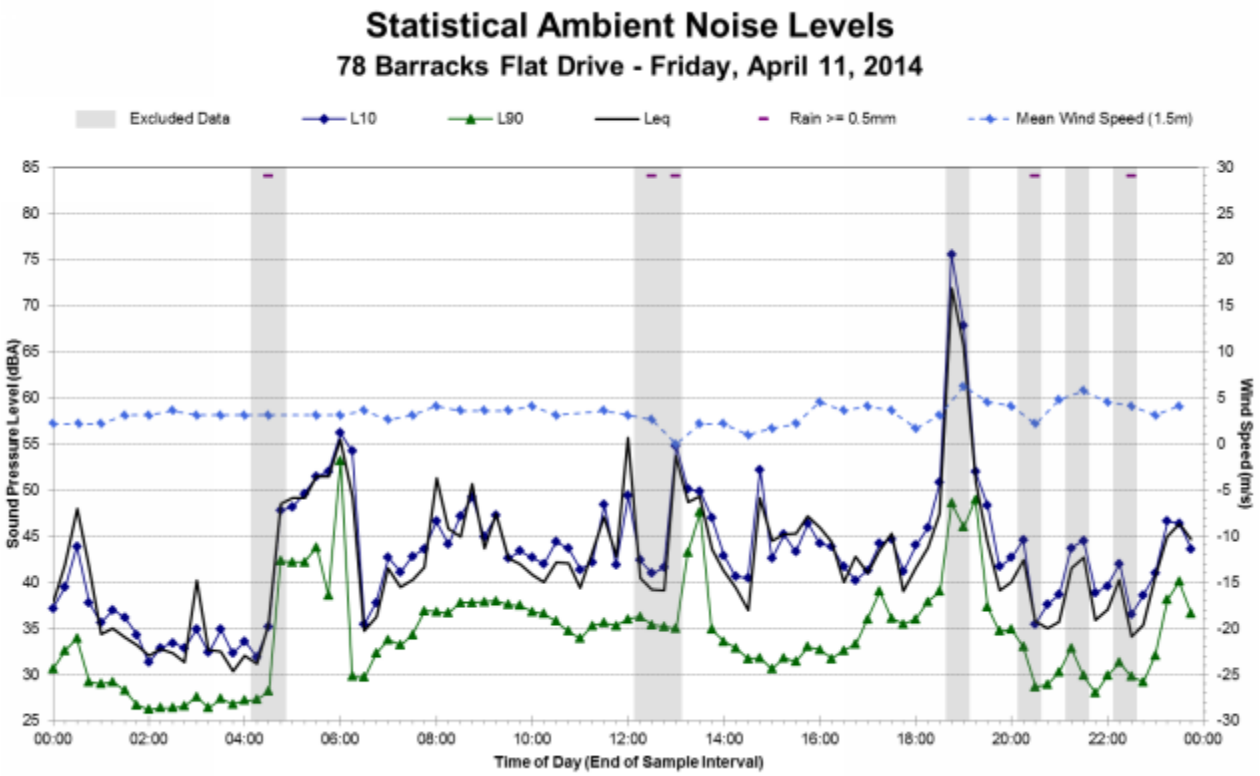
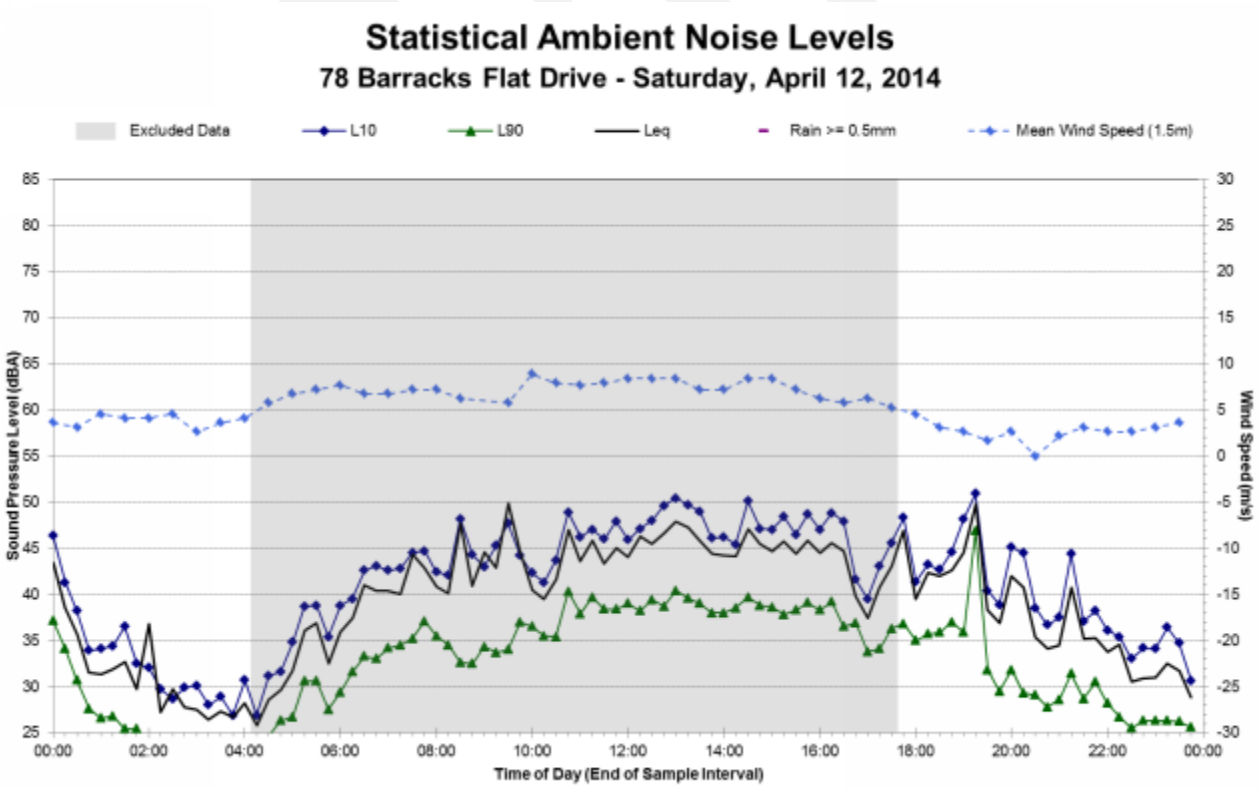
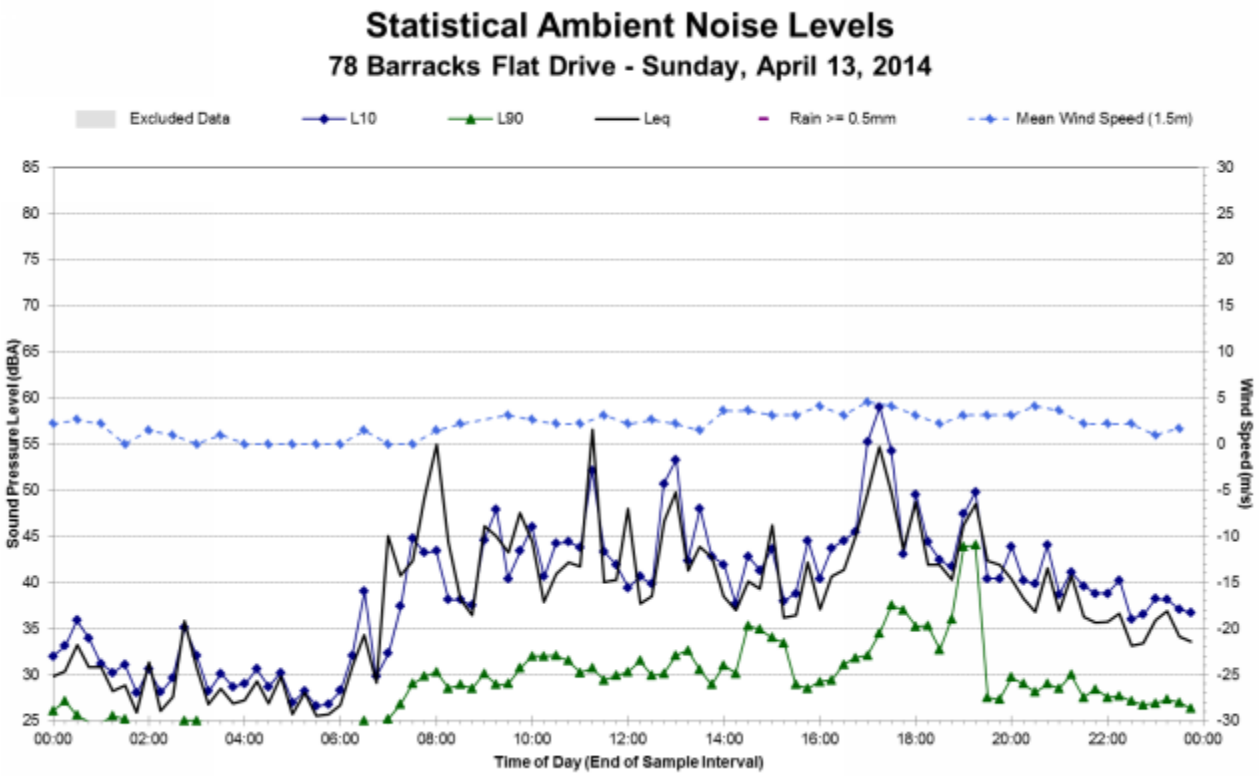
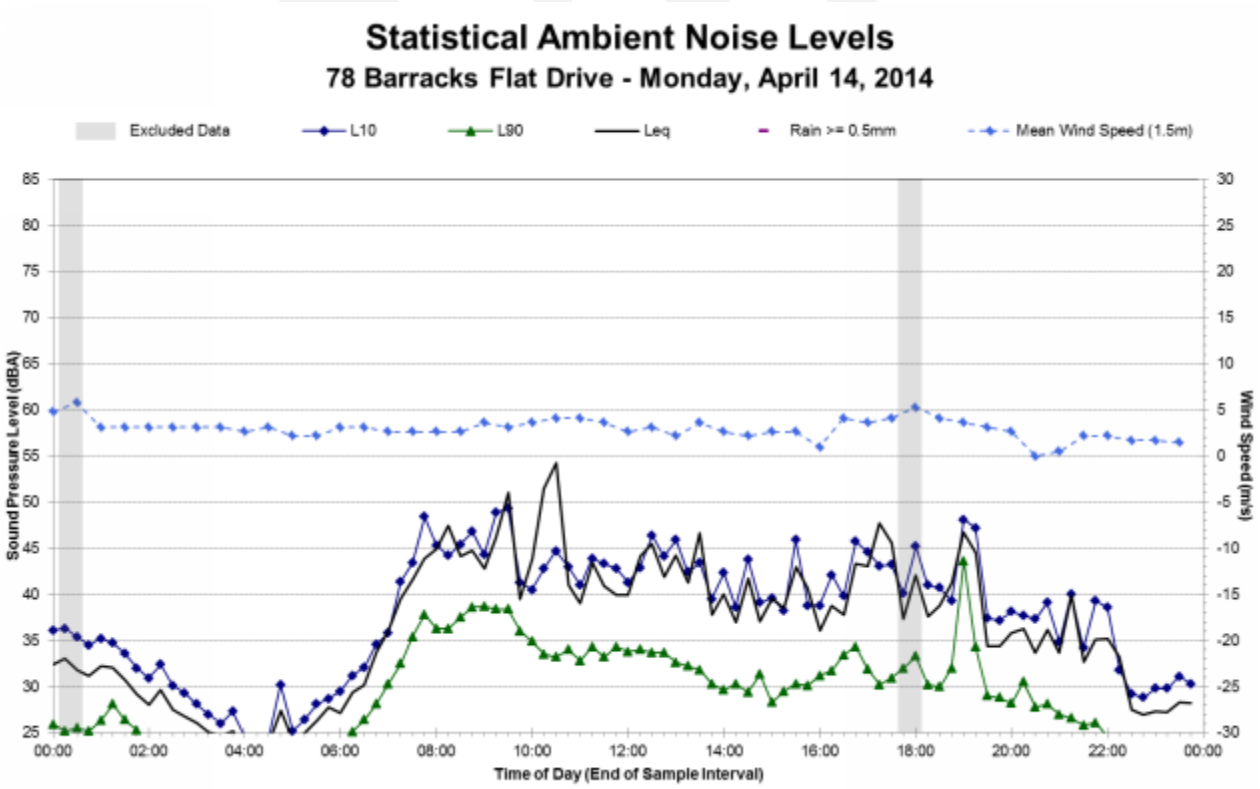
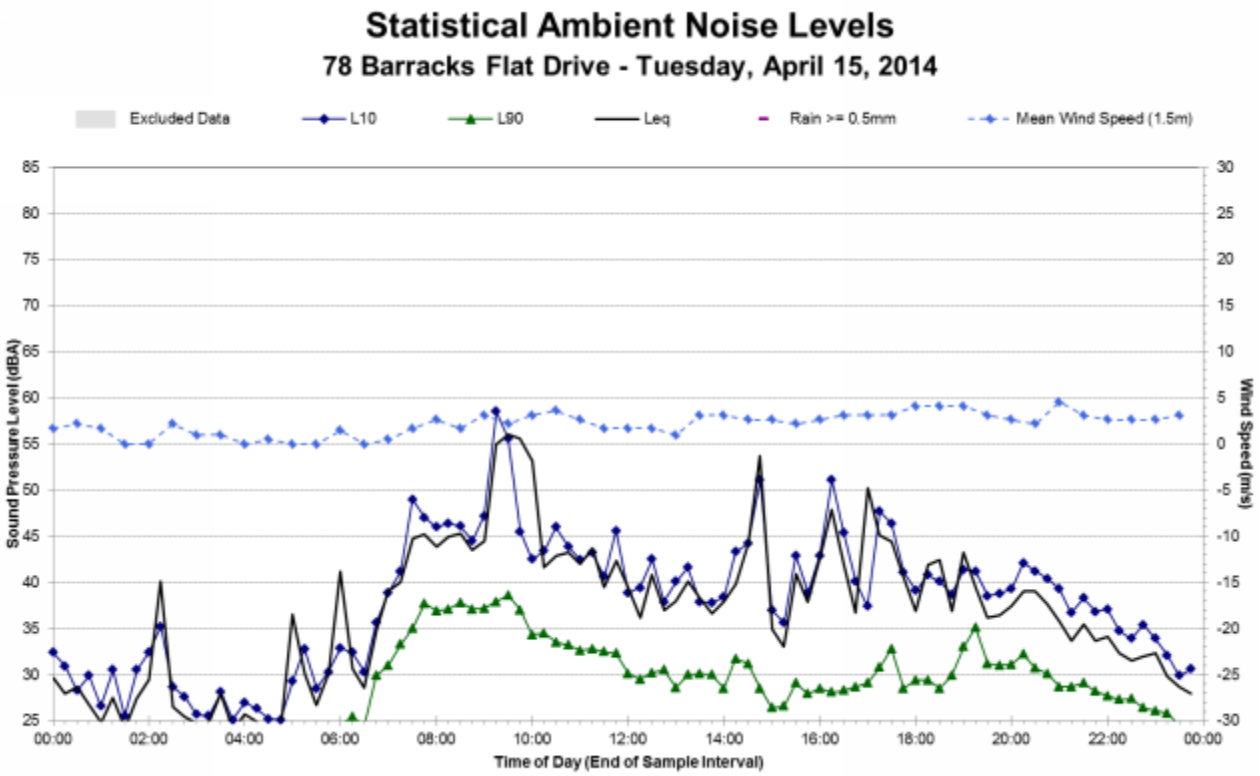
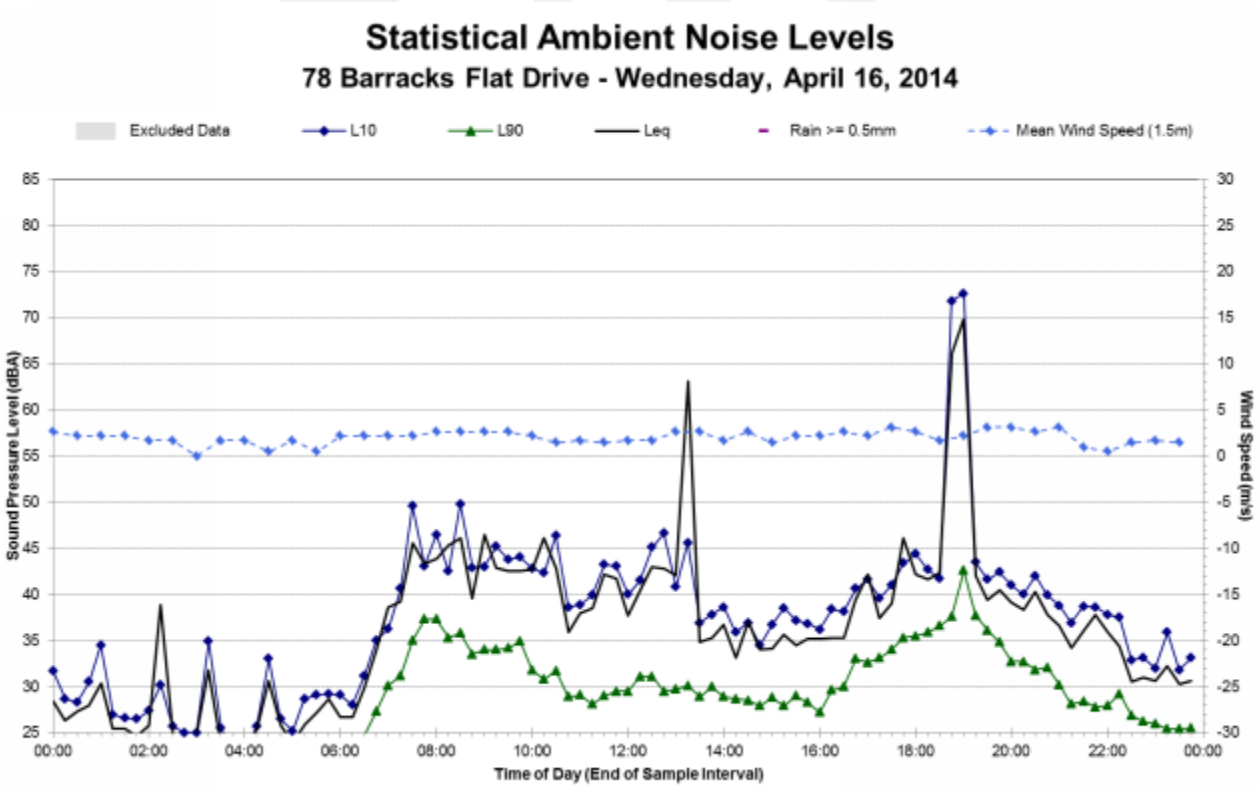

Statistical Ambient Noise Levels
78 Barracks Flat Drive - Friday, April 11, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)

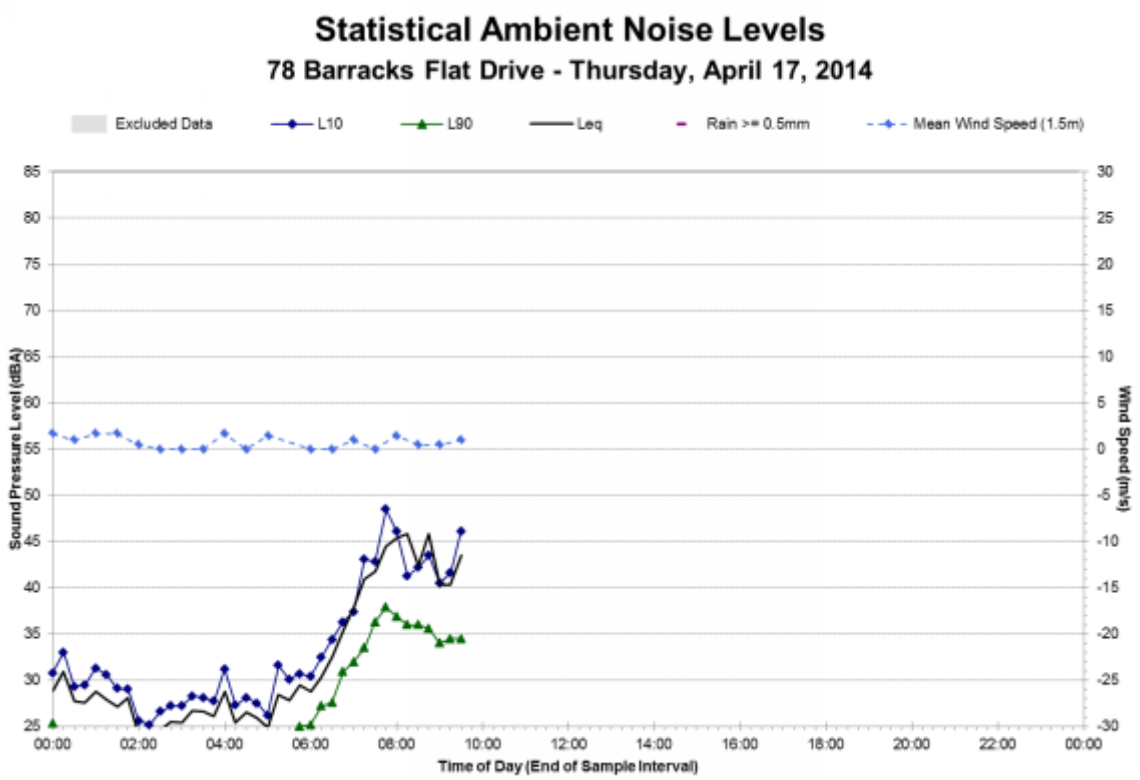

Statistical Ambient Noise Levels
78 Barracks Flat Drive - Saturday, April 12, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)


Statistical Ambient Noise Levels
78 Barracks Flat Drive - Sunday, April 13, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)


Statistical Ambient Noise Levels
78 Barracks Flat Drive - Monday, April 14, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)


Statistical Ambient Noise Levels
78 Barracks Flat Drive - Tuesday, April 15, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)


Statistical Ambient Noise Levels
78 Barracks Flat Drive - Wednesday, April 16, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)


