

SECTOR 1 RAUMATI SOUTH EAST OF EW

NZS 6806 – Assessment matrix

Impact key	Potential effects of noise mitigation option
3	significant positive effects
2	moderate positive effects
1	minor positive effects
0	insignificant (no effects)
-1	minor adverse effects
-2	moderate adverse effects
-3	significant adverse effects

A brief description of the basis for each rating should be added in the spaces below the ratings.

Assessment Criteria	Responsible	Option 1	Option 2	Issues/Risks
Compliance with NZS 6806 noise criteria, and requirement for building-modification measures	Acoustics	3	3	
		All in Cat A	All in Cat A	
Effect of changes to the existing noise environment	Acoustics	-2	-2	
		Average increase 6 dB, highest 10 dB	Average increase 6 dB, highest 10 dB	
Achievement of the NZS 6806 structural mitigation performance standards	Acoustics	0	0	
		3 dB average structural mitigation	3 dB average structural mitigation	
Value for money, including maintenance costs and consideration of benefit cost analysis	Acoustics	2	3	
		BCR 1.3	BCR 1.52	
Difference in cost compared to Transit's Guidelines (criteria for NZTA internal monitoring purposes)	Acoustics	-2	N/A	
		24%		
Compliance with relevant safety standards and guidelines	Roading	-1	-1	More barrier required. Similar safety concerns given the proximity to road.

Assessment Criteria	Responsible	Option 1	Option 2	Issues/Risks
	Structures	0	0	
Constructability/technical feasibility	Roading	N/A	N/A	N/A - Covered under construction
	Structures	0	0	
	Construction	+1	0	
Availability of sufficient land for construction and maintenance and the extent to which NZTA would need to acquire land, or interests in land	NZTA	Non issue	Non issue	
Potential effects on known heritage or cultural values	Cultural	?	?	No representative present
The extent to which the mitigation option promotes integration and establishes visual coherence and continuity in form, scale and appearance of structures and landscape proposals along the route	Visual / landscape	-1 (wall on boundary)	0	Option 1 - shades property Option 2 - provides considerable distance and scope for planting
Road users' views to the surrounding landscape and key features/ locations in particular	Visual / landscape	-1	-1	Road users looking down. Not significant. Length of wall is not long. Both options have a similar effect.
Maintenance or enhancement of visual amenity for surrounding residents	Visual / landscape	0	0	Option 1 - shades property Option 2 - provides considerable distance and scope for planting
Utilisation of materials that reflect the character of the location	Visual / landscape	0	0	Concrete is the context
Maintenance or enhancement of the convenience and attractiveness of pedestrian and cycle networks	Urban design	0	0	Cycle/Walkway on the other side so N/A

Assessment Criteria	Responsible	Option 1	Option 2	Issues/Risks
Maintenance or enhancement of safe routes to school	Urban design	0	0	
Impacts (land take, amenity and usability) on community facilities (reserve, school, playground, playing field, etc)	Urban design	0	0	
Public safety and security	Urban design	0	0	
Potential effects on areas of significant indigenous vegetation and significant habitats of indigenous fauna	Ecology	0	0	
Potential flooding effects	Hydrology	-1	-1	Minor drainage issues
Resource efficiency (including avoidance of waste)	Sustainability	-1	-1	Lots of concrete. Option 1 does allow for peat disposal.

Final Comment:

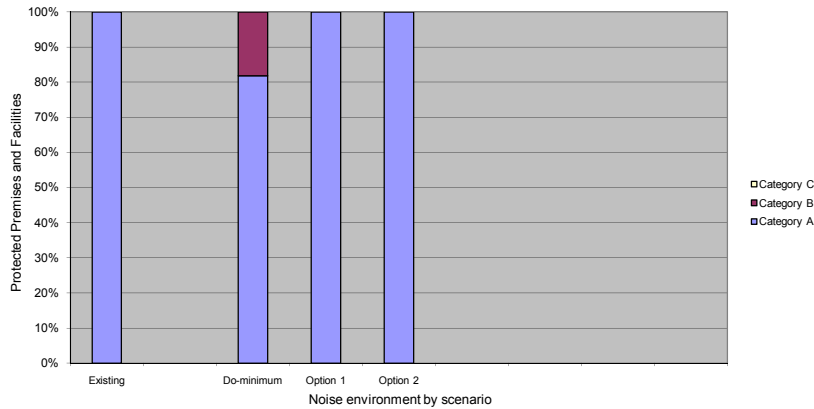
Preferred Option: Option 2

No significant difference in scores. Option 1 slightly preferred for property Conifer Court (only 1dB). Option 2 better BCR and less visual impact.

