Absolutely Positively Wellington City Council

Me Heke Ki Pōneke

WCC Transitional Cycleways Multi Criteria Analysis

Wadestown Connections

14 April 2023



Absolutely Positively **Wellington** City Council

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1. Introduction

1.1 Background

The Wellington City Council (WCC) Transitional Cycleways programme proposes interim transitional cycleways to quickly roll out the WCC cycleway network over months rather than years. These transitional cycleways will be formed with minimal physical works and temporary materials in an interim fashion. Once installed, the Council gathers feedback on the changes and can make improvements to things such as signs, street markings, parking, and the position of dividers between the bike lanes and traffic.

The transitional programme has divided the proposed network into routes, with each route forming an individual project. This report relates to the Wadestown Transitional Cycleway which has been identified as a secondary corridor in the Paneke Pōneke Bike Network Plan.

1.2 Project Area

The Wadestown Connections cycleway runs between Thorndon and Crofton Downs as shown below in Figure 1. Figure 1 also denotes other cycleways in the vicinity of the Wadestown Connection route.



Figure 1 Project extents

The Wadestown Connections route has been divided into seven sub-areas to reflect the differences in road layout, gradient, character and possible options along the route. These sub-areas are;

1. Park Street (Tinakori Road to Grant Road)

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- 2. Wadestown Road Section 1 (Park Street to Lennel Road, includes a part of Grant Road also)
- 3. Lennel Road / Grant Road (Park Street to Wadestown Road)*
- 4. Wadestown Village (Wadestown Road Section 2, Pitt Street to Hanover Street)
- 5. Wadestown Road Section 3 and Blackbridge Road (Hanover Street to Churchill Drive)
- 6. Churchill Drive Section 1 (Wadestown Road to Chartwell Drive)
- 7. Churchill Drive Section 2 (Chartwell Drive to Crofton Downs Railway Station)

*Although the Lennel/Grant section is not included in the Paneke Poneke Bike Network Plan it has been included in this assessment as it provides an alternative route for cyclists wishing to travel towards the city avoiding two difficult right turn manoeuvres on the Wadestown Road route.

2. Multi Criteria Analysis (MCA) Overview

2.1 MCA Process

There were two major steps to the MCA process, identifying short list options and confirming the preferred solution.

Short list options were identified by reviewing constraints which limited the feasibility of long list options and assisted in eliminating options to arrive at the short list. This is described in Section 3.

Where the short list included more than one option, the preferred option was identified by scoring each option against the MCA criteria. The highest scoring option or options denote the preferred option(s).

2.2 Criteria, considerations, weightings and scoring

The multi criteria analysis (MCA) was developed with WCC. The project criteria were weighted based on relative importance, with Criteria 1, the safety of cyclists, weighted the highest and Criteria 6, improved amenity being weighted the lowest. The full list of criteria, considerations and weightings are provided in Appendix A. The assessment used a scale of -3 to +3. The scoring scale and assessment guidelines are provided in Appendix A.

3. Options selection

3.1 Facilities consideration

When developing options, consideration was given to the required dimensions of each design element (footpath, traffic lane etc) as prescribed in *Transitional Cycleways Design Standards Report 2023*.

3.2 Short list development

3.2.1 Options excluded from short list: all sections

Options that were not considered appropriate for sections of this route and not progressed to the short list and MCA include:

- Do nothing. There would be no improvement to the existing situation which has been identified as requiring improvement for cyclists through consultation on the Paneke Poneke Bike Network Plan.
- Alternative routes. These primary routes are identified in the Paneke Poneke Bike Network Plan which has been consulted and approved in a separate process which considered alternate route options. Our assessment is not intended to repeat this.
- Sealed shoulders. These are also not significantly different from cycle lanes (which could be considered sealed shoulders with cycle markings). Sealed shoulders may also be used for other purposes such as car parking which means that opportunity for a cyclist to use the space can be intermittent. This does not meet the Paneke Poneke Bike Network Plan concept of a connected cycleway network.
- Bidirectional paths. As all sections have gradients that exceed 4% and road widths are generally too narrow to achieve the required widths, bi-directional paths have been

excluded. As described in the Waka Kotahi Cycle Network Guidance, uphill cyclists are likely to require extra width for wobbling, and downhill cyclists travel faster so require extra width for safe manoeuvring.

- Shared paths. The existing footpaths are generally narrow (except a small section of Churchill Drive Section 2) and unable to meet the minimum width requirements in the *Transitional Cycleways Design Standards Report 2023*.
- Change in road space through kerb realignment. The transitional cycleways are intended to require minimum physical works and ability to amend or reinstate if required. Minor site-specific buildouts or kerb changes will be regarded as traffic calming measures and crossing safety infrastructure.
- Extensive kerb realignment or similar works that will result in permanent changes not suitable for this programme.
- Central traffic paths¹ where traffic or heavy vehicle volumes mean a significant proportion of drivers will be required to pass opposing vehicles (indicatively around 1,000 vehicles per day). This results in significant delays and frequent encroachment into the cycle space. The traffic volumes for all sections exceeded this threshold meaning this option was excluded for all sections.
- Shared traffic lane (sharrows) on lanes with uphill gradient. Shared traffic lanes require cyclists to 'take the lane' with motor vehicles following behind them. With gradients typically around 5-10% in all sections, there is a very significant speed differential between cyclists and motorists travelling uphill and thus shared uphill lanes are not considered appropriate.
- Buffered cycle lane. Where parking could be removed, and the remaining carriageway meets minimum widths as per *Transitional Cycleways Design Standards Report 2023* or the road is not a public transport route (Blackbridge Road) a buffered cycle lane has not been progressed to short list. This is because it is possible to provide physical separation in the available space which is better aligned with the objectives of the Paneke Poneke Bike Network Plan.

3.2.2 Short list: section specific considerations

Further to the treatments excluded across the whole corridor (Section 3.2.1), Table 1 outlines specific section considerations for short list option development.

