Traffic Impact Assessment (TIA)

Unit Development (Stage 2)
27-29 Leslie Street, South Launceston, Tasmania

Author: Andrew Howell,
BEng(Hons), MEngSci

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Document History and Status

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A	31/10/2018	TIA Draft for Comment
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Author:	Andrew Howell, BEng (Hons) - UTAS, MEngSci - UNSW
Client:	Claire Gregg/ JVZ
Project:	Leslie St, Sth Lton Unit Development
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Contents

1. Introduction

The proponents, Urban Design Solutions, are seeking development approval for Stage 2 of a unit/strata development located at 27-29 Leslie Street, South Launceston, Tasmania (*Refer Fig 1.1 and 1.2 – Area / Access Plans).*

The proposal consists of five (5) additional residential units on the site which has already seen approx. 7 Stage 1 units approved and partially completed (under separate previous DA, previous approval for 10 units). Based on the additional 5 units as part of Stage 2 works and changed layout, Council has requested the proponents consider traffic impacts relating to the development – an earlier TIA did not consider all five Stage 2 units in this configuration.

The southern section of the property where Stage 2 units are proposed is currently undeveloped and the Northern Stage 1 units are currently under construction. The final site arrangement has a dual width access from Leslie Street as shown (providing for two way traffic flow). The general layout of the development on the site is as per *APPENDIX 1 – Proposed Development Plan.*

It is noted this site had a TIA completed to consider the Stage 1 unit development, undertaken by Pitt and Sherry in 2015. This TIA report (and addendum) has been reviewed by the author of this TIA and is included for reference, with many of the previous TIA findings and conclusions being supported, and some conditions and site arrangements have not materially changed.

1.1 Background & Project Scope

Planning requirements suggest that a TIA would be required to be undertaken to assess traffic impacts and any issues arising. Based on the low traffic generation of the five (5) units (Stage 2 only) and the generally similar arrangement for the site layout in this residential street following onsite inspection, a brief Traffic Impact Assessment (TIA) is provided to assess the development, which includes reference to the previous TIA (*Pitt & Sherry* 2015), with comment and updates where necessary.

The below report addresses traffic related aspects and attempts to identify and comment on any potential impacts affecting, or arising from, the development.

1.2 Objectives

The key objectives of this report are:

- Review of the existing road physical characteristics in the vicinity of the site(s).
- Review of existing traffic conditions.
- Describe the development with regards to arrangements for access, including any implications for traffic efficiency, safety, and amenity.

1.3 Subject Site Location

The subject site considered is 27-29 Leslie Street, South Launceston. Leslie Street is an urban road with a default 50km/hr speed limit. The development has an existing property access which is currently being upgraded to permit two-way flow, recommended by P&S in the previous TIA to provided minimum 5.5m total width.

Leslie Street is a City of Launceston (CoL) Road.

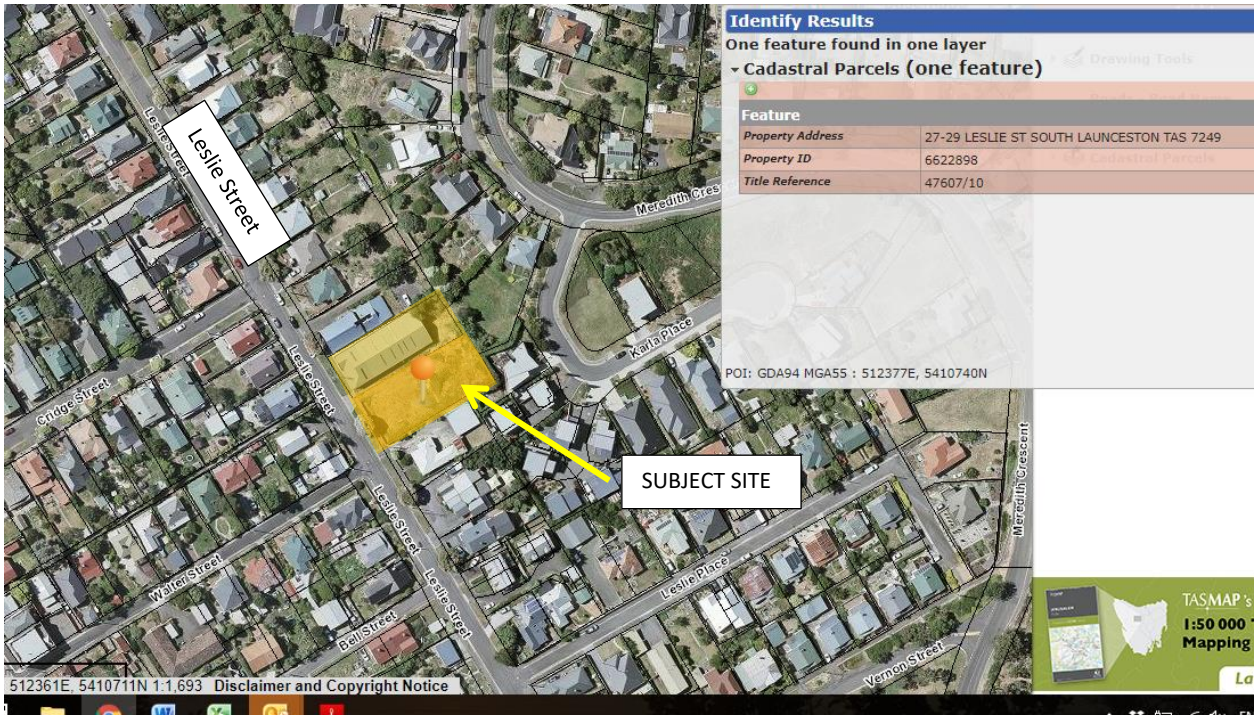


Fig 1.1 – Locality Plan /Area of site (Existing Image from www.THELIST.tas.gov.au)

Fig 1.2 – Site (zoom), and proposed access options (Existing Image from www.THELIST.tas.gov.au)

1.4 Information Sources & References

The author has been provided with relevant information on the development, including preliminary plans prepared for development application stages. These details provide an outline of the proposed works, and indicate that generally the development proposes no significant change to existing traffic arrangements for the wider network (including no materially significant traffic increase).

The report has also reviewed publicly available information including www.THELIST.tas.gov.au and online mapping and street-image tools to ascertain any obvious issues relating to the development. The author has a 20-year history of the site area generally, and a physical site inspection was undertaken on 7th Sept 2018.

The report has utilized the DIER (now Department of State Growth or DSG) document "Traffic Impact Assessment (TIA) Guidelines" in the preparation of this report.
Further referenced documents include:

- DSG Tasmanian State Road Hierarchy
- CoL Interim Planning Scheme 2015 - Specifically, E4 Road and Rail Assets Code
- AUSTROADS Publications (various)
- Australian Standards, including specifically AS2890-Off Street Parking

1.5 Planning Scheme Aspects

The Planning scheme applicable is the Launceston City Council Interim Planning Scheme 2015
The current zoning for the land and surrounding area is believed to be 10.0 – GENERAL RESIDENTIAL.
The Road and Rail Assets Code (E4) from the planning scheme applies

2. Existing Conditions

2.1 Transport Network

Leslie Street is a local access street running between Melbourne Street and Vernon Street, and is built to urban road construction standards. The speed limit is default 50km/hr, and the proposed site access is directly from Leslie Street. This link provides little connectivity to nearby residential streets, with the majority of nearby streets having access directly to higher order roads (e.g. Wellington Street), and as such there appears minimal through traffic using this other than local residential traffic.

Leslie Street is a City of Launceston (CoL) administered road, suggested as a “Local Access“street under the LGAT Local Government road hierarchy (Urban Roads – noted as traffic volumes for Local Access as 50-1000 VPD and general construction standards). CoL staff noted current traffic data is suggested remains as per the P&S traffic data reported, with less than 500 VPD ADT likely and peak hourly volumes of just under 50 VPH. Site inspection during morning peak to sample typical vehicle numbers suggests these traffic numbers as noted by P&S are likely of the right order.

The road is built generally to an urban road standard, with a sealed surface, no centre lines, kerb and channel, footpaths, and a nature strip on one side only (East). Leslie Street is approx. 8m (FOK-FOK), providing some narrower passing areas at times due to the generally unrestricted parking either side of the road. This is typical of the area, and is a wider issue for Council, not related to this development. The low traffic volumes likely contribute to this street functioning satisfactorily regardless.

The proposed new property access appears to be in the process of upgrading to meet current IPWEA/LGAT standards and the recommended 5.5m width suggested by the 2015 P&S TIA. There appear no drainage or grade issues identified with the access.

Sight distance at this site is deemed appropriate based on site inspection, with sound vertical and horizontal alignment on Leslie Street in the vicinity of the new access, and some consideration of local conditions and low traffic volumes – broken visibility due to parked cars is typical of the surrounding neighbourhood which functions appropriately and presents no local crash history identifying any existing issues.

2.2 Road Conditions & Road Safety Performance

Generally, the road network in this area appears to function satisfactorily. Sight distances in all directions at this proposed access location area can be deemed appropriate with appropriate visibility available in all directions, with some potential for broken visibility at some locations due to free range parking on Leslie Street; however this is typical of most residential streets elsewhere which operate satisfactorily. Recommendations for replacement/repainting of parking restriction line marking immediately outside the access (refer P&S TIA actions) is considered appropriate, and should be a condition of operation of the access.

There is a nearby footpath on the Eastern side of Leslie Street, with a grassed nature strip with kerb and channel outside the development location, with no changes to these aspects by the proposed development

Due to change in traffic use for the proposed access, the new access must be constructed to CoL (IPWEA/LGAT) standards to ensure a compliant access is created, which appears currently in progress (min 5.5m width per P&S report). Safe Intersection Sight Distance (SISD) can be considered achieved.

Based on the relatively small traffic numbers additionally generated by the development (Stage 2 – additional 30 VPD arising from 5 units) compared to the wider network and low traffic volumes on this specific link, capacity of the surrounding transport network is not considered an issue.

3. Proposed Development

3.1 Site Development / Traffic Generation

The additional development for Stage 2 as proposed includes five (5) new residential dwellings, with approx. 30 VPD assumed generated by the development (Stage 2). *It is noted that some of this number would have been attributed to the previously approved stage 1 plans, with only a net increase overall from previously approved plans of approx. 12 VPD.*

The new access to Leslie Street is able to be constructed to meet necessary Council standards with sound driveway grades, widths (5.5m to be provided, currently appearing under construction per P&S previous recommendations), and sound drainage arrangements are available. The existing road network can accommodate the relatively small additional number of vehicle movements arising from this development.

3.2 Traffic Generation & Distribution

N.A. – minimal generation in the scheme of wider network.

4. Traffic Impacts

4.1 Access/Junctions – including Sight Distance

Based on the details provided, it is likely that the property access option as proposed when constructed will satisfactorily to cater for the development, with an access to IPWEA/LGAT standards, and with appropriate width to provide for two way flows in and out. The new access appears to be currently in the process of being upgraded to the width as recommended in the 2015 P&S TIA with 5.5m min width – (*REFER FIG 4.1a, Access currently being upgraded*).

The proposed access has been assessed for sight distance based on site inspection, as well as undertaking distance checks from aerial photos and mapping/image tools and on this basis, can be deemed satisfactory, based on the information reviewed.

The P&S report notes sight distance details as follows, and actions to ensure SISD can be achieved. The report (2015) notes:

> *"Photos of the sight distance at the proposed shop access are provided in Figure 3 and Figure 4. Sight distance to the right of the development access is obscured by a tree on the nature strip. Taking the current condition of the tree into account the sight distance was measured to be approximately 8m. It is highly likely that when the premise at 27 Leslie Street was operating this tree would have been maintained to a higher standard than it is at present. Trimming or removal of the tree would increase the sight distance to 214m. It is recommended that the tree be trimmed to provide sufficient sight distance out of the access. To the left of the access the sight distance is clear through to Vernon Street, a distance of 181m, which is well above the required sight distance requirements.*
> *With the tree managed or removed, the sight lines out of the access comply with all requirements of the Austroads Guide, Australian Standards and the Launceston Interim Planning Scheme 2012 outlined in Table 2.*
> *"No Parking" pavement markings are provided on both sides of the access presumably to improve sight distances from the accesses. As shown in Figure 3 and Figure 4 the markings are faded and will need to be renewed."*

These findings are supported by site inspection with reported sight distance measurements being confirmed, however noting that the status of the two actions from the P&S report remain as follows:

1) Tree trimming to provide suitable sight distance to NORTH – ***COMPLETED**, refer Fig 4.1b below*
2) Line marking to delineate no parking zone immediately outside access – ***INCOMPLETE** – this must be completed prior to operation of the access for the proposed use.*

SISD exists on the above basis as noted by P&S report. Whilst visibility can be obscured slightly by parked vehicles, based on the low volume of traffic, the set back of fence alignment and there being few other obstructions in this general zone, this appears representative of the remainder of Leslie Street accesses and residential streets elsewhere nearby, and is thus deemed acceptable, particularly with the proposed line marking previously in place and recommended be reinstated by the P&S report, which is supported by this report also.

