSUE — DRAFT No 01

Endeavour Energy
ABN 59253130876
51 Huntingwood Drive, Huntingwood NSW 2148
PO Box 811, Seven Hills - NSW
T: 131 081 F: (02) 9853 6000

TEMPLATE VERSION No 3.5

REFERENCE DRAWING'S		
ST -0097 & 0098	BECA - DS2016/000903	
	STRUCTURAL DETAILS	

WORK ORDERS	
GENERAL	
OVERHEAD	
UNDERGROUND	
SUBSTATIONS	

CAP / SAMP No.	ARP3265	ORIGINAL SCALE	1:1000
AM PROJ. No.	ARNP0002		
HV SWITCHING	PARKLEA 4	DRAWN	MC
UBD/PENGUIN REF	149 H9-J9	DATE	08.12.2016
GIS MAP No	U916021	CHD	JP
HV OP DIAGRAM	PARKLEA 4	DESIGN	MC
LOCAL GOV AREA	THE HILLS SHIRE C		

DO NOT SCALE DIMENSIONS IN METRES

MEMORIAL AVENUE
KELLYVILLE
ARP3265
ASSET RELOCATION
SITE PLAN 1

Endeavour Energy
A1 | 408867 | A
SHEET No 1 OF 22 SHEETS

45771

SITE PLAN LEGEND 1:1000

- EXISTING PADMOUNT SUBSTATION
- NEW PADMOUNT SUBSTATION
- EXISTING & NEW LV PILLAR
- REMOVE LV PILLAR
- EXISTING & NEW SL COLUMN
- SL COLUMN TO BE REMOVED
- EXISTING UNDERGROUND CABLE
- EXISTING OVERHEAD MAINS
- NEW OVERHEAD MAINS
- REMOVE OVERHEAD MAINS
- EXISTING DUCT LOCATION
- ROAD CROSSING DUCT (BY RMS)
- TR/HV TRENCH
- LV/SL TRENCH
- EXISTING & NEW POLE
- POLE TO BE REPLACED
- POLE TO BE REMOVED
- AERIAL STAY
- POLE-MOUNTED SUBSTATION
- AIR BREAK SWITCH(N/C/N.O)
- HV LOAD BREAK SWITCH (N/O,N/C)
- EXISTING LANTERN
- LANTERN TO BE REMOVED
- LANTERN TO BE REPLACED
- NEW STREET LIGHT - SINGLE LANTERN
- NEW STREET LIGHT - DOUBLE LANTERN

N

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This design complies with Endeavour Energy's relevant standards as current at this time and as listed on the Endeavour Energy Accredited Service Provider's internet site. These standards include, but are not limited to

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ENDEAVOUR ENERGY indemnifies Endeavour Energy for any loss or damage resulting from non-compliance of the design with the above standards

Signed

Name MIRIAM CHAVEZ

Service Provider Number 1149 Date 09.03.2017

WARNING

LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA. PLEASE CONTACT DIAL BEFORE YOU DIG ON TEL: 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.

ROAD LEGEND

---------- PROPOSED (TOP OF THE KERB)
———— PROPOSED PROPERTY BOUNDARY

NON DESTRUCTIVE BORING FOR NEW LIGHT COLUMNS

NON-DESTRUCTIVE BORING METHOD SHALL BE USED TO INSTALL NEW COLUMNS WHERE OTHER UNDERGROUND SERVICES EXISTS

SUPPLY INTERRUPTION NOTIFICATION

AFFECTED RESIDENCES AND BUSINESSES SHALL BE NOTIFIED SEVEN (7) DAYS PRIOR TO THE DISRUPTION. THIS NOTIFICATION SHALL INCLUDE AN EXAMINATION OF THE LOCATION OF ANY LIFE SUPPORT SYSTEMS THAT MAY BE AFFECTED AS A RESULT OF THE DISRUPTION.

APPROVAL TO CONNECT TO PUBLIC LIGHTING

Date Approved 17/01/2017
Reviewers Name David Castro
Reviewers Signature

This approval is issued subject Endeavour Energy's General Terms & Conditions for connection of Public Lighting and is specifically for Drawing number 408867 amendment A Project Cap No ARP3265

CERTIFIED BY ENDEAVOUR ENERGY

Amendment: A
Date Approved: 2/05/2017
Examiner's Signature:
Print Name: WAHEED EBRAHIMI
This Certification is issued subject to Endeavour Energy's Standard Certification Terms

L69, L71, L73 & L75 LIGHT COLUMNS TO BE INSTALLED ON NON- STANDARD FOUNDATION (CUSTOM BUILT WITHIN STRUCTURES). REFER TO STRUCTURAL DRG ST-0097 & ST-0098

STREET LIGHTING COLUMN
All S.L. Columns (Center of footing) to be located by using X, Y coordinates as shown on Lighting Equipment and Billing Schedule (Sheet 20, 21 & 22)

LOCATE & RE-DIRECT EXISTING CONSUMER MAINS TO NEW SERVICE POLE. NEW LV SERVICE MAINS TO BE CONNECTED TO PILLAR 138276

SWB ON THE WALL

NEW STEEL SERVICE POLE

REMOVE SERVICE POLE

JOINT EXISTING HV CABLES WITH NEW HV CABLES

REMOVED SERVICES POLES D551008, D543215 & D551011

JOINT EXISTING HV CABLES WITH NEW HV CABLES

JOINT EXISTING HV CABLES WITH NEW HV CABLES

REDUNDANT POLE TO BE REMOVED

NEW STEEL SERVICE POLES TO MANTAIN LV SUPPLY

REMOVE POLE D5510126

IDENTIFY EXISTING LV CABLE THAT GOES TO PILLAR 120476. REMOVE EXISTING LV CABLE & INSTALL NEW LV CABLE

NEW PILLAR 144827 TO SUPPLY BILLBOARDS 1, 2 & BRIDGE LIGHTS

RELOCATE SL COLUMNS 863342 & 863343
REMOVE SL COLUMNS AND SL CABLE TO ALLOW ROAD CONSTRUCTION AT MEMORIAL AVE. AFTER EARTHWORKS IS COMPLETED, INSTALL NEW FOUNDATIONS/RAGBOLTS AND RE-INSTATE REMOVED COLUMNS & LIGHTS MAINTAIN MIN. 2m SETBACK FROM ROAD KERB