Table 1. Sec	tion short lis	t considerations
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Section	Option Description	Explanation
Section 2: Wadestown Road Section 1	Remove a traffic lane, converting road to one way traffic flow to create enough space for a dedicated cycle facility	The purpose of the transitional cycleway programme is to quickly implement interim treatments. Converting Wadestown Road to one way traffic flow between Grant and Lennel Roads would require extensive modelling of the network implications and have significant consultation obligations. It is expected that this would be a lengthy process and not in the spirit of this programme thus it has been excluded from the short list.
Section 4: Wadestown Village	Isolated section of shared traffic lane (sharrows) on lane with uphill gradient.	While shared traffic lanes (sharrows) on lanes with uphill gradients have generally been excluded (see Section 3.2.1), Options with a short section of shared uphill lane have been included in the short list. While this does not meet best practice, these options have been progressed to short list as they minimise the loss of high priority short stay parking ² . The 30km/h speed environment is also a mitigating factor for the deviation from best practice.
Section 5: Wadestown Road Section 3	Separated cycleway	On Wadestown Road the corridor is a bus route, and the remaining carriageway is less than the minimum traffic lane width in <i>Transitional Cycleways Design Standards Report</i> 2023. Therefore the provision of physical separators has been discounted. This is because, while buses are currently navigating traffic lanes significantly narrower than the minimum requirement, it is acknowledged that parking provision on this corridor is often intermittent which provides passing opportunities that would not be available if separators were installed. This section includes both Wadestown Road and Blackbridge Road. As Blackbridge Road is not a bus route short listed options have considered separated cycleways for the Blackbridge Road part of the partice.

3.3 Updates following stakeholder review of draft MCA

The draft MCA was issued for review on 20 March 2023. Council arranged reviews by various internal and external stakeholders. A range of feedback was received, and this is reflected in the following updates:

- An additional option added for Wadestown Road Section 1 (refer Section 4.2) with a short section of one way traffic lane
- Clarification to Wadestown Village (Section 4.4) that indented parking bay outside 100-104 Wadestown Road is retained in all options
- Addition of supplementary design considerations to various sections

² As described in Section 4.4 of the WCC Parking Policy 2020

4. MCA Outcomes

A summary of the assessment for each route is provided below. For a detailed breakdown refer to the scoring tables attached in the respective appendices.

The shortlisted options assessed are only those that fit within the existing kerb to kerb width of each road section and generally meet the design guidance as outlined in *WCC Transitional Programme Design Standards Report* – *Quick Build Walk, Bike and Bus Improvements 2023.* Specific pinch points such as pedestrian crossings, kerb buildouts, right turn bays and vehicle tracking will be addressed during detailed design with specific treatments that continues the preferred concept design option but may require applying absolute minimums (for instance the cycle lane width could be reduced for a short distance, bollards stopped, or a short section of parking could be removed).

Other improvements such as pedestrian crossings, kerb ramps, extent of no-stopping markings, bus stop locations including rationalisation, areas for street furniture/facilities, connection with parks and streams and priority parking generally equally apply across all of the concept options. These will therefore be included in the detailed designs for comment.

4.1 Park Street

Park Street is currently a two-way road with parking and bus stops on both sides. The speed limit is 50km/h and there are no cycling provisions currently. The southern end of Park Street connects to the Thorndon Connections cycleway project (currently in public engagement) which is proposing separated cycleways in each direction towards the city centre.



Figure 2 Existing layout of Park Street

Key corridor information is included in Appendix A. Highlights for this section include;

- The carriageway width varies from 13.2m towards the southern end and 10.3m towards the northern end
- Five-day average daily traffic is approximately 8,600 vehicles
- Average gradient is 7% uphill towards Wadestown
- Three car parks are located on the eastern side of the road and four car parks are located on the western side. The car parks are in the Thorndon Coupon Parking Zone, the details of which are recorded in Appendix A.
- Parking on the eastern side of the road is restricted by a clearway during the morning peak (Monday to Friday, 7am to 9am)
- Two bus stops are located in this section, one towards Wadestown (no. 5115), and one towards the city (no. 4115).

	Option 1	Option 2
Description	Remove parking on one side, separated cycleway towards Crofton Downs, sharrows towards city	Remove parking both sides, cycle facilities in both directions
Streetmix section	Option 1 View 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Option 2
Key differentiating factors	Protected facility for cyclists travelling towards Wadestown, shared facility for cyclists travelling towards city reducing cyclist LOS and uptake. Some impact on parking - removal of 4 spaces.	Protected facility for cyclists travelling in both directions. Removal of all (7) car parks.
Weighted score	0.88	1.08
Rank	2	1

Option 2 received the highest score during the MCA. However, subject to further feedback the transitional cycleway team have indicated that Option 1 is likely to be the preferred option primarily due to route consistency (downhill cyclists will be already sharing the lane approaching this section).

During the design phase consideration should be given to:

- Providing a cycle lane on approach to the traffic signals
- Retaining two traffic lanes on approach to the traffic signals

4.2 Wadestown Road Section 1

Wadestown Road is currently a two-lane road with parking permitted intermittently and a winding alignment. This road connects to Wadestown Shops and has a speed limit of 50 km/h. Buses do not travel on this corridor and there is currently no provision for cycling.



Figure 3 Existing layout Wadestown Road Section 1

Key corridor information is included in Appendix A. Highlights for this section include;

- Average carriageway width is 6.0 to 7.0m
- Five-day average daily traffic is approximately 1,900 vehicles (2014)
- Typical gradient approximately 8% (up to 12% in some locations) uphill towards Wadestown
- Parking is intermittent on both sides of the road. There is also a 90-degree parking bay set back from the traffic lanes at the footpath connection to Newman Terrace

	Option 1	Option 2
Description	Remove all car parks south of Sefton Street, speed limit reduced to 30km/h, narrow cycle lane towards Crofton Downs south of Sefton Street then sharrows, sharrows towards city	As per Option 1 but includes converting small section of Wadestown Road to one way. Between the 90 degree parking bay and 3 Wadestown Road, the uphill traffic lane would be removed
Streetmix section	Option 1	Streetmix section as per Option 1 for majority of the section. Ability to install separated cycleway for uphill (and potentially downhill) cyclists in one way section between 3 Wadestown Road and the 90 degree parking bay.
Details	Parking removed between 95-107 Grant Road. All on street parking on Wadestown Road removed except 90 degree parking bay.	Parking removed between 95-107 Grant Road. All on street parking on Wadestown Road removed except 90 degree parking bay.
	Towards Crofton Downs:	Towards Crofton Downs:
	- Separated cycleway linking Park Street and Wadestown Road	- Separated cycleway linking Park Street and Wadestown Road
	- Narrow cycle lane on Wadestown Road between Grant Road and Sefton Street.	- Narrow cycle lane on Wadestown Road between Grant Road and 90 degree parking bay
	- Sharrows between Sefton Street and Lennel Road.	- Separated cycleway between 90 degree parking
	Towards city:	bay and 3 Wadestown Road (through one-way section).