Statistical Ambient Noise Levels
78 Barracks Flat Drive - Thursday, April 17, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)
85
80
75
70
65
60
55
50
45
40
35
30
25
30
25
20
15
10
5
0
-5
-10
-15
-20
-25
-30
00:00
02:00
04:00
06:00
08:00
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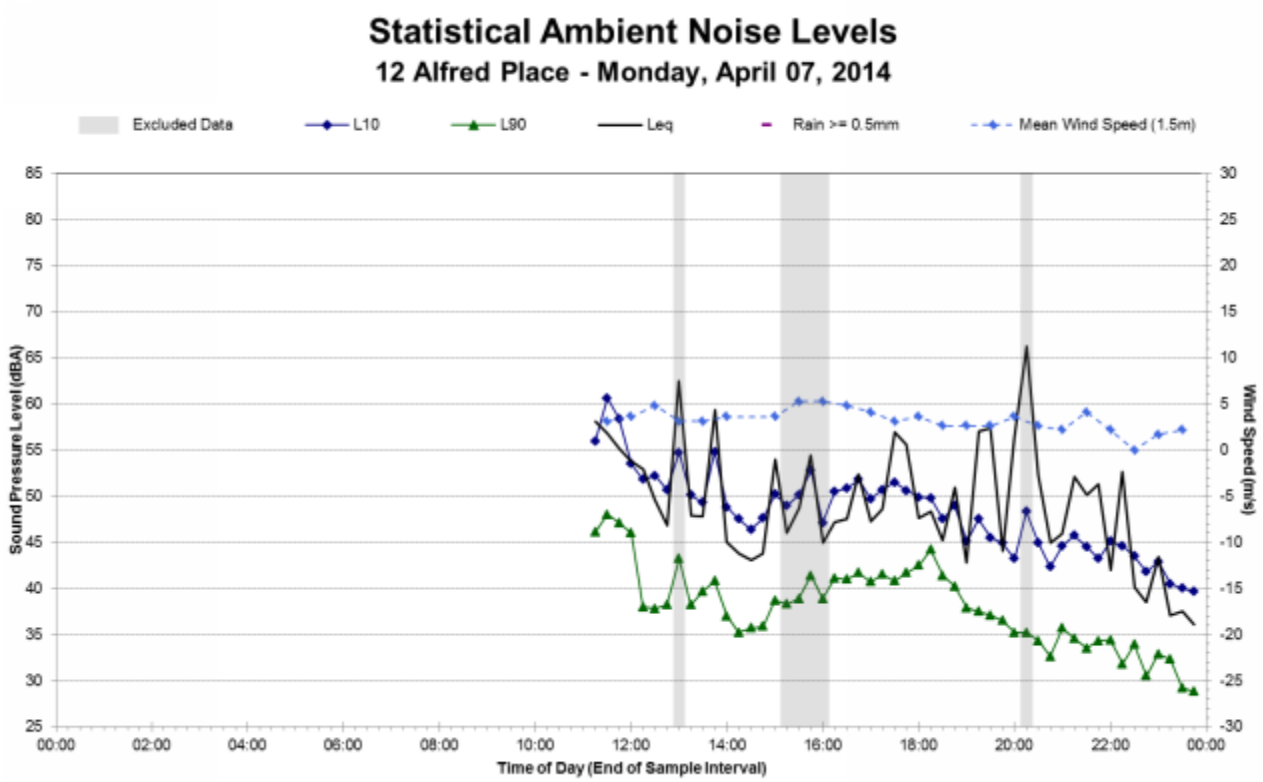
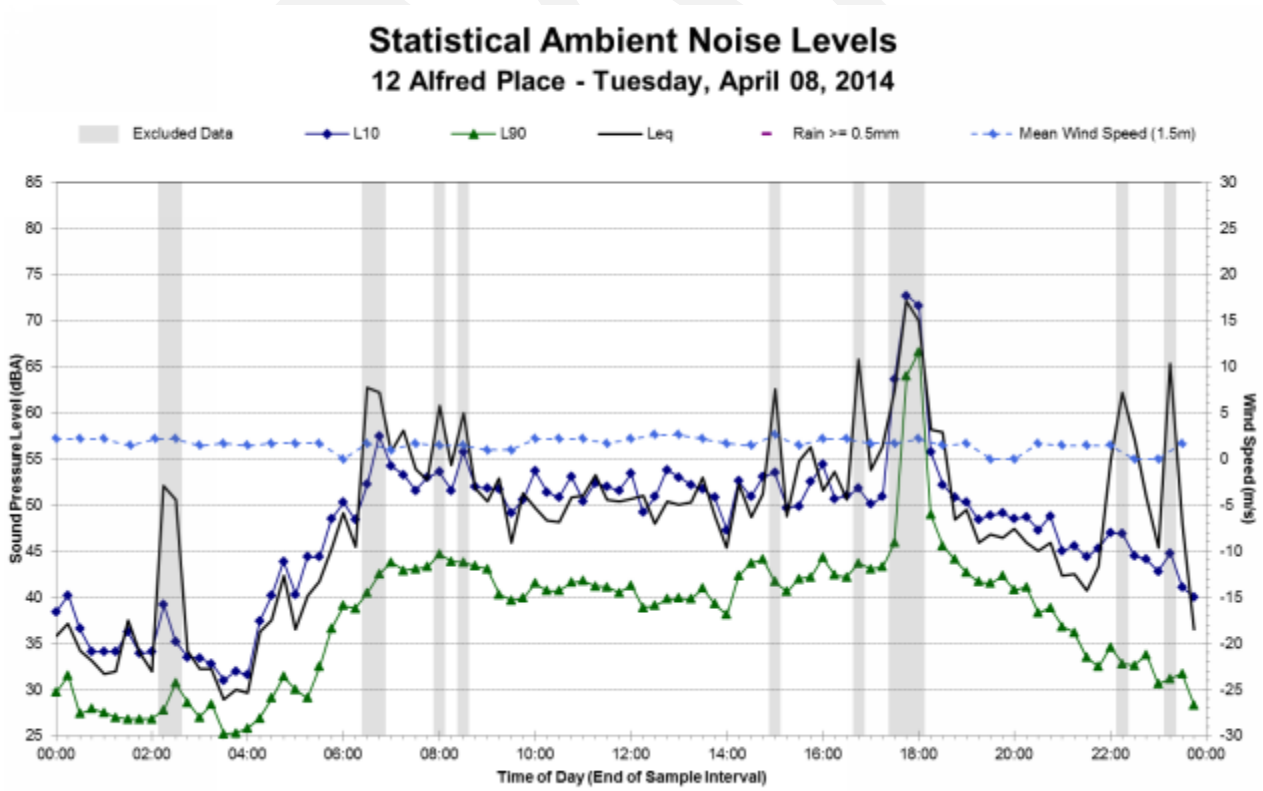
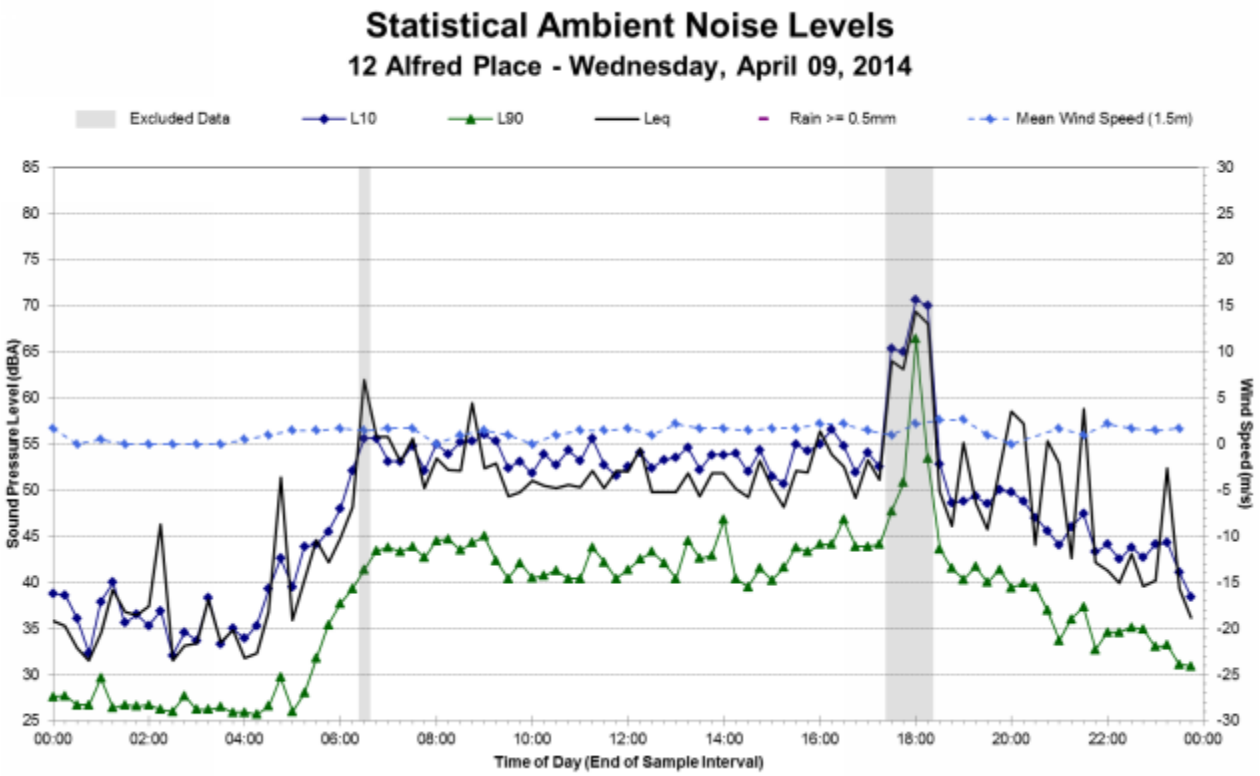
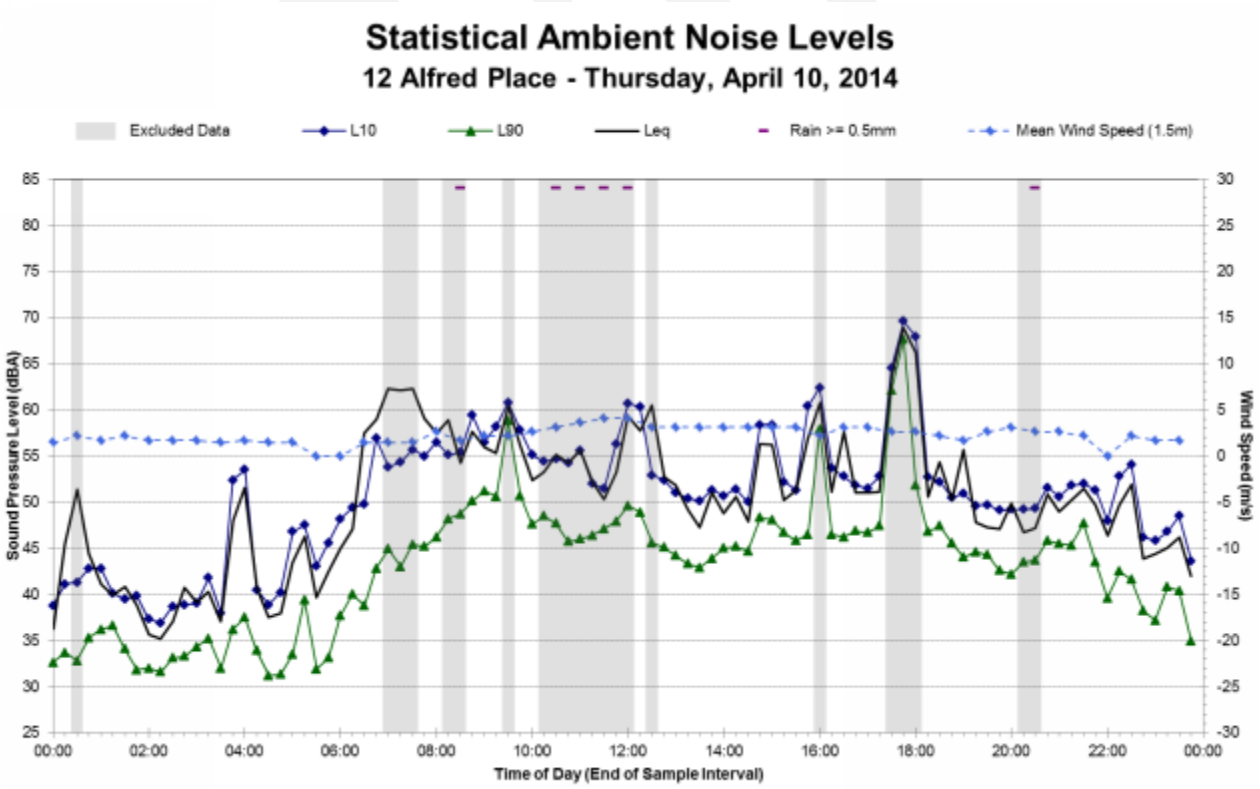
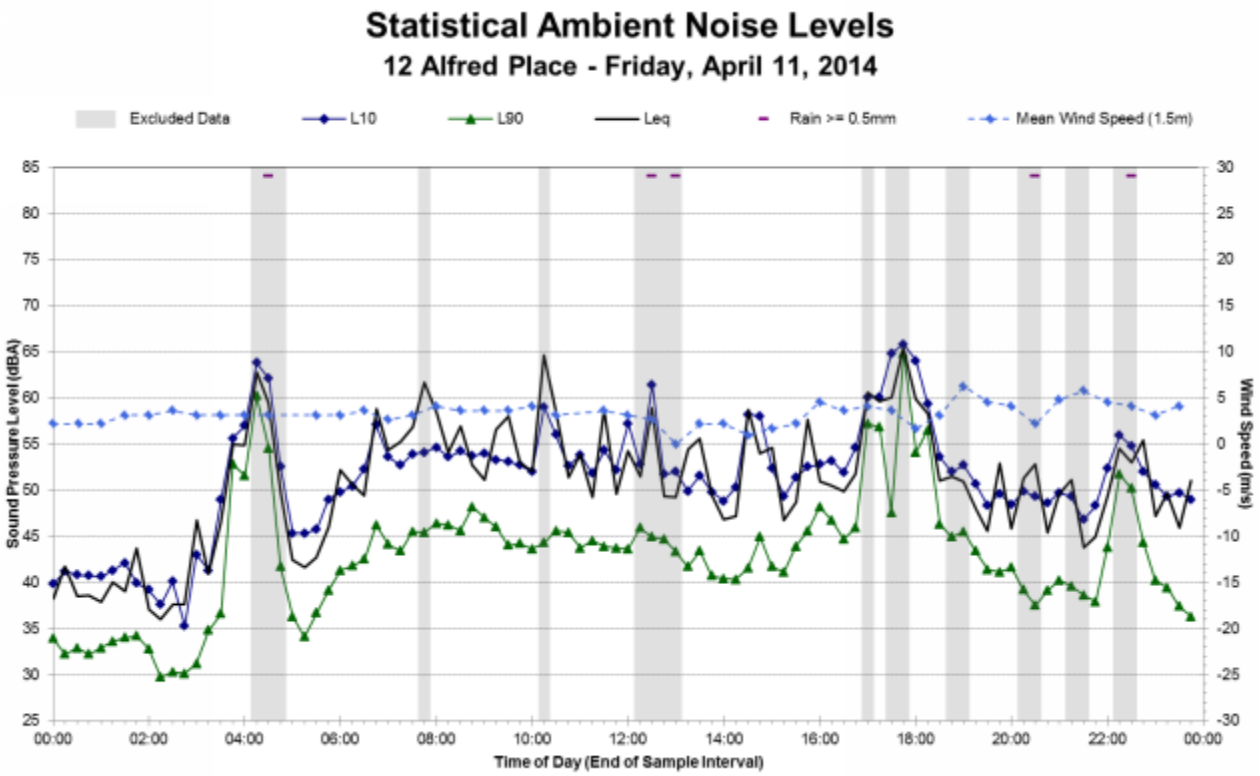
12:00
14:00
16:00
18:00
20:00
22:00
00:00

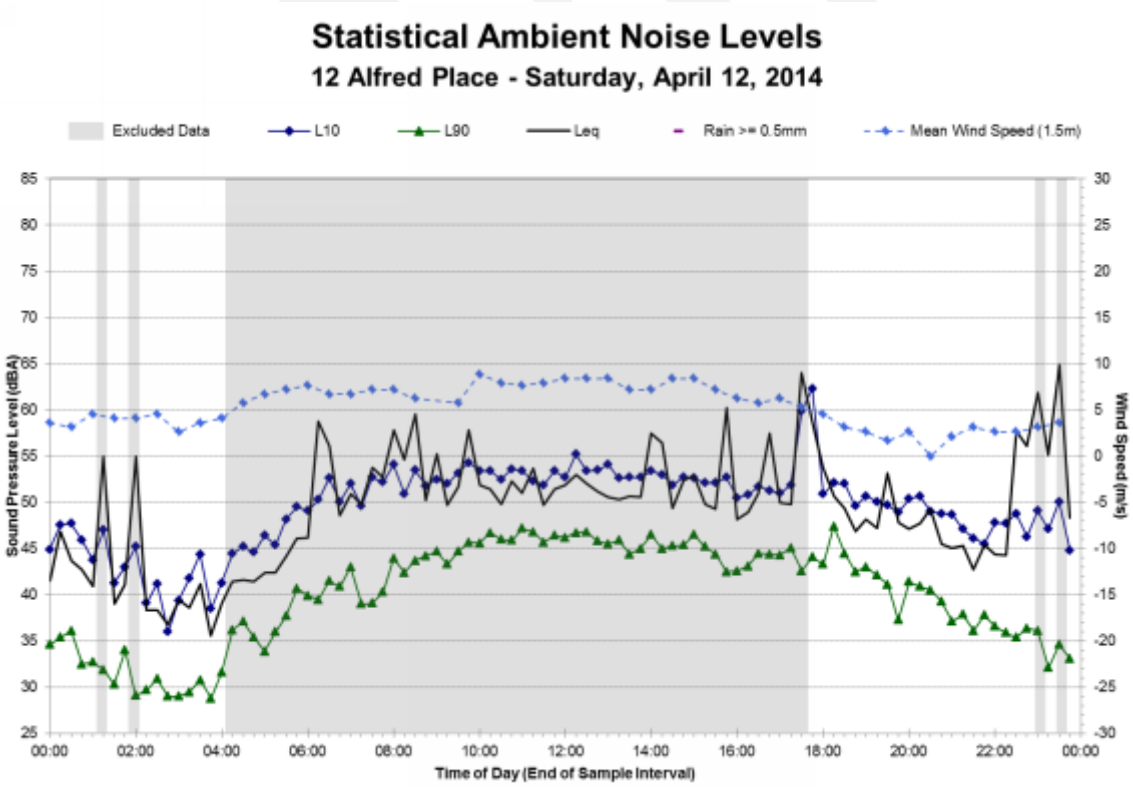

Statistical Ambient Noise Levels
12 Alfred Place - Monday, April 07, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)

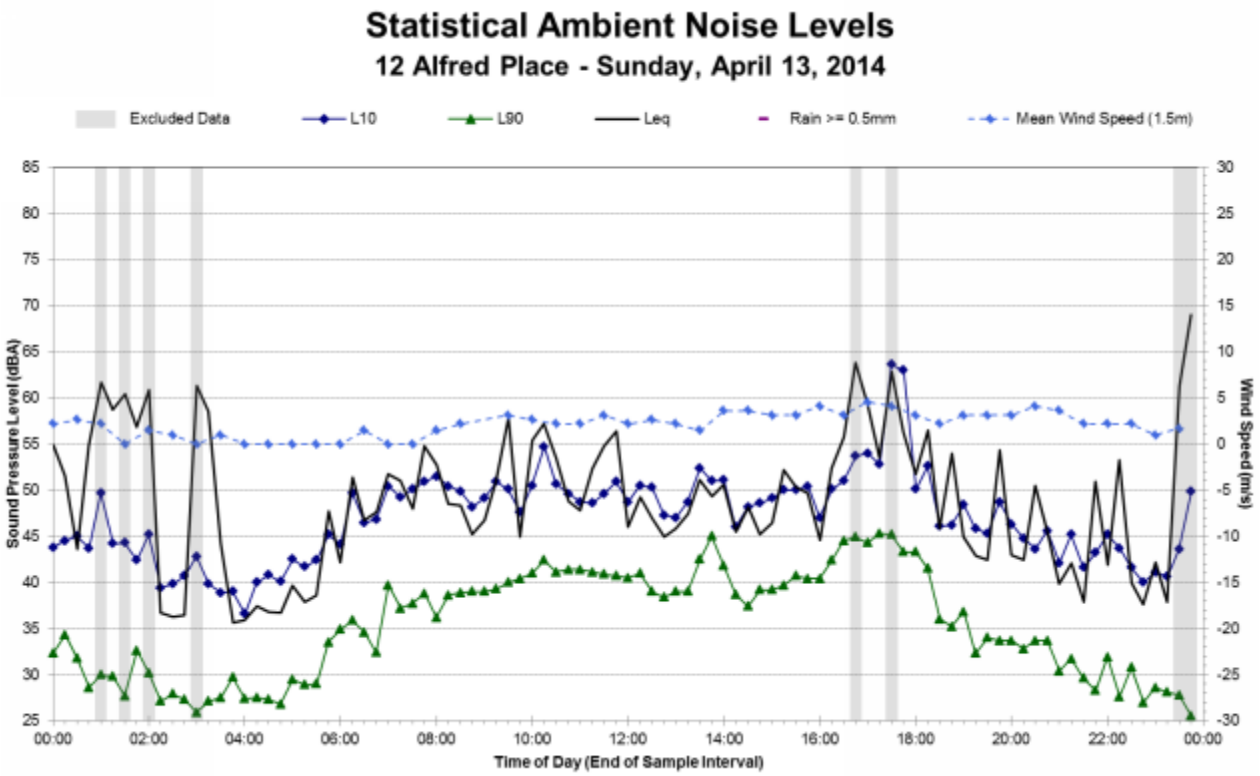

Statistical Ambient Noise Levels
12 Alfred Place - Tuesday, April 08, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)

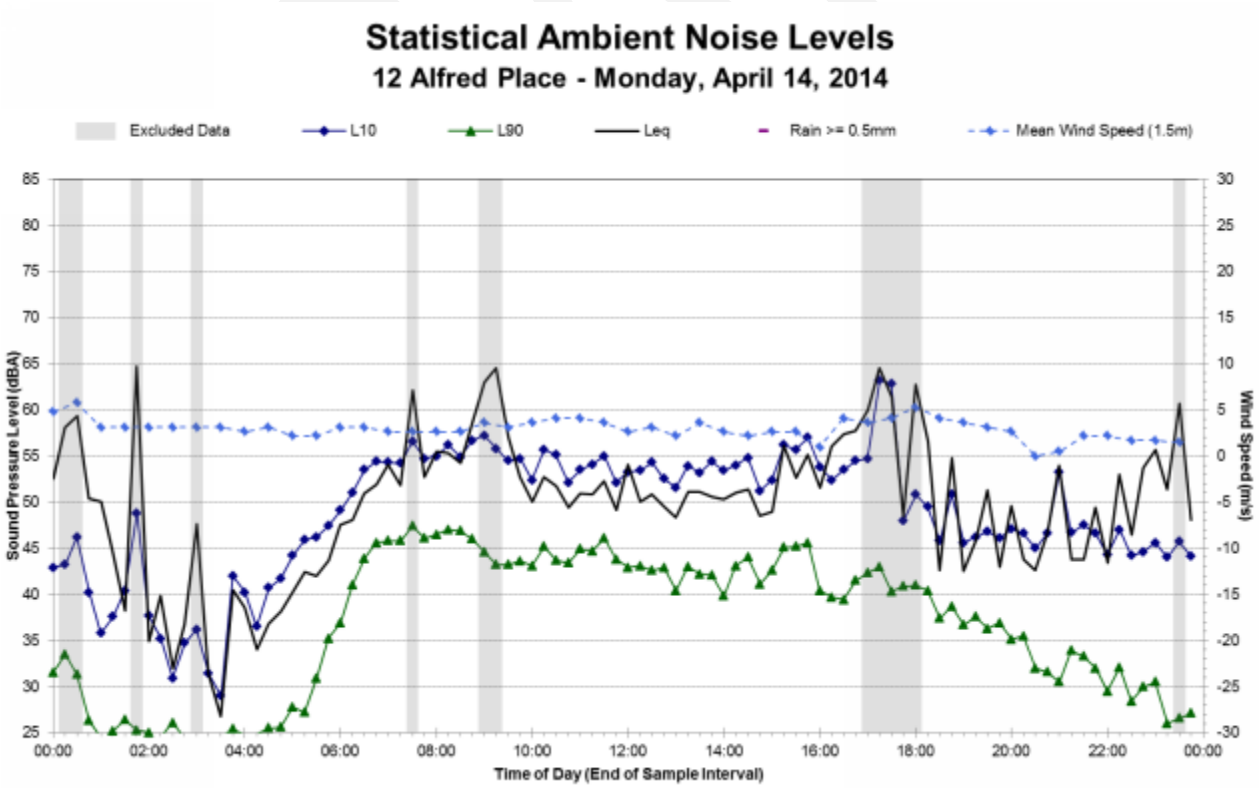

Statistical Ambient Noise Levels
12 Alfred Place - Wednesday, April 09, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)