PROPOSED LANDSCAPE
TREES WILL REDUCE LIGHT SPILLS TO BAPTIST COMMUNITY SERVICES BUILDING

SITE PLAN

0 5 10 20 30 40 50
1:1000 - A1

NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT ENDEAVOUR ENERGY NETWORK STANDARDS AND CONNECTION POLICY.
2. ENDEAVOUR ENERGY CONTACT PHONE: 131081.
3. DESIGN CERTIFICATION SHALL LAPSE WHERE:
   (i) NOTICE OF INTENT HAS NOT BEEN RECEIVED WITHIN SIX (6) MONTHS OF THIS CERTIFICATION, OR
   (ii) CONSTRUCTION HAS BEEN INTERRUPTED FOR MORE THAN SIX MONTHS. WHERE DESIGN CERTIFICATION HAS LAPSED THE DESIGN MUST BE RESUBMITTED FOR CERTIFICATION BY THE ACCREDITED DESIGNER.
4. ATTENTION:
   PERMANENT SURVEY MARKS MAY EXIST IN THIS AREA. THESE ARE TO BE LOCATED BY A SURVEYOR PRIOR TO COMMENCEMENT OF WORK.
5. ATTENTION:
   ALL SERVICES SEARCHES MUST BE CHECKED BEFORE CONSTRUCTION.
6. WARNING:
   LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA PLEASE CONTACT DIAL BEFORE YOU DIG ON TELEPHONE: 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.
7. ATTENTION:
   SERVICE PROVIDER TO NOTIFY ENDEAVOUR ENERGY'S ASSET DATA CUSTOMER DEPT DAILY WHEN CABLE WORKS IS IN PROGRESS. TELEPHONE 131081
8. OPERATIONAL LIMITS:
   UNLESS APPROVED OTHERWISE, INTERRUPTION TO ANY CUSTOMER'S SUPPLY MUST BE AVOIDED. THE FOLLOWING ALTERNATIVES SHOULD BE CONSIDERED:
   -MOBILE GENERATORS AND SUBSTATIONS
   -LIVE LINE WORK
   -DESIGN ALTERNATIVES
   -LOW VOLTAGE PARALLELS
   -WORK PRACTICES/STANDARDS
9. REIMBURSEMENTS WILL BE PAID TO THE NOMINATED PARTY ON THE LETTER OF INTENT AFTER THE WORKS HAVE BEEN COMPETED AND THE LETTER OF ACCEPTANCE HAS BEEN ISSUED. THE REIMBURSED AMOUNT IS SHOWN IN THE FUNDING ARRANGEMENTS FOR SCOPE OF WORK. ANY DISAGREEMENT WITH THE AMOUNT SHOULD BE RESOLVED WITH ENDEAVOUR ENERGY PRIOR TO THE COMMENCEMENT OF WORKS.
10. AN EARTH CONNECTION WARNING LABEL MUST BE INSTALLED WHERE EARTH CONDUCTOR OR AN EXTENDED EARTH GRID IS TO BE CONNECTED TO LV STREET NEUTRAL TO ACHIEVE AN MEN SYSTEM AS PER SDI 100. REFER TO DRAWING No.010646.
11. HAVE ALL THE EXISTING ASSETS BEEN FIELD CHECKED AND ARE ACCURATE AT THE TIME OF DESIGN? YES
12. ENVIRONMENTAL MANAGEMENT PLAN: EMP YES IS PART OF THIS DESIGN.

EARTHING DESIGN

ARN3265	Memorial Ave, Kellyville				
Earth Required For PM SUB 35145					
Location for Fault Level Calcs and Resistance Tests	New Asset : DS35145 Memorial Ave, Kellyville				
Soil Resistance Test Results	1 m	2 m	4 m	16 m	20 m
	16.52 Ω	5.45 Ω	1.62 Ω	0.33 Ω	0.25 Ω
Average Soil Resistivity + 10%	192.70 Ω/m				
Earth System Configuration	Common				
Calculated Earthing System Resistance	11.90 Ω				
Total Fault Current seen	1.976759 kA				
Protection Device and Estimated Trip Time	EF Clearing Time 1 sec				
Allowable Step Potential (From AS/NZ7000:2010)	80 V				
Calculated Step Potential at 1m	114 V				
Allowable Touch Potential (From AS/NZ7000:2010)	180V				
Calculated Touch Potential at 1m	<114V				
EARTHING WORKS COMPLETED					
Measured Earth Grid Resistance at (insert Asset)					
Earthing Works Completed by:	Name:		Date:		
	Signed:				

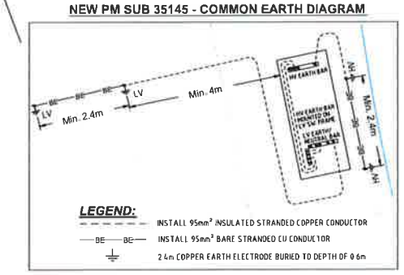
WORKS COMPLETED/FIELD BOOK

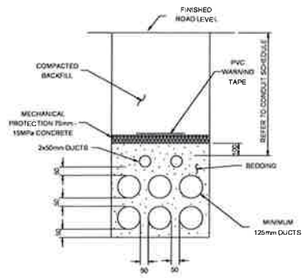
CONSTRUCTED BY
WORKS COMPLETED
SIGNATURE DATE
INSPECTED BY
SIGNATURE DATE

ASSET RECORDING

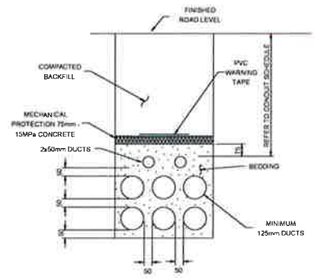
I
OF
CONTACT No
HEREBY CERTIFY THAT ASSETS MARKED AS BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOUR ENERGY STANDARD SAD 0004
SIGNATURE
DATE

