

Wharf Street Safety Improvements

We've been looking at safety improvements on Wharf Street between Birch and Kitchener Streets. This is a high risk corridor, with 13 crashes recorded over the last five years. Please have a look at the proposed improvements below and let us know what you think.

We plan to stage the improvements, starting with Roberts Street and moving on to Kitchener and Birch Streets.

Roberts Street intersection

The main safety issue here is that vehicles travelling south on Wharf Street conflict with traffic from the Jetty Street overbridge turning left into Roberts Street. Turning right out of Roberts Street also creates safety concerns.

Our proposal is to allow vehicles coming out of Roberts Street to turn left only. Vehicles coming down off the Jetty Street overbridge and south along Wharf Street will not be able to turn into Roberts Street. Vehicles heading north will still be able to turn right into Roberts Street.

To prevent drivers merging immediately after the overbridge, the two southbound Wharf Street lanes will be delineated between the overbridge and Roberts Street.

The changes will be made with kerbing, signs and markings.

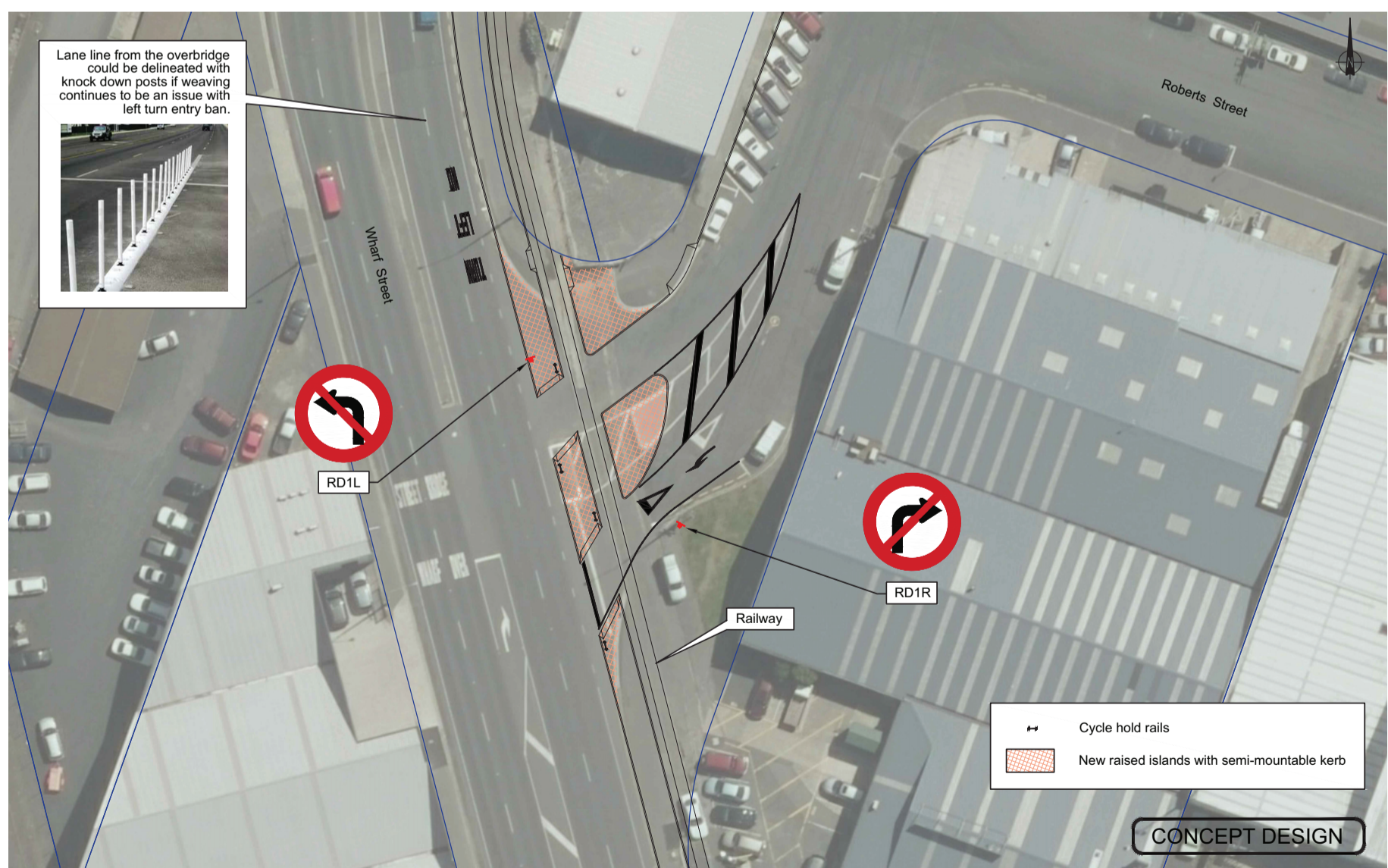


FIGURE 1: Proposed safety improvements at Roberts Street

Kitchener Street intersection

We recommend installing traffic lights at the intersection of Kitchener and Wharf Street so traffic can get into and out of the harbour area safely and efficiently.

The lights will be coordinated with the nearby intersection of Wharf and Strathallan Streets.

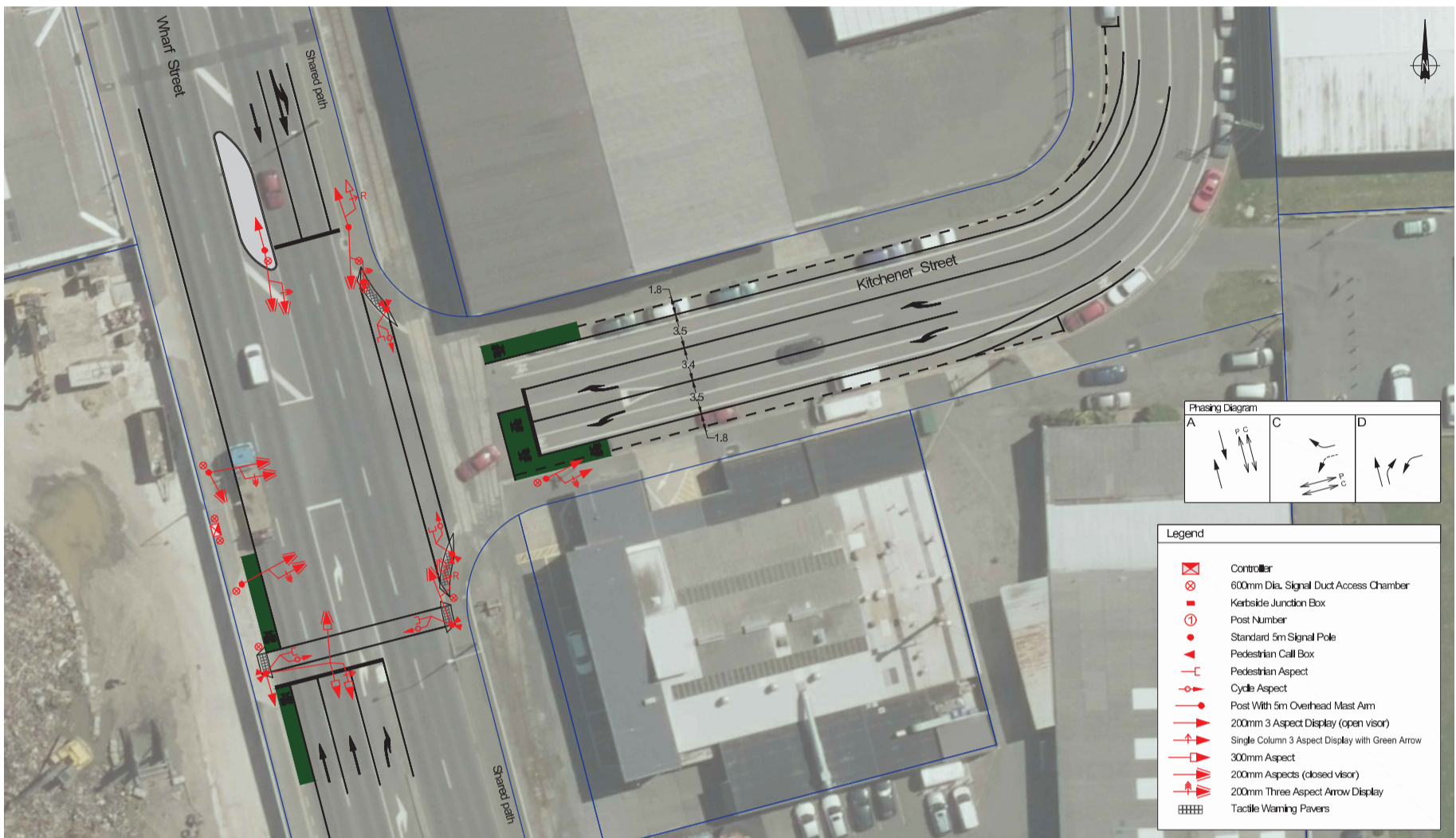


FIGURE 2: Proposed safety improvements at Kitchener Street

Birch Street intersection

The layout of the median space at the Wharf and Birch Street intersection gives vehicles little space to queue. There is no right-turn lane (into Birch Street) on Wharf Street, and the overbridge obstructs visibility.

We propose stopping traffic from turning right from Wharf Street into Birch Street and improving the right turn out of Birch Street within the limited median space.

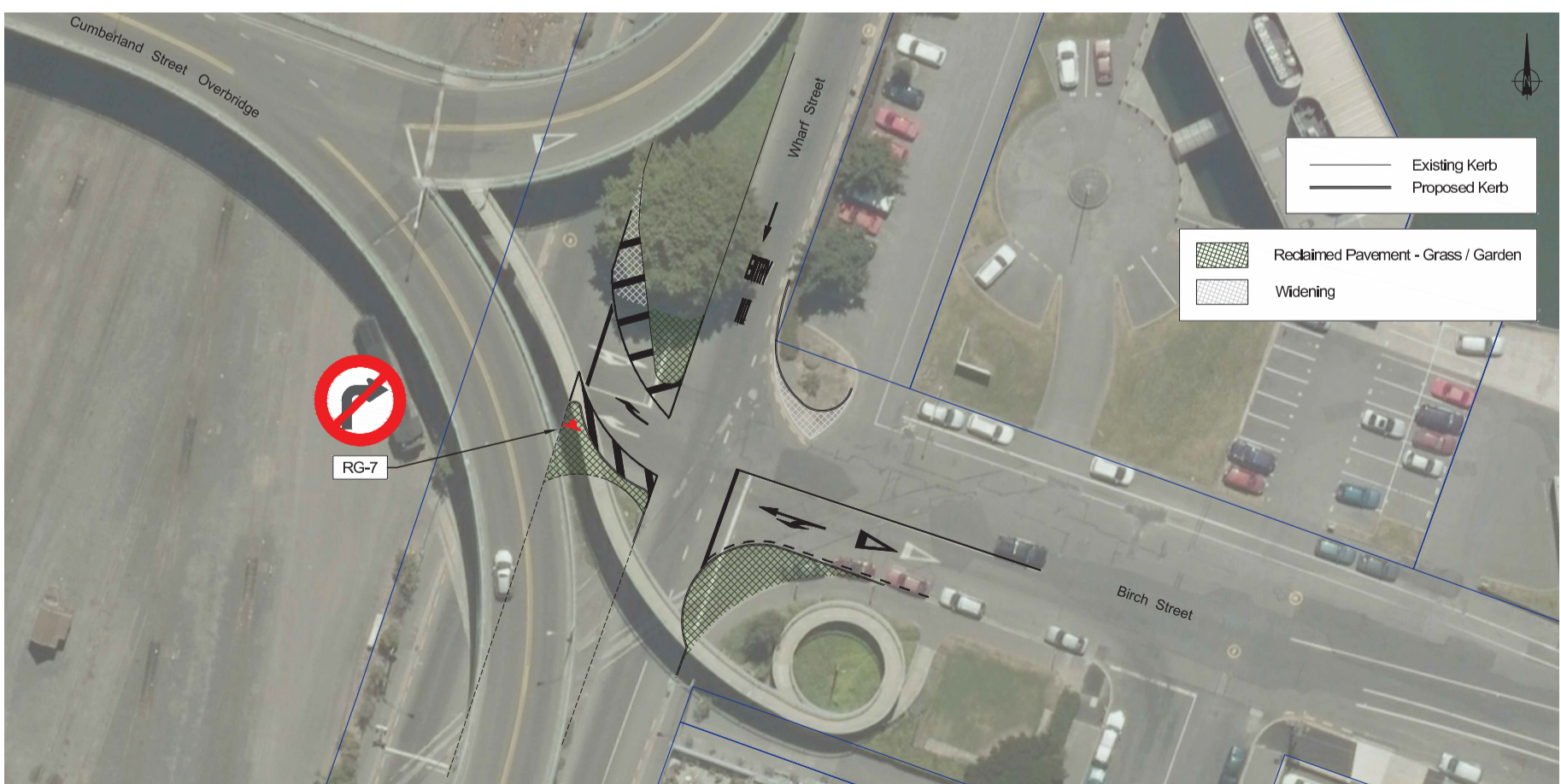
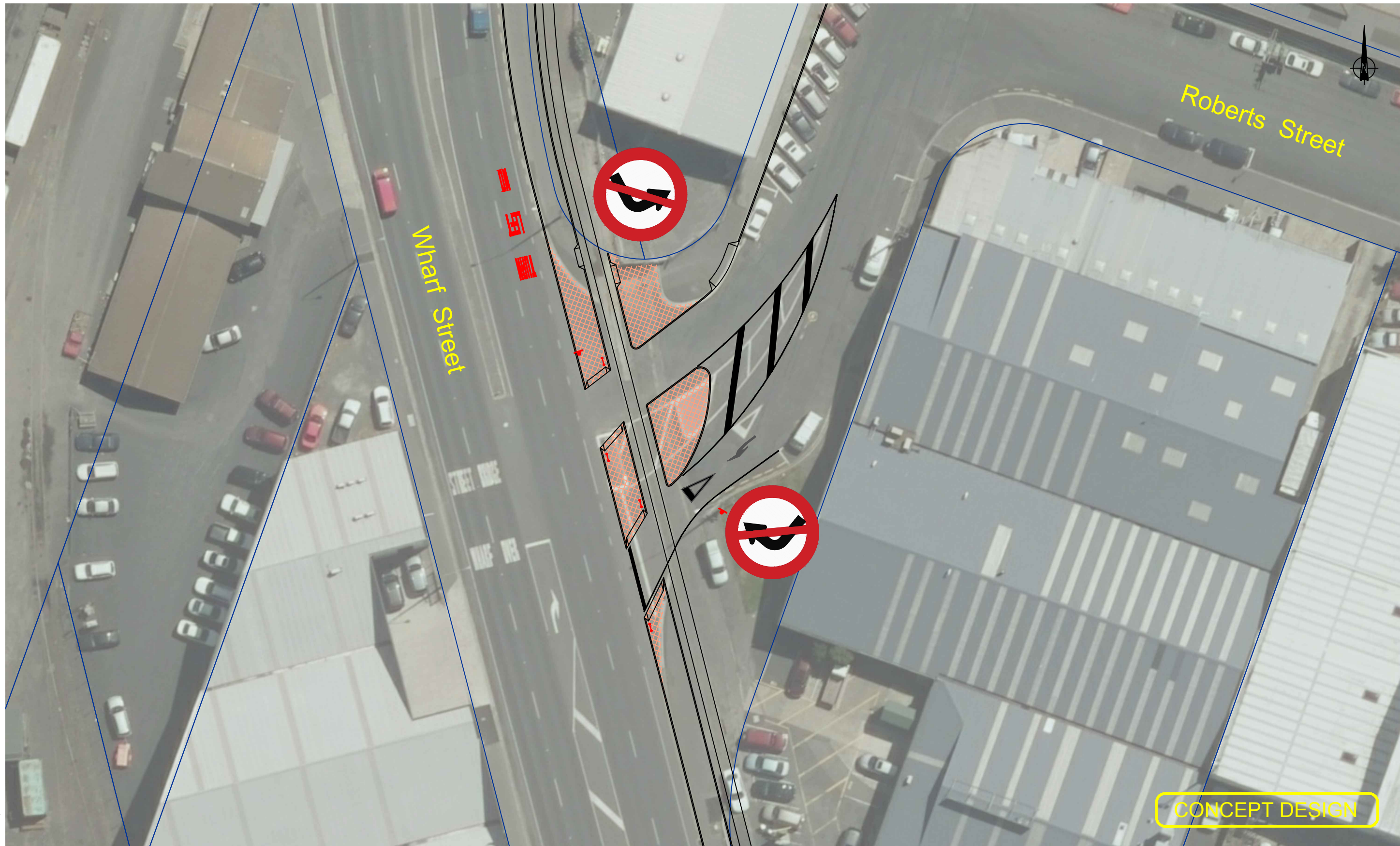


