Government of **Western Australia**
Development Assessment Panels

Metro North-West Joint Development Assessment Panel Agenda

Meeting Date and Time: Monday 18 March 2013; 2pm
Meeting Number: MNWJDAP/24
Meeting Venue: Department of Planning,
140 William Street Perth
Meeting Room L2.39

Attendance

DAP Members

Ms Karen Hyde (Presiding Member)
Mr Paul Drechsler (Deputy Presiding Member)
Mr Fred Zuideveld (Specialist Member)
Cr Mike Norman (City of Joondalup)
Cr Rod Willox (City of Stirling)
Cr Giovanni Italiano (City of Stirling)

Officers in attendance

Mr Craig Shepherd (DAP Secretariat)
Mr Mat Selby (Department of Planning)
Ms Catherine Beamish (Department of Planning)
Mr John Byrne (City of Joondalup)
Ms Melinda Bell (City of Joondalup)
Ms Deborah Gouges (City of Joondalup)
Ms Kimberley Masuku (City of Stirling)
Ms Paola Di Perna (City of Stirling)
Mr Daniel Martinovich (City of Stirling)
Mr Ross Povey (City of Stirling)

Applicants, Submitters and Members of the Public

Mr George Naoum (Ecorp Project Management)
Mr Richard Hart (Woodhead)
Mr Scott Bellerby (McDonald's Australia Limited)
Ms Megan Gammon (Urbis)
Mr Simon Wilkes (Urbis)
Mr Peter Simpson (TPG)
Mr Daniel Lees (TPG)
Mr Murray Johns (Verum Project Direction)
Mr Adrian Fini (Fabray Pty Ltd)

Department of Planning Minute Secretary

Ms Fiona Sze (DAP Secretariat)

1. Declaration of Opening

The Presiding Member declares the meeting open and acknowledges the past and present traditional owners and custodians of the land on which the meeting is being held.

2. Apologies

Nil

3. Members on Leave of Absence

Nil

4. Noting of Minutes

Note the minutes of the Metro North-West JDAP meeting no.23 held on the 14 February 2013.

5. Disclosure of Interests

Member/Officer	Report Item	Nature of Interest
Mr Paul Drechsler	Item 8.2	Impartiality
Mr Paul Drechsler	Item 8.4	Impartiality

6. Declarations of Due Consideration

Any member who is not familiar with the substance of any report or other information provided for consideration at the DAP meeting must declare that fact before the meeting considers the matter.

7. Deputations and Presentations

7.1 Mr Scott Bellerby (McDonald's Australia Limited) presenting for the application at Item 8.3. The presentation will support the Responsible Authority Report Recommendation and provide a summary of the application.

7.2 Mr Murray Johns (Verum Project Direction) and Mr Adrian Fini (Fabray Pty Ltd) presenting for the application at Item 8.4. The presentation will provide an overview of the proposed development and request deletion of Condition (a).

8. Form 1 - Responsible Authority Reports – DAP Applications

8.1

Application Details:	Lot 5000 (94) Delamere Avenue, Joondalup
Property Location:	Proposed Showrooms, Medical Centre, Consulting Rooms, Shop And Recreation Centre
Applicant:	ECorp Project Management
Owner:	Readan Pty Ltd & DDT (WA) Pty Ltd
Responsible authority:	City of Joondalup
Report date:	26 February 2013
DoP File No:	DP/13/00036