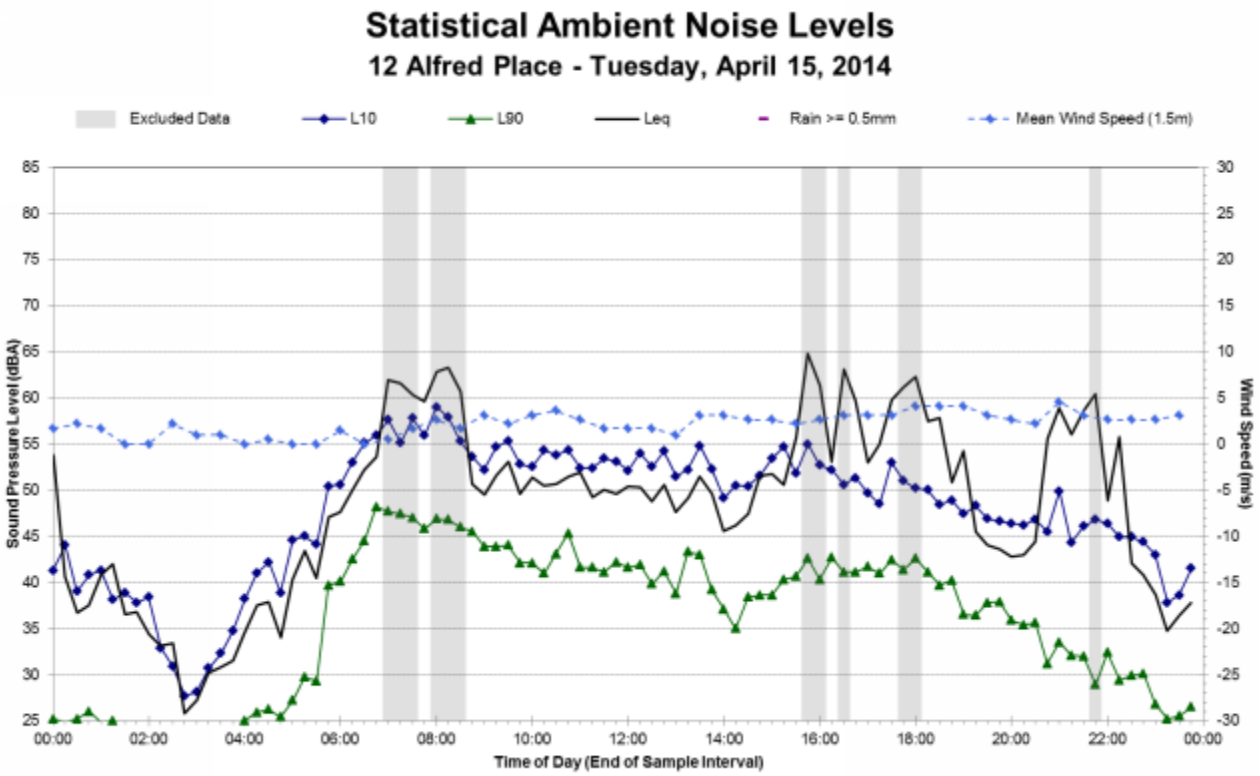

Statistical Ambient Noise Levels
12 Alfred Place - Thursday, April 10, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)

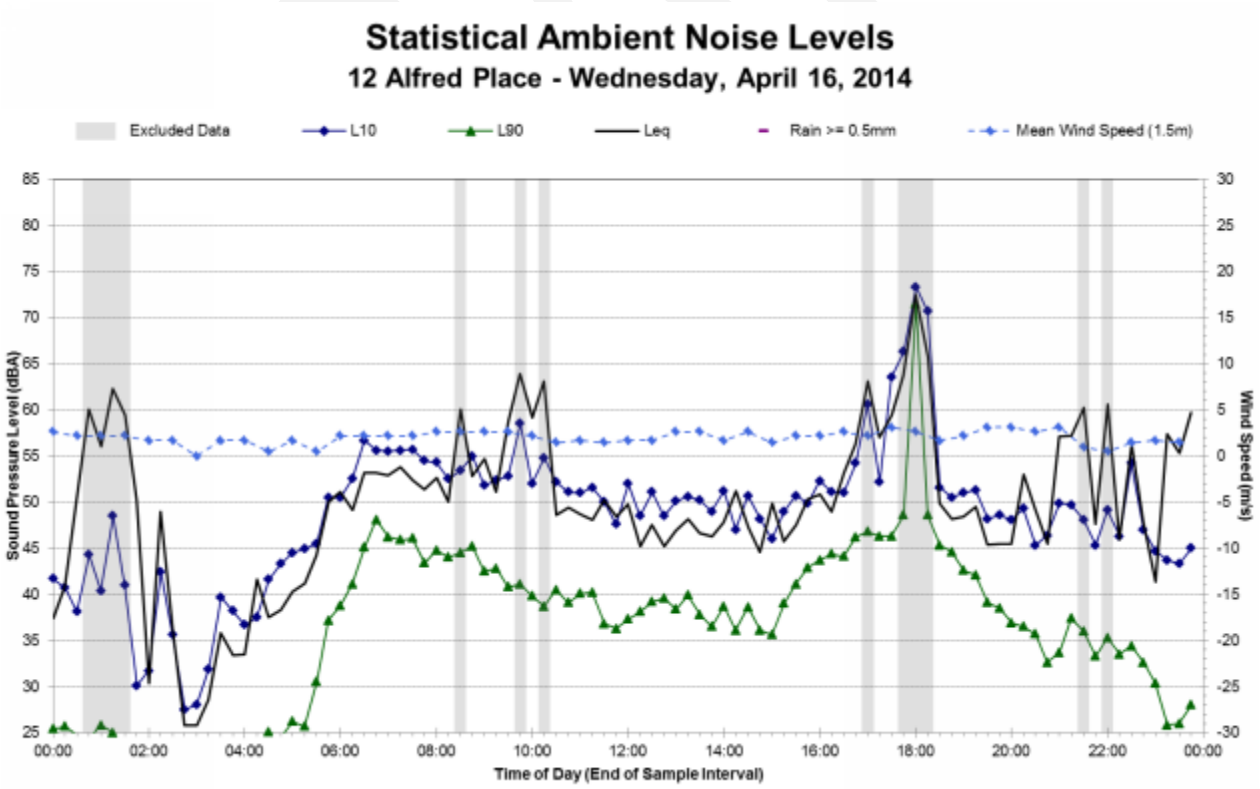

Statistical Ambient Noise Levels
12 Alfred Place - Friday, April 11, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)

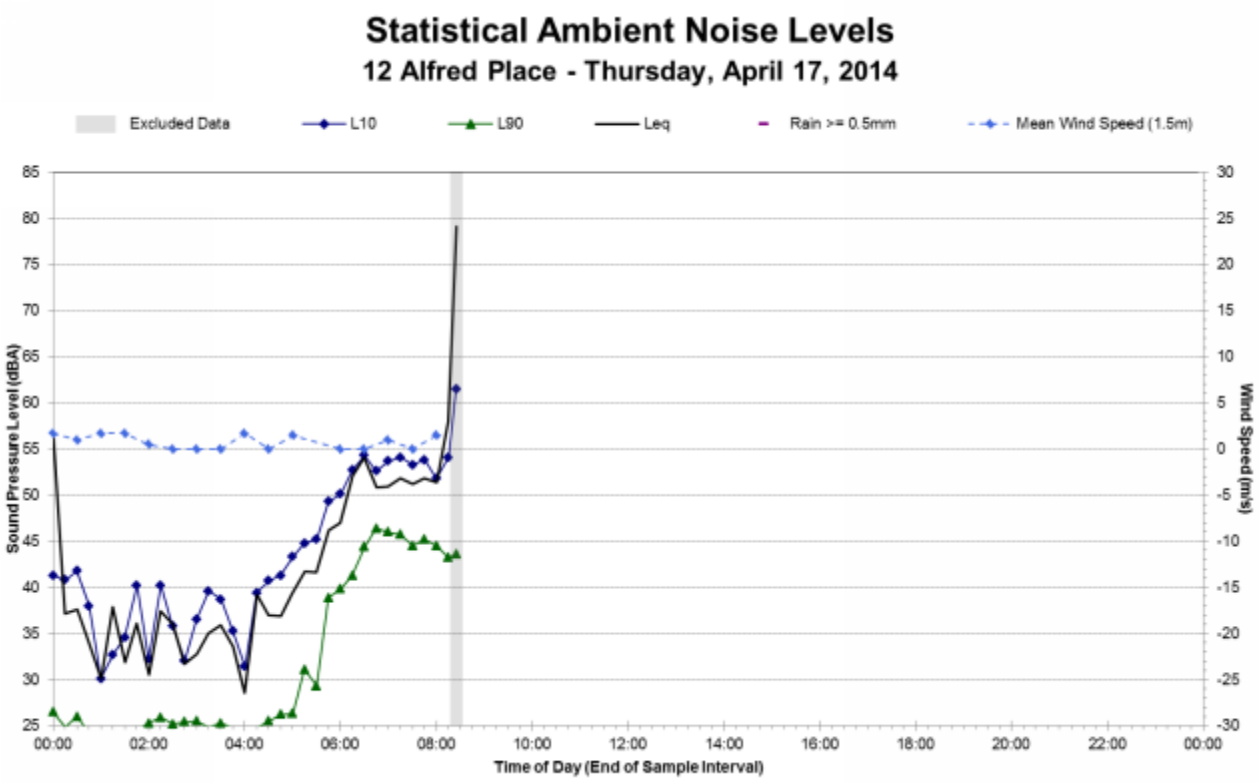

Statistical Ambient Noise Levels
12 Alfred Place - Saturday, April 12, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)


Statistical Ambient Noise Levels
12 Alfred Place - Sunday, April 13, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)


Statistical Ambient Noise Levels
12 Alfred Place - Monday, April 14, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)


Statistical Ambient Noise Levels
12 Alfred Place - Tuesday, April 15, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)


Statistical Ambient Noise Levels
12 Alfred Place - Wednesday, April 16, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)


Statistical Ambient Noise Levels
12 Alfred Place - Thursday, April 17, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)
85
80
75
70
65
60
55
50
45
40
35
30
25
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25
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-5
-10
-15
-20
-25
-30
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16:00
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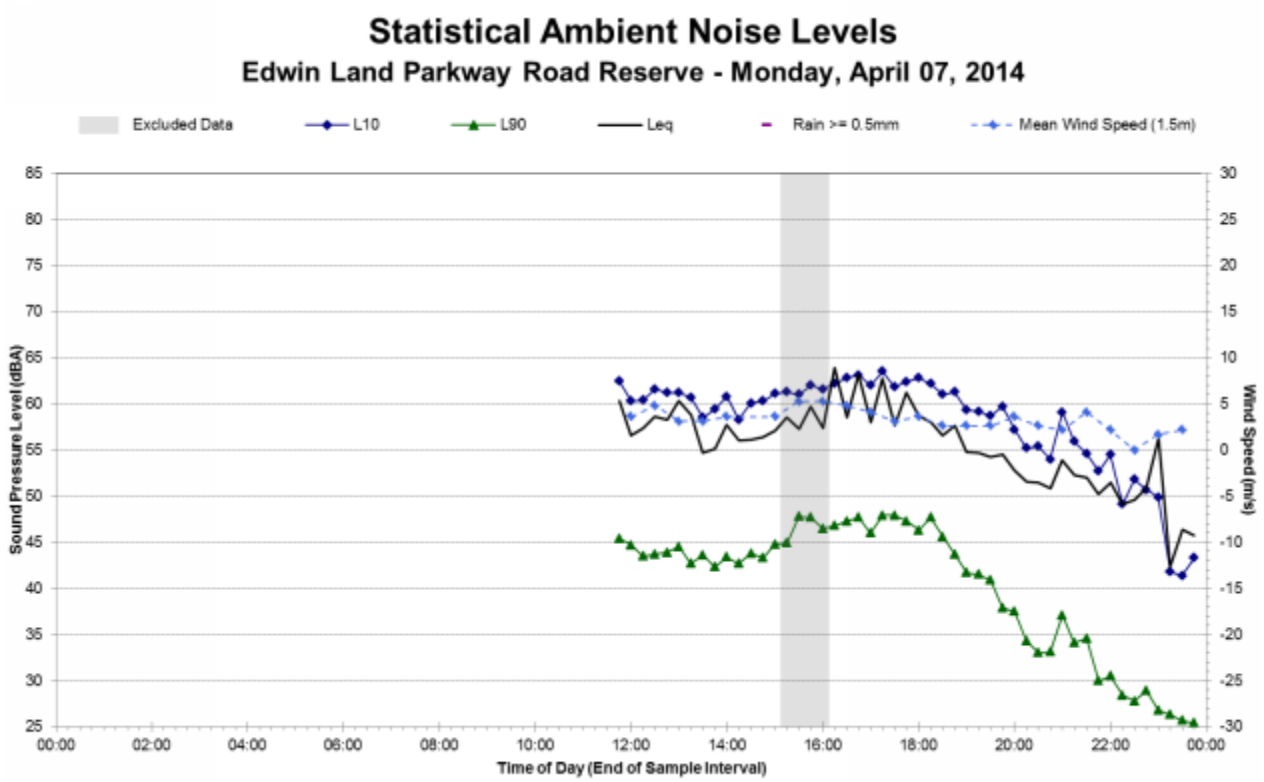
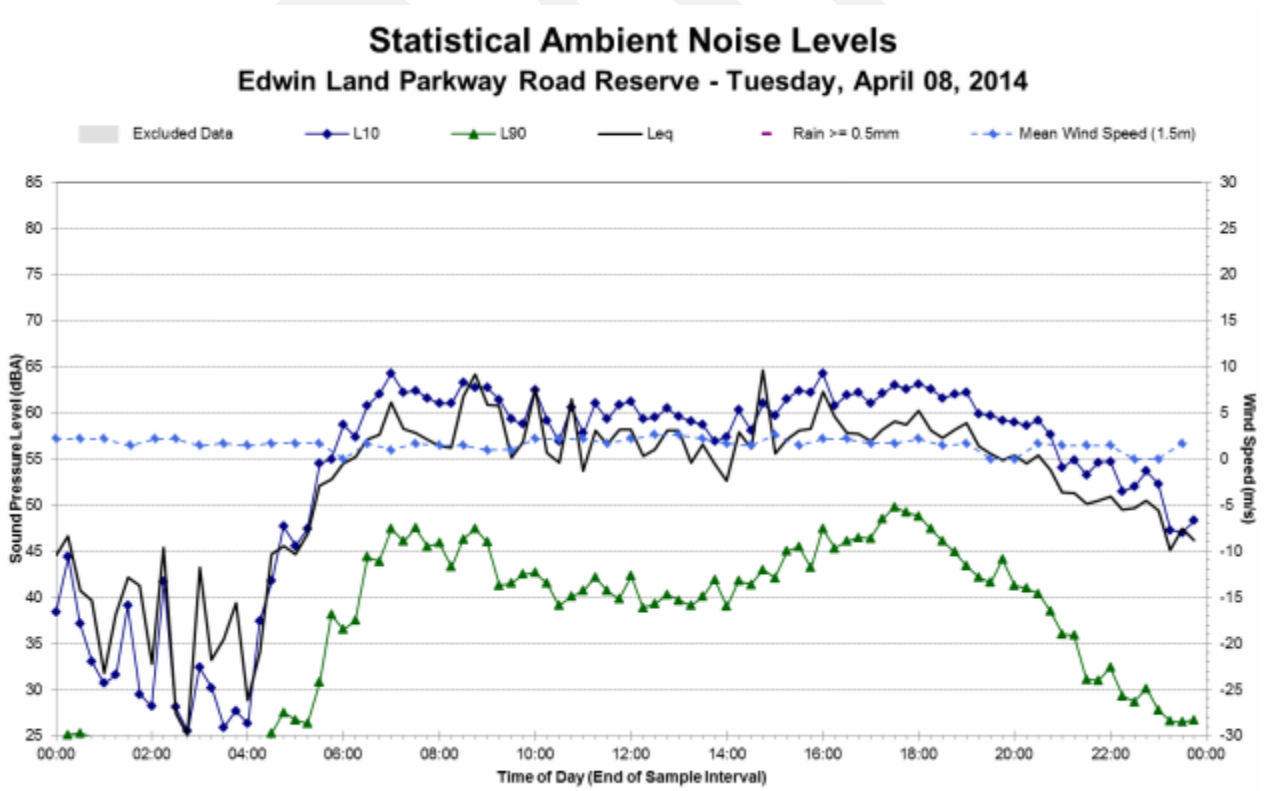
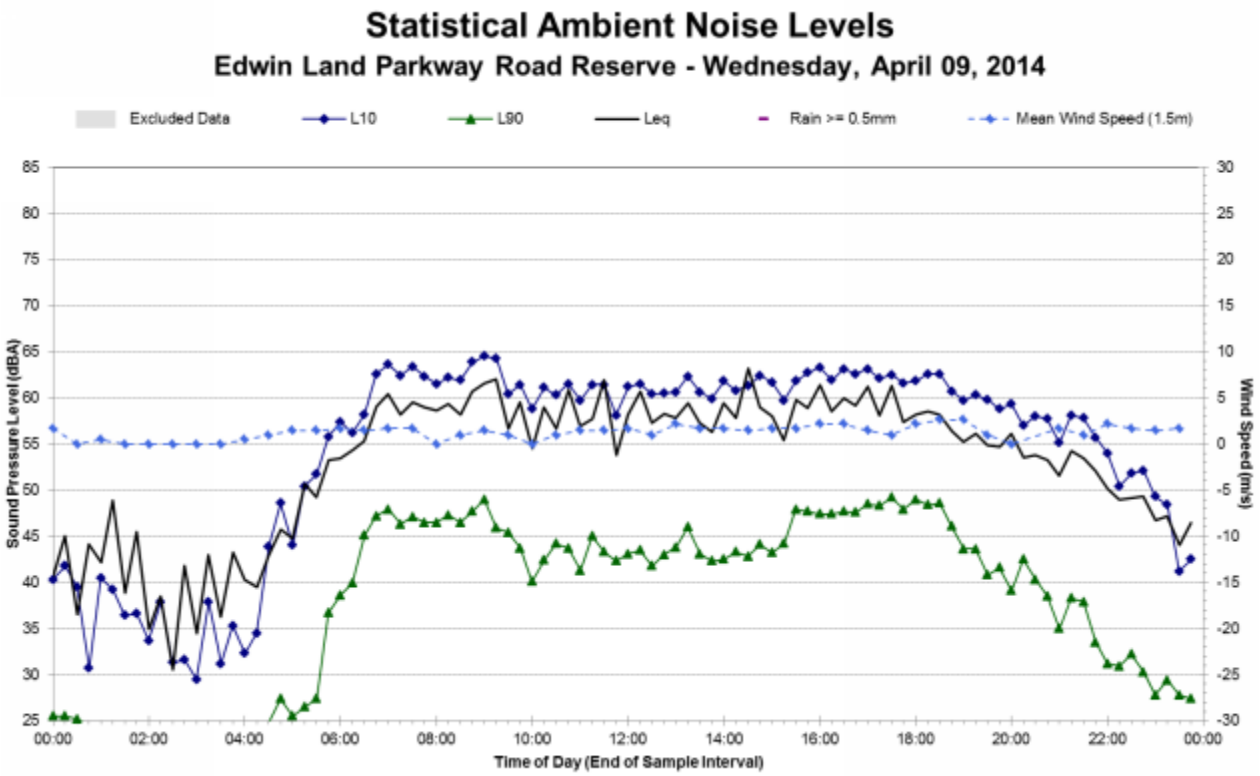
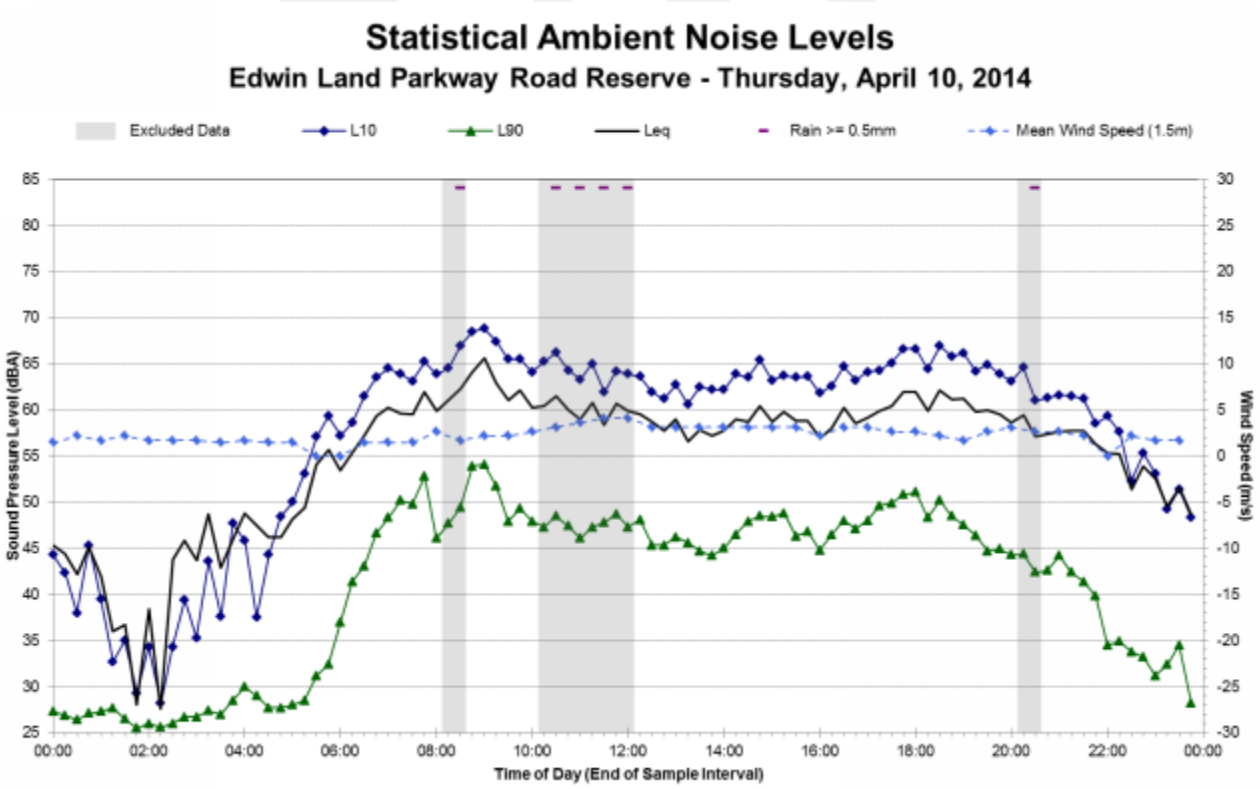
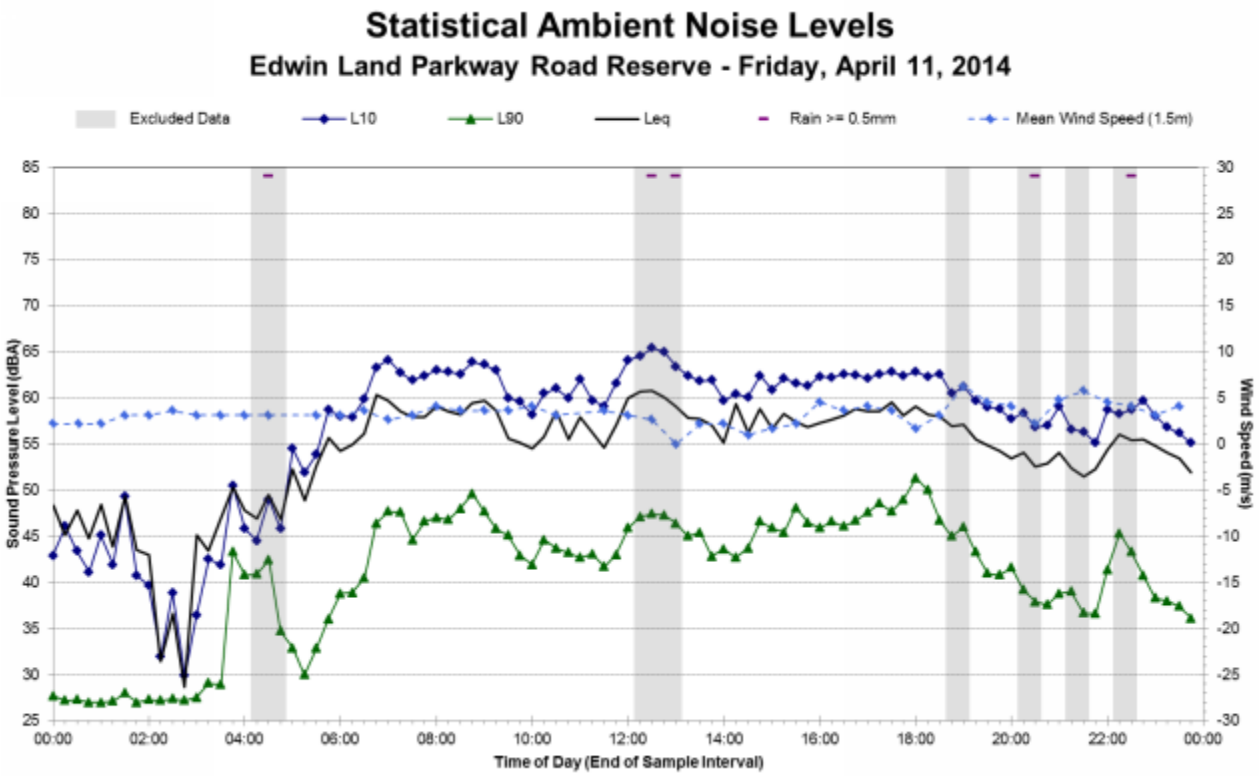
20:00
22:00
00:00