FIGURE 3: Proposed safety improvements at Birch Street



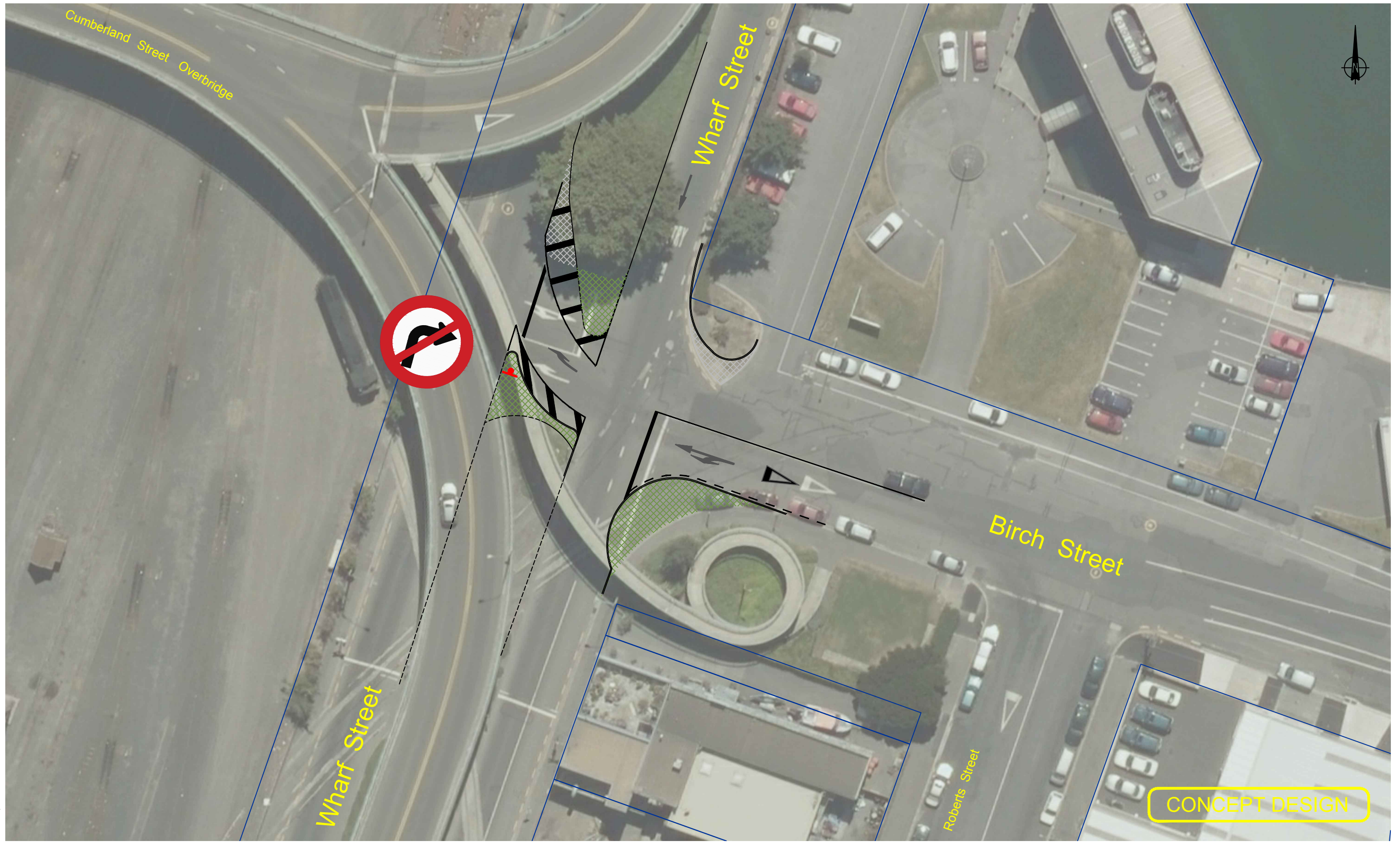
Wednesday, 19 April 2017 0 20mm

REVISION	DATE	DESCRIPTION

DCC: Wharf Street Corridor Improvements
 Wharf Street / Roberts Street Intersection

DRAWN: J.Taylor
 DATE: 29.11.16
 SCALE: 1:400@A3
 DWG NO:13767-T1C - EDIT FOR FLYER





Wednesday, 19 April 2017 0 120mm

CONCEPT DESIGN

REVISION	DATE	DESCRIPTION

DCC: Wharf Street Corridor Improvements
 Wharf Street / Birch Street Intersection

DRAWN: J.Taylor
 DATE: 20.06.16
 SCALE: 1:400@A3
 DWG NO:13767-T1C - EDIT FOR FLYER



**MINUTES OF A MEETING OF THE
HARBOURSIDE PRECINCT WORKING GROUP
HELD IN THE MAYORS LOUNGE, SECOND
FLOOR, CIVIC CENTRE ON THURSDAY 27
MARCH 2014 COMMENCING AT 3.30 PM**

PRESENT: Tony Avery (Chairman – GM Infrastructure and Networks), Sarah Connolly (Transportation Planner Manager), Lisa Clifford (Senior Transportation Planner), Sophie Barker (EDU – Tourism), Carolyn McLean (Otago Real Estate), Dave Watson (Dive Otago), Hudson Biggs (AA), Robert Thompson (SPOKES), Phil Marsh (NZ Fire Service), and Andrew Fergus (GHD Consultants)

1. APOLOGIES

Apologies were received from Phil McDouall (NZ Police), Kevin McAlevey (Kiwirail) and Alan Gould has resigned from the Working Group.

2. ADDITION TO THE AGENDA

Lisa Clifford requested to add an action to review a sampling of the traffic data (via video) of the intersection of Roberts & Wharf Streets, showing traffic movements of concern and interaction between vehicles and cyclists.

3. MATTERS ARISING FROM LAST MEETING

Staff discussed that at the last meeting we had a Powerpoint presentation on traffic data at the Wharf Street intersections of Roberts, Kitchener and Birch. We also discussed the different cycle route options (as per the map provided). As a group, we had dismissed Route 6 (pink-west side of Wharf Street) and Route 5 (yellow- Kitchener to Birch- with existing cycle lanes) and decided to pursue three options for future investigation, being Route 1 (black), Route 3 (green) and Route 2 (red) which required an easement through private land between Roberts Street and Wharf Street. With Route 2 (red), there were two options for possible easements to be investigated (ie. through land leased by Allied Pickford, just north of Dive Otago and the old bridge abutment).

There was a difference of opinion over whether we agreed to pursue the Roberts Street (variation of red) or Buller Street (blue), with staff thinking this had been discounted due to poor crossing location at Birch/Wharf but some of the working group members thinking it was to be developed. Staff explained that three options were to be presented to the working group, but only days prior the third option (red) was discounted as the landowner was not interested in pursuing this option. **Staff** explained that an easement through the old bridge abutment was not owned by DCC and was not an option due to the elevation differences at that point between Roberts Street and Wharf Street. As for the Roberts Street option (variation of red), staff had dismissed pursuing further this option due to parking impacts but agreed this information had not been

presented to the working group in the same manner by the consultant as the other two options.

Further discussion occurred on the options and additional traffic information requested.

Dave Watson wanted to know the difference of travel time for the various routes and why the Kitchener/Birch route (yellow) had been discounted? It was explained that the Kitchener /Birch route already had cycle lanes but was not used much as a commuter route(more recreational and on weekends) so felt the desire lines were not there and Council would not want to build a facility that did not attract commuters. All the routes had be cycled and travel times had been recorded.

Action: Ron Minnema to present his findings on cycle travel times for the various routes.

Hudson Biggs also requested that the Traffic Engineer Ron Minnema was to provide some additional traffic data to the working group. The request included the following:

- The impact of extra vehicles at the Kitchener Street and Birch Street intersections as a result of turning movement restrictions at Robert Street:
- Traffic statistics at Kitchener, Roberts and Wharf and impacts of restrictions.
- traffic volumes on Wharf Street and within the Harbourside catchment
- traffic movements (including cyclists and pedestrians) at the Roberts/Wharf intersection, including reaction times for crossing Wharf Street

Action: Ron Minnema to provide traffic volumes of Wharf Street

4. PRESENTATION OF OPTONS

Sarah Connolly proposed we let Andrew Fergus, consultant with GHD, present his investigations into the two options.

Andrew Fergus presented his memorandum on the two options, Routes 1 (black) and Route 3 (green), along with concept plans for each option. Both options restrict movements at the Roberts/Wharf intersection, banning right turns out of Roberts Street and left turns into Roberts Street.

Hudson Biggs brought up concerns over the sight distances at the existing cycle crossing in Wharf Street.

Action: Andrew Fergus to check stopping distance requirement for sight distance at existing cycle crossing point.

Dave Watson voiced concerns over Option 1 as the crossing point impacts on Dive Otago's driveway (at corner).

Action: Andrew Fergus to look at possible options to maintain Dive Otago access to driveway.

There was further discussion on the Roberts Street option. **Robert Thompson** stated this was not a preferable route because Roberts Street

has a hill so there would always see people cycling on Wharf Street. But if we block/restrict access at either end of Wharf Street to cyclists, the other options look to all be about the length (with the exception of Kitchener/Birch – yellow).

Some of the working party are opposed to losing the left turn into Roberts Street.

There was a discussion on why we were sending cyclists past the proposed hotel site? Staff noted that the hotel is not a “done deal”, we are using an existing cycle path. If there is to be a hotel, they will need to address traffic on Wharf Street, access issues and crossing a cycle path. The working group agreed to the explanation.

There was some discussion on using the waterfront instead of Kitchener Street just north of Water Cooled. **Andrew Fergus** stated this was investigated but a pinch point was found that discounted this option. **Dave Watson** asked about a bidirectional SBF along Kitchener to Birch. **Robert Thompson** said we already have cycle lanes on this route and still not used by commuters as it is less direct and a longer route.

Dave Watson requested we install a physical barrier on the off ramp so vehicles are unable to cut across left lane and access Roberts Street.

Question for businesses in area will likely be:

- the loss of parking with the Buller Street or Roberts Street options (assuming the parking goes because we put in a separate bike facility (SBF) as opposed to cycle lanes)
- the loss of access into/out of Roberts Street.

Action: Andrew to prepare a third option – Roberts Street (variation of red) for the next working group meeting.