8.2	Application Details:	Additions to Osborne Park Hospital - New Out Patients Building and Theatre Block Expansion
	Property Location:	Lot 506 (No. 26) Osborne Place, Stirling
	Applicant:	Woodhead Architects
	Owner:	Department of Health
	Responsible authority:	Western Australian Planning Commission
	Report date:	8 March 2013
	DoP File No:	DP/12/01279
8.3	Application Details:	Drive Through Fast Food Outlet (McDonalds Restaurant)
	Property Location:	Lot 56, House Number 2, Chesterfield Road, Mirrabooka
	Applicant:	Urbis
	Owner:	Ark 2000 Pty Ltd
	Responsible authority:	City of Stirling
	Report date:	6 March 2013
	DoP File No:	DP/13/00058
8.4a	Application Details:	Multi-storey development comprising Office, Shop, Tavern, 154 Multiple Dwellings and associated car parking
	Property Location:	Lot 222, House Number 1, Sunray Drive, Innaloo
	Applicant:	TPG Town Planning, Urban Design and Heritage
	Owner:	Fabray Pty Ltd
	Responsible authority:	City of Stirling
	Report date:	8 March 2013
	DoP File No:	DP/13/00033
8.4b	Application Details:	Mixed use development comprising 154 multiple dwellings, office floorspace, shop and cafe / restaurant / tavern at ground level and three levels of car parking
	Property Location:	Lot 222 (No. 1) Sunray Drive, Innaloo
	Applicant:	TPG Town Planning, Urban Design and Heritage
	Owner:	Fabray Pty Ltd
	Responsible authority:	Western Australian Planning Commission
	Report date:	8 March 2013
	DoP File No:	DP/13/00033

9. Form 2 – Responsible Authority Reports - Amending or cancelling DAP development approval

Nil

10. Appeals to the State Administrative Tribunal

Nil

11. Meeting Closure

Government of **Western Australia**
Development Assessment Panels

Metro North-West Joint Development Assessment Panel Minutes

Meeting Date and Time: Thursday, 14 February 2013, 10.00am
Meeting Number: 23
Meeting Venue: City of Stirling
24 Cedric Street
Stirling

Attendance

DAP Members

Ms Karen Hyde (Presiding Member)
Mr Paul Drechsler (Deputy Presiding Member)
Mr Rory O'Brien (A/Specialist Member)
Cr Rod Willox AM JP (Local Government Member, City of Stirling)
Cr Giovanni Italiano JP (Local Government Member, City of Stirling)

Officers in attendance

Mr Craig Shepherd (Department of Planning)
Mr Ross Povey (City of Stirling)
Ms Patricia Wojcik (City of Stirling)
Ms Paola Di Perna (City of Stirling)

Applicant, Submitters and Members of the Public

Mr Simon Vanyai (Fratelle Group)
Ms Kylee Schoonens (Fratelle Group)
Ms Kareena May (The Spatial Group)

Local Government Minute Secretary

Ms Emma O'Callaghan (City of Stirling)

1. Declaration of Opening

The Presiding Member, Ms Karen Hyde declared the meeting open at 10.04am on Thursday, 14 February 2013, introduced and welcomed the DAP members and City of Stirling staff. The Presiding Member also acknowledged the past and present traditional custodians of the land, the Nyoongar People.

The Presiding Member stated that in accordance with section 5.14 relating to No Recording of Meetings, which states 'A person must not use any electronic, visual or audio recording device or instrument to record the proceedings of a DAP meeting unless the Presiding Member has given permission to do so' advised that she has granted permission for the electronic recording of the meeting for the purpose of recording the minutes only.

The Presiding Member further advised that the proceedings of the meeting are in accordance with the DAP Standing Orders 2011 under the Planning and Development (Development Assessment Panels) Regulations 2011.

2. Apologies

Mr Fred Zuideveld (Specialist Member)

3. Members on Leave of Absence

Nil.

4. Noting of Minutes

The Presiding Member advised that the minutes of the Metro North-West Joint Development Assessment Panel (JDAP) meetings of 31 January 2013 and 4 February 2013 have been published on the City of Stirling, City of Joondalup, City of Wanneroo and Department of Planning websites.

5. Disclosure of Interests

Nil.

6. Declarations of Due Consideration

All members declared that they had duly considered the documents.

7. Deputations and Presentations

7.1 Ms Kareena May (The Spatial Group) presented for the application at Item 8.1. The presentation addressed the matter of land use on the ground floor within the Mixed Business Zone.