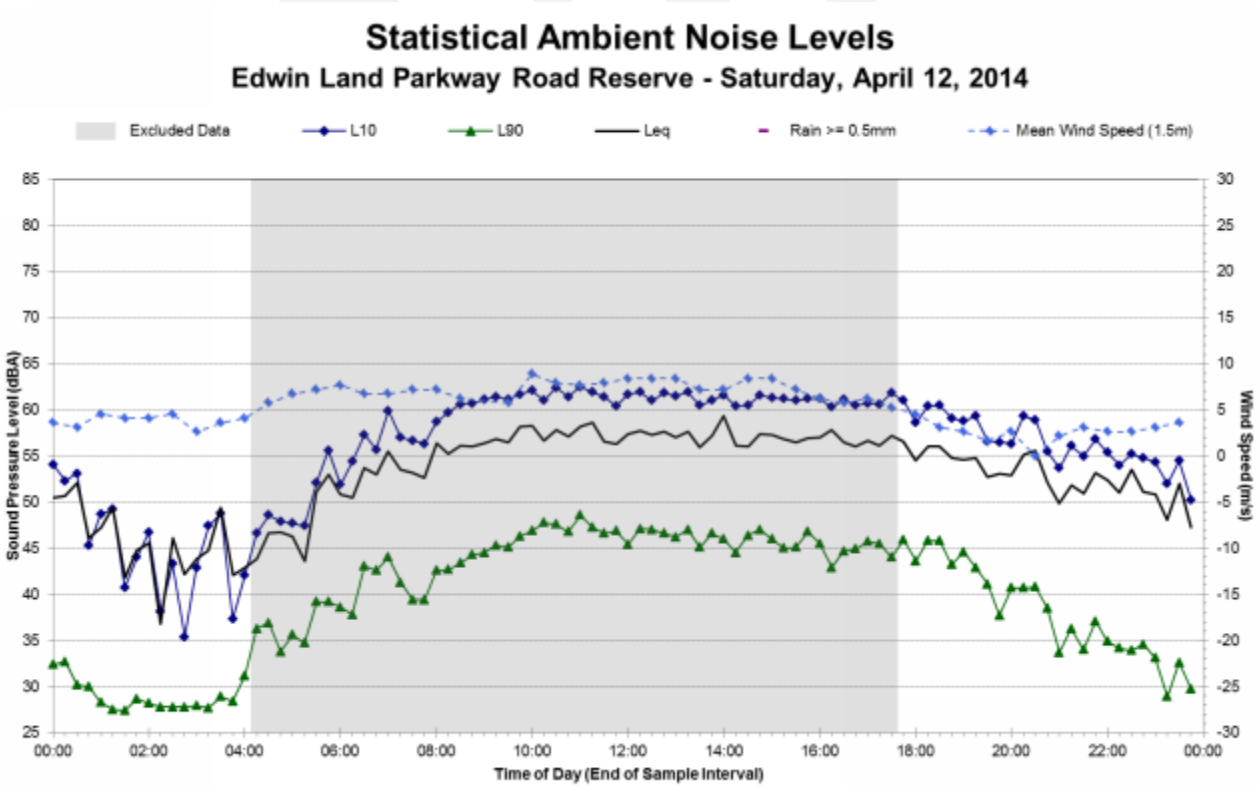

Statistical Ambient Noise Levels
Edwin Land Parkway Road Reserve - Monday, April 07, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)

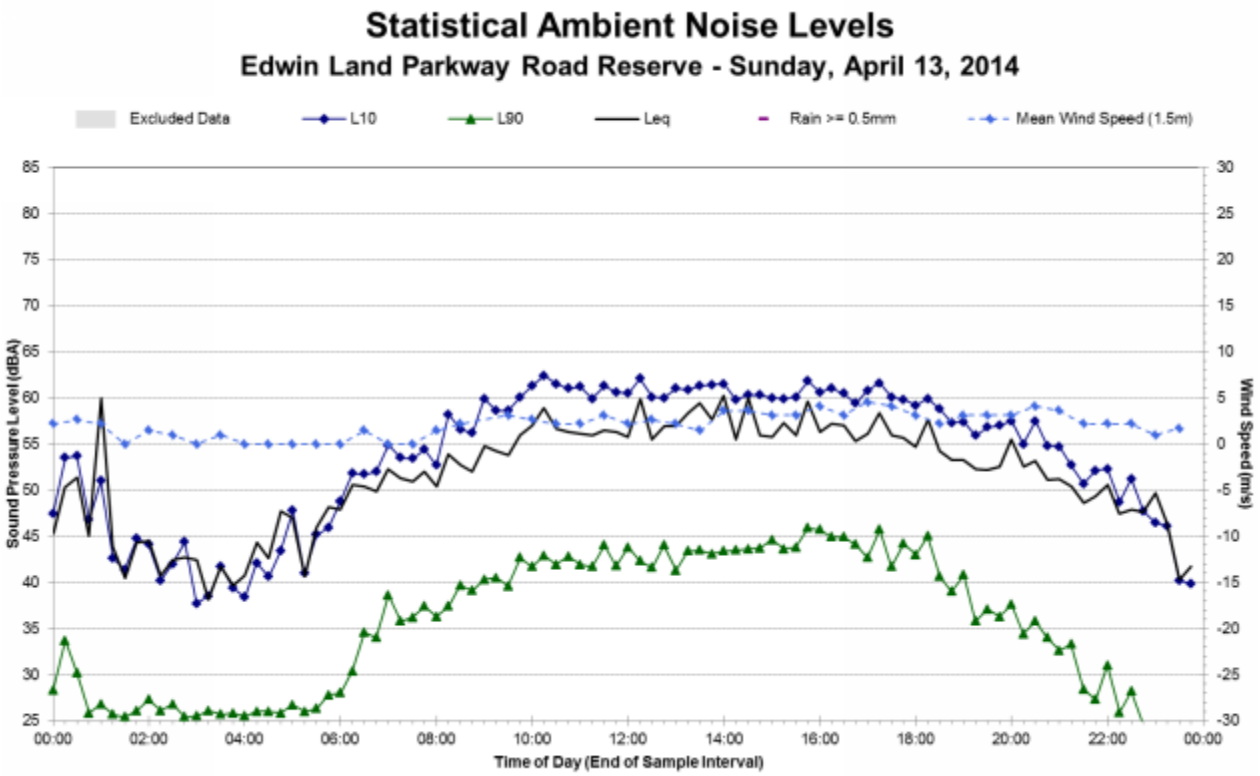

Statistical Ambient Noise Levels
Edwin Land Parkway Road Reserve - Tuesday, April 08, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)

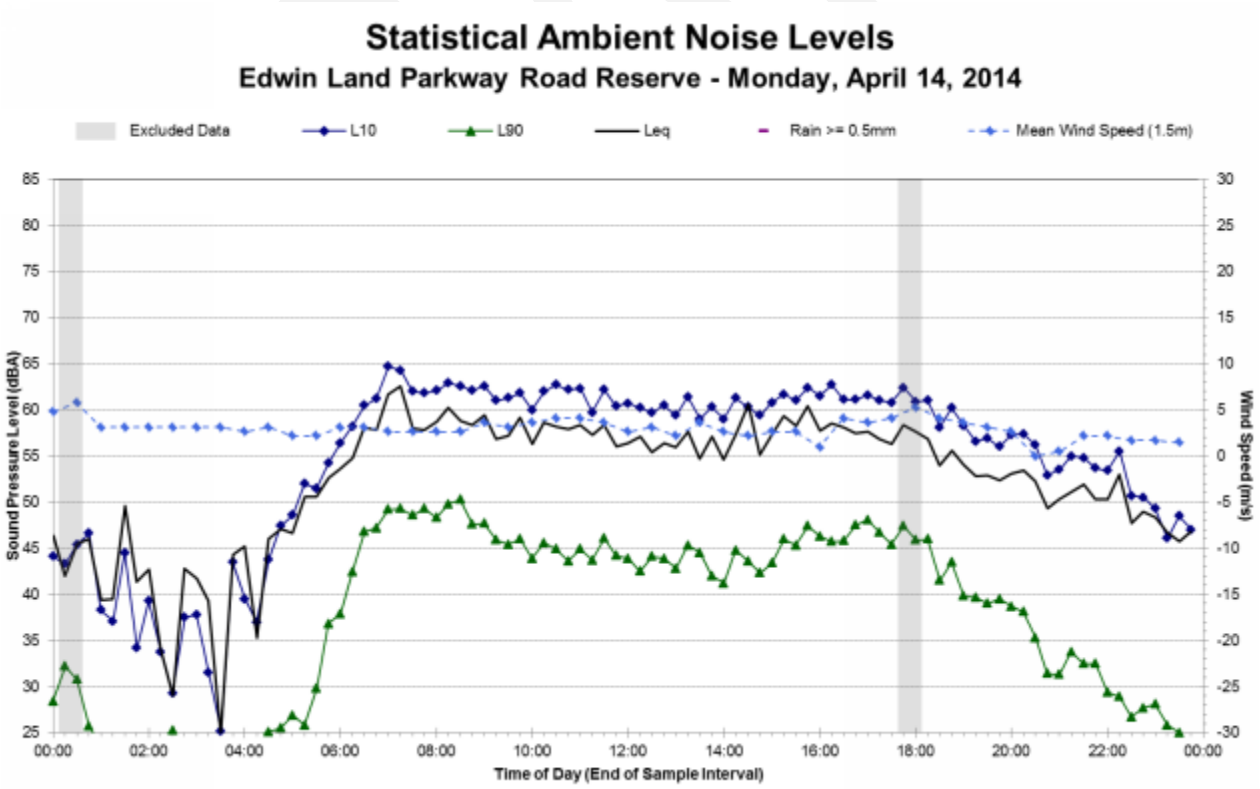

Statistical Ambient Noise Levels
Edwin Land Parkway Road Reserve - Wednesday, April 09, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)

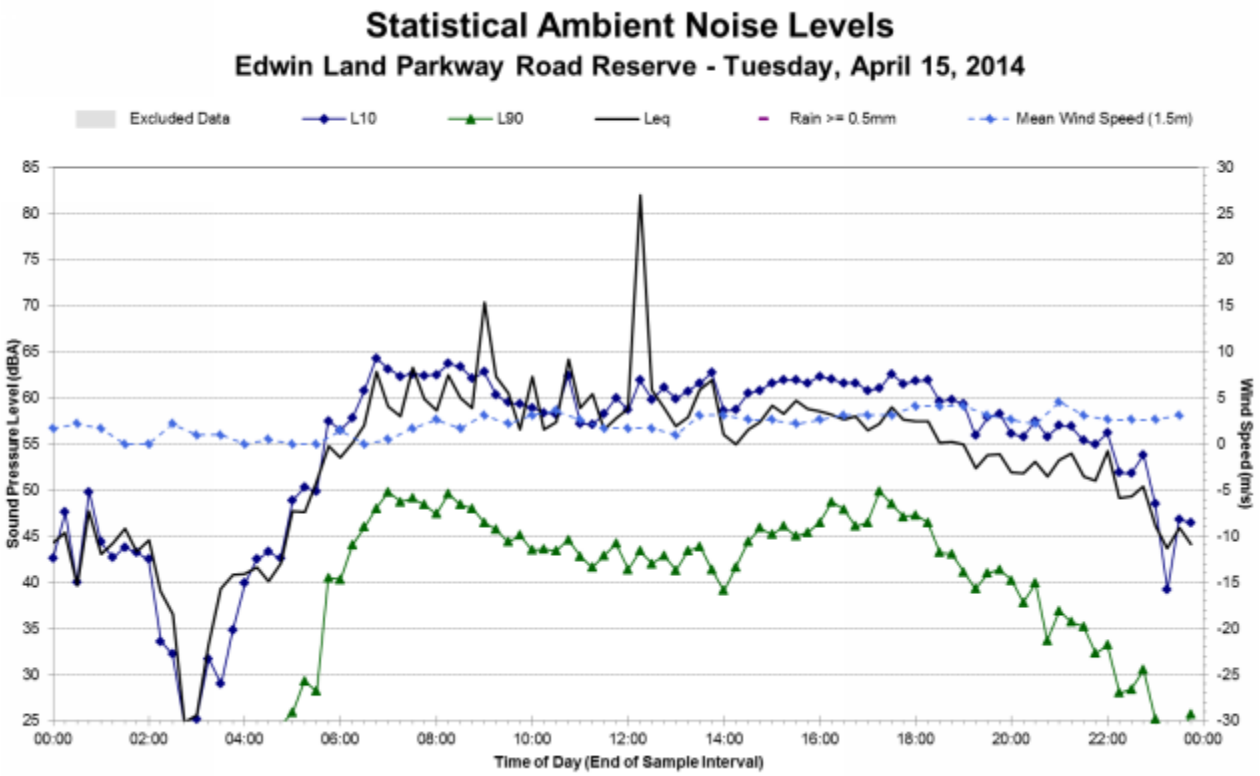

Statistical Ambient Noise Levels
Edwin Land Parkway Road Reserve - Thursday, April 10, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)

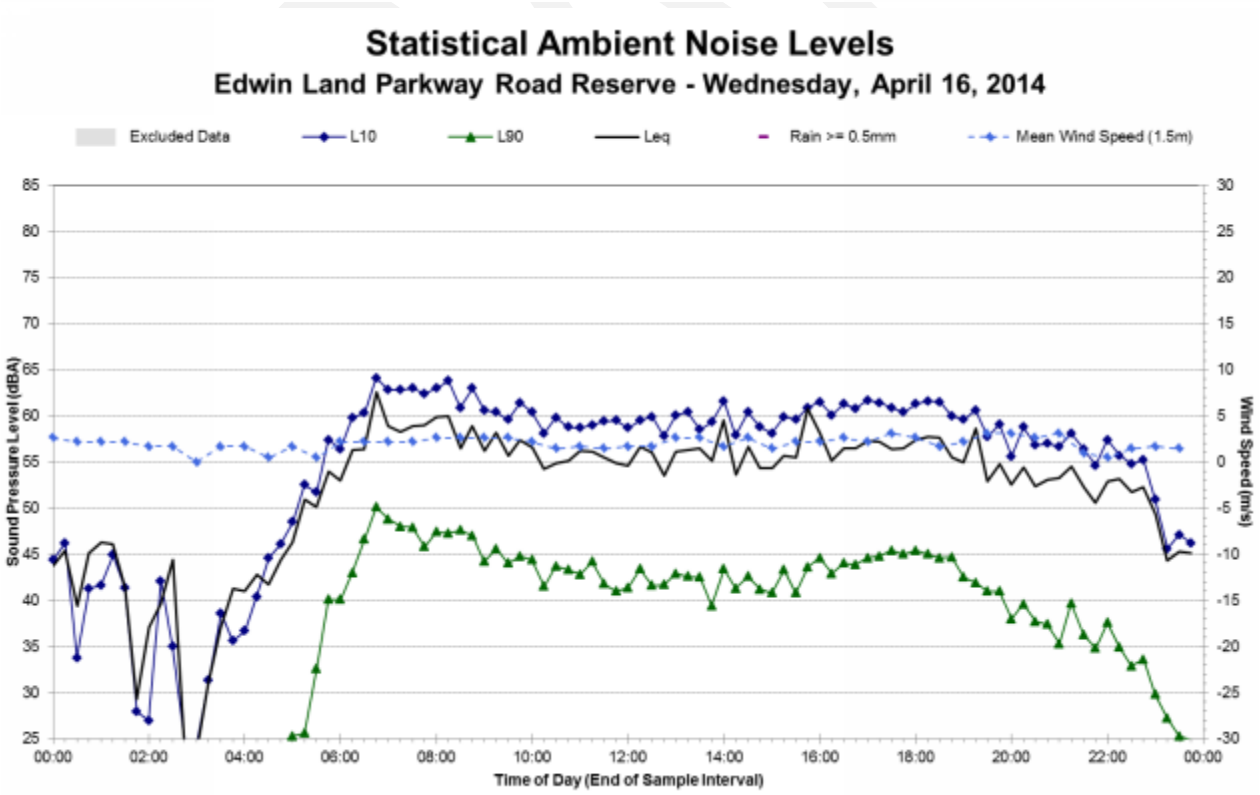

Statistical Ambient Noise Levels
Edwin Land Parkway Road Reserve - Friday, April 11, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)

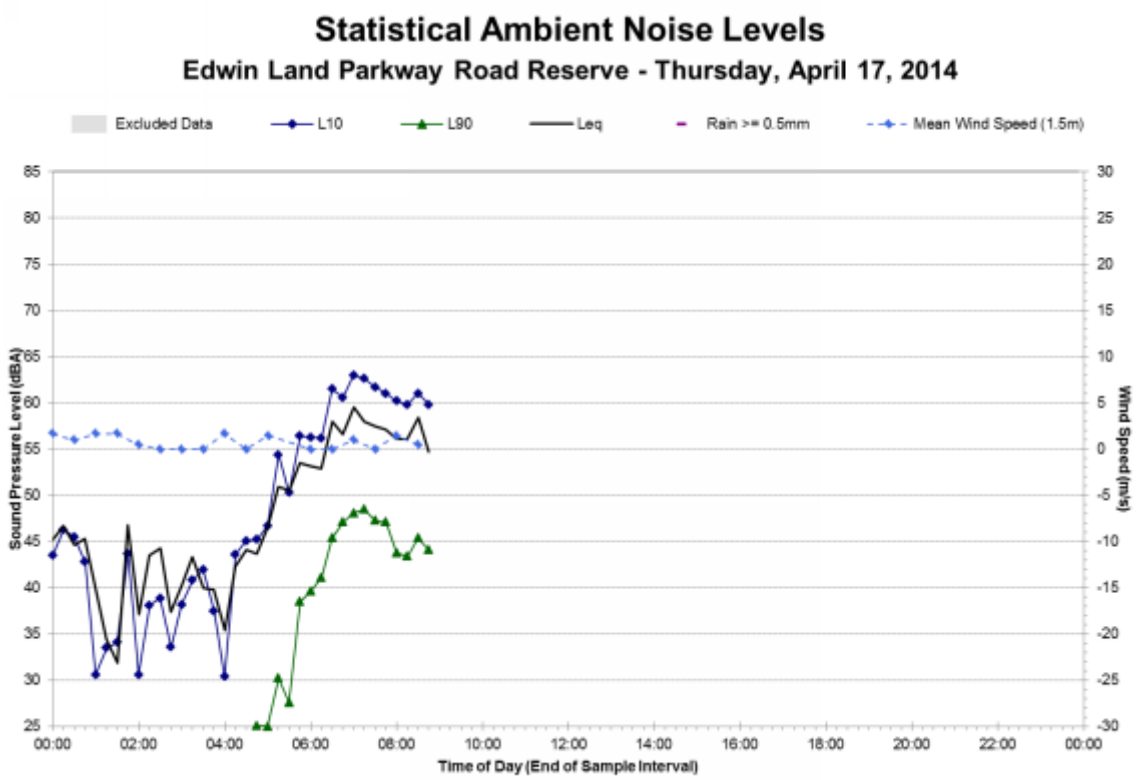

Statistical Ambient Noise Levels
Edwin Land Parkway Road Reserve - Saturday, April 12, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)


Statistical Ambient Noise Levels
Edwin Land Parkway Road Reserve - Sunday, April 13, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)


Statistical Ambient Noise Levels
Edwin Land Parkway Road Reserve - Monday, April 14, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)


Statistical Ambient Noise Levels
Edwin Land Parkway Road Reserve - Tuesday, April 15, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)


Statistical Ambient Noise Levels
Edwin Land Parkway Road Reserve - Wednesday, April 16, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)


Statistical Ambient Noise Levels
Edwin Land Parkway Road Reserve - Thursday, April 17, 2014
Excluded Data
L10
L90
Leq
Rain >= 0.5mm
Mean Wind Speed (1.5m)
Sound Pressure Level (dBA)
Wind Speed (m/s)
Time of Day (End of Sample Interval)
85
80
75
70
65
60
55
50
45
40
35
30
25
30
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16:00
18:00
20:00
22:00
00:00