6. **NEXT STEPS**

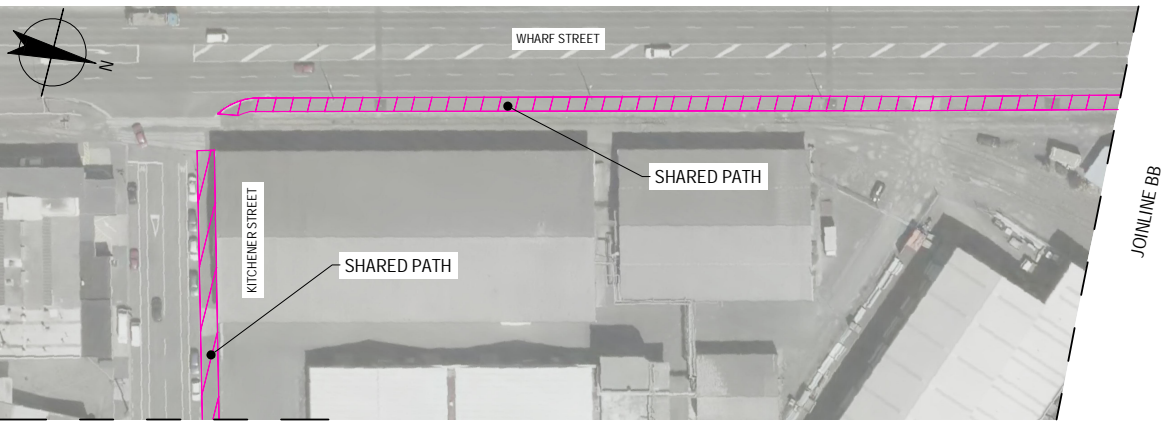
It is proposed that the next steps would be:

1. Minutes of the 27 March meeting and additional traffic data circulated by Friday 4 April;
2. GHD to prepare **two more options: Roberts Street (variation of red) and Buller Street (blue)** by 7/8 April;
3. Working Group to meet on Thursday, 10 April to agree to the options for consultation;
4. Prepare materials for consultation (11-16 April)
5. Consultation to run from 16 April to 5 May (two weeks)
6. Analyse submissions 6-10 May
7. Meeting of the working group 10 May to decide on a preferred option
8. Report to ELT 20 May;
9. Report to ISCOM 3 June.

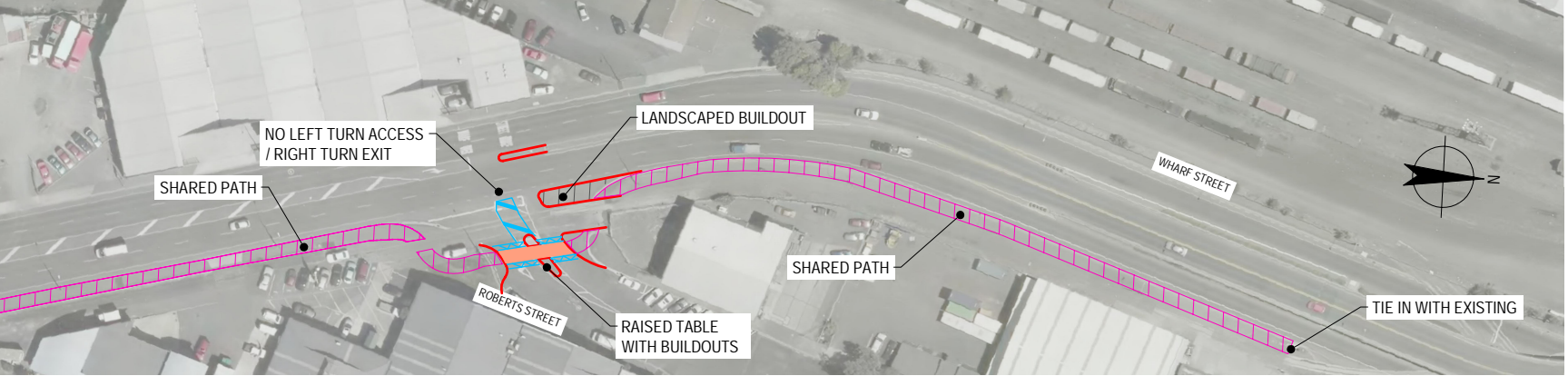
.....
CHAIR



PLAN
SCALE 1:500 (A1), 1:1000 (A3)



PLAN
SCALE 1:500 (A1), 1:1000 (A3)



PLAN
SCALE 1:500 (A1), 1:1000 (A3)

KEY	
	COLOURED PAVEMENT MARKING
	SEPARATE BICYCLE FACILITY
	SHARED BICYCLE / PEDESTRIAN PATH
	LINE MARKING
	NO STOPPING RESTRICTION
	PHYSICAL SEPARATION KERB
	KERB FACE
	KERB BACK
	TREE
	LOW LEVEL VEGETATION / PLANTING

NOTES	
1.	PHYSICAL SEPARATORS POSITIONS ARE APPROXIMATE ONLY. THESE WILL BE CONSTRUCTED AT LOCATIONS TO ALLOW FOR EXISTING VEHICLE ACCESS
2.	COPENHAGEN STYLE PATHS ARE TO BE CONSIDERED ALONG SBF ROUTES

PRELIMINARY

D	DESCRIPTION	APP'D	DATE
rev	description	app'd	date

DCC - SOUTH DUNEDIN CYCLE NETWORK
SCHEME DESIGN PLANS
ROUTE 10 - HARBOURSIDE
OPTION 1 - WHARF STREET



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scale 1:500 for A1 job no. 51-31829
date APR 2014 rev no. D

approved (PD) SK1100



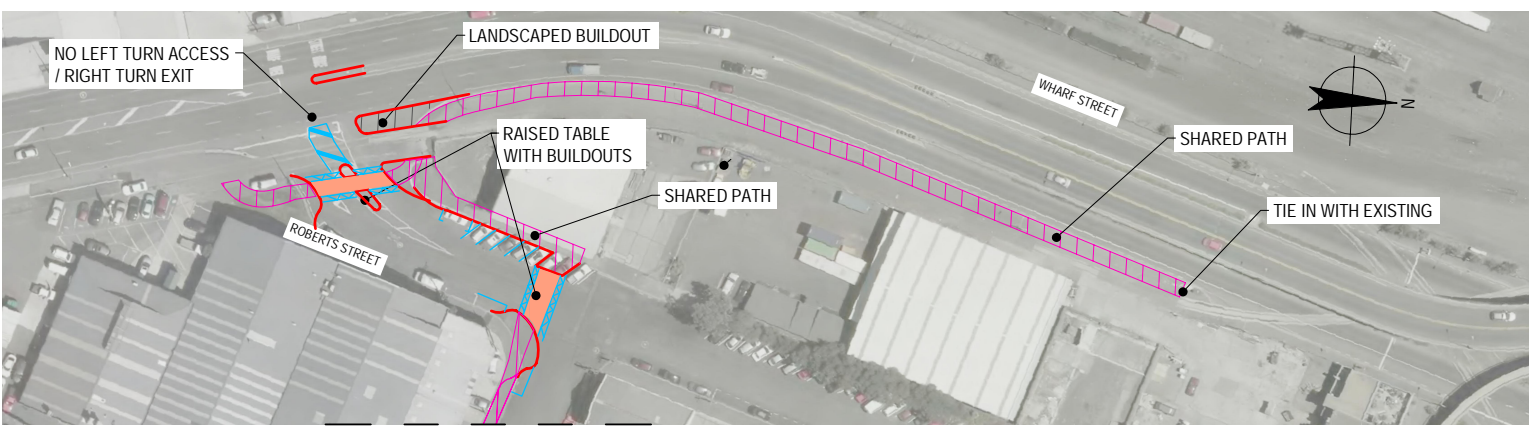
PLAN
SCALE 1:500 (A1), 1:1000 (A3)

KEY	
	COLOURED PAVEMENT MARKING
	SEPARATE BICYCLE FACILITY
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PLAN
SCALE 1:500 (A1), 1:1000 (A3)



PLAN
SCALE 1:500 (A1), 1:1000 (A3)

PRELIMINARY

D	WORKSHOP UPDATE		
rev	description	app'd	date

DCC - SOUTH DUNEDIN CYCLE NETWORK
SCHEME DESIGN PLANS
ROUTE 10 - HARBOURSIDE
OPTION 2 - KITCHENER / FRENCH



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scale | 1:500 for A1 job no. | 51-31829
date | APR 2014 rev no. | D

approved (PD) SK1101

TO: Lisa Clifford, Senior Transportation Planner

FROM: Ron Minnema, Senior Traffic Engineer






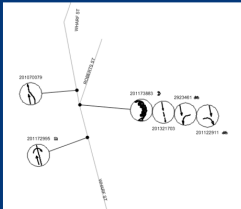
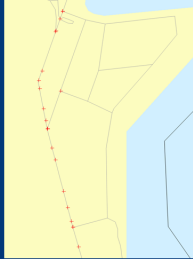
DATE: 22 April 2014

SUBJECT: **ROBERTS STREET/ WHARF STREET INTERSECTION**

1. As requested I attach some data to assist in the decision making process re options for the above intersection to address cycle safety.

Crash Data

2. Summary information follows as per the following power point slides

<p>Wharf Street – Crash Analysis 2009-2013</p>  <table border="1"> <thead> <tr> <th>Year</th> <th>9</th> <th>10</th> <th>11</th> <th>12</th> <th>13</th> </tr> </thead> <tbody> <tr> <td>Crashes</td> <td>7</td> <td>4</td> <td>6</td> <td>3</td> <td>3</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • 2 serious • 7 Minor crashes (2 cyclists) • 14 Non Injury crashes(1 cyclist) • 19 crashes (8am – 6pm) <p>www.dunedin.govt.nz</p>	Year	9	10	11	12	13	Crashes	7	4	6	3	3	<p>Wharf Street – Crash Analysis 2009-2013</p> <ul style="list-style-type: none">  • 7 rear end crashes  • 6 turning type/ merging crashes  • 3 Loss of control type crashes  • 3 Lane change type crashes <p>www.dunedin.govt.nz</p>
Year	9	10	11	12	13								
Crashes	7	4	6	3	3								
<p>Wharf Street – Crash Analysis Roberts Street</p>  <ul style="list-style-type: none"> • 6 crashes • 2 involving cyclists • Minor injuries • 8.15am & 4.35pm • Cyclist's complain – Motorist's not look <p>www.dunedin.govt.nz</p>	<p>Wharf Street – Crash Analysis Miscellaneous</p>  <ul style="list-style-type: none"> • 1 additional crash at Roberts/ French St • 2003 – 2008 - 2 Minor crashes (cyclist) <p>www.dunedin.govt.nz</p>												

Traffic Volumes – Wharf Street

3. Traffic volume and speed data recorded in March 2013 on Wharf Street immediately south of Roberts Street is listed in Table 1.

Table 1: Wharf Street Traffic Survey Summary

Description	Northbound Traffic	Southbound Traffic	Combined
5 Day ADT	14292	12686	26,978
Peak Hourly Volume (8-9am)	1745	670	2,415 (193)
Peak Hourly Volume (4-5pm)	1124	1455	2,579 (167)
Peak Hourly Volume (5-6pm)	1025	1599	2,624 (168)
Speed at which 50% of motorists travel below (km/h)	54.6	57.6	-
Speed at which 85% of motorists travel below (km/h)	60.5	63.0	-

Notes

- a. () no of vehicles where the gap between successive vehicles is greater than 8 seconds as discussed below in gap acceptance.
- b. The two lanes are nearing capacity based on 900 vehicles per lane for:
 - Northbound traffic between 8 and 9am.
 - Southbound traffic between 5 and 6pm.

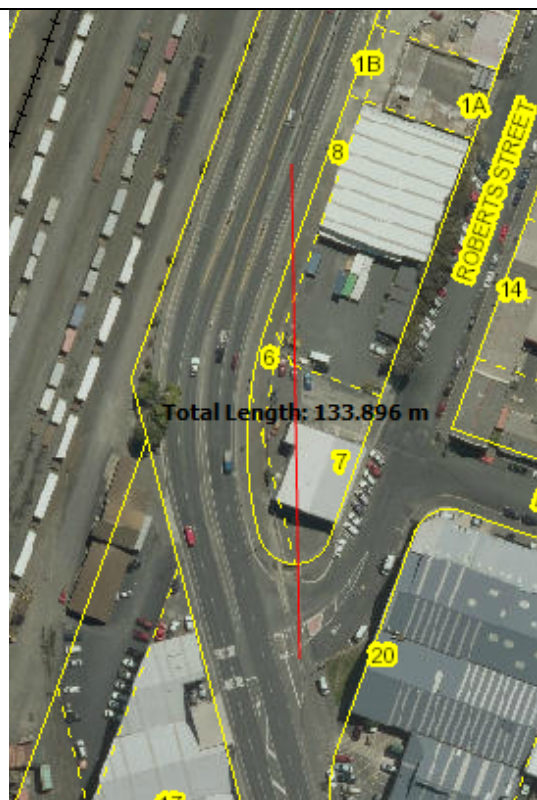
Gap Acceptance

- 4. The minimum gap sight distance (MGSD) for the driver of an entering vehicle to see a vehicle in a conflicting traffic stream in order to safely commence the desired movement is approximately 133 metres. This is based on a right turning vehicle selection an 8 second gap between vehicles to turn right into a 4 lane road where the 85th percentile approach speed of southbound vehicles is approximately 60 km/h.

