

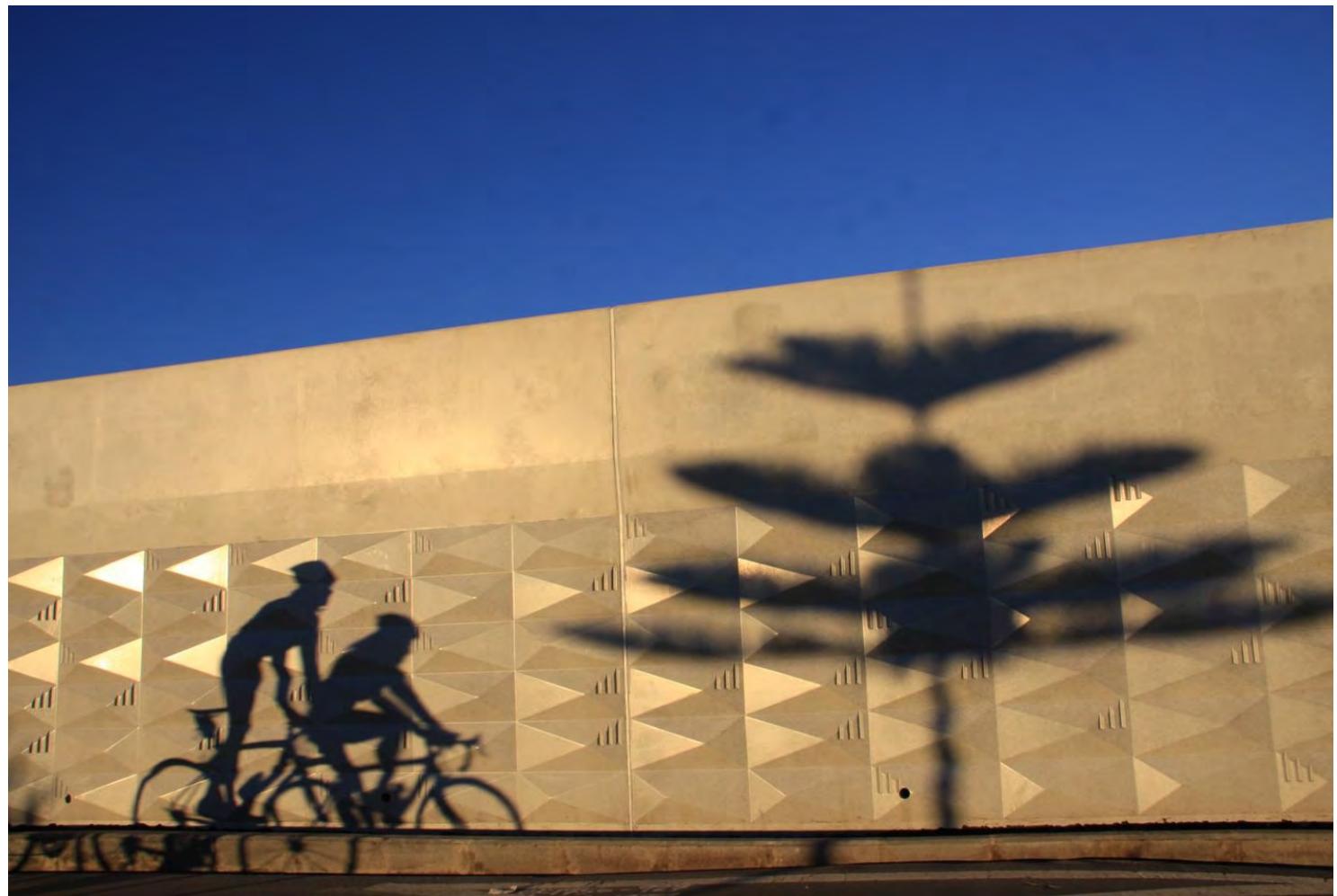
Report

Tawa and Linden Suburban Centres Cycle Network Planning

Prepared for Wellington City Council

Prepared by (Beca)

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Revision History

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Executive Summary

This report focuses on improving the cycling environment in the vicinity of Tawa and Linden, Wellington. The exercise was requested by Wellington City Council, to understand where there are existing gaps in cycling infrastructure and where available funding should be targeted (as it becomes available).

Project aspirations

The project aspirations have been defined as making improvements to the following:

- Cycling safety
- Cycle (and pedestrian) accessibility
- Uptake of local cycling.

Stakeholder and community engagement

The process was instigated by undertaking a ride-over of the area (by design and planning staff), this was considered key to understanding the existing local cycle infrastructure and general environment.

A high focus was placed on local community and stakeholder engagement, which was undertaken in person via numerous meetings and electronically (via a web-based survey). Emergency services, education, health and community groups were consulted, in addition to local enthusiasts such as mountain biking groups.

The results of consultation and data collection showed that

- The main reason for cycling in Tawa was for exercise, followed by recreation.
- Mountain bike tracks, Tawa Shopping Centre and work were the three most popular cycling destinations (ranked from first to third respectively)
- The greatest perceived barriers to cycling were ‘Feeling unsafe on the road’ and ‘Insufficient cycle paths or not enough connections’.

Development of the cycling network

A range of different hazards and suggested improvements were outputs from the stakeholder engagement, and provided points of focus.

From the stakeholder consultation a cycle network was developed, which has two main spine routes running north-south (Main Road and the Tawa Valley Pathway), and a number of additional routes and connectors joining the wider community to work, education and recreational facilities. The routes and connectors have been aimed at cyclists from one or more of the commuter, recreational or school cycling groups.

Scheme lists were developed for ‘minor works’ and ‘significant schemes’ from specific stakeholder feedback and comments. It was proposed that minor works could be undertaken by the council, likely as maintenance / low-risk items, whereas significant schemes would need to be developed further. A simplified multi-criteria analysis was undertaken (with four criteria) to derive an prioritised scheme list.

Conclusion

The report concludes that the network presented will likely work to achieve the project aspirations, and be generally positive for cycling in Tawa. It’s proposed that internal (council) deliberation takes place to assess the method (and sequencing) of rolling out the cycling network, and which infrastructure scheme should be taken forward to further levels of design (ideally supplemented with road safety audits or reviews).

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1 Introduction

This study has been prepared by Beca Ltd (Beca) for Wellington City Council (WCC), to assist in the planning and provision of appropriate cycling networks in the Tawa suburb of Wellington (including the surrounding area of Linden, Redwood etc).

Tawa is located approximately between the suburb of Johnsonville and Porirua and exhibits slopes on both its east and west flanks. The Tawa suburb supports a community of approximately 15000 residents as well as acting as a commuter area for Wellington.

The following map shows the location of Tawa and Linden areas.

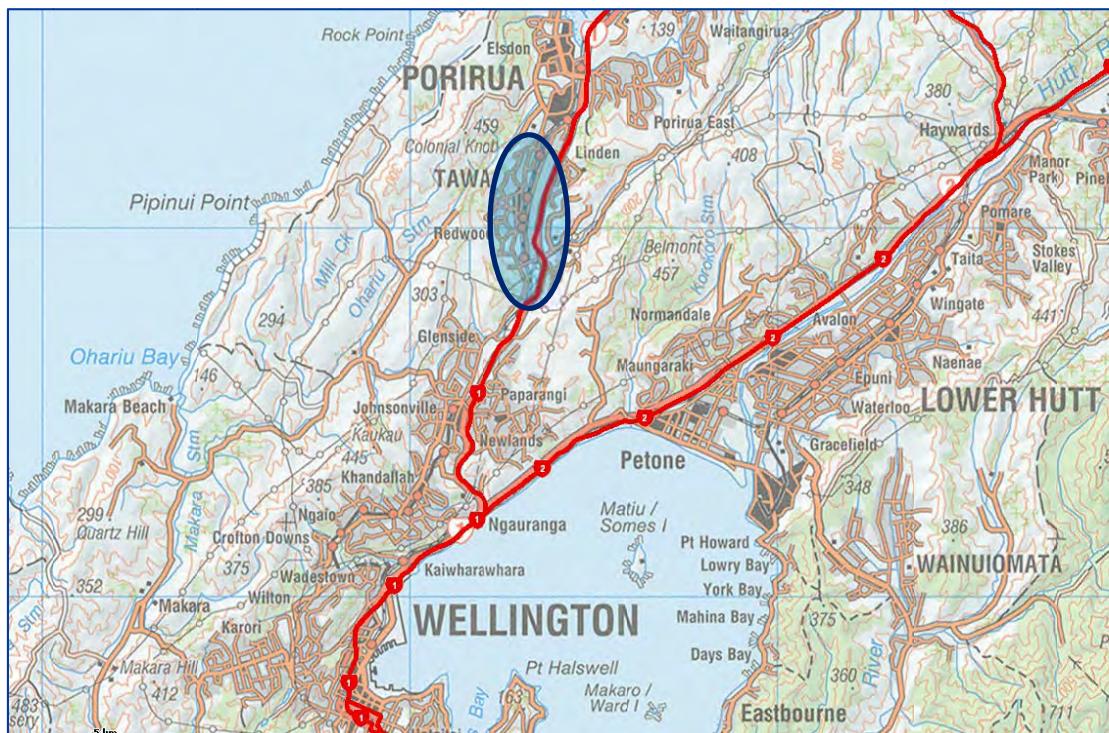


Figure 1.1 - Location of Tawa and Linden

The Kapiti Line of the Wellington Suburban Railway passes through Tawa, providing regular services to the central business district (to the south) and outlying areas to the north. SH1 passes through the east of Tawa, providing a key link from the wider North Island to Wellington, and similarly for wider traffic to and from the South Island (via ferry link).

1.1 Project aspirations

The purpose of the report is to outline the existing issues or barriers to cycling in the Tawa area, and to propose a series of measures to improve the following

- Cycling safety
- Cycle (and pedestrian) accessibility
- Uptake of local cycling.

Stakeholder and community engagement has been identified as a key input to this network planning exercise, to understanding specific local cycling (and mobility) issues. Council, supported by Beca's planning and environments team undertook a number of events and web-based survey to understand local concerns.

Following stakeholder consultation, a process of multi-criteria analysis has been undertaken to establish priorities in relation to improving the local network.

1.2 SWOT analysis

To assess the existing local cycle facilities and possible improvements, a conceptual SWOT analysis has been undertaken for cycling within the study area. In undertaking the analysis it is appreciated that some aspects are common to general cycling schemes, whereas others are specific to the Tawa and surrounding area.

Each quadrant of the table analyses a different aspect of cycling within the project study area for **strengths, weaknesses, opportunities** and **threats**.

The SWOT analysis highlights a number of significant factors which will benefit local cyclists, and also raises points / principles which should be considered or elaborated on within design options for development.

Table 1.1 - SWOT Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> ■ Public health benefits ■ Decreased congestion ■ Centrally located trip generators (train stations, school, retail etc.) ■ The existing Tawa Valley Pathway is a direct cycle route ■ Direct spine roads (Main Road, Duncan Street) ■ Contributes to a continuous cycle network ■ Increased levels of sustainable travel 	<ul style="list-style-type: none"> ■ Moderate distances and difficult connections to other conurbations (Johnsonville, CDB, Porirua etc.) ■ The surrounding topography is not naturally conducive to cycling ■ The recent crash history indicates poor visibility / conspicuity of cyclists ■ Severance caused by the railway and SH1 ■ Limited culture of cycling
Opportunities	Threats
<ul style="list-style-type: none"> ■ Significant contribution to the Safer Journeys / Safe System strategies ■ Introduction of suitable traffic calming infrastructure ■ Separation of cycles from general traffic ■ Improved conspicuity of cyclists using suitable delineation and signing ■ Heightened school engagement (through school travel plans) ■ Improved commuter cycling opportunities 	<ul style="list-style-type: none"> ■ Low use or uptake ■ Existing and continued conflict between cyclists and other road users ■ Poor public perception of the scheme or cyclists generally ■ Funding availability ■ Possible impacts on road space

Particular strengths and opportunities for cycling in Tawa are the availability of solid existing facilities which act as core north/south routes along the valley (such as the Tawa Valley Pathway and Main Road), and improved school engagement (through school travel plans).

Some notable weaknesses and threats are the high number of cycle crashes which have taken place (particularly due to low conspicuity of the cyclist), connectivity to the Tawa Valley Pathway and the risk of poor uptake if the facilities proposed are not suitable for the community.

2 Existing cycling conditions

2.1 Literature review

2.1.1 WCC Tawa Cycling Study

A significant local study report was undertaken in 2003/2004 by WCC focusing on the integration of the SaferRoads scheme approach to the Tawa area. This project focused on the road safety elements of the local road network (identifying gaps or high crash areas), and also a process to integrate local school travel plans into the SaferRoads strategy. It considered all modes rather than cycling only.

The approach of the report was to run a series of community participation workshops (with attendees from cycling and walking groups, transport operators, utilities operators, and a number of local community and education groups). At the time of writing there was a focus on the three Es – Engineering, Education and Enforcement, however, this overarching strategy has increasingly moved towards the Safe System approach.

Following the workshops of the 2003/2004 study, the Tawa area was divided into a number of areas for discussion and analysis (Main Road and five surrounding areas). Proposed remedial works from the previous study included the introduction of lower posted speed limits, roundabouts, splitter islands, and a number of lining and signing strategies.

The study report provides an up-to-date overview of the challenges and opportunities of the local area, and provides a suitable background for cycling orientated improvements.

2.1.2 Regional Cycling Plan 2008 (GWRC)

The Greater Wellington Regional Council undertook a review of the wider cycling requirements for the region in 2008. The document goes into detail of the requirements for a regional cycling approach, outlining the expected environments (for the various cycling types and needs), feasible routes, review of cycle casualties and finally creates and action plan for achieving the goals.

The objectives of the Regional Cycling Plan are summarised as follows

- Assist economic and regional development
- Assist safety and personal security
- Improve access, mobility and reliability
- Protect and promote public health
- Ensure environmental sustainability
- Ensure that the Regional Transport Programme is affordable for the regional community.

The goals recognised in the Regional Cycling Plan are noted to align well with the Tawa Linden Suburban Cycle Network project aspirations.

2.1.3 Cycling Policy 2008 (WCC)

A review of the policy's appendices shows two cycle routes through the Tawa basin. Of these, one forms the existing network, the second shows a cycle friendly route. The cycle friendly route is shown to pass through the suburb along Main Road (for the majority), whereas an existing cycle network is shown to the east of Main Road.

From initial observations and understanding, it is interesting that Main Road has been indicated as a cycle friendly route. However, it is appreciated that some local cycle facilities will have come online since the creation of the policy document and plans, which may be preferable through Tawa, these are identified in the subsequent sections.

2.2 Existing cycle facilities and site observations

A number of cycle paths and tracks exist in the vicinity of Tawa and Linden, including the Tawa Valley Pathway, and numerous tracks through parks and reserves surrounding the suburb.

2.2.1 Tawa Valley Pathway (TVP)

The TVP runs approximately north / south through the suburb. Starting at the southern end of Tawa, it links to or passes the following key locations (travelling in a northbound direction):

Table 2.1 - Tawa Valley Pathway trip generators

Tawa Valley Pathway - trip generators / points of interest

- Takapu Road Railway Station
- Redwood Railway Station
- Tawa Railway Station
- Tawa Pool
- Tawa College and Intermediate Schools
- Linden Railway Station
- Kenepuru Railway Station

The TVP acts as a cycling and walking spine through the centre of Tawa and Linden (and surrounding areas). This central spine provides an ideal opportunity to link nearby facilities with appropriate cycling infrastructure.

2.2.2 Tracks and trails

Approximately six tracks and trails exist in the hills around Tawa (two short tracks are also present in the town / valley floor). The surrounding hillsides provide ideal cycling tracks for sports and leisure cycling, with many looping to convenient points back on the town's fringe.

A map of the existing tracks and facilities has been produced to understand the existing cycle facilities in the vicinity of Tawa, and is presented in Appendix A.

2.2.3 Site observations

A ride-over was undertaken in the Tawa and Linden areas in March 2014 to assess general riding conditions and existing facilities first-hand. The areas investigated were in locality of the town centre (Main Road), as

well as the surrounding residential environments. Beca's scheme designers and community engagement staff attended the ride-over, prior to beginning local engagement activities.

Key points from the ride-over were that Main Road acts as a hub for local community activities, and hosts many key trip generators for the local community. Local parking was observed to cause some areas of increased cycling difficulty where greater care and attention is required. Some other general areas of infrastructure act as barriers to cycling such as pedestrian crossings, roundabouts and pinch-points.

2.3 Crash history

Using CAS (the Crash Analysis System), the crash record for Tawa and Linden was extracted and analysed. The latest 5-year data was extracted for the area from 2009-2013 inclusive, and excluded those occurring on SH1.

A total of 228 crashes took place in the area, of these, 14 crashes involved a cyclist. The following diagram highlights the locations where cycle crashes took place (including their severity). The full details of the 14 cycle crashes are available in Appendix B.

Figure 2.1 shows that the majority of crashes involving cycles took place along Main Road and were particularly focused around the Tawa shopping area (in the vicinity of Cambridge Street and Lincoln Avenue).

The following table is summarised from the crash record involving cyclists.

Table 2.2 shows the year and severity for the 14 cycle crashes. It is positive to report that no fatal cycle crashes took place in the study area during the period, however, three serious crashes and ten minor injury crashes were recorded. One record observed a cyclist crash with no injury, however, it is accepted that non-injury cycle crashes are generally under-reported and therefore there may have been other similar incidents.

