

10. ALDWINS/ENSORS/FERRY INTERSECTION SAFETY IMPROVEMENTS

Officer responsible
City Streets Manager

Author
Alix Newman, Project Leader, DDI 941-8656

The purpose of this report is to inform the Committee of the project to develop safety improvements to the Aldwins/Ensors/Ferry intersection and seek approval to proceed to public consultation.

REPORT SUMMARY

The Aldwins/Ensors/Ferry Road intersection and its Ferry Road approaches currently have a crash rate that exceeds the average for intersections of this type. Further, this intersection is one of only two locations on Ferry Road that do not have continuous cycle-lane facilities. It is proposed to make some alterations to the intersection to improve the safety for all users in this location, and provide cycle lanes compatible with the rest of the city to Sumner route.

The proposed works will widen the western side of the intersection to allow cycle lanes while retaining full traffic capacity. A median island on the western side will eliminate the predominant cause of vehicle crashes.

The project falls under the auspices of the Sustainable Transport and Utilities Committee, and this report asks for approval to progress to consultation. The project was also reported to the 5 June 2002 meeting of the Hagley/Ferrymead Community Board for information and comment.

PROJECT BACKGROUND

In early 1999, as part of the monitoring programme of intersection collision rates in the city, the intersection of Aldwins/Ensors/Ferry, and its Ferry Road (west) approach were identified as having higher than average vehicle collisions. Thirteen collisions were reported in 5 years, 3 of which were cycles at the intersection, the remainder being vehicles and pedestrians west of the intersection. The predominant vehicle collisions are for vehicles turning right into, or out of, the Mobil Service Station.

Ferry Road has high cycle volumes, in 1999, over 300 cyclists per day passed through the intersection. The Aldwins/Ensors intersection with Ferry Road is one of only two locations on Ferry Road that does not have cycle lane treatments installed.

The above two factors raised the requirement for intersection improvements that treated both the collision problems and the lack of cycle facilities.

SCHEME PLAN DEVELOPMENT

Subsequent to the initial issues raised (above), other factors have been identified that are relevant to this location. The project needs to consider these following issues:

- Pedestrians have difficulty crossing Ferry Road (west) toward the Edmonds Garden area. Several pedestrians have been injured crossing immediately outside the petrol station.
- Bus stops need to be retained.
- On-street parking outside businesses need to be retained where possible, or reduced as little as possible.
- Cycle collisions (not formally recorded but reported to area engineer) seem to be occurring more frequently at Hart Street intersection.
- Vehicles currently queue back past Ryan Street intersection. Intersection capacity needs to be unaffected at a minimum, and improved if possible.
- Edmonds Garden must be untouched.

A draft scheme plan has been developed for the project which is based on these issues. The plan is attached to this report. A description of the scheme's components, and the reasoning behind them are as follows:

- **A long median island on the west side of the intersection**

The median island eliminates the ability of people to turn right into or out of the Mobil Station on the corner. The right turning vehicles entering and exiting the station are the primary vehicles at fault in the majority of the intersection collisions.

The median island also provides some protection for pedestrians crossing the road. Although such a crossing is neither recommended nor desirable at this location, such crossings are practically impossible to prevent.

- **Intersection is widened on eastbound approach**

The eastbound approach to the signals is widened. The change provides an extended left-turn storage lane and a cycle lane on the eastbound approach, and a cycle lane on the west bound approach. The overall traffic lane structure of left-turn, straight-ahead and right-turn on each approach is unchanged.

The cycle lane configuration is expected to provide much greater protection, visibility and guidance for cyclists, and will also provide the only missing section in 4.2km of cycle lanes.

Extending the red surfacing past the intersection of Hart Street is expected to reduce the safety risk to cyclists when vehicles turn into the road in a stream of queued traffic.

- **On-street parking and queue lengths**

There is no change to on-street parking on the south side of the road. It is proposed to remove approximately 4 vehicle spaces immediately outside Edmonds Park, and on-street parking from Edmonds Park to Ryan Street (approximately 8 spaces). This is intended to both preserve the safety of cyclists and vehicles approaching the intersection, and retain as much road width as possible for vehicles to queue.

The project requires land on the north-west corner of the intersection to provide the additional road width and retention of a footpath. The land required is occupied (and leased) by a Mobil Service Station. It has already been purchased.

The project and land requirement has been specifically designed to not touch any land of the Edmonds Park area.

OPTIONS CONSIDERED

A number of options were considered in the development of the proposed plan. The main optional treatments are as follows:

- Land on the north side of Ferry Road, both east and west of Aldwins Road is under designation. The designation was intended to provide adequate road space for a median divided, dual lane carriageway through this intersection. The median divider would eliminate the right in/out for the service station. The option to take all of this designation was considered but rejected because:
 - Purchasing the full designation land and building the dual carriageway would cost several millions, and the capacity it would provide could not be justified at this time.
 - A reference exists on the Edmonds Park section of the designation, meaning no progress could be considered until this designation is resolved.
 - The current safety problems faced by the intersection can be resolved without needing the full dual carriageway treatment, and without the need to impose such extensive disruption on residential properties.
- The option to place a pathway within the Edmonds Park, and remove the existing footpath for parking/road space was considered. This option would generate more queuing capacity at the intersection and/or on-street parking. It was rejected because any road-change-related work in Edmonds Park may interfere with the designation reference process. In addition, there is a strong desire to stay away from any form of disruption within the Park.
- The options to create cycle facilities on the pathway on both sides of the road, from Ryan Street on the north side, and up to Osbourne Street on the south side were considered. These options were rejected based on costs and practicality.