	Shared traffic lane. Expected low speed differential due to downhill gradient.	- Sharrows between 3 Wadestown Road and Lennel Road.	
		Towards city:	
		Shared traffic lane. Expected low speed differential due to downhill gradient.	
		Option for small section of separated facility through one-way section	
Key differentiating factors	Slow speed environment and increased cycle awareness improve safety for cyclists Some removal of residential parking, with potential to reallocate under utilised parking bay to cater for residents	Slow speed environment and increased cycle awareness improve safety for cyclists. The short one- way section further reduces vehicle conflict and the likelihood of a cycle crash.	
		Some removal of residential parking, with potential to reallocate under utilised parking bay to cater for residents	
		Poor alignment and ability to deliver quickly as extensive consultation and assessment of the wider network effects would be required for such a restriction.	
Weighted Score	0.53	0.53	
Rank	1	1	

Both options scored equally in the MCA, with the additional cyclist safety in Option 2 largely offset by the increased consultation expected and reduced ability to deliver quickly.

Subject to further feedback the transitional cycleway team have indicated that Option 1 is likely to be the preferred option as:

- Option 1 is more consistent with the other treatments along the route
- Option 2 would result in significant adverse effects for one property due to detour requirements
- One way section in Option 2 may create issues with network resilience (Wadestown Road would no longer provide an alternate route if Lennel Road was closed³)

During the design phase consideration should be given to:

- Mitigating loss of on-street parking spaces by changing the parking restrictions on the underutilised 90-degree car parks located approximately halfway up the corridor.
- Consider whether a neighbourhood greenway with sharrows in both directions would be appropriate between Phillip Myers Park and Wadestown Village where traffic volumes are low, and the road is relatively flat.

³ For instance by a large slip as occurred in July 2022, refer https://www.nzherald.co.nz/nz/large-slips-block-roads-in-and-out-of-two-wellington-suburbs/YW7GPL3PGZBBBOBKTWPYI464UA/

4.3 Lennel Road, Barnard Street, Grosvenor Terrace, Grant Road

This section is a two-lane road with intermittent parking available on both sides. The speed limit is 50km/h and the corridor has no dedicated cycling facilities.



Figure 4 Existing layout of Grant Road (RHS toward City)

Key corridor information is included in Appendix A. Highlights for this section of the road include;

- Average carriageway width is 5.8m to 9.7m
- Five-day average daily traffic is approximately 6,750 vehicles
- Average gradient is 7% uphill towards Wadestown
- Fourteen bus stops are located in this section, eight towards the city (no. 4116, 4117, 4118, 4119, 4120, 4121, 4122) and six towards Wadestown (no. 5116, 5117, 5118, 5120, 5121)
- Parking is intermittent on both sides of the road.

	Option 1		
Description	Sharrows on citybound lane (downhill), no other changes		
Streetmix section	Option 1 Standard Standard Standard Standard Towards Crotion Downs		
Key differentiating factors	Cyclists share road space with vehicles towards city – expected low speed differential due to downhill gradient.		
	No facility for cyclists travelling uphill towards Crofton Downs.		

An MCA was not conducted for this section as only one option was identified. It is noted no shortlisted options were identified to provide for uphill cyclists travelling between Park Street and Wadestown given the narrow carriageway width, winding alignment, and requirement to accommodate buses. It is expected that Wadestown Road Section 1 will need to provide for these cyclists.

4.4 Wadestown Village (Wadestown Road Section 2)

This section is a two-lane road that runs through the Wadestown village. The speed limit is 30km/h and there is parking available on both sides of the road, with varying time restrictions. There are no cycling provisions currently.



Figure 5 Existing layout of Wadestown Village

Key corridor information is included in Appendix A. Highlights for this section include;

- Average carriageway width is 9m west of Weld Street and 7.2m east of Weld Street (excluding the indented parking bay)
- Five-day average daily traffic is approximately 3,300 vehicles
- Average gradient is 7% downhill towards Crofton Downs
- High on-street parking demand servicing businesses in the village who typically do not have off-street parking.
- Approximately 17 kerbside and five indented parking spaces adjacent to traffic lane towards city and approximately 10 kerbside parking spaces adjacent to traffic lane towards Crofton Downs. Parking restrictions listed in Appendix A.
- Three bus stops are located in this section, one towards the city (no. 4123), and two towards Crofton Downs (no. 5124 and 5123)

	Option 1	Option 2	Option 3
Description	Shared lane in both directions with traffic calming	Traffic calming to reduce vehicle speeds. Parking removed citybound to Weld Street (8 spaces), with a buffered cycle facility, then east of Weld Street a shared traffic lane toward city, shared lane towards Crofton Downs	All citybound parking removed except indented bay at 100-104 Wadestown Road, separated cycle facility towards city, shared lane towards Crofton Downs and traffic calming
Streetmix section	Option 1 - West of Weld St West of Weld St West of Weld St West of Weld St West of Status West of Status	Option 2 - West of West St West	Cipition 3 - Vient of Weld 31

Key differentiating factors	Citybound cyclists required to share road space with reduced safety and uptake due to steep uphill gradient and high speed differential. Cyclists required to share the road space towards Crofton Downs (downhill). Low speed differential between vehicles and cyclists in shared lane reduces conflict for confident riders No improvement for cyclists over existing conditions No impact on parking	Partial facility for citybound (uphill) cyclists then cyclists required to share the road. Steep uphill gradient results in high speed differential for shared lane section reducing safety and uptake. Cyclists required to share the road space towards Crofton Downs (downhill). Low speed differential between vehicles and cyclists in shared lane reduces conflict for confident riders Citybound parking removed West of Weld Street	Continuous facility for citybound (uphill) cyclists improving safety. Cyclists required to share the road space towards Crofton Downs (downhill). Low speed differential between vehicles and cyclists in shared lane reduces conflict for confident riders Extensive loss of high priority short stay parking. All citybound parking removed except for 5 indented spaces outside 100-104 Wadestown Road
Weighted score	0.30	0.43	0.80
Rank	3	2	1

Option 3 received the highest score during the MCA. However, subject to further feedback the transitional cycleway team have indicated that Option 2 is likely to be the preferred option as it retains high value parking and is consistent with the approach taken through village shopping areas on other transitional projects.