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. $L_{Aeq(15hour)}$ 55 $L_{Aeq(9hour)}$ 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime $L_{Aeq(15hour)}$	Night-time $L_{Aeq(9hour)}$	Daytime $L_{Aeq(15hour)}$	Night-time $L_{Aeq(9hour)}$	Daytime $L_{Aeq(15hour)}$	Night-time $L_{Aeq(9hour)}$	Daytime $L_{Aeq(15hour)}$	Night-time $L_{Aeq(9hour)}$	Daytime $L_{Aeq(15hour)}$	Night-time $L_{Aeq(9hour)}$
NCA1										
6 PATRICK BRICK COURT - GF	53	45	57	49	3.6	3.3	1.6	-	-	-
6 PATRICK BRICK COURT - F 1	55	47	58	50	3.7	3.4	3.2	0.2	-	-
8 PATRICK BRICK COURT - GF	53	45	61	52	7.3	6.9	5.5	2.3	-	-
8 PATRICK BRICK COURT - F 1	55	47	63	55	8.5	8.0	8	4.8	-	-
33 PATRICK BRICK COURT - GF	42	35	54	46	12.1	10.9	-	-	YES	-
33 PATRICK BRICK COURT - F 1	45	38	61	53	15.4	14.3	5.7	2.5	YES	YES
31 PATRICK BRICK COURT - GF	48	41	60	51	11.5	10.9	4.6	1.4	-	-
31 PATRICK BRICK COURT - F 1	51	43	63	54	11.8	11.1	7.6	4.4	-	-
29 PATRICK BRICK COURT - GF	49	41	61	53	12.3	11.8	5.9	2.7	YES	-
29 PATRICK BRICK COURT - F 1	51	43	63	55	12.4	11.8	8.1	4.8	YES	-
29 PATRICK BRICK COURT - GF	51	43	62	54	11.2	10.7	6.9	3.7	-	-
27 PATRICK BRICK COURT - GF	45	38	59	50	14.0	12.9	3.6	0.4	YES	YES
27 PATRICK BRICK COURT - F 1	47	40	62	54	14.9	13.9	7	3.8	YES	YES
25 PATRICK BRICK COURT - GF	44	37	58	49	13.9	12.7	2.6	-	YES	YES
25 PATRICK BRICK COURT - F 1	46	39	62	54	16.0	14.9	7.1	3.9	YES	YES
21 PATRICK BRICK COURT - GF	45	38	60	52	15.0	13.8	4.7	1.5	YES	YES
19 PATRICK BRICK COURT - GF	45	38	59	51	13.8	12.6	3.8	0.6	YES	YES
31 THOMAS ROYAL GARDENS - GF	44	37	60	51	16.0	14.7	4.5	1.2	YES	YES
33 THOMAS ROYAL GARDENS - GF	45	38	60	52	14.7	13.5	5.1	1.9	YES	YES
35 THOMAS ROYAL GARDENS - GF	44	37	60	52	16.5	15.3	5.2	2	YES	YES
35 THOMAS ROYAL GARDENS - GF	44	37	58	50	14.8	13.5	3.3	0.1	YES	YES
39 THOMAS ROYAL GARDENS - GF	44	37	59	51	15.1	13.9	3.7	0.5	YES	YES

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
39 THOMAS ROYAL GARDENS - GF	43	36	60	52	16.6	15.4	5	1.8	YES	YES
43 THOMAS ROYAL GARDENS - GF	44	37	60	52	16.4	15.2	4.9	1.7	YES	YES
43 THOMAS ROYAL GARDENS - GF	44	37	63	55	19.6	18.4	8.2	5	YES	YES
47 THOMAS ROYAL GARDENS - GF	43	36	62	54	18.4	17.2	6.8	3.6	YES	YES
49 THOMAS ROYAL GARDENS - GF	44	37	63	55	19.9	18.7	8.4	5.2	YES	YES
49 THOMAS ROYAL GARDENS - GF	43	36	63	54	19.1	18.0	7.5	4.4	YES	YES
51 THOMAS ROYAL GARDENS - GF	44	37	63	55	19.6	18.4	8.1	4.9	YES	YES
53 THOMAS ROYAL GARDENS - GF	43	36	60	52	17.2	16.0	5.3	2.1	YES	YES
55 THOMAS ROYAL GARDENS - GF	43	36	63	55	19.5	18.3	7.8	4.6	YES	YES
59 THOMAS ROYAL GARDENS - GF	43	36	62	54	18.7	17.4	7	3.8	YES	YES
61 THOMAS ROYAL GARDENS - GF	43	36	62	53	18.3	17.1	6.5	3.3	YES	YES
NCA2										
91 ELLERTON DRIVE - GF	44	37	52	44	8.6	7.5	-	-	-	-
44 STONEHAVEN CIRCUIT - GF	51	43	57	49	6.7	6.1	2.3	-	-	-
46 STONEHAVEN CIRCUIT - GF	51	43	60	52	9.3	8.5	4.8	1.7	-	-
48 STONEHAVEN CIRCUIT - GF	48	41	58	50	10.8	9.7	3.4	0.3	-	-
50 STONEHAVEN CIRCUIT - GF	50	43	57	49	7.3	6.5	2.1	-	-	-
52 STONEHAVEN CIRCUIT - GF	50	42	58	50	8.0	7.3	2.7	-	-	-
54 STONEHAVEN CIRCUIT - GF	50	42	53	45	3.4	2.8	-	-	-	-
56 STONEHAVEN CIRCUIT - GF	49	42	57	49	7.9	7.1	1.9	-	-	-
58 STONEHAVEN CIRCUIT - GF	49	41	58	50	9.2	8.4	2.9	-	-	-
60 STONEHAVEN CIRCUIT - GF	46	39	59	51	12.4	11.4	3.7	0.5	YES	-
62 STONEHAVEN CIRCUIT - GF	46	38	56	48	10.6	9.5	1.1	-	-	-
1 TENNYSON DRIVE - GF	44	37	53	45	8.9	7.8	-	-	-	-

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
2 TENNYSON DRIVE - GF	44	37	60	52	15.8	14.6	4.7	1.5	YES	YES
12 NORTHCLIFFE PLACE - GF	44	37	62	54	17.7	16.4	7	3.8	YES	YES
12 NORTHCLIFFE PLACE - GF	45	38	62	54	17.6	16.4	7.2	4.1	YES	YES
10 NORTHCLIFFE PLACE - GF	44	37	51	43	6.6	5.6	-	-	-	-
21 NORTHCLIFFE PLACE - GF	42	35	54	46	12.4	11.2	-	-	YES	-
21 NORTHCLIFFE PLACE - GF	44	37	55	47	11.3	10.0	0.3	-	-	-
13 GEEBUNG PLACE - GF	42	35	51	42	8.8	7.5	-	-	-	-
12 GEEBUNG PLACE - GF	40	33	48	40	8.3	7.1	-	-	-	-
14 GEEBUNG PLACE - GF	40	33	48	40	7.7	6.7	-	-	-	-
16 GEEBUNG PLACE - GF	40	33	47	39	7.4	6.3	-	-	-	-
NCA3										
14 TAYLOR PLACE - GF	43	36	49	42	6.2	5.2	-	-	-	-
16 TAYLOR PLACE - GF	43	36	51	43	8.3	7.2	-	-	-	-
18 TAYLOR PLACE - GF	42	35	52	44	10.7	9.6	-	-	-	-
20 TAYLOR PLACE - GF	39	32	54	45	14.4	13.1	-	-	YES	YES
22 TAYLOR PLACE - GF	41	34	55	47	13.4	12.2	-	-	YES	YES
24 TAYLOR PLACE - GF	41	34	55	46	13.3	12.2	-	-	YES	YES
26 TAYLOR PLACE - GF	40	33	53	44	12.7	11.3	-	-	YES	-
30 TAYLOR PLACE - GF	41	34	58	50	16.8	15.6	2.9	-	YES	YES
32 TAYLOR PLACE - GF	39	32	57	49	18.0	16.6	2	-	YES	YES
38 TAYLOR PLACE - GF	37	30	56	47	18.1	16.8	0.5	-	YES	YES
40 TAYLOR PLACE - GF	38	31	57	49	19.3	17.9	2	-	YES	YES
NCA4										
28 SEVERNE STREET - GF	39	32	43	36	4.0	3.3	-	-	-	-

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
26 SEVERNE STREET - GF	42	35	45	37	2.5	2.0	-	-	-	-
30 SEVERNE STREET - GF	38	31	45	37	6.3	5.3	-	-	-	-
32 SEVERNE STREET - GF	42	35	48	40	5.3	4.5	-	-	-	-
34 SEVERNE STREET - GF	39	32	51	43	12.6	11.4	-	-	YES	-
36 SEVERNE STREET - GF	37	31	51	43	13.3	12.0	-	-	YES	-
38 SEVERNE STREET - GF	39	32	52	44	13.4	12.1	-	-	YES	YES
40 SEVERNE STREET - GF	37	30	52	43	14.3	13.0	-	-	YES	YES
42 SEVERNE STREET - GF	38	31	45	37	7.3	6.3	-	-	-	-
44 SEVERNE STREET - GF	37	30	44	36	6.3	5.3	-	-	-	-
46 SEVERNE STREET - GF	37	31	47	39	9.3	8.1	-	-	-	-
48 SEVERNE STREET - GF	38	31	47	39	9.2	8.0	-	-	-	-
50 SEVERNE STREET - GF	40	33	48	40	7.3	6.3	-	-	-	-
NCA5										
1 WOODMAN PLACE - GF	39	32	46	38	7.3	6.2	-	-	-	-
3 WOODMAN PLACE - GF	38	31	47	39	9.2	8.1	-	-	-	-
5 WOODMAN PLACE - GF	41	34	49	41	7.9	7.0	-	-	-	-
11 WOODMAN PLACE - GF	40	33	47	39	6.4	5.4	-	-	-	-
12 WOODMAN PLACE - GF	41	34	50	42	9.8	8.8	-	-	-	-
13 WOODMAN PLACE - GF	40	33	54	46	14.0	12.9	-	-	YES	YES
26 LONERGAN DRIVE - GF	36	29	55	46	18.8	17.5	-	-	YES	YES
24 LONERGAN DRIVE - GF	40	33	54	46	13.8	12.5	-	-	YES	YES
35 LONERGAN DRIVE - GF	36	29	57	49	21.0	19.7	1.9	-	YES	YES
NCA6										

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
40A Serverne Street	39	32	57	49	18.5	17.2	2	-	YES	YES
NCA7										
125 BARRACKS FLAT PLACE - GF	37	30	62	53	24.9	23.6	6.5	3.3	YES	YES
132 BARRACKS FLAT PLACE - GF	36	29	62	53	25.3	24.0	6.5	3.2	YES	YES
132 BARRACKS FLAT PLACE - F 1	38	31	62	54	24.6	23.3	7.1	3.8	YES	YES
6 DOEBERL PLACE - GF	37	30	61	53	24.1	22.8	6.2	2.9	YES	YES
6 DOEBERL PLACE - F 1	38	31	62	54	24.6	23.2	7.2	3.9	YES	YES
6 DOEBERL PLACE - GF	38	31	62	54	24.3	23.0	6.9	3.6	YES	YES
6 DOEBERL PLACE - F 1	38	31	63	54	24.4	23.1	7.6	4.4	YES	YES
20 DOEBERL PLACE - GF	38	31	58	50	20.7	19.4	3.4	0.1	YES	YES
20 DOEBERL PLACE - GF	38	31	59	51	21.8	20.5	4.4	1.1	YES	YES
22 DOEBERL PLACE - GF	38	31	60	52	22.3	21.0	4.9	1.6	YES	YES
24 DOEBERL PLACE - GF	38	31	59	51	21.5	20.3	4.4	1.2	YES	YES
24 DOEBERL PLACE - F 1	39	32	61	53	22.3	21.1	5.9	2.7	YES	YES
26 DOEBERL PLACE - GF	39	32	59	51	20.6	19.3	4.1	0.9	YES	YES
28 DOEBERL PLACE - GF	39	32	59	51	19.6	18.3	3.9	0.6	YES	YES
28 DOEBERL PLACE - F 1	40	33	61	53	21.2	19.8	6.3	3	YES	YES
32 DOEBERL PLACE - GF	40	33	61	53	21.6	20.2	6.4	3.1	YES	YES
32 DOEBERL PLACE - GF	41	34	62	54	21.8	20.5	7.4	4.1	YES	YES
32 DOEBERL PLACE - GF	41	34	57	49	16.4	15.1	2.3	-	YES	YES
32 DOEBERL PLACE - GF	42	35	60	52	18.7	17.4	5.3	2	YES	YES
32 DOEBERL PLACE - F 1	42	35	62	54	20.7	19.4	7.3	4	YES	YES
32 DOEBERL PLACE - GF	42	35	62	53	19.7	18.3	6.5	3.2	YES	YES

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
32 DOEBERL PLACE - F 1	42	35	64	55	21.7	20.3	8.5	5.2	YES	YES
NCA8										
126A BARRACKS FLAT DRIVE - GF	33	26	55	47	21.4	20.2	-	-	YES	YES
126A BARRACKS FLAT DRIVE - F 1	36	29	57	49	20.7	19.4	1.8	No	YES	YES
122 BARRACKS FLAT DRIVE - GF	36	29	54	46	18.8	17.4	-	-	YES	YES
120 BARRACKS FLAT DRIVE - GF	36	29	56	48	20.1	18.7	0.9	-	YES	YES
118 BARRACKS FLAT DRIVE - GF	35	28	57	48	21.5	20.2	1.5	-	YES	YES
118 BARRACKS FLAT DRIVE - GF	33	26	57	49	23.8	22.6	2.2	-	YES	YES
118 BARRACKS FLAT DRIVE - F 1	37	30	59	51	21.8	20.6	3.7	0.5	YES	YES
114 BARRACKS FLAT DRIVE - GF	36	29	59	50	22.4	21.1	3.7	0.4	YES	YES
112 BARRACKS FLAT DRIVE - GF	36	29	59	51	23.2	21.8	4.1	0.8	YES	YES
110 BARRACKS FLAT DRIVE - GF	34	27	59	51	24.8	23.5	3.8	0.5	YES	YES
110 BARRACKS FLAT DRIVE - F 1	37	30	61	53	23.8	22.5	5.8	2.5	YES	YES
108 BARRACKS FLAT DRIVE - GF	34	27	59	51	24.6	23.4	4	0.7	YES	YES
108 BARRACKS FLAT DRIVE - F 1	38	31	61	53	23.4	22.2	6.2	3	YES	YES
108 BARRACKS FLAT DRIVE - GF	37	30	59	51	22.3	21.0	4.3	1	YES	YES
106 BARRACKS FLAT DRIVE - GF	37	30	60	52	22.9	21.7	5	1.8	YES	YES
102 BARRACKS FLAT DRIVE - GF	35	28	57	48	21.8	20.5	1.7	-	YES	YES
102 BARRACKS FLAT DRIVE - F 1	39	32	59	51	20.5	19.2	4.2	0.9	YES	YES
98 BARRACKS FLAT DRIVE - GF	36	29	58	50	22.2	21.0	3.3	-	YES	YES
98 BARRACKS FLAT DRIVE - F 1	39	32	60	52	20.4	19.2	4.7	1.5	YES	YES
96 BARRACKS FLAT DRIVE - GF	37	30	55	47	18.0	17.0	0.1	-	YES	YES
96 BARRACKS FLAT DRIVE - F 1	40	33	57	49	17.3	16.2	2.2	No	YES	YES

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
94 BARRACKS FLAT DRIVE - GF	39	32	59	51	20.5	19.3	4.4	1.1	YES	YES
92 BARRACKS FLAT DRIVE - F 1	40	33	56	48	16.1	15.0	0.7	No	YES	YES
86 BARRACKS FLAT DRIVE - GF	39	32	52	44	13.8	12.5	-	-	YES	YES
86 BARRACKS FLAT DRIVE - GF	38	31	52	44	14.0	12.8	-	-	YES	YES
1 WEBBER PLACE - GF	37	30	54	45	16.5	15.3	-	-	YES	YES
82 BARRACKS FLAT DRIVE - GF	41	34	49	41	8.8	7.8	-	-	-	-
82 BARRACKS FLAT DRIVE - F 1	40	33	60	51	19.6	18.4	4.5	1.2	YES	YES
3 WEBBER PLACE - GF	36	29	50	42	13.6	12.5	-	-	YES	YES
3 WEBBER PLACE - F 1	42	35	53	44	10.9	9.8	No	No	-	-
80 BARRACKS FLAT DRIVE - F 1	42	35	61	53	19.1	18.0	6	2.8	YES	YES
78 BARRACKS FLAT DRIVE - GF	40	33	53	45	13.0	12.1	-	-	YES	YES
78 BARRACKS FLAT DRIVE - F 1	42	35	58	50	15.8	14.7	3.2	No	YES	YES
78 BARRACKS FLAT DRIVE - GF	45	38	53	44	7.5	6.6	No	No	-	-
5 WEBBER PLACE - GF	40	33	51	43	11.7	10.7	-	-	-	-
7 WEBBER PLACE - GF	37	30	52	44	15.4	14.3	-	-	YES	YES
7 WEBBER PLACE - F 1	42	35	56	48	14.2	13.0	1.1	No	YES	YES
9 WEBBER PLACE - GF	40	33	54	46	13.8	12.8	-	-	YES	YES
9 WEBBER PLACE - F 1	44	36	59	50	15.0	13.9	3.6	0.3	YES	YES
11 WEBBER PLACE - GF	45	38	53	44	7.5	6.6	-	-	-	-
11 FITZGIBBON PLACE - GF	48	41	54	46	5.5	4.8	-	-	-	-
13 WEBBER PLACE - GF	46	39	53	45	6.7	5.9	-	-	-	-
12 WEBBER PLACE - GF	50	42	53	45	3.0	2.2	-	-	-	-
12 WEBBER PLACE - F 1	52	44	60	52	8.8	7.9	5.4	2.3	-	-
16 FITZGIBBON PLACE - GF	50	42	57	49	7.6	6.8	2.3	-	-	-

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
15 FITZGIBBON PLACE - GF	50	42	57	49	7.5	6.6	2.1	-	-	-
13 CAROLINE PLACE - GF	52	45	60	52	7.5	6.6	4.6	1.5	-	-
17 FITZGIBBON PLACE - GF	53	46	59	51	6.1	5.3	4	1	-	-
17 CAROLINE PLACE - GF	52	45	60	52	8.0	7.2	5.3	2.2	-	-
19 CAROLINE PLACE - GF	56	48	62	54	6.2	5.4	6.7	3.7	-	-
16 ALFRED PLACE - GF	57	50	60	52	3.1	2.7	5.1	2.4	-	-
18 ALFRED PLACE - GF	57	49	60	52	3.3	2.9	5	2.3	-	-
18 ALFRED PLACE - F 1	58	50	62	54	4.4	3.8	6.9	4.1	-	-
14 ALFRED PLACE - GF	58	51	60	53	2.5	2.0	5.2	2.6	-	-
12 ALFRED PLACE - GF	57	49	59	52	2.6	2.1	4.1	1.5	-	-

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
NCA1										
6 PATRICK BRICK COURT - GF	53	45	57	49	3.6	3.3	1.6	-	-	-
6 PATRICK BRICK COURT - F 1	55	47	58	50	3.7	3.4	3.2	0.2	-	-
8 PATRICK BRICK COURT - GF	53	45	61	52	7.3	6.9	5.5	2.3	-	-
8 PATRICK BRICK COURT - F 1	55	47	63	55	8.5	8.0	8	4.8	-	-
33 PATRICK BRICK COURT - GF	42	35	54	46	12.1	10.9	-	-	YES	-
33 PATRICK BRICK COURT - F 1	45	38	61	53	15.4	14.3	5.7	2.5	YES	YES
31 PATRICK BRICK COURT - GF	48	41	60	51	11.5	10.9	4.6	1.4	-	-
31 PATRICK BRICK COURT - F 1	51	43	63	54	11.8	11.1	7.6	4.4	-	-
29 PATRICK BRICK COURT - GF	49	41	61	53	12.3	11.8	5.9	2.7	YES	-
29 PATRICK BRICK COURT - F 1	51	43	63	55	12.4	11.8	8.1	4.8	YES	-
29 PATRICK BRICK COURT - GF	51	43	62	54	11.2	10.7	6.9	3.7	-	-
27 PATRICK BRICK COURT - GF	45	38	59	50	14.0	12.9	3.6	0.4	YES	YES
27 PATRICK BRICK COURT - F 1	47	40	62	54	14.9	13.9	7	3.8	YES	YES
25 PATRICK BRICK COURT - GF	44	37	58	49	13.9	12.7	2.6	-	YES	YES
25 PATRICK BRICK COURT - F 1	46	39	62	54	16.0	14.9	7.1	3.9	YES	YES
21 PATRICK BRICK COURT - GF	45	38	60	52	15.0	13.8	4.7	1.5	YES	YES
19 PATRICK BRICK COURT - GF	45	38	59	51	13.8	12.6	3.8	0.6	YES	YES
31 THOMAS ROYAL GARDENS - GF	44	37	60	51	16.0	14.7	4.5	1.2	YES	YES
33 THOMAS ROYAL GARDENS - GF	45	38	60	52	14.7	13.5	5.1	1.9	YES	YES
35 THOMAS ROYAL GARDENS - GF	44	37	60	52	16.5	15.3	5.2	2	YES	YES
35 THOMAS ROYAL GARDENS - GF	44	37	58	50	14.8	13.5	3.3	0.1	YES	YES
39 THOMAS ROYAL GARDENS - GF	44	37	59	51	15.1	13.9	3.7	0.5	YES	YES
39 THOMAS ROYAL GARDENS - GF	43	36	60	52	16.6	15.4	5	1.8	YES	YES

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
43 THOMAS ROYAL GARDENS - GF	44	37	60	52	16.4	15.2	4.9	1.7	YES	YES
43 THOMAS ROYAL GARDENS - GF	44	37	63	55	19.6	18.4	8.2	5	YES	YES
47 THOMAS ROYAL GARDENS - GF	43	36	62	54	18.4	17.2	6.8	3.6	YES	YES
49 THOMAS ROYAL GARDENS - GF	44	37	63	55	19.9	18.7	8.4	5.2	YES	YES
49 THOMAS ROYAL GARDENS - GF	43	36	63	54	19.1	18.0	7.5	4.4	YES	YES
51 THOMAS ROYAL GARDENS - GF	44	37	63	55	19.6	18.4	8.1	4.9	YES	YES
53 THOMAS ROYAL GARDENS - GF	43	36	60	52	17.2	16.0	5.3	2.1	YES	YES
55 THOMAS ROYAL GARDENS - GF	43	36	63	55	19.5	18.3	7.8	4.6	YES	YES
59 THOMAS ROYAL GARDENS - GF	43	36	62	54	18.7	17.4	7	3.8	YES	YES
61 THOMAS ROYAL GARDENS - GF	43	36	62	53	18.3	17.1	6.5	3.3	YES	YES
NCA2										
91 ELLERTON DRIVE - GF	44	37	52	44	8.6	7.5	-	-	-	-
44 STONEHAVEN CIRCUIT - GF	51	43	57	49	6.7	6.1	2.3	-	-	-
46 STONEHAVEN CIRCUIT - GF	51	43	60	52	9.3	8.5	4.8	1.7	-	-
48 STONEHAVEN CIRCUIT - GF	48	41	58	50	10.8	9.7	3.4	0.3	-	-
50 STONEHAVEN CIRCUIT - GF	50	43	57	49	7.3	6.5	2.1	-	-	-
52 STONEHAVEN CIRCUIT - GF	50	42	58	50	8.0	7.3	2.7	-	-	-
54 STONEHAVEN CIRCUIT - GF	50	42	53	45	3.4	2.8	-	-	-	-
56 STONEHAVEN CIRCUIT - GF	49	42	57	49	7.9	7.1	1.9	-	-	-
58 STONEHAVEN CIRCUIT - GF	49	41	58	50	9.2	8.4	2.9	-	-	-
60 STONEHAVEN CIRCUIT - GF	46	39	59	51	12.4	11.4	3.7	0.5	YES	-
62 STONEHAVEN CIRCUIT - GF	46	38	56	48	10.6	9.5	1.1	-	-	-
1 TENNYSON DRIVE - GF	44	37	53	45	8.9	7.8	-	-	-	-
2 TENNYSON DRIVE - GF	44	37	60	52	15.8	14.6	4.7	1.5	YES	YES