Comments

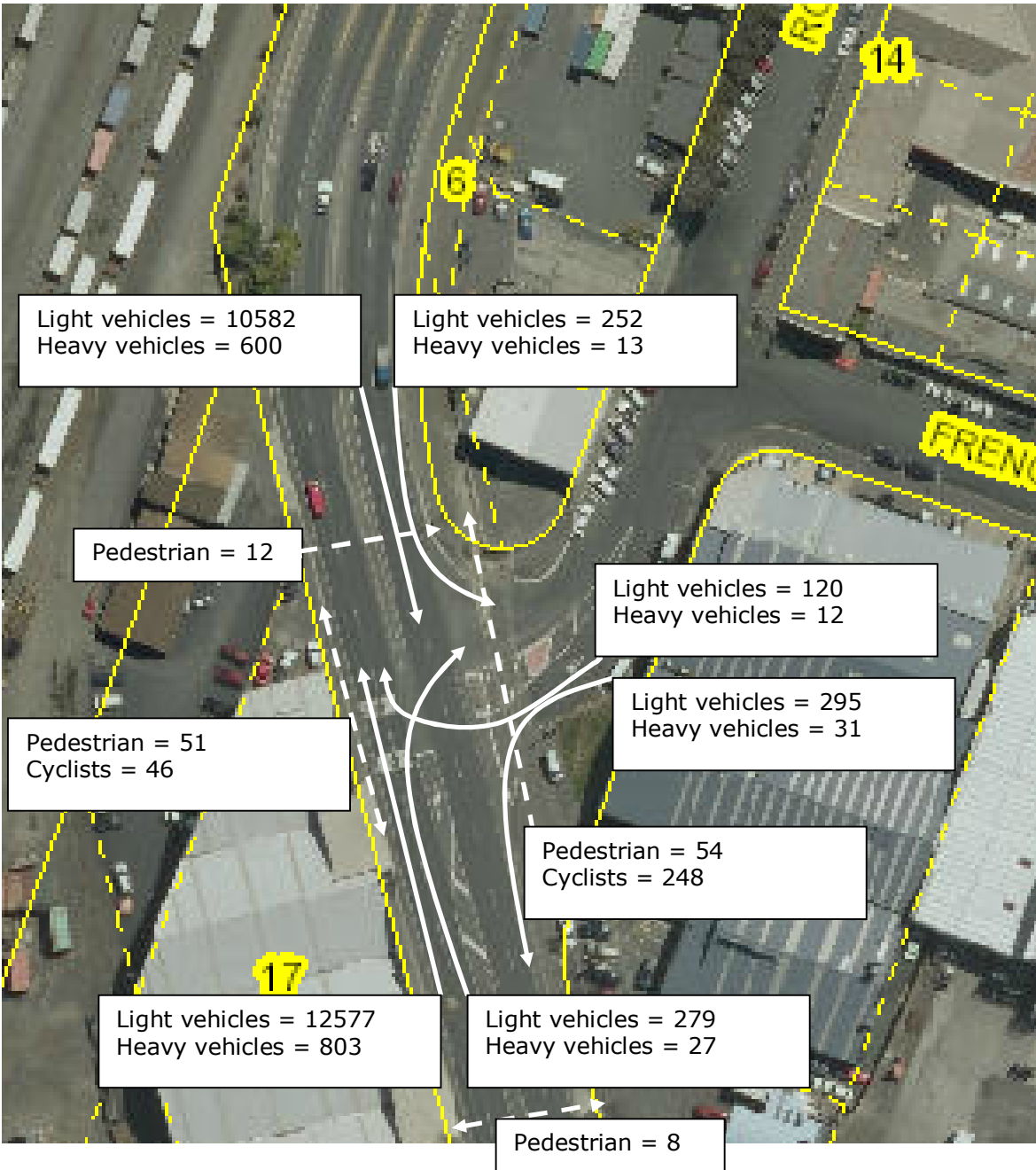
The diagram on the right shows MGSD cannot be achieved.

During peak hourly flows it is very difficult to find a gap between vehicles in excess of 8 seconds in which motorist's (excluding the restricted sight distance) can safely undertake a right turn.



Total Movement Survey

5. The results of a total movement survey undertaken on 13/3/2014 between 7am and 6.45pm are illustrated below.









The classification of vehicles turning into and out of Roberts Street is summarised in the following table.

Note that the:

- Total number of vehicles in Table 2 differs slightly from that shown in the above figure, i.e. 1029 (figure) versus 1047 (Table 2).
- Vehicles have been classified using the North American Classification Guide reflecting the software used to record the numbers and types of vehicles, i.e. Miovision.

Table 2: Roberts Street Classified Vehicle Counts

Classification	Nnumber of vehicles		Vehicle Classification	
	Northeastbound	Southwestbound	Class	Length (m)
Motor cycles	3	2		0.96 – 2.32
Cars	471	379		3.98 – 6.84
Light goods vehicles	54	51		3.98 – 6.84
Single unit trucks	42	31		6.17 – 10.50
Bus	0	2		9.51 – 13.69
Articulated trucks	2	10		9.51 – 23.65
Sub-total	572	475		
Total	1047			

Cycle Routes

6. A travel time survey undertaken cycle survey on Sunday 16 March 2014 yielded the following results, and as illustrated in Table 3.

Table 3: Cycle Route Travel Time Survey

No.	Route Description	Travel Time
1	Birch – Kitchener	3m 10s
2	Existing Route	1m 50s
3	Wharf Street – French Street – Kitchener	2m 30s
4	Wharf Street Kitchener Street slightly less than No. 3	-

7. Taking into account the key principles of cycling that include directness, safety, comfort, coherence and attractiveness it would appear to me that option 1 as proposed by Viastrada would provide the best LOS for cyclists on the proviso that the issues at the Wharf/ Roberts Street intersection can be addressed.



Traffic Volumes – Other

8. The volume of other streets in the harbourside area are as follows based on our Road Assessment and Maintenance Management (RAMM) inventory data.

Table 4: Average Daily Traffic (ADT) Summary

Street	ADT	Count Type	Date	Road Section
Birch	833	Count	2006	Buller – Kitchener
Buller	343	Count	2008	Birch – White
French	440	Count	2006	Buller - Kitchener
Roberts	1029	Count	13/3/2014	Wharf - French
Roberts	560	Count	2011	Birch - French
Kitchener	505	Count	2011	Birch to White
White	120	Estimate		-

Crash Migration

9. Banning the left turn in and the right turn out of Roberts Street will reduce the risk to cyclists and increase the likelihood of a crash at the adjacent Wharf/ Birch Street and Kitchener Roberts Street intersections slightly.

Wharf/ Birch Street intersection

10. Three crashes were reported that occurred within 50m of the intersection in the period 2009-2013 incl.
11. Two of the three crashes involved northbound traffic running into the rear end of another vehicle as they slowed for either a train or to turn right into Birch Street.
12. The remaining crash involved a vehicle hitting a parked vehicle in Birch Street
13. Birch Street has plenty of capacity and there is plenty of width (6m) on Wharf Street for southbound traffic to manoeuvre past left turning traffic.
14. What could be a concern is if large HCV's who turn right from Birch Street into Wharf Street could not be accommodated within the median clear of through traffic. This is no worse than the situation at Roberts Street, and would be mitigated by the improved site distance and reduced traffic volumes (two way) from 27,000 vpd (in Wharf Street immediately south of Roberts) to approximately 18,000 (in Wharf Street immediately south of Fryatt) meaning there would be more gaps in which to safely merge.

Wharf/ Kitchener intersection

15. Four crashes were reported that occurred within 50m of the intersection in the period 2009-2013 incl.
16. Two of the four crashes involved southbound traffic rear ending other traffic due to inattention.
17. One crash involved a cyclist colliding with a vehicle exiting a drive on the western side of Wharf Street.
18. The remaining crash involved a van southbound on Wharf Street colliding with a van turning right into Wharf Street.
19. Visibility to the north for right turning vehicles is well in excess of the available visibility at Roberts Street.
20. Additionally:
- if right turning vehicles were banned from turning into Roberts Street the main issue that would need to be assessed before a decision is made regarding the Wharf/ Roberts Street intersection is to ensure that the queue length in the right turn bay on Wharf Street does not intrude into the northbound through lane. The analysis would need to take into account:
 - current turning volumes
 - the number of right turning vehicles who would use this intersection if Roberts Street was reconfigured to prevent right turns
 - the type of vehicles undertaking the right turn

e. If queues do intrude into the through lane then the consequence will be nose to tail crashes.

21. The weave length of approximately 110m from the Wharf Street overbridge is very short and if the left turn is banned then safe mark posts or something similar should be installed to direct motorists past the intersection before they consider commencing their manouvre into the left lane prior to Kitchener Street some 285m away.

Ron Minnema
Senior Traffic Engineer



Memorandum

4 April 2014

To	Lisa Clifford		
Copy to			
From	Andrew Fergus	Tel	03 3780903
Subject	Harbourside Area - Existing Cycle Crossing Under Overbridge	Job no.	51/31829/

1 Introduction

This memo provides a summary of the existing crossing provisions under the Jetty Street Overbridge.

2 AUSTRROADS Guidelines

Crossing provisions for pedestrians and cyclists are set out in in Austroads:

- Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections, Section 3.3: Pedestrian Sight Distance Requirements.

Two measurements are required for crossings, defined as the:

- Approach Sight Distance (ASD); and
- Crossing Sight Distance (CSD).

ASD should be provided between approaching vehicles (1.1 m eye height) and the surface of the roadway (0 m) at the crossing.

Crossing Sight Distance (CSD) should be provided between approaching vehicles (1.1 m eye height) and a pedestrian waiting to cross the road.

Figure 1 below shows these graphically.

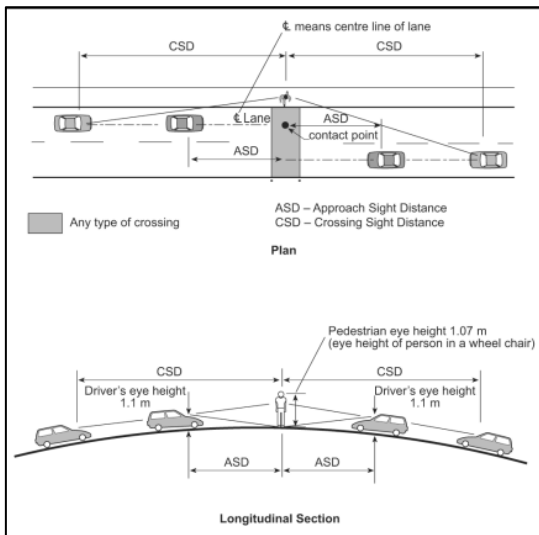


Figure 1 Sight distance at pedestrian crossings¹

CSD is:

- Necessary to ensure that the pedestrian can see approaching traffic in sufficient time to judge a safe gap and cross the roadway
- Calculated from the critical safe gap (in the traffic stream) and the speed of approaching traffic; and
- Given by the equation below.

$$CSD = t_c \times \frac{V}{3.6}$$

where:

- CSD = sight distance required for a pedestrian to safely cross the roadway
- t_c = critical safe gap (s) = (crossing length x walking speed)
- V = 85th percentile approach speed (km/h).

3 Wharf Street Sight Distance

For Wharf Street, the following sight distances have been calculated.

CSD = 65m (based on a crossing length of 5m, a walking speed = 1.5m/s and a 85th percentile speed of 70km/h)

ASD = 92m (obtained from Table 3.1 within AUSTROADS: Part 4a).

¹ Austroads Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections Figure 3.7

Below are two photos from the existing crossing.



View south on Wharf Street from the crossing



View North on Wharf Street from the crossing



View north on Wharf Street from the crossing



View south on Wharf Street from the crossing

Northbound Visibility: has been measured at 110m northbound. This is limited by the left hand bend on Wharf Street on approach to the Overbridge.

Southbound Visibility: has been measured at in excess of 200m southbound.

4 Conclusion

It can be concluded that the Crossing Sight Distance and Approach Site Distance for the Wharf Street crossing are sufficient.

Regards

A handwritten signature in blue ink, appearing to read 'Andrew Fergus'.

Andrew Fergus

Job Manager



Memorandum

4 April 2014

To Lisa Clifford

Copy to

From Andrew Fergus

Tel 03 3780903

Subject Harbourside Area - Revised Memo with Four Options

Job no. 51/31829/

1 Introduction

This memo provides a summary of options for the proposed cycle link from Portsmouth Drive, to the existing cycling crossing under the Jetty Street Overbridge.

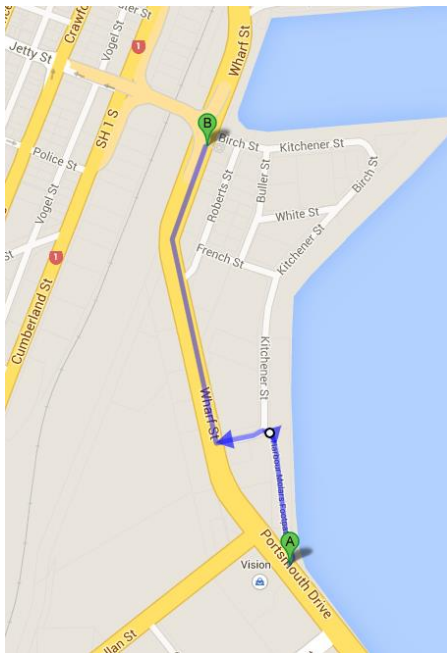
This memo is an update of the earlier memo presented to the working party prior to the meeting on Thursday 27 March, where it was agreed to investigate additional options. These additional options are detailed within this report as Option 3 and Option 4.

In total, the following options have been explored, as follows:

- Option 1: Harbour Molars Footpath, Kitchener Street, Wharf Street
- Option 2: Harbour Molars Footpath, Kitchener Street, French Street, Roberts Street, Wharf Street
- Option 3: Harbour Molars Footpath, Kitchener Street, French Street, Roberts Street, Birch Street
- Option 4: Harbour Molars Footpath, Kitchener Street, French Street, Buller Street, Birch Street

A high level comparison of the options has been undertaken with results discussed further below.

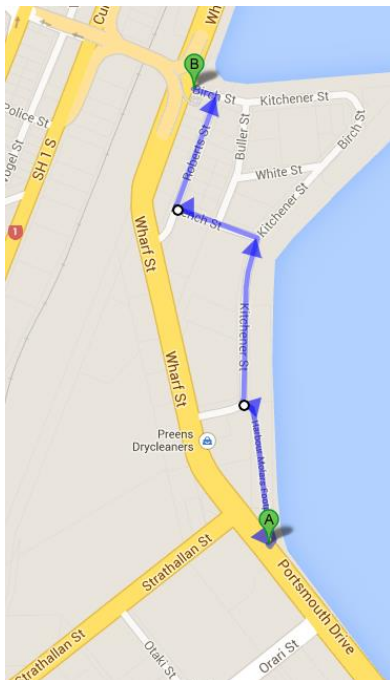
This memo along with the attached Scheme Drawings are intended to inform further discussion for the working group rather than to recommend a route, and help reach agreement to take forward to wider consultation.



Option 1



Option 2



Option 3



Option 4

2 Existing Operation

Currently cyclists travelling north / south on Wharf Street travel on the existing shared path and have to cross two intersections. This route is currently considered unsafe due to the requirement to cross intersections at Kitchener Street and Roberts Street.

