



Road User Review

Salamanca Place – Southern Footpath

September 2016

Version 1.01 – 07 September 2016

Contents

1. Introduction.....	3
2. Investigation Scope	3
3. Review of Crash History	4
4. Pedestrian Crossing Facility at Montpelier Retreat.....	6
5. Road Safety Impacts of Proposal	8
6. Pedestrian Amenity Benefits.....	9
7. On Street Parking Impacts.....	12
8. Impacts on Frontage Properties and Salamanca Market.....	13
9. Appendix A – Crash History Summary Table Summary Table	A

1. Introduction

This review provides background material on the concept for the widening of the footpath on the southern side of Salamanca Place between Gladstone Street and Montpelier Retreat.

2. Investigation Scope

The review consists of a discussion of a number of specific items included in the 21 December 2015 resolution of the Hobart City Council regarding the potential widening of the footpath on the southern side of Salamanca Place between Gladstone Street and Montpelier Retreat:

- A review of the opportunities for improving the pedestrian crossing facility at Montpelier Retreat through improved surface treatments and kerb realignment
- An analysis of the road safety impacts, for pedestrians and vehicular traffic, of the proposed alterations
- An analysis of the pedestrian amenity benefits that will be achieved by the proposed alterations;
- An analysis of the impact, if any, on on-street parking of the proposal
- An analysis of the anticipated impact, of the proposal on frontage properties, and the Salamanca Market.

It should be noted that the scope of this report only considers the matters as described above.

The concept plan, 'Figure 1 – Salamanca Pedestrian Works – Draft 18/07/2016' included in the consultation with key stakeholders shows the area, and the proposed concept being considered. That plan has been reproduced at Figure 2.1.

The project funded in the current 2016-17 financial year is for the widening of the footpath on the southern side of Salamanca Place between Gladstone Street and Montpelier Retreat. The concept plan utilised for consultation and included in Figure 2.1 also shows works at the intersection of Salamanca Place / Montpelier Retreat and on Salamanca Place between Montpelier Retreat and Kennedy Lane. While funding is not available this financial year for the works at the intersection, it has been included to show the context of the widening of the footpath with the anticipated future works at the intersection.

In this Review:

- **Stage 1** – Refers to the widening of the southern footpath of Salamanca Place (between Gladstone Street and Montpelier Retreat), for which funding is available in the 2016-17 financial year.

- **Stage 2** – Refers to the widening of the footpaths at the intersection of Salamanca Place / Montpelier Retreat, and the southern footpath of Salamanca Place (between Montpelier Retreat and Kennedy Lane), which is currently not funded.