8. Form 1 - Responsible Authority Reports – DAP Application

8.1	Application Details:	Two-storey development comprising Office, Restaurant, Light Industry, Warehouse and associated car parking.
	Property Location:	Lot 64, House Number 216, Balcatta Road, Balcatta
	Applicant:	Fratelle Group
	Owner:	Schoonens Nominees Pty Ltd
	Responsible authority:	City of Stirling
	Report date:	30 January 2013
	DoP File No:	DP/13/00052

ALTERNATE MOTION:

Moved: Councillor Rod Willox **Seconded**: Councillor Giovanni Italiano

That the Metro North-West JDAP resolves to:

Approve DAP Application reference DA12/3164 and accompanying plans (ATTACHMENT 1) for an Office, Warehouse, Industry – Light and Restaurant Development in accordance with Clause 10.3.1 of the City of Stirling's Local Planning Scheme No. 3, subject to the following conditions:-

1. The land use is to be in accordance with drawing SD.2.05.

2. The proposed footpath is not to form part of the proposed crossover to Balcatta Road.

3. The removal (including the stump) and replacement of the two existing street trees as indicated on the approved plan will be undertaken by the City's Parks Department at a cost to the owner/applicant of $6907.5. The cost of removal and replacement is to be paid prior to the release of the Building Permit.

4. The internal partitions between Offices and Warehouse uses not being altered without the written approval of the City;

5. A separate signage strategy is to be submitted to the City for approval, prior to the erection of any signage.

6. The crossover(s) construction to be in accordance with the City's specifications.

7. A Site Management Plan to be submitted to the satisfaction of the Manager Approvals prior to the issue of a building permit. The Site Management Plan to address dust, noise, waste management, storage of materials, traffic and site safety/security.

8. All off street parking to be available onsite during business hours for all customers and staff to the satisfaction of the City. (Refer to advice note 2)

9. Vehicular parking, manouevring and circulation areas indicated on the approved plan being sealed and drained to the satisfaction of the City, the parking spaces being marked out and maintained in good repair.

10. All land indicated as landscaped area on the approved plan being developed on practical completion of the building to the satisfaction of the City. All landscaped areas are to be maintained in good condition thereafter.

11. Any existing crossovers not included as part of the proposed development on the approved plan are to be removed. New kerbing and verge is to be reinstated to the satisfaction of the Manager Engineering Operations.

12. Any on site floodlights not being positioned or operated in such a manner so as to cause annoyance to surrounding uses or passing traffic.

13. No goods of materials being stored, either temporarily or permanently, in the car parking or landscaped areas or within access driveways. All goods and materials are to be stored within the buildings or storage yards, where provided.

14. Stormwater from all roofed and paved areas to be collected and contained on site.

ADVICE NOTES:

1. The City's Health and Compliance Department advises that:
   - Connection to sewer is required;
   - All construction works to comply with the requirements of the Environmental Protection Act 1986 and the Environmental Protection (Noise) Regulations 1997.
   - Details of stormwater drainage to be submitted with Building Licence.
   - Submission of detailed plans showing the location and construction of the refuse receptacle storage area with the Building Licence Application. These plans should indicate:
     a) An impervious floor surface which is graded and drained to a floor waste gully connected to the available sewer.
     b) The provision of a hose tap connected to a water supply.
   - Asbestos removal must be completed by a person holding a restricted asbestos removal licence.
   - Ensure that all aspects of the City's Local Law relating to the Prevention and Abatement of Dust and Liquid Waste are complied with both during and after demolition.
   - Carpark ventilation being of such standard as will conform to Australian Standard 1668.2 or otherwise ensure that carbon monoxide levels are maintained at levels below 50 ppm at all times.
   - With building licence submission submits acceptable plans for food premises indicating the position and type of all proposed fittings and fixtures and details of floor, wall and ceiling finishes and floor drainage, where applicable. The location and construction of a bin store area must also be detailed. The plans shall be at a scale of not less than 1:100.
   - Hand wash basins (including staff toilets) to be supply with warm water through a common outlet in food premises.
   - Compliance with all requirements of the *Food Act 2008* and the Australia New Zealand Food Standards Code.