NEW PM SUB 35145 - COMMON EARTH DIAGRAM

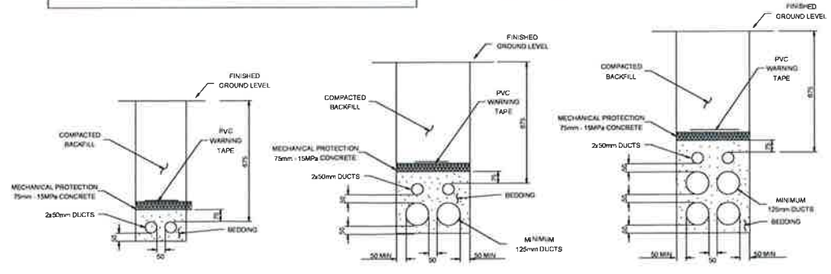




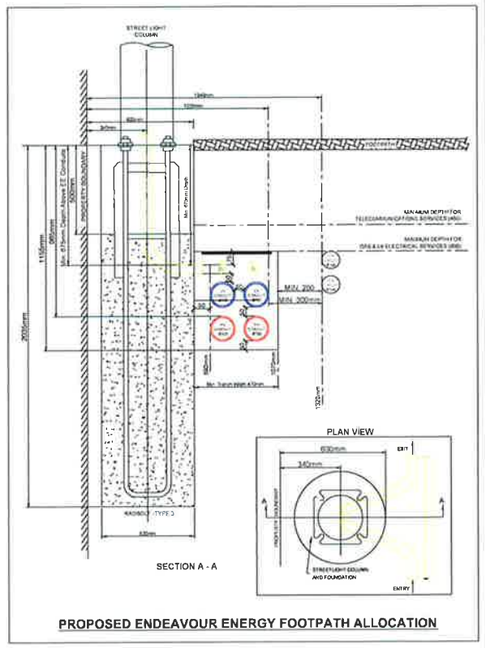
TYPICAL RMS ROAD CROSSING TRENCH CROSS SECTION



TYPICAL URD ROAD CROSSING TRENCH CROSS SECTION



TYPICAL FOOTPATH TRENCH CROSS SECTION



PROPOSED ENDEAVOUR ENERGY FOOTPATH ALLOCATION

AMENDMENTS	ISSUE	DRAFT No. 01
ORIGINAL	A	

Endeavour Energy
ABN 59253130878
51 Huntingwood Drive, Huntingwood NSW 2148
PO Box 811, Seven Hills - NSW
T: 131 081 F: (02) 9853 6000

REFERENCE DRAWING'S		WORK ORDERS		CAP / SAMP No.	ARP3265
ST -0097 & 0098	BECA - DS2016/000903	GENERAL		AM PROJ. No.	ARNP0002
	STRUCTURAL DETAILS	OVERHEAD		HV SWITCHING	PARKLEA 4
		UNDERGROUND		UBD/PENGUIN REF	149 K9 -L9
		SUBSTATIONS		GIS MAP No	U916783
				HV OP DIAGRAM	PARKLEA 4
				LOCAL GOV AREA	THE HILLS SHIRE C

ORIGINAL SCALE	1:1000	DO NOT SCALE DIMENSIONS IN METRES	
DRAWN	MC		
DATE	08.12.2016		
CHD	JP	DESIGN	MC

MEMORIAL AVENUE
KELLYVILLE
ARP3265
ASSET RELOCATION
SITE PLAN 2

Endeavour Energy

A1	408867	A

SHEET No 2 OF 22 SHEETS

45771

SITE PLAN LEGEND 1:1000

- EXISTING PADMOUNT SUBSTATION
- NEW PADMOUNT SUBSTATION
- EXISTING & NEW LV PILLAR
- REMOVE LV PILLAR
- EXISTING & NEW SL COLUMN
- SL COLUMN TO BE REMOVED
- EXISTING UNDERGROUND CABLE
- EXISTING OVERHEAD MAINS
- NEW OVERHEAD MAINS
- REMOVE OVERHEAD MAINS
- EXISTING DUCT LOCATION
- ROAD CROSSING DUCT (BY RMS)
- TR/HV TRENCH
- LV/SL TRENCH
- EXISTING & NEW POLE
- POLE TO BE REPLACED
- POLE TO BE REMOVED
- AERIAL STAY
- POLE-MOUNTED SUBSTATION
- AIR BREAK SWITCH(N/C/N/O)
- HV LOAD BREAK SWITCH (N/O,N/C)
- EXISTING LANTERN
- LANTERN TO BE REMOVED
- LANTERN TO BE REPLACED
- NEW STREET LIGHT - SINGLE LANTERN
- NEW STREET LIGHT - DOUBLE LANTERN

N

DESIGN COMPLIANCE AND INDEMNITY

This design complies with Endeavour Energy's relevant standards as current at this time and as listed on the Endeavour Energy Accredited Service Provider's Internet site. These standards include, but are not limited to

GT&C	General Terms and Conditions
EMS	Environmental Management Standard
MCI	Mains Construction Instruction
MDI	Mains Design Instruction
POI	Protection Design Instruction
SDI	Substation Design Instruction
SAD 0001	Design Drawing Standard
MMI	Mains Maintenance Instruction
SMI	Substation Maintenance Instruction
LDI 0001	Public lighting Electrical Design Element

Additionally, where relevant, the design complies with AS/NZS 7000 "Overhead Line Design - Detailed Procedures" published by The Australian Standards

ENDEAVOUR ENERGY indemnifies Endeavour Energy for any loss or damage resulting from non-compliance of the design with the above standards

Signed: _____

Name: MIRIAM CHAVEZ

Service Provider Number: 1145 Date: 09.03.2017

ROAD LEGEND

---------- PROPOSED (TOP OF THE KERB)

———— PROPOSED PROPERTY BOUNDARY

NON DESTRUCTIVE BORING FOR NEW LIGHT COLUMNS

NON-DESTRUCTIVE BORING METHOD SHALL BE USED TO INSTALL NEW COLUMNS WHERE OTHER UNDERGROUND SERVICES EXISTS

CERTIFIED BY ENDEAVOUR ENERGY

Amendment: A

Date Approved: 2/05/2017

Examiner's Signature: _____

Print Name: WAHEED EBRAHIMI

This Certification is issued subject to Endeavour Energy's Standard Certification Terms

WARNING

LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA. PLEASE CONTACT DIAL BEFORE YOU DIG ON TEL: 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.