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
12 NORTHCLIFFE PLACE - GF	45	38	62	54	17.6	16.4	7.2	4.1	YES	YES
10 NORTHCLIFFE PLACE - GF	44	37	51	43	6.6	5.6	-	-	-	-
21 NORTHCLIFFE PLACE - GF	42	35	54	46	12.4	11.2	-	-	YES	-
21 NORTHCLIFFE PLACE - GF	44	37	55	47	11.3	10.0	0.3	-	-	-
13 GEEBUNG PLACE - GF	42	35	51	42	8.8	7.5	-	-	-	-
12 GEEBUNG PLACE - GF	40	33	48	40	8.3	7.1	-	-	-	-
14 GEEBUNG PLACE - GF	40	33	48	40	7.7	6.7	-	-	-	-
16 GEEBUNG PLACE - GF	40	33	47	39	7.4	6.3	-	-	-	-
NCA3										
14 TAYLOR PLACE - GF	43	36	49	42	6.2	5.2	-	-	-	-
16 TAYLOR PLACE - GF	43	36	51	43	8.3	7.2	-	-	-	-
18 TAYLOR PLACE - GF	42	35	52	44	10.7	9.6	-	-	-	-
20 TAYLOR PLACE - GF	39	32	54	45	14.4	13.1	-	-	YES	YES
22 TAYLOR PLACE - GF	41	34	55	47	13.4	12.2	-	-	YES	YES
24 TAYLOR PLACE - GF	41	34	55	46	13.3	12.2	-	-	YES	YES
26 TAYLOR PLACE - GF	40	33	53	44	12.7	11.3	-	-	YES	-
30 TAYLOR PLACE - GF	41	34	58	50	16.8	15.6	2.9	-	YES	YES
32 TAYLOR PLACE - GF	39	32	57	49	18.0	16.6	2	-	YES	YES
38 TAYLOR PLACE - GF	37	30	56	47	18.1	16.8	0.5	-	YES	YES
40 TAYLOR PLACE - GF	38	31	57	49	19.3	17.9	2	-	YES	YES
NCA4										
28 SEVERNE STREET - GF	39	32	43	36	4.0	3.3	-	-	-	-
26 SEVERNE STREET - GF	42	35	45	37	2.5	2.0	-	-	-	-
30 SEVERNE STREET - GF	38	31	45	37	6.3	5.3	-	-	-	-

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
32 SEVERNE STREET - GF	42	35	48	40	5.3	4.5	-	-	-	-
34 SEVERNE STREET - GF	39	32	51	43	12.6	11.4	-	-	YES	-
36 SEVERNE STREET - GF	37	31	51	43	13.3	12.0	-	-	YES	-
38 SEVERNE STREET - GF	39	32	52	44	13.4	12.1	-	-	YES	YES
40 SEVERNE STREET - GF	37	30	52	43	14.3	13.0	-	-	YES	YES
42 SEVERNE STREET - GF	38	31	45	37	7.3	6.3	-	-	-	-
44 SEVERNE STREET - GF	37	30	44	36	6.3	5.3	-	-	-	-
46 SEVERNE STREET - GF	37	31	47	39	9.3	8.1	-	-	-	-
48 SEVERNE STREET - GF	38	31	47	39	9.2	8.0	-	-	-	-
50 SEVERNE STREET - GF	40	33	48	40	7.3	6.3	-	-	-	-
NCA5										
1 WOODMAN PLACE - GF	39	32	46	38	7.3	6.2	-	-	-	-
3 WOODMAN PLACE - GF	38	31	47	39	9.2	8.1	-	-	-	-
5 WOODMAN PLACE - GF	41	34	49	41	7.9	7.0	-	-	-	-
11 WOODMAN PLACE - GF	40	33	47	39	6.4	5.4	-	-	-	-
12 WOODMAN PLACE - GF	41	34	50	42	9.8	8.8	-	-	-	-
13 WOODMAN PLACE - GF	40	33	54	46	14.0	12.9	-	-	YES	YES
26 LONERGAN DRIVE - GF	36	29	55	46	18.8	17.5	-	-	YES	YES
24 LONERGAN DRIVE - GF	40	33	54	46	13.8	12.5	-	-	YES	YES
35 LONERGAN DRIVE - GF	36	29	57	49	21.0	19.7	1.9	-	YES	YES
NCA6										
40A Serverne Street	39	32	57	49	18.5	17.2	2	-	YES	YES
NCA7										

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
125 BARRACKS FLAT PLACE - GF	37	30	62	53	24.9	23.6	6.5	3.3	YES	YES
132 BARRACKS FLAT PLACE - GF	36	29	62	53	25.3	24.0	6.5	3.2	YES	YES
132 BARRACKS FLAT PLACE - F 1	38	31	62	54	24.6	23.3	7.1	3.8	YES	YES
6 DOEBERL PLACE - GF	37	30	61	53	24.1	22.8	6.2	2.9	YES	YES
6 DOEBERL PLACE - F 1	38	31	62	54	24.6	23.2	7.2	3.9	YES	YES
6 DOEBERL PLACE - GF	38	31	62	54	24.3	23.0	6.9	3.6	YES	YES
6 DOEBERL PLACE - F 1	38	31	63	54	24.4	23.1	7.6	4.4	YES	YES
20 DOEBERL PLACE - GF	38	31	58	50	20.7	19.4	3.4	0.1	YES	YES
20 DOEBERL PLACE - GF	38	31	59	51	21.8	20.5	4.4	1.1	YES	YES
22 DOEBERL PLACE - GF	38	31	60	52	22.3	21.0	4.9	1.6	YES	YES
24 DOEBERL PLACE - GF	38	31	59	51	21.5	20.3	4.4	1.2	YES	YES
24 DOEBERL PLACE - F 1	39	32	61	53	22.3	21.1	5.9	2.7	YES	YES
26 DOEBERL PLACE - GF	39	32	59	51	20.6	19.3	4.1	0.9	YES	YES
28 DOEBERL PLACE - GF	39	32	59	51	19.6	18.3	3.9	0.6	YES	YES
28 DOEBERL PLACE - F 1	40	33	61	53	21.2	19.8	6.3	3	YES	YES
32 DOEBERL PLACE - GF	40	33	61	53	21.6	20.2	6.4	3.1	YES	YES
32 DOEBERL PLACE - GF	41	34	62	54	21.8	20.5	7.4	4.1	YES	YES
32 DOEBERL PLACE - GF	41	34	57	49	16.4	15.1	2.3	-	YES	YES
32 DOEBERL PLACE - GF	42	35	60	52	18.7	17.4	5.3	2	YES	YES
32 DOEBERL PLACE - F 1	42	35	62	54	20.7	19.4	7.3	4	YES	YES
32 DOEBERL PLACE - GF	42	35	62	53	19.7	18.3	6.5	3.2	YES	YES
32 DOEBERL PLACE - F 1	42	35	64	55	21.7	20.3	8.5	5.2	YES	YES
NCA8										

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
126A BARRACKS FLAT DRIVE - GF	33	26	55	47	21.4	20.2	-	-	YES	YES
126A BARRACKS FLAT DRIVE - F 1	36	29	57	49	20.7	19.4	1.8	No	YES	YES
122 BARRACKS FLAT DRIVE - GF	36	29	54	46	18.8	17.4	-	-	YES	YES
120 BARRACKS FLAT DRIVE - GF	36	29	56	48	20.1	18.7	0.9	-	YES	YES
118 BARRACKS FLAT DRIVE - GF	35	28	57	48	21.5	20.2	1.5	-	YES	YES
118 BARRACKS FLAT DRIVE - GF	33	26	57	49	23.8	22.6	2.2	-	YES	YES
118 BARRACKS FLAT DRIVE - F 1	37	30	59	51	21.8	20.6	3.7	0.5	YES	YES
114 BARRACKS FLAT DRIVE - GF	36	29	59	50	22.4	21.1	3.7	0.4	YES	YES
112 BARRACKS FLAT DRIVE - GF	36	29	59	51	23.2	21.8	4.1	0.8	YES	YES
110 BARRACKS FLAT DRIVE - GF	34	27	59	51	24.8	23.5	3.8	0.5	YES	YES
110 BARRACKS FLAT DRIVE - F 1	37	30	61	53	23.8	22.5	5.8	2.5	YES	YES
108 BARRACKS FLAT DRIVE - GF	34	27	59	51	24.6	23.4	4	0.7	YES	YES
108 BARRACKS FLAT DRIVE - F 1	38	31	61	53	23.4	22.2	6.2	3	YES	YES
108 BARRACKS FLAT DRIVE - GF	37	30	59	51	22.3	21.0	4.3	1	YES	YES
106 BARRACKS FLAT DRIVE - GF	37	30	60	52	22.9	21.7	5	1.8	YES	YES
102 BARRACKS FLAT DRIVE - GF	35	28	57	48	21.8	20.5	1.7	-	YES	YES
102 BARRACKS FLAT DRIVE - F 1	39	32	59	51	20.5	19.2	4.2	0.9	YES	YES
98 BARRACKS FLAT DRIVE - GF	36	29	58	50	22.2	21.0	3.3	-	YES	YES
98 BARRACKS FLAT DRIVE - F 1	39	32	60	52	20.4	19.2	4.7	1.5	YES	YES
96 BARRACKS FLAT DRIVE - GF	37	30	55	47	18.0	17.0	0.1	-	YES	YES
96 BARRACKS FLAT DRIVE - F 1	40	33	57	49	17.3	16.2	2.2	No	YES	YES
94 BARRACKS FLAT DRIVE - GF	39	32	59	51	20.5	19.3	4.4	1.1	YES	YES
92 BARRACKS FLAT DRIVE - F 1	40	33	56	48	16.1	15.0	0.7	No	YES	YES
86 BARRACKS FLAT DRIVE - GF	39	32	52	44	13.8	12.5	-	-	YES	YES

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
86 BARRACKS FLAT DRIVE - GF	38	31	52	44	14.0	12.8	-	-	YES	YES
1 WEBBER PLACE - GF	37	30	54	45	16.5	15.3	-	-	YES	YES
82 BARRACKS FLAT DRIVE - GF	41	34	49	41	8.8	7.8	-	-	-	-
82 BARRACKS FLAT DRIVE - F 1	40	33	60	51	19.6	18.4	4.5	1.2	YES	YES
3 WEBBER PLACE - GF	36	29	50	42	13.6	12.5	-	-	YES	YES
3 WEBBER PLACE - F 1	42	35	53	44	10.9	9.8	No	No	-	-
80 BARRACKS FLAT DRIVE - F 1	42	35	61	53	19.1	18.0	6	2.8	YES	YES
78 BARRACKS FLAT DRIVE - GF	40	33	53	45	13.0	12.1	-	-	YES	YES
78 BARRACKS FLAT DRIVE - F 1	42	35	58	50	15.8	14.7	3.2	No	YES	YES
78 BARRACKS FLAT DRIVE - GF	45	38	53	44	7.5	6.6	No	No	-	-
5 WEBBER PLACE - GF	40	33	51	43	11.7	10.7	-	-	-	-
7 WEBBER PLACE - GF	37	30	52	44	15.4	14.3	-	-	YES	YES
7 WEBBER PLACE - F 1	42	35	56	48	14.2	13.0	1.1	No	YES	YES
9 WEBBER PLACE - GF	40	33	54	46	13.8	12.8	-	-	YES	YES
9 WEBBER PLACE - F 1	44	36	59	50	15.0	13.9	3.6	0.3	YES	YES
11 WEBBER PLACE - GF	45	38	53	44	7.5	6.6	-	-	-	-
11 FITZGIBBON PLACE - GF	48	41	54	46	5.5	4.8	-	-	-	-
13 WEBBER PLACE - GF	46	39	53	45	6.7	5.9	-	-	-	-
12 WEBBER PLACE - GF	50	42	53	45	3.0	2.2	-	-	-	-
12 WEBBER PLACE - F 1	52	44	60	52	8.8	7.9	5.4	2.3	-	-
16 FITZGIBBON PLACE - GF	50	42	57	49	7.6	6.8	2.3	-	-	-
15 FITZGIBBON PLACE - GF	50	42	57	49	7.5	6.6	2.1	-	-	-
13 CAROLINE PLACE - GF	52	45	60	52	7.5	6.6	4.6	1.5	-	-
17 FITZGIBBON PLACE - GF	53	46	59	51	6.1	5.3	4	1	-	-

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
17 CAROLINE PLACE - GF	52	45	60	52	8.0	7.2	5.3	2.2	-	-
19 CAROLINE PLACE - GF	56	48	62	54	6.2	5.4	6.7	3.7	-	-
16 ALFRED PLACE - GF	57	50	60	52	3.1	2.7	5.1	2.4	-	-
18 ALFRED PLACE - GF	57	49	60	52	3.3	2.9	5	2.3	-	-
18 ALFRED PLACE - F 1	58	50	62	54	4.4	3.8	6.9	4.1	-	-
14 ALFRED PLACE - GF	58	51	60	53	2.5	2.0	5.2	2.6	-	-
12 ALFRED PLACE - GF	57	49	59	52	2.6	2.1	4.1	1.5	-	-

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Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
NCA1										
6 PATRICK BRICK COURT - GF	**53**	**45**	**57**	**49**	**3.6**	**3.3**	**1.6**	**-**	**-**	**-**
6 PATRICK BRICK COURT - F 1	**55**	**47**	**58**	**50**	**3.6**	**3.3**	**3.1**	**-**	**-**	**-**
8 PATRICK BRICK COURT - GF	53	45	53	46	0.2	0.1	-	-	-	-
8 PATRICK BRICK COURT - F 1	**55**	**47**	**63**	**54**	**8**	**7.5**	**7.5**	**4.3**	**-**	**-**
33 PATRICK BRICK COURT - GF	42	35	50	42	8.2	7.1	-	-	-	-
33 PATRICK BRICK COURT - F 1	**45**	**38**	**56**	**48**	**11**	**9.9**	**1.3**	**-**	**-**	**-**
31 PATRICK BRICK COURT - GF	48	41	54	46	5.9	5.4	-	-	-	-
31 PATRICK BRICK COURT - F 1	**51**	**43**	**61**	**53**	**10.6**	**9.9**	**6.4**	**3.2**	**-**	**-**
29 PATRICK BRICK COURT - GF	49	41	55	47	6	5.6	-	-	-	-
29 PATRICK BRICK COURT - F 1	**51**	**43**	**62**	**54**	**11.5**	**11**	**7.2**	**4**	**-**	**-**
29 PATRICK BRICK COURT - GF	51	43	55	48	5	4.6	-	-	-	-
27 PATRICK BRICK COURT - GF	45	38	54	46	9.1	8.1	-	-	-	-
27 PATRICK BRICK COURT - F 1	**47**	**40**	**61**	**53**	**13.6**	**12.6**	**5.7**	**2.5**	**YES**	**YES**
25 PATRICK BRICK COURT - GF	44	37	53	45	9.1	7.9	-	-	-	-
25 PATRICK BRICK COURT - F 1	**46**	**39**	**60**	**52**	**13.7**	**12.6**	**4.8**	**1.6**	**YES**	**YES**
21 PATRICK BRICK COURT - GF	45	38	54	46	8.9	7.8	-	-	-	-
19 PATRICK BRICK COURT - GF	45	38	53	45	8.4	7.3	-	-	-	-
31 THOMAS ROYAL GARDENS - GF	44	37	54	46	10.4	9.3	-	-	-	-
33 THOMAS ROYAL GARDENS - GF	45	38	55	48	10.3	9.2	-	-	-	-
35 THOMAS ROYAL GARDENS - GF	44	37	53	45	9	7.9	-	-	-	-
35 THOMAS ROYAL GARDENS - GF	44	37	53	45	9.7	8.5	-	-	-	-
39 THOMAS ROYAL GARDENS - GF	44	37	53	45	9.8	8.6	-	-	-	-
39 THOMAS ROYAL GARDENS - GF	43	36	54	46	11	9.8	-	-	-	-

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
43 THOMAS ROYAL GARDENS - GF	44	37	55	47	11.4	10.3	-	-	-	-
43 THOMAS ROYAL GARDENS - GF	44	37	55	48	12.4	11.2	-	-	YES	-
47 THOMAS ROYAL GARDENS - GF	43	36	55	47	11.4	10.3	-	-	-	-
49 THOMAS ROYAL GARDENS - GF	44	37	55	47	12	10.8	-	-	-	-
49 THOMAS ROYAL GARDENS - GF	43	36	55	47	11.5	10.4	-	-	-	-
51 THOMAS ROYAL GARDENS - GF	44	37	52	44	8.9	7.8	-	-	-	-
53 THOMAS ROYAL GARDENS - GF	43	36	53	45	10.2	9.1	-	-	-	-
55 THOMAS ROYAL GARDENS - GF	43	36	53	45	10	8.9	-	-	-	-
59 THOMAS ROYAL GARDENS - GF	43	36	53	44	9.2	8	-	-	-	-
61 THOMAS ROYAL GARDENS - GF	43	36	53	45	9.4	8.3	-	-	-	-
NCA2										
91 ELLERTON DRIVE - GF	44	37	52	44	8.6	7.5	-	-	-	-
44 STONEHAVEN CIRCUIT - GF	51	43	55	47	4.7	4.1	-	-	-	-
46 STONEHAVEN CIRCUIT - GF	51	43	55	48	5.4	4.7	-	-	-	-
48 STONEHAVEN CIRCUIT - GF	48	41	55	47	7.8	6.8	-	-	-	-
50 STONEHAVEN CIRCUIT - GF	50	43	54	46	4.1	3.3	-	-	-	-
52 STONEHAVEN CIRCUIT - GF	50	42	54	46	4.7	4.1	-	-	-	-
54 STONEHAVEN CIRCUIT - GF	50	42	51	43	1.1	0.5	-	-	-	-
56 STONEHAVEN CIRCUIT - GF	49	42	53	45	4.2	3.4	-	-	-	-
58 STONEHAVEN CIRCUIT - GF	49	41	53	45	4.7	3.9	-	-	-	-
60 STONEHAVEN CIRCUIT - GF	46	39	55	47	8.8	7.9	-	-	-	-
62 STONEHAVEN CIRCUIT - GF	46	38	54	46	8.4	7.4	-	-	-	-
1 TENNYSON DRIVE - GF	44	37	51	43	6.5	5.4	-	-	-	-
2 TENNYSON DRIVE - GF	**44**	**37**	**56**	**47**	**11.6**	**10.5**	**0.5**	**-**	**-**	**-**

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
12 NORTHCLIFFE PLACE - GF	45	38	54	46	9.2	8	-	-	-	-
10 NORTHCLIFFE PLACE - GF	44	37	50	42	5.7	4.6	-	-	-	-
21 NORTHCLIFFE PLACE - GF	42	35	54	46	12.2	11	-	-	YES	-
21 NORTHCLIFFE PLACE - GF	44	37	55	47	10.6	9.4	-	-	-	-
13 GEEBUNG PLACE - GF	42	35	51	42	8.8	7.5	-	-	-	-
12 GEEBUNG PLACE - GF	40	33	48	40	8.3	7.1	-	-	-	-
14 GEEBUNG PLACE - GF	40	33	48	40	7.7	6.7	-	-	-	-
16 GEEBUNG PLACE - GF	40	33	47	39	7.4	6.3	-	-	-	-
NCA3										
14 TAYLOR PLACE - GF	43	36	49	42	6.2	5.2	-	-	-	-
16 TAYLOR PLACE - GF	43	36	51	43	8.3	7.2	-	-	-	-
18 TAYLOR PLACE - GF	42	35	52	44	10.7	9.6	-	-	-	-
20 TAYLOR PLACE - GF	**39**	**32**	**54**	**45**	**14.4**	**13.1**	**-**	**-**	**YES**	**YES**
22 TAYLOR PLACE - GF	**41**	**34**	**55**	**47**	**13.4**	**12.2**	**-**	**-**	**YES**	**YES**
24 TAYLOR PLACE - GF	**41**	**34**	**55**	**46**	**13.3**	**12.2**	**-**	**-**	**YES**	**YES**
26 TAYLOR PLACE - GF	**40**	**33**	**53**	**44**	**12.7**	**11.3**	**-**	**-**	**YES**	**-**
30 TAYLOR PLACE - GF	**41**	**34**	**58**	**50**	**16.8**	**15.6**	**2.9**	**-**	**YES**	**YES**
32 TAYLOR PLACE - GF	**39**	**32**	**57**	**49**	**18.0**	**16.6**	**2**	**-**	**YES**	**YES**
38 TAYLOR PLACE - GF	**37**	**30**	**56**	**47**	**18.1**	**16.8**	**0.5**	**-**	**YES**	**YES**
40 TAYLOR PLACE - GF	**38**	**31**	**57**	**49**	**19.3**	**17.9**	**2**	**-**	**YES**	**YES**
NCA4										
28 SEVERNE STREET - GF	39	32	43	36	4.0	3.3	-	-	-	-
26 SEVERNE STREET - GF	42	35	45	37	2.5	2.0	-	-	-	-
30 SEVERNE STREET - GF	38	31	45	37	6.3	5.3	-	-	-	-

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
32 SEVERNE STREET - GF	42	35	48	40	5.3	4.5	-	-	-	-
34 SEVERNE STREET - GF	**39**	**32**	**51**	**43**	**12.6**	**11.4**	**-**	**-**	**YES**	**-**
36 SEVERNE STREET - GF	**37**	**31**	**51**	**43**	**13.3**	**12.0**	**-**	**-**	**YES**	**-**
38 SEVERNE STREET - GF	**39**	**32**	**52**	**44**	**13.4**	**12.1**	**-**	**-**	**YES**	**YES**
40 SEVERNE STREET - GF	**37**	**30**	**52**	**43**	**14.3**	**13.0**	**-**	**-**	**YES**	**YES**
42 SEVERNE STREET - GF	38	31	45	37	7.3	6.3	-	-	-	-
44 SEVERNE STREET - GF	37	30	44	36	6.3	5.3	-	-	-	-
46 SEVERNE STREET - GF	37	31	47	39	9.3	8.1	-	-	-	-
48 SEVERNE STREET - GF	38	31	47	39	9.2	8.0	-	-	-	-
50 SEVERNE STREET - GF	40	33	48	40	7.3	6.3	-	-	-	-
NCA5										
1 WOODMAN PLACE - GF	39	32	46	38	7.3	6.2	-	-	-	-
3 WOODMAN PLACE - GF	38	31	47	39	9.2	8.1	-	-	-	-
5 WOODMAN PLACE - GF	41	34	49	41	7.9	7.0	-	-	-	-
11 WOODMAN PLACE - GF	40	33	47	39	6.4	5.4	-	-	-	-
12 WOODMAN PLACE - GF	41	34	50	42	9.8	8.8	-	-	-	-
13 WOODMAN PLACE - GF	**40**	**33**	**54**	**46**	**14.0**	**12.9**	**-**	**-**	**YES**	**YES**
26 LONERGAN DRIVE - GF	**36**	**29**	**55**	**46**	**18.8**	**17.5**	**-**	**-**	**YES**	**YES**
24 LONERGAN DRIVE - GF	**40**	**33**	**54**	**46**	**13.8**	**12.5**	**-**	**-**	**YES**	**YES**
35 LONERGAN DRIVE - GF	**36**	**29**	**57**	**49**	**21.0**	**19.7**	**1.9**	**-**	**YES**	**YES**
NCA6										
40A Severne Street	**39**	**32**	**57**	**49**	**18.5**	**17.2**	**2**	**-**	**YES**	**YES**