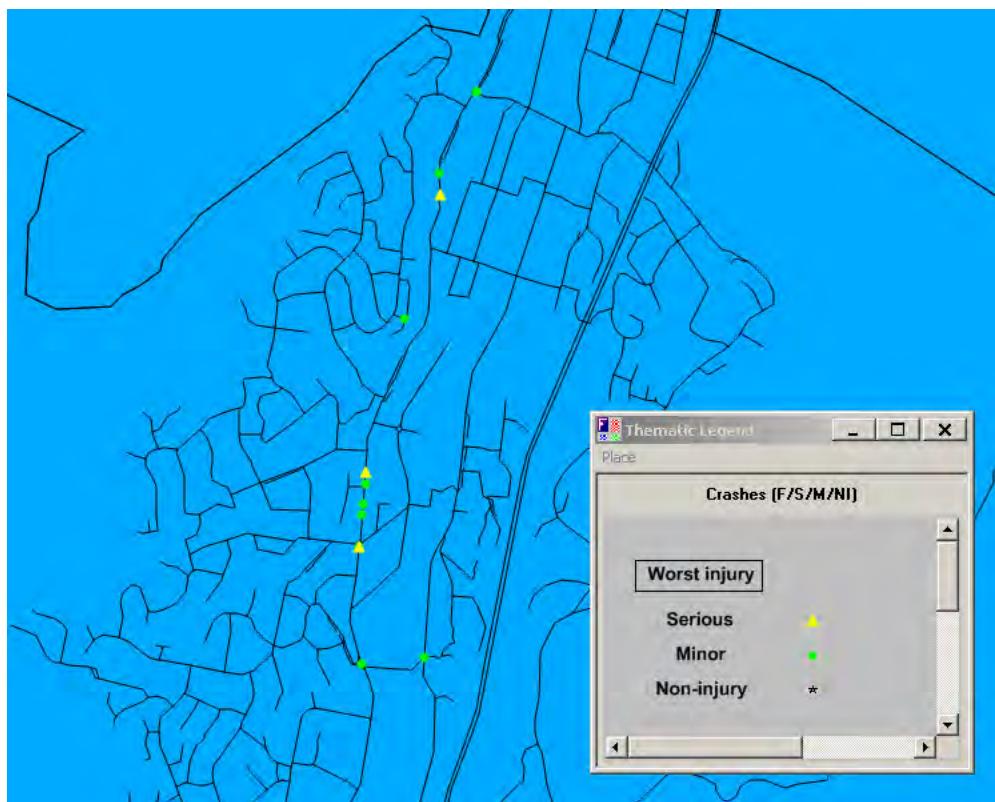


Figure 2.1 - Location of cycle crashes (2009-2013)

The following table is summarised from the crash record involving cyclists.

Table 2.2 - Year and severity of cycle crashes

Year	Fatal	Serious	Minor	Non-injury	Total
2009	0	0	1	0	1
2010	0	1	3	0	4
2011	0	0	2	0	2
2012	0	2	2	0	4
2013	0	0	2	1	3
					14

From the above table, 2012 exhibited the greatest equal number of annual crashes but highest severity (with two serious crashes). Reviewing the 5-year period, there is no clear trend of increasing crash numbers or severities, nor have any fatalities occurred in the review period. The overall numbers and severities of crashes in the suburb are low, and therefore there is limited significant data to measure change of this period. There is however, a clear trend of crash locations, with all but two occurring on Main Road.

The crash data suggests that the primary cause of cycle crashes were as a result of motorised vehicles or cyclists failing to look or give way – this is true for a number of reversing and changing lane manoeuvres, and where road users failed to signal changes in direction.

When looking into possible remedial works in the Tawa and Linden area it is essential that a network is implemented which will improve cyclist safety, with a particular focus on increasing their conspicuity to other road users.

An alternative approach may also focus on changing cycling and driver habits, such as making alternative routes more appealing for cycling, e.g. improving and promoting the TVP, encourage cycling in school travel plans to reduce the number of caregiver vehicles at schools.

3 Stakeholder and community engagement

A significant element of this Cycle Network Improvements scheme has been stakeholder and community engagement. Key groups and members of the community were consulted as part of the scheme, through various methods including:

- Meetings
- Focus Groups
- TVP and Grasslees Reserve Opening
- 'Have a Say Day'
- Online Survey.

Each of the consultation media provided differing opinions about the existing issues and barriers to cycling, as well as ideas and proposals for infrastructure improvements.

A broad range and ability of cyclists in the area were contacted as part of the process, however, some common themes were apparent. Significant local stakeholders (emergency services, education, health and community groups) were also engaged through the process.

3.1 Key themes

The largest proportion of existing cycling was undertaken for exercise and recreation, with other activities undertaken to a lesser extent. The following list shows the reasons for cycling in order of decreasing usage:

- Exercise
- Recreation
- Transportation to work
- To do errands
- Transportation to school.

It was also speculated that mountain bike enthusiasts were well represented, as they likely subscribe to clubs' social media. It is expected that social media channels provide a positive method of engagement, and also increased response numbers.

A total of 10 trip destinations were identified through the stakeholder and community engagement. The top three destinations were ranked as:

- Mountain bike tracks
- Tawa Shopping Centre
- Work

The least popular destinations (still in decreasing order) were:

- Train Station
- School

- Bus stop

The train station and bus stop are not a particular surprises as infrequent cycling destinations, as there is generally onward travel expected (which may not support bike carriage). However, the design team were somewhat surprised that schools were ranked second lowest of the 10 cycling destinations, particularly as the TVP provides a solid link to many schools and has a high quality riding surface.

The greatest barriers to cycling in the area were as follows:

- Feeling unsafe on the road
- Insufficient cycle paths or not enough connections
- Insufficient facilities

Specific hazards to cycling included diagonal parking on Main Road, kerbs jutting out, narrowing and poor visibility.

3.2 Consultation data use

The consultation provided direction for cycle infrastructure recommendations and input to the design process for the Tawa and Linden areas. The improvements were generally grouped into improved signing, road crossings, lighting, ad-hoc treatments and improved cycle routes and linkages.

The complete stakeholder engagement report is provided in Appendix C, and outlines the process from beginning to end. The stakeholder engagement report has been vital in understanding the issues, and proposing designs which assist.

An extensive list of comments, schemes and proposals were received from the stakeholder engagement process. A plan was produced with points showing the location of every comment received, this is shown in Appendix D. A total of 83 separate locations were commented on (in some cases by numerous stakeholders), these are referenced in numeric form on the plan. Behind the plan (in Appendix D also) is a list referencing each of the 83 comments – these include the stakeholder who raised it and the comment or proposal.

4 Cycle infrastructure / scheme development

The identified issues and barriers to cycling (as well as the destinations and trip purposes) give a broad feel for the cycling environment across the wider area. Reviewing the individual issues, it is apparent that there are some difficulties negotiating Main Road and / or linking through to the TVP. Furthermore, some comments expressed a desire for improved signing onto and along the TVP. In general terms, the schemes which are put forward should aim to encourage safer travel along the well-used Main Road, and support access to the TVP or parallel low-volume routes.

The findings of the stakeholder engagement were used in developing a proposed cycling infrastructure for the Tawa and Linden area. The proposed improvements were divided into two categories:

- Network planning
- Project scheme list (of minor works / maintenance).

Network planning has been identified by WCC as a key outcome of this project, with a specific focus on the likely use of the various network sections by specific cyclist type (e.g. Commuter, school or recreational).

A project scheme list is also an outcome of this project, which is derived from the various comments and feedback received during the stakeholder engagement. Specific locations / areas within Tawa have been identified which require minor works or maintenance to be undertaken.

Design concepts were produced in draft, for discussion. Upon review with WCC, many of the sites were acknowledged to be a significant design undertaking in themselves (to ensure the necessary safety and cycle-friendly facilities can be accommodated). Section 4.2 discusses the process for scheme evaluation and selection of the projects.

4.1 Network planning

Evaluation of the stakeholder engagement led to a number of key routes and connectors being identified in the study area. Due to Tawa's topography and town layout, a 'ladder' network was adopted running in a north–south direction. The latter is formed of two primary routes, complemented with a number of connectors. A third route is proposed along Redwood Avenue (in the vicinity of Redwood School), forming a crescent to Main Road.

The purpose of this configuration is that it focuses cycle improvements on the route where they are most needed (Main Road, where the majority of feedback was focused, crashes occurred or school connections were requested). The primary routes and connectors are as follows (in approximate north – south order):

- **Route A** – TVP
- **Route B** – Main Road
- **Connector C** – Gee Street
- **Connector D** – Linden Avenue
- **Connector E** – McLellan Street / Duncan Street
- **Connector F** – Oriel Avenue / Larsen Crescent / Park Avenue / The Drive / Tawa Street
- **Route G** – Redwood Avenue

Connectors were created to link the two main routes (A and B), and also connect with surrounding attractors such as, schools, significant residential areas and parks and mountain bike trails.

4.1.1 Network routes and connectors

Each of the routes and connectors will serve different types of cyclists, functions or catchments. The routes' existing and proposed features and expected use are discussed in the following sections.

For simplicity the following symbols represent the key user types:



Commuter



Recreation



School

Route A – TVP



The TVP is a key north-south route which provides a quieter traffic environment for recreation and school cycling. The route also passes a number of schools and local points of interest which makes it suitable for children or those wishing to travel through the suburb on the dedicated cycle walkway. The TVP is reliant upon other connectors joining to it at appropriate locations along its length.

Route B – Main Road



Main Road acts as a significant road through Tawa, and also a connection for suburban traffic between Porirua, Tawa and Johnsonville (avoiding SH1). Feedback and site observations suggests that Main Road has the highest on-road cycle flows in the town, and has also exhibited the highest number of cycle crashes in the study area.

It is proposed that Main Road be developed for commuter cycling, as it is the most direct link through the town, but is less suitable for school or recreational cycling.

Connector C – Gee Street



The Gee Street connector acts as the most northerly link between Main Road and the TVP. It is expected to cater for commuter cycling in the northern residential areas of Tawa, particularly for those wishing to travel to Porirua on the TVP instead of Main Road.

Connector D – Linden Avenue



Linden Avenue acts as a key east-west link of northern Tawa, and should be aimed at commuter and school cyclists. Commuters will benefit from a direct link and roundabout (improved priority) with Main Road. It is also expected to improve safety and access for students traveling to and from school (particularly accessing Tawa Intermediate School).

Connector E – McLellan Street / Duncan Street



This connector mimics the previous (Connector D) as it will improve safety and connectivity for commuter and school cycling. Tawa Intermediate School students and Greenacres School students may benefit from this route as well.

Connector F – Oriel Avenue / Larsen Crescent / Park Avenue / The Drive / Tawa Street



The west of Tawa will benefit greatly from this connection as it will provide a good link for facilities at both its extents. It may be expected that daytime use will be mainly for commuter and school cycling (linking residential areas to the town centre, education facilities and TVP). In the evening and weekends this route allows improved connectivity to Lyndhurst Park and bike tracks on Tawa's western fringe.

Route G – Redwood Avenue



The Redwood Avenue route is a section focusing on improved access to schools and educational facilities. It provides an alternative route to Main Road as it has lower traffic flows and is therefore better suited for school cycling.

The provision of a network through the routes and connectors identified aims to improve movements throughout the suburb for the three cycling types. Improvements to the two routes and numerous connectors will improve safety, accessibility, uptake and specific access to the TVP. The network layout plan is available in Appendix E

4.1.2 Priority of Route and Connector implementation

Each of the proposed Routes and Connectors offer a different opportunity for the various cycling groups and areas of Tawa, it therefore leaves the cycle network development open for some discussion. To guide discussion and review the expected performance of each proposed Route and Connector, a brief multi-criteria analysis (MCA) was undertaken.

The MCA looks at a number of performance criteria, which are aligned with the project aspirations. Four criteria were chosen, with three qualitative factors in each (representing High, Medium or Low performance).

The following table provides the factors for each criterion.

Table 4.1 - Factors for MCA criteria

Relative Traffic Volume	Cycle safety impact
High (score) – Primarily off-road facilities Medium – Local roads Low – Main Road	High – Increases cycle conspicuity or targets a specific cycle crash type Medium – Some benefits to cyclists Low – No notable safety improvement
Cycle and pedestrian accessibility improvement	
High – Located near specific trip generators or desire lines Medium – Caters for some desire lines or demand, and passes a number of residential areas Low – Located near the edge of town or limited desire lines	High – Improves town connectivity and / or ease of local cycling Medium – Some connectivity benefits Low – No impact / encouragement
Encouragement for increased local cycling	

Each of the High, Medium and Low scores for a particular scheme were converted to respective scores of 3, 2 and 1. The scores for each criterion were summed to provide an overall score, and to therefore indicate those schemes which may be considered for implementation before others.

Route A – TVP already exists and has received significant recent investment by WCC. It has been included in the MCA to review its appropriateness in the context of a comprehensive Tawa cycling network (but has been shaded in grey to differentiate it from other proposals).

Table 2 - Table of MCA scored Routes and Connectors

Route / Connector	Relative traffic volume	Cycle Safety Impact	Cycle and pedestrian accessibility	Encourage cycling uptake	Total Score
Route A – TVP	H	H	H	H	12
Route B – Main Road	L	M	H	H	9
Connector C – Gee Street	M	L	L	M	6
Connector D – Linden Avenue	M	M	M	M	8
Connector E – McLellan Street / Duncan Street	M	M	M	M	8
Connector F – Oriel Avenue / Larsen Crescent / Park Avenue / The Drive / Tawa Street	M	M	M	H	9
Route G – Redwood Avenue	M	M	M	H	9

The MCA acts as a level of verification that the council's recent investment in the TVP has been well-targeted, as it has scored highest on all four criteria. It also provides for safer cycling for vulnerable road users, who may otherwise have used Main Road (which is less desirable for such groups).

Given that significant development has already taken place on the TVP, some minor amendments may be applicable (and likely economical) to form the first link in the Tawa Linden Suburban Cycle Network.

Amendments should therefore aim to improve connectivity between the TVP and the other network Routes and Connectors (and may include low-cost items such as directional signing and consideration of crossing points' safety and accessibility).

The second 'tier' of routes which may be progressed are Route B, Connector F and Route G (each scoring 9). These will provide benefits by respectively creating a solid north-south cycling link (principally for commuters), connecting into a significant residential area and linking Redwood school and surrounding areas. Route G is a crescent route (linking to Main Road at both ends), and therefore it may be advisable to progress Main Road before Redwood Avenue (Route G).

When comparing Route A (TVP) and Route B (Main Road), it is noted that each serves a different function, for different cycling groups. Two schools of thought exist for the prioritisation of these routes.

- Route A (the TVP) will likely cater for a higher percentage of vulnerable road users, e.g. students, young children with families, or less confident cyclists seeking a low-traffic route.
- Route B (Main Road) is a more direct route for commuter / confident cyclists, however, it is also the route which has exhibited all cyclist crashes in the 5-year review period, which could rightfully increase its relative priority.

4.2 Project scheme list

4.2.1 Minor works

The minor works list was composed of items such as lining, signing, and suggested residential link schemes (such as alleys between streets). The majority of minor scheme were appropriate to be included as maintenance items by the council, as they do not have a significant effect on road users (including cyclist or driver behaviour). Examples of items include improved direction signing on, or improved infrastructure connecting to the TVP.

The proposed minor works schemes are provided as a categorised list in Appendix F.

4.2.2 Significant schemes

The significant schemes are more technically challenging and costly and / or change road user behaviour. The schemes aim to improve infrastructure such as intersections, roundabouts and pedestrian crossings. These areas were highlighted as requiring improvement, either through crash analysis, stakeholder feedback or a combination of the two.

The process to determine the scheme options put forward for design was to determine which would have the greatest likelihood of meeting the project and community aspirations.

A MCA was used to determine those which would gain the greatest benefit, for the target users for the most economical cost.

4.2.3 Prioritisation of project schemes

An MCA was carried out on each of the issues and suggestions from stakeholder engagement, with 4 primary criteria used. Three of the criteria were based around the project aspirations (see Section 1.1), and the fourth based on relative traffic volumes (to give an risk likelihood / frequency). The four criteria were therefore as follows:

- Relative traffic volume
- Cycle safety impact (of the scheme)
- Cycle and pedestrian accessibility improvement, and
- Encouragement for increased local cycling

The factors within each criteria are moderately subjective, as different stakeholders will have different levels of enthusiasm and passion for their suggested scheme. It must therefore be acknowledged that the MCA will not provide an absolute list of schemes.

Although not forming part of the MCA, prohibiting factors (such as cost of a new bridge) were applied to initially 'sift' the schemes, and it was also decided that a fair spread / distribution of schemes should be applied across the area.

The following table provides the high, medium and low factors for each criteria

Table 4.3 - Factors for MCA criteria

Relative Traffic Volume	Cycle safety impact
High – Other roads	High – Increases cycle conspicuity or targets a specific cycle crash type
Medium – Main Road (elsewhere)	

Low – Main Road (in the centre of Tawa)	Medium – Some benefits to cyclists Low – No notable safety improvement
Cycle and pedestrian accessibility improvement	Encouragement for increased local cycling
High – Located near specific trip generators or desire lines Medium – Caters for some desire lines or demand Low – Located near the edge of town or limited desire lines	High – Improves town connectivity and / or ease of local cycling Medium – Some connectivity benefits Low – No impact / encouragement

Each of the factors High, Medium and Low scores for a particular scheme were converted to respective scores of 3, 2 and 1. The scores for each scheme were summed to provide a prioritised list, and to therefore indicate those schemes which may be considered for implementation earlier than others.