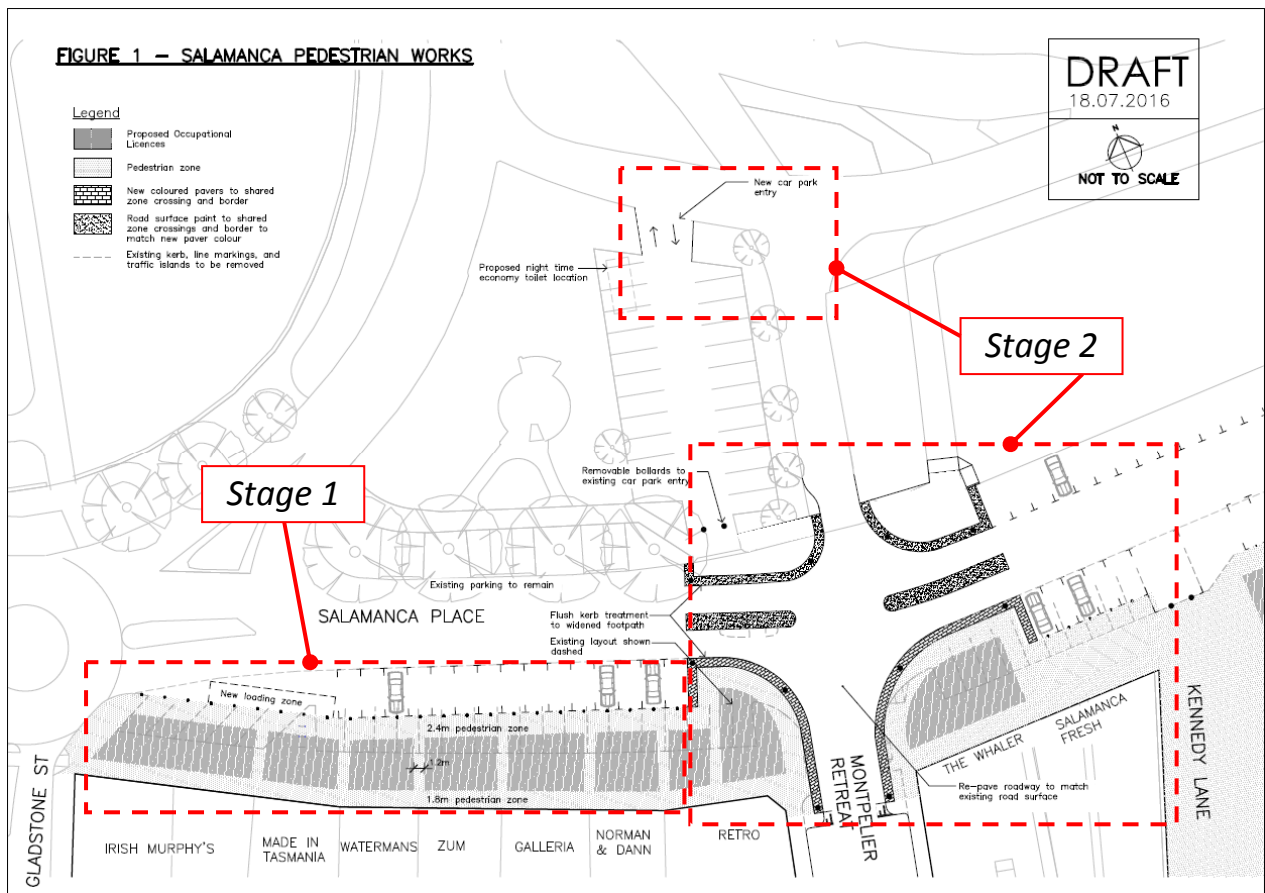


Figure 2.1 – Salamanca Place southern footpath concept plan

3. Review of Crash History

The Department of State Growth maintains a database of all crashes reported to and recorded by the Tasmanian Police on streets in Tasmania from the year 2000 to the present. A review was undertaken of this database to determine the history of crashes in the vicinity of the subject site. The full listing of the crash details is available in Appendix A.

It should be noted that in April to July 2004, the intersection of Salamanca Place and Montpelier Retreat was upgraded to improve pedestrian safety, following a history of crashes resulting in injuries to pedestrians. Kerb bulbings were constructed to reduce pedestrian crossing distances and improve the sight distance available for pedestrians and drivers when crossing. Since the construction of those works, there has only been 1 reported crash involving a pedestrian at this intersection, which occurred in November 2004, and did not result in injury.

In Figure 3.1 and 3.2 below, the recent crash history for the 5 sections of Salamanca Place has been summarised for the last 5 years. For each section, the figure shows:

- The number of recorded crashes involving a pedestrian (crashes recorded as type 100 to 109);
- The number of recorded crashes involving vehicles parking or manoeuvring (crashes recorded as type 140-149, 160-169);
- The number of recorded crashes involving any other movement type (all other recorded crash types);