2. The applicant is advised that this approval does not pertain to car parking allocation for the individual tenancies. Car parking is to remain unallocated and free to use by all tenancies.

3. If an applicant is aggrieved by this determination there is a right of appeal under Part 14 of the Planning and Development Act 2005. An appeal must be lodged within 28 days of the determination with the State Administrative Tribunal.

4. Except where the land the subject of this approval is the subject of a notice under Clause 32 of the Metropolitan Region Scheme or is reserved by that

Scheme, this approval shall be deemed to be an approval under the Metropolitan Region Scheme.

5. This is a Development Approval of the City of Stirling under its Local Planning Scheme and related policies. It is not a building licence or an approval to commence or carry out development under any other law. It is the responsibility of the applicant to obtain any other necessary approvals, consents and licenses required under any other law, and to commence and carry out development in accordance with all relevant laws.

6. This approval is not an authority to ignore any constraint to development on the land, which may exist through statute, regulation, contract or on title, such as an easement or restrictive covenant. It is the responsibility of the applicant and not the City to investigate any such constraints before commencing development. This approval will not necessarily have regard to any such constraint to development, regardless of whether or not it has been drawn to the City's attention.

7. Development is to comply in all respects with the attached approved plans which have been stamped accordingly.

8. Noisy Construction Work outside the period 7.00 am to 7.00 pm Monday to Saturday and at any time on Sundays and Public Holidays is not permitted unless an approved Noise Management Plan for the construction site has been issued.

9. Submission of acceptable plans showing the details of paving, stormwater drainage and disposal with the Building Licence Application. Such plans and any other stormwater drainage requirements and/or conditions of approval are to be to the satisfaction of the Manager, Engineering Operations.

10. Compliance with the provisions of the Building Code of Australia.

11. The applicant is responsible for ensuring that all lot boundaries as shown on the approved plans are correct.

12. If the development the subject of this approval is not substantially commenced within a period of two years, or such other period as specified in the approval after the date of the determination, the approval shall lapse and be of no further effect.

13. Where an approval has so lapsed, no development shall be carried out without the further approval of the Council having first been sought and obtained.

Procedural Motion

Moved: Ms Karen Hyde **Seconded**: Councillor Giovanni Italiano

That the meeting ADJOURN for 5 minutes.

The motion was put and CARRIED UNANIMOUSLY.

At 10.25am the meeting adjourned.

At 10.29am the Presiding Member RESUMED the meeting.

Amending Motion

Moved: Ms Karen Hyde **Seconded:** Councillor Rod Willox

That the words "*of $6907.50*" be DELETED in condition 3.

The Motion was put and Carried Unanimously

Reason: The amendment proposes to provide flexibility regarding the exact the financial amount that may be required for tree removal based on when the payment was needed.

PRIMARY MOTION (AS AMENDED):

That the Metro North-West JDAP resolves to:

Approve DAP Application reference DA12/3164 and accompanying plans (ATTACHMENT 1) for an Office, Warehouse, Industry – Light and Restaurant Development in accordance with Clause 10.3.1 of the City of Stirling's Local Planning Scheme No. 3, subject to the following conditions:-

1. The land use is to be in accordance with drawing SD.2.05.

2. The proposed footpath is not to form part of the proposed crossover to Balcatta Road.

3. The removal (including the stump) and replacement of the two existing street trees as indicated on the approved plan will be undertaken by the City's Parks Department at a cost to the owner/applicant. The cost of removal and replacement is to be paid prior to the release of the Building Permit.

