



# NGAHINAPOURI VILLAGE

CONCEPT PLAN

## WHAT IS THE NGAHINAPOURI VILLAGE CONCEPT PLAN?

A village concept plan was developed in 2014 by Beca on behalf of Waipā District Council to assist in providing for sustainable growth of the village as it develops in the future. This plan was not adopted due to Council cost and safety considerations regarding the intersection of State Highway 39, Reid Road and Ngahinapouri Road.

In 2018 Council contracted Boffa Miskell and Tonkin + Taylor to begin work again on a village concept plan for Ngahinapouri. The scope of this plan was expanded to include structure plans for the three growth cells identified for large lot residential development in the Waipa 2050 Growth Strategy. This process has so far involved engagement with key community stakeholders as well as Waka Kotahi New Zealand Transport Agency and the Ministry of Education.

Now we have structure plans for the three growth cells and a recommended option for the intersection of State Highway 39, Reid Road and Ngahinapouri Road.

### WHO WAS INVOLVED IN DEVELOPING THE PLAN.

The draft village concept plan so far incorporates feedback from key community stakeholders, Waka Kotahi New Zealand Transport Agency, the Ministry of Education and Council managers.



## WHAT YOU TOLD US...

We've taken on board feedback from key community stakeholders and looked at the 2014 village concept plan. From this we understand that your key ideas are:

1

A community hub to provide for amenities such as a church, creche and café.

2

Large lot residential areas for growth that provide improved safety and connectivity for pedestrians and cyclists

3

Primary school expansion to meet growing population demands

4

An improved intersection of Ngahinapouri Road, Reid Road and SH39 to help alleviate current and future safety concerns

## WHAT WE DID...

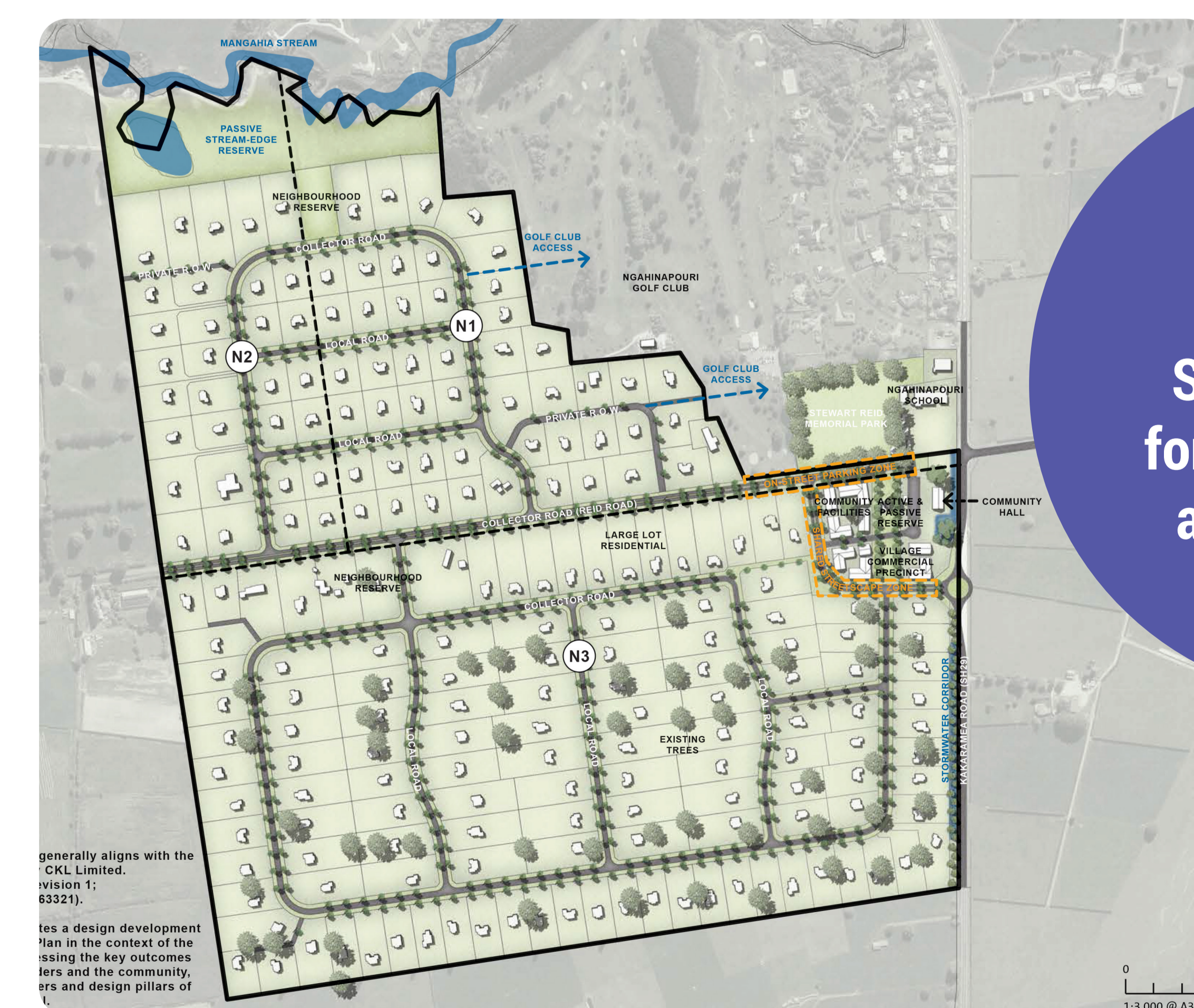
### 1 A community hub with economic and recreational opportunities.