With consideration and review of AUSTROADS guidelines, IPWEA/LGAT and Australian Standards guidelines, this sight distance for the property access is deemed satisfactory.

Clause E4.6.4 of the Planning Scheme notes that sight distance for accesses for Acceptable Solution A1 must comply with Safe Intersection Sight Distance (SISD) from table E4.6.4.
For an 85% speed of 50 km/hr this SISD is nominally 80m for speed limit < 60 km/hr.
Based on above analysis, E4.6.4 is met by A1. Sight distances can be deemed satisfactory for proposed access as proposed, with an access constructed to CoL (LGAT/IPWEA) standard.

Fig 4.1a – View of new access under construction – upgrading to minimum 5.5m width required in progress

Fig 4.1b – View from proposed new access to the NORTH– approximate

Fig 4.1c – View from proposed new access to the SOUTH– approximate

4.2 Surrounding Road Network Impacts

Due to the relatively small volume of additional traffic generated from the development, assessment of additional road network parameters beyond the site are outside the formal remit of this report, however volumes are not considered material and would have limited impact on the wider network.

4.3 Parking Assessment

Parking compliance was not required to be assessed as part of this report, with the parking designer providing separate review of compliance for authority consideration against planning scheme requirements.

4.4 Road Safety & Traffic Service

Based on the sight distances above being considered appropriate for the road environment, with regard to Planning Scheme Acceptable Solution A1 being deemed met, road safety appears to not be compromised by the development works proposed.

Traffic service for the proposed development is adequately provided with the existing infrastructure (capacity, turning gaps, etc.), based on the relatively small traffic volumes anticipated overall from the additional 5 units, and the existing low volumes on Leslie Street.

4.5 Pedestrians, Cyclist impacts, Public Transport

Currently there is pedestrian access via Footpath on the both sides of the road servicing the area of the site, but no formal cycle access near to the site. No changes are proposed or required. Taxis can service the site. Buses appear to service the general area. No specific changes are proposed.

4.6 Summary of Assessment against Planning Scheme E4 – Road and Railway Assets Code

Item	Comment/Criteria Met
E4.5.1 – Existing Road Accesses and junctions	A1 – **NOT APPLICABLE** (not Cat 1 or 2 nor >60km/hr) A2 – **NOT APPLICABLE** (Not >60km/hr) A3 – **NOT MET**– Use increase >20% likely P3 - **COMPLIES** existing access is considered safe, (already in operation) and will not unreasonably impact on efficiency of road – refer comments from this report (and P&S previous TIA addressing access suitability similarly)
E4.5.1 – Existing Level Crossings	A1 – **NOT APPLICABLE** (no rail crossings)
E4.6.1 – Development adjacent to Roads and Railways	A1.1 – **NOT APPLICABLE** (not Cat 1 or 2 nor >60km/hr) A1.2 – **REQUIREMENTS ARE MET** – adjacent building lines/locations similar
E4.6.2 – Road Accesses and Junctions	A1 – **NOT APPLICABLE** (< 60km/hr) A2 – **REQUIREMENTS ARE MET**
E4.6.3 – New Level Crossings	**NOT APPLICABLE**
E4.6.4 – Sight Distances at Accesses, Junctions and Level Crossings	A1 – **REQUIREMENTS ARE MET** a) Access junction – Table E4.6.4 requirements are met b) Rail level crossings - **NOT APPLICABLE**

Conclusion: Requirements for E4 are met.

5. Authority Comment/Feedback

The 2015 TIA from P&S considered crash data from DSG (2015), and this was reviewed through this revisited TIA. As noted by P&S, the crash data indicates no inherent safety or crash issues with the development site area. Based on the low impact and small scale of this additional development on the site on a minor residential street, no specific additional DSG comment or feedback is considered required at this time for the development update as proposed (no DSG road impacts likely).

An additional check was made with DSG for updated Crash Data, however for the 5 years for Sept 2018 no crash data was recorded for the Leslie Street link – this data map including surrounding area is included as *APPENDIX C.*

Traffic data was sought from City of Launceston (CoL) officers, which referred to most recent data remaining the previous P&S TIA referred data (2015). This data was thus again utilized and reviewed for this updated report. *Site inspection including sample vehicle counts was also undertaken during morning peaks, which generally supported the previously reported data.*

This TIA is now provided for submission to CoL as part of consideration for road authority approval.

6. TIA Conclusions

This TIA has investigated the potential impacts from the development of the site as proposed in Leslie Street, South Launceston.

Key findings of this TIA are as follows:

- That the proposed existing access location to service the development as proposed with the access constructed to IPWEA/LGAT and CoL standards, with width of minimum 5.5, and with general arrangements as per the proposed concept layout, can likely meet the requirements to service the development and to be able to cater for traffic as proposed.
- Minor increase in traffic arising from the development additional to the previous TIA findings – thus traffic service remains adequately provided for by the road and network arrangements as noted, in order to service the development,
- Sight distances for the proposed property access is deemed to comply with the planning scheme E4.6.4 Acceptable Solution A1, with adequate SISD able to be achieved based on a specific assessment of the site, subject to reinstatement of parking restriction line marking adjacent to access being completed prior to operation for the new development
- Other Planning Scheme Requirements under Code E4 are met as noted.

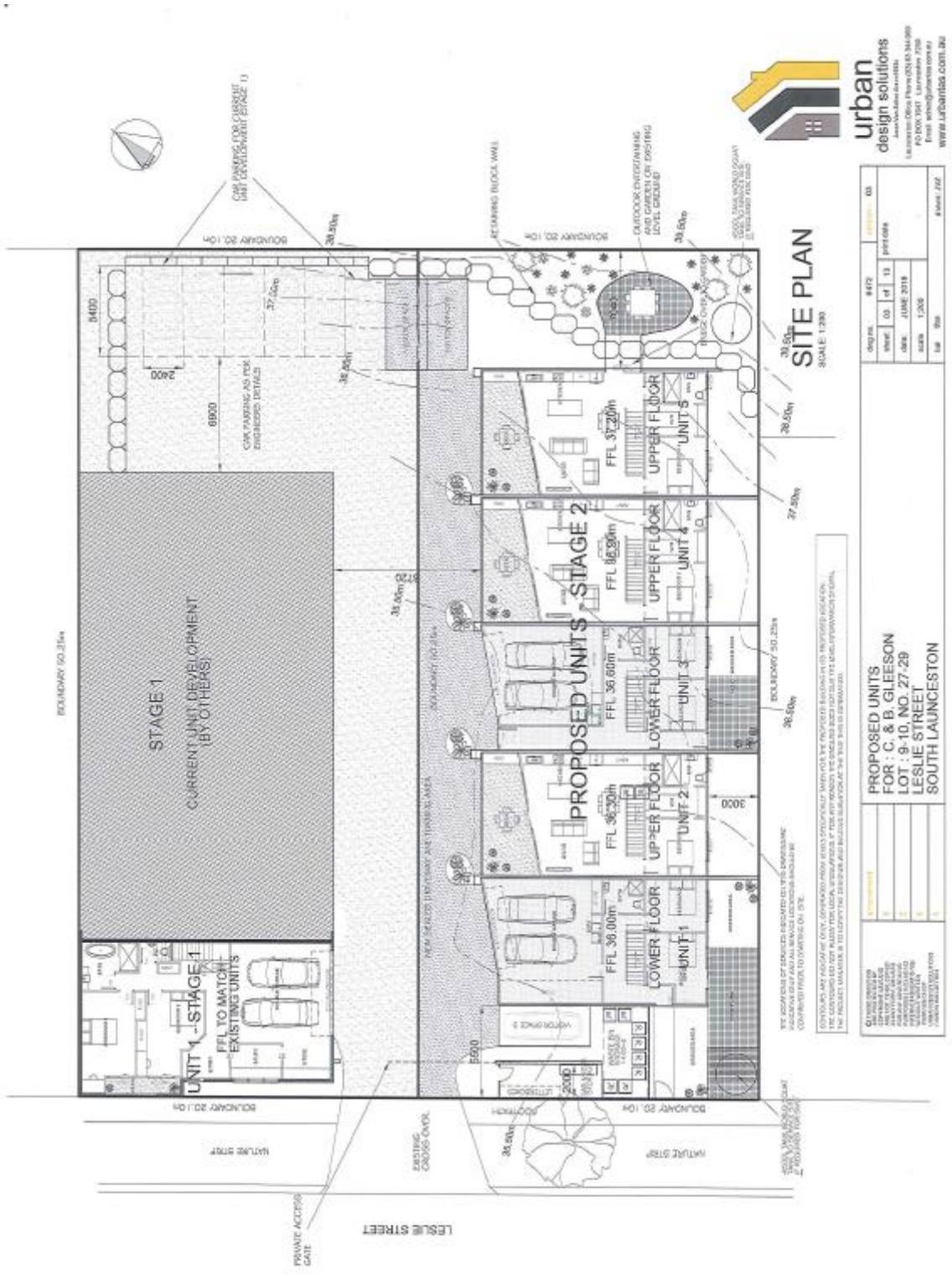
It is concluded based on the above assessment of available information that traffic aspects associated with the development are likely to meet the requirements for Traffic Safety and Service, and any potential for adverse effect on the existing traffic situation is unlikely based on relevant standards and guidelines noted, subject to recommendations and comments noted.

Limitations

This TIA has been completed based on information provided by the client and available in the public domain, additional information beyond this has not been considered.
Based on the nature of the development, this TIA has considered the access and operational aspects for this development only, and has not considered in detail the wider impacts beyond the site (upstream network impacts), this being outside the scope of this report.
Any subsequent changes to configuration or arrangements relating to the development which may impact on the content or recommendations of this report must be reviewed and approved by the author.

APPENDIX A

Proposed Development Plan



APPENDIX B

Previous TIA for the Development Site (P&S 2017) inc Addendum – attached

APPENDIX C

DSG Crash Stats Map

(***Note:*** *No crashes Leslie St)*

Commercial and Residential Development
27 – 29 Leslie Street South Launceston
Traffic Impact Assessment

transport | community | industrial & mining | carbon & energy

pitt&sherry

Prepared for: Genette Stagoll

Project Number: LN14426

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Rev 04

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Prepared by: ..... Date: 19 May 2015
Ross Mannering

Reviewed by: ..... Date: 19 May 2015
Nicholas Dwyer

Authorised by: ..... Date: 19 May 2015
Ross Mannering

Report Revision History

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00	Traffic Impact Assessment	S. Jordan	I. Abernethy	R. Mannering	5/03/2015
01	Revised Traffic Impact Assessment	S. Jordan	I. Abernethy	R. Mannering	11/03/2015
02	Revised Traffic Impact Assessment	S. Jordan	I. Abernethy	R. Mannering	16/03/2015
03	Revised Traffic Impact Assessment	S. Jordan	I. Abernethy	R. Mannering	1/04/2015
04	Revised Traffic Impact Assessment	R. Mannering	N. Dwyer	R. Mannering	19/05/2015

Glossary of Terms

AADT	Annual Average Daily Traffic - The total number of vehicles travelling in both directions passing a point in a year divided by the number of days in a year.
Access	The driveway by which vehicles and/or pedestrians enter and/or leave property adjacent to a road.
Austroads	The association of Australian and New Zealand road transport and traffic authorities and includes the Australian Local Government Association.
Crash	An apparently unpremeditated event which results in death or injury to a person or property damage and is attributable to the movement of a road vehicle on a public road (including vehicles entering or leaving a public road).
Delay	The additional travel time experienced by a vehicle or pedestrian with reference to a base travel time (e.g. the free flow travel time).
Intersection	The place at which two or more roads meet or cross.
km/h	Kilometres per hour.
Level of Service	An index of the operational performance of traffic on a given traffic lane, carriageway or road when accommodating various traffic volumes under different combinations of operating conditions. It is usually defined in terms of the convenience of travel and safety performance.
m	Metres.
Movement	A stream of vehicles that enters from the same approach and departs from the same exit (i.e. with the same origin and destination).
RTA	The Roads and Traffic Authority of New South Wales - The New South Wales Government Department which manages the road network in New South Wales.
Sight Distance	The distance, measured along the road over which visibility occurs between a driver and an object or between two drivers at specific heights above the carriageway in their lane of travel.
SISD	Safe Intersection Sight Distance - The sight distance provides sufficient distance for a driver of a vehicle on the major road to observe a vehicle on a minor road approach moving into a collision situation and to decelerate to a stop before reaching the collision point.
Speed	Distance travelled per unit time.
Traffic Growth Factor	A factor used to estimate the percentage annual increase in traffic volume.
Trip	A one-way vehicular movement from one point to another excluding the return journey. Therefore, a vehicle entering and leaving a land use is counted as two trips. (RTA Guide to Traffic generating Developments).
vpd	Vehicles per day - The number of vehicles travelling in both directions passing a point during a day from midnight to midnight.
vph	Vehicles per hour - The number of vehicles travelling in both directions passing a point during an hour.