Table 4.4 shows a summarised MCA table, giving the total scores of each (based on the available community and stakeholder feedback).

Through a review with WCC it was proposed that further designs would not be required at this stage of network development. The scheme designs would likely be undertaken as works outside of this network planning task. The MCA undertaken will guide designers as to the most effective in achieving the project aspirations, while also allowing flexibility to choose from a range of schemes depending on further consultation or considerations.

Table 4.4 - Table of MCA scored locations and scheme improvements

Location	Feature	Relative traffic volume	Cycle Safety Impact	Cycle and pedestrian accessibility	Encourage cycling uptake	Total Score
Main Rd / Middleton Rd	Roundabout	M	L	L	L	5
Main Rd / Redwood Avenue	Roundabout	M	M	L	L	6
Main Rd (by Redwood Park)	Link	M	H	M	M	9
Tawa Street (crossing)	Railway Crossing	M	M	M	M	8
Main Rd / Tawa Street	Roundabout	M	M	M	L	7
Main Rd / Lyndhurst Rd / Cambridge St	Roundabout	L	M	H	M	8
Main Rd (by Grasslees Reserve)	Crossing / Traffic Calming	L	M	L	L	5
Collins Avenue / Beauchamp St / Linden Av	Intersection	M	M	H	M	9
Main Rd / Linden Av	Roundabout	M	M	M	M	8
Main Rd / Gee St	Intersection	M	L	M	L	6
Main Rd / Fyvie Av	Intersection	M	L	M	L	6
Kenepuru Dr / Ambulance Drive	Intersection	M	H	H	M	10
Lincoln av (link)	Security	H	L	M	M	8
Duncan Street / Stevens St	Intersection	H	M	M	L	8
Main Rd / Victory Cres	Intersection	M	M	M	L	7
McLellan St / Luckie St	Intersection	H	M	M	L	8
McLellan St / Beauchamp St	Intersection	H	M	M	L	8
Main Rd / Victory Cres	Intersection	M	M	M	L	7
Main Rd / Lincoln Av	Intersection	L	M	H	M	8
Duncan Street / Stevens St	Intersection	H	L	M	L	7

Main Rd / Oxford St	Intersection	M	M	M	L	7
Takapu Rd by SH1	Roundabout	H	M	L	L	7

4.2.4 Significant schemes proposed

The outcome of the MCA is a list of scheme which should be investigated further. The southern end of Main Road (adjacent to Redwood Avenue) had comments from five stakeholder groups on various aspects of safety and accessibility, and therefore it was decided that several significant schemes may be appropriate to alleviate some of the nearby issues (and included cycle facilities across the Tawa Outlet Shopping Mall).

The following sub-sections note the issues and opportunities at each of the infrastructure types. Broadly, the options are proposed to improve safety for cycling without significant detriment to other modes, and for modest costs.

4.2.4.1 Uncontrolled intersections, accesses and roundabouts

Some unsignalised intersections and roundabouts in Tawa and Linden were recognised to pose a risk to cycling, typically from poor visibility and / or conspicuity of cyclists. Main Road is a key route for commuter cycling given it's generally flat grade and good connectivity, however, the intersections along it are not completely conducive to safe cycling (as outlined in crash analysis and stakeholder engagement).

To improve drivers awareness of cyclists, greened 'running lanes' may be proposed for cyclists across the mouth of some key intersections – these will provide a clearer path for less confident cyclists to take along the mainline of each intersection, and improve the level of visual separation between bikes and motorised vehicles.

Two roundabouts in Tawa may be suited to infrastructure improvements (located at Main Road / Linden Avenue and Main Road / Lyndhurst Road / Cambridge Street). The roundabouts may not allow cyclists to be immediately conspicuous, but also have an increased risk of sideswipe or side-on crashes from turning vehicles. Proposed cycling improvements on roundabouts should generally provide road space for cyclists through physical measures and line markings.

Schemes at roundabouts should enable less confident cyclists to take a safer route through the roundabout (or to dismount easily). At the same time it should allow the more confident cyclists or those turning right to remain on the carriageway.

The limited available space surrounding the roundabout prevents significant road width being dedicated to cycling, and therefore may require further studies.

4.2.4.2 Pedestrian / shared-use crossings

Currently numerous zebra crossings have build-outs (of approximately 1m) which create significant pinch-points, forcing cyclists into the traffic stream. Designs for such schemes may pose the option of removing or reducing the depth of built-out sections of kerb / footway – this would allow cyclists to maintain increased separation from the general traffic stream. It is recognised that there is a trade-off with footway users in reducing build-outs, however, from a cycling perspective they are significant barriers to use of Main Road as a cycling route.

A Tawa Street shared-use crossing point may be proposed to the east of the railway to support movements of both cycles and pedestrians. Appreciating this is an area of complex movements (rail, vehicular, cycles

and pedestrians) it may be suitable to maintain options at the existing level depending on council requirements and greater level of design.

Some example schemes have been included in this commission as follows:

- Intersections
 - **Main Road / Lincoln Avenue** – Proposed cycle treatment on Main Road
 - **Main Road / Tawa Outlet Shopping Mall** – Proposed cycle treatment on Main Road
- Pedestrian / shared crossings
 - **Tawa Street railway shared-use crossing** – Proposed crossing east of the railway

Example conceptual drawings are available in Appendix G for each of the intersection and pedestrian / shared-use crossing improvements.

4.3 Road safety audit

The proposed cycling network presented is conceptual and considered to be the most suitable for the feedback, site conditions and constraints. The main focus has been to improve cycling safety, accessibility and uptake without a significant disbenefit to other road users.

The routes and connectors are aimed at three cycling groups (commuter, recreational and school). The network is proposed primarily for new (or returning cyclists), and those of moderate cycling ability in the local community. Sports or athletic cyclists may gain some benefit from the network, but are expected to remain amongst the traffic stream on the most direct path for the most part.

It is proposed that a safety audit be undertaken for schemes which are developed along each of the network routes and connectors.

5 Summary and conclusions

The Tawa and Linden Suburban Centres Cycle Network Planning process has evaluated the needs and desires of local community and stakeholders, and produced a conceptual cycling network for consideration. The network has been produced with the aim of improving cyclist safety, accessibility and uptake (the project aspirations).

5.1 Summary

The network planning methodology has had a significant focus on gauging stakeholder concerns and comments about the future infrastructure for Tawa and Linden cycling. It will be invaluable for reviewing local infrastructure concerns and comments for some years to come.

In the context of this project, the data received from stakeholders has been used to target routes, connectors and schemes for improvements. The network planning aspects of this report may be considered as a live document which is open to discussion and further analysis. The observations and conclusions which are applicable at the time of writing may be refined in the future to ensure the facilities proposed are the best for purpose depending on the changing township / local developments.

Example conceptual designs have been developed from the available information (including site ride-over, client discussions and local knowledge).

5.2 Conclusion

It is envisaged that the outputs from this study are considered further by WCC, as to which sections of the network be implemented first, and what physical infrastructure is required to assist in the network rollout.

Some of the more straight-forward minor works may be implemented with relatively little additional design or as maintenance items. In many cases the minor works request improved cycle directional signing, or limited link and/or access improvements throughout the area.

For significant schemes the next stage of the process will be for designs to be evaluated by WCC and applicable stakeholders for overall suitability in the Tawa and Linden areas.

Once the network is approved in concept, it is expected that a programme is developed to roll it out in Tawa. This may include detailing the appropriate physical infrastructure and / or lining and signing to encourage cyclists to identify and safely negotiate each route. The order in which routes and schemes may be prioritised for development may be derived from the MCA scores, or internal consultation. If prioritisation is based on the MCA, the schemes scoring the highest should be progressed or implemented first (ideally having considered other internal council stakeholders and interested parties).

Appendix A – Existing cycle environment map

Appendix B – Crash history (cycle crashes 2009-2013 inclusive)

Table 1 - 1

CRASH DIRN	SIDE ROAD	CRASH H DOW			CRASH TIME	MVMT DESCRIPTOR	CAUSES	ROAD WET	LIGHT	WTHR	JUNC TYPE	TRAF CTRL	CRASH FATAL CNT	CRASH SEV CNT	CRASH MIN CNT	CRASH DIRN	SIDE ROAD
		CRASH ID	CRASH DATE	CRASH H DOW													
A	DAVIDSON CRESCE NT	201212724	11/10/2012	Thu	838	CYCLIST1 (Age 10)EBD on LEADLEY LANE hit turning CAR2	CYCLIST1 wrong way in one way street, movement contrary to no entry sign CAR2 didnt see/look when visibility limited by roadside features	Dry	Bright Sun	Fine	T Type Junction	Nil	0	0	1	A	DAVIDSO N CRESCE NT
I	CAMBRI DGE ST	201113185	1/11/2011	Tue	1715	CYCLIST1 (Age 41)NBD on MAIN ROAD hit CAR2 crossing at right angle from right	CYCLIST1 failed to give way to traffic approaching/crossing from the right, didnt see/look when required to give way to traffic from another direction	Dry	Bright Sun	Fine	Roundabout	Give Way Sign	0	0	1	I	CAMBRI DGE ST
N	ESSEX ST	201013080	18/10/2010	Mon	712	CYCLIST1 (Age 35)NBD on MAIN ROAD hit VAN2 angle parking	VAN2 didnt see/look behind when reversing/manoeuvering	Wet	Overcast	Light Rain	T Type Junction	Nil	0	0	1	N	ESSEX ST
S	ESSEX ST	201013379	9/12/2010	Thu	1738	CYCLIST1 (Age 41)SBD on MAIN ROAD hit CAR2 angle parking	CAR2 didn't signal when moving to left, failed to give way when turning to non-turning traffic, misjudged speed, etc of vehicle coming from behind or alongside ENV: entering or leaving car parking building / area	Dry	Bright Sun	Fine	Unknown	Nil	0	0	1	S	ESSEX ST
S	ESSEX ST	201212256	17/07/2012	Tue	1915	CYCLIST1 (Age 55)SBD on MAIN ROAD hit CAR2 U-turning from same direction of travel	CAR2 didnt see/look behind when changing lanes, position or direction, misjudged speed, etc of vehicle coming from behind or alongside	Dry	Dark	Fine	Unknown	Nil	0	0	1	S	ESSEX ST
S	LINCOLN AVENUE	201012499	17/05/2010	Mon	1646	CYCLIST1 (Age 26)NBD on MAIN ROAD hit SUV2 turning into angle park	SUV2 didnt signal when moving to left, didnt see/look when required to give way to traffic from another direction	Dry	Overcast	Fine	Unknown	Nil	0	1	0	S	LINCOLN AVENUE

CRASH DIRN	SIDE ROAD	CRASH H DOW			CRASH TIME	MVMT DESCRIPTOR	CAUSES	ROAD WET	LIGHT	WTHR	JUNC TYPE	TRAF CTRL	CRASH FATAL CNT	CRASH SEV CNT	CRASH MIN CNT	CRASH DIRN	SIDE ROAD
		CRASH ID	CRASH DATE	CRASH H DOW													
I	LINDEN AVENUE	201311887	29/03/2013	Fri	1050	CYCLIST1 (Age 57)SBD on MAIN ROAD hit CAR2 turning right onto MAIN ROAD from the left	CAR2 failed to give way at give way sign, attention diverted by other traffic, didnt see/look when required to give way to traffic from another direction	Dry	Overcast	Fine	Roundabout	Give Way Sign	0	0	1	I	LINDEN AVENUE
I	LINDEN AVENUE	201311565	5/04/2013	Fri	940	CYCLIST1 (Age 53)SBD on MAIN ROAD hit CAR2 turning right onto MAIN ROAD from the left	CAR2 failed to give way at give way sign, didnt see/look when required to give way to traffic from another direction	Dry	Bright Sun	Fine	Roundabout	Give Way Sign	0	0	1	I	LINDEN AVENUE
I	LYNDHU RST ROAD	201211854	22/05/2012	Tue	735	CAR1 EBD on MAIN ROAD hit CYCLIST2 (Age 66)crossing at right angle from right	CAR1 too fast on straight, failed to give way at give way sign, windscreens or rear window misted/frosted	Dry	Bright Sun	Fine	Roundabout	Give Way Sign	0	1	0	I	LYNDHU RST ROAD
N	MCLELLA N ST	201211738	27/04/2012	Fri	1340	CYCLIST1 (Age 28)SBD on MAIN ROAD hit parked veh, CYCLIST1 hit Parked Vehicle	CYCLIST1 too far left/right, illness with no warning (eg heart attack) ENV: strong wind	Dry	Overcast	Fine	Unknown	Nil	0	1	0	N	MCLELLA N ST
N	MCLELLA N ST	201013347	20/11/2010	Sat	1030	CYCLIST1 (Age 46)SBD on MAIN ROAD sideswiped by CAR2 turning left	CAR2 turned left from near centre line, didnt see/look behind when changing lanes, position or direction ENV: entering or leaving private house / farm	Dry	Overcast	Fine	Driveway	Nil	0	0	1	N	MCLELLA N ST
I	WILLOW BANK ROAD	201350727	23/03/2013	Sat	1610	CYCLIST2 turning right hit by oncoming CAR1 WBD on MAIN ROAD	CAR1 failed to give way at give way sign, didnt see/look when required to give way to traffic from another direction	Dry	Bright Sun	Fine	X Type Junction	Give Way Sign	0	0	0	I	WILLOW BANK ROAD
I	TAWA TERRAC E	201112741	4/10/2011	Tue	1038	CAR1 NBD on TAYLOR TERRACE hit CYCLIST2 (Age 22)crossing at right angle from right	CYCLIST2 lost control under heavy braking, failed to give way at give way sign ENV: slippery	Wet	Overcast	Light Rain	Roundabout	Give Way Sign	0	0	1	I	TAWA TERRAC E
I	MAIN ROAD	2912649	27/07/2009	Mon	815	SUV1 SBD on MAIN ROAD hit CYCLIST2 (Age 15)crossing at right angle from right	SUV1 failed to give way at give way sign, didnt see/look when required to give way to traffic from another direction	Dry	Overcast	Fine	Roundabout	Give Way Sign	0	0	1	I	MAIN ROAD

Appendix C – Stakeholder Engagement Report

Report

Tawa / Linden Cycle Network Plan – Stakeholder Engagement Report

Prepared for Wellington City Council (Client)

By Beca Ltd (Beca)

11 June 2014

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Revision History

Revision No	Prepared By	Description	Date
A	James Luty		

Document Acceptance

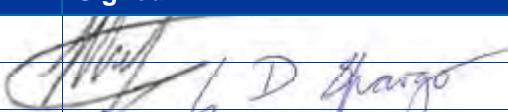
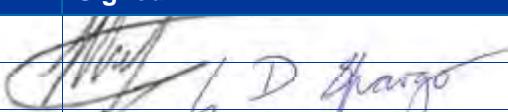
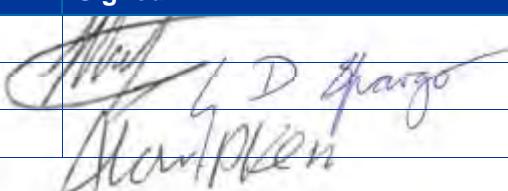
Action	Name	Signed	Date
Prepared by	James Luty		9 June 2014
Reviewed by	Graham Spargo		10 June 2014
Approved by on behalf of	Alan Kerr Beca Ltd		11 June 2014

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Appendices

Appendix A – Notes from Stakeholder Engagement

Appendix B – Online Survey

Executive Summary

The objective of the Tawa and Linden Suburban Centre Cycle Network Planning Project is to undertake community engagement and develop plans for suburban cycling improvements for Tawa. This report focuses on the community engagement aspects.

A range of tools including, meetings, focus groups, open days and an online survey were used to engage with stakeholders. Stakeholders grouped cyclists into two general categories - cyclists who are confident, fast and typically use the roads and those who are less confident, slow and avoid high traffic areas. These two groups of cyclists have differing needs in terms of infrastructure investment.

The engagement feedback is that there is currently very little cycling in Tawa. Only 20-40 people commute to Wellington City via bike on an average day and cycle racks at train stations were observed during surveys as often empty.

Feedback from different stakeholder groups indicates perceptions of conflict over safety between cyclists, pedestrians and motorised traffic.

Feeling unsafe on the roads was the top reasons why people don't cycle for transport in Tawa. Traffic volumes and a lack of driver awareness for cyclists is a key barrier to cycling more – especially for unsupervised school aged children. The second most common reason cited for not cycling more was a lack of cycling infrastructure.

The two most commonly mentioned hazards to cyclists in the Tawa areas are the diagonal parking along Main Road between Cambridge Street and Lincoln Street and the curbs jutting out around pedestrian crossings along Main Road. Roundabouts were also mentioned as being problem areas for cyclists. The roundabouts along Main Road at Cambridge Street, Tawa Street and Willowbank Road were identified due to busy traffic, insufficient sight distance and the need to take the lane to navigate the intersection safely.

Feedback on the Tawa Valley Pathway (TVP) was general was very positive. The importance of providing links to Johnsonville and Porirua was emphasised by a number of stakeholders. More critical feedback on the TVP was received from some stakeholders who noted an absence of cyclists on the path. A number of cyclists stated that they avoided the TVP because pedestrians get in the way and interrupt their rhythm. The stakeholder group Living Streets was also relatively critical of the shared path.

Minor improvement to the TVP suggested by stakeholders included installing more directional signage and improving road crossings made by the TVP at Tawa Street (beside Redwood Station), Beuchamp Street and McLennan Street.