You wanted the area to provide for a mix of amenities such as a church, creche and café, with good linkages to Stewart Reid Memorial Park, Ngahinapouri Golf Club and Ngahinapouri School. You also told us that any future development would need to fit the village atmosphere and work for you long term.

In order to achieve this, we included a community hub on the corner of Reid Road and State Highway 39, opposite Ngahinapouri School.

### 2 Large lot residential areas for growth that provide improved safety and connectivity for pedestrians and cyclists.

In order to achieve these ideas, we made sure we included walking and cycling links in our structure plans for the three large lot residential growth cells. These links will mean children can safely walk or cycle to school, families can walk down to the local community hub and there's a safe area for people to exercise.



**THIS IS  
UNDERWAY!**

Structure plans  
for the residential  
area have been  
developed.

### 3 Primary school expansion meet growing population demands.

Council have worked with the Ministry and the School to help produce the six intersection options.

Currently, the Ministry has no plans to expand the school grounds in the foreseeable future. Due to projected population growth, some of the draft intersection options provide potential for the school to expand.

### WHO MAKES THE DECISIONS ABOUT SCHOOLS?

The Ministry of Education is responsible for decisions about schools and education across New Zealand. This includes school population demands, growth and expansion of current facilities.

### 4 An improved intersection of Ngahinapouri Road, Reid Road and SH39 to help address current and future safety concerns.

Due to the location of State Highway 39, Council engaged with representatives from Waka Kotahi New Zealand Transport Agency. Traffic volumes on State Highway 39 are expected to increase.

Traffic modelling was carried out by Tonkin + Taylor, which looked at no development, low development and high development scenario impacts on traffic volumes in the village. The low development scenario is the level of development that arises from the Waipa 2050 Growth Strategy and is what Council expects to see occur in Ngahinapouri. A 2 per cent per annum growth in traffic volumes was assumed for the modelling.

Modelling showed that the existing intersection will be sufficient for current and predicted traffic volumes until about 2035. After that, the modelling suggested there would be increasingly long wait times for vehicles on Ngahinapouri and Reid Roads at peak times in the morning and evening.

Because of this, Council asked Tonkin + Taylor to investigate different options for the intersection. Six options were investigated and scored against twelve criteria in three key areas: Waipa District Council objectives, Urban Design objectives and Transport objectives.

*Tell us which  
road layout you  
prefer!*

We've looked at six  
intersection options to  
determine which would  
work best for Ngahinapouri  
village long-term. The  
next signboards have more  
information about these  
six options!

*Check them out!*



OPTION 1

DO NOTHING —  
EXCEPT LOCAL ROAD UPGRADES



WHAT WORKS?