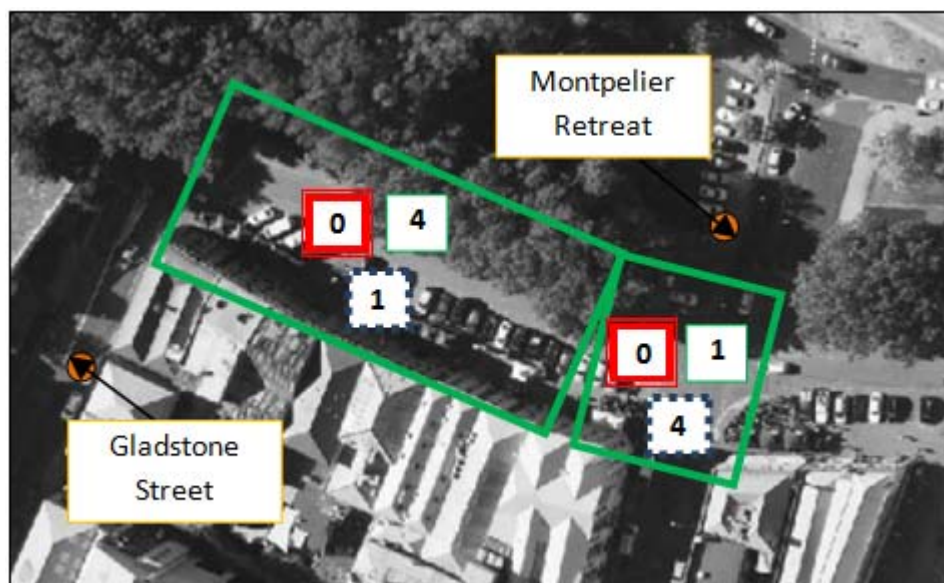


Figure 3.1 – All recorded crashes (Montpelier Retreat to Gladstone Street), 1/7/2011 to 30/6/2016

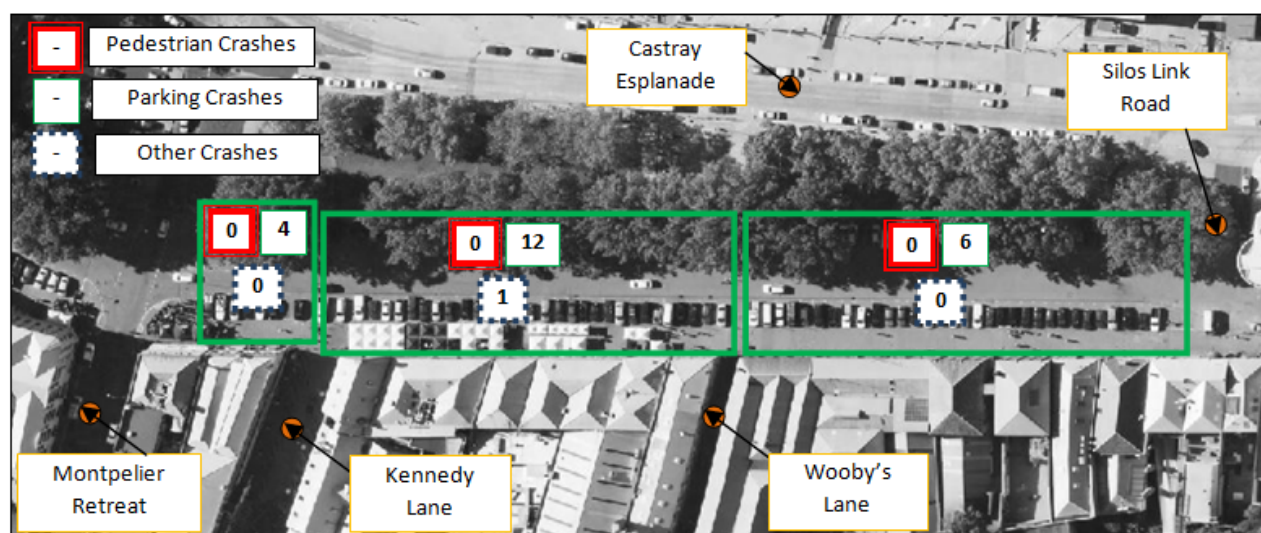


Figure 3.2 – All recorded crashes (Montpelier Retreat to ‘Silos Link Road), 1/7/2011 to 30/6/2016

Overall, in the last 5 years, the historical rate of crashes on Salamanca Place between Gladstone Street and the ‘Silos Link Road’ is 6.6 total crashes per year, comprised of:

- 6.6 property damage crashes per year;
 - 5.4 crashes per year involving vehicles parking or manoeuvring;

- 0.0 crashes per year involving pedestrians;
- 1.2 other crashes per year (typically cross traffic or rear end crashes at intersections);
- 0.0 injury crashes per year;

The most significant crash type reported are those involving vehicles entering or exiting parking spaces, and manoeuvring around parked vehicles. There were however no reported injuries resulting from these crashes.

At the intersection of Salamanca Place / Montpelier Retreat, there have been 5 reported crashes in the last 5 years. This included:

- 3 crashes, where a through vehicle on one approach on the intersection strikes a through vehicle on another approach;
- 1 crash, where a vehicle waiting at the holding line on the Salamanca Place west approach reversed into another vehicle;
- 1 crash, where a westbound vehicle on Salamanca Place approaching the Montpelier Retreat intersection struck the rear of another vehicle;

On Salamanca Place between Gladstone Street and Montpelier Retreat, there have been five reported crashes in the last 5 years. This included:

- 4 crashes, where vehicles manoeuvring into and out of parking spaces were involved in a collision;
- 1 crash, where a vehicle performed an “improper overtaking” manoeuvre;

Overall the history does not indicate a significant pedestrian or general safety issue on Salamanca Place between Gladstone Street and the ‘Silos Link Road’.