A wide variety of potential future cycling routes were identified by the community, which are illustrated on the GIS tool TeamView Spatial. Future route suggestions encouraged a focus on connecting the TVP to schools and Tawa town centre. Additional cycle route opportunities are also considered by stakeholders to be present along Takapu Road up Bing Lucas Drive and Jamaica Drive. In addition to this, an alternative commuter route running parallel to Main Road could encourage confident cyclists (who are hesitant to use the TVP due to the indirect nature of the route) to take quieter back streets.

1 Introduction

Over recent years the Wellington City Council (WCC) has committed significant funding to cycling through the Annual Plan and Long Term Plan process. The priorities for this investment are to improve the safety and convenience of cycling by increasing the level of service for cycling throughout Wellington City.

The community of Tawa has benefited from investment in cycling infrastructure through the construction of the Tawa Valley Pathway (Ara Tawa or TVP) which is a shared cycling and walking path which runs more-or-less adjacent to the railway line. The TVP connects the Tawa/Linden community longitudinally from Takapu Stations (and Willowbank Park) through to Kenepuru Station where the shared path ends. The Council wished to engage with the community to determine further potential to strengthen and improve the cycling network in Tawa.

1.1 Purpose

The objective of the Tawa and Linden Suburban Centre Cycle Network Planning Project (the Project) is to undertake community engagement and develop plans for the suburban cycling improvements for Tawa. This report outlines the engagement with the community that occurred as a part of this project. This community engagement informs the subsequent cycle route development and subsequent cycle infrastructure planning.

2 Methodology

The community engagement phase of the project has used a range of methods to encourage as many people as possible to provide feedback. The process behind each method has been briefly outlined below. Table 1 outlines the stakeholders engaged with and the method of engagement. Key outcomes from each stakeholder group are briefly summarised in **Appendix A**. Maps illustrating the stakeholder feedback are on the GIS platform TeamView Spatial.

All community engagement followed the key message guidance from Isabella Cawthorn (Cycling Champion, WCC). As such, the project was referred to as “Tawa cycle route blueprinting” in all stakeholder engagement.

2.1 Meetings

Eleven meetings with key stakeholders occurred during the engagement process from 13 March to 7 June 2014. These sessions followed a variety of formats tailored to the preferences of the groups being met with. Mostly this engagement involved attending regular scheduled meetings of stakeholder groups and including Tawa cycle route blueprinting as an item on their agenda. In other instances meetings were held with stakeholder representatives where cycling was the focus of the meeting.

2.2 Focus Groups

Focus groups were held with schools¹ and emergency services² in Tawa to identify the current needs to the community and the expectations of these stakeholder groups. These sessions were

¹ Tawa College and Tawa Intermediate

² Police, Fire Service and Wellington Free Ambulance

approximately an hour long and involved a consistent series of questions and guided discussion around investment in cycling infrastructure in Tawa.

2.3 TVP and Grasslees Reserve Opening

Face to face consultation with the wider community occurred at two events, the TVP opening day and the 'Have a Say Day'.

The TVP and Grasslees Reserve opening was held on Sunday 18 May attended by approximately 100-200 members of the general public, most of which being Tawa residents. A WCC table advertised the 'Have a Say Day' event the following weekend and gained feedback from the community on the TVP and cycling infrastructure in Tawa. A map showing the TVP and other local community facilities (schools, churches, parks, train stations and the Tawa Pool) was on display for the community to write comments on. The table was open from 1-3pm and gained feedback from approximately 35 members of the community.

2.4 'Have a Say Day'

A community 'Have a Say Day' was held from 1-4pm on Sunday 25 May based at the Tawa Community Centre. This allowed interested members of the community to drop in a vocalise their opinion on cycling infrastructure in Tawa. The event advertised widely in the community via the following methods:

- Newspaper publications
- Posters throughout the town centre, schools and community facilities such as the library, pool and recreation centre
- The WCC website
- Email to previous engagement participants
- School newsletters
- The online community newsletter *Tawalink*
- PNP cycling group website and Facebook page

The 'Have a Say Day' had a low turnout with seven members of the community attending. Valuable feedback was gained from the community and is recorded later in the report.

2.5 Online Survey

An online survey comprising nine questions was posted on the WCC website. Designed to take approximately five to ten minutes, the survey was open from 5 May to 7 June giving respondents four weeks to participate. The survey is attached in **Appendix B**. It was further distributed via stakeholder specific networks using various mechanisms to encourage wider community input for all those with internet access. Methods of distribution included:

- Posted on the WCC website
- Via email to previous engagement participants
- The online community newsletter Tawalink
- PNP cycling group website and Facebook page
- Mana Cycle Group emails and Facebook page
- Cycle Aware Wellington Facebook page

In total 67 people participated in the survey.

Table 1: Summary of Key Stakeholder Engagement

Stakeholder Group	Engagement	Date
Tawa Community Board	Attendance of monthly meetings (8 participants)	13 March 10 April
Tawa Residents Association	Attendance of monthly meeting (7 participants)	14 April
Greater Wellington Regional Council	Meeting with Wayne Hastie and Simon Kennett	17 April
Tawa College and Tawa Intermediate	Focus group (7 participants – 3 students and 4 staff)	9 May
Mana Coach Services	Meeting with Brent Blann (Service Quality Controller) and Bob Joel (Operations Administrator)	14 May
Wellington Free Ambulance, Fire and Police	Focus Group (3 participants)	14 May
Tawa Pool and Recreation Centre	Meeting with Shaun Pallet	14 May
Friends of Tawa Bush Reserves	Attendance of monthly meeting (9 participants)	14 May
Porirua City Council	Meeting with Andrew Gray (Landscape Architect)	14 May
Probus Club	Agenda item tabled at monthly meeting	21 April
General community	TVP and Grasslees Reserve Opening 'Have a Say Day' Online Survey	18 May 25 May 5 May – 7 June
Mana Cycle Group	Online Survey	5 May – 7 June
PNP	Online Survey	5 May – 7 June
Cycle Aware Wellington	Meeting with James Burgess and Online Survey	30 May 5 May – 7 June
Automobile Association Wellington	Meeting with Michael Gross (on behalf of Alex Gray)	29 May
Living Streets Wellington	Meeting with Mike Mellor	30 May

3 Stakeholder Engagement Findings

3.1 Where people travel within Tawa

The online survey posed the question “*Where are the places you travel from and to most often in Tawa/Linden?*”. This question was interpreted by a number of respondents to mean “*Where are the places you cycle from and to...*” which nonetheless provides valuable feedback.

As illustrated Table 1, the majority of destinations listed by respondents were in central Tawa. The next most common response was schools, followed by public outdoor spaces and sporting facilities³.

Table 2: Where online survey respondents travel to and from within Tawa

Location	Frequency
Central Tawa	37
Supermarket / dairy / Saturday market	16
Shops	11
Community centre / Library	4
Main Road	3
Café	2
Salvation army	1
Education/childcare	22
School	19
Playcentre / Plunket	3
Public spaces / sports facilities	19
Parks / reserves	6
Sport centres / sports fields	8
Playgrounds	1
Pool	4
Cycling facilities	12
Mountain bike tracks	6
Skatepark / BMX track / bike track	5
TVP	1
Other	
Friends / family	11
Home	10
Train station	9

³ A number of respondents gave multiple answers to this question hence, the total adds to more than 67

Church	6
Work	4
Outside Tawa	16

3.2 Cycling in Tawa

A consistent theme of feedback from stakeholder groups was that there was very little cycling in Tawa currently. The Tawa Community Board estimates that 20 cyclist per day commute to Wellington City through Tawa each day. Porirua City Council (PCC) estimate that this number may be as high as 40 cyclist per day when measured at Kenepuru. Numerous stakeholders observe that the number of cyclists passing through Tawa increases significantly during national cycling races such as the Lake Taupo Challenge.

At Tawa College an average of 10-15 students and staff cycle to school and these numbers have decreased over the last decade. Feedback from Tawa Intermediate is that between 1-14 children cycle on an average day. Attractiveness of cycling is not helped by an increase in number of school drop offs which increases traffic volumes around schools. Feedback noted that this trend is also causing problems around Tawa College and Tawa Intermediate with spill over into the Tawa Pool parking area taking parking away from pool customers.

The use of non-motorised scooters has increased dramatically, especially amongst younger children. Feedback received from college students was the scooters and bikes can clash as young inexperienced scooter riders can be inconsiderate to cyclists especially in bike parks.

A data gap is apparent around cycling to train stations or car parking use around train stations in Tawa. Observations from multiple stakeholders indicate that the car parks around Tawa train stations are consistently full and bike stands are noticeable underutilised and often completely empty. The Police suggested that the community would benefit if more people cycle to train stations to take the pressure off parking.

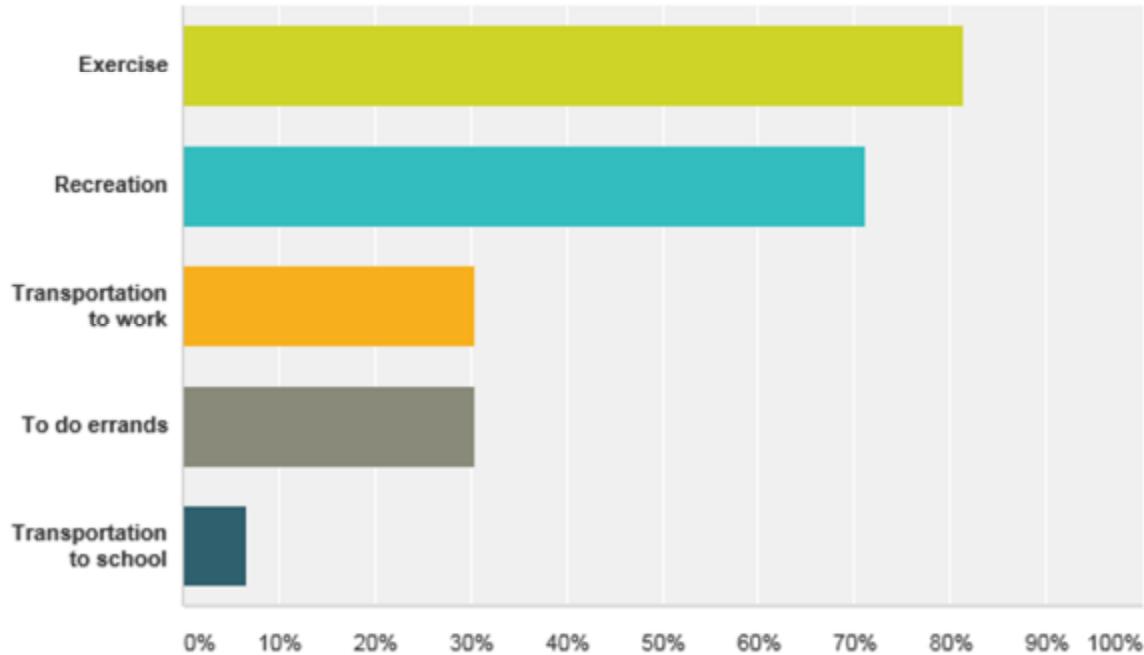
In terms of relatively low levels of existing cycle usage survey information indicates few people cycle to Tawa Pool or Tawa Recreation Centre. A survey of 183 pool customers from 2012 indicates that only 1-2% cycle to the pool on average. Exceptions are where Tawa Pool has hosted transition training sessions around Weetbix triathlon events. In excess of 20 people attend these session and all arrive on their bikes.

Feedback from different stakeholder groups illustrates shared perceptions of conflict between cyclists, pedestrians and motorised traffic. For example, Friends of Tawa Bush Reserve does not want bike riders on reserve tracks as they are considered typically too narrow and bicycles damage the track. The Automotive Association prefers cyclists be kept off main roads (especially motorways and expressways) and advocates for a greater use of cycle paths.

A common view amongst stakeholders was grouping cyclists into two general categories – cyclists who are confident, fast and typically use the roads and those who are less confident, slow and avoid high traffic areas. These two groups are considered to have different needs in terms of cycling infrastructure.

3.2.1 Why people in Tawa Cycle

The online survey posed the question “*Why do you cycle?*”. Respondent’s answers are illustrated in Figure 1. In an additional comments box eight approximately 13% of respondents indicated that ‘fun’ was one of the reasons they cycled.



**Figure 1: Online survey question:
Why do you cycle?**

3.2.2 Where people in Tawa cycle to

In response to the question "Where do you typically cycle to?" in the online survey, the respondents most common answer was to mountain bike tracks (Figure 2).

It is evident that a large proportion of survey respondents were mountain biking enthusiasts. This may be because online survey distribution favoured groups such as these which had existing online social networks (i.e. regular email newsletters and Facebook pages).

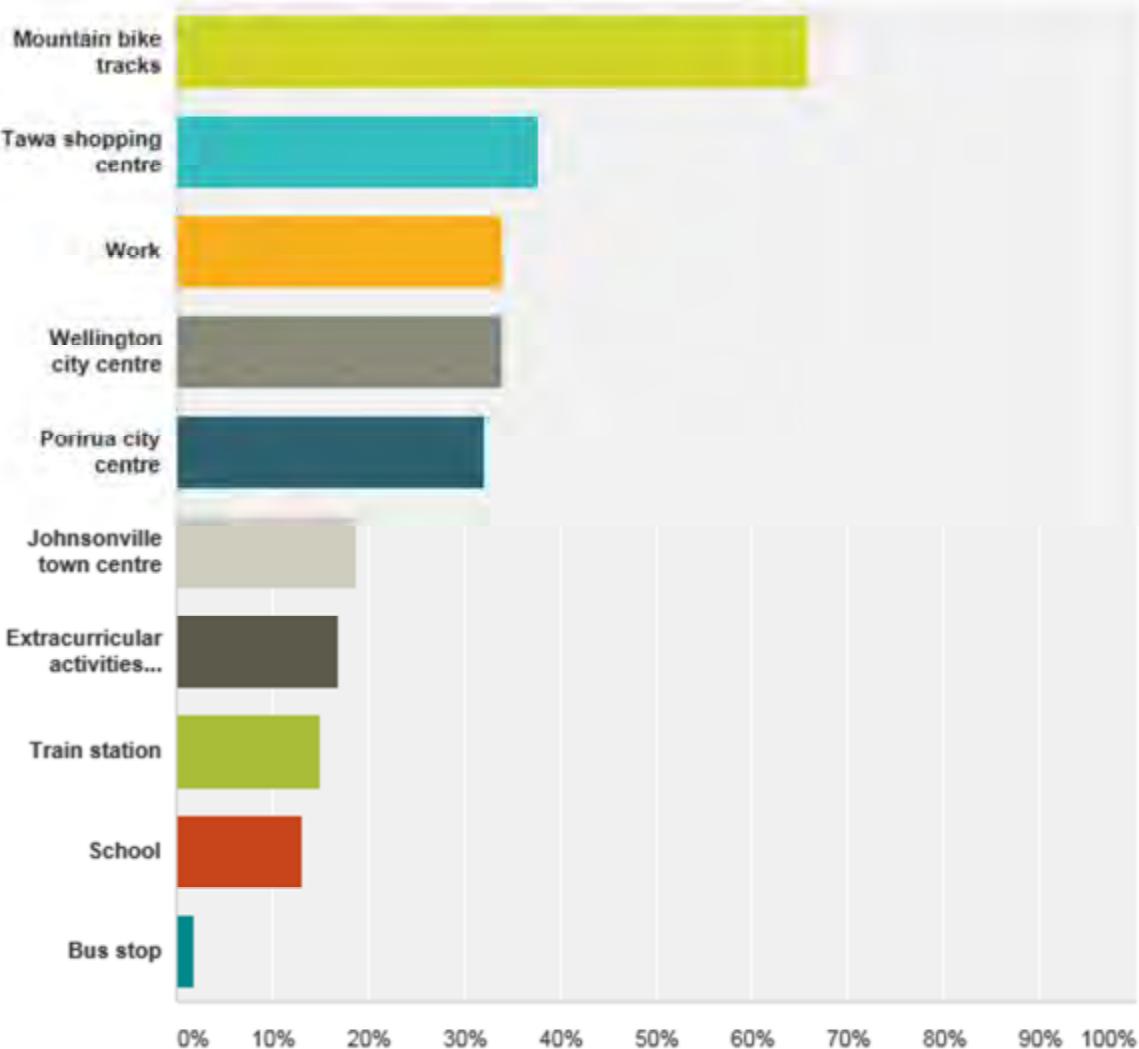


Figure 2: Online survey question:
Where do you typically cycle to?

3.3 Perceived Barriers for Cyclists in Tawa

The majority of responses (59%) to the online survey indicated that “*feeling unsafe on the roads (danger from traffic)*” was one of the three top reasons why they don’t cycle for transport.

This was reinforced during consultation with the community and schools who emphasised that traffic volumes and a lack of driver awareness for cyclists was a key barrier to cycling more – especially for unsupervised school aged children.

A number of community members indicated that they consider the redevelopment of the Tawa town centre has increased congestion and made it less safe to cycle. Other safety issues identified by stakeholder during engagement are detailed further in the following section.