During the design phase consideration should be given to:

- Traffic calming including raised platforms for the two existing zebra crossings
- Adding formal cycle parking at the Wadestown shops.

4.5 Wadestown Road Section 3 and Blackbridge Road

This section runs from the Wadestown shops through to Churchill Drive. Parking is available on both sides of the road in varying locations throughout this section. There is currently no cycling provision. Bus routes use Wadestown Road but not Blackbridge Road.



Figure 6 Existing layout of Wadestown Road Section 2 and Blackbridge Road

Key corridor information is included in Appendix A. Highlights for this section of the road include;

- Average carriageway width is 7.2m
- Five-day average daily traffic is approximately 3,300 vehicles
- Typical gradient is 10% downhill towards Crofton Downs, although there is a flat section with a small uphill either side of Lytton Street in the central part of this section
- On street parking demand assumed to be generally resident parking
- Three bus stops are located in this section, one towards city (no. 4125), and one towards Crofton Downs (no. 5125).

	Option 1	Option 2
Description	All parking removed. Sharrows towards Crofton Downs. Separated/Buffered cycle facility towards city (varies for Blackbridge Road and Wadestown Road respectively).	Parking removed one side; intermittent parking retained other side. Sharrows towards Crofton Downs. Narrow cycle lane towards city
Streetmix section	Option 1 - Wadestown Road	Option 2

Key differentiating factors	Protected or buffered facility for cyclists travelling towards the city (uphill). Shared facility for cyclists travelling towards Crofton Downs. Expected low speed differential due to downhill gradient Significant impact on parking.	Cycle lane for cyclists travelling towards the city (uphill). Shared facility for cyclists travelling towards Crofton Downs. Expected low speed differential due to downhill gradient Some parking retained
Weighted score	0.53	0.45
Rank	1	2

Option 1 received the highest score during the MCA and, subject to further feedback, is likely to be the preferred option to progress to design.

During the design phase consideration should be given to:

- Reversing the priority at the Blackbridge and Wadestown Road intersection
- WCC have advised a lack of cycle parking and amenity features at Otari Wilton Bush.

4.6 Churchill Drive Section 1

Churchill Drive is a two-lane road with a 50km/h speed limit. There is no parking available on either side of the road. There is currently no provision for cyclists on the corridor.



Figure 7 Existing layout of Churchill Drive Section 1

Key corridor information is included in Appendix A. Highlights for this section include;

- Section length is approximately 660 m (between Chartwell Drive and Blackbridge Road).
- Five-day average daily traffic is approximately 10,200 vehicles
- Average carriageway width including bus stop is 8.0 m
- Average gradient is 7% uphill towards Crofton Downs
- Adjacent land uses include Bowen Hospital and Bupa Crofton Downs Retirement Village
- One bus stop is in this section (outside Bowen Hospital no. 4137).

	Option 1
Description	Separated cycleway/cycle lane towards Crofton Downs (uphill) and shared traffic/bike lane towards city (sharrows)
Streetmix section	Option 1
Key differentiating factors	Protected facility for cyclists travelling uphill towards Crofton Downs. Shared facility for cyclists travelling towards city. Expected low speed differential due to downhill gradient No parking demand observed.

An MCA was not conducted for this section as only one option was identified.

During the design phase consideration should be given to:

• Facility for cyclists turning right into Bowen Hospital

4.7 Churchill Drive Section 2

This section of Churchill Drive is a two-lane road with a flush median. The section has a speed limit of 50km/h and runs between Chartwell Drive and the Crofton Downs Railway Station. There is no parking available on either side of the road. There is currently no cycling provision provided.



Figure 8 Existing layout of Churchill Drive (LHS toward Crofton Downs)

Key corridor information is included in Appendix A. Highlights for this section include;

- Average carriageway width is 9.2m
- Five-day average daily traffic is approximately 10,200 vehicles
- Average gradient is 4% downhill towards Crofton Downs Railway Station
- Two bus stops in this section, one towards Crofton Downs railway station (no. 5138) and one towards city (no. 4138).

	Option 1
Description	Speed reduction to 30km/h. Remove flush median. Sharrows towards Crofton Downs. Separated cycleway towards city
Streetmix section	Option 1 Coption 2 Coption 2 C
Key differentiating factors	Protected facility for cyclists travelling uphill towards city. Shared facility for cyclists travelling towards Crofton Downs. Expected low speed differential due to downhill gradient

An MCA was not conducted for this section as only one option was identified.

During the design phase consideration should be given to:

- Include reduction of speed to 30kmh
- Investigate improvements to the very wide accessway at the site of the old petrol station (new land use yet to be confirmed) and Countdown supermarket.
- Reviewing access for vehicles and cyclists into the Countdown and Mitre 10
- Raising existing zebra crossings
- Consider if the median refuges should be kept for the two pedestrian crossings

5. Conclusions

This Multi Criteria Analysis (MCA) has been undertaken to identify recommended options for each section of the Wadestown Connections Transitional Cycleway project.

To assist with scoring the route was broken into seven sections to reflect the differences in road layout, gradient, character, and design.

A number of constraints such as road width and traffic volumes limited the feasibility of long list options and assisted in eliminating options to arrive at the short list.

Each shortlisted option was scored in accordance with the MCA criteria and scoring scale.