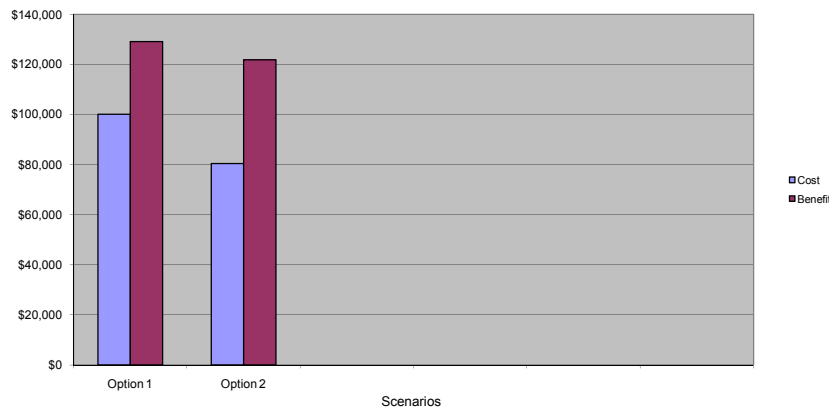
Project				
M2PP				
Sector 1 Raumati Sth East of EW				
Protected Premises and Facilities			(same as Opt. 1)	
	Existing	Do-minimum	Option 1	Option 2
Category A	11	9	11	11
Category B	0	2	0	0
Category C	0	0	0	0
Total	11	11	11	11
Benefit-Cost Ratio				
			Option 1	Preferred Option 2
	Cost		\$100,080	\$80,400
	Benefit		\$129,213	\$121,891
	BCR		1.29	1.52
	Transit		24%	0%
	Structural		2.8 dB	2.6 dB