As illustrated in Figure 3, 53% of responses stated that “*insufficient cycle paths or not enough connections*” was one of the three top reasons why they don’t cycle for transport. Consultation with the community, schools and other stakeholders also emphasised this as a barrier for cycling more. Other things mentioned specifically (in addition to those identified in Figure 3) during engagement included:

- Lack of off-road cycling infrastructure
- Lack of local mountain bike tracks
- Not allowing bikes on train services/limited capacity of bikes during peak hours
- Lack of bike storage at school and in the Tawa town centre
- Lack of secure bikes storage at the train stations

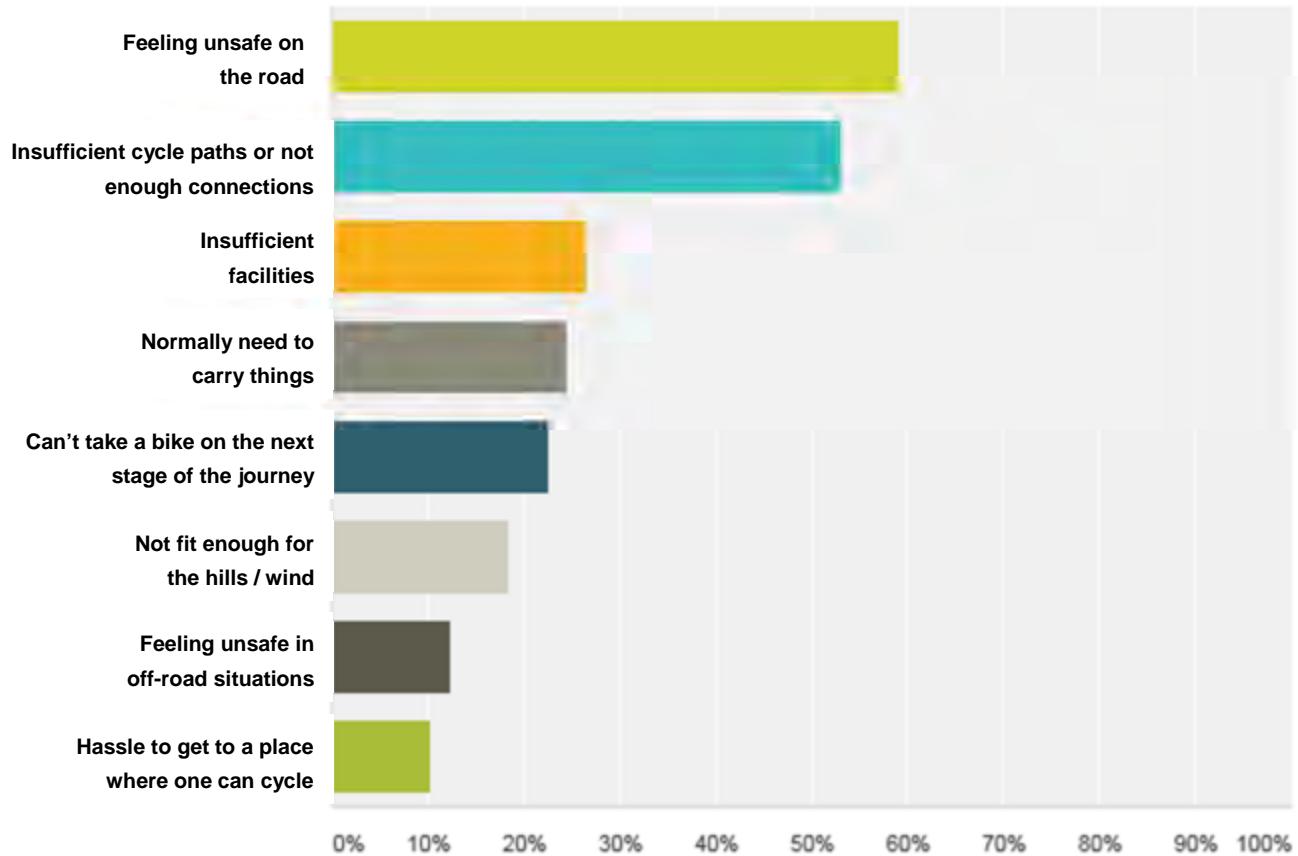


Figure 3: Online survey question:
What are the top three reasons why you don't cycle for transport at the moment?

3.4 Hazards to cyclists

The two most commonly mentioned hazard to cyclists in the Tawa areas are:

- The diagonal parking along Main Road between Cambridge Street and Lincoln Street (Figure 4) and
- Curbs jutting out around pedestrian crossings at 68 and 286 Main Road (Figure 5).

Roundabouts were also mentioned as being problem areas for cyclists, especially roundabouts with multiple lanes. The roundabouts along Main Road at Cambridge Street, Tawa Street and Willowbank Road were identified as being particularly challenging for cyclists due to busy traffic, blind turns and the need to take the lane to navigate the intersection safely. Some stakeholders suggested sharrows and cycleway signage as methods of enhancing these intersections for cyclists.

Other hazards mentioned by stakeholders include:

- Narrow part of Main Road south of Tawa Street.

- Inconsistent shoulders along Main Road
- The narrow section of Bing Lucas Avenue and subsequent the Takapu Road Intersection. This is made worse by the speed of traffic in the area and the limited visibility around the intersection.
- Cars creeping out of intersections with limited visibility.
- The southbound curb arrangement around the Redwood Avenue roundabout forcing cyclists into traffic coming out of Dressmart (Figure 6).



Figure 4: Diagonal parking along Main Road

Drivers reversing out of diagonal parks don't see cyclists or force cyclists to take evasive action by moving from shoulder area into traffic lanes

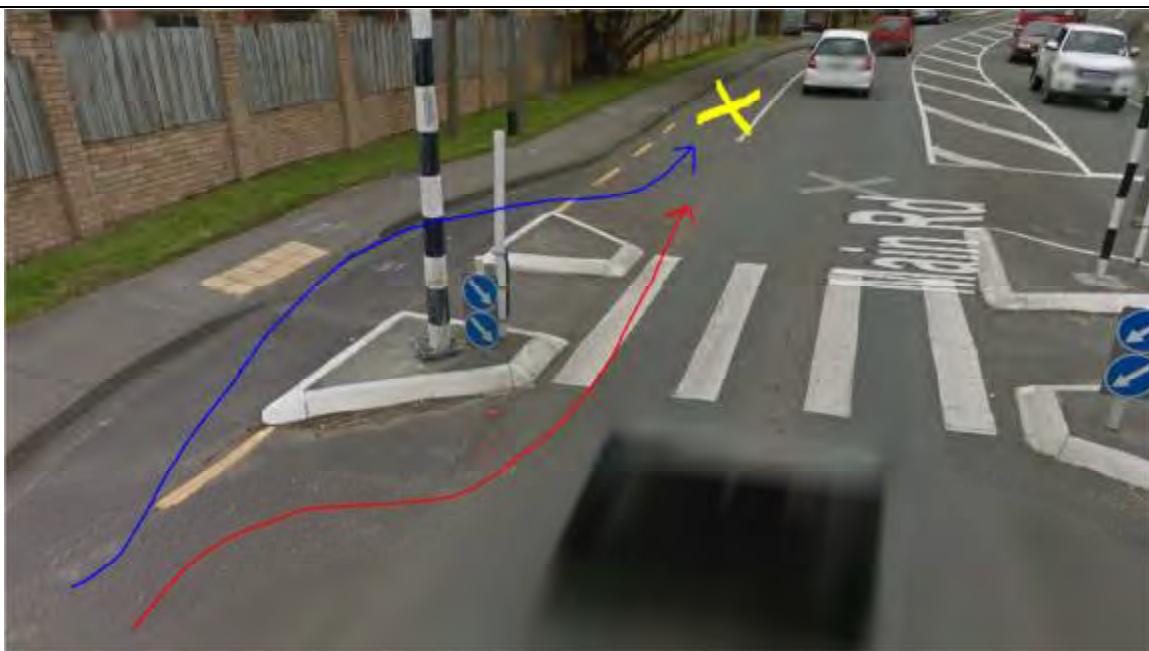


Figure 5: Hazardous pedestrian infrastructure

The cycle route shown in blue is seldom used by cycles due to debris in the gutter. When the route in red is used there is insufficient space for cyclists and vehicles and cyclists are pushed into traffic. Cars parking in the area labelled X worsen the problem.



Figure 6: Redwood Avenue roundabout and Dressmart carpark

Southbound cyclists take the route illustrated in blue which sends them into cars entering the Dressmart carpark at the point marked in red.

3.5 Tawa Valley Pathway (TVP)

General feedback on the TVP was very positive. Most people commented that they have walked or cycled it prior to the opening, and a number use it every day (especially the elderly and those with young children). There were a number of compliments in regards to the signalisation and installation of rubber over the train crossings.

Friends of Tawa Bush Reserve and other community members referred to the path as being the “backbone of the community” and emphasised the importance of providing further lateral links.

Some feedback received included aspects critical of the TVP. These stakeholders have noted an absence of cyclists on the path and claim that it is primarily used by joggers, dog walkers, scooters and skateboarders. A number of cyclists stated that they avoided the TVP because pedestrians (especially dog walkers) get in the way and interrupt their rhythm.

The representative from Living Streets noted concerns with the shared path, stating that it was not inviting for walkers and that pedestrians have been considered only as an afterthought. The conversion of footpaths into shared paths is not considered fair on pedestrians as cyclists encroach on pedestrian's space. The Living Street representative added that the TVP *“provides no encouragement for pedestrians to pause or deviate from their journey and is built for people to go fast on. It lacks atmosphere”*. Nonetheless the TVP is complimented for its links to schools and train stations.

Suggested Improvements to the Tawa Valley Pathway

a. Increased Signage

The most common suggested improvement for the TVP was increasing the signage throughout the route, especially in proximity to the McLennon Street.

b. Improved road crossings

Stakeholders also commonly identified giving attention to the road crossing made by the TVP at Tawa Street (beside Redwood Station), Beuchamp Street and McLennan Street. Some of these areas can be quite busy – especially Tawa Street around 5:30pm. Raised crossings were suggested as a way to mitigate this issue.

c. Lighting

The option of lighting the TVP was also suggested by the community as a way of increasing visibility during winter commuting times. The Police also mentioned this as a solution to some of the tagging (Figure 7) that has occurred along the TVP. It is important to note that opinions are divided amongst the local police as to whether lighting would help to deter crime and enhance safety. The Police also note that train users are parking on the shared path around Redwood Station (Figure 8)



Figure 7: Graffiti along the TVP



Figure 8: Cars parked on TVP at Redwood Station

Other ad hoc improvements suggested by the community include:

- A centre line to separate walkers from cyclists
- Looping the TVP via Main Road or Woodman Drive via Kenepuru Station to Bell Street to create a circular journey option
- Marking distances so users know how far they've travelled
- Installing water fountains along the TVP
- Providing facilities to hire bikes or scooters for the mobility limited
- More drop-down kerbs on the TVP – e.g. coming down Stephen Street and crossing Duncan Street
- Reducing surface glare from the bright concrete by using a darker colour in future

3.6 Additional Cycle Routes inside Tawa

Where possible the comments made by stakeholders have been mapped using GIS and can be viewed in TeamView Spatial. The commentary from the stakeholder engagement provided below should be read alongside these maps.

A wide variety of potential cycling routes were identified by the community. These have been listed below, generally in order of popularity (measured by the frequency at which they independently proposed):

- Links to schools - for instance:
 - Along Redwood Avenue
 - From The Drive via Kereru Road to Redwood School
 - Up Victoria Crescent to Hampton Hill School
 - Up Collin Avenue to Greeacres School
 - From Tawa Primary School past the roundabout on Tawa Street to TVP
 - Along Taylor Terrace to Tawa College
 - A 1km track around Tawa Intermediate and College without road crossings
- From under the motorway at Takapu Road up Bing Lucas Drive and Jamaica Drive
- Alternative commuter route running parallel to Main Road (Gee Street – Findlay Street – Beuchamp Street – Davies Street – Oxford Street)
 - Need to improved signage and access at southern end potentially through sharrows
- Enhancing connections over flat land in Tawa valley
 - Collins Avenue – Hinau Street – Duncan Street
 - Collins Avenue – Beuchamp Street – Davies Street – TVP
- Links to the Countdown and Dressmart
- Links to greenbelt and ridgeline – replace links affected by Transmission Gully expressway
- Potential for linkage from Lindhurst Park to TVP – need to cross railway line
- From the back of Tawa School to the pathway via a bridge across the railway tracks and stream
- Links to Tawa town centre and Library
- Links from the TVP to the main road
- Extend the TVP through the Rose Gardens Victoria Crescent via a raised crossing. This would facilitate safer access to Tawa Pool from Hampton Hill.
- Extend the TVP from Willowbank Reserve to the northbound platform at Takapu Railway Station, under Takapu Road then out onto Willowbank Road roundabout by the gravel track that is currently used for commuter parking - this provides a safe alternative to turning right down Willowbank Road.

Aside from additional cycle routes stakeholder also suggested other cycling related infrastructure which would encourage more cycling in Tawa. As above, these have been generally listed in the order of their popularity:

- Clean up the BMX track beside Tawa Station
- Create a crossing/underpass for the motorway at Mervyn Kemp Drive or Woodman Drive to Court Place
- Install a roof and quarter pipe in the existing roller skating rink in Grasslees Park to increase its use by schools children. This may lead to later pick-ups for some students and less traffic.
- More signage and lane markings to acknowledge rights for cyclists to be on the road
 - More signage from northern boundary of the city right through to Wellington City
 - Any road marking needs to be rough surfaced - otherwise it's too slippery and is a hazard
- Ensure smooth high quality road finished in areas with lots of cyclists. This enables fast safe riding
- Bridge across river north of Kenepuru Station to link across to cycle path on opposite side
- Permanent secure bike storage near train stations
- Additional pedestrian infrastructure
 - A pedestrian crossing near the train station from Kenepuru Drive to Kenepuru Hospital
 - A roundabout at Gee Street & Main Road to take away the congestion on Linden Avenue and Findlay Street during school hours
- Cycling infrastructure should also benefit mobility limited where possible

The general consensus from stakeholders is that more people will cycle in Tawa once better infrastructure is provided. The observation was made that most people have bikes but lack safe opportunities to use them. An excellent illustration of this is the Plimmerton to Pukerua Bay shared path constructed by PCC. Before its establishment there were only ten cyclist using this section of State Highway One. Today the shared path is used by approximately 80 people per day.

Something emphasised by numerous stakeholder is for any additional investment in cycling infrastructure to be coupled with community education and campaigning to make drivers more aware of cyclists.

3.7 Links outside Tawa

The scope of this study excluded areas outside of Tawa. Nonetheless all stakeholder groups made extensive comments on cycling infrastructure outside this study's catchment. This feedback has been summarised below.

Tawa to Johnsonville Link

Investment in link from Tawa to Johnsonville via Willowbank and Middleton Roads was mentioned by every stakeholder group engaged in this project. Despite it being outside the scope of the study it can be considered as being at the top of the community's wish list for cycling and pedestrian infrastructure investment. Middleton Road was the most frequently mentioned hazard for cyclists in this stakeholder engagement study. The link to Johnsonville is currently perceived as very dangerous for cyclists for the following reasons:

- The narrow width of the road means cars can't pass without squeezing cyclists into the road barrier or road cuttings
- The lack of lighting means debris and other road hazards are difficult to see in low light conditions

- The blind corners make overtaking dangerous
- The 70km per hour speed limit for cars is intimidating for cyclists

The Tawa community and cycling groups consider this to be the 'broken link' south of the city.

Any upgrade needs to account for the sometimes conflicting interests of pedestrians, amateur cyclists and road cyclists. For instance, a three metre wide shared path may be appropriate for low speed cyclists and pedestrians but may not be attractive to experienced and confident cyclists, for which a more pragmatic option may be more appropriate.

Tawa to Porirua Link

The investment in any additional infrastructure from the end of the TVP at Kenepuru Station would need to be coordinated and funded by the PCC. As such, this area falls outside the scope of this study. There is a link proposed from Porirua along the railway to the TVP, but this has to wait for KiwiRail works to be completed. PCC is currently trying to bring funding forward to the next financial year.

Regional Cycling Plan and Greater Wellington Regional Council

The Greater Wellington Regional Council (GWRC) indicated that changes to the Regional Cycling Plan for the Tawa are unlikely, despite the Plan currently being under review. GWRC acknowledges that there is a significant gap in cycling infrastructure between Johnsonville and Tawa.

Mountain Bike Trails

There was strong support for investment in additional mountain bike trails (or access to mountain bike trails from Tawa) in Makara, Ohario Valley and Colonial Knob.

4 Conclusion

Current levels of cycling in Tawa are low, however stakeholder feedback from engagement with the Tawa community is that there is demand for additional cycling infrastructure and that such investment is likely to increase cycling within the area.

Travelling through Tawa is necessary for any cyclists entering or leaving Wellington City to the north along the coast. Currently Main Road is used as a commuter route and a training route by experienced cyclists.

Relatively minor investment, such as the realignment of the curbs around pedestrian crossings, has potential to make Main Road safer for cyclists.

More significant investments, such as the redesign of major intersections and the removal of diagonal parking in the town centre, would further increase the safety and attractiveness of these routes for cyclists.

In general, the TVP has received positive feedback from the community. Some relatively minor improvements were recommended, such as increasing signage throughout the route and the installation of raised crossings for road crossings at Tawa Street, Beuchamp Street and McLennan Street.

Potential is identified to leverage further off the TVP to encourage more recreational cycling in Wellington. Such improvements could focus on:

- Connecting the Tawa town centre and schools to the TVP,

- Providing cycling infrastructure up Bing Lucas Drive and
- Way marking for the alternative commuter route via parallel to Main Road.

There is significant demand for investment in the Tawa to Johnsonville link for both cyclists and pedestrians.

