SECTOR 2 RAUMATI WEST

NZS 6806 – Assessment matrix

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

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

Assessment Criteria	Responsible	Do-minimum	Option 1	Issues/Risks
Compliance with NZS 6806 noise criteria, and requirement for building-modification measures	Acoustics	+1	+3	
		2 in Cat A and 2 in Cat B	All in Cat A	
Effect of changes to the existing noise environment	Acoustics	-1	0	
		Increase between 5 and 7 dB at all positions	Same as existing	
Achievement of the NZS 6806 structural mitigation performance standards	Acoustics	N/A	+3	
		No structural mitigation required	5 dB average structural mitigation	
Value for money, including maintenance costs and consideration of benefit cost analysis	Acoustics	N/A	+3	
		No structural mitigation required	BCR 1.6	
Difference in cost compared to Transit's Guidelines (criteria for NZTA internal monitoring purposes)	Acoustics	N/A	-3	
			As no mitigation required for Transit Guidelines	

Assessment Criteria	Responsible	Do-minimum	Option 1	Issues/Risks
Compliance with relevant safety standards and guidelines	Roading	0	0	Buildable
	Structures	0	0	
Constructability/technical feasibility	Roading	0	0	
	Structures	0	0	
	Construction	0	0	It can be done. Simple, but even easier to do nothing.
Availability of sufficient land for construction and maintenance and the extent to which NZTA would need to acquire land, or interests in land	NZTA	0	0	
Potential effects on known heritage or cultural values	Cultural	?	?	No cultural 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	0	-1	
Road users' views to the surrounding landscape and key features/ locations in particular	Visual / landscape	0	-1	
Maintenance or enhancement of visual amenity for surrounding residents	Visual / landscape	0	-1	
Utilisation of materials that reflect the character of the location	Visual / landscape	0	-1	Wide open area that will be planted

Assessment Criteria	Responsible	Do-minimum	Option 1	Issues/Risks
Maintenance or enhancement of the convenience and attractiveness of pedestrian and cycle networks	Urban design	0	0	
Impacts (land take, amenity and usability) on community facilities (reserve, school, playground, playing field, etc)	Urban design	0	0	No difference to pony club. Cycleway ramps up past where fence will be so not relevant
Public safety and security	Urban design	0	-1	
Potential effects on areas of significant indigenous vegetation and significant habitats of indigenous fauna	Ecology	0	0	
Natural character of the coastal environment, wetlands, lakes, rivers, and their margins	Ecology	0	0	
	Visual / landscape	0	0	
Potential flooding effects	Hydrology	1	-1	Minor additional drainage effort for Option 1 with a wall.
Resource efficiency (including avoidance of waste)	Sustainability	0	-1	

Final Comments: From a noise reduction perspective, Option 1 makes a significant reduction. Option 1 preferred by others as well overall.