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
NCA7										
125 BARRACKS FLAT PLACE – GF	37	30	54	46	17.3	15.8	-	-	YES	YES
132 BARRACKS FLAT PLACE – GF	36	29	54	46	17.9	16.6	-	-	YES	YES
132 BARRACKS FLAT PLACE - F 1	**38**	**31**	**60**	**51**	**22.1**	**20.7**	**4.6**	**1.2**	**YES**	**YES**
6 DOEBERL PLACE – GF	37	30	50	42	13.1	11.8	-	-	YES	-
6 DOEBERL PLACE - F 1	**38**	**31**	**60**	**52**	**22.7**	**21.2**	**5.3**	**1.9**	**YES**	**YES**
6 DOEBERL PLACE – GF	38	31	53	45	15.3	14	-	-	YES	YES
6 DOEBERL PLACE - F 1	**38**	**31**	**63**	**54**	**24.3**	**22.8**	**7.5**	**4.1**	**YES**	**YES**
20 DOEBERL PLACE – GF	38	31	51	43	13.7	12.4	-	-	YES	YES
20 DOEBERL PLACE – GF	38	31	54	46	16.6	15.3	-	-	YES	YES
22 DOEBERL PLACE – GF	38	31	55	46	17.1	15.8	-	-	YES	YES
24 DOEBERL PLACE – GF	38	31	53	45	14.9	13.6	-	-	YES	YES
24 DOEBERL PLACE - F 1	**39**	**32**	**58**	**50**	**19.7**	**18.4**	**3.3**	**-**	**YES**	**YES**
26 DOEBERL PLACE - GF	39	32	55	47	16.3	15	-	-	YES	YES
28 DOEBERL PLACE - GF	39	32	52	44	12.6	11.4	-	-	YES	-
28 DOEBERL PLACE - F 1	**40**	**33**	**57**	**48**	**16.6**	**15.2**	**1.7**	**-**	**YES**	**YES**
32 DOEBERL PLACE - GF	40	33	56	47	15.9	14.5	0.7	-	YES	YES
32 DOEBERL PLACE - GF	41	34	51	43	10.2	8.9	-	-	-	-
32 DOEBERL PLACE - GF	41	34	54	46	13	11.8	-	-	YES	-
32 DOEBERL PLACE - GF	42	35	54	46	12.6	11.4	-	-	YES	-
32 DOEBERL PLACE - F 1	**42**	**35**	**62**	**54**	**20.2**	**18.9**	**6.8**	**3.5**	**YES**	**YES**
32 DOEBERL PLACE - GF	42	35	54	45	11.8	10.5	-	-	-	-
32 DOEBERL PLACE - F 1	**42**	**35**	**63**	**55**	**21.5**	**20**	**8.3**	**4.9**	**YES**	**YES**

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
NCA8										
126A BARRACKS FLAT DRIVE - GF	33	26	53	45	20	18.9	-	-	YES	YES
126A BARRACKS FLAT DRIVE - F 1	36	29	55	47	19.1	17.8	-	-	YES	YES
122 BARRACKS FLAT DRIVE - GF	36	29	52	43	15.9	14.6	-	-	YES	YES
120 BARRACKS FLAT DRIVE - GF	36	29	53	45	17.6	16.2	-	-	YES	YES
118 BARRACKS FLAT DRIVE - GF	35	28	54	46	19	17.7	-	-	YES	YES
118 BARRACKS FLAT DRIVE - GF	33	26	55	46	21.3	20.1	-	-	YES	YES
118 BARRACKS FLAT DRIVE - F 1	**37**	**30**	**56**	**48**	**19**	**17.7**	**0.9**	**-**	**YES**	**YES**
114 BARRACKS FLAT DRIVE - GF	36	29	55	47	18.5	17.2	-	-	YES	YES
112 BARRACKS FLAT DRIVE - GF	36	29	55	47	19.3	17.9	-	-	YES	YES
110 BARRACKS FLAT DRIVE - GF	34	27	55	47	20.9	19.6	-	-	YES	YES
110 BARRACKS FLAT DRIVE - F 1	**37**	**30**	**57**	**48**	**19.5**	**18.2**	**1.5**	**-**	**YES**	**YES**
108 BARRACKS FLAT DRIVE - GF	34	27	55	47	20.6	19.4	-	-	YES	YES
108 BARRACKS FLAT DRIVE - F 1	**38**	**31**	**57**	**49**	**19.5**	**18.2**	**2.3**	**-**	**YES**	**YES**
108 BARRACKS FLAT DRIVE - GF	37	30	54	45	16.7	15.4	-	-	YES	YES
106 BARRACKS FLAT DRIVE - GF	37	30	54	46	17.2	15.9	-	-	YES	YES
102 BARRACKS FLAT DRIVE - GF	35	28	54	46	19.2	17.9	-	-	YES	YES
102 BARRACKS FLAT DRIVE - F 1	**39**	**32**	**56**	**48**	**17.5**	**16.2**	**1.2**	**-**	**YES**	**YES**
98 BARRACKS FLAT DRIVE - GF	36	29	55	47	19.2	18	-	-	YES	YES
98 BARRACKS FLAT DRIVE - F 1	**39**	**32**	**57**	**49**	**17.9**	**16.5**	**2.2**	**-**	**YES**	**YES**
96 BARRACKS FLAT DRIVE - GF	37	30	53	45	15.7	14.6	-	-	YES	YES
96 BARRACKS FLAT DRIVE - F 1	40	33	55	47	15	13.8	-	-	YES	YES
90 BARRACKS FLAT DRIVE - GF	**39**	**32**	**58**	**49**	**18.8**	**17.6**	**2.7**	**-**	**YES**	**YES**
92 BARRACKS FLAT DRIVE - F 1	40	33	54	45	14	12.8	-	-	YES	YES

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
86 BARRACKS FLAT DRIVE - GF	39	32	49	41	10.4	9.1	-	-	-	-
86 BARRACKS FLAT DRIVE - GF	38	31	49	41	11.2	9.9	-	-	-	-
1 WEBBER PLACE - GF	37	30	48	40	10.7	9.5	-	-	-	-
82 BARRACKS FLAT DRIVE - GF	41	34	53	45	12.2	11	-	-	YES	-
82 BARRACKS FLAT DRIVE - F 1	**40**	**33**	**56**	**47**	**15.8**	**14.6**	**0.7**	**-**	**YES**	**YES**
3 WEBBER PLACE - GF	36	29	48	40	11.9	10.7	-	-	-	-
3 WEBBER PLACE - F 1	42	35	50	42	8.6	7.4	-	-	-	-
80 BARRACKS FLAT DRIVE - F 1	**42**	**35**	**57**	**49**	**15.3**	**14.1**	**2.2**	**-**	**YES**	**YES**
78 BARRACKS FLAT DRIVE - GF	40	33	54	45	13.4	12.4	-	-	YES	YES
78 BARRACKS FLAT DRIVE - F 1	**42**	**35**	**56**	**48**	**14**	**12.9**	**1.4**	**-**	**YES**	**YES**
5 WEBBER PLACE - GF	40	33	49	41	9.6	8.4	-	-	-	-
7 WEBBER PLACE - GF	37	30	50	42	13.3	12.1	-	-	YES	YES
7 WEBBER PLACE - F 1	42	35	54	46	12	10.8	-	-	-	-
9 WEBBER PLACE - GF	40	33	53	45	13.4	12.3	-	-	YES	YES
9 WEBBER PLACE - F 1	**44**	**36**	**59**	**50**	**14.9**	**13.8**	**3.5**	**0.2**	**YES**	**YES**
11 WEBBER PLACE - GF	45	38	52	44	7.1	6	-	-	-	-
11 FITZGIBBON PLACE - GF	48	41	51	43	2.6	1.6	-	-	-	-
13 WEBBER PLACE - GF	46	39	49	41	3.1	2.2	-	-	-	-
12 WEBBER PLACE - GF	**50**	**42**	**59**	**51**	**9.8**	**8.8**	**4.3**	**1.1**	**-**	**-**
12 WEBBER PLACE - F 1	**52**	**44**	**62**	**53**	**9.9**	**8.9**	**6.5**	**3.3**	**-**	**-**
16 FITZGIBBON PLACE - GF	50	42	53	45	3.4	2.4	-	-	-	-
15 FITZGIBBON PLACE - GF	50	42	53	45	3.7	2.6	-	-	-	-
13 CAROLINE PLACE - GF	52	45	54	46	2.2	1.2	-	-	-	-

Receiver Address	Predicted Noise Levels (dBA)				Relative Increase (dBA)		Design Year 'Build' Scenario Level Above RNP Criteria (dBA) i.e. LAeq(15hour) 55 LAeq(9hour) 50		Design Year 'Build' Scenario Level Exceed 12 dB 'Relative Increase Criteria'?	
	Design Year – 'No Build' Scenario		Design Year – 'Build' Scenario							
	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)	Daytime LAeq(15hour)	Night-time LAeq(9hour)
17 FITZGIBBON PLACE - GF	53	46	54	46	4.6	3.9	-	-	-	-
17 CAROLINE PLACE - GF	52	45	55	47	4.9	4.1	-	-	-	-
19 CAROLINE PLACE - GF	56	48	55	48	3.9	3.2	-	-	-	-
16 ALFRED PLACE - GF	57	50	54	47	1.5	0.9	-	-	-	-
18 ALFRED PLACE - GF	57	49	60	52	7.4	6.7	4.7*	1.7*	-	-
18 ALFRED PLACE - F 1	58	50	56	48	0.6	0	1.1*	-	-	-
14 ALFRED PLACE - GF	58	51	60	53	3.3	3	5.3*	2.7*	-	-
12 ALFRED PLACE - GF	57	49	59	51	2	1.6	3.7*	1*	-	-

* Note: Exceedance of criteria due to contribution Old Cooma Road.

DRAFT

$L_{Aeq(15hour)}$ noise contours with the implementation of upgraded boundary fence

DRAFT

$L_{Aeq(9hour)}$ noise contours with the implementation of upgraded boundary fence

DRAFT

Appendix Q – Design Meeting Minutes

OPUS

MINUTES OF MEETING

File: EDE	**Sheet:** 1 of 2	**Date:** 08.01.2014	**Time:** 11am - 12:45pm
Subject	Ellerton Drive Extension Design Tender Clarification Meeting Reviewed and approved by QCC and Opus.		
Location	10 Ellerton Drive, Queanbeyan, NSW	**Minutes By:**	Michael Hill

	Persons Present	Organisation	Copy Received
1.	Derek Tooth (DT)	QCC	Yes
2.	Rodney Rixon (RR)	QCC	Yes
3.	Michael Hill (MH)	Opus International Consultants	Yes

Item	Discussion and Action	By Whom	By When
1	DT and RR requested a P50 and P90 cost estimates to be conducted to RMS standards. A P90 estimate means the estimate has a 90% chance the construction tendered price will not be exceeded and similarly a P50 estimate as 50% chance of not being exceeded. MH is required to confirm this estimate is included in our fee.	MH	10.01.14
2	DT and RR confirmed the concept design of the bridge is to be conducted in our scope of works.		
3	DT and RR confirmed the additional survey of the river and bridge crossing is to be included in our scope of works.		
4	DT and RR requested a fee for conducting additional noise sampling. MH to provide these costs.	MH	10.01.14
5	Additional cross sections (Road and landscape) DT and RR confirmed they are satisfied with the Opus response made within the Opus clarification email dated 09.12.13.		
6	DT and RR requested a monthly cash flow for this design. MT will provide this cash flow as part of our project quality plan (PQP)	MH	17.01.14
7	DT and RR requested cash flows for construction. MH to confirm if this is included.	MH	10.01.14
8	DT specified CBR testing to be conducted to RMS specifications.		
9	DT is comfortable with focusing test pits and potentially reduce the number of pits conducted. Opus/Coffey will develop an estimated bore hole and test pit plan following the 'first cut' of the alignment to be approved by QCC prior to conducting site testing.		
10	QCC to send revised SIS to MH.	RR	14.01.14
11	DT stated geotechnical testing to avoid Aboriginal sites.		
12	DT, RR and MH agreed that Jordan Pyke from QCC can be involved in the design when he has time available. Jordan could be involved in items such as stormwater design and some technical review meetings etc within Opus offices.		
13	MH confirmed the Noise report would include the bridge over Queanbeyan river and noise mitigation recommendations for inclusion in the Opus PSP design and community consultation.		

Item	Discussion and Action	By Whom	By When
14	Council to decide whether to proceed with the detailed design of the bridge over Queanbeyan River following delivery of the PSP and Community Consultation.		
15	MH confirmed the proposed bridge over the Queanbeyan River is planned to span normal river flows avoiding the need to install piers centrally in the river.		
16	MH confirmed the items in the Opus tender schedule noted as Provisional sums are actually Provisional Items.		
17	MH confirmed Opus invoices will be sent as per the schedule of prices. Each schedule item will be invoiced as percentage payments as discussed.		

MINUTES OF MEETING

File: EDE	**Sheet:** 1 of 2	**Date:** 17 January 2014	**Time:** 11am
Project:	Ellerton Drive Extension (T-C0040.00)		
Subject:	EDE Internal Project Design Start-up meeting and technical review		
Location:	The Cook Room, Level 13 Tower 2, 475 Victoria Avenue, Chatswood NSW 2067, New South Wales, Australia	**Minutes By:**	Claudia Novati

	Persons Present	Organisation	Copy Received
1.	Claudia Novati (Canberra)(CN)	Opus International Consultants	Yes
2.	Jeffrey Leithead (Canberra)(JL)	Opus International Consultants	Yes
3.	David Thompson (Sydney)(DT)	Opus International Consultants	Yes
4.	Tim Selby (Sydney)(TS)	Opus International Consultants	Yes
5.	Allen Hyland (Newcastle)(AH)	Opus International Consultants	Yes
6.	Dr Matthew Ing (Sydney)(MI)	Opus International Consultants	Yes
7.	Rodney Charlton (Sydney)(RC)	Opus International Consultants	Yes
8.	Michael Hill (Canberra)(MH)	Opus International Consultants	Yes
9.	Keryn Kliskey (Auckland – via teleconference)(KK)	Opus International Consultants	Yes
	Apologies		
10.	Pierre Kickhefer (Sydney)(PK)	Opus International Consultants	Yes
11.	Timothy Seow (Sydney)(TSeow)	Opus International Consultants	Yes

Item	Discussion and Action	By Whom	By When	
1.0	**Introductions**			
1.1	Introductions made by the individuals of the Opus team.	Noted		
1.2	MH introduced the lead project team from Canberra being CN, JL, and himself. Project Manager is MH, Project Director is DT, Deputy Project Manager TSeow	Noted		
2.0	**Project Scope**			
2.1	Scope of works discussed as outlined in Queanbeyan City Council EDE contract (Section B Volume 2 Brief).	Noted		
2.2	Project design stages: • Preliminary Sketch Plan (PSP) • Community Consultation • Detailed Design	Noted		

Item	Discussion and Action	By Whom	By When	
2.3	Bridge design is a separate design and documentation item that has been commissioned to Opus – at this stage it is a concept design only required to be submitted at PSP stage.	Noted		
3.0	**Project Resources and Planning**			
3.1	Project roles and delegated personnel was discussed and agreed upon. List to be developed, chart to be revised in the PQP.	MH & DT	24/01/14	✓
3.2	MH to confirm REF requirements including what stages they are required by Council.	MH	31/01/14	
3.3	Existing survey of the site has been supplied by Council and is available on \\CNSV01\cn_gen_g\10_Canberra_Projects\T-C0001 - T-C0099\T-C0040.00_Ellerton Drive Extension\Correspondence\Incoming. All designers are to check if additional survey is required. There is scope in the fee to cater for additional detailed survey as required.	All	27/01/14	
3.4	A list is to be set up of outstanding information required by all designers to begin their tasks. All required information to be reported to MH prior to Council inception meeting.	All	24/01/14	
3.5	A project timeline, specific task breakdown and a list of project roles and individual requirements is to be developed. Including the inclusion of verification check points and Council consultation stages.	MH & DT		
3.6	MH confirmed that the contract start date is 14/01/14	Noted		
4.0	**General Comments**			
4.1	It was established that the road is to be designed following RMS and related Austroad standards for design as outlined in Council's brief. It was agreed that the RMS template for drafting/line types for 12D is to be used. Opus drawing template to be used for plans in accordance with Council requirements.	Noted		
4.2	MH to confirm with Council the construction of the two stages and its effects with complying with Austroads and RMS standards for drainage. It may be more economical with drainage, earthworks and traffic control; constructing the design from the road centreline out as opposed to the proposed construction of two lanes to one side of the road centreline. Lane arrangement needs to be firmed up prior to developing Stage 1 PSP documentation.	MH		
4.3	DT to send CN and JL scope of works templates from similar projects.	DT	21/01/14	
4.4	KK to send MH and DT example project schedules.	KK	20/01/14	✓
4.5	Meeting closed 12:35pm.	Noted		

MINUTES OF MEETING

File: EDE	**Sheet:** 1 of 2	**Date:** 4 February 2014	**Time:** 11am
Project	Ellerton Drive Extension (T-C0040.00)		
Subject	EDE Council Inception Meeting/ PSP Meeting No.1		
Location	Queanbeyan City Council Depot 10 Ellerton Drive Queanbeyan NSW 2620, Australia	**Minutes By:**	Claudia Novati

	Persons Present	Organisation	Copy Received
1.	Rodney Rixon (RR)	Queanbeyan City Council	Yes
2.	Eli Ramsland (ER)	Queanbeyan City Council	Yes
3.	Derek Tooth (DTo)	Queanbeyan City Council	Yes
4.	Jordan Pyke (JP)	Queanbeyan City Council	Yes
5.	Michael Hill (MH)	Opus International Consultants	Yes
6.	David Thompson (DTh)	Opus International Consultants	Yes
7.	Claudia Novati (CN)	Opus International Consultants	Yes

Item	Discussion and Action	By Whom	By When
1	Opus identified the potential need for an EIS due to significant impacts identified within the SIS. Opus have started our Environmental risk assessment. RR outlined that an REF is only required since works are under a Part 5 of the planning and assessment act. The completed SIS was based on the alignment shown on the public exhibition plans and includes area along alignment and within 80m road reserve. QCC to confirm timeline of the REF.	ER	
2	Existing traffic study was discussed. It was noted that the total traffic volumes have not been given. ER has calculated traffic volumes and is to send through to Opus including percentage of heavy vehicles.	ER	
3	Opus to submit details of the expected traffic movements and traffic modelling information required for the signalised intersection at Edwin Land PW/Old Cooma Rd.	MH	
4	Council confirmed that the road is to be designed to provide a stable, near free flow level of service for freight vehicles, to cater for a B-double design vehicle.	Noted	
5	MH requested the SIS constraints plans in electronic format (map info).	ER	

Item	Discussion and Action	By Whom	By When
6	Council confirmed that the design speed for ED is to be 80km/h excluding the existing section (60km/h).	Noted	
7	Council to confirm the classification of the road based on RMS and/or Council road hierarchy.	ER	
8	Water quality requirements and treatment of creek crossings was discussed, particularly with respect to NSW Office of Water (NOW) guidelines. Council are comfortable to follow NOW guidelines and recommendations where possible.	Noted	
9	Services across the bridge to be co-ordinated within the design i.e. gas, and telecommunication cables.	Noted	
10	Design is to nominate an area only for the location of Jumping Creek Estate intersection. The intersection itself is to be design and constructed by developers. Wide median is to be provided to accommodate future turning lanes/connection.	Noted	
9	With regards to road geometry the following items where discussed: • Lane width to be 3.5m wide. • Verge width to vary to suite different scenarios in accordance with Austroads standards. • Median and shoulder widths to be reviewed and Council are open to design amendments to suit Austroads guidelines where practical. • Bicycle and shared path to be 2.5m wide.	Noted	
10	Project Staging – Develop stage 2 design and review options for stage 1. Opus propose to send a project staging report to QCC during PSP phase for Council approval.	Noted	
11	Opus to start additional survey and geotechnical walk over. Opus to submit geotechnical BH/TP plan for QCC approval. Opus to start noise measurement study and lighting investigation.	Noted	
12	Opus will use Queanbeyan River flood study for the bridge design and noted the study does not include flooding effects caused by a bridge crossing. QCC to confirm if this additional work is required.	ER	
13	QCC to confirm the project boundaries and forward details of land in Council ownership and easements.	Noted	
14	QCC confirmed they would manage all review comments from various parties including RMS and provide one consolidated set of comments for each set of deliverables (PSP/DD).	Noted	

MINUTES OF MEETING

File: EDE	**Sheet:** 1 of 2	**Date:** 2 April 2014	**Time:** 3pm
Project:	Ellerton Drive Extension (T-C0040.00)		
Subject:	EDE Council Meeting/ PSP 2		
Location:	Queanbeyan City Council Depot 10 Ellerton Drive Queanbeyan NSW 2620, Australia	**Minutes By:**	Michael Hill

	Persons Present	Organisation	Copy Received
1.	Rodney Rixon (RR)	Queanbeyan City Council	Yes
2.	Eli Ramsland (ER)	Queanbeyan City Council	Yes
3.	Claudia Novati (CN)	Opus International Consultants	Yes
4.	Michael Hill (MH)	Opus International Consultants	Yes

Apologies

Derek Tooth (DT)	Queanbeyan City Council	

Item	Discussion and Action	By Whom	By When	
1	**Cross Section Review – Stage 2** If possible can a table drain be designed and kerb removed at the left hand shoulder at ch 250 (Northern end)	RR	Noted	
2	**Cross Section Review – Stage 2** Consider inclusion of table drain between road shoulder and shared path where land space is available and earthworks can be minimised.	RR	Noted	
3	**Cross Section Review – Stage 2** Consider adding slope/transverse grade to the median's and verges to accommodate the natural grade and minimising the need for retaining structures.	RR	Noted	
5	**Cross Section Review – Stage 1** QCC want the stage 1 lane configuration to reflect Option 4 within Opus' EDE road cross section report (two contra flow lanes undivided with no median developed excluding sections where a climbing lane is required and the points on the alignment where a key road connection is required at Jumping Jack estate and 74 Barracks Flat Drive).	RR/ER	Noted	
4	**Cross Section Review – Stage 1** Consider using frangible light poles minimising vehicle barriers within the medians.	RR	Noted	

Item	Discussion and Action	By Whom	By When	
6	**Cross Section Review – Stage 1/2** All median's to be 6m wide and level or with allowable transvers grade as discussed above in item 3.		Noted	
7	Review the drainage problems experienced on the steep grade on the recently constructed Old Cooma Road Stage 1 upgrade and manage Stormwater on the EDE to minimise erosion and protect the road pavement especially in areas of steep grade.	RR/ER	Noted	
8	QCC expect a climbing lane is required for north bound vehicles from the Old Cooma Rd intersection but consideration to 'run up lengths' should be considered when determining climbing lane requirements for south bound vehicles passing the Bridge crossing.	RR	Noted	
9	**Horizontal Alignment – Northern End** Review cut at ch 1000 where the terrain is highly steep and minimise large batter slopes and retaining walls where possible, but also accommodate the drainage reserve to the west of the alignment and batter slopes.	RR	Noted	
10	QCC to provide workers executed drawing to Opus for review of the drainage channel to the west of the alignment at ch450.	ER	02/04/14	
11	MH to provide EPA legislation information regarding testing of potholing waste.	MH	03/04/14	
12	ER to provide 3D contour maps or notify Opus if this is not possible.	ER	02/04/14	
13	QCC plan to advertise the REF for EDE in two weeks' time and envisage it better to keep the road designer and environmental consultant separate.	ER	Noted	
	Meeting closed – 5pm			

MINUTES OF MEETING

File: EDE	**Sheet:** 1 of 2	**Date:** 8 April 2014	**Time:** 9:30am
Project:	Ellerton Drive Extension (T-C0040.00)		
Subject:	EDE Council Meeting/ PSP 2		
Location:	Opus Canberra Office Unit 18, 160 Lysaght Street, Mitchell ACT	**Minutes By:**	Michael Hill

	Persons Present	Organisation	Copy Received
1.	Rodney Rixon (RR)	Queanbeyan City Council	Yes
2.	Eli Ramsland (ER)	Queanbeyan City Council	Yes
3.	Jeffrey Leithead (JL)	Opus International Consultants	Yes
4.	Michael Hill (MH)	Opus International Consultants	Yes