Option 1 is the lowest cost to ratepayers and is a sufficient intersection type to cope with current and projected traffic numbers until 2035. The road layout requires a limited amount of long-term maintenance and is common to see in a rural environment.

WHAT DOESN'T?

As traffic numbers increase, this road layout will become less effective over time. Option 1 does not meet the community objectives, urban design objectives or transport objectives. This option also does not allow for more room for the school to expand.

HOW IT SCORED?

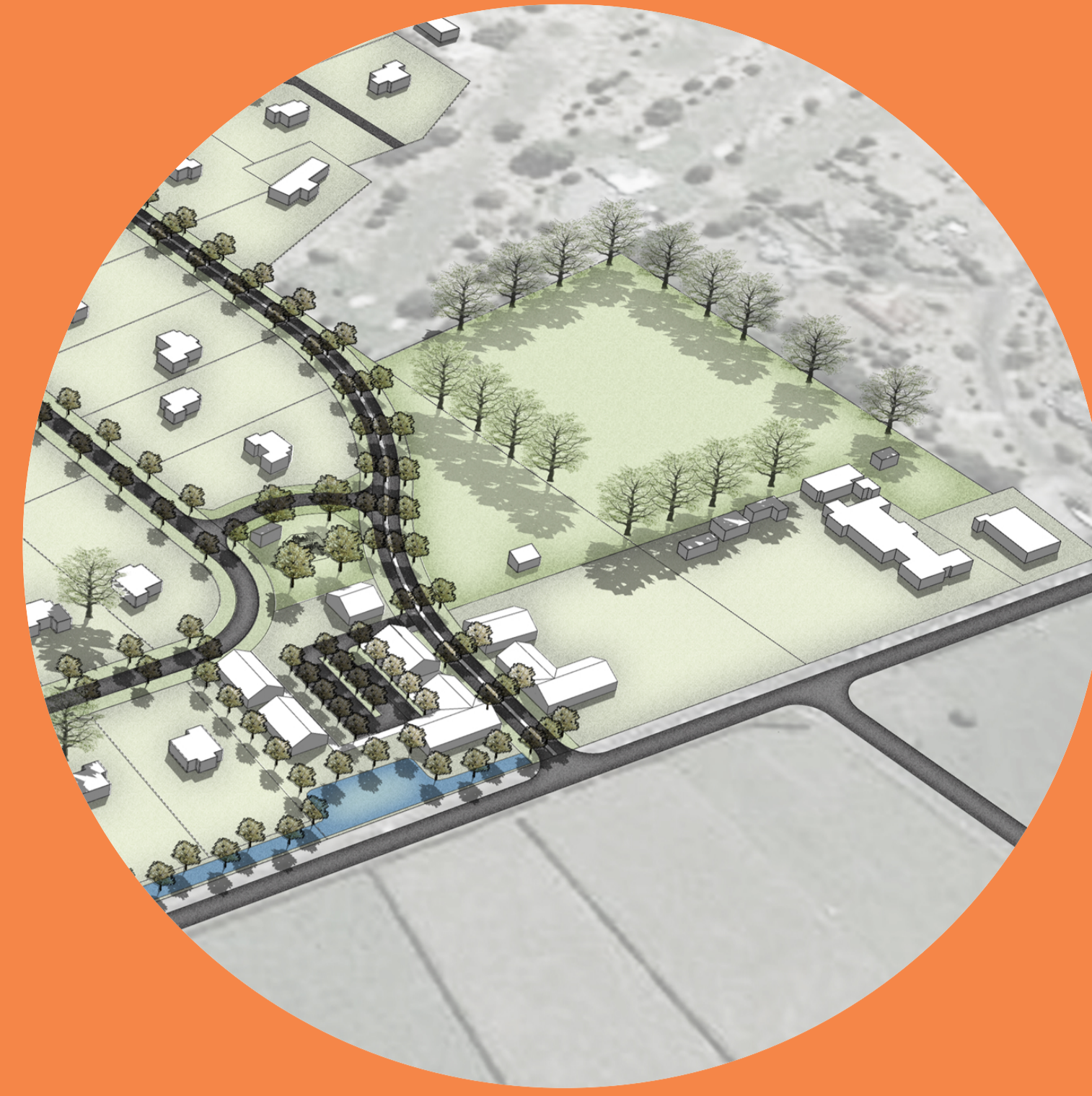
WDC OBJECTIVES	SCORE	URBAN DESIGN OBJECTIVES	SCORE	TRANSPORT OBJECTIVES	SCORE
Is this what the community wants?	-2	Does this enhance the proposed community?	-1	Does this reduce crash risk?	-2
Does this enhance the environmental and cultural wellbeing of the community?	-1	Does this provide a user-friendly intersection and road network for all users?	-1	Does this enhance safety of vulnerable road users?	-2
Does this contribute positively to the local economy and provide value to the community?	-2	Does this contribute to the desired sense of place?	-1	Does this improve traffic movements?	-1
Does this enhance quality of life for local community	-2	Does this enhance the open space network?	0	Is this feasible?	3
		How likely is this to meet asset owner approval or achieve RMA compliance?	-2	What are the long term maintenance and operational risks?	0