These intersections are designed with slightly different priority control layouts, which results in different user behaviour. Reports from DCC suggest that cyclists often cross these intersections with little regard for turning traffic and this introduces a safety concern. Generally this involves:

- cyclists not giving way at the intersection; and
- cyclists not looking for traffic turning in from Wharf Street.

3 Options Descriptions

Key features of the options are described below with plans provided as an attachment:

Option 1 - Harbour Molars Footpath, Kitchener Street, Wharf Street (Drawing SK1100)

- Harbour Molars Footpath widened to 3m
- Raised speed table crossing installed at Kitchener Street corner (at access point to Watercooled Sports) to facilitate safe crossing. Parking is retained.
- Kitchener Street footpath on north side used as shared path
- Existing path used on the east side of Wharf Street between Kitchener and Roberts Street (currently below 3m).
- New raised crossing at Roberts Street set back from the intersection with central refuge island.
- Intersection change to allow for right in / left out only.
- Improvements to rail crossings may be required with rubber treatments which reduces the risk of wheels getting caught in the tracks
- Existing path used on the east side of Wharf Street north of Roberts Street. (currently below 3m)

Option 2: Harbour Molars Footpath, Kitchener Street, French Street, Roberts Street, Wharf Street: (Drawing SK1101)

- Harbour Molars Footpath widened to 3m
- Raised speed table crossing installed at Kitchener Street corner (at access point to Watercooled Sports and other businesses) to facilitate safe crossing. Parking is retained.
- Kitchener Street western footpath used as shared path
- French Street southern footpath used as shared path
- New raised table crossing at the French Street / Roberts Street intersection
- Intersection change to allow for right in / left out only.
- Roberts Street western footpath used to connect back to Wharf Street
- Wharf Street (North of Roberts) – existing path used (currently below 3m)

Option 3: Harbour Molars Footpath, Kitchener Street, French Street, Roberts Street, BirchStreet: (Drawing SK1102)

- Harbour Molars Footpath widened to 3m
- Raised speed table crossing installed at Kitchener Street corner (at access point to Watercooled Sports and other businesses) to facilitate safe crossing. Parking is retained.
- Kitchener Street western footpath used as shared path
- French Street southern footpath used as shared path
- New raised table crossing at the French Street / Roberts Street intersection
- Roberts Street western footpath used to connect to Birch Street
- Birch Street southern footpath used to connect to Wharf Street
- New crossing provision under the Jetty Street underpass.

Option 4: Harbour Molars Footpath, Kitchener Street, French Street, Buller Street, BirchStreet: (Drawing SK1103)

- Harbour Molars Footpath widened to 3m

- Raised speed table crossing installed at Kitchener Street corner (at access point to Watercooled Sports and other businesses) to facilitate safe crossing. Parking is retained.
- Kitchener Street western footpath used as shared path
- French Street southern footpath used as shared path
- New raised table crossing on French Street at the Buller Street intersection
- Buller Street western footpath used to connect back to Birch Street
- Birch Street southern footpath used to connect to Wharf Street
- New crossing provision under the Jetty Street underpass.

4 Comparison of Route Options

The four routes have been considered against some high level objectives, with a comparison summary provided in Table 1.

Table 1 Macro Options Table

	Option 1	Option 2	Option 3	Option 4
Safety	Route is predominately shared path and potential conflicts with pedestrians One mid block crossing - Kitchener St One intersection to cross - Roberts St / Wharf St Path is predominately alongside a higher speed and higher volume Road (Wharf St) 9 driveways to cross Crosses railway line at shallower angle at Roberts St Crosses railway at right angles at Kitchener St Crosses railway line at shallower angle at Wharf St (south of Birch St)	Route is predominately shared path and potential conflicts with pedestrians One mid block crossing - Kitchener St One intersection to cross - Roberts St / French St Path is predominately alongside a lower speed and lower volume Road (Kitchener St & French St) 11 driveways to cross Crosses railway at right angles at Roberts St	Route is predominately shared path and potential conflicts with pedestrians One mid block crossing - Kitchener St One intersection to cross - Roberts St / French St Path is predominately alongside a lower speed and lower volume Road (Kitchener St, French St, Roberts St, Birch St) 14 driveways to cross No railway crossings to cross	Route is predominately shared path and potential conflicts with pedestrians One mid block crossing - Kitchener St Two intersections to cross – Buller St / French St & Roberts / Birch Path is predominately alongside a lower speed and lower volume Road (Kitchener St, French St, Buller St, Birch St) 16 driveways to cross No railway crossings to cross Narrow path width, with localised pinch point, on Buller St
Comfort	Surfacing predominately on existing shared path 9 driveways to cross	Surfacing predominately on existing footpath. Current unsealed paths will be sealed to create a new shared path 11 driveways to cross	Surfacing predominately on existing footpath. Current unsealed paths will be sealed to create a new shared path 14 driveways to cross	Surfacing predominately on existing footpath. Current unsealed paths will be sealed to create a new shared path 16 driveways to cross
Directness	Approximately 840m Three road crossings required.	Approximately 890m Three road crossings required.	Approximately 855m Three road crossings required. Roberts St has a slight incline which may discourage cyclists.	Approximately 840m Four road crossings required.
Coherence	Links well to other routes	Links well to other routes	Links well to other routes	Links well to other routes
Attractiveness	More attractive to Enthused & Confident Predominately adjacent to Wharf street which has high traffic volumes	More attractive to Interested but Concerned Predominately on local roads with less traffic volume	More attractive to Interested but Concerned Predominately on local roads with less traffic volume	More attractive to Interested but Concerned Predominately on local roads with less traffic volume
Facility Type	240m Shared path - Harbour Molars Footpath, 70m Shared path - Kitchener St, 530m Shared path - Wharf St	240m Shared path - Harbour Molars Footpath, 250m Shared path - Kitchener St, 120m Shared path - French St, 40m Shared path - Roberts St, 240m Shared path - Wharf St	240m Shared path - Harbour Molars Footpath, 250m Shared path - Kitchener St, 120m Shared path - French St, 180m Shared path - Roberts St, 65m Shared path – Birch St	240m Shared path - Harbour Molars Footpath, 250m Shared path - Kitchener St, 60m Shared path - French St, 180m Shared path - Buller St, 110m Shared path – Birch St
Parking	Parking Neutral	Parking Neutral	Loss of two parks (intersection of Birch St / Wharf St)	Loss of four parks (two at intersection of Birch St / Wharf St, two at intersection of Roberts / Birch)
Service Poles	Wharf St 4 (back of path), 5 (kerblines) Kitchener St 1	Wharf St 4 (back of path)	Roberts St – 3 (kerblines)	Buller St – 7 (kerblines) Birch St - 2 (kerblines)
Cost	Lowest cost	Second lowest cost	Highest cost (tree removal / footpath sealing)	Highest cost (extra intersection crossing)

4.1 Other considerations

4.1.1 On Road Configuration Changes

For all options, changes are proposed at the Roberts Street intersection, effectively banning the left turn movements into Roberts Street and right turn out movement. This is a result of the initial traffic surveys and feedback from the businesses, which indicated these movements::

- had the least opposition to be banned
- were the least important to the business

Reducing the turn movements at the Roberts Street intersection will provide a safer environment for cyclists. Although Options 2, 3 and 4 have crossings away from this intersection, confident cyclists may still choose to use the Wharf Street link, and improving safety for these users has been included.

All property access points at the intersection will be retained. It was noted that Dive Otago has an access near the intersection which they reverse vehicles and trailers into. AutoTurn software indicates that this movement will still be able to be performed when approaching the access from Roberts Street north.

Modelling within Autoturn software demonstrates that light vehicle (e.g. cars) can still undertake the left turn movement. Therefore signage should be installed to reinforce the banned movements for all vehicles.

The banned movements will result in those vehicles having to enter the Harbourside Area at another location. In most cases (excluding those to / from the Jetty Street overbridge), this will be via the Birch Street / Wharf Street intersection. Those wishing to use the overbridge will need to use the Kitchener Street / Wharf Street intersection.

The intersection of Birch Street / Wharf Street could be considered a safer movement due to the reduced traffic on Wharf Street (when compared to the Roberts Street location) as busier intersections have an increased complexity of decision making as more conflict can occur at the same time.

4.1.2 Widths

The options proposed involve the use of existing roadside footpaths as shared paths.

The widths are below the desired 3m.

The Buller Street path is extremely narrow with services pole which create localized pinch points. This is an undesirable feature for a shared path.

5 Conclusion

The above provides some analysis of each route. Based on the key principles of cycling that Option 1 provides the best Level of Service for cyclists.

Changes to the Roberts Street intersection should result in a safer environment for all road users, but this needs to be considered with against additional travel time affects.

Regards



Andrew Fergus

Job Manager



Memorandum

21 May 2014

To Lisa Clifford

Copy to

From Andrew Fergus

Tel 03 3780903

Subject Harbourside Area - Revised Memo with Four Options

Job no. 51/31829/

1 Introduction

This addendum provides an update of the earlier memo presented to the working party prior to the meeting on Friday 11 April.

2 Changes to the design:

Changes to the design have been made following comments from the meetings with the working party and further considerations. The following changes have been made to the designs.

Option 1: Harbour Molars Footpath, Kitchener Street, Wharf Street

Changes have involved the alteration of the Roberts Street/ Wharf Street Intersection, with the left out and right in movements being moved further apart to provide for additional space for cyclists in the centre of the intersection.

The access to Bodyline is now from Roberts Street, with access no longer available from Roberts Street. This aligns with the discussions held with KiwiRail in allowing access to their business by not entering over the rail tracks.

The design assumes that eastern rail track can be removed, and this has been verbally agreed with KiwiRail.

Option 2: Harbour Molars Footpath, Kitchener Street, French Street, Roberts Street, Wharf Street

The design remains largely unchanged, apart from a small change has been made with the addition of green markings at one driveway on Kitchener Street to highlight the potential conflict area.

Option 3: Harbour Molars Footpath, Kitchener Street, French Street, Roberts Street, Birch Street

A revision to the path has been undertaken on Roberts Street, with the trees within Roberts Street to remain. This has resulted in the path needing to be relocated east and parking being altered from angle parking to parallel. This reduces the parking from 19 to 10 parks, a loss of nine parks.

The northern half of the path is as proposed in the earlier scheme remains with the path provided on the existing footpath with the minor addition of green markings at one accessway.

Option 4: Harbour Molars Footpath, Kitchener Street, French Street, Buller Street, Birch Street

A revision to the path has been undertaken on Buller Street, the cycle facility has been moved from the existing path to a separated facility. This is to reduce the risk of cyclists conflicting with other park users and the close proximity of the business frontages on Buller and Birch Streets. The close business frontages result in very limited sight intervisibility between path users and driveway users, which results in an increased safety risk.

The consequence of moving the facility is all parking is removed from Buller and Birch Street, resulting in a loss of approximately 16 parks.

Regards

A handwritten signature in blue ink, appearing to read 'A. Fergus', with a long horizontal stroke extending to the right.

Andrew Fergus

Job Manager

MEETING MINUTES OF THE HARBOUR SIDE PRECINCT WORKING GROUP HELD IN THE PLAZA CONFERENCE ROOM, CIVIC CENTRE ON FRIDAY 11 APRIL 2014 COMMENCING AT 10.00AM

PRESENT

Gene Ollerenshaw – DCC Group Manager
Transportation (Chairman)
Lisa Clifford - DCC Senior Transportation Planner
Ron Minnema - DCC Senior Traffic Engineer
Sophie Barker – DCC Economic Development Unit
Andrew Fergus - GHD Consultants
Nancy Robbie – Primecorp Consultants
Carolyn McLean – Otago Real Estate
Dave Watson – Dive Otago
Hudson Biggs – Automobile Association
Robert Thompson – SPOKES
Phil McDouall – Senior Sergeant, NZ Police
Phil Marsh – Assistant Area Manager East Otago, NZ
Fire Service

1. APOLOGIES

Tony Avery – DCC General Manager Infrastructure and Networks
Sarah Connolly – DCC Manager Transportation Planning
Kevin McAlevey – KiwiRail
Sean Blair – Bodyline

Hudson Biggs inquired as to why **Tony Avery** and **Sarah Connolly** were not present and why the Working Group were not informed beforehand as they have been an integral part of this Working Group to date. **Gene Ollerenshaw** informed the Working Group that Tony and Sarah were on leave hence Gene standing in for Tony.

2. INTRODUCTION

After Introductions were made **Gene Ollerenshaw** started the meeting by informing the group of the following:

- This issue is now on the critical path of this project.
- If this network is not delivered on time this will impact future NZTA funding.
- Aim for this meeting is to agree on a finalised list of options to take to consultation.

3. REVIEW OF MINUTES FROM 27 MARCH 2014

Philip Marsh expressed concerns regarding fire engine access to the Harbour zone if engines were unable to make a left turn off the over bridge

into Roberts St. If trains are crossing at St Andrew St then access is from the over bridge, and losing this access could cause a delay in an emergency situation.

Action: Andrew Fergus to modify landscaped build out at Roberts St to a mountable build out to allow a fire engine to drive over.

Hudson Biggs thought **Andrew Fergus** had advised that his terms of reference in his report was safety of cyclists. The working party understood that the report would encompass the interests of all road users and affected business owners as well. **Hudson Biggs** therefore requested further clarification of the terms of reference.

Action: Andrew Fergus to look into terms of reference w.r.t. inputs and safety.

Hudson Biggs felt that the lack of minutes from the meeting on 21 March 2014 caused confusion and dissatisfaction.

4. MATTERS ARISING FROM MINUTES OF 27 MARCH 2014

Hudson Biggs asked if loss of car parks had been evaluated. **Andrew Fergus** responded that they had (see memorandum provided by GHD for this meeting). **Hudson Biggs** requested additional data on loss of parks.

Action: Andrew Fergus to look into what other data may be obtained.

Hudson Biggs asked who the target audience were, commuter or recreational. **Lisa Clifford** responded that it was targeted at commuters but at the lowest denominator ie children riding to school as an example. This target group is also referred to as the 'interested but concerned'. **Hudson Biggs** was still unsure as to what this entailed.