Apologies

NA

Item	Discussion and Action	By Whom	By When	
1	**Vertical Alignment South of Queanbeyan River** RR confirmed 80km/hr was not to be compromised or adjusted.	RR	Noted	
2	**Vertical Alignment South of Queanbeyan River** RR/ER confirmed when evaluating cut and fill balances to isolate the section of earthworks north of Queanbeyan River to the section south of Queanbeyan River.	RR/ER	Noted	
3	**Vertical Alignment South of Queanbeyan River** We discussed the constrains over the southern crest such as, high vertical grades (8-10.5%), connection to 74 Barricks Flat Drive, cut/fill balance, minimum vertical curves, and existing services and RR/ER consider it reasonable to adjust the 375mm QCC Water main which crosses the alignment.	RR/ER	Noted	
4	**Vertical Alignment of bridge crossing** Opus will evaluate costing for the high versus low alignment options at the bridge crossing taking into consideration the cost implications of a vertical curve on the bridge, additional span length versus an imbalance of earthworks in the southern section and steep vertical grades.	MH	Noted	
5	**Vertical Alignment – Adjacent to QCC reservoirs** Consider alignment and cut to fill balances but if required the QCC water mains can be lowered if this is financially viable.	RR/ER	Noted	

Item	Discussion and Action	By Whom	By When	
6	**Geotechnical Investigation Plan** RR questioned whether a bore hole is required at the Jumping Creek connection section of alignment. Coffey Geotechnic's will provide further advice on this matter.	MH	09/04/14	
7	**Geotechnical Investigation Plan** Opus will ensure the bore hole locations are set at the agreed horizontal road align especially at the northern end.	RR/ER	Noted	
8	**Geotechnical Investigation Plan** Coffey to update locality table of bore holes and MH to issue to RR/ER.	MH	09/04/14	
9	**Geotechnical Investigation Plan** Coffey to provide 7 days' notice prior to conducting work north of Queanbeyan River.	ER	Noted	
10	**Geotechnical Investigation Plan** A heritage advisor is to be on site for various sections of the EDE during geotechnical investigation works. ER to confirm locations.	ER	09/04/14	
11	**Geotechnical Investigation Plan** QCC to approve geotechnical scope by 10/04/14	ER/RR	10/04/14	
12	ER/RR consider it appropriate to dispose of potholing material on site which is consistent with NSW EPA; provided QCC have no knowledge of any forms of land contamination within the EDE area and sediment is controlled. Leach Steger surveyors can dispose of the waste at any location which QCC approve (QCC land) and QCC to provide sediment controls as required.	Noted		
13	MH to provide pothole locations and quantities for QCC approval	MH	16/04/14	
14	Additional survey at Severn Street adjacent to reservoir to wait until detailed design if required (RR). The survey at the five reservoirs and 40A Severn Street driveway access (west of alignment) has been surveyed by Leach Steger Surveyors (MH).	RR/MH		
	Meeting closed – 11am			

OPUS

MINUTES OF MEETING

File: EDE	**Sheet:** 1 of 2	**Date:** 7 October 2014	**Time:** 1:30pm
Project:	Ellerton Drive Extension (T-C0040.00)		
Subject:	EDE Meeting/ Final Design 1		
Location:	QCC Depot 10 Ellerton Drive	**Minutes By:**	Michael Hill

	Persons Present	Organisation	Copy Received
1.	Tim Alexander (TA)	Queanbeyan City Council	Yes
2.	Michael Hill (MH)	Opus International Consultants	Yes

Item	Discussion and Action	By Whom	By When	
1	**Key Milestones –** All documentation approved and ready for Tender by July 1, 2015. Final Design 80-90% Completed in the 1st week of December 2014.	TA	Noted	
2	**Form of Construction Contract –** Likely to be GC21. TA to confirm the best way to develop this contract document with RMS.	TA	24/10/14	
3	**EDE will be a local Road managed by QCC.**	TA	Noted	
4	The objective of the workshop on October 9 and 10, 2014 is to confirm the project scope especially intersection requirements.	TA	Noted	
5	**EDE Noise Requirements** MH explained the key recommendations of the SLR Noise study. MH to issue the draft Noise report to QCC.	MH	03/10/14	Y
6	**Utilities and Potholing** MH went through the revised utilities and potholing drawings. There are approximately 60 potholes required. TA to review and approve potholing requirements.	TA	03/10/14	Y
7	**Approval of Provisional Items** TA to provide confirmation of the requirements of the following provisional items: • Detailed Bridge Design • Road Safety Audit • Additional Construction Noise and Vibration	TA	10/10/14	
8	**Additional Meetings** MH noted additional workshop requirements which are outside of contract scope. TA advised to issue letter of variation.	MH	07/10/14	
	Meeting closed – 3pm			

MINUTES OF MEETING

File: EDE	**Sheet:** 1 of 2	**Date:** 27 October 2014	**Time:** 10:30am
Project:	Ellerton Drive Extension (T-C0040.00)		
Subject:	EDE Meeting/ Final Design 2		
Location:	Opus Office Mitchell ACT	**Minutes By:**	Michael Hill

	Persons Present	Organisation	Copy Received
1.	Derek Tooth (DT)	Queanbeyan City Council	Yes
2.	Tim Alexander (TA)	Queanbeyan City Council	Yes
3.	Eli Ramsland (ER)	Queanbeyan City Council	Yes
4.	Rodney Rixon (RR)	Queanbeyan City Council	Yes
5.	David (D)	Roads and Maritime Services	No
6.	Michael Hill (MH)	Opus International Consultants	Yes
7.	Peter Thompson (PT)	Opus International Consultants	Yes
8.	Julian Watson (JW) (Absent)	Roads and Maritime Services	Yes

Item	Discussion and Action	By Whom	By When	
1	**Confirm Design Speed.** The design brief states a design speed of 80km/hr is required which is a conflict with AustRoads which states 10km/hr above the posted speed is required (90km/hr). QCC confirmed a design speed of 80km/hr is to be used. RMS discussed that in some instances terrain doesn't allow for a design speed 10km/h over the intended posted limit. He advised that although it is against Austroads it has been done on Mt Ousley where the terrain also placed restrictions on the design speed			
2	**Proposed Climbing Lanes** Opus to consider vertical alignment adjustment to reduce crawler lane lengths north of Queanbeyan River. RMS discussed that climbing lane warrants are 40km/k to 65km/h for heavies. Auxiliary lanes should be paced before the heavies reach 40km/h from a safety point of view. OPUS advised that the current design has the diverge when heavies are at 55km/h and this is not unreasonable for southbound vehicles as they have just exited the 60km/h zone. Does a sag in a bridge reduce the need for climbing lanes?	Opus	04/11/14	

Item	Discussion and Action	By Whom	By When	
3	**Vertical (and horizontal) alignment** QCC/RMS confirmed a reaction time of 1.5s. QCC require the alignment to be located as close as possible to the western boundary between ch2700-3200. The group discussed that even if the grades are steep, this doesn't necessarily stop EDE being a choice of route for heavies if the route is free flow. RMS and OPUS went through RMS supplements and a decision was made that the supplement allows for 1.5s reaction time for 80km/h.			
4	Where dual carriage way is required a 6m median with low vegetation is to be used. The 6m median was picked to be consistent with what has been done in the area.			
5	**Tennyson Drive** QCC to confirm access requirements noting RMS design comments. Consider not right turn out of Tennyson Drive.	TA	30/10/14	
6	**Church Access** Left in and left out turning movements to be accommodated in the design. No right turn out but include right turn in.			
7	**Reservoir Access** Emergency turning facilities to be included within the median.			
8	**40A Severn Street Access** Right turn and turning bay to be provided.			
9	**Jumping Creek Intersection** QCC to confirm the location of the Jumping Creek intersection and volume of traffic to enable calculation of turning bay side. Opus to provide a fee for the concept and detailed design of this seagull intersection.	TA	30/10/14	
10	**Lonergan Drive** Designed as a private access (Previously determined scope)			
11	**Barracks Flat Dr On Ramp** Opus to provide sketches and earthwork volumes required to construct this on-ramp to enable costing of this on-ramp (This is additional work outside our scope). OPUS advised there is a lot of cut for this onramp. QCC questioned whether this material would need removal anyway as it is an old stockpile. Geotech report needs checking to answer this.	Opus	Following conformation of alignment.	
12	**74 Barracks Flat Dr Connection** QCC confirmed the PSP design configuration of this intersection is to be used in Opus' detailed design. RMS advised that it isn't unusual to have motorists turn over 2 lanes at high speeds. It has been done along the Hume Hwy where the speed is 100km/h. So right turn out could be possible. The most important thing is that there is safe stopping sight distance. Don't want the merge taper across this driveway as you don't want vehicles making too many decisions (ie. Watching incoming vehicles plus deciding whether to overtake). The merge needs to stop before the driveway or start after the driveway. This will depend on whether the crest can be flattened or not.			
13	**Old Cooma Road/ELPW Intersection** Opus to include on-road cycle lanes and check if the right turning pocket from Old Cooma Road is large enough. Opus to confirm turning bay requirements.	Opus		

Item	Discussion and Action	By Whom	By When	
14	**RMS Costing Requirements** Opus to focus on finalising alignment design and earthwork volumes with QCC prior to further costings.			
15	**EDE Noise Requirements** Urban Design of Walls – Visual and shadow effects not to be checked by Opus. Opus to provide a plan, section and heights table for community consultation. QCC to provide photos of existing walls.			
16	**Utilities and Potholing** QCC to Authorise cost associated with potholing such as bund work to manage pothole waste.	TA	28/10/14	
17	**Approval of Provisional Items** TA to provide confirmation of the requirements of the following provisional items: • Detailed Bridge Design – QCC/RMS to confirm bridge sag implementations and provide design brief. • Road Safety Audit - QCC confirmed this has been paid. Opus to undertake a RSA once the alignment and intersection configurations have been confirmed. • Additional Construction Noise and Vibration – QCC to confirm.	TA	30/10/14	
18	**Road Pavement** Opus to design the most cost effective pavement with a low noise emitting wearing surface as advised by SLR.			
19	OPUS to conduct a SIDRA analysis for this intersection to determine what turning pockets are needed and how long they should be for required storage. Opus sent request to QCC for additional vehicle volumes to enable completion of SIDRA analysis on 27 October, 2014.			
	Meeting closed – 1pm			

MINUTES OF MEETING

File: EDE	**Sheet:** 1 of 2	**Date:** 05 November 2014	**Time:** 9:30am
Project:	Ellerton Drive Extension (T-C0040.00)		
Subject:	EDE Meeting/ Final Design		
Location:	QCC Depot – 10 Ellerton Drive	**Minutes By:**	Michael Hill

	Persons Present	Organisation	Copy Received
1.	Derek Tooth (DT) (Teleconference)	Queanbeyan City Council	Yes
2.	Tim Alexander (TA)	Queanbeyan City Council	Yes
3.	Eli Ramsland (ER)	Queanbeyan City Council	Yes
4.	Rodney Rixon (RR)	Queanbeyan City Council	Yes
5.	Wil Allen (WA)	SMEC	No
6.	Michael Hill (MH)	Opus International Consultants	Yes
7.	Peter Taylor (PT) (Teleconference)	Opus International Consultants	Yes
8.	Narelle Cooke (NC) (Absent)	Roads and Maritime Services	Yes

Item	Discussion and Action	By Whom	By When	
1	Site compound outside of project footprint to be included in the REF foot print.			
2	TA to provide example of temporary river crossing.			
3	SLR to conduct construction noise assessment as advised by QCC.			
4	Opus provided stormwater design report information to WA for inclusion in the REF.			
5	Opus to provide a proposal for development of views of the project to be used to present the project to the community better and to be included within the REF.			
6	SMEC to provide a fee for a land contamination assessment.			

Item	Discussion and Action	By Whom	By When	
7	MH ran through previous meeting minutes and discussed decisions made, design status and outstanding issues. Issues worth mentioning and included below.			
8	**Proposed Climbing Lanes** Opus provided revised crawler lanes with adjusted vertical alignment and vertical curve over the bridge crossing. Opus explained the vehicle speed modelling was revised to consider vehicle heading in a south bound direction for a stationary position at the Old Sydney Road roundabout. This revision determines the need for a south bound crawler land starting at approximately ch700. A sag in the bridge does not have a significant effect on the crawler lane requirements.			
9	**Vertical (and horizontal) alignment** The vertical alignment was remodelled to reflect stage 1 earthworks, a vertical sag in the bridge alignment and adjustment in the northern alignment to level out vertical grades and seek earthwork balance. Opus to tweak the vertical alignment in the southern section to reduce excess cut material.	PT/MH	07/11/14	
10	**Tennyson Drive** We discussed the safety implications of the right turning movement out of Tennyson Drive and on to the right turning pocket into the church access at a ch650. DT to confirm is the right turn out of Tennyson Dr can be removed from the intersection configuration.	DT	11/11/14	
11	**Church Access** Opus to consider lane configuration at the existing section of Ellerton Drive adjacent to the Church access which eliminates the need for adjustment of the existing raised median.			
12	**Reservoir Access** Emergency turning facilities to be included within the median.			
13	**40A Severn Street Access** Right turn and turning bay to be provided.			
14	**Jumping Creek Intersection** QCC to provide finalised alignment of Ellerton Drive to the land develops to confirm their acceptance of the design. Following this approval DT will seek approval for the Jumping Creek Estate intersection design.	TA	30/10/14	
15	**Lonergan Drive** Designed as a private access (Previously determined scope)			
16	**Barracks Flat Dr On Ramp** Opus to provided sketches and earthwork volumes required to construct this on-ramp to enable costing of this on-ramp. Opus to consider increasing the vertical grade of the on-ramp to minimise cut required.	Opus	07/11/14.	
17	**Old Cooma Road/ELPW Intersection** ER to provide predicted traffic volumes for all turning movements to enable completion of intersection design.	ER	11/11/14	
18	**RMS Costing Requirements** Opus to focus on finalising alignment design and earthwork volumes with QCC prior to further costings.			

Item	Discussion and Action	By Whom	By When	
19	**EDE Noise Requirements** Urban Design of Walls – Visual and shadow effects not to be checked by Opus. Opus to provide a plan, section and heights table for community consultation. QCC to provide photos of existing walls.	TA	11/11/14	
20	**Utilities and Potholing** QCC to Authorised cost associated with potholing which started 05/11/14.	TA	28/10/14	
21	**Approval of Provisional Items** TA to provide confirmation of the requirements of the following provisional items: • Detailed Bridge Design – QCC/RMS to confirm bridge sag implementations and provide design brief. • Additional Construction Noise and Vibration – QCC confirmed this is required and to undertake this modelling.			
22	**Road Pavement** Opus to design the most cost effective pavement with a low noise emitting wearing surface as advised by SLR.			
23	ER to provide predicted traffic volumes for all turning movements to enable completion of intersection design.			
24	Opus to review abutment A costs versus adding an extra span to the north.	MH	11/11/14	
25	Opus to organise in conjunction with TA a safety in design workshop to be scheduled between 17-28 November 2014.			
	Meeting closed – 2:30pm			

OPUS

MINUTES OF MEETING

File: EDE	**Sheet:** 1 of 2	**Date:** 13 November 2014	**Time:** 9:00am
Project:	Ellerton Drive Extension (T-C0040.00)		
Subject:	EDE Meeting/ Final Design		
Location:	QCC Depot – 10 Ellerton Drive	**Minutes By:**	Michael Hill

	Persons Present	Organisation	Copy Received
1.	Derek Tooth (DT) (Teleconference)	Queanbeyan City Council	Yes
2.	Tim Alexander (TA)	Queanbeyan City Council	Yes
3.	Eli Ramsland (ER)	Queanbeyan City Council	Yes
4.	Michael Hill (MH)	Opus International Consultants	Yes
5.	Peter Taylor (PT) (Teleconference)	Opus International Consultants	Yes
6.	David Norman (DN) (Teleconference)	Roads and Maritime Services	Yes

Item	Discussion and Action	By Whom	By When	
1	**Vertical (and horizontal) alignment** DT confirmed we should use the alignment north of the river which has a 6% grade between ch1400-1600 (Revised vert.) Opus to consider raising the alignment and moving to the east at ch1700 and 2250. Opus to also contain earthwork extent where possible at ch2850 and ch4000.			
2	Opus reviewed changes to the earthworks quantities for a 3 and 6 metre wide median and confirmed the volume different was minimal. QCC confirmed a 6m median is to be used. Median treatment is to be discussed at our Safety in design workshop scheduled for 17/11/14.			
3	SLR to conduct a rerun of the noise model based on revised alignment and lane configuration.			
4	Opus to provide a proposal for development of fly through of the project to be used to present the project to the community better and to be included within the REF.	MH	14/11/14	
5	MH raised using the fauna crossing at **ch2660** as a share path underpass. Underpass and fauna crossings to be discussed at our Safety in design workshop scheduled for 17/11/14.			
6	MH raised shoulder width requirements to accommodate on road cyclists crossing the bridge. This issue is to be discussed at our Safety in design workshop scheduled for 17/11/14.			
7	Opus to confirm if an additional span to the north of the bridge is recommended.	MH	20/11/14	

Item	Discussion and Action	By Whom	By When	
8	**Tennyson Drive** We discussed the safety implications of the right turning movement out of Tennyson Drive and into the right turning pocket into the church access at a ch650. DT confirmed the right turn out of Tennyson Dr is to be included and median to be widened forcing vehicles to merge. Hatched line marking to be removed.			
9	**Church Access** Median to be designed to prevent 'right out' turning movements.			
10	**40A Severn Street Access** Connection to occur at ch2200			
11	**Barracks Flat Dr On Ramp** Opus provided sketches and earthwork volumes required to construct this on-ramp to enable costing of this on-ramp. Opus increasing the vertical grade of the on-ramp to 10.7% minimising cut and retaining structures required. QCC confirmed this on-ramp to be acceptable.			
12	**Old Cooma Road/ELPW Intersection** ER to provide predicted traffic volumes for all turning movements to enable completion of intersection design.	ER	20/11/14	
13	**RMS Costing Requirements** MRN to develop revised estimate.		18/11/14	
14	**Approval of Provisional Items** TA to provide confirmation of the requirements of the following provisional items: • Detailed Bridge Design – QCC/RMS to confirm bridge sag implementations and provide design brief.			
15	ER to provide predicted traffic volumes for all turning movements to enable completion of intersection design.	ER	20/11/14	
	Meeting closed – 11:45pm			

MINUTES OF MEETING

File: EDE	**Sheet:** 1 of 2	**Date:** 18 November 2014	**Time:** 3:00pm
Project:	Ellerton Drive Extension (T-C0040.00)		
Subject:	EDE Meeting/ Final Design		
Location:	QCC Depot – 10 Ellerton Drive	**Minutes By:**	Michael Hill

	Persons Present	Organisation	Copy Received
1.	Derek Tooth (DT) (Teleconference)	Queanbeyan City Council	Yes
2.	Rodney Rixon	Queanbeyan City Council	Yes
3.	Michael Hill (MH)	Opus International Consultants	Yes
4.	Peter Taylor (PT)	Opus International Consultants	Yes

Item	Discussion and Action	By Whom	By When	
1	**Northern Curve at ch700 - 900** It was identified during our Safety in Design workshop that this curve is close to being designed for 80km/hr and motorists in a south bound direction would not slow down to the posted speed of 60km/hr. It was considered more effective to slow vehicles down prior to the curve at ch700 location rather than after the curve between ch200-700. We agreed to provide cyclist line marking in the road shoulder in the north bound direction around the northern curve (ch700) as an additional measure to slow vehicles down to 60km/hr.			
2	**Bridge** It was agreed to provide a 2.5m shoulder over the bridge in both directions using the same number of girders as the PSP design. It was agreed to add 20m to the northern end of the bridge based on Opus recommendation as the costs are similar between the soil reinforced walls and relocation of water main versus the additional span length. Opus to review abutment B spill through adjacent to the western easement boundary and provide recommendation.	PT/MH	21/11/14	
3	Opus to design a separate pedestrian underpass at the jumping creek Estate development. This is outside Opus' original scope. Opus to provide an appropriate location where adequate cover is available. Opus to provide recommendation for configuration of fauna underpass at ch1900.	PT/MH	21/11/14	
4	DT advised for Opus to design the seagull intersection at the jumping Creek Estate connection as per Opus letter dated 29/10/14.			
5	**Medians** Opus to include 6m medians for the entire northern section to improve vehicle safety noting that crawler lanes are required in these section in at least one direction.			

Shoulder to be narrowed down from 3m to the 2.0m marked cyclelane, design report to include reference to the cyclelane width as per an 85th up to 80kmh not the 60km speed limit

Opus to review the cost and constructability issues that may exist by changing the last 14m span to RTA bridge planks. Consider; scupper connection & location, pier headstock construction, changing construction methodology.

Opus confirmed that their price included street lighting design / approval

Item	Discussion and Action	By Whom	By When	
6	Opus to allow for an on-road cyclist lanes at the Old Sydney Road Intersection. Further discussion required around the configuration of the existing section of Ellerton Drive between ch200-700. Opus to provide proposed configuration.	PT/MH	19/11/14	
7	**Old Cooma Road/ELPW Intersection** ER to provide predicted traffic volumes for all turning movements to enable completion of intersection design. QCC to confirm if a left turn B-Double movement is required out of Ellerton Drive.	ER	20/11/14	
8	**ACTew Water Main** Potholing was not able to locate ACTew water main crossing the proposed alignment at ch4270. Excavation prior to potholing is required to locate this pipe. ACTew are required to be present on site during excavation. Opus to request Leach Steger to provide rates for excavation to enable potholing.		18/11/14	
9	**Approval of Provisional Items** DT to provide confirmation of the requirements of the following provisional items: • Detailed Bridge Design – QCC/RMS to confirm bridge sag implementations and provide design brief.			
10	ER to provide predicted traffic volumes for all turning movements to enable completion of intersection design.	ER	20/11/14	
11	QCC to confirm median requirements between ch0-140 given the lane configuration has changed following PSP submission.			
12	Opus to add QCC water main to the current alignment plan showing where water main relocation is likely to be required based on the earthwork requirements.	PT/MH	19/11/14	
13	QCC to provide approval of Opus' additional time spreadsheets issued weekly.	DT	19/11/14	
	Meeting closed – 4:45pm			

MINUTES OF MEETING

File: EDE	**Sheet:** 1 of 2	**Date:** 21 November 2014	**Time:** 2:00pm
Project:	Ellerton Drive Extension (T-C0040.00)		
Subject:	EDE Meeting/ Final Design		
Location:	QCC Depot – 10 Ellerton Drive	**Minutes By:**	Michael Hill

	Persons Present	Organisation	Copy Received
1.	Derek Tooth (DT) (Teleconference)	Queanbeyan City Council	Yes
2.	Eli Ramsland (ER) (Teleconference)	Queanbeyan City Council	Yes
3.	Michael Hill (MH) (Teleconference)	Opus International Consultants	Yes
4.	Peter Taylor (PT) (Teleconference)	Opus International Consultants	Yes

Item	Discussion and Action	By Whom	By When	
1	**Old Cooma Road/ELPW Intersection** QCC advised no left turn B-Double movement is required out of Ellerton Drive, but a truck and dog movement is required. Opus to send latest sketch to confirm arrangement.	PT/MH	26/11/14	
2	South bound crawler land to start just after the Old Sydney Road Roundabout.			
3	Opus to design on road cycle lanes between ch0 and old Sydney Road Roundabout but no other design in this location is required due to uncertainly of the connection requirements at the Yass Road Roundabout.			
4	Add foot path connection the pram ramps on the north eastern corner of the Old Sydney Road roundabout.			
5	The eastern boundary between ch1660 to 2650 is not to be encroached by earthworks other than the access way connections. DT confirm catch drains can be constructed in adjacent properties if required. QCC confirmed the alignment presented on sk100 to 101 revision 4 is to be used for the final design and issued to SLR for modelling and used in community consultation with minor local adjustments to batter slopes. The batter slope/alignment is to accommodate 4m clearance from the batter extent to the western boundary at ch2850.			
6	QCC to confirm road width of Lonergan Drive	DT	28/11/14	
13	QCC to provide written approval of Opus' additional time spreadsheets issued weekly.	DT	25/11/14	
	Meeting closed – 3:30pm			

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