1. Introduction

It is proposed to redevelop a site at 27-29 Leslie Street in South Launceston with the purpose of creating a mixed use residential and café development. The Launceston Interim Planning Scheme 2012 requires an independent Traffic Impact Assessment to be undertaken for any development which could generate more than 40 vpd.

pitt&sherry have been engaged to undertake an independent Traffic Impact Assessment (TIA) for the proposed development which will accompany the Development Application required for the change of use. The TIA will address the traffic generation impacts, car parking, access requirements and road safety matters associated with the proposed development.

This report has been prepared in accordance with the Department of State Growth's *Framework for Undertaking* Traffic *Impact Assessments* and details the findings of the traffic investigations undertaken for the proposed development.

2. Location and Site Description

A café and ten townhouses are proposed at 27 – 29 Leslie Street, South Launceston. The site is on land title 47607/9 and 47607/10. The site is located in a predominantly residential area of South Launceston. On 27 Leslie Street there is an existing showroom which is built to the building line, facing the road and the northern boundary. The existing showroom building will be retrofitted to accommodate the proposed café (with a single bedroom manager's unit above). Figure 1 shows the development site in the context of surrounding development and the road network.

The land gently slopes upwards south to north and is surrounded by residential development consisting of single dwellings and multiple dwellings.

There is currently an access driveway onto the site which is located central to the two land titles.

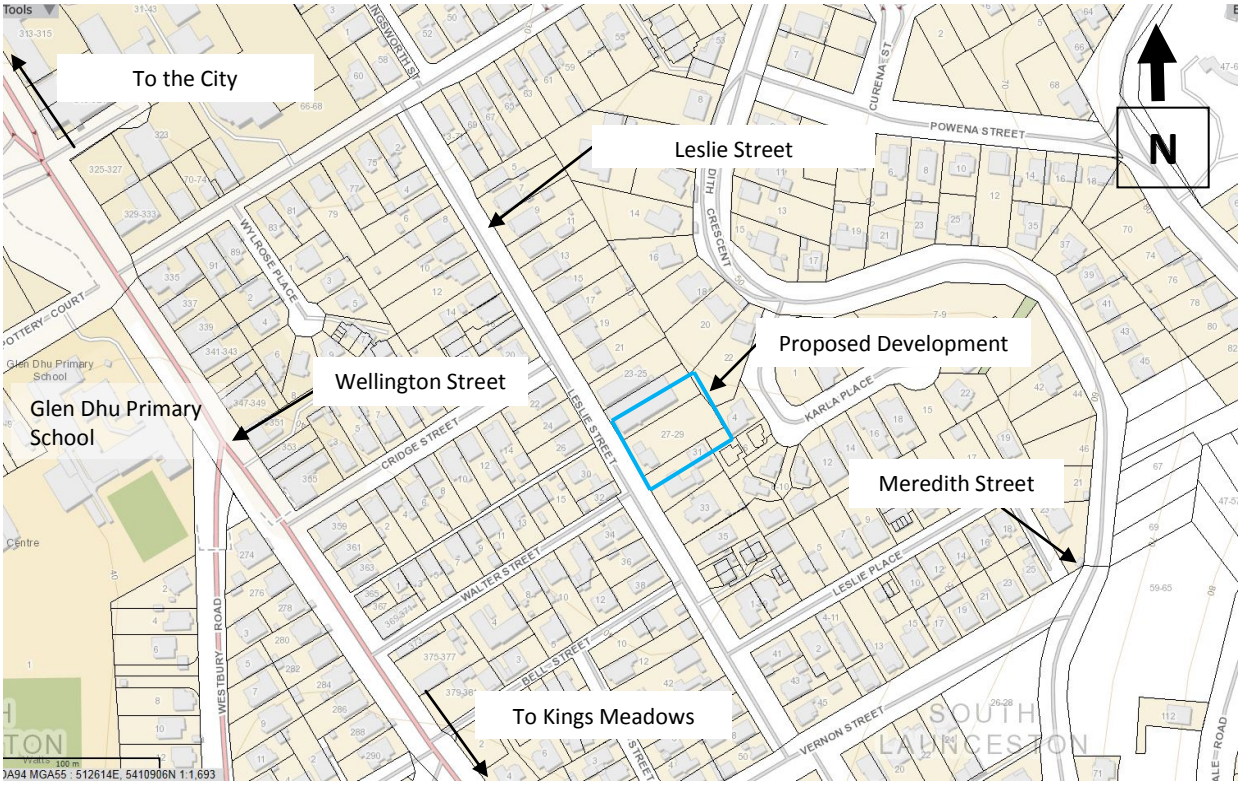


Figure 1: Locality Plan

3 Existing Conditions

3.1 Existing Development on Site

The current building on 27 Leslie Street is a large showroom building. There is an extensive workshop section and a manoeuvring yard to the rear. The buildings appear to be quite old with a newer extension at the front section. An older steel clad shed is located on 29 Leslie Street which will be removed as part of this proposal. The buildings on site are currently vacant.

Any parking required for previous uses has taken place in a random manner on both of the two titles which make up the site.

3.2 Surrounding Road Network

Leslie Street is a local, residential access road which is part of a grid like network of local roads and located between the main distributor roads of Wellington Street and Meredith Crescent. Leslie Street runs generally north to south. Vernon Street and Melbourne Street run east to west of the site and provide a link between Wellington Street and Meredith Crescent.

Alternative transport routes between Leslie Street to Wellington Street include the use of Bell Street, Walter Street and Cridge Street.

Leslie Street, in the vicinity of the site, has a 15.4m wide road reserve. Within that reserve there is a 1.2m wide footpath as measured from the subject site fence to the edge of footpath; a 4m wide nature strip to the kerb line; a 7.6m wide sealed carriageway and a 1.6m wide footpath on the western side of the street. This is typical of this type of streets in this area.

The road network in this area is managed by Launceston City Council. Wellington Street and Meredith Crescent have a 60 km/h speed limit. The default residential area speed limit of 50 km/h applies to Leslie Street.

3.3 Crash History

The crash history in the vicinity of the proposed development over a five year period up to December 2014 has been obtained from the Department of State Growth. A copy of the history is included in Appendix A.

The crash history indicates that there have been no crashes reported Leslie Street, Cridge Street, Walter Street and Bell Street in the vicinity of the development. There were five crashes reported at the intersection of Melbourne Street and Wellington Street. Of the five crashes, two resulted in minor injury and the remaining three resulted in property damage only.

The number and severity of the crashes over the last five years in the vicinity of the development is considered to be very low and thus it can be concluded that there are no significant safety problems in the vicinity of the proposed development site.

3.4 Site Access

Vehicular access to and from the development site is via the existing access central to the two properties. The current access is 4.7m wide at the point where it abuts the road reserve. Within the road reserve the driveway widens to 5.2m over a 4m length to the point where it bisects the kerb line. A photo of the vehicular access is shown in Figure 2.

Figure 2: Proposed development site - vehicular access

3.5 On-Street Parking

On-street parallel parking is provided along the full length of Leslie Street on both sides of the street. There are no time restrictions or other restrictions on this road. Unrestricted parking is also available on Bell Street, Walter Street and Cridge Street.

3.6 Traffic Data

There is little traffic survey data available for this area. Estimated traffic volumes have been assumed by Launceston City Council Traffic Engineers for Leslie Street based on observation on-site, function of the road and adjacent land uses that access onto the road. For the purpose of this traffic impact assessment a peak hour traffic volume in Leslie Street of 37vph was adopted. A conservative compound growth rate of 2% has been applied to the traffic volumes to determine the expected 2015 traffic volumes. The traffic data provided and the 2015 ADT volumes are outlined in Table 1.

Table 1 Estimated Current Traffic Volumes

Location	Date	ADT (vpd)	2015 ADT (vpd)	Peak Hourly Volumes based on 2015 ADT (vph)[1]
Vernon Street (between Wellington and Leslie Street) *(sourced from LCC Survey)*	2012	350	372	37
Leslie Street (between Cridge and Walter Street) *(Sourced from LCC estimated volumes)*	2014	465	475	47
Melbourne Street (between Glenelg and Mulgrave Street) *(Sourced from LCC estimated volumes)*	2014	1253	1279	128

3.6.1 Public Transport

There are no public transport services on Leslie Street or any of the surrounding streets. Wellington Street and Meredith Crescent are public transport routes to and from the City. The nearest bus stop to the site is in Wellington Street (approximately 240m walking distance from the site). In Meredith Crescent the nearest bus stop is 514m walking distance from the site.

4. The Proposed Development

4.1 General

The existing showroom building is proposed to be converted into a café (approximately 116m^2), facing Leslie Street with a manager's unit (one bedroom) located above the café and six two story (plus loft) townhouses located behind the café building. In addition four similar townhouses will be built on the adjoining allotment (at 29 Leslie Street). A site plan is provided in Appendix B.

All 10 two-storey town houses comprise of two bedrooms, living area, kitchen, court yard area and associated car parking. There is an area within the cafe for delivery trucks to pull into and load/unload.

4.1.1 Vehicular Access

Vehicular access for the development site is via the existing access off Leslie Street located centrally to the site. The access has not been altered since the building was last used as a showroom. The width of the existing access is 4.7m.

[1] The peak hourly volumes are assumed to b e 10% of the ADT

4.1.2 Pedestrian Access

As the proposed development is located within an inner city suburb of Launceston, it is expected that there will be a moderate level of pedestrian activity along Leslie Street. There are footpaths on both sides of Leslie Street which will facilitate pedestrian access to and from the proposed development. There is no formal pedestrian crossing facility in the vicinity of the development.

For pedestrians, Leslie Street leads straight into the Central City area via Coronation Park.

There are currently no pedestrian facilities within the site; pedestrians will be required to mix with vehicular traffic.

4.2 Parking

The seven townhouses (units 1 – 7) behind the café will have a dedicated single parking space and the remaining four townhouses (units 8 – 10) will have two dedicated car parking spaces. There will be six car parking spaces provided for the use of café patrons and one disabled persons space.

5. Review of Proposed Development

5.1 Vehicular Accesses

5.1.1 Width

Table E6.2 of *Launceston Interim Planning Scheme 2012* specifies requirements for access widths. The required width for sites 6 to 20 car parking spaces is 4.5m for the initial 7m from the road carriageway.

In addition to the above, Section E6.7.2 of the Planning Scheme also states that the layout of access ways must be designed in accordance with *AS2890.1 Parking Facilities, Part 1: Off Road Car Parking.* Table 1.1 of AS 2890.1 classifies off-street parking facilities based on the likely duration and turnover of parking spaces. According to Table 1.1 the proposed car park for the café is assessed as being a User Class 3A facility and the car parking associated with the townhouses is classified as User Class 1A. Based on the User Classes and Table 3.2 of AS2890.1 an access width of 5.5m is required.

The driveway width as shown on the site plan is approximately 5.4m wide which is marginally less than that required by AS2890.1. As moderate traffic movements in and out of the access during the peak hour are expected the driveway should be able to cater for two-way traffic flows. On this basis, it is recommended that the access be widened to 5.5m.

5.1.2 Pedestrians

There are no formal pedestrian crossing facilities in Leslie Street within close proximity of the development. However, as there are clear sight lines along the road and adequate gaps in traffic, pedestrian traffic generated by the development should be able to safely cross Leslie Street.

There are no dedicated pedestrian paths within the development site. The entrance to the cafe fronts onto Leslie Street and pedestrians who drive to the site will be required to share the car park aisle and access driveway with other motorists within the site. Given the relatively low trip generation expected, this arrangement is considered to be adequate.

5.1.3 Sight Distance

The sight distance was assessed at the access of the proposed development to ensure there is adequate visibility from the road. Measurements were taken during a site inspection on 11 December 2014 from the property access at a point 3m (minimum distance) back from the edge of road in accordance with Figure 3.2 of AUSTROADS *Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections*. According to AUSTROADS guidelines sight distance should be provided in the design of all intersections, including approach sight distance (ASD), safe intersection sight distance (SISD) and minimum gap sight distance (MGSD). The Stopping Sight Distance (SSD) requirements are outlined in the AUSTROADS *Guide to Road Design – Part 3: Geometric Design*. For an approach speed limit of 50km/h the AUSTROADS sight distance requirements are detailed in Table 2.