4. The internal partitions between Offices and Warehouse uses not being altered without the written approval of the City;

5. A separate signage strategy is to be submitted to the City for approval, prior to the erection of any signage.

6. The crossover(s) construction to be in accordance with the City's specifications.

7. A Site Management Plan to be submitted to the satisfaction of the Manager Approvals prior to the issue of a building permit. The Site Management Plan to address dust, noise, waste management, storage of materials, traffic and site safety/security.

8. All off street parking to be available onsite during business hours for all customers and staff to the satisfaction of the City. (Refer to advice note 2)

9. Vehicular parking, manouevring and circulation areas indicated on the approved plan being sealed and drained to the satisfaction of the City, the parking spaces being marked out and maintained in good repair.

10. All land indicated as landscaped area on the approved plan being developed on practical completion of the building to the satisfaction of the City. All landscaped areas are to be maintained in good condition thereafter.

11. Any existing crossovers not included as part of the proposed development on the approved plan are to be removed. New kerbing and verge is to be reinstated to the satisfaction of the Manager Engineering Operations.

12. Any on site floodlights not being positioned or operated in such a manner so as to cause annoyance to surrounding uses or passing traffic.

13. No goods or materials being stored, either temporarily or permanently, in the car parking or landscaped areas or within access driveways. All goods and materials are to be stored within the buildings or storage yards, where provided.

14. Stormwater from all roofed and paved areas to be collected and contained on site.

Advice Notes:

1. The City's Health and Compliance Department advises that:
   - Connection to sewer is required;
   - All construction works to comply with the requirements of the Environmental Protection Act 1986 and the Environmental Protection (Noise) Regulations 1997.
   - Details of stormwater drainage to be submitted with Building Licence.
   - Submission of detailed plans showing the location and construction of the refuse receptacle storage area with the Building Licence Application. These plans should indicate:
     c) An impervious floor surface which is graded and drained to a floor waste gully connected to the available sewer.
     d) The provision of a hose tap connected to a water supply.
   - Asbestos removal must be completed by a person holding a restricted asbestos removal licence.
   - Ensure that all aspects of the City's Local Law relating to the Prevention and Abatement of Dust and Liquid Waste are complied with both during and after demolition.
   - Carpark ventilation being of such standard as will conform to Australian Standard 1668.2 or otherwise ensure that carbon monoxide levels are maintained at levels below 50 ppm at all times.
   - With building licence submission submits acceptable plans for food premises indicating the position and type of all proposed fittings and fixtures and details of floor, wall and ceiling finishes and floor drainage,

where applicable. The location and construction of a bin store area must also be detailed. The plans shall be at a scale of not less than 1:100.

- Hand wash basins (including staff toilets) to be supply with warm water through a common outlet in food premises.
- Compliance with all requirements of the *Food Act 2008* and the Australia New Zealand Food Standards Code.

2. The applicant is advised that this approval does not pertain to car parking allocation for the individual tenancies. Car parking is to remain unallocated and free to use by all tenancies.

3. If an applicant is aggrieved by this determination there is a right of appeal under Part 14 of the Planning and Development Act 2005. An appeal must be lodged within 28 days of the determination with the State Administrative Tribunal.

4. Except where the land the subject of this approval is the subject of a notice under Clause 32 of the Metropolitan Region Scheme or is reserved by that Scheme, this approval shall be deemed to be an approval under the Metropolitan Region Scheme.

5. This is a Development Approval of the City of Stirling under its Local Planning Scheme and related policies. It is not a building licence or an approval to commence or carry out development under any other law. It is the responsibility of the applicant to obtain any other necessary approvals, consents and licenses required under any other law, and to commence and carry out development in accordance with all relevant laws.

6. This approval is not an authority to ignore any constraint to development on the land, which may exist through statute, regulation, contract or on title, such as an easement or restrictive covenant. It is the responsibility of the applicant and not the City to investigate any such constraints before commencing development. This approval will not necessarily have regard to any such constraint to development, regardless of whether or not it has been drawn to the City's attention.