SUPPLY INTERRUPTION NOTIFICATION

AFFECTED RESIDENCES AND BUSINESSES SHALL BE NOTIFIED SEVEN (7) DAYS PRIOR TO THE DISRUPTION. THIS NOTIFICATION SHALL INCLUDE AN EXAMINATION OF THE LOCATION OF ANY LIFE SUPPORT SYSTEMS THAT MAY BE AFFECTED AS A RESULT OF THE DISRUPTION.

APPROVAL TO CONNECT TO PUBLIC LIGHTING

Date Approved 17/01/2017

Reviewers Name David Castro

Reviewers Signature: _____

This approval is issued subject Endeavour Energy's General Terms & Conditions for connection of Public Lighting and is specifically for Drawing number 408867 amendment A Project Cap No ARP3265

WORKS COMPLETED/FIELD BOOK

CONSTRUCTED BY _____

WORKS COMPLETED _____

SIGNATURE _____ DATE _____

INSPECTED BY _____

SIGNATURE _____ DATE _____

ASSET RECORDING

I _____

OF _____

CONTACT No _____

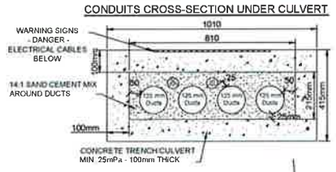
HEREBY CERTIFY THAT ASSETS MARKED AS BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOUR ENERGY STANDARD SAD 0004

SIGNATURE _____

DATE _____

CONDUITS UNDER CULVERTS T6 - U6
UNDERBORE IS AN OPTION THAT SHOULD BE CONSIDERED IF IT IS SAFER AND COST EFFECTIVE

CONDUITS CROSS-SECTION UNDER CULVERT



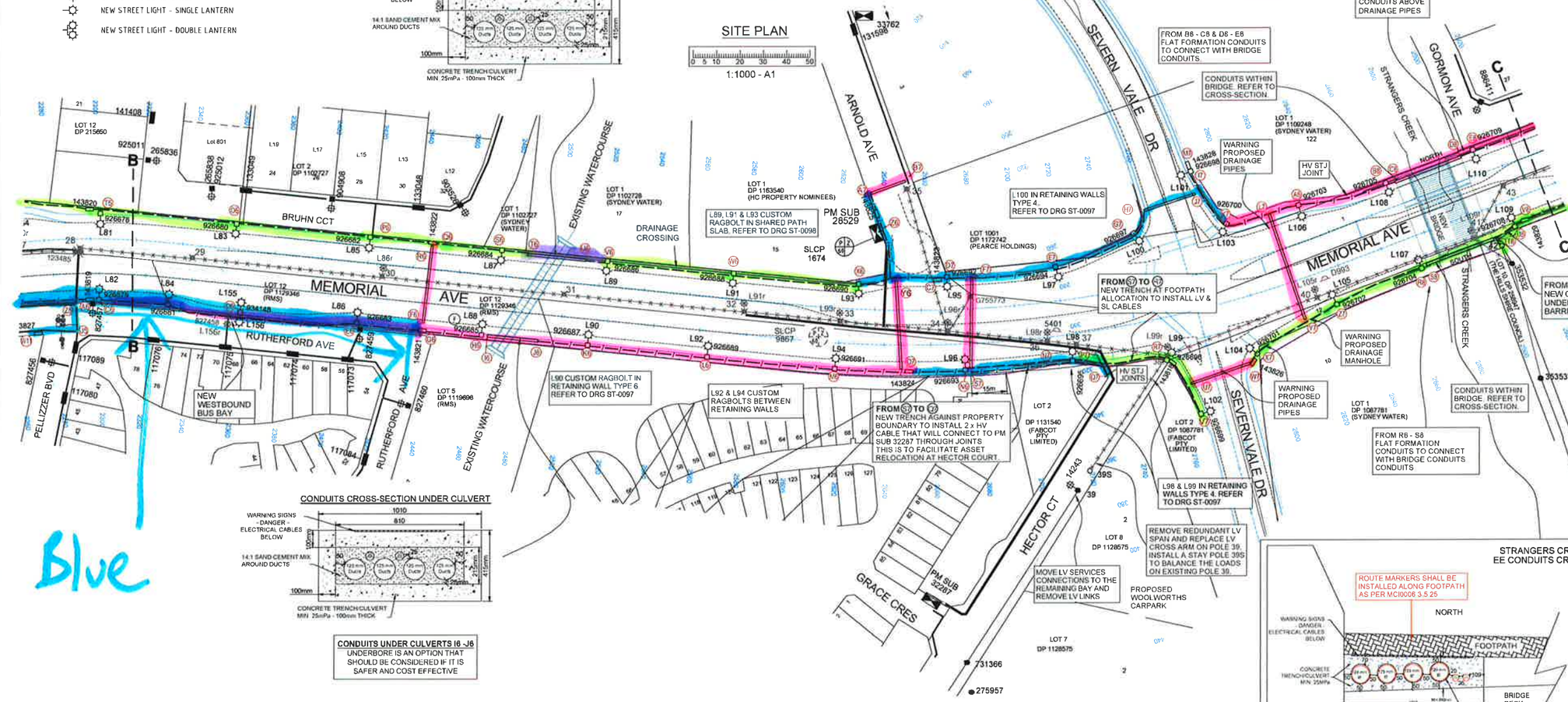
L89, L90, L91, L92, L94, L96, L97, L98, L99, L100, L197 & L108 LIGHT COLUMNS TO BE INSTALLED ON NON- STANDARD FOUNDATION (CUSTOM BUILT WITHIN STRUCTURES). REFER TO STRUCTURAL DRG ST-0097 & ST-0098