4. Pedestrian Crossing Facility at Montpelier Retreat

The pedestrian crossing facility at Montpelier Retreat on the southern side of Salamanca Place currently consists of footpath bulbings with kerb ramps. Pedestrians are required to select gaps in vehicular traffic on Montpelier Retreat and cross a distance of about 7.5 metres.

Previous investigation has concluded that:

- There have been no recorded crashes resulting in injury to pedestrians at this location since the intersection was upgraded in 2004. The only crash reported involving a pedestrian occurred in late 2004, and did not result in injury (it involved a vehicle reversing out of a parking space striking a pedestrian). With high volumes of pedestrians crossing at this location, the history of crashes demonstrates that the current situation is performing very well, from a safety perspective.

- The average delay to pedestrians waiting to cross has been estimated at about 2.75 seconds, based on the crossing distance and volume of vehicular traffic. Utilising pedestrian level of service (LOS) assessment, this would correspond to LOS 'A', and be defined as 'Excellent'.
- As a pedestrian, it seems apparent when using the existing crossing point, that it is an awkward and at times uncomfortable point for pedestrians to cross. At the crossing point, a pedestrian must essentially look for gaps in four separate streams of vehicular traffic:
 - Northbound traffic on Montpelier Retreat;
 - Southbound traffic on the one-way link through the Salamanca Lawns;
 - Eastbound traffic on Salamanca Place turning right into Montpelier Retreat;
 - Westbound traffic on Salamanca Place turning left into Montpelier Retreat;
- While the low traffic volumes result in very small delays to pedestrians, the acting of looking in each direction at these various potential streams of traffic, particularly with large numbers of parked vehicles and other restrictions to a pedestrians sight distance, results in an uncomfortable crossing.

On the conventional measures of safety (risk of injury) and amenity (delay waiting to cross), it is apparent that the existing pedestrian crossing is very safe and can be used by pedestrians with little delay. It would however seem evident that there would be benefits to the community in improving the comfort of the crossing for pedestrians.

Stage 1 – Does not include any works at this crossing.

Stage 2 – The concept design for works at the intersection of Montpelier Retreat and Salamanca Place includes the following features that would typically be seen as improving pedestrian facilities at the intersection:

- The installation of a raised pavement treatment, that would reduce the speed of northbound traffic on Montpelier Retreat
- The removal of the kerb separating the footpath from the road surface, creating a level surface for pedestrians crossing at the intersection
- The removal of some on-street parking spaces on Salamanca Place either side of the intersection, which will improve sight distance for pedestrians looking to observe cars entering from Salamanca Place
- The upgrading of the street lighting.

It is considered that the most significant improvements to pedestrian amenity at this crossing would be achieved by removing the southbound link for vehicular traffic between Morrison Street and Montpelier Retreat that runs through the centre of the Salamanca Lawns and through the Salamanca Place / Montpelier Retreat intersection. This would

remove a traffic movement through the intersection that has priority over pedestrians, and simplify the operation of intersection for pedestrians and road users. Feasibility modelling to determine the practicality of this alteration is currently underway, and it is anticipated that this work would form part of a potential third stage of the project, should it be shown as feasible.

5. Road Safety Impacts of Proposal

As discussed, the road safety record of Salamanca Place between Gladstone Street and the 'Silos Link Road' in the last 5 years is free of recorded casualty crashes to any road user.

Overall, an average of 6.6 property damage crashes a year have been recorded, with 5.4 of these crashes involving vehicles parking or manoeuvring.

While it is speculation, it would seem reasonable that this excellent safety history would be a result of the typically very low speed of traffic in the area, and the high level of awareness of both drivers and pedestrians.

Stage 1 – The widening of the footpath between Gladstone Street and Montpelier Retreat would result in narrower traffic lanes for through vehicles in this section of Salamanca Place. It would also increase the difficulty for drivers manoeuvring into and out of parking spaces in that section.

A similar narrowing of the traffic lanes was undertaken on Salamanca Place between Kennedy Lane and Wooby's Lane in November 2013.