In Figure E4.7.4, the *Launceston Interim Planning Scheme* outlines requirements for sight distance at vehicular accesses. The requirements are shown in Table 2.

Table 2: Sight Distance Requirements

Requirements	Type of Sight Distance	Grade	Sight Distance Requirement for design speed 50km/h
AUSTROADS Guide Part 4A: Unsignalised and Signalised Intersection.	Approach Sight Distance (ASD) desirable minimum for a reaction time of 2 seconds on most urban and rural road types	Level	55m
	Safe Intersection Sight Distance (SISD) for a reaction time of 2 seconds	Level	97m
	Minimum Gap Sight Distance (MGSD) assuming critical gap of 5 seconds	-	69m
AUSTROADS Guide Part 3: Geometric Design	Stopping sight distance (SSD) on sealed roads for a reaction time of 2 seconds on most urban and rural road types	Level	55m
Launceston Interim Planning Scheme 2012	Safe Intersection Sight Distance (SISD)	-	80m

Photos of the sight distance at the proposed shop access are provided in Figure 3 and Figure 4. Sight distance to the right of the development access is obscured by a tree on the nature strip. Taking the current condition of the tree into account the sight distance was measured to be approximately 8m. It is highly likely that when the premise at 27 Leslie Street was operating this tree would have been maintained to a higher standard than it is at present. Trimming or removal of the tree would increase the sight distance to 214m. It is recommended that the tree be trimmed to provide sufficient sight distance out of the access.

To the left of the access the sight distance is clear through to Vernon Street, a distance of 181m, which is well above the required sight distance requirements.

With the tree managed or removed, the sight lines out of the access comply with all requirements of the Austroads Guide, Australian Standards and the Launceston Interim Planning Scheme 2012 outlined in Table 2.

"No Parking" pavement markings are provided on both sides of the access presumably to improve sight distances from the accesses. As shown in Figure 3 and Figure 4 the markings are faded and will need to be renewed.

Figure 3: Leslie Street looking right from proposed site access, tree blocking view

Figure 4: Leslie Street looking left from proposed site access

5.2 Traffic Operation

5.2.1 Traffic Generation

The *New South Wales Guide to Traffic Generating Developments* is a widely recognised source for indicative trip generation rates for various types of developments. The guide provides rates for medium density residential flat buildings and restaurants which closely match the individual uses in proposed development.

For the residential component of the development the traffic generation rates are given below.

Daily vehicle trips	4 – 5 per dwelling
Weekday peak hour vehicle trips	0.4 - 0.5 per dwelling

For the café component of the development the traffic generation rates are given below

Daily vehicle trips	60 per 100m^2 gross floor area
Weekday peak hour vehicle trips	5 per 100m^2 gross floor area

The likely daily and peak hour trip generation for the development site is given in Table 3.

Table 3: Trip Generation Rates and Traffic Generation

Use	Trip generation	
	Daily Vehicle Trips	Weekday Peak Hour Trips[2]
Townhouses and Managers Quarters	55vpd	6vph
Café (116m^2 GFA)	70vpd	6vph
Total	125vpd	12vph

Table 3 indicates a total of 125 traffic movements daily are likely to be generated from the proposed development. A 50/50 split has been assumed for vehicles entering and exiting the site during the peak hours. Based on the trip generation rates and the split, the total hourly trips at the proposed development are summarised in Table 4.

Table 4: Proposed shop total hourly trips

	Total Hourly Trips		
	IN	OUT	TOTAL
Townhouses and Managers Quarters	3	3	6
Café (116m^2 GFA)	3	3	6
Total	**6**	**6**	**12**

[2] Volumes rounded up to the nearest whole number.

5.2.2 Traffic Assignment

It is expected that a majority of the traffic will travel towards the CBD area (towards the Melbourne Street – Leslie Street junction). Based on this notion, approximately 70% of the traffic generated from the proposed development travel towards the Melbourne Street – Leslie Street junction (towards the Launceston CBD) and 30% of the traffic travel towards the Vernon Street – Leslie Street (away from the CBD) junction has been assumed during the peak periods.

5.2.3 Operation

Table 2.4 of the *AUSTROADS Guide to Traffic Management – Part 6: Intersections, Interchanges and Crossings* (reproduced below) provides guidance on the volumes of traffic that are required at give way controlled junctions to warrant an investigation of the capacity. The access and give way junctions surrounding the development were assessed against Table 2.4 to determine whether additional junction analysis is required.

Major road type[1]	Major road flow (vph)[2]	Minor road flow (vph)[3]
Two-lane	400	250
	500	200
	650	100
Four-lane	1000	100
	1500	50
	2000	25

Notes:
1. Major road is through road (i.e. has priority).
2. Major road flow includes all major road traffic with priority over minor road traffic.
3. Minor road design volumes include through and turning volumes.

Table 2.4 from AUSTROADS Guide to Traffic Management Part 6 Intersections, Interchanges and Crossings

Development Access off Leslie Street

Based on information provided in Section 3.6, the 2014 hourly peak traffic for Leslie Street in the vicinity of the development was estimated to be 47vph during the weekday peak periods.

From the available traffic data and traffic generation calculations, the peak hour traffic volumes on Leslie Street in the vicinity of the proposed development and the volumes generated from the proposed development are expected to be lower than those in Table 2.4 circled in red. To warrant a more detailed traffic analysis the peak hourly volumes on the site access would need to meet or exceed 250 vph. It is therefore considered that the increase in traffic volume due to the proposed development is likely to have minimal impact on the operation of the Leslie Street and that vehicles entering and exiting the site will experience acceptable delays.

Leslie Street – Vernon St Junction & Melbourne St Junction

The assessment for the development access indicated that there will be minimal impact on the operation of Leslie Street. From Section 3.6, the peak hour traffic on Melbourne Street and Vernon Streets are both significantly less than 400 vph. Thus it is considered that the increase in traffic caused by proposed development would also have minimal impact on the traffic operation of the Vernon Street – Leslie Street junction and the Melbourne Street – Leslie Street Junction. It can therefore be concluded that the traffic operation on the surrounding intersections will continue to operate efficiently.

5.2.4 Parking Demand and Supply

Table E6.1 of the *Launceston Interim Planning Scheme 2012* contains parking requirements for various types of development. The café use falls under the definition of Food Services. For Food Services, Table E6.1.1 indicates a minimum of 1 space per 15 square metre net floor area. The requirement for cafe parking under the *Launceston Interim Planning Scheme 2012* is 4 car spaces, plus 1 bicycle space, plus 1 motorcycle space (clause E6.6.4) plus 1 taxi space (clause E6.6.3).

Table E6.7.4 of the Planning Scheme provides parking requirements for persons with disabilities. For a development generating 1 to 20 car spaces the Planning Scheme requires one space to be allocated for people with a disability. Given that the disabled parking is calculated on commercial development then that means a further 1 space for disabled parking is required.

For the residential component of the development the car parking requirement is based on the number of bedrooms and the zoning of the land. The subject site is zoned for General Residential use. The parking requirement for a 2 or more bedroom dwelling is 2 spaces per dwelling. For a 1 bedroom or studio the parking requirement is 1 space per dwelling. In addition to the above requirement, there is a requirement for visitor parking in a general residential zone which is 1 space per 4 dwellings. That gives a parking requirement of 21 spaces plus 3 visitor car parks which equates to 24 car spaces.

Based on the plans, there are 6 car parking spaces and a bicycle space provided for the café component of the development. There is no provision for motorcycle parking or taxi parking shown on the plans. Car parking provisions for the café component of the development exceeds the requirements of the Planning Scheme for standard car parking spaces and satisfies the requirements of the Planning Scheme for disabled and bicycle parking. Whilst parking spaces have not been allocated for taxi parking or motorcycle parking it would be feasible to allocate the two excess standard parking spaces for this purpose.

For the residential development component of the development, there is a shortfall of 11 spaces and thus the parking provision does not meet the Acceptable Solutions of the Planning Scheme outlined in Section E6.1.

In total, there is a calculated shortfall of 11 parking spaces, 1 taxi space and 1 motorcycle space for the development based on the *Launceston Interim Planning Scheme 2012*.

This is an inner city location close to the CBD approximately 6 minutes walk into the city. The target market for this type of development will be residents from inner city areas who can walk into the central area. The cafe will appeal to the persons living in the immediate area who will be more inclined to walk to the venue than drive. On this basis, it is considered that the parking demand will likely be significantly less than the deemed to comply requirement of the Planning Scheme.

In addition it is considered that any shortfall from the residential and cafe components of the development could be easily absorbed in to the on-street car parking on the surrounding road network.

5.2.5 Parking Design

The parking arrangement proposed for the development should be in accordance with *AS2890.1 Parking facilities Part 1: Off-street car parking* and *Launceston Interim Planning Scheme 2012.* The Australian Standard outlines requirements for parking layout at off-street car parks. As mentioned in Section 5.1.1, Table 1.1 of AS 2890.1 classifies off-street parking facilities based on the likely duration and turnover of parking spaces. According to Table 1.1 the car park for the café component of the development is considered to be a User Class 3A facility and for the residential component the car park is considered to be a User Class 1A. Based on this User Class, the required dimensions of the car parks, parking aisle and circulation lane widths can be determined from AS2890.1.

The required dimensions for the individual components within the car park are outlined in Table 5. The parking layout dimensions below will allow safe movement of vehicles into and out of the provided parking spaces.

Table 5: AS2890.1 parking layout requirements

Car Parking Elements	Reference to AS2890.1 Standard	Minimum required widths *(Based on User Class 3A – Café Use)*	Minimum required widths *(Based on User Class 1A – Residential Use)*
Parking space width	Figure 2.2 (90 degree parking)	2.6m	2.4m
Parking space length	Figure 2.2 (90 degree parking)	5.4m	5.4m
Parking aisle width	Figure 2.2 (90 degree parking)	6.6m	5.8m
Circulation Roadway width	Clause 2.5.2 Circulation roadways or ramps	5.5m	5.5m

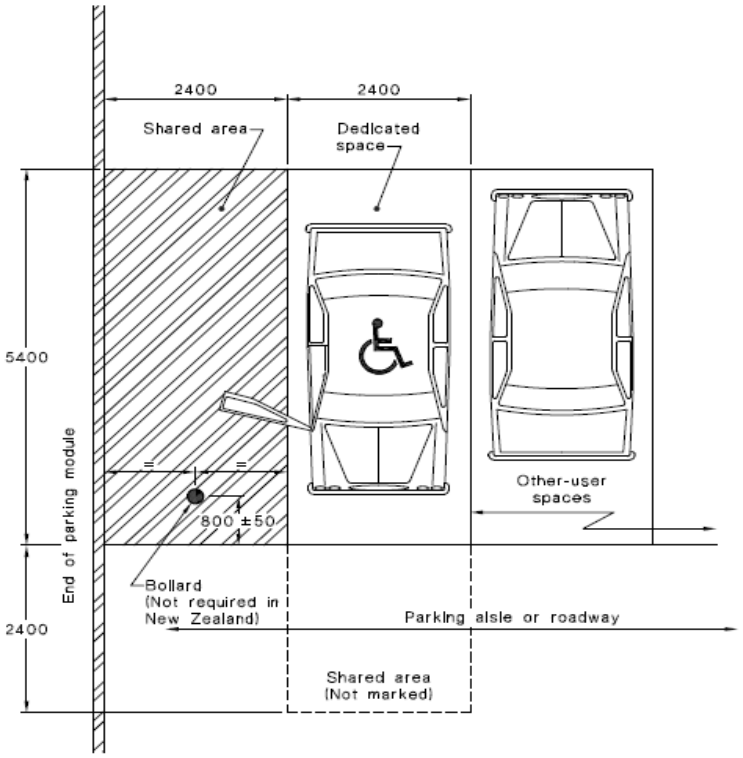
The development plans show that car parking spaces for the cafe component of the development are 5.4m long and 2.6m wide. From Table 5, the car parking space width complies with the requirements of AS2890.1 for User class 3A.

The circulation roadway width within the site is generally greater than 5.5m except for a small section near the site frontage where the width is approximately 5.4m. It is recommended that the circulation roadway be widened to 5.5m in this area.

Vehicles exiting the cafe car park will be required to perform a three point manoeuvre. Turning path analysis has been undertaken to confirm that there is sufficient space within the car park to perform the manoeuvres. A copy of the turning path plan is included in Appendix C. The turning path analysis indicates that there is sufficient space within the car park to reverse out of the parking spaces and exit in a forward direction. The turning path analysis for car park spaces 3 and 4 indicates that vehicles will need to cross the centreline of the access driveway in order to exit the site. Given the relatively low trip generation of the development and the expected turnover of the parking spaces these movements are not expected to cause operational issues with ingress and egress from the site.