STREET LIGHTING COLUMN
All S.L. Columns (Center of footing) to be located by using X, Y coordinates as shown on Lighting Equipment and Billing Schedule (Sheet 20, 21 & 22)

LIGHTS L107- L110 TO BE INCORPORATED ON BARRIER. REFER TO DRG ST-0098

SITE PLAN

1:1000 - A1

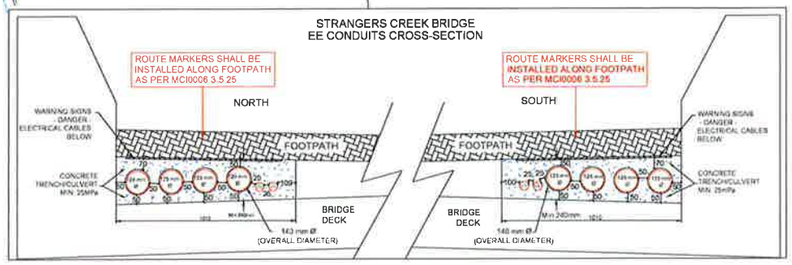


CONDUITS UNDER CULVERTS I6 -J6
UNDERBORE IS AN OPTION THAT SHOULD BE CONSIDERED IF IT IS SAFER AND COST EFFECTIVE

CONDUITS CROSS-SECTION UNDER CULVERT

Blue

STRANGERS CREEK BRIDGE EE CONDUITS CROSS-SECTION



NOTES:

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5. ATTENTION:
   ALL SERVICES SEARCHES MUST BE CHECKED BEFORE CONSTRUCTION.
6. WARNING:
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7. ATTENTION:
   SERVICE PROVIDER TO NOTIFY ENDEAVOUR ENERGY'S ASSET DATA CUSTOMER DEPT DAILY WHEN CABLE WORKS IS IN PROGRESS. TELEPHONE 131081
8. OPERATIONAL LIMITS:
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   -LIVE LINE WORK
   -DESIGN ALTERNATIVES
   -LOW VOLTAGE PARALLELS
   -WORK PRACTICES/STANDARDS.
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10. AN EARTH CONNECTION WARNING LABEL MUST BE INSTALLED WHERE EARTH CONDUCTOR OR AN EXTENDED EARTH GRID IS TO BE CONNECTED TO LV STREET NEUTRAL TO ACHIEVE AN MEN SYSTEM AS PER SDI 100. REFER TO DRAWING No 010846.
11. HAVE ALL THE EXISTING ASSETS BEEN FIELD CHECKED AND ARE ACCURATE AT THE TIME OF DESIGN? YES
12. ENVIRONMENTAL MANAGEMENT PLAN: EMP YES IS PART OF THIS DESIGN.

AMENDMENTS	ORIGINAL ISSUE
A	DRAFT No 01

Endeavour Energy
ABN 59253130878
51 Huntingwood Drive, Huntingwood NSW 2148
PO Box 811, Seven Hills - NSW
T: 131 081 F: (02) 9853 6000

TEMPLATE VERSION No 3.5

REFERENCE DRAWING'S		WORK ORDERS		CAP / SAMP No.	ARP3265
				AM PROJ. No	ARNP0002
ST -0097 & 0098	BECA - DS2016/000903	GENERAL		HV SWITCHING	PARKLEA 4
	STRUCTURAL DETAILS	OVERHEAD		UBD/PENGUIN REF	149 M8-N8
		UNDERGROUND		GIS MAP No	U916783
		SUBSTATIONS		HV OP DIAGRAM	PARKLEA 4
				LOCAL GOV AREA	THE HILLS SHIRE C