Prior to the November 2013 narrowing, this section of Salamanca Place recorded 2.30 crashes per year. In the approximately 2.6 years from the completion of the narrowing in December 2013 to July 2016, 7 crashes have been recorded, an annual rate of 2.60 crashes per year.

While this data suggests that the similar narrowing of the traffic lanes in Stage 1 will not generate a significant increase in the rate of crashes recorded, it is considered likely that there will be an increase in the number of crashes involving vehicles moving into and out of parking spaces. This type of crash is unlikely to result in any injury, unless an unprotected road user (a pedestrian or cyclist / motorcyclist) is involved.

Stage 2 – The concept design for works at the intersection of Montpelier Retreat and Salamanca Place would be considered unlikely to have a significant beneficial impact on road safety (in terms of the risk of injury), as the recent history of the intersection is free of any recorded crashes resulting in injury.

The proposal would be expected to improve the sight distances available for pedestrians and road users, and provide clearer paths for pedestrians seeking to cross at the intersection. This would be expected to significantly improve the perceived safety (or comfort) of the intersection for road users, particularly for pedestrians.

It should be noted that it is possible for improvements in perceived safety and comfort for road users to lead to an increased risk of injury, if that increased comfort leads to increased speeds, or less caution by road users.

Overall, the most significant safety benefit of the proposal would be expected to not be a typical road safety matter, but rather a reduction in the overall risk and number of trips / falls for pedestrians, particularly on Salamanca Market days that will result from the removal of a number of raised kerb lines and traffic islands.

6. Pedestrian Amenity Benefits

Typical views of the existing footpath on Salamanca Place between Gladstone Street and Montpelier Retreat are shown in Figures 6.1 and 6.2 overleaf.

The footpath surface is constructed of the typical paver style utilised in the Salamanca Precinct. A number of businesses in this section of Salamanca Place have occupation licences for outdoor dining, or are placing 'A-frame' advertising signboards on the footpath. The placement of tables and chairs, and advertising signage is installed such that there is typically a strip of tables / chairs / signboards against the building line, then a clear pedestrian width of about 1.8 metres and then a further section of outdoor dining furniture.

The result of this is that despite there being a constructed footpath of generous width, the current allocation of a 1.8m wide pedestrian path between outdoor dining and 'A-frame' advertising signboards that are placed both along the building line and against the kerb line results in pedestrians walking through a corridor of private furniture.

Particularly when outdoor dining areas are heavily occupied, having the pedestrian path running between outdoor dining areas is seen to impact on pedestrian amenity, by requiring pedestrians to weave through the furniture as they move along the footpath.

Best practice in catering for pedestrians, including pedestrians with disabilities, is to provide a pedestrian path clear of obstacles along the building line.



Figure 6.1 – Existing conditions – Salamanca Place (Gladstone Street to Montpelier Retreat)

It should be noted that this issue could be resolved by the City of Hobart without making any changes to the footpath, by requiring that outdoor dining furniture and ‘A-frame’ signage be moved away from the building line and a minimum clear width of between 1.8m and 2.4m be maintained for pedestrians.



Figure 6.2 - Existing conditions – Salamanca Place (Gladstone Street to Montpelier Retreat)

Pedestrian Level of Service (LOS)

Table 3.3 of the AustRoads Research Report 'Guide Information for Pedestrian Facilities' provides basic guidance for pedestrian level of service on a walkway. The LOS is ranked from LOS 'A' to LOS 'F', with LOS 'A', the highest LOS, being described as:

“At a walkway LOS A, pedestrians move in desired paths without altering their movements in response to other pedestrians. Walking speeds are freely selected, and conflicts between pedestrians are unlikely. Pedestrian Space > 5.6sqm/pedestrian, Flow Rate < 16 pedestrians/min/m.”

Indicative surveys of the number of pedestrians crossing Montpelier Retreat on the southern footpath of Salamanca Place undertaken in March 2012 showed peak pedestrian volumes during the lunchtime period on weekdays of 671 pedestrians per hour (11.18 pedestrians per minute).

A clear pedestrian width of 1.8m and pedestrian volume of 11.18 pedestrians per minute would result in a Flow Rate of 6.2 pedestrians per metre per minute, which would correspond to Level of Service A.

This would indicate that there is not currently a crowding issue for pedestrians on the footpath.