TOTAL SCORE = -14.00

OVERALL RANKING = 6TH

OPTION 2

STAGGERED T  
INTERSECTION



WHAT WORKS?

Option 2 meets community aspirations in terms of what the community wants, enhances the environmental and cultural wellbeing of the community, contributes to quality of life for local community as it would provide additional land area next to Ngahinapouri School for future expansion.

WHAT DOESN'T?

Option 2 would require road relocation, land purchase and is unlikely to achieve Resource Management Act compliance. Having two offset T-intersections in close proximity increases crash risk.

HOW IT SCORED?

WDC OBJECTIVES	SCORE	URBAN DESIGN OBJECTIVES	SCORE	TRANSPORT OBJECTIVES	SCORE
Is this what the community wants?	2	Does this enhance the proposed community?	1	Does this reduce crash risk?	-1
Does this enhance the environmental and cultural wellbeing of the community?	1	Does this provide a user-friendly intersection and road network for all users?	-1	Does this enhance safety of vulnerable road users?	-2
Does this contribute positively to the local economy and provide value to the community?	1	Does this contribute to the desired sense of place?	-1	Does this improve traffic movements?	0
Does this enhance quality of life for local community	1	Does this enhance the open space network?	0	Is this feasible?	-1
		How likely is this to meet asset owner approval or achieve RMA compliance?	-2	What are the long term maintenance and operational risks?	-1

TOTAL SCORE = -3.00

OVERALL RANKING = 5TH

OPTION 3

TRAFFIC  
LIGHTS



WHAT WORKS?

Option 3 would regulate traffic flow, provide a user-friendly intersection and enhance the safety of vulnerable road users. It is also a feasible option in terms of cost.

WHAT DOESN'T?

It is unusual to see traffic lights in a rural environment and therefore Option 3 is unlikely to achieve Resource Management Act compliance. This option also would not contribute to the desired sense of place, enhance the environmental or cultural wellbeing of the community.

HOW IT SCORED?

WDC OBJECTIVES	SCORE	URBAN DESIGN OBJECTIVES	SCORE	TRANSPORT OBJECTIVES	SCORE
Is this what the community wants?	-2	Does this enhance the proposed community?	0	Does this reduce crash risk?	1
Does this enhance the environmental and cultural wellbeing of the community?	-1	Does this provide a user-friendly intersection and road network for all users?	2	Does this enhance safety of vulnerable road users?	2
Does this contribute positively to the local economy and provide value to the community?	1	Does this contribute to the desired sense of place?	-1	Does this improve traffic movements?	1
Does this enhance quality of life for local community	1	Does this enhance the open space network?	0	Is this feasible?	2
		How likely is this to meet asset owner approval or achieve RMA compliance?	-2	What are the long term maintenance and operational risks?	-1

TOTAL SCORE = 3.00

OVERALL RANKING = 4TH

HOW IT WAS  
SCORED...

Scoring was undertaken using a seven-point scale to improve the quality of results. Using this system meant subtle differences between options could be represented in the scoring.

SEVEN-POINT SCALE

- 3 Significant enhancement
- 2 Moderate enhancement
- 1 Slight enhancement
- 0 Neutral
- 1 Slight detracton
- 2 Moderate detracton
- 3 Significant detracton (Fatal Flaw)

OPTION 4

STANDARD  
ROUNABOUT



WHAT WORKS?