ORIGINAL SCALE 1:1000

DRAWN	MC
DATE	08.12.2016
CH'D	JP

DESIGN MC

DO NOT SCALE DIMENSIONS IN METRES

MEMORIAL AVENUE
KELLYVILLE
ARP3265
ASSET RELOCATION
SITE PLAN 3

Endeavour Energy

A1 | 408867 | A

SHEET No 3 OF 24 SHEETS

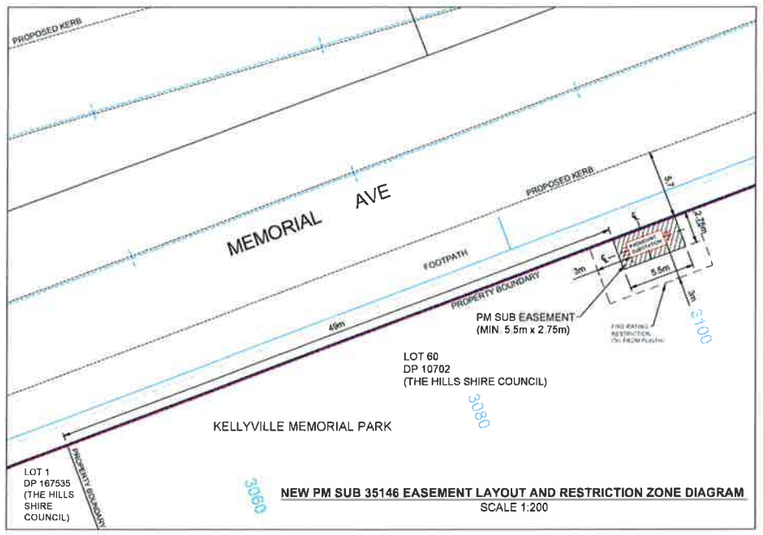
45771

SITE PLAN LEGEND 1:1000

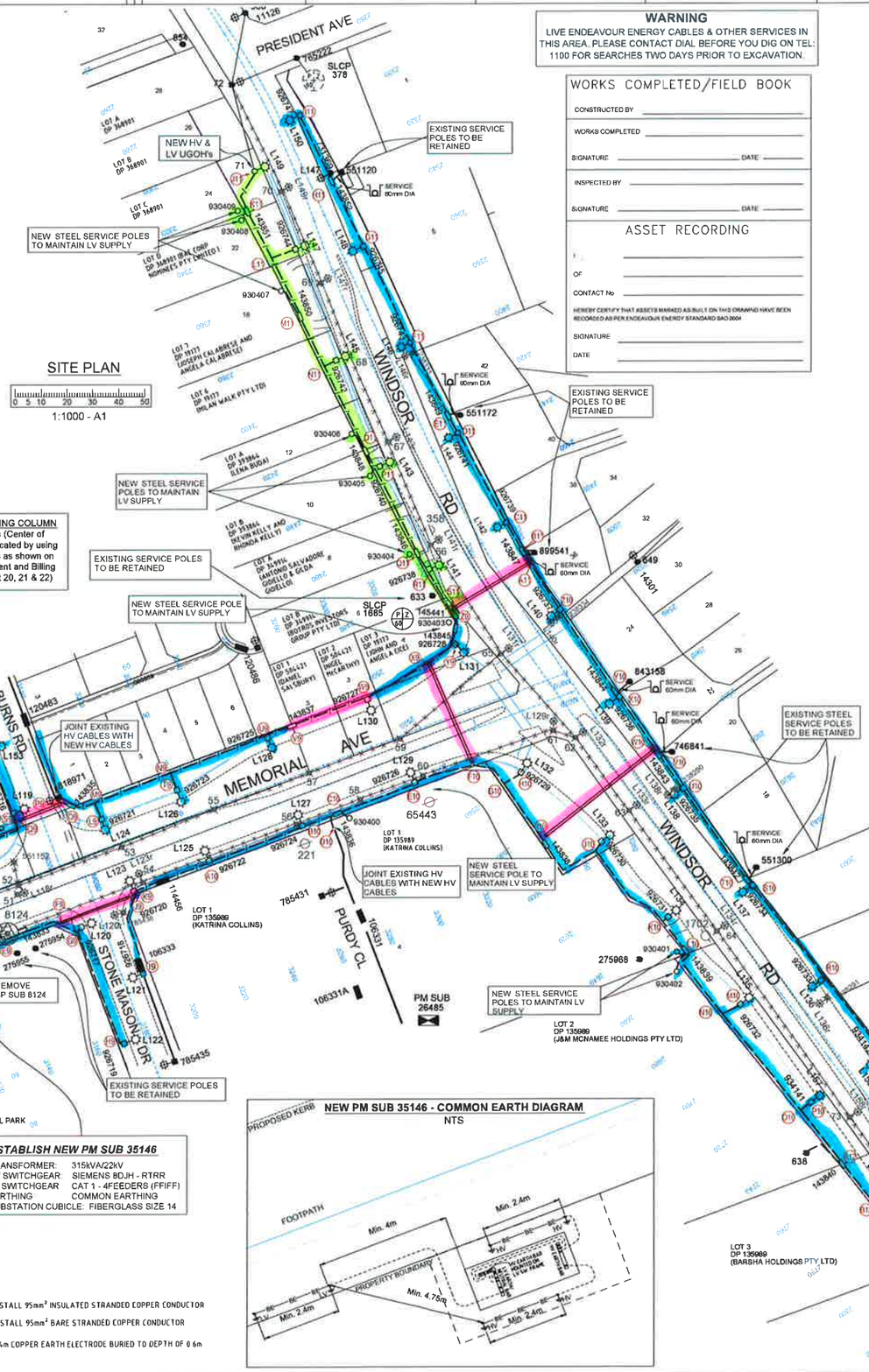
- EXISTING PADMOUNT SUBSTATION
- NEW PADMOUNT SUBSTATION
- EXISTING & NEW LV PILLAR
- REMOVE LV PILLAR
- EXISTING & NEW SL COLUMN
- SL COLUMN TO BE REMOVED
- EXISTING UNDERGROUND CABLE
- EXISTING OVERHEAD MAINS
- NEW OVERHEAD MAINS
- REMOVE OVERHEAD MAINS
- EXISTING DUCT LOCATION
- ROAD CROSSING DUCT (BY RMS)
- TR/HV TRENCH
- LV/SL TRENCH
- EXISTING & NEW POLE
- POLE TO BE REPLACED
- POLE TO BE REMOVED
- AERIAL STAY
- POLE-MOUNTED SUBSTATION
- AIR BREAK SWITCH(N.C/N.O)
- HV LOAD BREAK SWITCH (N/O,N/C)
- EXISTING LANTERN
- LANTERN TO BE REMOVED
- LANTERN TO BE REPLACED
- NEW STREET LIGHT - SINGLE LANTERN
- NEW STREET LIGHT - DOUBLE LANTERN

ROAD LEGEND

- PROPOSED (TOP OF THE KERB)
- PROPOSED PROPERTY BOUNDARY



NEW PM SUB 35146 EASEMENT LAYOUT AND RESTRICTION ZONE DIAGRAM
SCALE 1:200



SITE PLAN
0 5 10 20 30 40 50
1:1000 - A1

WARNING

LIVE ENDEAVOUR ENERGY CABLES & OTHER SERVICES IN THIS AREA. PLEASE CONTACT DIAL BEFORE YOU DIG ON TEL: 1100 FOR SEARCHES TWO DAYS PRIOR TO EXCAVATION.