Figure 2.2 of the AS2890.6, reproduced below as Figure 5 indicates that a car park for a person with a disability must be a minimum of 2.4m wide and 5.4m long and include a 2.4m wide adjacent shared area. The shared area should be hatched and a bollard be placed approximately 800mm from the front of the area to prevent vehicles from parking in it. The site development plan indicates that the disabled car parking space will be 2.6m wide and 5.4m long with a 2.6m wide shared area adjacent to the parking space. The geometry of the disabled therefore exceeds the requirements of AS2890.6.

The bike parking space is 1.5m wide and 5.4m long. Bike racks installed within the bike parking space should be positioned so that the parked bikes do not encroach into the shared area associated with the disabled parking.



DIMENSIONS IN MILLIMETRES

FIGURE 2.2 EXAMPLE OF AN ANGLE PARKING SPACE WITH SHARED AREA ON ONE SIDE ONLY—DIMENSIONS FOR AUSTRALIA ONLY*

Figure 5: Figure 2.2 from AS2890.6

The internal garage width, roller door width and apron width in front of each townhouse garage and carport satisfies the requirements of Clause 5.4 of AS2890.1. As the garages and carports associated with townhouses 8, 9 & 10 are not orientated perpendicular to the access driveway turning path analysis has been undertaken to check the ability of 85th percentile size vehicles to ingress and egress the garages and carports. Plans showing the turning path analysis are included in Appendix D. The turning path analysis indicates that drivers will be able to ingress and egress the garages and carports using the available space.

5.3 Delivery Vehicle Access

It is anticipated that deliveries to the proposed café will typically be via vehicles of a size equivalent to the B99 vehicle outlined in AS2890.1. The dimensions of the B99 vehicle are indicated in Figure 6 below.

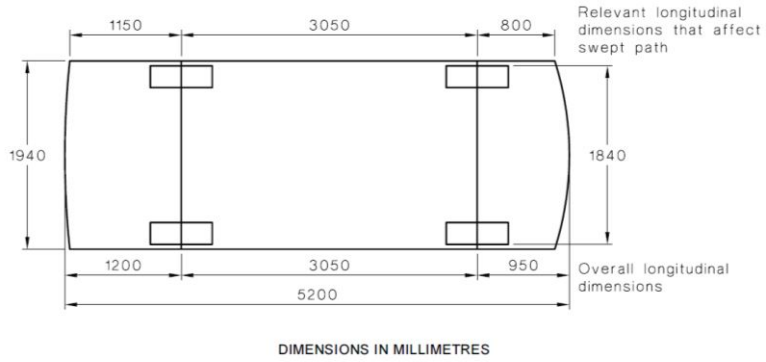


FIGURE B1 B99 (99.8TH PERCENTILE) VEHICLE

Figure 6: Figure B1 from AS2890.1

Due to the expected infrequency of delivery vehicles accessing the site and the short duration of their stay there is not a need for a dedicated delivery vehicle parking space. The most efficient place for delivery vehicles to temporarily park will be in the access aisle way adjacent to the bicycle parking. Once the deliveries have been moved into the cafe, the vehicle will be able to reversed into the cafe parking area and then leave the site in a forward direction. Turning path analysis been undertaken for this manoeuvre and a plan showing the turning path is included in Appendix E. Whilst the delivery vehicle is positioned adjacent to the bicycle parking space a single direction of flow either into or out of the residential component of the development will be available. This arrangement is considered to be satisfactory considering the likely trip generation of the townhouses, the low number of deliveries expected and the short duration of their stay.

Whilst the delivery vehicle is parked adjacent to the bicycle parking it will not be possible for vehicles to ingress or egress the garages associated with townhouses 1 – 4. Again, due to the likely trip generation of the townhouses, the low number of deliveries expected and the short duration of their stay this arrangement is considered to be satisfactory.

5.4 Road Safety

The additional traffic generated from the proposed development is not expected to increase the number or severity of crashes on Leslie Street as the traffic volumes expected to be generated by the development is relatively low.

6. Summary of Findings

The proposed development has been assessed in terms of sight distance, access width, impact on the operation of the surrounding road network, and parking requirements. The Department of State Growth's *Framework for Undertaking Traffic Impact Assessments* has been referenced during assessment of the proposed development.

The results of the assessment can be summarised as follows:

- The traffic generated by the proposed development is not expected to increase the number or severity of crashes on the surrounding road network as the traffic volumes generated by the proposed development are low.
- The access width and circulation roadway width is marginally less than the requirements of the *Launceston Interim Planning Scheme 2012 and AS2890:2004 Parking Facilities Part 1: Off-street car* parking. It is recommended that the access be widened to 5.5m to allow for efficient two way flows in and out of the site.
- Sight distance to the right of the access is obscured by a tree on Leslie Street. It is recommended that the tree be trimmed or removed to allow for the sight distance at the access to comply with the requirements of the Austroads Guide and Australian Standards. Sight distance to the left of the access is adequate and exceeds requirements of Austroads Guide, Australian Standards and the *Launceston Interim Planning Scheme 2012*.
- It is expected that there will be minimal impact on the traffic operation of the surrounding road network as a result of the traffic generated by the development.
- Car parking provisions for the café component of the development exceeds the requirements of the Planning Scheme for standard car parking spaces and satisfies the requirements of the Planning Scheme for disabled and bicycle parking. Whilst parking spaces have not been allocated for taxi parking or motorcycle parking it would be feasible to allocate the two excess standard parking spaces for this purpose.
- For the residential development component of the development, there is a shortfall of 11 spaces and thus the parking provision does not meet the Acceptable Solutions of the Planning Scheme outlined in Section E6.1.
- The parking provisions for the development are considered to be adequate given the location of the site relative to the Launceston CBD. Any parking shortfall can be absorbed into the on-street parking on the surrounding road network.
- The parking provisions for both the cafe and residential components of the development comply with the relevant geometric requirements of AS2890.1 and the *Launceston Interim Planning Scheme 2012.* There is adequate space for vehicles to ingress and egress townhouses 8, 9 & 10 which are not orientated perpendicular to the access driveway.
- The proposed development incorporates appropriate provisions for delivery vehicles associated with the cafe component of the development given their expected infrequency, short duration of stay and the expected trip generation of the residential component of the development.

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Appendix A

Crash History

Crash History from 01/01/2010 to 20/01/2015

Total Crashes: 9

Report Details:

Request Id:	46195974
Requested by:	R BEZZANT
Date:	20/01/2015 09:59:13

Parameters Used:

DIER Road Carriageway:		Recipient Type:	CDM
DIER Road End Chainage:		Release Delay:	0
DIER Road Start Chainage:		Retired Road:	Y
Dier Road Link:		Road Type:	
Dier Road No:		Show BAC:	N
End Date:	20/01/2015	Show Graph:	N
End Time:	23:59	Show Map:	Y
Intersection Name:		Start Date:	01/01/2010
Intersection Point	<spatial value>	Start Time:	00:00
LGA:	Launceston	Surface Condition:	
Light Condition:		Surface Type:	
List Road:	Melbourne Street	Visibility:	
Locality:		Weekend:	
No Units:		Crash Factor:	
Non Road:		DCA Ids:	
Police Attended:		DCA Sub Ids:	
Police District:		DCA Sub Sup Ids:	
Quality Assured:		Days Of Week:	
Radius (m):		Driver Town:	
Recipient Name:	Shivani	Entire State:	N

Parameters Used:

Severity:
Speed Zone:
Toxicology:
Traffic Control:
Unit Type:

Crash History from 01/01/2010 to 20/01/2015

Crash No	Crash Date Time	Severity	Description	Location	Visibility	Surface Type	Surface Condition	Light Condition	Speed Limit	Unit No	BAC*	Unit Type(s)	Traffic Control
30078426	10/02/2011 16:25 THU	Minor	121 - Right through	Intersection of Melbourne Street and Wellington Street, South Launceston, Launceston (512075,5410827.8) Trips Ref N/A	Light rain, drizzle	Sealed	Wet	Daylight	060	1		Light Vehicle	Not controlled
										2		Light Vehicle	Not controlled
30083198	02/03/2013 13:30 SAT	Property Damage Only	130 - Vehicles in same lane/ rear end	Melbourne Street, South Launceston, Launceston (512268.59,5410944.74) Trips Ref N/A	Clear	Sealed	Dry	Daylight	050	1		Light Vehicle	Not controlled
										2		Light Vehicle	Not controlled
48941	11/06/2013 16:30 TUE	Property Damage Only	121 - Right through	Intersection of Melbourne Street and Meredith Crescent and Mulgrave Street, South Launceston, Launceston (512444.033715389,5411050.40018974) Trips Ref N/A	Clear; Snow	Sealed	Dry	Daylight	050	1		Light Vehicle	Not controlled
										2		Light Vehicle	Not controlled
149269	06/11/2013 16:00 WED	Property Damage Only	179 - Other straight	Melbourne Street, South Launceston, Launceston (512622.04,5411151.5) Trips Ref N/A	Clear	Sealed	Dry	Daylight	050	1		Light Vehicle	Not controlled
168425	09/12/2013 08:02 MON	Minor	110 - Cross traffic	Intersection of Melbourne Street and Wellington Street, South Launceston, Launceston (512074.38,5410828.71) Trips Ref N/A	Clear	Sealed	Dry	Daylight	050	1		Bicycle	Not controlled
										2		Bicycle	Not controlled
										3		Light Vehicle	Give way
170588	12/12/2013 10:30 THU	Property Damage Only	169 - Other on path	Melbourne Street, South Launceston, Launceston (512126.77,5410861.1) Trips Ref N/A	Clear	Sealed	Dry	Not known	050	1		Light Vehicle	Not controlled
										2		Light Vehicle	Not controlled
336309	06/07/2014 16:43 SUN	Property Damage Only	113 - Right near	Intersection of Melbourne Street and Wellington Street, South Launceston, Launceston (512073.6,5410829.86) Trips Ref N/A	Clear	Sealed	Wet	Dawn / Dusk	060	1		Light Vehicle	Give way
										2		Light Vehicle	Not controlled
339544	10/07/2014 21:10 THU	Property Damage Only	113 - Right near	Intersection of Melbourne Street and Wellington Street, South Launceston, Launceston (512073.6,5410829.86) Trips Ref N/A	Clear	Sealed	Dry	Darkness (with street light)	060	1		Light Vehicle	Not controlled
										2		Light Vehicle	Give way

Requested by: R BEZZANT Date: 20/01/2015 09:59:13
Request Id: 46195974 End Date: 20/01/2015 End Time: 23:59 Intersection Point <spatial value> LGA: Launceston List Road: Melbourne Street Recipient Name: Shivani Recipient Type: CDM
Release Delay: 0 Retired Road: Y Show BAC: N Show Graph: N Show Map: Y Start Date: 01/01/2010 Start Time: 00:00 Entire State: N
Information contained in this document has been released in accordance with the Commonwealth Privacy Act 1988, Section 14.

Crash History from 01/01/2010 to 20/01/2015

Crash No	Crash Date Time	Severity	Description	Location	Visibility	Surface Type	Surface Condition	Light Condition	Speed Limit	Unit No	BAC*	Unit Type(s)	Traffic Control
482640	02/01/2015 12:55 FRI	Property Damage Only	113 - Right near	Intersection of Leslie Street and Melbourne Street, South Launceston, Launceston (512228.77,5410921.26) Trips Ref N/A	Clear	Sealed	Dry	Daylight	050	1		Light Vehicle	Not controlled
										2		Light Vehicle	Not controlled

Requested by: R BEZZANT Date: 20/01/2015 09:59:13
Request Id: 46195974 End Date: 20/01/2015 End Time: 23:59 Intersection Point <spatial value> LGA: Launceston List Road: Melbourne Street Recipient Name: Shivani Recipient Type: CDM
Release Delay: 0 Retired Road: Y Show BAC: N Show Graph: N Show Map: Y Start Date: 01/01/2010 Start Time: 00:00 Entire State: N
Information contained in this document has been released in accordance with the Commonwealth Privacy Act 1988, Section 14.

Crash History from 01/01/2010 to 20/01/2015

Requested by: R BEZZANT Date: 20/01/2015 09:59:13
Request Id: 46195974 End Date: 20/01/2015 End Time: 23:59 Intersection Point <spatial value> LGA: Launceston List Road: Melbourne Street Recipient Name: Shivani Recipient Type: CDM
Release Delay: 0 Retired Road: Y Show BAC: N Show Graph: N Show Map: Y Start Date: 01/01/2010 Start Time: 00:00 Entire State: N
Information contained in this document has been released in accordance with the Commonwealth Privacy Act 1988, Section 14.