Stage 1 – The widening of the footpath between Gladstone Street and Montpelier Retreat would provide amenity benefits to pedestrians through the reconstruction of the footpath surface to provide a smoother and more level surface. This would be of particular benefit to pedestrians with disabilities, who report difficulties with the current style of paver used on the Salamanca footpath.

The comfort of pedestrians walking along this footpath would also be expected to increase, by the relocation of outdoor dining furniture and 'A-frame' signage away from the building line, allowing a clear and consistent pedestrian corridor against the building, and reducing perception of some pedestrians that they are walking through a private space (i.e. when walking between groups of people seated in outdoor dining areas). It should be noted that this could be achieved on the existing footpath without undertaking the reconstruction works.

The Stage 1 works also includes the provision of a second pedestrian path, located between the alignment of the parked cars and potential outdoor dining zones, to allow pedestrians to move between parked cars and the main footpath and as an alternative pedestrian path. This would be expected to add to the pedestrian comfort and amenity significantly.

Stage 2 – The concept design for works at the intersection of Montpelier Retreat and Salamanca Place would be considered likely to provide a significant beneficial impact on pedestrian comfort. The proposal would be expected to improve the sight distances available for pedestrians and road users, and provide clearer paths for pedestrians seeking to cross at the intersection. This would be expected to significantly improve the perceived safety (or comfort) of the intersection for road users, particularly for pedestrians.

In particular, the proposal would be expected to significantly improve the comfort of the pedestrian crossings across Salamanca Place at the Montpelier Retreat intersection, by providing level and accessible crossing points and allowing pedestrians to cross more directly on their desire line than is currently possible.

7. On Street Parking Impacts

The concept plan distributed to stakeholders in July 2016 included the following changes to the existing parking supply:

- The removal of 5 parking spaces (1/2P metered) along the frontage of The Whaler and Salamanca Fresh immediately east of the intersection of Salamanca Place / Montpelier Retreat.
- The removal of 3 parking spaces (2P metered) along the frontage of Retro and Norman and Dann, immediately west of the intersection of Salamanca Place / Montpelier Retreat.
- The net loss of 3 parking spaces (2P metered) along the frontage of Irish Murphy's and Made in Tasmania.

Overall, the proposal as distributed to stakeholders would result in the removal of 11 parking spaces.

Stage 1 – The widening of the footpath between Gladstone Street and Montpelier Retreat would result in the net loss of 6 parking spaces (2P metered).

Stage 2 – The concept design for works at the intersection of Montpelier Retreat and Salamanca Place would result in the loss of an additional 5 parking spaces (1/2P metered) along the frontage of 'The Whaler' and 'Salamanca Fresh'.

To widen the footpath would require the loss of on-street parking spaces, as the narrower road width is not compatible with angle parking in the immediate vicinity of the intersections. The concept plan also shows the removal of two parking spaces approximately in front of 'Salamanca Fresh' that are being considered for removal to allow pedestrians crossing Salamanca Place on the eastern side of Montpelier Retreat a clear pedestrian crossing path on the main desire line.

A detailed analysis of the impact of the loss of on-street parking has not been undertaken for this report.

It is considered that there is a sufficient supply of on-street parking in Salamanca Place and the surrounding area such that the use of time limits, enforcement and parking fees should be sufficient to ensure that vacant parking spaces are typically available for customers seeking short term parking to visit local businesses.

For example, currently there are 16 1/2P metered parking spaces on Salamanca Place between Montpelier Retreat and Kennedy Lane that have been installed within the larger 2P metered area zone that covers the rest of Salamanca Place. This zone was installed to increase the turnover of parking in the immediate vicinity of 'Salamanca Fresh', and typically provides reliable vacant parking spaces for customers to that business, and to other businesses in the area.

If the Stage 2 works were to proceed as shown on the concept plans, this would result in the removal of 5 of these 16 1/2P metered spaces. To ensure that short term parking continued to be available, the 1/2P metered zone would need to be monitored, and if necessary extended to again ensure that short term parking is available to support businesses in the vicinity.

8. Impacts on Frontage Properties and Salamanca Market

Frontage Properties

The proposal would have no direct impacts on frontage properties. The main impact of the footpath widening would be to alter the space on the footpath available to be licensed to businesses for outdoor dining.

Currently six businesses have occupation licences for outdoor dining on the Salamanca Place footpath.