Project

M2PP

Sector 2 Raumati West

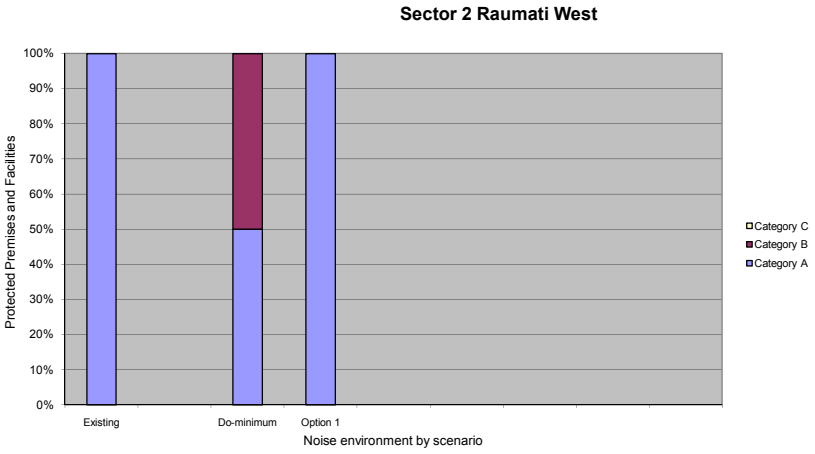
Protected Premises and Facilities

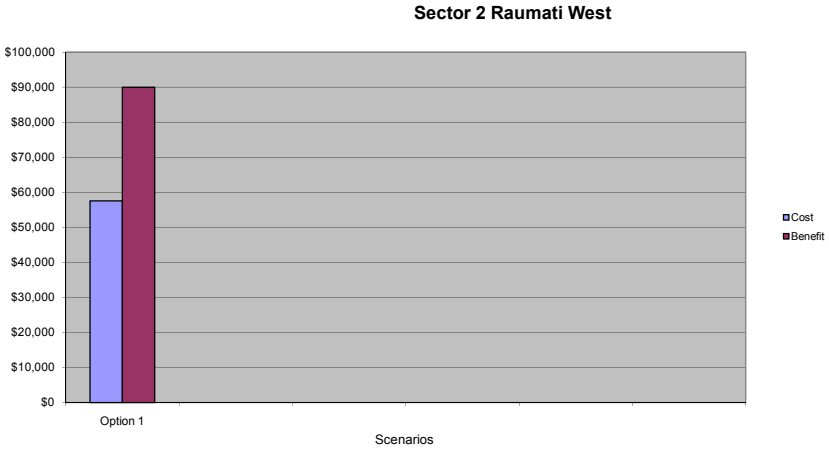
	Existing	Do-minimum	Option 1
Category A	4	2	4
Category B	0	2	0
Category C	0	0	0
Total	4	4	4

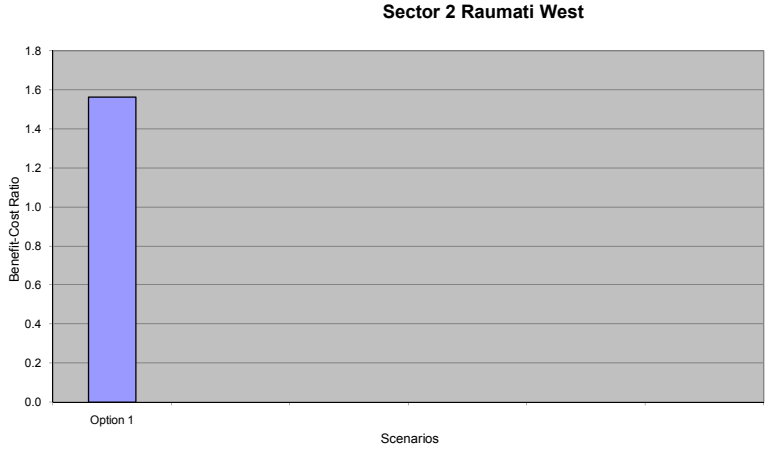
Benefit-Cost Ratio

	Option 1
Cost	$57,600
Benefit	$90,018
BCR	**1.56**
Transit	0%
Structural	5.3 dB

Graphs







Project: M2PP
Area: Sector 2 Raumati West
AADT: (•) 2,000 to 75,000 vehicles per day
( ) More than 75,000 vehicles per day
Transit: Option 2 (option to comply with Transit's Guidelines)

Reformat | New | Altered

Protected Premises and Facilities		New or Altered	Existing $L_{Aeq(24h)}$ dB	Do-minimum $L_{Aeq(24h)}$ dB	Preferred Mitigation Option Option 1 $L_{Aeq(24h)}$ dB
Street address	Floor				
Raumati Rd 59-69	1. Floor	New	52	57	52
Raumati Rd 75	1. Floor	New	52	57	53
Raumati Rd 77	1. Floor	New	52	59	53
Raumati Rd 79	1. Floor	New	52	59	53

Noise level
dB LAeq(24h)

	<= 57	Category A
57 <	<= 64	Category B
64 <		Category C

Rata Rd

Raumati Rd

Legend

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

N

Initials: SW
Date: 18/8/2011

Calculation No: 281

A3 Scale 1:2500

0 12.5 25 50 75 100 m

MARSHALL DAY Acoustics

NZ TRANSPORT AGENCY WAKA KOTAHI

Mackays to Peka Peka

MACKAYS TO PEKA PEKA EXPRESSWAY
Sector 2
Raumati Road, West of Expressway
Do-minimum Scenario