Appendix A

Notes from Stakeholder Engagement

Stakeholder Group	Key issues and outcomes identified
Tawa Community Board	<ul style="list-style-type: none"> ■ Incorporate links to schools ■ Links to greenbelt and Johnsonville
Tawa Residents Association	<ul style="list-style-type: none"> ■ Encourage young people to cycle – target schools ■ Separate cyclists from traffic where possible ■ Cycling infrastructure to benefit mobility limited ■ Link to Johnsonville
Greater Wellington Regional Council	<ul style="list-style-type: none"> ■ Regional Cycling Plan changes unlikely to affect Tawa ■ Link to Johnsonville important
Tawa College and Tawa Intermediate	<ul style="list-style-type: none"> ■ Cycling to school declining – scooter use increasing ■ Traffic and safety a key barrier to cycling more ■ Various cycling hazards around Tawa identified ■ Need additional investment in cycling infrastructure to encourage more cycling in Tawa ■ Link to Johnsonville important
Mana Coach Services	<ul style="list-style-type: none"> ■ Main Road is reasonably wide and generally capable of accommodating cyclists and busses ■ Middleton Road a key problem area – too narrow
Wellington Free Ambulance, Fire and Police	<ul style="list-style-type: none"> ■ Main concern with additional cycling infrastructure is maintaining road width ■ Tagging and parking on TVP
Tawa Pool and Recreation Centre	<ul style="list-style-type: none"> ■ Little cycling in Tawa ■ Main road is quite open – no obvious problems with cycling
Friends of Tawa Bush Reserves	<ul style="list-style-type: none"> ■ No bikes on bush tracks ■ TVP is the backbone (spine) of the community and needs further lateral pedestrian and cycle links. ■ Extend TVP to Johnsonville – high priority ■ Want a walkway beside the stream – not a cycleway
Porirua City Council	<ul style="list-style-type: none"> ■ Link via TVP to Porirua proposed - has to wait for KiwiRail works to be completed. Funding might be brought forward to next financial year.
General community	<ul style="list-style-type: none"> ■ Positive feedback on TVP with minor improvements suggested ■ Need additional investment in cycling infrastructure to encourage more cycling in Tawa ■ Various minor cycling hazards around Tawa identified ■ Need link to Johnsonville and Porirua via extended TVP
Mana Cycle Group	<ul style="list-style-type: none"> ■ Anonymous – feedback given via online survey
PNP	<ul style="list-style-type: none"> ■ Anonymous – feedback given via online survey
Cycle Aware Wellington	<ul style="list-style-type: none"> ■ Need a better link to Johnsonville ■ Various minor cycling hazards around Tawa identified
Automobile Association Wellington	<ul style="list-style-type: none"> ■ Where possible cyclists should be kept off roads
Living Streets Wellington	<ul style="list-style-type: none"> ■ TVP not inviting for walkers – seen as a cycling track ■ Want increased use of NZTA Pedestrian Design Guide ■ More signage and waymarking around Tawa required ■ Connection to Johnsonville needed

Appendix B

Online Survey

Tawa/Linden Cycle Route Blueprinting - Stakeholder Engagement Report

**1. Where are the places you travel from and to most often in Tawa/Linden?
E.g. schools, sports centres, church, train station, supermarket, friends' houses etc.**

2. Do you ever ride a bike?

- Do you ever ride a bike? No - go to question 5
- Yes

If yes, how often?

3. Why do you cycle? Select as many as are relevant to you

- Why do you cycle? Select as many as are relevant to you Exercise
- Recreation
- Transportation to work
- Transportation to school
- To do errands

Other (please specify)

4. Where do you typically cycle to? Select as many as are relevant to you.

- Where do you typically cycle to? Select as many as are relevant to you. Work
- School
- Train station
- Bus stop
- Tawa shopping centre
- Mountain bike tracks
- Porirua city centre
- Johnsonville town centre
- Wellington city centre
- Extracurricular activities (e.g. scouts, church, sports etc.)

Other (please specify)

5. What stops you from cycling more in Tawa/Linden?

What stops you from cycling more in Tawa/Linden?

6. What are the top three reasons why you don't cycle for transport at the moment? Choose up to three

- What are the top three reasons why you don't cycle for transport at the moment? Choose up to three Feeling unsafe on the road (danger from traffic)
- Feeling unsafe in off-road situations (e.g. car parks, driveways)
- Insufficient cycle paths or not enough connections
- Insufficient facilities (e.g. cycle parks, changing facilities)
- Not fit enough for the hills / wind etc
- Hassle to get to a place where one can cycle
- Normally need to carry things (e.g. groceries, equipment, children, computer)
- Can't take a bike on the next stage of the journey (e.g. train)

Other (please specify)

7. What roading or infrastructure improvements could be made which would cause you to cycle more in Tawa / Linden

What roading or infrastructure improvements could be made which would cause you to cycle more in Tawa / Linden

8. Do you have any further comments on cycling in Tawa/Linden?

Do you have any further comments on cycling in Tawa/Linden?

9. What is your name and address? (Optional)

The survey is still live (however the closing date for responses was 7June). For an online version for an online view of the survey go to <https://www.surveymonkey.com/s/LG9BKR3>

Appendix D – Plan of Stakeholder Engagement comments and proposals

This map contains data derived in part or wholly from sources other than Beca, and therefore, no representations or warranties are made by Beca as to the accuracy or completeness of this information.

Legend

- Stakeholder Point Comments
- Stakeholder Link Suggestions
- Tawa Valley Pathway
- Walking/Cycling Routes
- Walking Tracks

Map intended for distribution as a PDF document.
Scale may be incorrect when printed.

Contains information sourced from LINZ. Crown Copyright Reserved.
Basemap Source: Eagle Technology & LINZ

Map Scale @ A3: 1:15,000

0 125 250 500 Metres

Revision	Author	Verified	Approved	Date

1 RLL HEC NC 01/08/2014

Tawa/Linden Cycleways Stakeholder Engagement

Client: Wellington City Council

Project: Tawa Cycle Network Planning

Beca



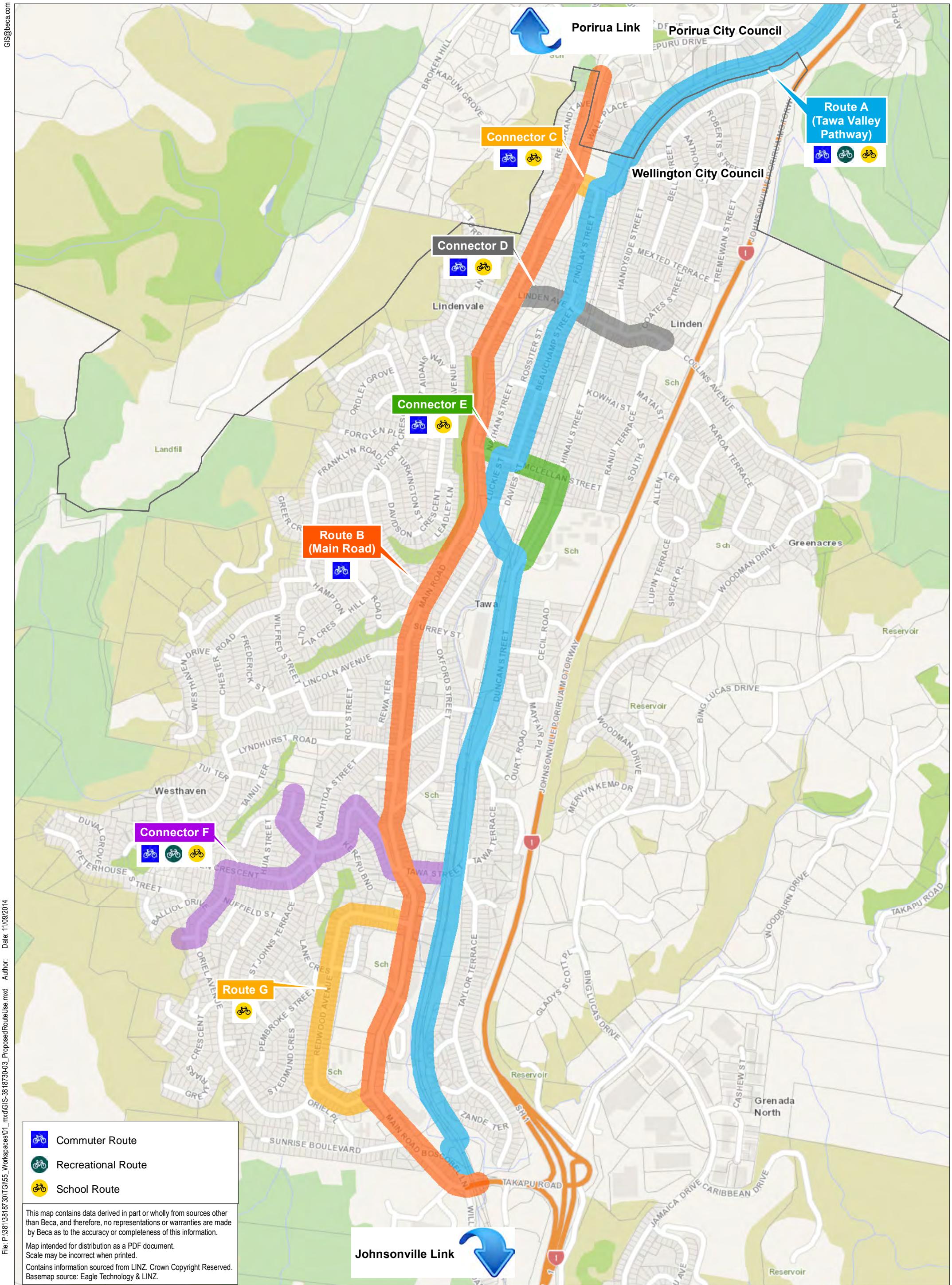
Discipline: GIS

Drawing No: GIS-3818730-02

MapID	Group	Comment
1	Cycle Aware Wellington	Right turn from Main Rd to Middleton Rd is blind
1	Schools Focus Group	Need safer link into Middleton Road
1	Greater Wellington Regional Council	Sharrows around roundabout to make intersection safer
2	Mana Coach Services	Tight roundabout
2	Schools Focus Group	Dangerous roundabout for cyclists
2	Greater Wellington Regional Council	Intersections on Main Road are dangerous
2	Greater Wellington Regional Council	Sharrows around roundabout to make intersection safer
3	Cycle Aware Wellington	Pedestrian crossing forces cyclists onto road
3	Community	Traffic calming measure hazardous around pedestrian crossing
3	Emergency Services	Traffic calming measures hazardous for emergency services when 'taking the centreline' in an emergency
3	Mana Coach Services	Blockwork around roundabout forces cyclists onto road
3	Greater Wellington Regional Council	Pedestrian crossing forces cyclists onto road
4	Community	Crossing here difficult in heavy traffic
4	Community	Install raised crossing for Tawa Valley Shared Path
5	Porirua City Council	Multi-laned roundabout hazardous for cyclists
5	Mana Coach Services	Tight roundabout
5	Schools Focus Group	Dangerous roundabout for cyclists
5	Greater Wellington Regional Council	Intersections on Main Road are dangerous
6	Porirua City Council	Multi-laned roundabout hazardous for cyclists
6	Schools Focus Group	Dangerous roundabout for cyclists - needs cycling signage
6	Greater Wellington Regional Council	Intersections on Main Road are dangerous
7	Community	Pedestrian crossing forces cyclists onto road
7	Emergency Services	Traffic calming measures hazardous for emergency services when 'taking the centreline' in an emergency
7	Mana Coach Services	Blockwork around roundabout forces cyclists onto road
7	Greater Wellington Regional Council	Pedestrian crossing forces cyclists onto road
8	Community	Safety of crossing at intersection
8	Community	Install raised crossing for Tawa Valley Shared Path
9	Schools Focus Group	Dangerous intersection for cyclists
9	Greater Wellington Regional Council	Intersections on Main Road are dangerous
10	Community	Getting out onto Kenepuru Drive hard for cyclists
10	Community	Install a roundabout to reduce congestion from Findlay & Linden
10	Greater Wellington Regional Council	Paint on road to direct cyclists off Main Rd
10	Greater Wellington Regional Council	Intersections on Main Road are dangerous
11	Cycle Aware Wellington	Cars creep blind at intersection
12	Community	Additional bridge over river to cycle track on other side
13	Community	Install Pedestrian Crossing
14	Community	Install bike lock here at bottom of pathway
15	Community	Additional drop down kerbs for Tawa Valley Shared Path
16	Community	Install raised crossing for Tawa Valley Shared Path
17	Community	Install raised crossing for Tawa Valley Shared Path
18	Community	Install raised crossing for Tawa Valley Shared Path
19	Porirua City Council	Walking to Porirua hazardous due to numerous road crossings and inconsistent footpaths on Eastern side of Street
20	Porirua City Council	Hoop barrier on bridge difficult to negotiate
21	Emergency Services	Traffic calming measures hazardous for emergency services when 'taking the centreline' in an emergency
22	Emergency Services	Traffic calming measures hazardous for emergency services when 'taking the centreline' in an emergency
23	Emergency Services	Traffic calming measures hazardous for emergency services when 'taking the centreline' in an emergency
24	Emergency Services	Traffic calming measures hazardous for emergency services when 'taking the centreline' in an emergency
25	Emergency Services	Traffic calming measures hazardous for emergency services when 'taking the centreline' in an emergency
26	Emergency Services	Traffic calming measures hazardous for emergency services when 'taking the centreline' in an emergency
27	Emergency Services	Traffic calming measures hazardous for emergency services when 'taking the centreline' in an emergency
28	Schools Focus Group	Dangerous intersection for cyclists
29	Schools Focus Group	Dangerous intersection for cyclists
30	Schools Focus Group	Install a roof on skatepark
31	Schools Focus Group	Potential new railway crossing
32	Greater Wellington Regional Council	Create 'safe turn' for cyclists
33	Greater Wellington Regional Council	Sharrows around roundabout to make intersection safer
34	Community	Tawa Cycleway loop via Bell St & Kenepuru Hospital
35	Community	Potential additional Shared Path

36 Community	Create a better signposted way North from Main Rd via Oxford St
37 Community	Widen path at Linden Ave
38 Community	Extend Tawa Cycleway to Hampton Hill Rose Gardens
39 Community	Access to Tawa Valley Cycleway from Tawa School
40 Community	Motorway underpass to park
41 Community	Alternative route via Takapu Station for cyclists (goes under Takapu Rd)
42 Porirua City Council	Link through Tawa School
43 Porirua City Council	Gradual climb to Larsen Crescent
44 Friends of Tawa Bush Reserve	Potential location of bridge across motorway (pedestrian)
49 Schools Focus Group	Install track around schools. Training track, no road crossings, approx 1km
50 Schools Focus Group	Additional cycling link
51 Greater Wellington Regional Council	Improve signage of alternative commuter route (off Main Rd)
52 Greater Wellington Regional Council	Enhance connections on flat land to Tawa College and under motorway
53 Greater Wellington Regional Council	Make link to Tawa Valley Shared Path for school children to bypass dangerous roundabout
54 Greater Wellington Regional Council	Provide links up Redwood Avenue to Redwood School
55 Residents Association	Tawa Valley Shared Path: Additional link from Taylor Terrace to Tawa School
56 Residents Association	Links to Bing Lucas Drive and under motorway
57 Residents Association	Enhanced links to new supermarket
58 Residents Association	Additional links to Redwood School via Kereru Drive
59 Residents Association	Link to Dressmart
60 Cycle Aware Wellington	Parked Cars opening doors causing cycling hazard
61 Cycle Aware Wellington	Cars diagonally parked are hazardous to cyclists
62 Cycle Aware Wellington	Enhance/maintain Tawa dirt track
63 Cycle Aware Wellington	Dressmart and roundabout cycle lane kerb forces cyclists into Dressmart traffic
64 Cycle Aware Wellington	Inconsistent shoulder along main road
65 Community	Difficult to navigate Tawa Valley Cycleway - move signage suggested
66 Community	Tawa Valley Cycleway between Tawa Station needs a fence
67 Community	Better cycle parking in Central Tawa
68 Community	Better maintenance of Tawa dirt track
69 Porirua City Council	Use this space to add to Tawa Valley Shared Path
70 Porirua City Council	Cars diagonally parked are hazardous to cyclists
71 Friends of Tawa Bush Reserve	Link Tawa Valley Shared Pathway to Redwood
72 Friends of Tawa Bush Reserve	Potential link to Tawa Valley Shared Pathway from Lyndhurst Park
73 Porirua City Council	Railway users are parking on Tawa Valley Shared Path here
74 Emergency Services	Area of graffiti on Tawa Valley Shared Path
75 Mana Coach Services	Cars diagonally parked are hazardous to cyclists
76 Mana Coach Services	Heavy and congested traffic
77 Schools Focus Group	Infrastructure congested at start and end of school day
78 Schools Focus Group	Better maintenance of Tawa dirt track
79 Schools Focus Group	Cars diagonally parked are hazardous to cyclists
80 Schools Focus Group	Road too narrow, widen footpath/road for cyclists
81 Greater Wellington Regional Council	Cars diagonally parked are hazardous to cyclists
83 Residents Association	Enhance links to Hospital, Colonial Knob and mountain bike tracks

Appendix E – Network layout plan



Map Scale @ A3: 1:12,000

0	100	200	400
Metres			

Revision	Author	Verified	Approved	Date

Title:

Tawa/Linden Cycleways

Cycle Route Use

Client:
Wellington City Council



N
Discipline:
GIS

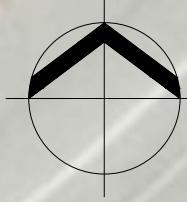
Project:
Tawa Cycle Network Planning

Drawing No:
GIS-3818730-03

Appendix F – Minor works list

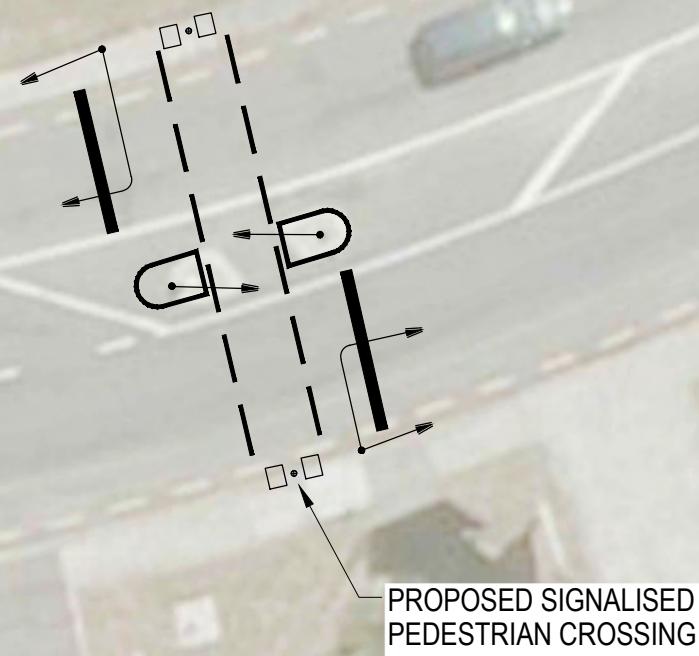
Location	Issue/Comment	Solution / Comment
Takapu Rail Station	Needs link to TVP	Provide link to TVP
Main Road (General issues)	Inconsistent shoulder widths Traffic calming measures create conflict zones Heavy traffic	Investigate how to safely reduce build out width to allow cycles to pass safely
Main Road / Street Francis School Crossing	Traffic calming features causing issues	Investigate how to safely reduce build out width to allow cycles to pass safely
Redwood Train Station	Cars parked on TVP through the car park	Enforce restrictions
Main Road / Tawa Street Roundabout	Tight roundabout for buses	Investigate roundabout improvements
Main Road / Tawa Street Roundabout	Not cycling friendly	Review cycle passage through the roundabout on or off-carriageway.
Main Road / Tawa Street Roundabout	Alternative link to TVP to allow school children to bypass roundabout	Increase width of footpath on NE corner of roundabout to incorporate a shared path link to TVP
Tawa School	Link to TVP Link from Taylor Terrace	Provide a link directly to TVP from Tawa School Provide a link along Taylor Terrace to Tawa School
Main Road / Tawa Library	No cycle parking in the area	Provide cycle parking stands outside library
Tawa Pool & College / School area	Lack of signage around Davies Street/McCellan Street & Beauchamp Street	Improved signage of TVP route to help increase patronage
Ranui Terrace	New shared path	Widen/extend footpath along Ranui terrace to form a shared path along western side
Linden Avenue / Findlay Street	Safety of cycles crossing the intersection Raised crossing of Linden Avenue for the TVP	Examine accident record and look for trends to focus improvements Enhance crossing point to increase visibility of cyclists crossing
Kenepuru Drive	Parked vehicles dangerous	Use of TVP increased to reduce numbers of cyclists on Kenepuru Drive
Bell Street / Handyside Street	Signed on road cycle route to hospital as an alternative to Main Road/Kenepuru Drive	Sign an alternative on road route to the hospital

Appendix G – Example conceptual drawings of proposed infrastructure improvements



AMBULANCE DRIVE

KENEPURU DRIVE

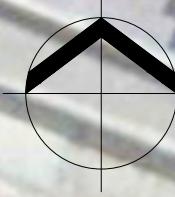


**FOR INFORMATION
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No.	Revision	By	Chk Appd Date

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		Dsg Verifier						
		Dwg Check			Date			
* Refer to Revision 1 for Original Signature							KENEPURU DRIVE / AMBULANCE DRIVE	Drawing No. 3818730-CK-010 Rev. A



A	FOR INFORMATION	WZC	25.07.14
No.	Revision	By	Chk App Date

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Drawing Originator:

Original Scale (A3)

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Design

Drawn

WZC

24.07.14

Approved For Construction*

Date

* Refer to Revision 1 for Original Signature

DO NOT SCALE

Client:

**Absolutely
POSITIVELY
Wellington**
WE ARE IN PARTNERSHIP
WITH YOUR CITY COUNCIL

Project:

TAWA CYCLE
NETWORK PLANNING

Title:

MAIN ROAD
LINDEN AVENUE

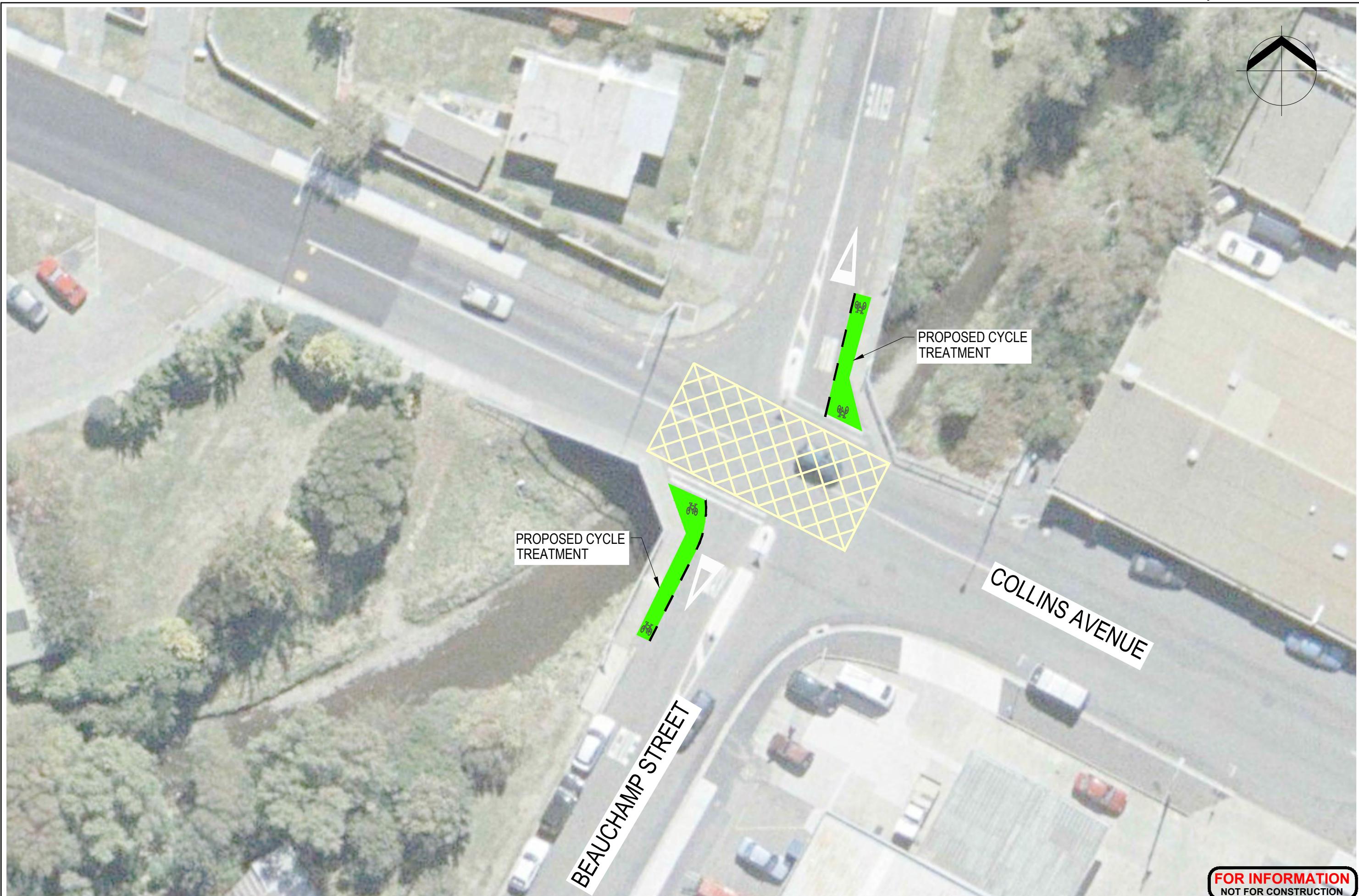
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CIVIL

Drawing No.

3818730-CK-020

Rev. A



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No.	Revision	By	Chk App Date

Beca

Drawing Originator:

Beca

Original Scale (A3)

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Design			Approved For Construction*
Drawn	WZC	24.07.14	
Dsg Verifier			Date
Dwg Check			

* Refer to Revision 1 for Original Signature

DO NOT SCALE



Project:
**TAWA CYCLE
NETWORK PLANNING**

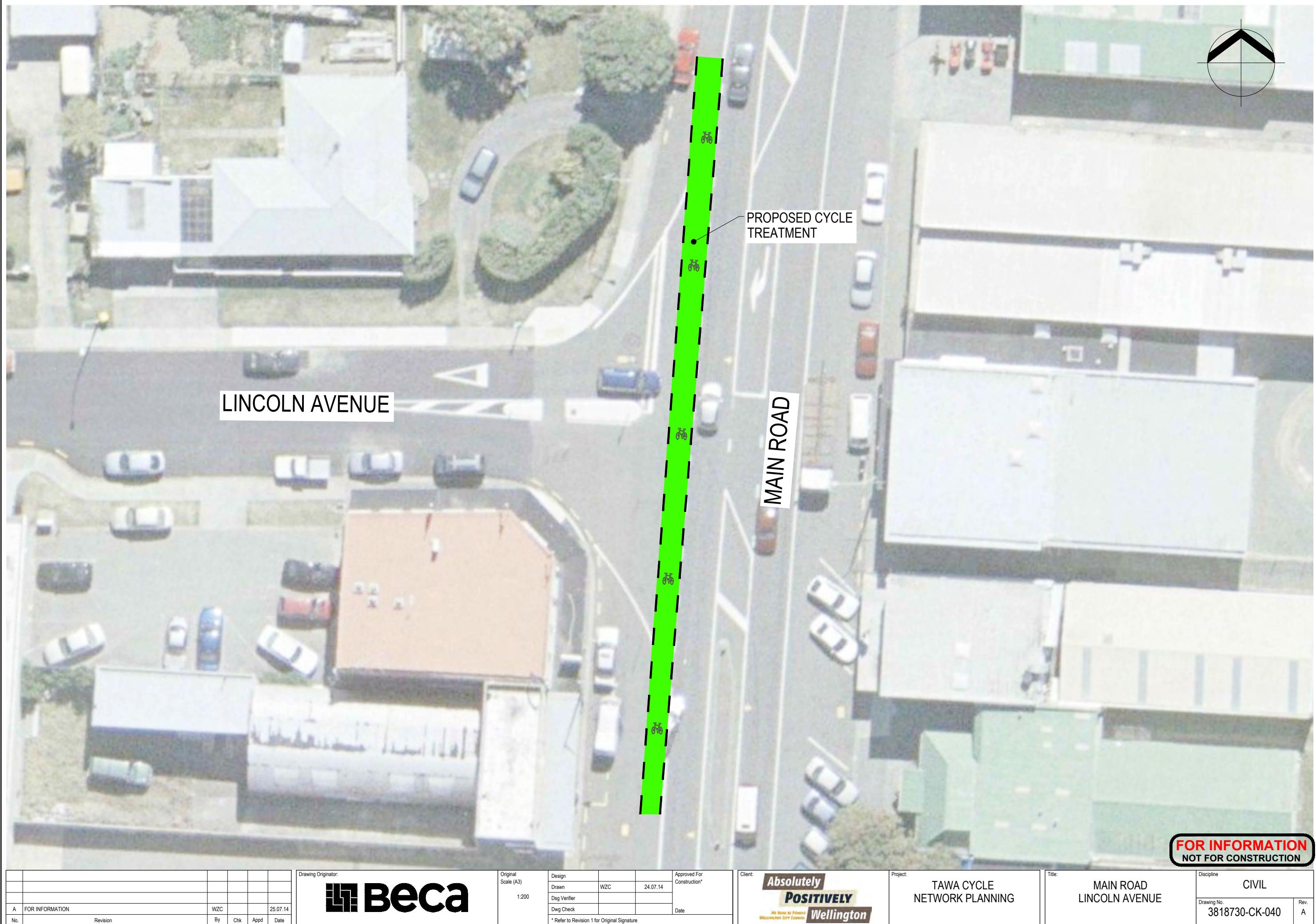
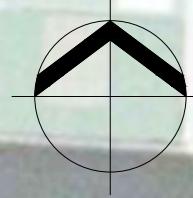
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COLLINS AVENUE**

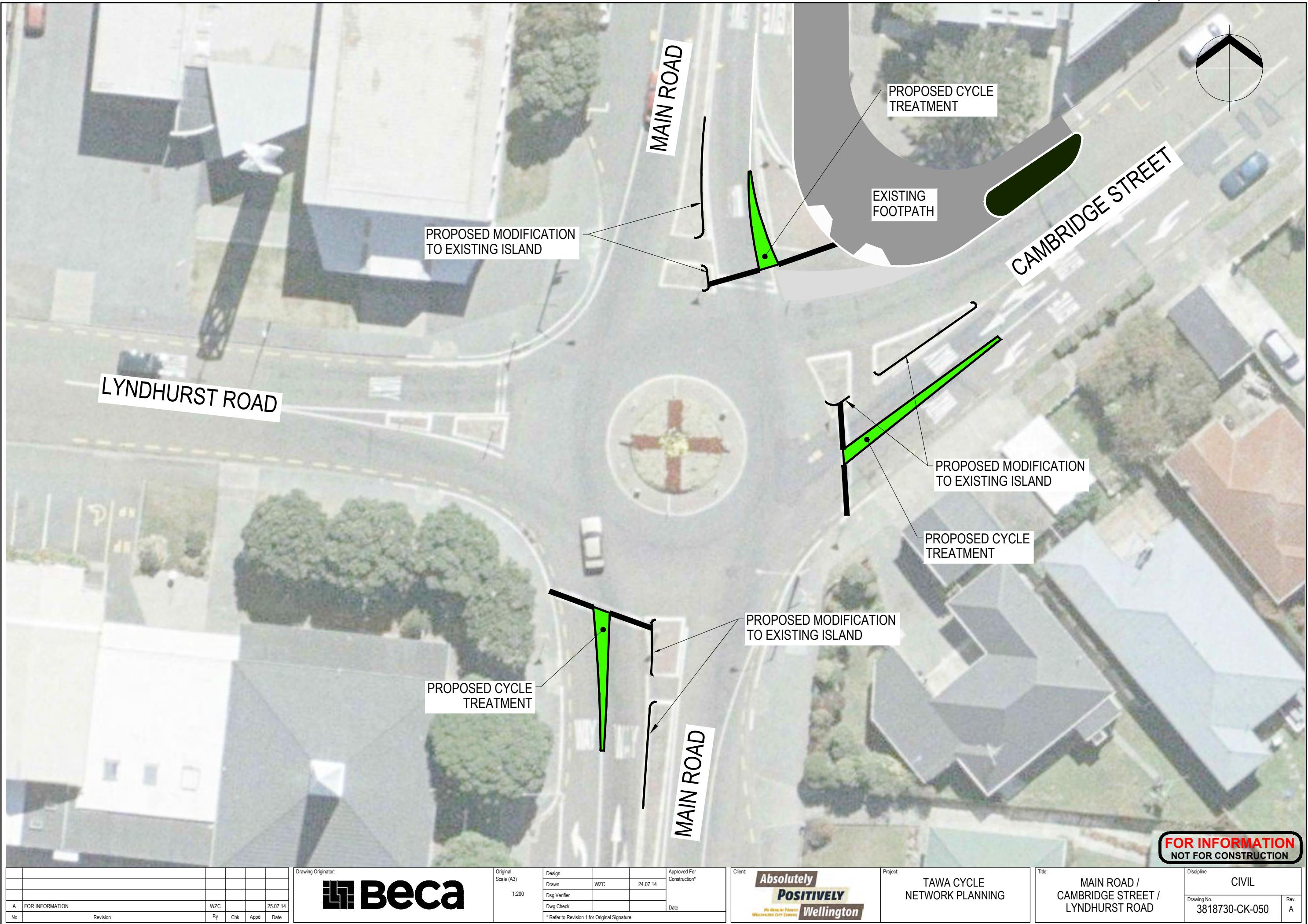
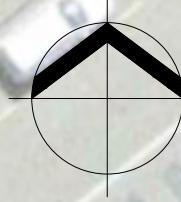
Discipline:
CIVIL