Figure 8.1 summarises the existing licenced areas for the six businesses, and the additional space that would potentially be available for each of these businesses after the footpath was widened. The figure shows the areas that would be available under two widening scenarios, the first when a 1.8m wide pedestrian path was maintained between the building line and the licenced areas, and the second if a wider 2.4m wide pedestrian path were maintained.

Licence holder	Existing licence area (m ²)		Proposed licence area (m ²) – with 1.8m walkway		Proposed licence area (m ²) – with 2.4m walkway	
	Sunday to Friday	Saturday	Sunday to Friday	Saturday	Sunday to Friday	Saturday
Irish Murphy's	43	43	88	41	90	35
Watermans	23	23	40	23	40	17
Zum	20.5	20.5	48.5	26	45	18
Dr Coffee	11.5	5.8	18	9.2	18	7
Retro	24.6	24.6	60	18	54	13
The Whaler	61	55.8	93	52	88	32

Figure 8.1 – Occupation licence for outdoor dining – potential changes to available areas

Salamanca Market

The proposal should have no significant negative impact on Salamanca Market stallholders. The removal of raised kerb lines, which creates trip hazards for market users during the market, should assist in improving conditions for pedestrians and stallholders during the market.

It will be necessary for a number of removable bollards to be installed to ensure that parked cars do not encroach onto the footpath area after it is widened and the kerb removed. These bollards will need to be removed and re-installed each market day by the Salamanca Market Crew.

9. Appendix A – Crash History Summary Table Summary Table

	Years	'Parking' Crashes - DCA 140's & 160's			'Pedestrian' Crashes - DCA 100's			'All Other' Crashes			Total Crash Rate (per Year)		
		Property Damage	Injury	Total	Property Damage	Injury	Total	Property Damage	Injury	Total	Property Damage	Injury	Total
Salamanca Place (Between Gladstone Street and Montpelier Retreat)													
1/1/2000 to 30/6/2016	16.5	17	0	17	2	1	3	1	0	1	1.21	0.06	1.27
<i>Last 5 Years (1/7/2011 to 30/6/2016)</i>	5.0	4	0	4	0	0	0	1	0	1	1.00	0.00	1.00
Salamanca Place / Montpelier Retreat Intersection													
1/1/2000 to 1/4/2004 (prior to 2004 Upgrade)	4.3	1	0	1	0	2	2	1	1	2	0.47	0.71	1.18
1/8/2004 to 1/7/2016 (post 2004 Upgrade)	11.9	7	1	8	1	0	1	9	0	9	1.43	0.08	1.51
<i>Last 5 Years (1/7/2011 to 30/6/2016)</i>	5.0	1	0	1	0	0	0	4	0	4	1.00	0.00	1.00
Salamanca Place (Between Montpelier Retreat and Kennedy Lane)													
1/1/2000 to 30/6/2016	16.5	22	2	24	0	1	1	1	1	2	1.39	0.24	1.64
<i>Last 5 Years (1/7/2011 to 30/6/2016)</i>	5.0	4	0	4	0	0	0	0	0	0	0.80	0.00	0.80
Salamanca Place (Between Kennedy Lane and Wooby's Lane)													
1/1/2000 to 17/11/2013 (prior to 2013 'Narrowing')	13.9	31	0	31	0	1	1	0	0	0	2.23	0.07	2.30
7/12/2013 to 1/7/2016 (post 2013 'Narrowing')	2.6	6	0	6	0	0	0	1	0	1	2.69	0.00	2.69
<i>Last 5 Years (1/7/2011 to 30/6/2016)</i>	5.0	12	0	12	0	0	0	1	0	1	2.60	0.00	2.60
Salamanca Place (Between Wooby's Lane and 'Silos Link Road')													
1/1/2000 to 30/6/2016	16.5	19	2	21	0	1	1	1	0	1	1.21	0.18	1.39
<i>Last 5 Years (1/7/2011 to 30/6/2016)</i>	5.0	6	0	6	0	0	0	0	0	0	1.20	0.00	1.20
Total Crash Rate (1/1/2000 to 30/6/2016)	16.5	103	5	108	3	6	9	14	2	16	7.27	0.79	8.06
Total Crash Rate (Last 5 Years)	5.0	27	0	27	0	0	0	6	0	6	6.60	0.00	6.60

Note: Data extracted from database on 1 September 2016. A pedestrian safety project was constructed at Montpelier Retreat / Salamanca Place in 2004. In 2013, the road surface between Kennedy Lane and Woobys Lane was narrowed to increase footpath width.