NOISE PREDICTION SCENARIOS
SHEET 12 OF 75

Document Set:

M2PP-AEE-DWG

Drawing No.:

EN-NV-031

Initials: SW
Date: 18/8/2011

Calculation No: 282

A3 Scale 1:2500

0 12.5 25 50 75 100 m

MARSHALL DAY Acoustics

NZ TRANSPORT AGENCY WAKA KOTAHI

Mackays to Peka Peka

MACKAYS TO PEKA PEKA EXPRESSWAY
Sector 2
Raumati Road, West of Expressway
Mitigation Option 1

NOISE PREDICTION SCENARIOS
SHEET 13 OF 75

Document Set:

M2PP-AEE-DWG

Drawing No.:

EN-NV-032

SECTOR 2 RAUMATI EAST

NZS 6806 – Assessment matrix

Impact key	Potential effects of noise mitigation option
+ + +	significant positive effects
+ +	moderate positive effects
+	minor positive effects
o	insignificant (no effects)
-	minor adverse effects
- -	moderate adverse effects
- - -	significant adverse effects

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

Assessment Criteria	Responsible	Do-minimum	Option 1	Issues/Risks
Compliance with NZS 6806 noise criteria, and requirement for building-modification measures	Acoustics	+1	+3	
		2 in Cat A and 2 in Cat B, Transit Guidelines same as Do Minimum	All in Cat A	
Effect of changes to the existing noise environment	Acoustics	-1	0	
		1 to 7 dB increase	Similar to existing, up to 3 dB increase	
Achievement of the NZS 6806 structural mitigation performance standards	Acoustics	N/A	0	
		No structural mitigation required	3 dB average structural mitigation	
Value for money, including maintenance costs and consideration of benefit cost analysis	Acoustics	N/A	-1	
		No structural mitigation required	BCR 0.6	
Difference in cost compared to Transit's Guidelines	Acoustics	N/A	-3	

Assessment Criteria	Responsible	Do-minimum	Option 1	Issues/Risks
(criteria for NZTA internal monitoring purposes)			As no mitigation required for Option 2	
Compliance with relevant safety standards and guidelines	Roading	0	0	Other barrier there anyway off Ihakara Bridge. No additional safety issue.
	Structures	0	0	
Constructability/technical feasibility	Roading	0	0	
	Structures	0	0	
	Construction	0	+1	
Availability of sufficient land for construction and maintenance and the extent to which NZTA would need to acquire land, or interests in land	NZTA	0	0	
Potential effects on known heritage or cultural values	Cultural	?	?	No cultural 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	0	-1	
Road users' views to the surrounding landscape and key features/ locations in particular	Visual / landscape	0	-1	
Maintenance or enhancement of visual amenity for surrounding residents	Visual / landscape	0	0	

Assessment Criteria	Responsible	Do-minimum	Option 1	Issues/Risks
Utilisation of materials that reflect the character of the location	Visual / landscape	0	-1	Existing dune, very open there.
Maintenance or enhancement of the convenience and attractiveness of pedestrian and cycle networks	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	-1	Open area staying in public ownership? If it is to remain then visibility needs to be retained along the path.
Potential effects on areas of significant indigenous vegetation and significant habitats of indigenous fauna	Ecology	N/A	N/A	
Potential flooding effects	Hydrology	0	-1	
Resource efficiency (including avoidance of waste)	Sustainability	0	0	
Other:		0	0	

Final Comment – Do-minimum preferred. Temp stockpiling peat dug out through this area, potential to leave it in this area. All agree this peat would be beneficial.