Option 4 provides a safe intersection option that slows all traffic down, enhances the quality of life for the local community and contributes to the desired sense of place. It also reduces crash risk, improves traffic movements and enhances the vulnerability of road users.

WHAT DOESN'T?

This option is the second most expensive and will have ongoing costs for long-term maintenance.

HOW IT SCORED?

WDC OBJECTIVES	SCORE	URBAN DESIGN OBJECTIVES	SCORE	TRANSPORT OBJECTIVES	SCORE
Is this what the community wants?	1	Does this enhance the proposed community?	2	Does this reduce crash risk?	3
Does this enhance the environmental and cultural wellbeing of the community?	1	Does this provide a user-friendly intersection and road network for all users?	2	Does this enhance safety of vulnerable road users?	1
Does this contribute positively to the local economy and provide value to the community?	1	Does this contribute to the desired sense of place?	2	Does this improve traffic movements?	3
Does this enhance quality of life for local community	1	Does this enhance the open space network?	1	Is this feasible?	2
		How likely is this to meet asset owner approval or achieve RMA compliance?	1	What are the long term maintenance and operational risks?	-1

TOTAL SCORE = 20.00

OVERALL RANKING = 2ND

OPTION 5

OFFSET  
ROUNABOUT



WHAT WORKS?

Option 5 provides a safe intersection option that slows all traffic down, enhances the quality of life for the local community and contributes to the desired sense of place. It also reduces crash risk, improves traffic movements and enhances the vulnerability of road users.

WHAT DOESN'T?

An offset roundabout would require additional land purchase as two roads would require realignment as well as the construction of the roundabout. This makes it the most expensive option.

HOW IT SCORED?