- The pathways are currently edged with covered deep-dish channel - there is no effective kerb line. Vehicles usually park straddling the channel. To turn these paths into effective cycle and pedestrian pathways would require developing normal flat kerb and channel. The path would need to be widened on the south side in front of the shops. The costs of approximately 300m of new kerb and channel, plus extensive road rebuilding to accommodate it would be prohibitive.
- The creation of a cycle pathway immediately in front of the shops would impose some restrictions on the retailer's ability to place path signage, and may impose some dangers to pedestrians exiting and entering the shops - particularly those who park in front of the shops.
- If eastbound cyclists were directed on to a path on the north side of the road, they would either have to leave the path and enter the traffic stream prior to the start of the left-turn lane, or a special signal phase would be required to take them from the pathway across Aldwins Road, or they would be required to dismount and walk across Aldwins Road. The first suggestion (back on the road) requires cyclists to re-enter the road at a point where vehicles are making lane-changing decisions. The second (special signal) will impact noticeably on vehicle turning capacity, affecting vehicle queuing lengths. The third option (walk across Aldwins Road) defeats the whole purpose of the creation of a cycle route.
- The remainder of the cycle route on Ferry/Main Roads (up to approx 7km) are cycle lanes. A short length of cycle path in these locations would be of practically no utility to the cycle route.
- The option to retain parking on-street, on the north side of the road has been considered. The impact of doing so is to reduce the available queuing width for vehicles at the intersection.

After consideration of the range of options above, the City Streets Unit believes an appropriate balance has been obtained between the effects and benefits likely to ensue from the proposed work.

PROJECT STATUS

This project has been on the City Streets capital works programme for the last two years, but has been carried forward each year as there have been difficulties contacting the land owners to discuss purchase.

The project has been costed at \$197,000 and offers sufficient improvement in vehicle and cycle safety, and cycle health benefits to gain Transfund subsidy.

City Streets design processes and safety audit have been satisfactorily completed.

The project is now seeking Sustainable Transport and Utilities Committee approval for public consultation.

PROJECT CONSULTATION

Due to the various constraints on this project imposed by the Edmonds Park and the safety concerns at the intersection, the options that the consultation process can produce are limited:

- The fundamental purpose of this project is safety improvements - reducing the turning in/out collision problem at the service station. The island is the recommended treatment for this. Hence its length and position are considered a 'not negotiable' issue unless an equally effective collision reduction treatment is proposed.
- Given the cycle volumes, traffic volumes and signal phasing, the cycle lane configuration is considered the minimum acceptable treatment. Removal of the cycle lane at the intersection to either reduce the land-take or provide additional lane-space would require changes to the signal phases, which would in turn reduce intersection capacity. The project would also lose Transfund subsidy.
- Parking removal in front of Edmonds Park is necessary to provide appropriate lane width, queuing distance, cycle lane width, and cyclist safety. A need to retain this parking will compromise all of these factors.

- It is not desirable to consider any extra land on the northern side for additional road width. More land from the service station site would be of no benefit to this project, and land from Edmonds Park has never been an option.

The issues above therefore provide limited opportunity for a consultation process to change the proposed layout, although there are possibilities. It would subsequently be most pragmatic to issue the project consultation pamphlets with the notice that the consultation is mainly to inform about the key proposed actions (median island, cycle lanes, land take) and that comments and suggestions are welcome about other elements - particularly the balance between parking, queuing space and intersection capacity.

COMMUNITY BOARD INVOLVEMENT

The Hagley/Ferrymead Community Board has already seen a similar version of this report and is comfortable with the project proposal being placed in the public area. Following the public consultation round, the findings and recommendations will be reported to Hagley/Ferrymead for comment before a final recommendation is made to Sustainable Transport and Utilities Committee.

NATURAL + PEOPLE + ECONOMIC STEP ASSESSMENT

#	CONDITION:	Meets condition ✓✓0*	HOW IT HELPS MEET CONDITION:
The Natural Step			
N1	Reduce non-renewable resource use	✓	Improvement to cycling conditions will encourage more cycle use.
N2	Eliminate emission of harmful substances	0	Effectively unchanged impacts on vehicle use
N3	Protect and restore biodiversity and ecosystems	0	No changes
N4	People needs met fairly and efficiently	NA	NA - See People Step + Economic Step
The People Step			
P1	Basic needs met	✓	Improvements to cycle safety balance equity in transport choice
P2	Full potential developed	0	
P3	Social capital enhanced	✓	Project achieves recognised health benefits
P4	Culture and identity protected	0	
P5	Governance and participatory democracy strengthened	0	
The Economic Step			
E1	Effective and efficient use of all resources	✓✓0*	Project offers economic benefits 3* greater than costs.
E2	Job rich local economy	0	
E3	Financial sustainability	0	

Staff

Recommendation: That the Aldwins/Ensors/Ferry intersection improvement project be approved for public consultation.

Chairman's

Recommendation: That the above recommendation be adopted.