Pending discussion with wider stakeholders, the potential preferred options for Wadestown Connections cycleway are:

- For cyclists travelling towards Crofton Downs
 - Separated cycleway on Park Street (uphill)
 - Narrow cycle lane and 30km/h speed limit on Grant Road and Wadestown Road (uphill)
 - o Shared lane through Wadestown Village (downhill)
 - o Shared lane down Wadestown Road and Blackbridge Road (downhill)
 - o Separated cycleway / buffered cycle lane on Churchill Drive Section 1 (uphill)
 - Shared lane down Churchill Drive Section 2 (downhill)
- For cyclists travelling towards the city
 - Separated cycleway on Churchill Drive Section 2 (uphill)
 - Shared lane down Churchill Drive Section 1 (downhill)
 - Separated cycleway / buffered cycleway on Blackbridge Road and Wadestown Road (uphill)
 - Cycle lane up to Weld Street, and then shared lane with traffic calming measures in front of the shops through Wadestown Village (uphill)
 - Shared lane down Lennel Road, Barnard Street, Grosvenor Terrace, Grant Road (alternate route down Wadestown Road is also a shared lane) (downhill)
 - Shared lane on Park Street (downhill)

Appendix A – Existing Corridor Data

- Key corridor information
- Parking observations from site visit
- Route and section layout

Table 2 Key corridor information

	Source	Park Street	Wadestown Road Section 1	Lennel Road, Barnard Street, Grosvenor Terrace, Grant Road
Approximate section length (m)	Measured on Google Maps	130 m	1400 m	1570 m
ONF category	Megamaps RtZ edition 1	Urban Connector	Urban Connector	Urban Connector
WCC Road Hierarchy	WCC District Plan Map 33	Principal	Collector	Collector
Mean operating speed	WCC Traffic counts	35 km/hr	40 km/hr (2014)	40 km/hr
Safe and Appropriate Speed	Megamaps RtZ edition 1	40 km/hr	30 km/hr	40 km/hr
WCC Posted Speed	WCC Website	50 km/hr	50 km/hr	50 km/hr
Recorded 85th Percentile speed (Away from city (north/east bound))	WCC Traffic counts	44 km/hr	44 km/hr	48 km/hr
Recorded 85th Percentile speed (towards city(south/west bound)	WCC Traffic counts	39 km/hr	45 km/hr	47 km/hr
Average gradient (towards Crofton Downs)	On-site measurements	7-8% uphill	9-12% uphill	7-8% uphill
Peak hour bus frequency (in each direction)	Metlink	5 (#14)	0	5 (#14)
Average carriageway width	Measured on aerial photo	10.3-13.2m	6.0-7.0m	7.4m
Two-way traffic volume (five- day ADT)	WCC Traffic counts	8,606	1,893 (2014)	6,752
Heavy vehicle proportion	WCC Traffic counts	4.0%	0.9%	4.0%
Cycleway network classification	Paneke Põneke - Bike Network Plan 2022	WCC Secondary	WCC Secondary	WCC Secondary

	Wadestown Village	Wadestown Road Section 2 and Blackbridge Road	Churchill Drive Section 1	Churchill Drive Section 2
Approximate section length (m)	260 m	860 m	660 m	390 m
ONF category	Activity Streets	Urban Connector	Urban Connector	Activity Street
WCC Road Hierarchy	Collector	Collector	Principal	Principal
Mean operating speed	Not available	40 km/hr	35 km/hr	45 km/hr
Safe and Appropriate Speed	30 km/hr	40 km/hr	40 km/hr	30 km/hr
WCC Posted Speed	30 km/hr	50 km/hr	50 km/hr	50 km/hr
Recorded 85th Percentile speed (Away from city (north/east bound))	No data available	46 km/hr	35 km/hr	50 km/hr
Recorded 85th Percentile speed (towards city(south/west bound)	No data available	52 km/hr	35 km/hr	50 km/hr
Average gradient (towards Crofton Downs)	7% downhill	Typical gradient is 10% downhill, although there is a flat section with a small uphill either side of Lytton Street in the central part of this section	7% uphill	4% downhill
Peak hour bus frequency (in each direction)	5 (#14)	5 (#14 - Wadestown Road)	1 (#22)	1 (#22)
Average carriageway width	8.0m	6.9m	8.0m	8.1m
Two-way traffic volume (five- day ADT)	6,752 (estimated from Lennel Road)	3,334	9,631	10,170
Heavy vehicle proportion	4.0% (estimated from Lennel Road)	3.4%	4.0%	3.6%
Cycleway network classification	WCC Secondary	WCC Secondary	WCC Secondary	WCC Secondary

Parking observations from site visit

General Comments

• Wadestown Road Section 1 has under-utilised 90 degree parking

Quantities and restrictions of parking (Section 1 and 3 only)

Section	Location	Parking lane direction, towards	Nu mber of Spaces	Conditions
Section 1: Park Street	Full Section (clearway during morning peak period)	City	3	Thorndon Coupon Parking ZoneResidents Parking Permits for the Thorndon
Section 1: Park Street		Crofton Downs		Parking zone
	Full Section		4	Coupons required 9-6pm Mon-Fri
				 P120 6pm-9pm Mon-Fri and 8am-9pm on weekends
Section 3: Wadestown Village	Between Pitt Street to eastern pedestrian crossing	City	8	P15
Section 3: Wadestown Village	Between pedestrian crossings	City	5 (indented)	P60
Section 3: Wadestown Village	Weld St – 114 Wadestown Road	City	4	P60 8am-6pm Mon-Fri
Section 3: Wadestown Village	114 Wadestown Road – Hanover Street	City	2	P120 Mon-Fri
Section 3: Wadestown Village	Hanover Street – Leslie Street	City	3	P15 8-10am Sundays
Section 3 Wadestown Village	Marquis Street – western pedestrian crossing	Crofton Downs	2	P120
Section 3 Wadestown Village	Marquis Street – western pedestrian crossing	Crofton Downs	8	Unrestricted

Appendix B – MCA Tables

- MCA criteria and scoring application provided by WCC
- Scoring scale
- Table B1: Section 1, Park St, MCA
- Table B2: Section 2, Wadestown Road Section 1 (including part of Grant Road also), MCA
- Table B3: Section 4, Wadestown Village, MCA
- Table B4: Section 5, Wadestown Road Section 2 and Blackbridge Road, MCA