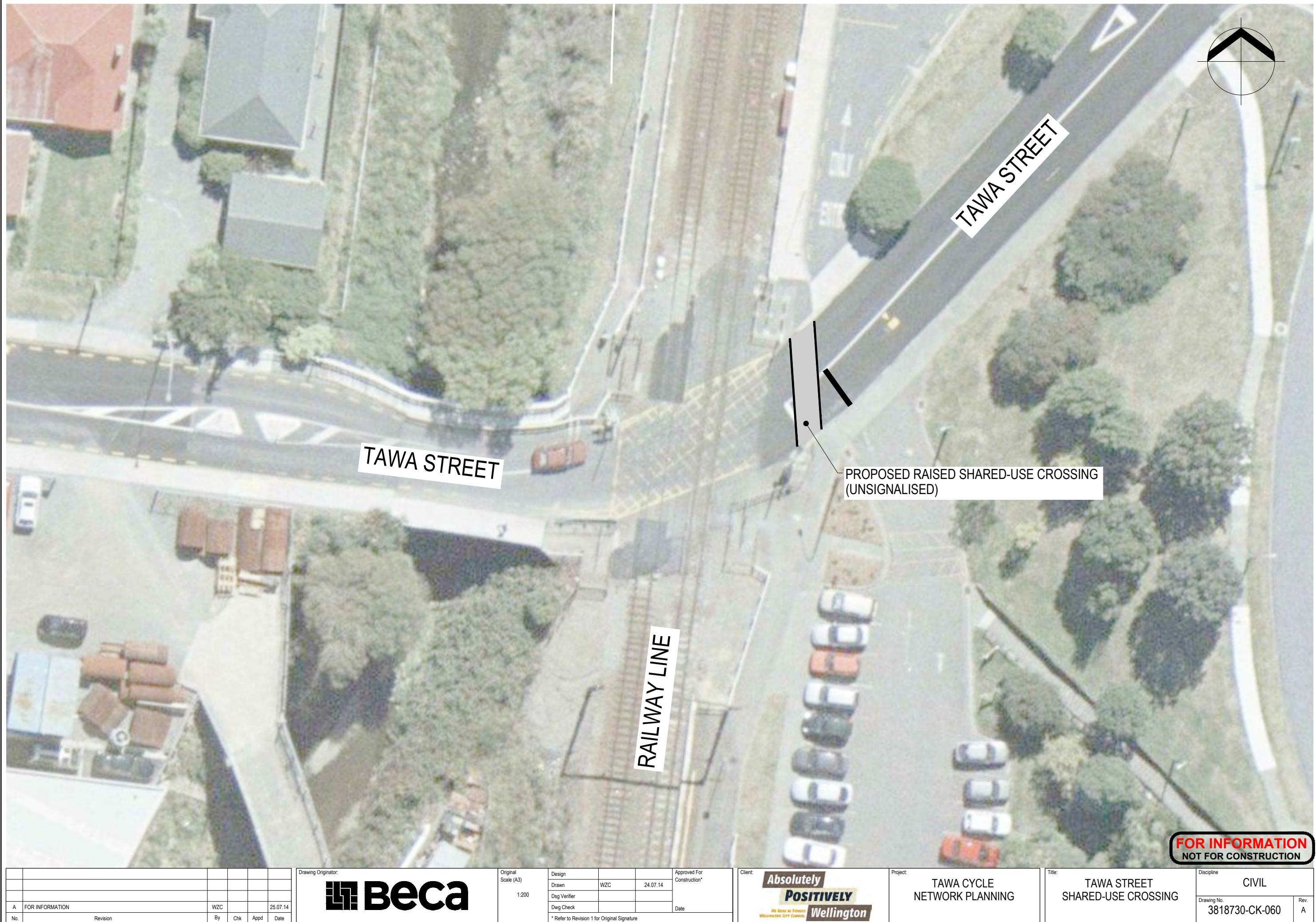
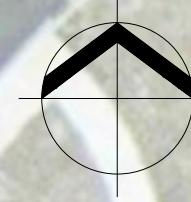
Drawing No.
3818730-CK-030

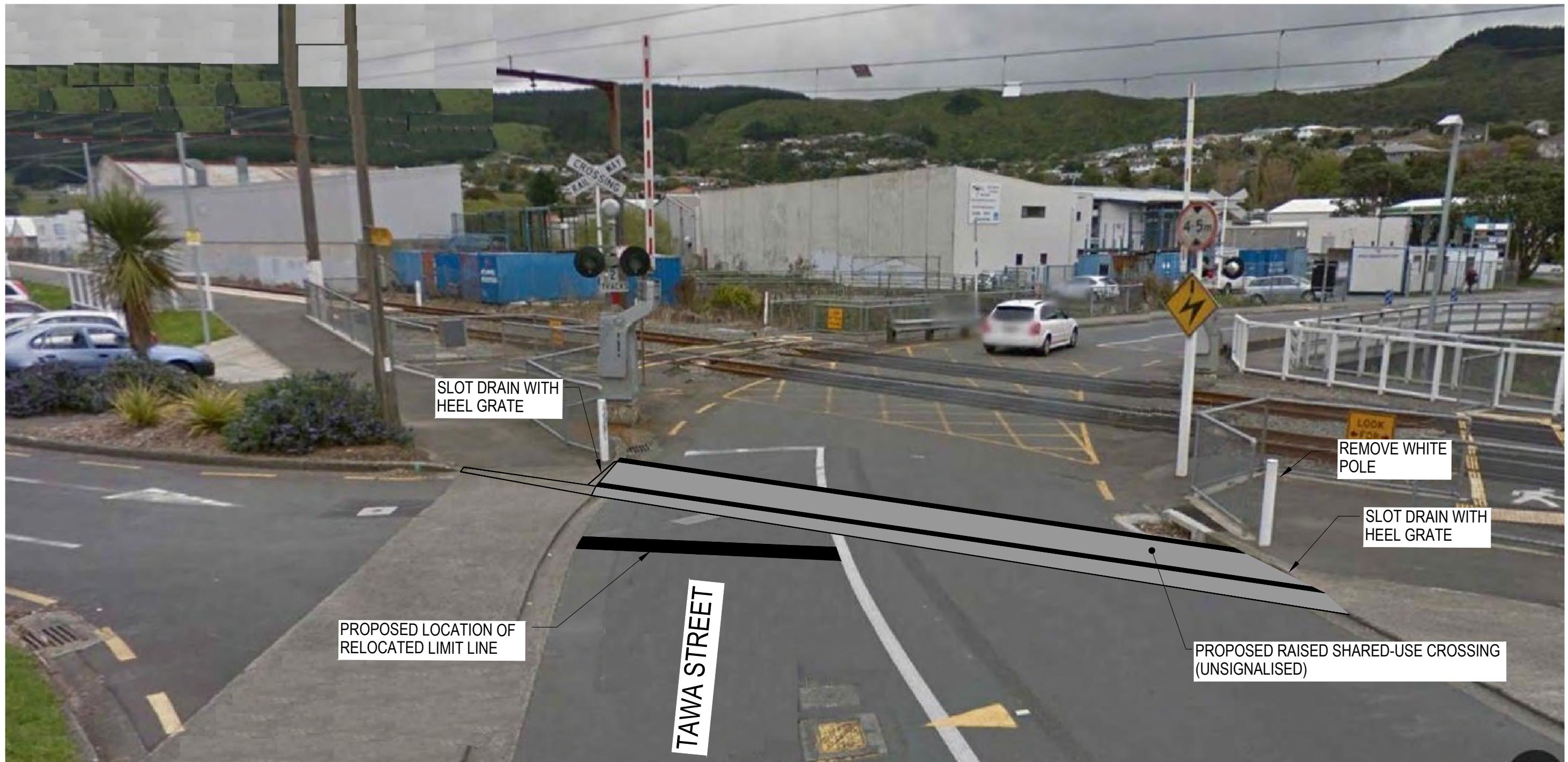
Rev.
A

IF IN DOUBT ASK.







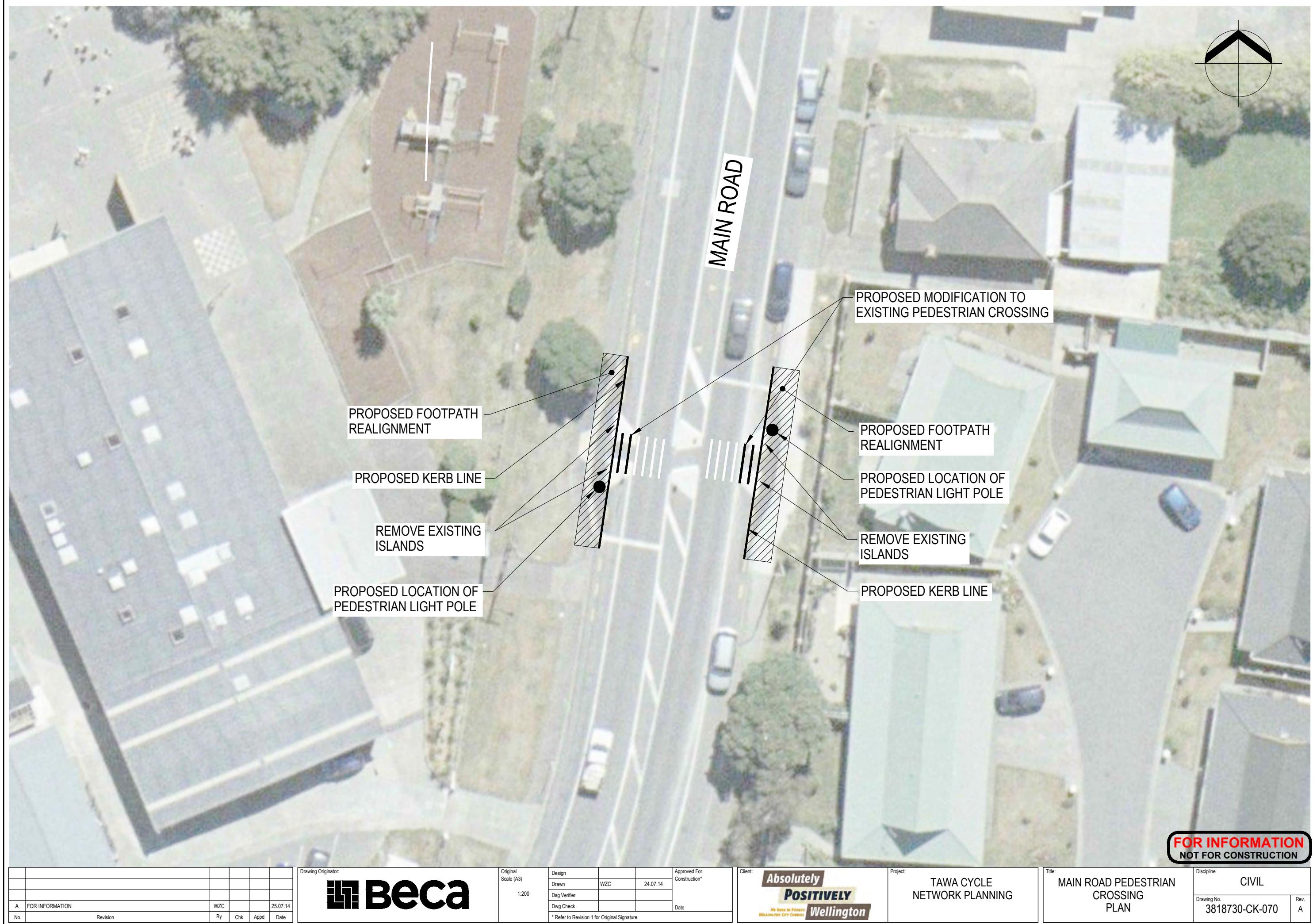
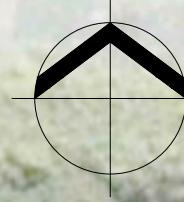


**FOR INFORMATION
NOT FOR CONSTRUCTION**

A	FOR INFORMATION	WZC	25.07.14
No.	Revision	By	Chk Appd Date

beqa

Drawing Originator:	Original Scale (A3)	Design	Approved For Construction*	Client:	Project:	Title:	Discipline
	N.T.S.	Drawn	WZC 24.07.14			TAWA CYCLE NETWORK PLANNING	CIVIL
		Dsg Verifier		Date			
		Dwg Check					
* Refer to Revision 1 for Original Signature							Drawing No. 3818730-CK-061 Rev. A





**FOR INFORMATION
NOT FOR CONSTRUCTION**

A	FOR INFORMATION	WZC	25.07.14
No.	Revision	By	Chk App Date

beca

Drawing Originator:

Original Scale (A3)

N.T.S.

Design			Approved For Construction*
Drawn	WZC	24.07.14	Date
Dsg Verifier			
Dwg Check			

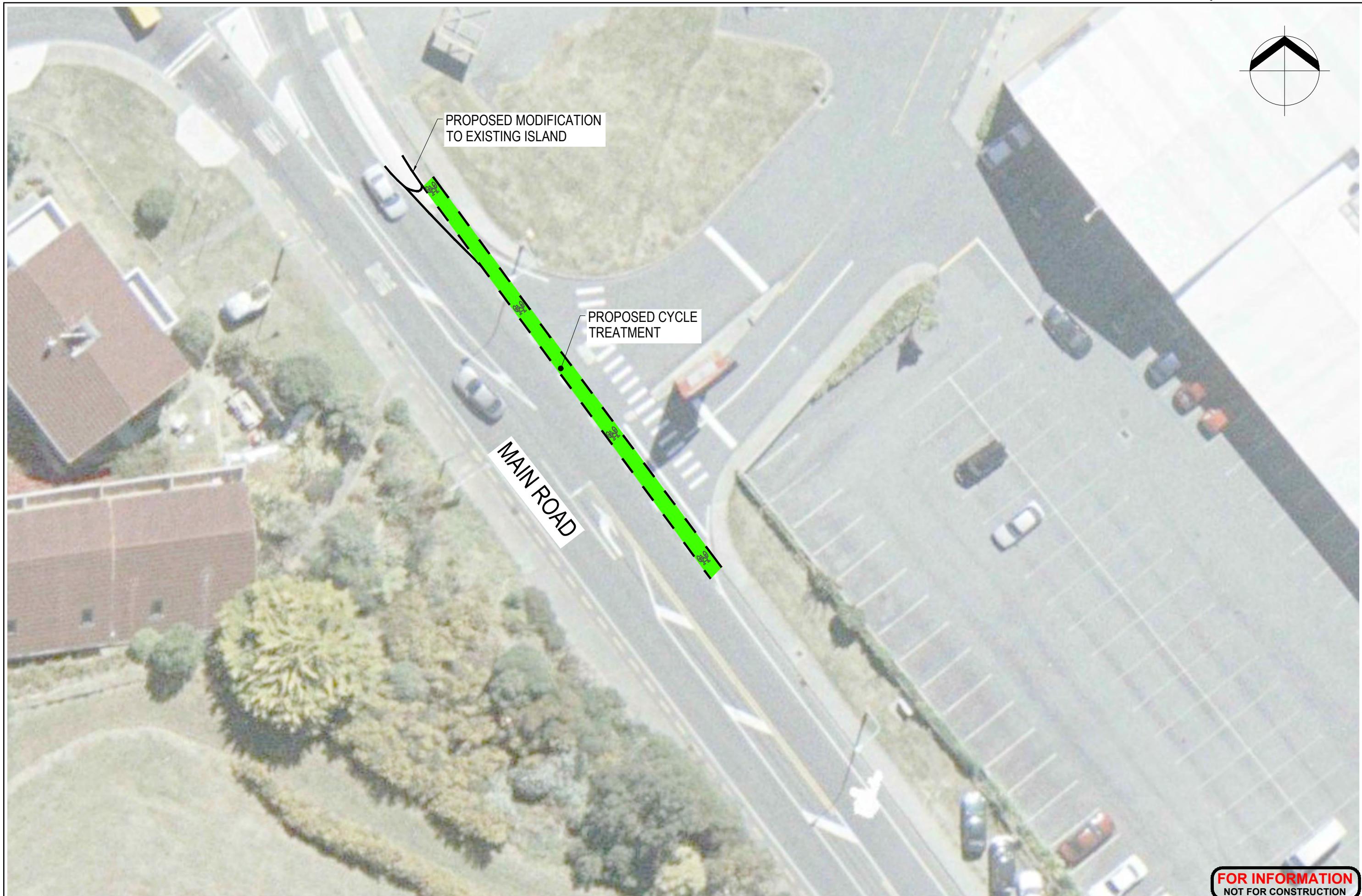
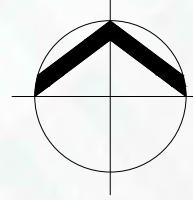


Project: TAWA CYCLE NETWORK PLANNING

Title: MAIN ROAD PEDESTRIAN CROSSING ELEVATION

Discipline: CIVIL

Drawing No. 3818730-CK-071 Rev. A



**FOR INFORMATION
NOT FOR CONSTRUCTION**

A	FOR INFORMATION	WZC	25.07.14
No.	Revision	By	Chk Appd Date

beca

Drawing Originator:	Original Scale (A3)	Design	Approved For Construction*	Client:	Project:	Title:	Discipline
	1:200	Drawn	WZC 24.07.14		TAWA CYCLE NETWORK PLANNING	MAIN ROAD / TAWA OUTLET SHOPPING MALL PLAN	CIVIL
		Dsg Verifier		Date			
		Dwg Check					
		* Refer to Revision 1 for Original Signature					



**FOR INFORMATION
NOT FOR CONSTRUCTION**

A	FOR INFORMATION	WZC	25.07.14
No.	Revision	By	Chk Appd Date

Beca

Drawing Originator:

Original Scale (A3)

N.T.S.

Design			Approved For Construction*
Drawn	WZC	24.07.14	
Dsg Verifier			Date
Dwg Check			

* Refer to Revision 1 for Original Signature

DO NOT SCALE



Project: **TAWA CYCLE
NETWORK PLANNING**

Title: **MAIN ROAD / TAWA OUTLET
SHOPPING MALL
ELEVATION**

Discipline: **CIVIL**

Drawing No. **3818730-CK-081**

Rev. **A**