Crash History from 01/01/2010 to 20/01/2015

*******End of Report*******

Requested by: R BEZZANT Date: 20/01/2015 09:59:13
Request Id: 46195974 End Date: 20/01/2015 End Time: 23:59 Intersection Point <spatial value> LGA: Launceston List Road: Melbourne Street Recipient Name: Shivani Recipient Type: CDM
Release Delay: 0 Retired Road: Y Show BAC: N Show Graph: N Show Map: Y Start Date: 01/01/2010 Start Time: 00:00 Entire State: N
Information contained in this document has been released in accordance with the Commonwealth Privacy Act 1988, Section 14.

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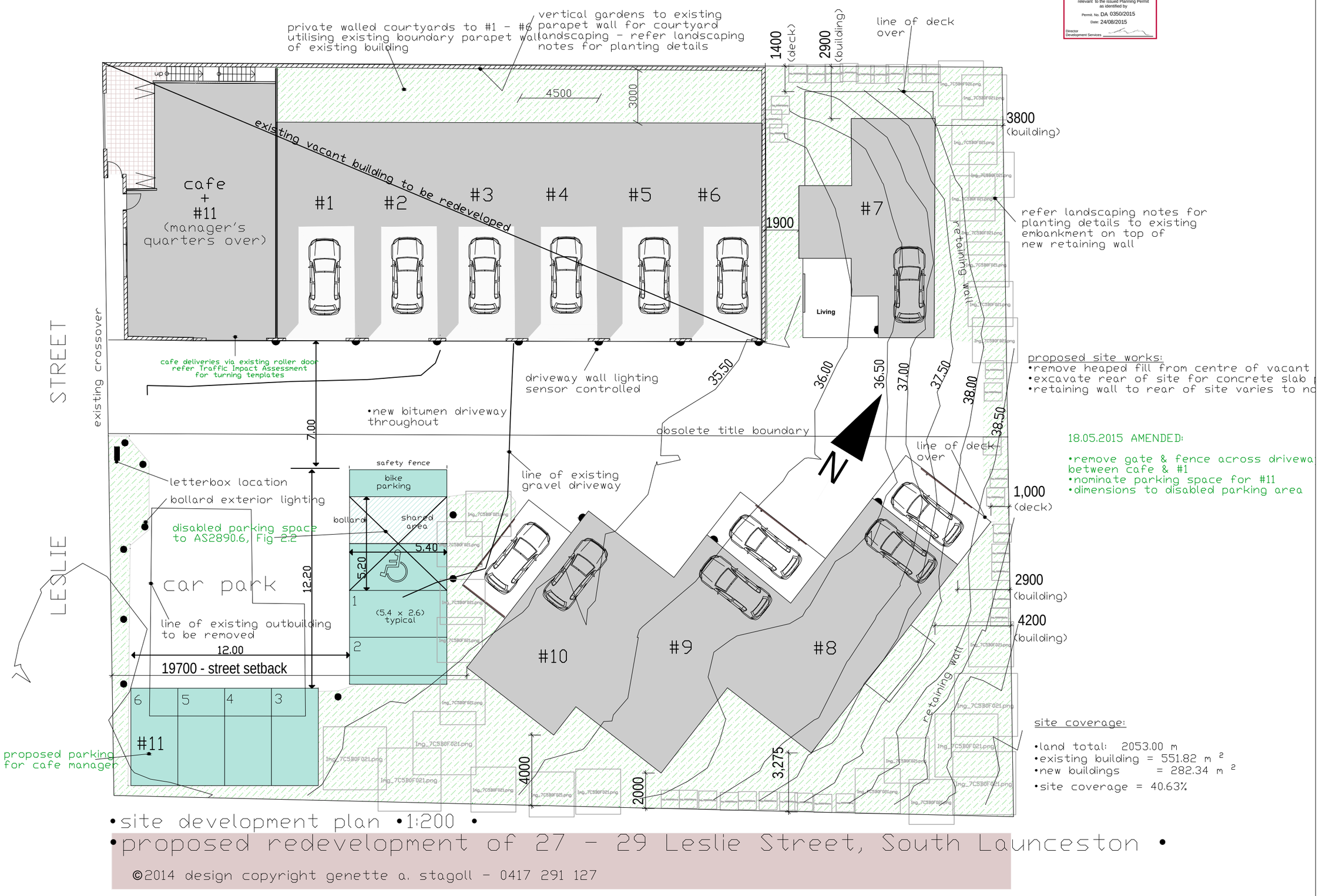
Appendix B

Development Plans



proposed site works:
- remove heaped fill from centre of vacant
- excavate rear of site for concrete slab
- retaining wall to rear of site varies to no

18.05.2015 AMENDED:
- remove gate & fence across driveway between cafe & #1
- nominate parking space for #11
- dimensions to disabled parking area

site coverage:
- land total: 2053.00 m
- existing building = 551.82 m ^{2}
- new buildings = 282.34 m ^{2}
- site coverage = 40.63%

• site development plan • 1:200 •

• proposed redevelopment of 27 - 29 Leslie Street, South Launceston •

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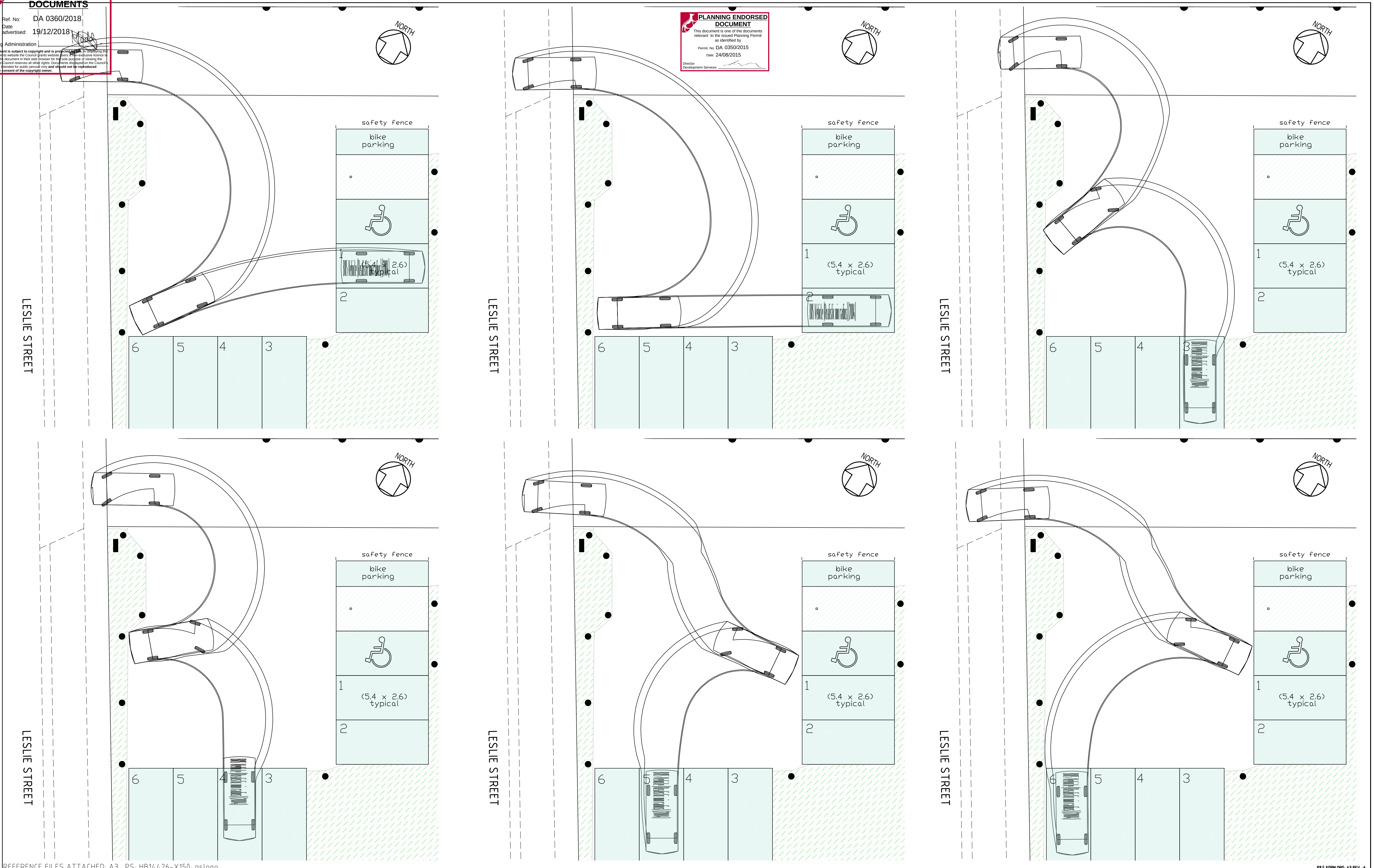
Appendix C

Cafe Car Park Turning Path Plan



REFERENCE FILES ATTACHED: A3 PS; HB14426-X150; pslogo

P&S FORM DRG-A3 REV -6

DRAWING REVISION HISTORY					
No.	DESCRIPTION	DRAWN	DESIGNED	REVIEWED	DATE

APPROVED: ORIGINAL COPY ON FILE "e" SIGNED BY

SIGNED

DATE

SCALE (PLOTTED FULL SIZE) 1:200 (A3)

SHEET SIZE **A3**

2 0 2 4 6 8
SCALE IN METRES - 1:200

pitt&sherry
sustainablethinking
PITT & SHERRY
ABN 77 009 586 083
HOBART OFFICE
199 Macquarie Street
Hobart
Tasmania 7000
Ph. (03) 6223 1800
Fax. (03) 6223 1299
www.pittsh.com.au

CLIENT: GENETTE STAGOLL

PROJECT: COMMERCIAL & RESIDENTIAL DEVELOPMENT
27-29 LESLIE STREET, STH LAUNCESTON

STATUS: **PRELIMINARY**

DRAWING TITLE: TRAFFIC IMPACT ASSESSMENT
CAFE CAR PARK INGRESS/EGRESS

DATUMS: AHD / MGA

CLIENT No. -

DRAWING No. LN14426-P10

REVISION -

May. 19, 15 - 13:27:23 Name: LN14426-P10.dwg Updated By: Geoff Tuck

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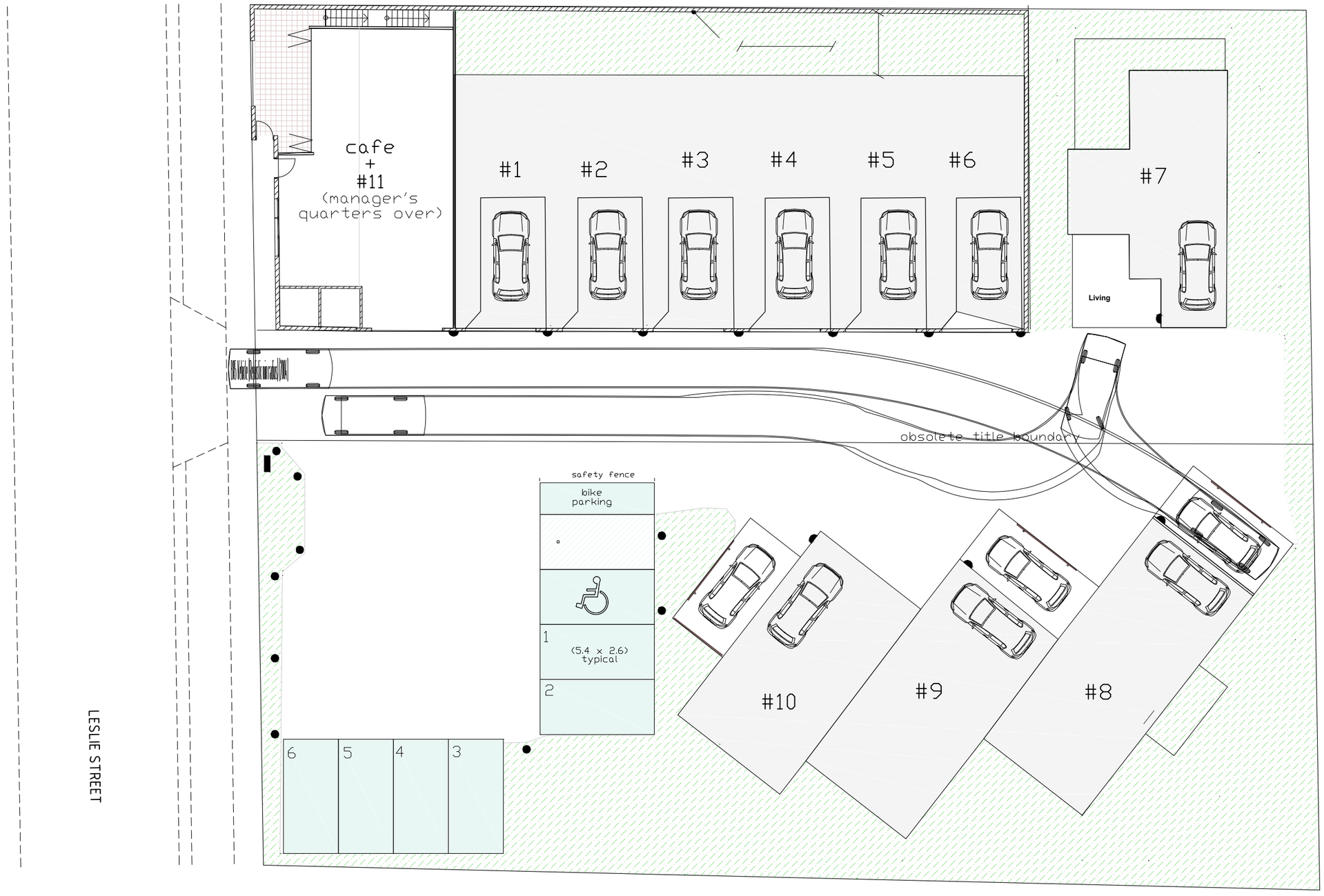
Appendix D