				Example of s	scoring application	
Consideration	-3	-2	-1	0	1	2
Improved safety for people cycling and using micro-mobility devices	Reduction in SSA of 21 or more	Reduction in SSA of 11-20	Reduction in SSA of 4-10	No change	Improvement in SSA of 4-10	Improvement in SSA of 11-20
Improved convenience for people cycling and using micro-mobility devices	Less efficient route, more difficult to pass slow cyclists, significantly slower and less comfortable.			No change		
Improved safety for people walking and using mobility devices	Reduction in SSA of 21 or more	Reduction in SSA of 10-20	Reduction in SSA of 4-10	No change	Improvement in SSA of 4-10	Improvement in SSA of 11-20
Improved convenience for people walking and using mobility devices	Removal of existing pedestrian path, removal of pedestrian crossing facility.		Bus stop bypasses impact footpath width at some locations	No change		
Improved travel time and experience of PT compared with private vehicles	Traffic capacity increased relative to PT			No change or equal reduction in travel time		Bus priority at intersections, reduced traffic capacity
Retain high priority parking for businesses and residents where essential (e.g., mobility parking)	Significant loss of high priority parking.		Loss of low-priority parking only	No change	Not used	Not used
Provide alternatives to lost carparks (ie, provide car share, etc)	Not used	Not used	Not used	No change	Some loss of parking and ability to convert 1-10 parks from low-priority to high- priority parking.	Some loss of parking and ability to convert 10+ parks from low-priority to high- priority parking
Alignment with other planned works in the road corridor	Cycle priority will have to be removed to allow implementation of other planned works along the corridor with no ability to retain continous cycle provision during construction	Closure of part-time transport facilities during construction (e.g. peak hour bus lanes)		No change		
Ability to deliver quickly and with less disruption compared with a typical transport project.	Significant signal changes and carparking changes, etc. Specialist materials requiring long lead times. Enabling works such as removing kerbs.		Some changes to signals/carparks/kerbs that will slow delivery.	Typical project duration / disruption for a road-space reallocation project.	Only very minor changes to carparks, kerbs or other existing road layout, which are not considered significant.	
Improved urban amenity and expression of Mana Whenua values	Reduction of available pedestrian space and footpaths, no use of sur- plus car-parks, increase of private vehicle use by increasing enabling structures (e.g. more car parks) and de-creasing public open spaces, increase of carbon footprint by not challenging "status quo", missed opportunities of community engagement and therefore loss of spatial quality	Identifying spatial opportunities (e.g. sur-plus car parks) but not following up on actions,	Identifying spatial opportunities (e.g. sur-plus car parks) but poorly executed spatial arrangement (e.g. min space requirement and accessibility standards) based on national and local govt regulations	No change	Find suitable spaces and improve their function/use and overall access, assess all existing functions, start creating an urban spatial network (e.g. key areas - what is missing, what is required for that space based on demographic and private/public use)	Link spatial elements, have a suite developed that identifies opportunities, Use of GNP (green network plan) and other strategic plans/policies (e.g. WSD, Wellington Design Manual)

 3

 Improvement in SSA of 21 or more

 Easier, faster, smoother, more enjoyable.

 Improvement in SSA of 21 or more

 Wider footpaths, increased pedestrian crossing priority and reduced delays at crossings

 Bus stop rationalisation, bus priority at intersections, reduced traffic capacity

Not used

No loss of parking and ability to convert low-priority parking to high priority parking.

Changes will make it easier to implement other planned works along the corridor whilst maintaining good LOS for sustainable modes

Quick and easy delivery with minimal disruption. No changes to carparks, traffic signals or bus stops. No major work.

Clear functional hierarchy of transportation modes (e.g. footpath, cycle lane, vehicle lane) and their intented use, widen footpaths/pedestrian areas to increase public open space, connect/link public spaces to create POI's, identify and use sur-plus vehicle areas to increase amenity spaces, provide exterior furniture elements for space enhancement, increase use of green elements (e.g. trees) with suitable foliage (provide shadow and cooling in summer, keep warmth during winter), assign clear functions to spaces, locate space enhancements in close proximity to public amenities (e.g. toilets, bus-stops), look at principles of the 15min city, look at principles of "livability"

Scoring scale

Score	Benefits/disbenefits
3	Significantly achieves
2	Moderately achieves
1	Slightly achieves
0	Neutral
-1	Slightly reduces
-2	Moderately reduces
-3	Significantly reduces

Objective weightings

Criteria	Consideration	Weight	Weight
1. Improve safety, accessiblity, attractiveness and convenience to	Improved safety	20.0%	400/
encourage people to choose cycling and micro-mobility devices	Improved convenience, comfort and attractiveness	20.0%	40%
2. Improve safety, accessiblity, attractiveness and convenience to	Improved safety	10.0%	15%
encourage people to choose walking and mobility devices	Improved convenience	5.0%	1076
3. Improve bus experience and journey time compared to private vehicles	Improved bus speed and reliablity	15.0%	15%
4. Retain high priorty parking and	Retain high priority parking (e.g., short term and loading followed by residential).	7.5%	15%
provide transport alternatives	Mitigate parking impact (e.g., car share options, etc)	7.5%	1376
5. Enables benefits to be delivered	Alignment with other planned works in the road corridor	5.0%	10%
quickly with minimal disruption	Reduced civil works, signals changes and other major changes	5.0%	10%
6. Improve the place amenity in the area			
accessibility, composition and activation	amenity	5.0%	5%
achieved.	Total weights	100%	100%
		100%	10070