Project

M2PP

Sector 2 Raumati East

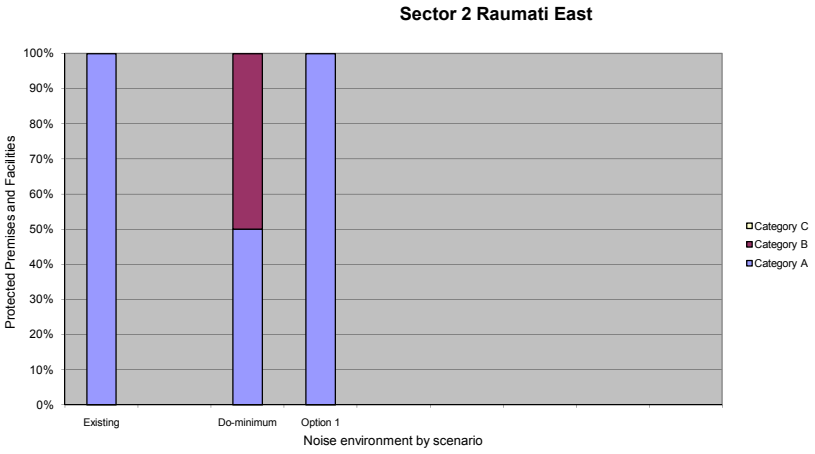
Protected Premises and Facilities

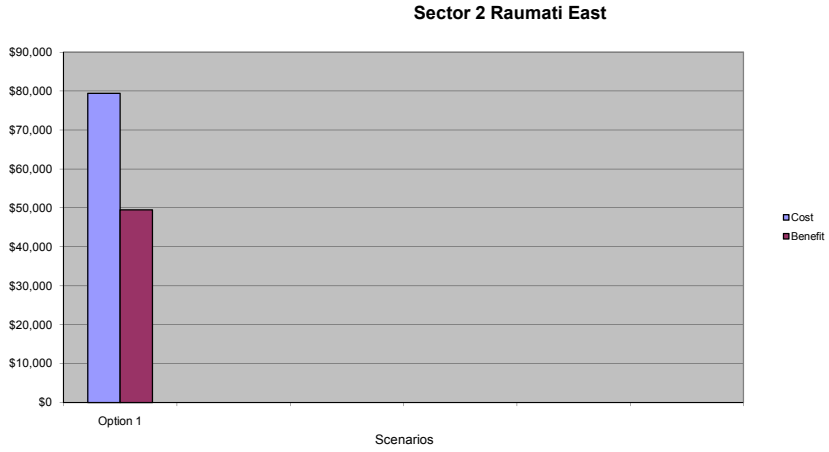
	Existing	Do-minimum	Option 1
Category A	4	2	4
Category B	0	2	0
Category C	0	0	0
Total	4	4	4

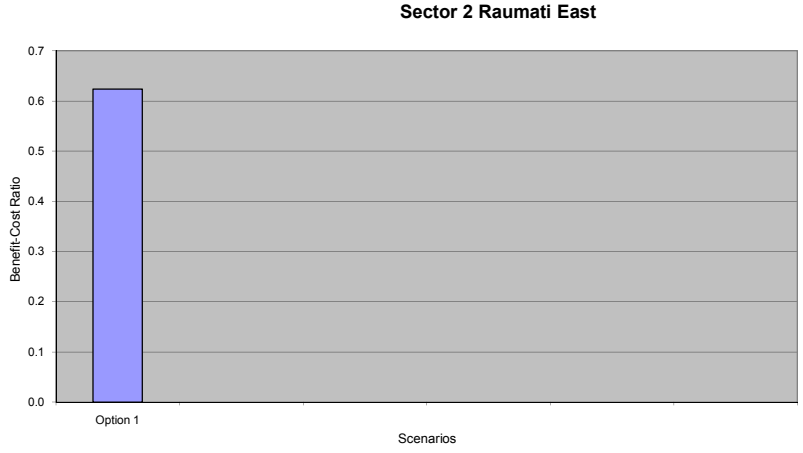
Benefit-Cost Ratio

	Option 1
Cost	$79,440
Benefit	$49,532
BCR	**0.62**
Transit	0%
Structural	2.8 dB

Graphs







Project: M2PP
Area: Sector 2 Raumati East
AADT: ◘ 2,000 to 75,000 vehicles per day
◘ More than 75,000 vehicles per day
Transit: Do-minimum option to comply with Transit's Guidelines

Reformat | New / Altered | Preferred 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
Street address	Floor				
Rata Rd 40	1. Floor	New	52	57	54
Rata Rd 40D	1. Floor	New	52	51	50
Rata Rd 65	1. Floor	New	52	59	55
Rata Rd 67	1. Floor	New	52	58	55