Action: Lisa Clifford will therefore attempt to clarify this by forwarding the relevant part of the initial ViaStrada report done in the concept phase.

Hudson Biggs asked again what the terms of reference of the report was as he felt it was targeted to cyclists and did not consider the impact on other road users such as vehicles.

Action: As already stated above, Andrew Fergus to look into terms of reference.

5. CONSULTATION PROCESS AND TIMING

Lisa Clifford distributed the *consultation process and timing schedule*

informing the group that the 3 June 2014 ISCOM meeting was the milestone we needed to adhere to, to prevent putting the project in jeopardy.

Hudson Biggs and **Robert Thompson** queried as to why this is the first time the group has been made aware of the timeframe and felt that this consultation should not be cut short to meet the schedule considering not all information that the group expected to see was presented at the last meeting.

Lisa Clifford and **Nancy Robbie** reiterated to the group that this issue is now on the critical path in terms of planning. It had been included in package 1 and has since been ongoing and is now in the last package and pushing the planning boundaries of this as well hence the *consultation process and timing schedule* that was previously not required.

Nancy Robbie assured the group that their concerns were being heard and investigated but acknowledged that issues that had to be discounted for varying reasons, may not have been effectively consulted on with the group following investigation.

Action: Gene Ollerenshaw and Nancy Robbie will address communication and consultation process issues.

6. PRESENTATION OF FOUR CYCLE ROUTE OPTIONS

Andrew Fergus started to present the 4 options requested and also the sight distance information requested previously as distributed to the group before the meeting.

Hudson Biggs felt that not enough thought and research had gone into the proposals. **Nancy Robbie** assured the group that the options have been well researched and designed by DCC Transportation Department and GHD Consultants and urged the group to look seriously at the options presented. **Hudson Biggs** felt that there were serious flaws in the options presented. **Robert Thompson** commented that it was impossible to modify Roberts St and not make compromises.

Action: Ron Minnema to provide a total movement survey where numbers are correlated to vehicle lengths.

Dave Watson inquired as to why along Portsmouth Dr past Preens had not been given as an option? **Lisa Clifford** responded that this was done to reduce the number of intersection crossings along Wharf St and therefore conflicts and it was thought that as this was only a slight detour off the desire line that a cycle way here would be used by commuters.

Action: Group to review options presented before the next

meeting once updated by Andrew Fergus and distributed.

Hudson Biggs felt that only cyclist had been considered in the analysis done and thus the options presented.

Nancy Robbie asked if all present had read the information provided beforehand and thus how much detail **Andrew Fergus** needed to go into in explaining the options to ensure that all had a thorough understanding.

Robert Thompson suggested that a stop sign in place of a give way sign at the Roberts St and Wharf St intersection might help.

Action: **Lisa Clifford and Andrew Fergus will ensure signage, road and cycleway, are considered in the overall design.**

Ron Minnema suggested some form of physical barrier for cyclists to force them to stop and look before crossing over Roberts St. **Robert Thompson** stated that these type of barriers had just been removed in Australia as they were a hazard.

Phil McDouall in his experience in the police, was not aware of any accidents at the Roberts St and Wharf St intersection. At this point **Ron Minnema** presented his memorandum as distributed to the group beforehand which included; crash rates, traffic volumes, travel times, impact of extra vehicles at Kitchener St and Birch St intersections as a result of turning movement restrictions at Roberts St and other relevant safety data. **Ron Minnema** pointed out that crash rates did not necessarily reflect risk as other factors also influence this which in the case of the Roberts St and Wharf St intersection leads to a higher risk than is reflected in the crash rate. Traffic Survey Summary is an average taken over 5 working days.

Hudson Biggs suggested taking option 1 and 2 off the table due safety issues of crossing the Roberts St intersection. **Phil McDouall, Robert Thompson, Ron Minnema** and **Lisa Clifford** pointed out that desire lines means that cyclists will still cycle along Wharf St regardless and therefore safety issues still need to be addressed at the Roberts St intersection. **Hudson Biggs** responded that was then their choice to cycle along Wharf St. **Ron Minnema** pointed out that DCC has an obligation to safety which states that a person should not be seriously injured or killed due to making a mistake which is in accordance with the Government Safer Journeys Strategy. **Hudson Biggs** mistook the Safer Journeys Strategy to be a constraint. DCC staff reassured him that this was not the case, that the Safer Journeys was a strategy to improve safety of all road users applicable everywhere as would be expected from a government organisation. **Hudson Biggs** requested a copy of Safer Journeys thus it was agreed that a website link will be added to the minutes. Link is therefore as follows: www.saferjourneys.govt.nz

Action: Andrew Fergus and Lisa Clifford will continue investigating design of the intersection at Roberts St and Wharf St taking into account safety issues based on information supplied by Ron Minnema and maintain access as much as possible for local businesses.

Robert Thompson expressed concerns of cyclists riding past warehouse driveways and thus the risk of collision with freight vehicles.

Action: Andrew Fergus and Lisa Clifford will consider this in developing the design.

Hudson Biggs asked what impact the no left turn into Roberts St and no right turn out would have on other intersections. What would the expected increase in vehicle movements be and is this just shifting the problem? **Ron Minnema** responded that due to better sight lines at these intersections, the increased vehicle movements was not expected to have an adverse affect.

Hudson Biggs asked if the 27,000 vehicles a day along Wharf St was considered high. **Ron Minnema** responded that it was one of the highest in Dunedin and gave a few examples of traffic volumes on busy roads around Dunedin to support this. **Hudson Biggs** inquired if there was a correlation between high traffic volumes and safety of cyclists to which **Ron Minnema** responded that a correlation exists due to potential conflict points.

Hudson Biggs inquired as to the impact on other road users.

Action: Andrew Fergus will track vehicle movements.

The question was raised as to whether larger vehicle access out of the Harbour Side district would still be possible if Roberts St was restricted.

Action: Lisa Clifford will consult with haulage company regarding access through other intersections.

Dave Watson had no issue with banning left turn in and right turn out as long as Dive Otago's driveway access remained clear. If access had to change to rear of Dive Otago, this would be problematic as vehicles would end up on the wrong side of the road to be able to turn into Dive Otago. Dive Otago currently have 2 vans, 2 trailers and 1 4x4 parked on or out front of their premises. **Andrew Fergus** responded that he could design around this to keep Dive Otago's driveway access clear. **Dave Watson** stated that it would help with Dive Otago's vehicle manoeuvres if the angled parks adjacent to their building were to be removed.

Action: Andrew Fergus will ensure design keeps Dive Otago's driveway access clear.

Action: Lisa Clifford will look into the implications of removing angled parks adjacent to Dive Otago.

Ron Minnema informed the group that a cyclist he spoke to, that was involved in a minor accident at the Roberts St intersection, requested a consistency of approach to intersection design.

Dave Watson inquired as to where the new Marine Science building was to be located. **Gene Ollerenshaw** responded that this was currently unknown.

Gene Ollerenshaw called the meeting to attention due to time.

Andrew Fergus was unable to finish presenting the options however a consensus was made to hold a meeting on site on Monday 14 April at 9am meeting outside Dive Otago with bicycles if possible.

Action: Lisa Clifford will send meeting invite for Monday morning to Working Group members.

Actions: Nancy Robbie will arrange a follow up meeting after the site meeting and once all actions have been completed.

MEETING MINUTES OF THE HARBOUR SIDE PRECINCT WORKING GROUP HELD ON SITE ON MONDAY 14 APRIL 2014 COMMENCING AT 9.00AM

PRESENT

Lisa Clifford - DCC Senior Transportation Planner
Ron Minnema - DCC Senior Traffic Engineer
Andrew Fergus - GHD Consultants
Nancy Robbie – Primecorp Consultants
Carolyn McLean – Otago Real Estate
Dave Watson – Dive Otago
Hudson Biggs – Automobile Association
Robert Thompson – SPOKES
Jon Dean - SPOKES
Robert Storm – KiwiRail

1. APOLOGIES

Tony Avery – DCC General Manager Infrastructure and Networks
Gene Ollerenshaw – DCC Group Manager Transportation
Sarah Connolly – DCC Manager Transportation Planning
Sophie Barker – DCC Economic Development Unit
Phil McDouall – Senior Sergeant, NZ Police
Phil Marsh – Assistant Area Manager East Otago, NZ Fire Service
Kevin McAlevey – KiwiRail
Sean Blair – Bodyline

2. INTRODUCTION

This was an informal on site meeting to assist with visualising the proposed options to obtain more concrete designs to take to consultation. **Lisa Clifford** chaired the on site meeting and **Nancy Robbie** took the minutes.

3. REVIEW OF MINUTES FROM 11 APRIL 2014

Due to this meeting being held immediately after the 11 April meeting, meeting minutes from 11 April were not yet available thus will be reviewed at the following meeting.

4. MATTERS ARISING FROM MINUTES OF 11 APRIL 2014

Please see comment above.

5. CONSULTATION PROCESS AND TIMING

The next meeting to review design changes resulting from today's on site meeting and the meeting of 11 April 2014 will be added into the *consultation process and timing schedule* once a date has been set.

Action: Lisa Clifford to update schedule once a date for the next

meeting has been set. Impact on project plan will then be reviewed internally and the updated schedule will be brought back to the Harbour Side Working Group.

6. FOUR CYCLE ROUTE OPTIONS

The meeting commenced outside Dive Otago at the intersection of Roberts St and Wharf St. **Andrew Fergus** distributed vehicle tracking schemes to the group and explained the data.

General observations made on site:

- Approximately half the cyclists looked both ways before crossing the Roberts St and Wharf St intersections and half didn't.
- Vehicles were parked on the railway lines.
- A large truck turning out of French St opted to turn right onto Roberts St and exit the precinct via Birch St instead of exiting through the Roberts St and Wharf St intersection.
- Cars turning left into Roberts St from Wharf St came around the corner at too high a speed. Due to the poor sight line distance, a cyclist crossing the intersection would not see the vehicle until the last minute and visa versa. **Nancy Robbie** noted that also due to the poor sight line distance, a rear end accident could occur if a vehicle were to give way to a cyclist whilst making the left turn.

Robert Storm asked if the curb along the KiwiRail lines could continue right through. **Robert Storm** informed the group of the legal proceedings KiwiRail had running regarding business access over railway lines. One of the two lines running along Wharf St is still in use however local business park vehicles on the lines resulting in KiwiRail having to approach businesses to remove vehicles each time before they can use the lines. There is a legal railway crossing in front of these businesses but exact location was not known. KiwiRail also have safety concerns with vehicles randomly crossing the lines to access business.

Action: Lisa Clifford will determine legal boundaries and exact location of legal railway crossing.

Robert Thompson inquired into the possibility of bringing the road across the grass verge in front of Ellisons Aluminium so that it intersects with Wharf St at an angle and building a large island to assist with controlling traffic and cyclists. **Lisa Clifford** and **Andrew Fergus** informed the group that this would definitely rule out the right turn option out of Roberts St.

Action: Andrew Fergus will look into this option and Robert Storms request regarding the curb once legal boundaries are known.

Robert Thompson inquired about signage and marking to make cycleway clearer and to make cyclists stop and look before crossing. **Lisa Clifford** responded that signs and marking are part of the scope.

Action: Lisa Clifford and Nancy Robbie will take points regarding signage and marking that have arisen from the Harbour Side Working Group to be considered in the signage and markings plan.

The meeting then moved to the intersection of Roberts St with French St.

Robert Thompson expressed safety concerns regarding a cycleway right up against buildings where heavy vehicles move in and out of driveways.

Action: Lisa Clifford and Andrew Fergus will take this into account when reviewing the options.

Robert Thompson noted that the streets in the area were already quiet streets therefore suggested improvements on the current cycle ways as opposed to new cycle ways. Option 4 currently makes use of the existing cycle way thus has been taken into account.

Lisa Clifford stated that option 3 along Roberts St to Birch St requires the removal of trees along Roberts St and thus may not be approved.

Action: Lisa Clifford to touch base with DCC PAR's to determine if this is an option.

Nancy Robbie inquired with **Carolyn McLean** as to the main concerns of local business. **Carolyn McLean** responded that business tenants have informed landowners that they believed any changes to the Roberts St and Wharf St intersection limiting this intersection for heavy vehicles would impact negatively on their businesses. Business tenants have thus informed landowners that if changes were to go ahead that they would look for other premises hence business and landowners are opposed to any changes.

Safety concerns around this intersection however may require changes to the intersection but every attempt to limit the impact to local business will be made. These concerns thus currently appear to be conflicting.

Action: Lisa Clifford and Andrew Fergus will review the options again with respect to safety concerns and local business concerns to determine if it is possible both can be addressed. Ron Minnema will be consulted with respect to safety of cyclists and motorists.

7. Next Meeting

A follow up meeting aimed at finalising the options to take to public consultation is to be arranged once all actions are completed.

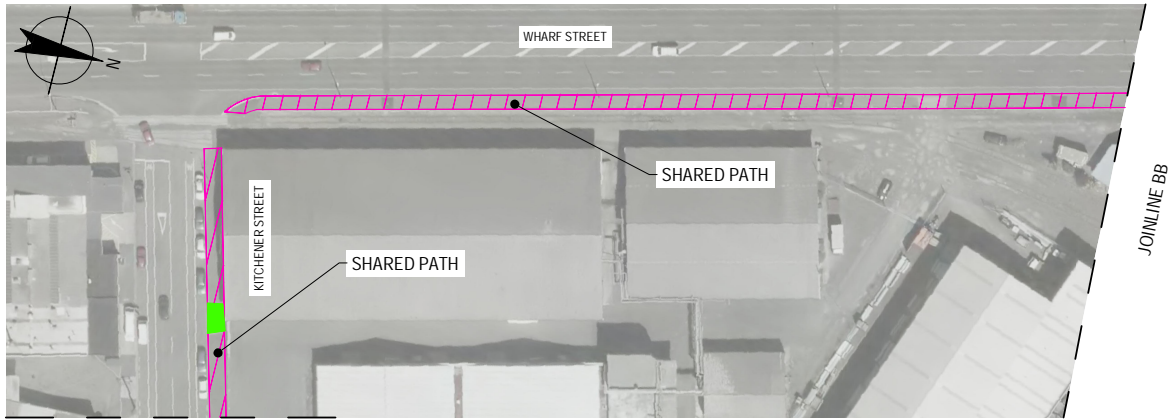
Action: Nancy Robbie will follow up on actions to be done and arrange the next meeting.