Park Street

Criteria	Consideration	Option 1	Option 2	Co
	Description	Remove parking on one side, separated cycleway towards Crofton Downs, sharrows towards city	Remove parking both sides, separated cycleway towards Crofton Downs, buffered cycle lane towards city	
	Dimensions 13.2m near Tinakori Intersection narrowing to 10.3m near Lennel 13.2m section: Parking (2.5m), Traffic Iane (4.9m), Traffic Iane (3.5m), Parking (2.3m) 10.3m section: Parking (2.0m), Traffic Iane (3.0m), Traffic Iane (3.3m), Parking (2.0m)	13.2m section: Separated cycleway (2.5m), traffic lane (5.0m), shared traffic/bike lane (3.5m), parking (2.2m) 10.3m section: Separated cycleway (2.0m), traffic lane (3.0m), shared traffic/bike lane (3.3m), parking (2.0m)	13.2m section: Separated cycleway (2.2m), traffic lane (4.5m), traffic lane (4.5m), separated cycleway (2.0m) 10.3m section: Separated cycleway (2.0m), traffic lane (3.2m), traffic lane (3.2m), separated cycleway (1.9m)	
 Improve safety, accessibility and convenience for people cycling and using micro-mobility devices 	Improved safety for people cycling and using micro-mobility devices	3	3	Refe bett
	Improved convenience for people cycling and using micro-mobility devices	1	2	Opt
2. Improve safety, accessibility and convenience for	Improved safety for people walking and using mobility devices	0	0	Refe
people walking and using mobility devices	Improved convenience for people walking and using mobility devices	0	0	No
3. Improve bus speed and reliability	Improved travel time of PT compared with private vehicles	0	0	No
4. Retain high priorty parking and mitigate parking	Retain high priority parking for businesses and residents where essential (e.g., mobility parking)	-1	-1	Parl qua
impact	Mitigate parking impact (ie, provide car share, etc)	0	0	Parl
5. Enables benefits to be delivered quickly with	Alignment with other planned works in the road corridor, and/or reduced disruption during construction.	0	0	
minimal disruption	Ability to deliver quickly, or sequenced for elements to deliver early. Reduced civil works, signals changes and other major works.	2	2	Min
6. Improve the place amenity in the area	Improved urban amenity	1	1	Clea
	Weighted Score	0.88	1.08	
	Rank	2	1	

mments

fer SSA. Existing infrastructure very poor thus 'do anything' significantly tter than 'do nothing'. However Option 2 is more Safe System Aligned

tion two provides facilities on both sides of the road

fer SSA

change to footpath width or crossing facilities

change to public transport

rked spaces are part of the Thorndon Coupon Parking Zone. Very low antity

rking removal unlikely to be able to be offset by side street provision

nor reduction in car parks. Otherwise quick and easy delivery

ear space provided for each mode

Wadestown Road Section 1	Wadestown Road Section 1 (including part of Grant Road al	so)		
Criteria	Consideration	Option 1	_Option 2	Comments
	Description	Remove all parking south of 1 Wadestown Road. Speed Limit reduced to 30km/h. Narrow cycle lane towards Crofton Downs (south of 1 Wadestown Road), sharrows towards Crofton Downs (north of 1 Wadestown Road) and sharrows towards City	As per Option 1, but includes converting small section of Wadestown Road to one way. Between the 90 degree parking bay and 3 Wadestown Road, the uphill traffic lane would be removed	
	Dimensions Generally: Traffic lane (3-3.5m), Traffic lane (3-3.5m) Where parking provided: Two-way traffic lane (5.0m), Parking (2.0m)	South of Sefton Street: Narrow cycle lane (1- 1.5m), traffic lane (2.5-2.7m), shared lane (2.5 2.7m) North of Sefton Street: Shared lane (2.5m), shared lane (2.5m), parking (2m)	Grant Street to Parking Bay: Narrow cycle lane (1-1.5m), traffic lane (2.5-2.7m), shared lane (2.5-2.7m) Between the 90 degree parking bay and 3 Wadestown Road: Separated Cycle Facility (2.1m), traffic lane (3m), Separated Cycle Facility (1.9m) West of 3 Wadestown Road: Shared lane (2.5m), shared lane (2.5m), parking (2m)	
 Improve safety, accessibility and convenience for people cycling and using micro-mobility devices 	Improved safety for people cycling and using micro-mobility devices	2	3	Exposure scores are not redu Wadestown Road are alread situation are 1. Safety benefi a small section are minimal b tips the MCA score into a 3.
	Improved convenience for people cycling and using micro-mobility devices	1	1	
2. Improve safety, accessibility and convenience for	Improved safety for people walking and using mobility devices	0	0	
people walking and using mobility devices	Improved convenience for people walking and using mobility devices	0	0	
3. Improve bus speed and reliability	Improved travel time of PT compared with private vehicles	0	0	
4. Retain high priorty parking and mitigate parking	Retain high priority parking for businesses and residents where essential (e.g., mobility parking)	-2	-2	Some removal of residential
impact	Mitigate parking impact (ie, provide car share, etc)	1	1	Potential to reallocate under
5. Enables benefits to be delivered quickly with	Alignment with other planned works in the road corridor, and/or reduced disruption during construction.	0	-1	Option 2 scores -1 as it is inclusive with treatments proposed al
minimal disruption	Ability to deliver quickly, or sequenced for elements to deliver early. Reduced civil works, signals changes and other major works.		-3	Option 2 scores very poorly a and extensive assessment of
6. Improve the place amenity in the area	Improved urban amenity	0	0	Both options propose substa traffic lanes
	Weighted Score	0.53	0.53	
	Rank	1	2	



al of residential parking

reallocate under utilised parking bay to cater for residents

pres -1 as it is inconsistent treatment within the section and ents proposed along remainder of the route

pres very poorly as extensive consultation would be required ve assessment of the wider network effects s propose substandard cycle lanes (very narrow) and narrow