Townhouse Turning Path Plans

NORTH



REFERENCE FILES ATTACHED: A3_PS; HB14426-X150; pslogo

P&S FORM DRG-A3 REV -6

DRAWING REVISION HISTORY					
No.	DESCRIPTION	DRAWN	DESIGNED	REVIEWED	DATE

APPROVED

ORIGINAL COPY ON FILE "e" SIGNED BY

SIGNED

DATE

SCALE (PLOTTED FULL SIZE) 1:200 (A3)

SHEET SIZE **A3**

2 0 2 4 6 8
SCALE IN METRES - 1:200

pitt&sherry sustainablethinking

PITT & SHERRY
ABN 67 140 184 309
HOBART OFFICE
199 Macquarie Street
Hobart
Tasmania 7000
Ph. (03) 6223 1800
Fax. (03) 6223 1299
www.pitsh.com.au

CLIENT GENETTE STAGOLL

PROJECT COMMERCIAL & RESIDENTIAL DEVELOPMENT
27-29 LESLIE STREET, STH LAUNCESTON

STATUS **PRELIMINARY**

DRAWING TITLE
TRAFFIC IMPACT ASSESSMENT
TOWNHOUSE TURNING PATHS - DRG 1 OF 2

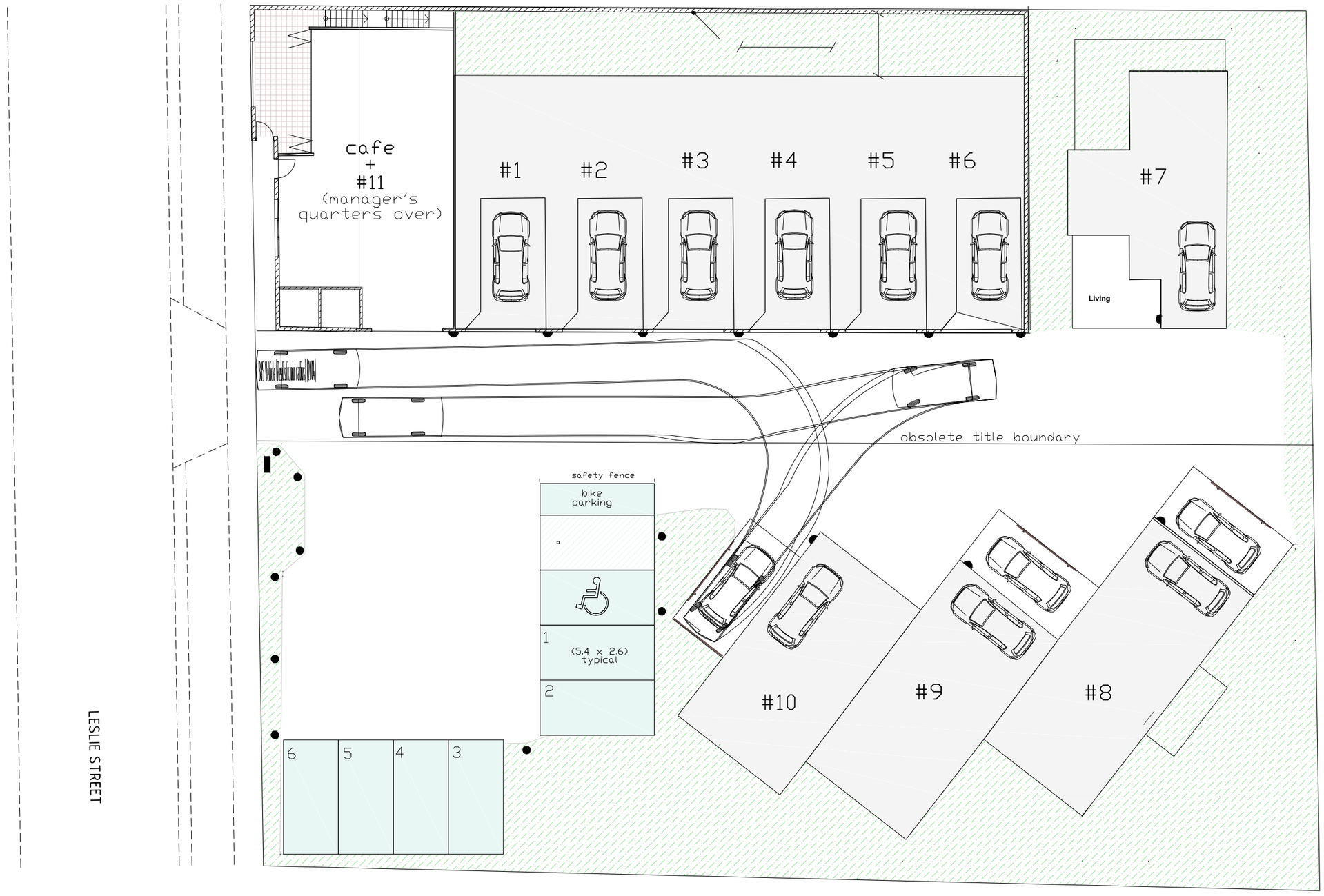
DATUMS: AHD / MGA

CLIENT No. -

DRAWING No. LN14426-P11

REVISION -

May. 19, 15 - 13:28:09 Name: LN14426-P11.dwg Updated By: Geoff Tuck



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PITT & SHERRY
ABN 67 140 184 309
HOBART OFFICE
199 Macquarie Street
Hobart
Tasmania 7000
Ph. (03) 6223 1800
Fax. (03) 6223 1299
www.pitsh.com.au

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May. 19, 15 - 13:28:49 Name: LN14426-P13.dwg Updated By: Geoff Tuck

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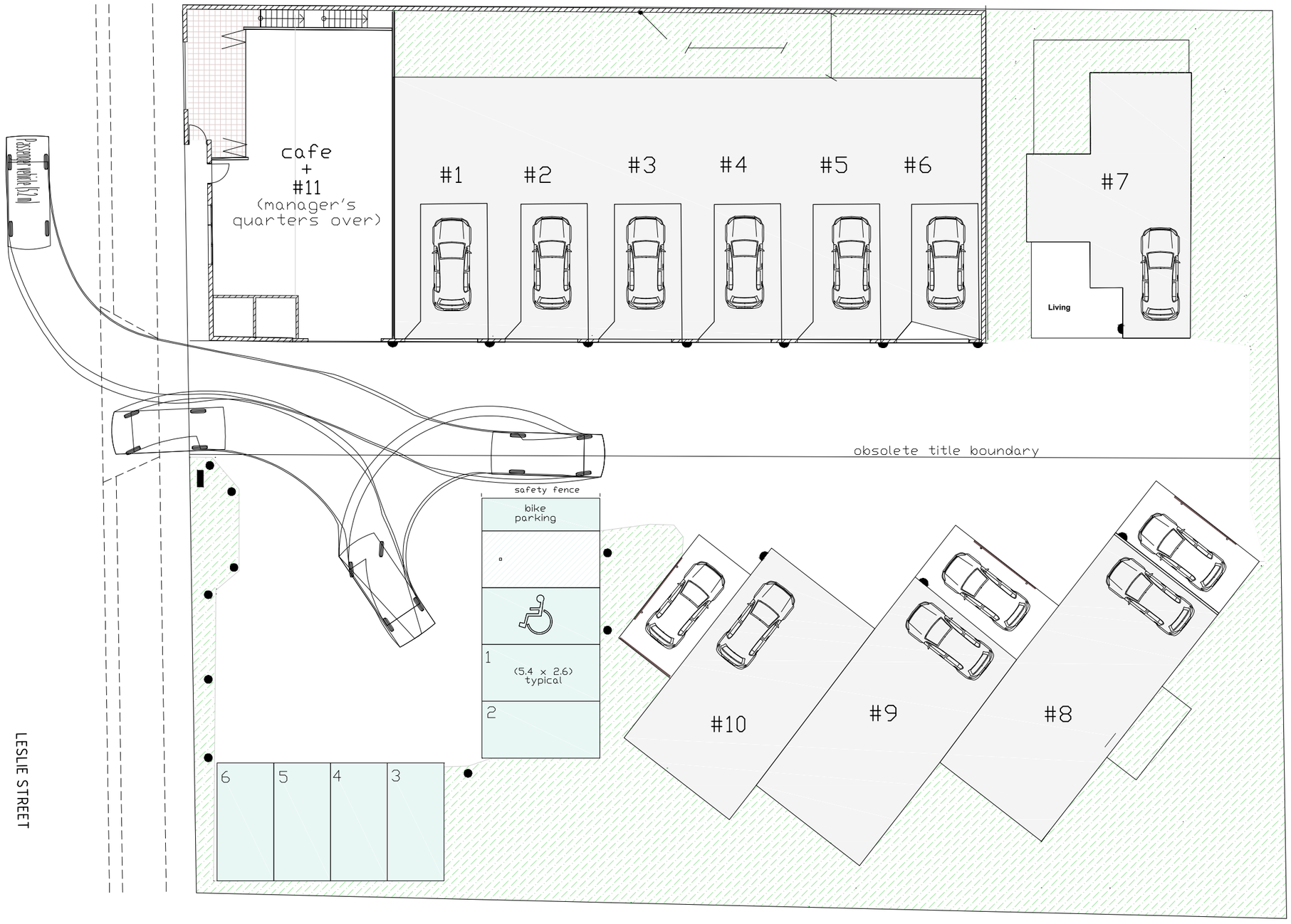
Appendix E

Delivery Vehicle Turning Path Plans



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199 Macquarie Street
Hobart
Tasmania 7000
Ph. (03) 6223 1800
Fax. (03) 6223 1299
www.pitsh.com.au

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Contact
Ross Mannering
(03) 6210 1406
rmannering@pittsh.com.au

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pitt&sherry

Brisbane
Level 2
276 Edward Street
Brisbane QLD 4000
T: (07) 3221 0080
F: (07) 3221 0083

Canberra
LGF, Ethos House
28-36 Ainslie Place
Canberra City ACT
2601
PO Box 122
Civic Square ACT 2608
T: (02) 6274 0100

Devonport
Level 1
35 Oldaker Street
PO Box 836
Devonport TAS 7310
T: (03) 6424 1641
F: (03) 6424 9215

Hobart
199 Macquarie Street
GPO Box 94
Hobart TAS 7001
T: (03) 6210 1400
F: (03) 6223 1299

Launceston
Level 4
113 Cimitiere Street
PO Box 1409
Launceston TAS 7250
T: (03) 6323 1900
F: (03) 6334 4651

Melbourne
Level 1, HWT Tower
40 City Road
Southbank VIC 3006
PO Box 259
South Melbourne VIC 3205
T: (03) 9682 5290
F: (03) 9682 5292

E: info@pittsh.com.au
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Commercial and Residential Development
27-29 Leslie Street South Launceston
Addendum to Traffic Impact Assessment

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Prepared for: Genette Stagoll

Client representative: LN14426

Date: 16 July 2015
Rev00

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Appendix A Updated Development Plan

Prepared by: ..... Date: 16 July 2015
Rebekah Giana

Reviewed by: ..... Date: 16 July 2015
Ross Mannering

Authorised by: ..... Date: 16 July 2015
Ross Mannering

Revision History					
Rev No.	**Description**	**Prepared by**	**Reviewed by**	**Authorised by**	**Date**
00	Traffic Impact Assessment - Addendum	Rebekah Giana	Ross Mannering	Ross Mannering	16/07/2015

1. Introduction

It is proposed to redevelop a site at 27-29 Leslie Street in South Launceston with the purpose of creating a mixed use residential and cafe development. A Traffic Impact Assessment was undertaken by **pitt&sherry** in May 2015, however due to concerns regarding the shortfall in car parking the plans for the development have changed.