Graphs

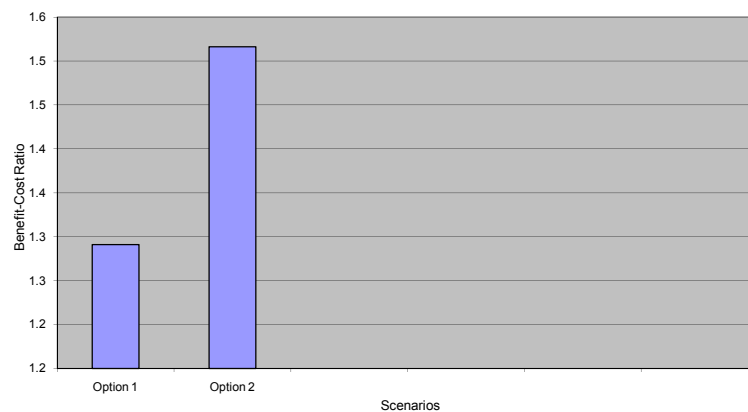
Sector 1 Raumati Sth East of EW



Sector 1 Raumati Sth East of EW



Sector 1 Raumati Sth East of EW



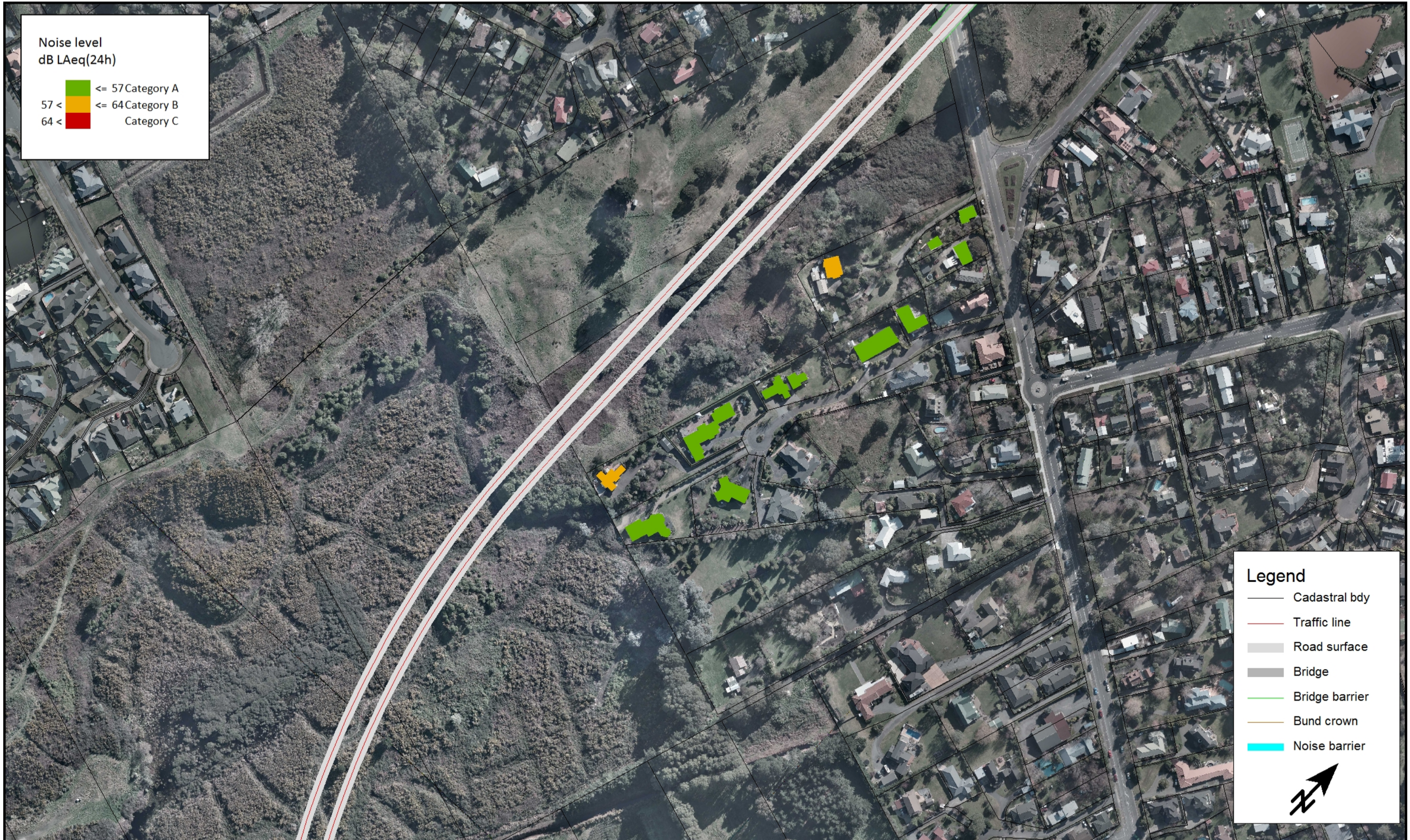
Project: M2PP
Area: Sector 1 Raumati Sth East of EW
AADT: 2,000 to 75,000 vehicles per day
 More than 75,000 vehicles per day
Transit: (option to comply with Transit's Guidelines)

Preferred Mitigation Option

Protected Premises and Facilities		New or Altered	Existing L _{Aeq(24h)} dB	Do–minimum L _{Aeq(24h)} dB	Option 1 L _{Aeq(24h)} dB	Option 2 L _{Aeq(24h)} dB
Street address	Floor					
Conifer Ct 06	1. Floor	New	46	52	50	50
Conifer Ct 08	1. Floor	New	46	54	51	51
Conifer Ct 09	1. Floor	New	46	52	50	50
Conifer Ct 10	1. Floor	New	46	55	52	51
Conifer Ct 11	1. Floor	New	46	53	53	53
Conifer Ct 12	1. Floor	New	46	59	56	57
Cornifer Ct 04	1. Floor	New	46	48	47	47
Cornifer Ct 06	1. Floor	New	46	51	49	49
Raumati Rd 110	2. Floor	New	47	63	57	57
Raumati Rd 114	1. Floor	New	47	57	52	54
Raumati Rd 116	1. Floor	New	47	57	52	54

Noise level
dB LAeq(24h)

- ≤ 57 Category A
- 57 < ≤ 64 Category B
- 64 < Category C



Legend

- Cadastral bdy
- Traffic line
- Road surface
- Bridge
- Bridge barrier
- Bund crown
- Noise barrier