Wadestown Village	Wadestown Village (Wadestown Road Section 2, Pitt Street to	Hanover Street)			
Criteria	Consideration	Option 1	Option 2	Option 3	Co
Description		Shared lane in both directions with traffic calming	Traffic calming to reduce vehicle speeds. Parking removed citybound to café/zebra crossing (8 spaces), buffered cycle lane then shared traffic lane toward city, shared lane towards Crofton Downs	All parking removed citybound, separated cycleway towards city, shared lane towards Crofton Downs and traffic calming	
	Dimensions from left to right towards the Crofton Downs West of Weld Street: Parking (2.0m), two-way traffic lane (5.0m), Parking (2.0m) East of Weld Street: Two-way traffic lane (5.2m) Parking (2.0m)	No change to lane allocation	<u>West of Weld Street:</u> Parking (2.0m), shared traffic lane (2.6m), traffic lane (2.6m), buffered cycle lane (1.8m) <u>East of Weld Street:</u> Shared traffic lane (2.6m), shared traffic lane (2.6m), parking (2m)	<u>West of Weld Street:</u> Parking (2.0m), Shared traffic lane (2.6m), traffic lane (2.6m), buffered cycle lane (1.8m) <u>East of Weld Street:</u> Shared traffic lane (2.7m), traffic lane (2.7m), buffered cycle lane (1.8m)	
1 Improve safety, accessibility and convenience for	Improved safety for people cycling and using micro-mobility devices	0	1	2	Se
people cycling and using micro-mobility devices	Improved convenience for people cycling and using micro-mobility devices	0	1	1	Up
2. Improve safety, accessiblity and convenience for people walking and using mobility devices	Improved safety for people walking and using mobility devices	1	1	1	See
	Improved convenience for people walking and using mobility devices	1	1	1	All thu
3. Improve bus speed and reliabilty	Improved travel time of PT compared with private vehicles	0	0	1	In Op mu pa:
4. Retain high priorty parking and mitigate parking	Retain high priority parking for businesses and residents where essential (e.g., mobility parking)	0	-1	-2	Mo the
impact	Mitigate parking impact (ie, provide car share, etc)	0	0	0	Pa
5. Enables benefits to be delivered quickly with minimal disruption	Alignment with other planned works in the road corridor, and/or reduced disruption during construction.	0	0	1	Op up 3 is are
	Ability to deliver quickly, or sequenced for elements to deliver early. Reduced civil works, signals changes and other major works.	3	-1	-1	Pa ins
6. Improve the place amenity in the area	Improved urban amenity	0	0	1	Op
	Weighted Score	0.30	0.43	0.80	
	Rank	3	2	1	

Long list commentary

Parking removal considered despite town centre context due to significant gradient & speed differential

omments

e SSA

whill cyclists have partial (option 2) or consistent (option 3) facility

options improve convenience as existing zebra crossing will be raised, us step free crossing options.

Option 1, buses stuck behind cyclists as they negotiate steep gradient. ption 2, buses are able to pass slow cyclists for most of the section but ust wait behind cyclists as the negotiate uphill grade for some. Buses can ass at all times in Option 3.

ost high priority short stay town centre parking is lost in Option 3 (only e five indented carparks remain). Parking partially retained in Option 2.

rking removal unlikely to be able to be offset by side street provision

ption 2 is inconsistent with other sections in the corridor as it requires ohill cyclists to share the lane despite likely high speed differential. Option is consistent with proposals for other sections, and for other routes in the ea

rking removal likely to be contentious. Otherwise no major work and stallation should be quick and easy with minimal disruption. otion 3 clear space for each mode towards city.

Wadestown Road Section 3 and Blackbridge Road

Criteria	Consideration	Option 1	Option 2	Commer
	Description	Remove all parking in both sections Blackbridge Road: Separated cycleway towards city (uphill) Wadestown Road: Buffered cycle lane towards city (generally uphill), shared traffic/bike lane towards Crofton Downs (sharrows).	Parking removed on one side, intermittent parking retained other side. Narrow cycle lane towards city (generally uphill), shared traffic/bike lane towards Crofton Downs (sharrows).	
	Dimensions (from left to right towards Crofton Downs 7.2m total) Two-way traffic lane (5.2m), Parking (2.0m)	Blackbridge Road: Separated cycleway (2.0m), two way traffic lane (5.2m) Wadestown Road: Buffered cycle lane (1.8m), two way traffic lane (5.4m)	Narrow cycle lane (1.2m), traffic lane (3.0m), shared lane (3.0m)	
1. Improve safety, accessiblity and convenience for	Improved safety for people cycling and using micro-mobility devices	2	1	Refer to SS
people cycling and using micro-mobility devices	Improved convenience for people cycling and using micro-mobility devices	1	1	Option 2 p
2. Improve safety, accessiblity and convenience for	Improved safety for people walking and using mobility devices	0	0	Refer to SS
people walking and using mobility devices	Improved convenience for people walking and using mobility devices	0	0	No change
3. Improve bus speed and reliability	Improved travel time of PT compared with private vehicles	1	1	All options likely to be and retent
4. Retain high priorty parking and mitigate parking	Retain high priority parking for businesses and residents where essential (e.g., mobility parking)	-3	-2	Parking is p
impact	Mitigate parking impact (ie, provide car share, etc)	0	0	Parking rei streets
5. Enables benefits to be delivered quickly with	Alignment with other planned works in the road corridor, and/or reduced disruption during construction.	1	1	Treatment treatment
minimal disruption	Ability to deliver quickly, or sequenced for elements to deliver early. Reduced civil works, signals changes and other major works.	-1	-1	Significant should be
6. Improve the place amenity in the area	Improved urban amenity	0	1	Both optio constraine
	Weighted Score	0.53	0.45	
	Rank	1	2	

SA

provides facility with sub-optimal widths

e to footpath width or crossing facilities

s improve ability for buses to pass slow uphill cyclists. Option 2 e more constrained/lesser ability to pass due to reduced width

tion of parking

predominantly resident parking.

moval unlikely to be able to be accommodated on surrounding

t is consistent with other sections in route and proposed t for adjacent routes.

t parking removal. Otherwise no major work and installation quick and easy with minimal disruption. ons contribute to urban spatial framework, Option 1 has

ed traffic lane widths

Appendix C – Plans

- Park Street (Tinakori Road to Grant Road)
- Wadestown Road Section 1 (Park Street to Lennel Road, including part of Grant Road also)
- Lennel Road, Barnard Street, Grosvenor Terrace, Grant Road (Park Street to Wadestown Road)
- Wadestown Village (Wadestown Road Section 2, Pitt Street to Hanover Street)
- Wadestown Road Section 3 and Blackbridge Road (Hanover Street to Churchill Drive)
- Churchill Drive Section 1 (Wadestown Road to Chartwell Drive)
- Churchill Drive Section 2 (Chartwell Drive to Crofton Downs Railway Station)

















Absolutely Positively Wellington City Council

Me Heke Ki Pōneke

https://wellington.govt.nz/parking-roads-andtransport/transport/cycling