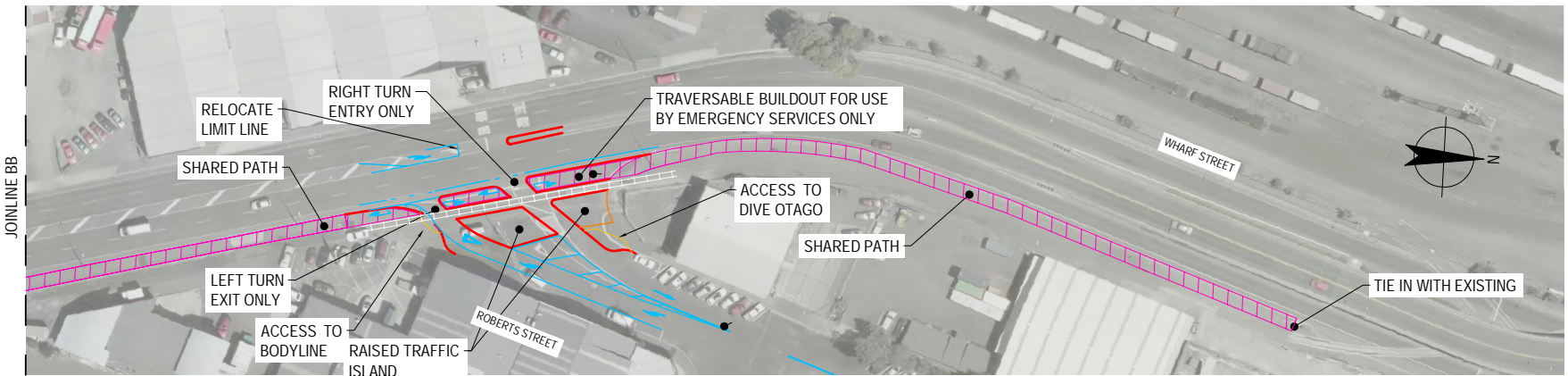
PLAN
SCALE 1:500 (A1), 1:1000 (A3)

KEY	
	COLOURED PAVEMENT MARKING
	SEPARATE BICYCLE FACILITY
	SHARED BICYCLE / PEDESTRIAN PATH
	LINE MARKING
	NO STOPPING RESTRICTION
	PHYSICAL SEPARATION KERB
	KERB FACE
	KERB BACK
	TREE
	LOW LEVEL VEGETATION / PLANTING

NOTES	
1.	PHYSICAL SEPARATORS POSITIONS ARE APPROXIMATE ONLY. THESE WILL BE CONSTRUCTED AT LOCATIONS TO ALLOW FOR EXISTING VEHICLE ACCESS
2.	COPENHAGEN STYLE PATHS ARE TO BE CONSIDERED ALONG SBF ROUTES



JOINLINE AA
PLAN
SCALE 1:500 (A1), 1:1000 (A3)



PLAN
SCALE 1:500 (A1), 1:1000 (A3)

PRELIMINARY

rev	description	app'd	date
E	REVISED DESIGN		

DCC - SOUTH DUNEDIN CYCLE NETWORK
SCHEME DESIGN PLANS
ROUTE 10 - HARBOURSIDE
OPTION 1 - WHARF STREET

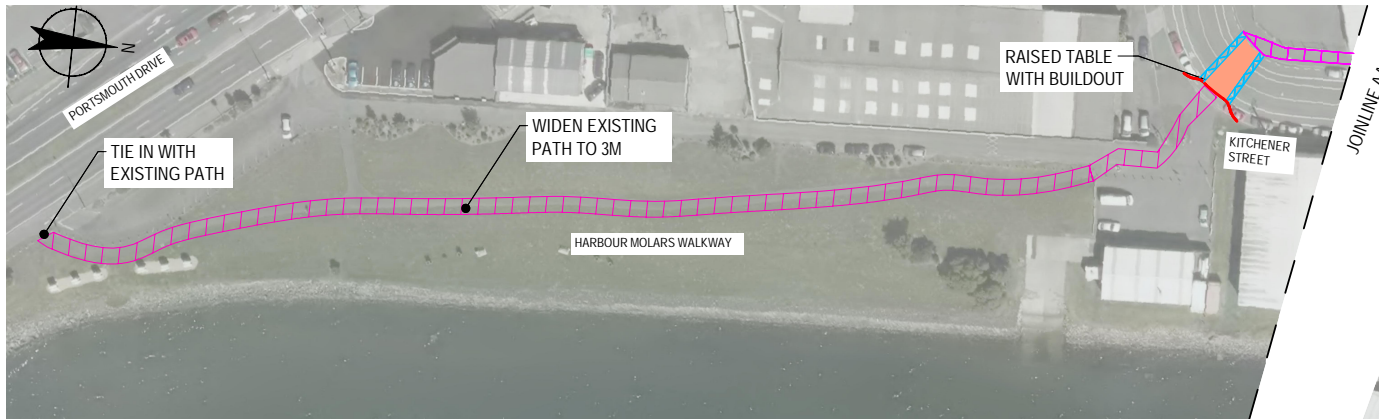


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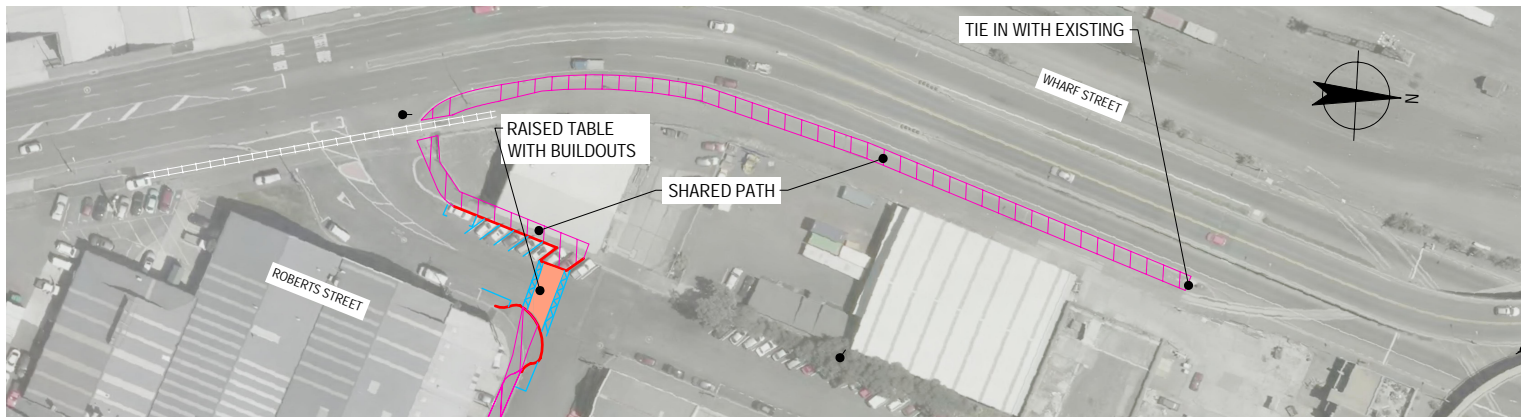
approved (PD) SK1100



PLAN
SCALE 1:500 (A1), 1:1000 (A3)



PLAN
SCALE 1:500 (A1), 1:1000 (A3)



JOINLINE BB
PLAN
SCALE 1:500 (A1), 1:1000 (A3)

KEY	
	COLOURED PAVEMENT MARKING
	SEPARATE BICYCLE FACILITY
	SHARED BICYCLE / PEDESTRIAN PATH
	LINE MARKING
	NO STOPPING RESTRICTION
	PHYSICAL SEPARATION KERB
	KERB FACE
	KERB BACK
	TREE
	LOW LEVEL VEGETATION / PLANTING

NOTES	
1.	PHYSICAL SEPARATORS POSITIONS ARE APPROXIMATE ONLY. THESE WILL BE CONSTRUCTED AT LOCATIONS TO ALLOW FOR EXISTING VEHICLE ACCESS
2.	COPENHAGEN STYLE PATHS ARE TO BE CONSIDERED ALONG SBF ROUTES

PRELIMINARY

rev	description	app'd	date
E	WORKSHOP UPDATE		

**DCC - SOUTH DUNEDIN CYCLE NETWORK SCHEME DESIGN PLANS
ROUTE 10 - HARBOURSIDE
OPTION 2 - KITCHENER / FRENCH**

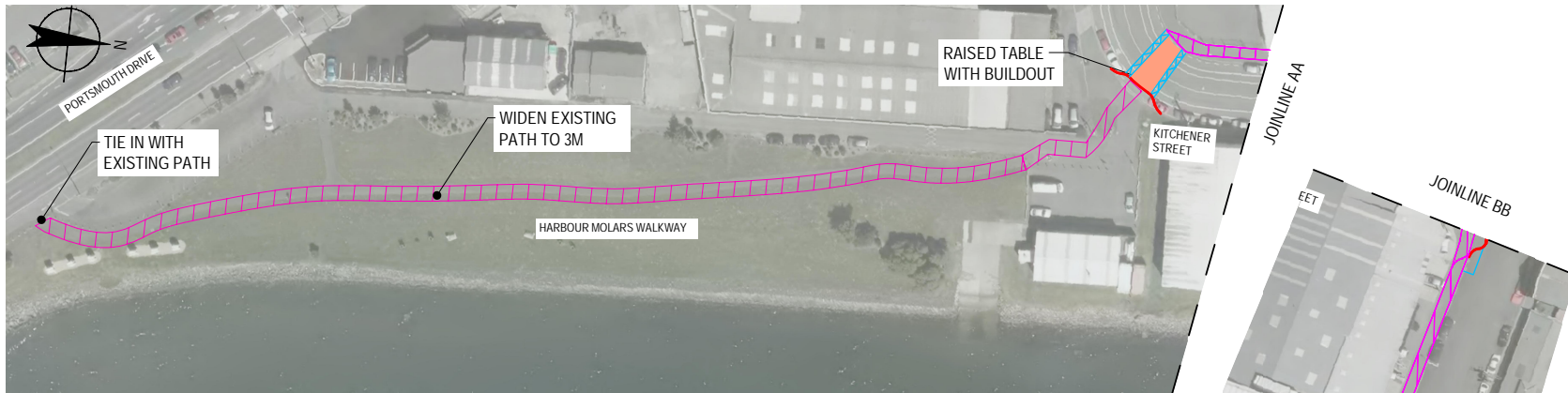


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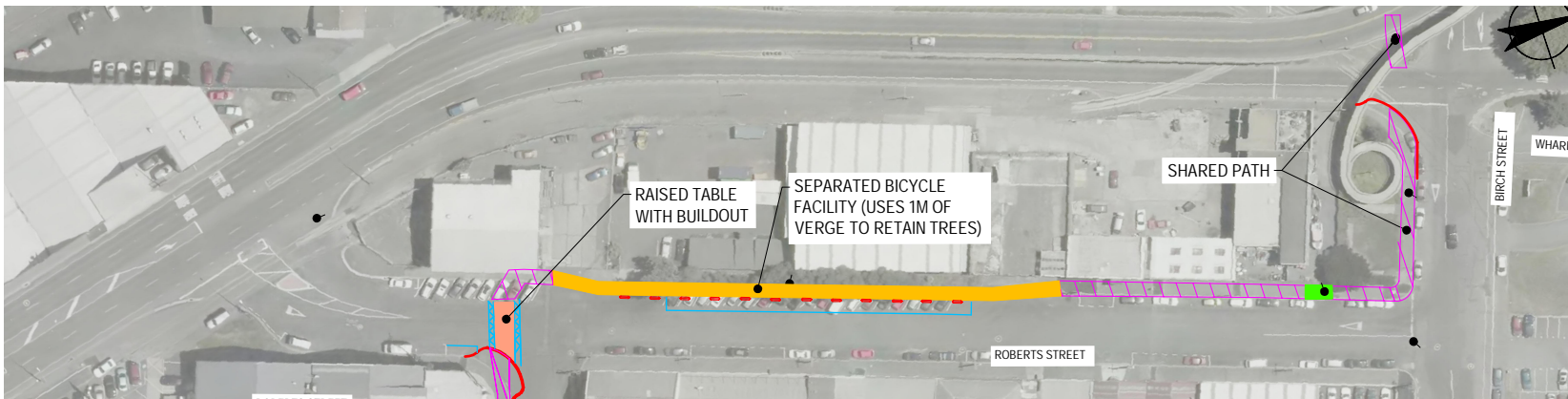
PLAN

SCALE 1:500 (A1), 1:1000 (A3)



PLAN

SCALE 1:500 (A1), 1:1000 (A3)



PLAN

SCALE 1:500 (A1), 1:1000 (A3)

KEY	
	COLOURED PAVEMENT MARKING
	SEPARATE BICYCLE FACILITY
	SHARED BICYCLE / PEDESTRIAN PATH
	LINE MARKING
	NO STOPPING RESTRICTION
	PHYSICAL SEPARATION KERB
	KERB FACE
	KERB BACK
	TREE
	LOW LEVEL VEGETATION / PLANTING

NOTES	
1.	PHYSICAL SEPARATORS POSITIONS ARE APPROXIMATE ONLY. THESE WILL BE CONSTRUCTED AT LOCATIONS TO ALLOW FOR EXISTING VEHICLE ACCESS
2.	COPENHAGEN STYLE PATHS ARE TO BE CONSIDERED ALONG SBF ROUTES