The changes to the development yield are shown in Table 1.

Table 1: Changes to the Development Yield

	Initial Development Yield	Updated Development Yield	Change
Cafe floor area	53m^2	53m^2	Nil
Residential dwellings	10 townhouses (2+ bedrooms) 1 unit (1 bedroom)	9 townhouses (2+ bedrooms) 1 unit (1 bedroom)	-1 townhouse
Car parking	20 spaces	25 spaces	+5 spaces

As shown in Table 1, one of the townhouses has been removed from the plan (including the car parking space associated with the townhouse) and is being replaced with 6 car parking spaces. This would increase the car parking supply at the site by 5 spaces. The cafe development would not change as part of the development update.

2. Car Parking Supply

Since the initial Traffic Impact Assessment was completed, the *Launceston Interim Planning Scheme 2015* was introduced. The car parking rates for this development were not affected and are outlined in Table 2.

Table 2: Car Parking Provision

	Planning Scheme Definition	Yield	Planning Scheme Parking Rate	Requirement
Cafe	Food services	53m^2 GFA	1 space per 15m^2 GFA	3.5 spaces
Residential	1 bedroom dwelling	1 dwelling	1 space per dwelling	1 space
	2+ bedroom dwelling	9 dwellings	2 spaces per dwelling	18 spaces
	Visitor parking	10 dwellings	1 space per 4 dwellings	2.5 spaces
			Total	**25 spaces**

Based on the above, the development is required to provide 25 car parking spaces which is the amount which would be provided and therefore complies with the requirements set out in the Interim Planning Scheme.

In addition, the Interim Planning Scheme specifies that 1 accessible space is required for the cafe as well as 1 bicycle space per 75m^2 GFA. The development proposed 1 accessible space and at least 1 bicycle space and as a result meets the requirements of the Interim Planning Scheme.

3. Layout of New Car Parking Spaces

The initial car parking layout was assessed in the Traffic Impact Assessment completed by **pitt&sherry** in May 2015.

As part of the updated development, 6 car parking spaces would be located at the site of Unit #7 in the initial development plans and as shown in Figure 1.

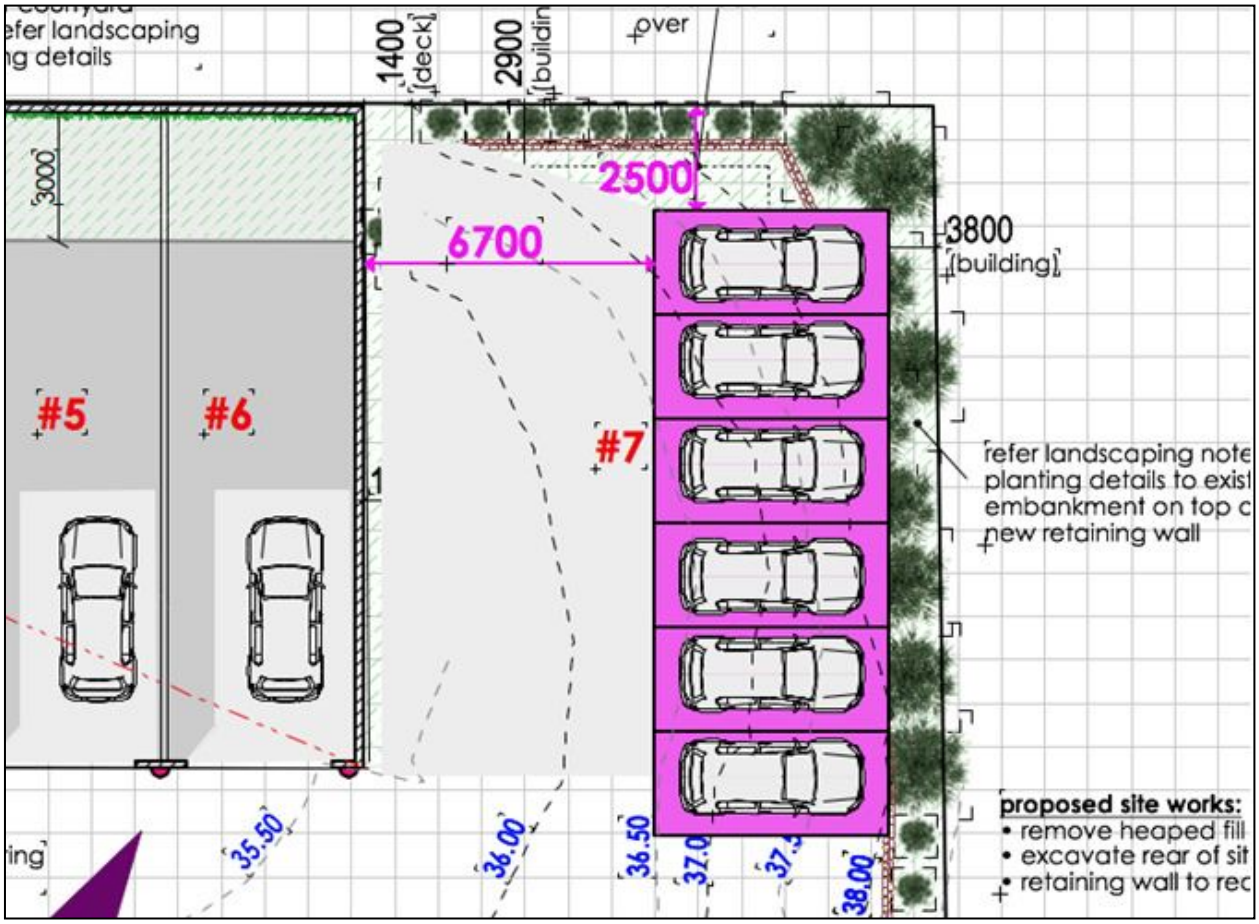

Figure 1: Location of New Car Parking

The revised component of the car park layout has been reviewed against the *Australian Standard for Off Street Car Parking (AS/NZS2890.1:2004 and AS2890.6:2009)* with requirements for residential parking shown in Table 3.

Table 2: AS2890.1 parking layout requirements

Car Parking Elements	Reference to AS2890.1 Standard	Minimum required widths *(Based on User Class 1A – Residential Use)*
Parking space width	Figure 2.2 (90 degree parking)	2.4m
Parking space length	Figure 2.2 (90 degree parking)	5.4m
Parking aisle width	Figure 2.2 (90 degree parking)	5.8m
Circulation Roadway width	Clause 2.5.2 Circulation roadways or ramps	5.5m

The aisle width of 6.7m complies with the standard for long term parking (residents). The car parking spaces should be constructed based on the requirements set out above. The layout of the new car parking complies with the requirements of *AS2890.1:2004* for a blind aisle.

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Appendix A

Updated Development Plan

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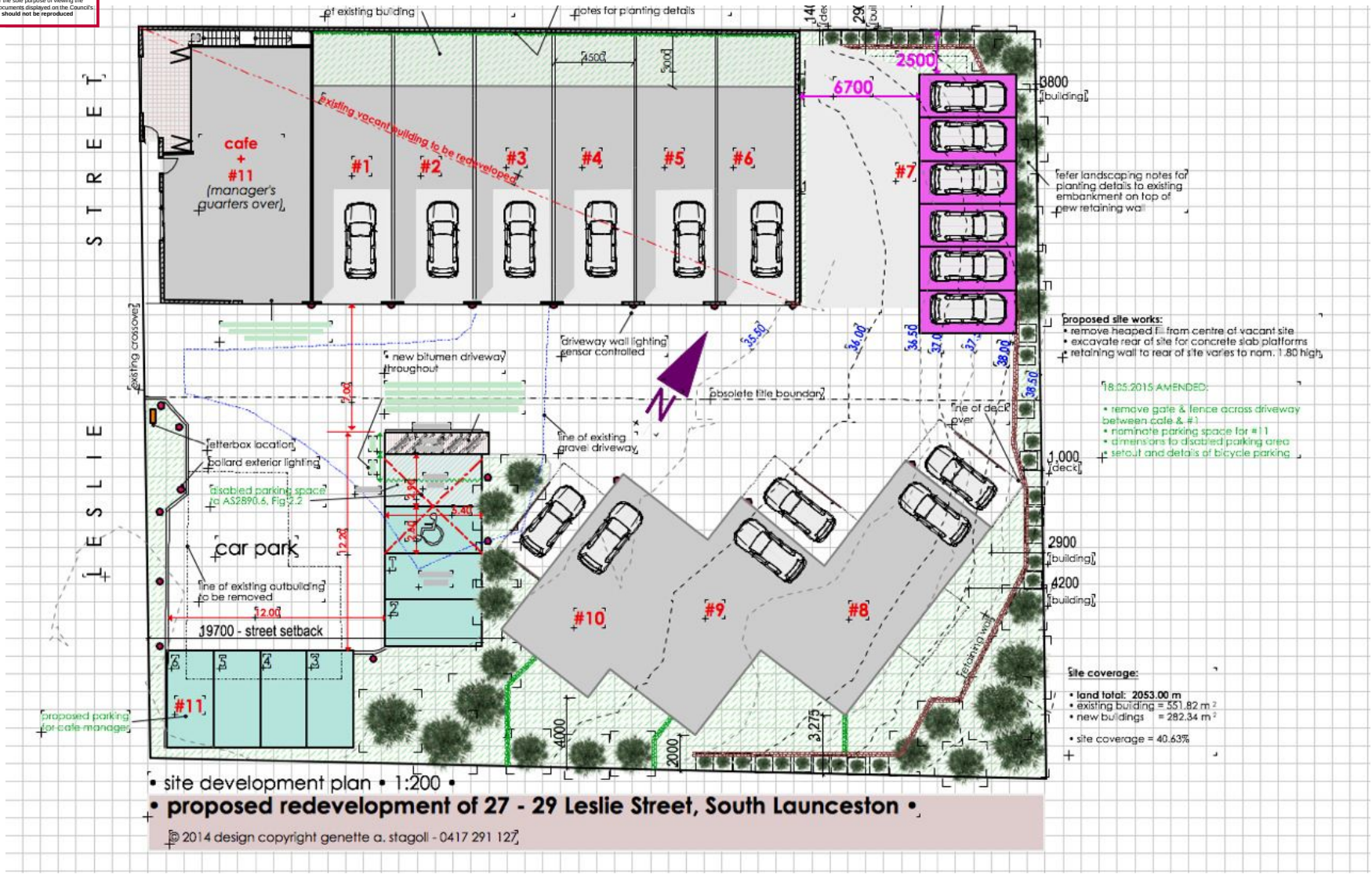

Contact
Ross Mannering
(03) 6210 1406
rmannerng@pittsh.com.au

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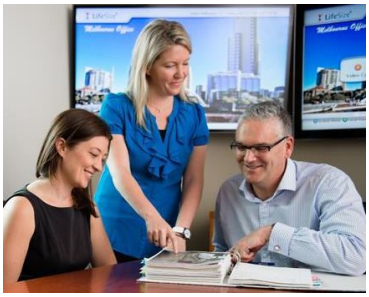

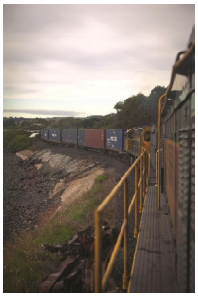

pitt&sherry

Brisbane
Level 2
276 Edward Street
Brisbane QLD 4000
T: (07) 3221 0080
F: (07) 3221 0083

Canberra
LGF, Ethos House
28-36 Ainslie Place
Canberra City ACT 2601
PO Box 122
Civic Square ACT 2608
T: (02) 6274 0100

Devonport
Level 1
35 Oldaker Street
PO Box 836
Devonport TAS 7310
T: (03) 6424 1641
F: (03) 6424 9215

Hobart
199 Macquarie Street
GPO Box 94
Hobart TAS 7001
T: (03) 6210 1400
F: (03) 6223 1299

Launceston
Level 4
113 Cimitiere Street
PO Box 1409
Launceston TAS 7250
T: (03) 6323 1900
F: (03) 6334 4651

Melbourne
Level 1, HWT Tower
40 City Road
Southbank VIC 3006
PO Box 259
South Melbourne VIC 3205
T: (03) 9682 5290
F: (03) 9682 5292

E: info@pittsh.com.au
W: www.pittsh.com.au

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