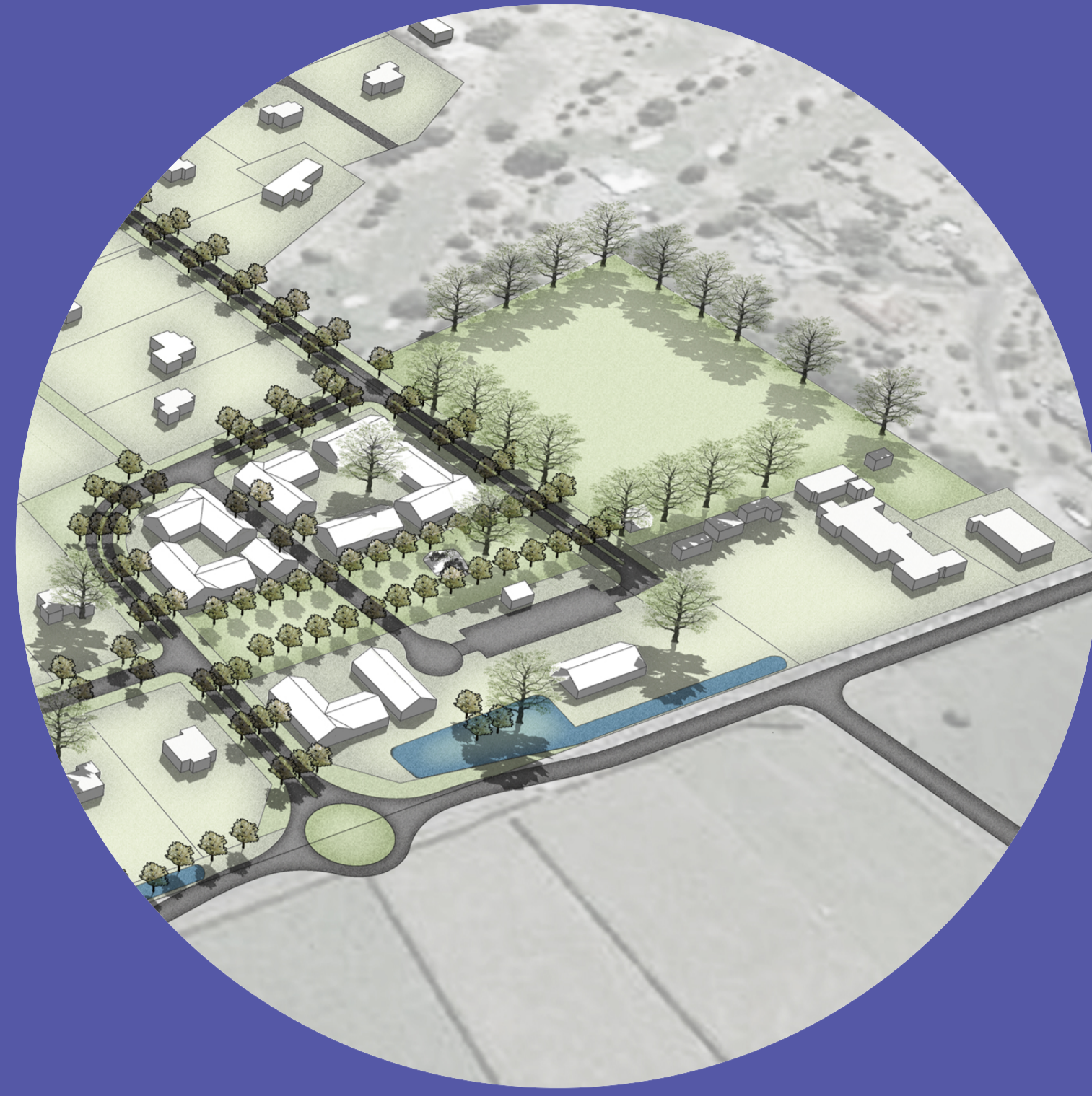
WDC OBJECTIVES	SCORE	URBAN DESIGN OBJECTIVES	SCORE	TRANSPORT OBJECTIVES	SCORE
Is this what the community wants?	1	Does this enhance the proposed community?	2	Does this reduce crash risk?	3
Does this enhance the environmental and cultural wellbeing of the community?	1	Does this provide a user-friendly intersection and road network for all users?	2	Does this enhance safety of vulnerable road users?	1
Does this contribute positively to the local economy and provide value to the community?	1	Does this contribute to the desired sense of place?	2	Does this improve traffic movements?	3
Does this enhance quality of life for local community	1	Does this enhance the open space network?	1	Is this feasible?	2
		How likely is this to meet asset owner approval or achieve RMA compliance?	0	What are the long term maintenance and operational risks?	-1

TOTAL SCORE = 19.00

OVERALL RANKING = 3RD

OPTION 6

3-LEG  
ROUNABOUT



WHAT WORKS?

Option 6 is the highest scoring in terms of what the community wants, enhancing quality of life for local community, providing a user-friendly intersection as well as improving traffic movements for all users. This option provides for school expansion, and opportunities to contribute positively to the local economy through additional land for a community hub.

WHAT DOESN'T?

As with all intersections, this will require long-term maintenance.

HOW IT SCORED?

WDC OBJECTIVES	SCORE	URBAN DESIGN OBJECTIVES	SCORE	TRANSPORT OBJECTIVES	SCORE
Is this what the community wants?	3	Does this enhance the proposed community?	2	Does this reduce crash risk?	3
Does this enhance the environmental and cultural wellbeing of the community?	1	Does this provide a user-friendly intersection and road network for all users?	3	Does this enhance safety of vulnerable road users?	2
Does this contribute positively to the local economy and provide value to the community?	2	Does this contribute to the desired sense of place?	3	Does this improve traffic movements?	3
Does this enhance quality of life for local community	3	Does this enhance the open space network?	0	Is this feasible?	3
		How likely is this to meet asset owner approval or achieve RMA compliance?	2	What are the long term maintenance and operational risks?	-1

TOTAL SCORE = 29.00

OVERALL RANKING = 1ST

HOW IT WAS  
SCORED...

Scoring was undertaken using a seven-point scale to improve the quality of results. Using this system meant subtle differences between options could be represented in the scoring.

SEVEN-POINT SCALE

- 3 Significant enhancement
- 2 Moderate enhancement
- 1 Slight enhancement
- 0 Neutral
- 1 Slight detracton
- 2 Moderate detracton
- 3 Significant detracton (Fatal Flaw)