PRELIMINARY

rev	description	app'd	date
C	UPDATED DESIGN		

DCC - SOUTH DUNEDIN CYCLE NETWORK SCHEME DESIGN PLANS
 ROUTE 10 - HARBOURSIDE
 OPTION 3 - KITCHENER / FRENCH / ROBERTS

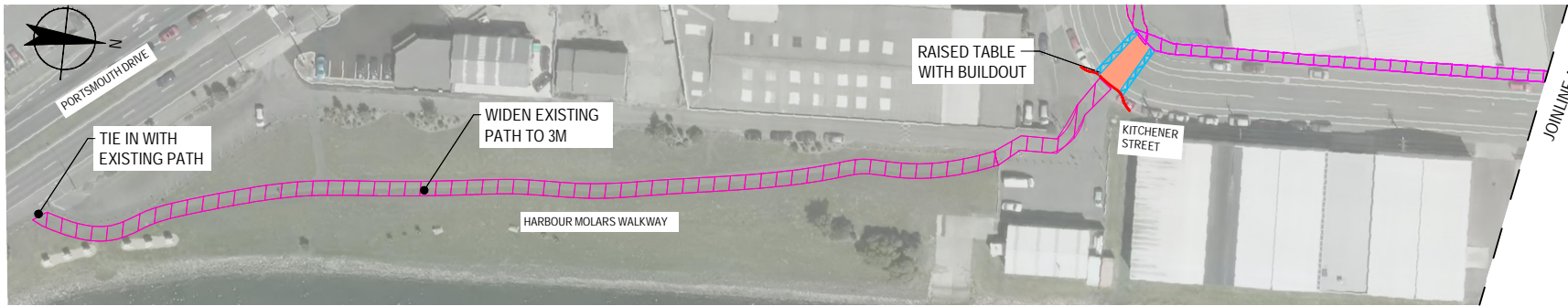


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scale 1:500 for A1 job no. 51-31829
 date MAY 2014 rev no. C

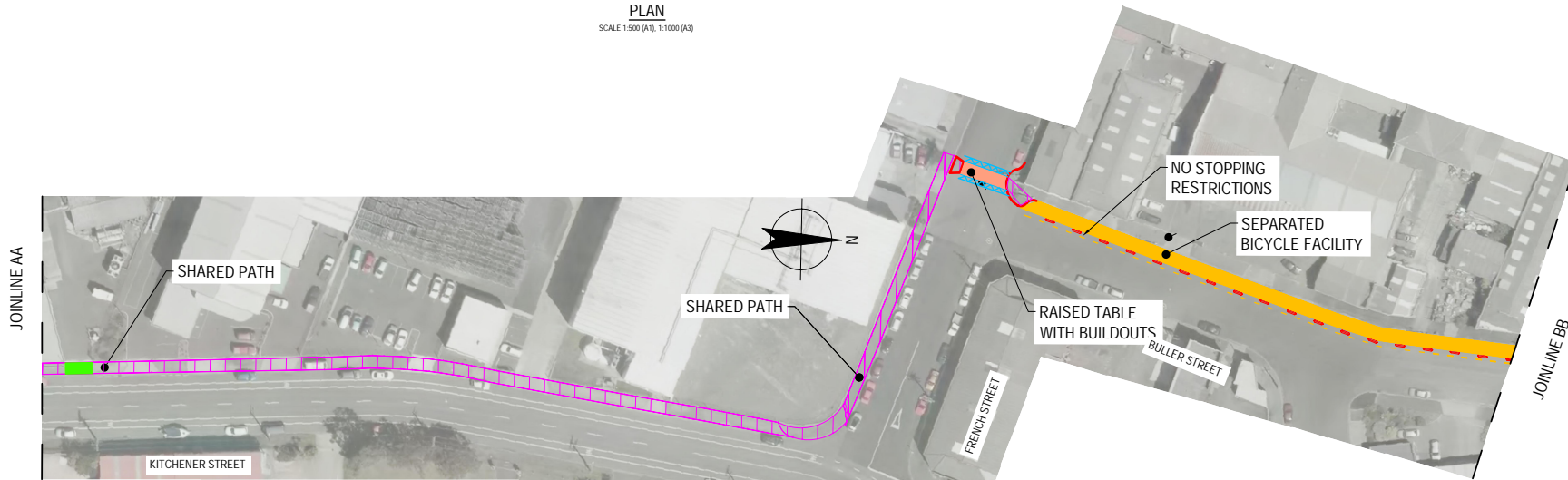
approved (PD) SK1102



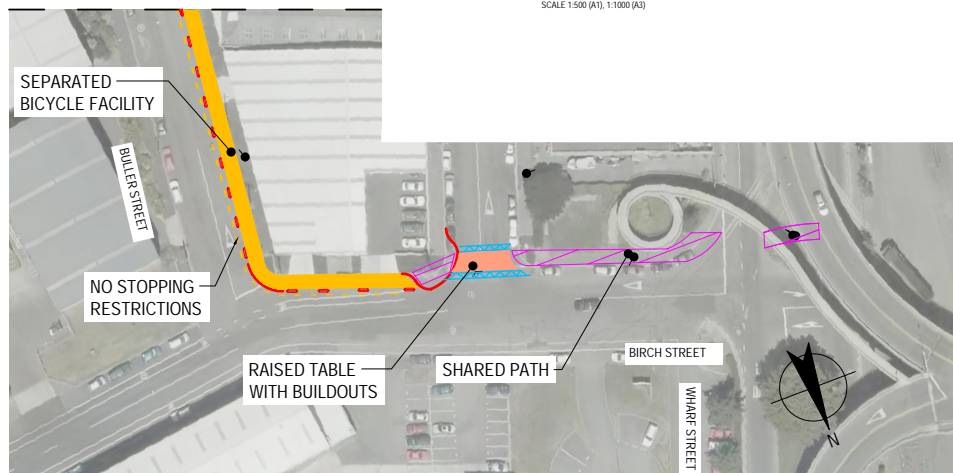
PLAN
SCALE 1:500 (A1), 1:1000 (A3)

KEY	
	COLOURED PAVEMENT MARKING
	SEPARATE BICYCLE FACILITY
	SHARED BICYCLE / PEDESTRIAN PATH
	LINE MARKING
	NO STOPPING RESTRICTION
	PHYSICAL SEPARATION KERB
	KERB FACE
	KERB BACK
	TREE
	LOW LEVEL VEGETATION / PLANTING

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PLAN
SCALE 1:500 (A1), 1:1000 (A3)



PLAN
SCALE 1:500 (A1), 1:1000 (A3)

PRELIMINARY

rev	description	app'd	date
B	REVISED DESIGN		

DCC - SOUTH DUNEDIN CYCLE NETWORK
SCHEME DESIGN PLANS
ROUTE 10 - HARBOURSIDE
OPTION 4 - KITCHENER / FRENCH / BULLER



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IMPORTANT NOTICE

HARBOURSIDE CYCLE ROUTE FINAL

In late June, you would have received a consultation letter and concept plans with four different design options for the Harbourside cycle facility, connecting the Portsmouth Drive shared path to the central city.

A meeting of the Dunedin City Council's Infrastructure Services Committee meeting on 24 July 2014, considered reports on the South Dunedin Cycle Network. The Committee resolved:

- (1) To support Harbourside Option1 for the cycle route through the Harbourside area. This option uses the existing shared path along Wharf Street with some changes. From Portsmouth Drive (heading into the City), the shared path will divert from Portsmouth Drive south of Strathallan Street and run through the Kitchener Reserve, widening the existing footpath to a three metre wide shared path for both cyclists and pedestrians. The path will connect to Kitchener Street (at the 90 degree bend) and cross Kitchener Street on a raised platform. The cyclists will not have priority but the raised platform will alert vehicles to a potential conflict point. The cycle way continues as a shared path on the north side of Kitchener Street and then re-joins the Wharf Street shared path.

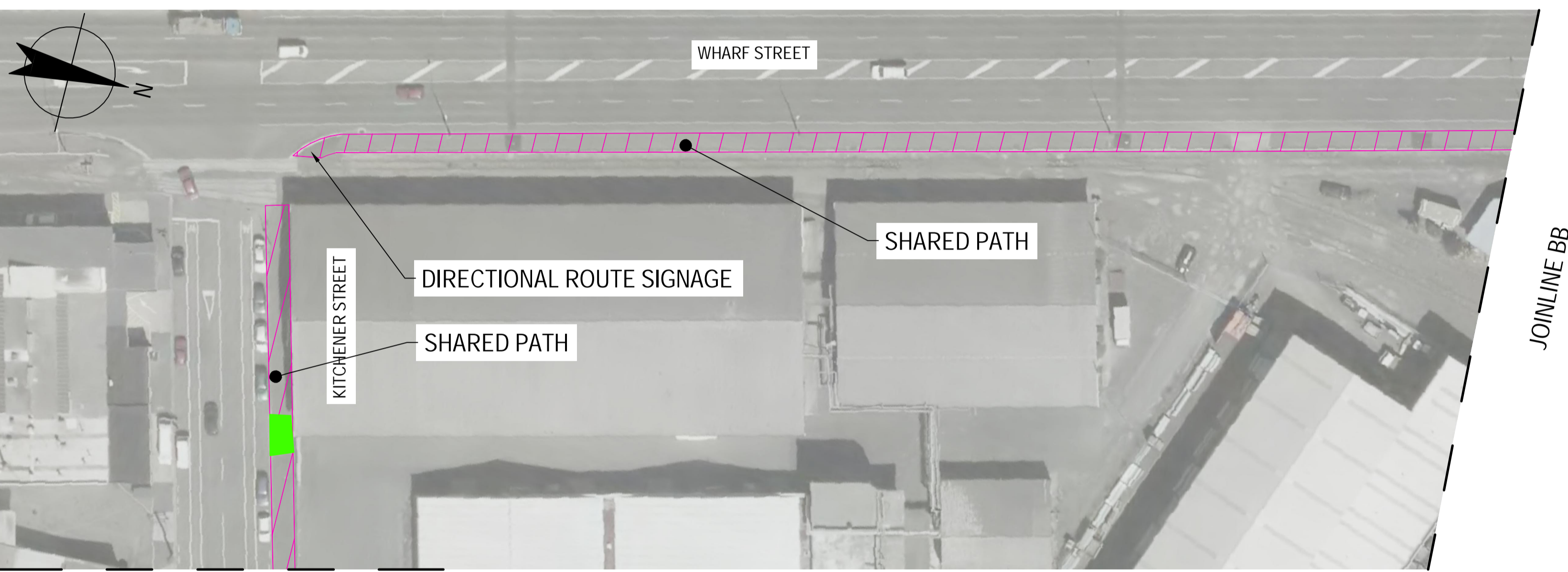
There will be intersection changes at the Wharf Street/Roberts Street intersection. There will be no left turn in from Wharf Street and no right turn out of Roberts Street. The intersection changes will still allow heavy haulage movements through this intersection and access for emergency vehicles into Roberts Street. A copy of the revised concept plan is attached.

- (2) That Council staff from Planning and Economic Development Unit work proactively with businesses to look at signage and way finding for the Harbourside Estate with urgency. If you would like to be involved in discussions regarding this please contact Sophie Barker at 477 4000 or by email at sophie.barker@dcc.govt.nz.
- (3) At the same meeting, the Committee also approved a revised South Dunedin Cycle Network plan. A map of the approved network is attached and further information is available on the Council's website at www.dunedin.govt.nz.

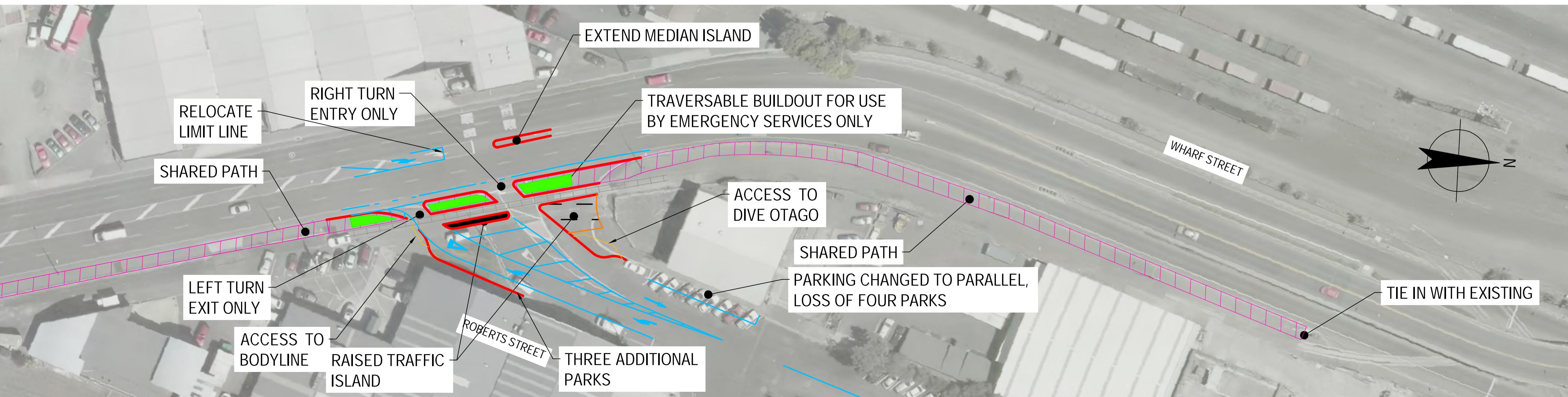
If you have any questions, please contact Lisa Clifford at 477 4000 or by email at lisa.clifford@dcc.govt.nz.



PLAN
SCALE 1:500 (A1), 1:1000 (A3)



PLAN
SCALE 1:500 (A1), 1:1000 (A3)



PLAN
SCALE 1:500 (A1), 1:1000 (A3)

KEY	
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	SEPARATE BICYCLE FACILITY
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PRELIMINARY

I	FOR CONSULTATION		
rev	description	app'd	date

**DCC - SOUTH DUNEDIN CYCLE NETWORK SCHEME DESIGN PLANS
ROUTE 10 - HARBOURSIDE
OPTION 1 - WHARF STREET**



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