WORKS COMPLETED/FIELD BOOK

CONSTRUCTED BY _____
WORKS COMPLETED _____
SIGNATURE _____ DATE: _____
INSPECTED BY _____
SIGNATURE _____ DATE: _____

ASSET RECORDING

_____
OF _____
CONTACT No _____
I HEREBY CERTIFY THAT ASSETS MARKED AS BUILT ON THIS DRAWING HAVE BEEN RECORDED AS PER ENDEAVOUR ENERGY STANDARD SAO 0004
SIGNATURE _____
DATE _____

NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT ENDEAVOUR ENERGY NETWORK STANDARDS AND CONNECTION POLICY.
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7. ATTENTION:
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8. OPERATIONAL LIMITS:
   UNLESS APPROVED OTHERWISE, INTERRUPTION TO ANY CUSTOMER'S SUPPLY MUST BE AVOIDED. THE FOLLOWING ALTERNATIVES SHOULD BE CONSIDERED:
   -MOBILE GENERATORS AND SUBSTATIONS
   -LIVE LINE WORK
   -DESIGN ALTERNATIVES
   -LOW VOLTAGE PARALLELS
   -WORK PRACTICES/STANDARDS.
9. AN EASEMENT FOR PADMOUNT SUBSTATIONS OF 5.5m x 2.75m TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN EXISTING **LOT 60 - DP 10702 (THE HILLS SHIRE COUNCIL)**.
10. A RESTRICTION ON THE USE OF LAND IN RELATION TO THE FIRE RATING OF BUILDINGS, MEASURE 3 METRES FROM THE SUBSTATION PLINTH IS TO BE CREATED IN FAVOUR OF ENDEAVOUR ENERGY WITHIN EXISTING **LOT 60 - DP 10702 (THE HILLS SHIRE COUNCIL)**.
11. REIMBURSEMENTS WILL BE PAID TO THE NOMINATED PARTY ON THE LETTER OF INTENT AFTER THE WORKS HAVE BEEN COMPETED AND THE LETTER OF ACCEPTANCE HAS BEEN ISSUED. THE REIMBURSED AMOUNT IS SHOWN IN THE FUNDING ARRANGEMENTS FOR SCOPE OF WORK. ANY DISAGREEMENT WITH THE AMOUNT SHOULD BE RESOLVED WITH ENDEAVOUR ENERGY PRIOR TO THE COMMENCEMENT OF WORKS.
12. AN EARTH CONNECTION WARNING LABEL MUST BE INSTALLED WHERE EARTH CONDUCTOR OR AN EXTENDED EARTH GRID IS TO BE CONNECTED TO LV STREET NEUTRAL TO ACHIEVE AN MEN SYSTEM AS PER SDI 100. REFER TO DRAWING No.010648.
13. HAVE ALL THE EXISTING ASSETS BEEN FIELD CHECKED AND ARE ACCURATE AT THE TIME OF DESIGN? YES
14. ENVIRONMENTAL MANAGEMENT PLAN: EMP YES IS PART OF THIS DESIGN.

SUPPLY INTERRUPTION NOTIFICATION

AFFECTED RESIDENCES AND BUSINESSES SHALL BE NOTIFIED SEVEN (7) DAYS PRIOR TO THE DISRUPTION. THIS NOTIFICATION SHALL INCLUDE AN EXAMINATION OF THE LOCATION OF ANY LIFE SUPPORT SYSTEMS THAT MAY BE AFFECTED AS A RESULT OF THE DISRUPTION.

STREET LIGHTING COLUMN

All S.L. Columns (Center of footing) to be located by using X, Y coordinates as shown on Lighting Equipment and Billing Schedule (Sheet 20, 21 & 22)

NON DESTRUCTIVE BORING FOR NEW LIGHT COLUMNS

NON-DESTRUCTIVE BORING METHOD SHALL BE USED TO INSTALL NEW COLUMNS WHERE OTHER UNDERGROUND SERVICES EXISTS

EXISTING SPARE CONDUITS FROM I8 - L8 TO BE USED. REFER TO CONDUIT BREAKDOWN TO CONNECT TO EX. PM SUB 28064

L112 TO BE INCORPORATED ON BARRIER. REFER TO DRG ST-0098

JOINT EXISTING HV CABLES WITH NEW HV CABLES

L109, L110 & L112 LIGHT COLUMNS TO BE INSTALLED ON NON- STANDARD FOUNDATION (CUSTOM BUILT WITHIN STRUCTURES). REFER TO STRUCTURAL DRG ST-0097 & ST-0098

NEW POLE 42 TO MANTAIN LV SUPPLY

JOINT EXISTING HV CABLES WITH NEW HV CABLES

CERTIFIED BY ENDEAVOUR ENERGY

Amendment: A
Date Approved: 2/05/2017
Examiner's Signature: _____
Print Name: WAHEED EBRAHIMI
This Certification is issued subject to Endeavour Energy's Standard Certification Terms

DESIGN COMPLIANCE AND INDEMNITY

This design complies with Endeavour Energy's relevant standards as current at this time and as listed on the Endeavour Energy Accredited Service Provider's Internet site. These standards include, but are not limited to:

GT&C	General Terms and Conditions
EMS	Environmental Management Standard
MCI	Mains Construction Instruction
MDI	Mains Design Instruction
PDI	Protection Design Instruction
SDI	Substation Design Instruction
SAD 0001	Design Drawing Standard
MMI	Mains Maintenance Instruction
SMI	Substation Maintenance Instruction
LDI 0001	Public lighting Electrical Design Element

Additionally, where relevant, the design complies with AS/NZS 7000 "Overhead Line Design - Detailed Procedures" published by The Australian Standards

ENDEAVOUR ENERGY indemnifies Endeavour Energy for any loss or damage resulting from non-compliance of the design with the above standards

Signed _____
Name MIRIAM CHAVEZ
Service Provider Number 1149 Date 09/03/2017

APPROVAL TO CONNECT TO PUBLIC LIGHTING

Date Approved 17/01/2017
Reviewers Name David Castro
Reviewers Signature: _____
This approval is issued subject Endeavour Energy's General Terms & Conditions for connection of Public Lighting and is specifically for Drawing number: 408867 amendment A Project Cap No: ARP3265

ESTABLISH NEW PM SUB 35146

TRANSFORMER:	315kVA/22kV
HV SWITCHGEAR	SIEMENS 8DJH - RTRR
LV SWITCHGEAR	CAT 1 - 4FEEDERS (FFIFF)
EARTHING	COMMON EARTHING
SUBSTATION CUBICLE:	FIBERGLASS SIZE 14

LEGEND:

- INSTALL 95mm² INSULATED STRANDED COPPER CONDUCTOR
- INSTALL 95mm² BARE STRANDED COPPER CONDUCTOR
- 2.4m COPPER EARTH ELECTRODE BURIED TO DEPTH OF 0.6m