Initials: SW
Date: 18/8/2011
Calculation No: 161



**MACKAYS TO PEKA PEKA EXPRESSWAY
Sector 1
Raumati South area, East of Expressway
Do-minimum Scenario**

NOISE PREDICTION
SCENARIOS
SHEET 9 OF 75

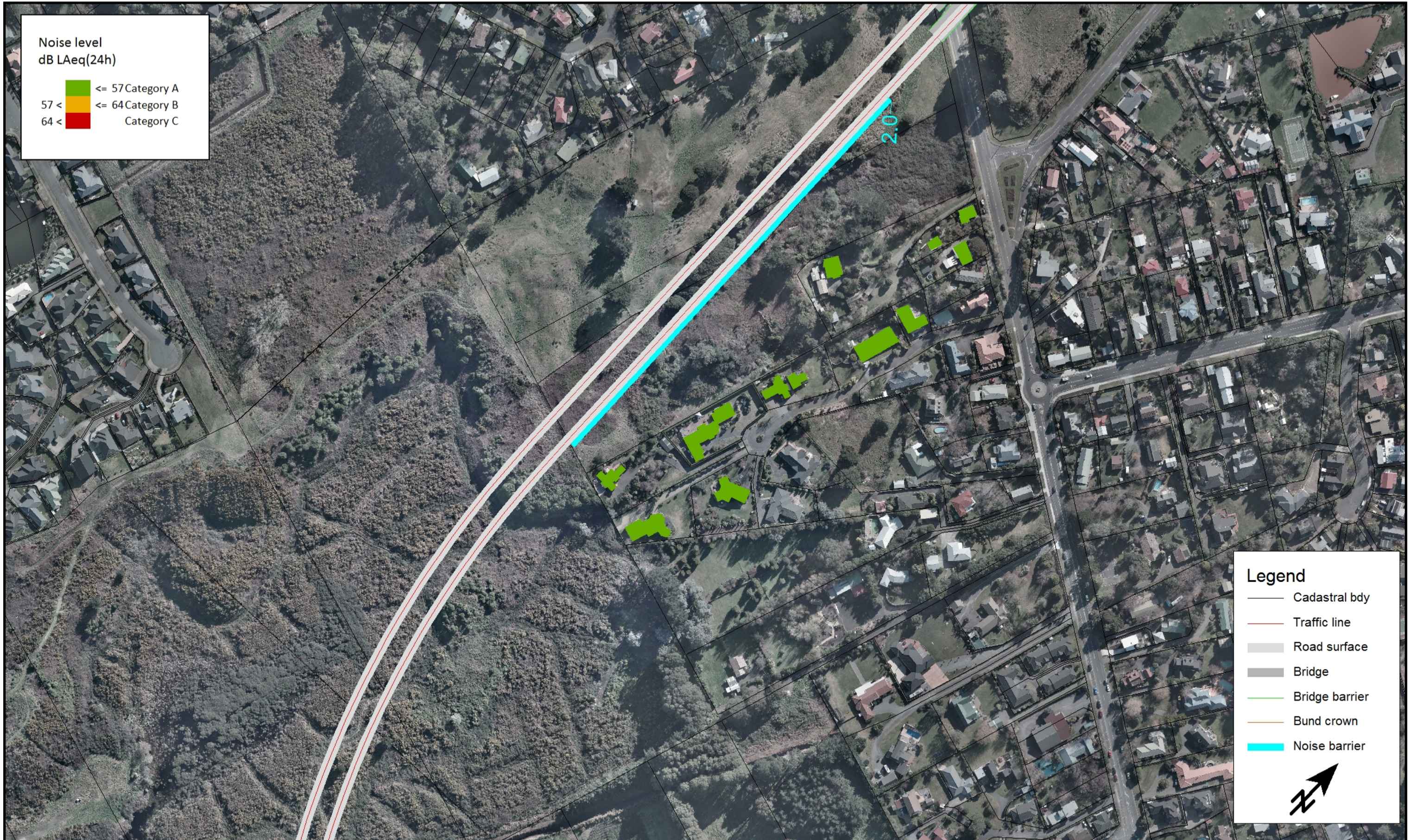
Document Set:
M2PP-AEE-DWG

Drawing No.:
EN-NV-028

A3 Scale 1:2500
0 12.5 25 50 75 100 m

Noise level
dB LAeq(24h)

- ≤ 57 Category A
- 57 < ≤ 64 Category B
- 64 < Category C



Legend

- Cadastral bdy
- Traffic line
- Road surface
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- Bund crown
- Noise barrier



Initials: SW
Date: 18/8/2011
Calculation No: 163



**MACKAYS TO PEKA PEKA EXPRESSWAY
Sector 1
Raumati South area, East of Expressway
Mitigation Option 2 (Noise Guidelines)**

NOISE PREDICTION
SCENARIOS
SHEET 11 OF 75

Document Set:
M2PP-AEE-DWG

Drawing No.:
EN-NV-030

A3 Scale 1:2500
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