

CEOT-53 - SH6A - SH6A Stanley St Ballarat Intersection Signals Central Otago

Calculations

Project BCR:	4.52
Actual DSi/10 years per \$100M spent:	776
Predicted DSi/10 years per \$100M spent:	0
DSi Saved per 10 years per \$100M spent:	227
Crash Social Cost Saving:	\$ 401,937
Pre-treatment Crash Social Cost (\$ per year):	\$ 318,474
DSi per kilometer per year:	2.66

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1. General

Rank:	1
Expected start year:	2015/16
Project Type:	NMA project
Area:	Central Otago
State Highway:	6A
Safety Issues & Diagnosis of Road / Roadside:	Small urban roundabout with zebra crossing adjacent. Zebra crossing crosses multiple lanes on approach to roundabout.
Stakeholder risk (optional):	Local Council Interest (3)
NZTA person responsible:	Roy Johnston
Network consultant person responsible:	Reece Gibson
Project origin:	Young boy hit on crossing in July 2015 and suffered serious injuries
Other Potential Considerations:	Congestion issues at roundabout

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2. Location

Roadtype:	midblock
Start RS/RP(km) - End RS/RP(km)	0/6.260-0/
Location length:	.10
Detailed location description:	
Environment:	Urban
State Highway classifications:	Regional
Posted Speed Limit	50 km/h
Location AADT:	15700 vpd
Year measured:	2013
Count station:	006a00006

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3. Crash History

Crash History Period:	5			
Latest crash data year used:	2015			
	All Crashes	Run-Off Road Crashes	Head on Crashes	Intersection Crashes
Fatal	0	0	0	0
Serious	1	0	0	1
Minor	3	1	0	1
Non-Injury	19	3	0	8
Description of crash characteristics:	Vehicle vs pedestrian at substandard crossing; minor vehicle vs vehicle pedestrian crossing			
DSi per kilometer per year:	2.66			
Pre-treatment Crash Social Cost (\$ per year)	\$ 318,474			

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4. Treatment Effects

Proposed Treatment:	Signalised intersection with pedestrian phases on all legs
Type of Intervention:	Cycling improvements
Targeted Crashes:	0 Fatal / 1 Serious and 1 Minor / 8 Non-Injury
Fatal & Serious, and Minor & Non-Injury Crash Reduction Factors	30% Fatal & Serious and 30% Minor & Non-Injury
Source used for reduction factors	
Crash Social Cost Savings Justification / Explanation	Assumed improvement associated with conversion of zebra crossing
Non-Safety Benefits and Considerations	
Non-Safety Benefits (\$/year)	\$0
Crash Social Cost Saving	\$ 401,937

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5. Crash Analysis

Analysis type:	KiwiRAP
Collective Risk:	Medium
Personal Risk:	Medium

Existing Crash Risk

Extent calculated star rating: .00

Over Project Length:	KiwiRAP RPS	Predicted Reported DSIs Over 10 Years*
Average/Total	0.00	0.00
Run-off Road	0.00	0.00
Head-on	0.00	0.00
Intersection	0.00	0.00
Predicted DSI (existing)		0.00

"What if?" Analysis

KiwiRAP 5km Section Star Rating: .00

Over Project Length:	KiwiRAP RPS	Predicted Reported DSIs Over 10 Years*
Average/Total	0.00	0.00
Run-off Road	0.00	0.00
Head-on	0.00	0.00
Intersection	0.00	0.00
Predicted DSI ("whatif?")		0.00

KiwiRAP/KAT comments

6. Cost Estimates

Physical Works (\$):	\$ 313,000
Professional Fees (\$):	\$ 30,000
Increased Maintenance Cost (\$/year):	\$ 0
Procurement Type:	Lowest Price Conforming
KAT updated?:	No
Project life:	5 Years
Discount factor:	6 %

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