NEW PM SUB 35146 - COMMON EARTH DIAGRAM
NTS

AMENDMENTS
A ORIGINAL ISSUE DRAFT No. 01

Endeavour Energy
ABN 59253130878
51 Huntingwood Drive, Huntingwood NSW 2148
PO Box 811, Seven Hills - NSW
T: 131 081 F: (02) 9853 6000

TEMPLATE VERSION No 3.5

REFERENCE DRAWING'S		WORK ORDERS		CAP / SAMP No.	ARP3265
ST -0097 & 0098	BECA - DS2016/000903	GENERAL		AM PROJ. No.	ARNP0002
	STRUCTURAL DETAILS	OVERHEAD		HV SWITCHING	PARKLEA 4
		UNDERGROUND		UBD/PENGUIN REF	149 Q8 & 150 A7-A8
		SUBSTATIONS		GIS MAP No	U916784
				HV OP DIAGRAM	PARKLEA 4
				LOCAL GOV AREA	THE HILLS SHIRE C

ORIGINAL SCALE 1:1000
DRAWN MC
DATE 08.12.2016
CH'D JP
DESIGN MC
DO NOT SCALE
DIMENSIONS IN METRES

MEMORIAL AVENUE
KELLYVILLE
ARP3265
ASSET RELOCATION
SITE PLAN 4

Endeavour Energy
A1 408867 A
SHEET No 4 OF 24 SHEETS

45771

Appendix I

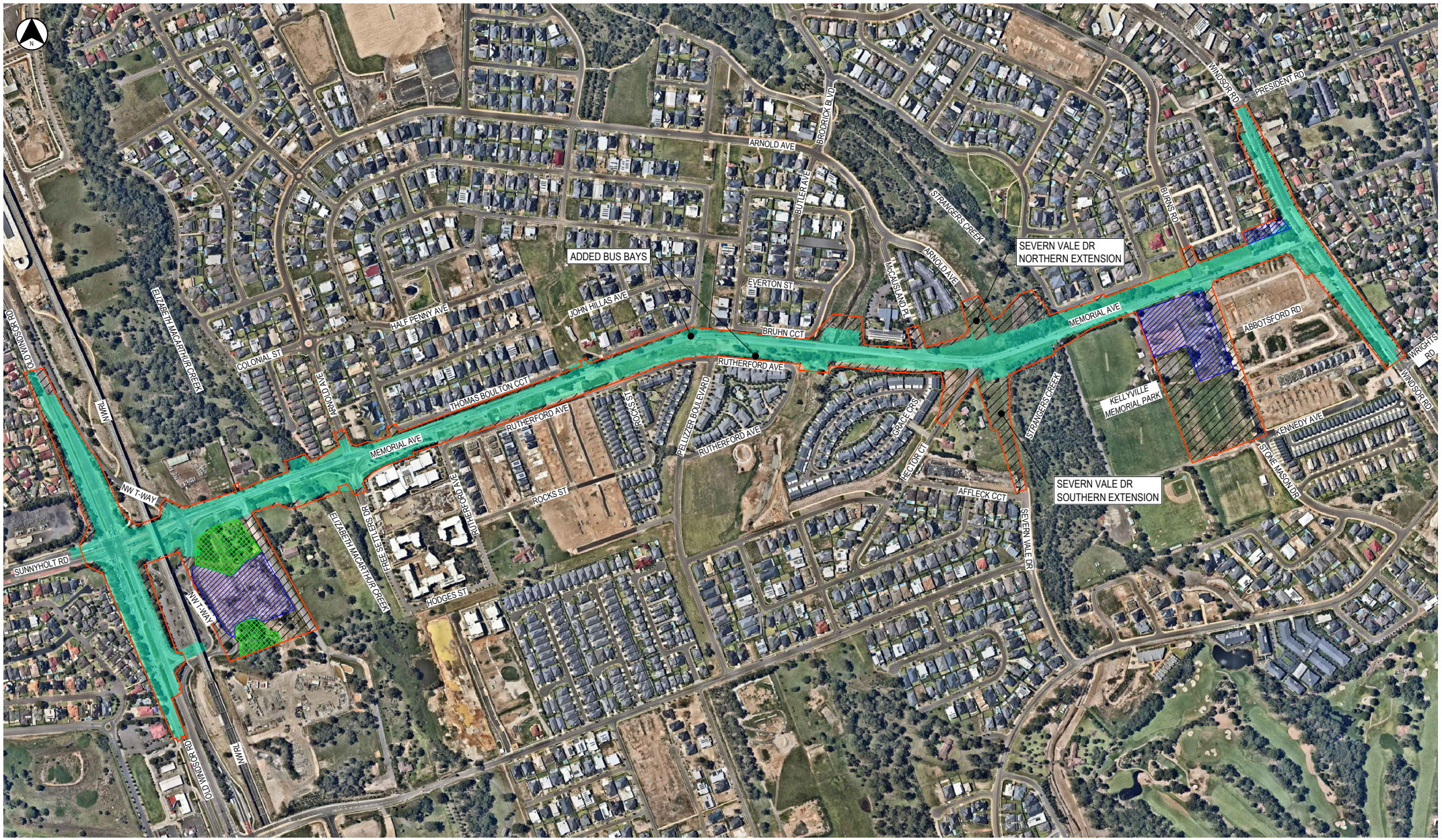
Addendum REF Investigation Area

CLIENT

Transport Roads & Maritime Services

CONSULTANTS

Beca



LEGEND

- SITE PREMISES BOUNDARY
- PROJECT REF BOUNDARY
- ADDENDUM REF INVESTIGATION AREA
- ENVIRONMENTAL PROTECTION ZONE
- ANCILLARY SITE

FIGURE 1-2: ADDENDUM REF PROJECT BOUNDARY

SCALE 1:9000 AT A4

MR642 MEMORIAL AVENUE UPGRADE

ADDENDUM REF INVESTIGATION AREA

OVERVIEW PLAN

SCALE 1:9000

SHEET 1 OF 1

Plot Date: 25/03/19 - 14:08 Cad File: P:\349\349191916_CADD\6.6 Sketches_Figures\FIGURE-0012.dwg

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