7. Development is to comply in all respects with the attached approved plans which have been stamped accordingly.

8. Noisy Construction Work outside the period 7.00 am to 7.00 pm Monday to Saturday and at any time on Sundays and Public Holidays is not permitted unless an approved Noise Management Plan for the construction site has been issued.

9. Submission of acceptable plans showing the details of paving, stormwater drainage and disposal with the Building Licence Application. Such plans and any other stormwater drainage requirements and/or conditions of approval are to be to the satisfaction of the Manager, Engineering Operations.

10. Compliance with the provisions of the Building Code of Australia.

11. The applicant is responsible for ensuring that all lot boundaries as shown on

the approved plans are correct.

12. If the development the subject of this approval is not substantially commenced within a period of two years, or such other period as specified in the approval after the date of the determination, the approval shall lapse and be of no further effect.

13. Where an approval has so lapsed, no development shall be carried out without the further approval of the Council having first been sought and obtained.

The Motion was put and Carried Unanimously

9. Form 2 – Responsible Authority Reports - Amending or cancelling DAP development approval

Nil.

10. Appeals to the State Administrative Tribunal

The Metro North-West JDAP noted that the decision regarding the mixed use development at 57 Liege Street, Woodlands is currently under appeal at the State Administrative Tribunal.

11. Meeting Closure

The Presiding Member reminded the meeting that under Standing Order 7.3 only the Presiding Member may publicly comment on the operations of a DAP and other DAP members should not be approached to make comment.

There being no further business, the Presiding Member declared the meeting closed at 10.36am.

Government of **Western Australia**
Development Assessment Panels

Form 1 - Responsible Authority Report
(Regulation 12)

Application Details:	PROPOSED SHOWROOMS, MEDICAL CENTRE, CONSULTING ROOMS, SHOP AND RECREATION CENTRE
Property Location:	Lot 5000 (94) Delamere Avenue, Joondalup
DAP Name:	Metro North-West JDAP
Applicant:	ECorp Project Management
Owner:	Readan Pty Ltd & DDT (WA) Pty Ltd
LG Reference:	DA12/1517
Responsible Authority:	City of Joondalup
Authorising Officer:	Dale Page Director Planning and Community Development
Application No and File No:	DAP13/00036
Report Date:	26 February 2013
Application Receipt Date:	20 December 2013
Application Process Days:	48 working days
Attachment(s):	1. Location plan 2. Development plans 3. City of Joondalup Environmentally Sustainable Design Checklist 4. Shop NLA within Currambine District Centre 5. Western faced perspective

Recommendation:

That the Metro North-West JDAP resolves to:

Approve DAP Application reference DAP13/00036 and accompanying plans (refer attachment 2) in accordance with Clause 6.9 of the City of Joondalup District Planning Scheme No. 2, subject to the following conditions:

Conditions

1. **This decision constitutes planning approval only and is valid for two (2) years from the date of this decision letter. If the subject development is not substantially commenced within the two (2) year period, the approval shall lapse and be of no further effect.**

2. **A Construction Management Plan being submitted and approved prior to the commencement of construction. The management plan shall detail how it is proposed to manage:**

   - **all forward works for the site;**
   - **the delivery of materials and equipment to the site;**
   - **the storage of materials and equipment on the site;**
   - **the parking arrangements for the contractors and subcontractors;**
   - **other matters likely to impact on the surrounding properties;**

3. **A Refuse Management Plan indicating the method of rubbish collection is to be submitted to and approved by the City, prior to the commencement of construction.**

4. **Detailed landscaping plans shall be submitted to the City for approval prior to the commencement of construction. These landscaping plans are to indicate the proposed landscaping treatment(s) of the subject site and the adjoining road verge(s), and shall:**

   - **Be drawn at an appropriate scale of either 1:100, 1:200 or 1:500;**
   - **Provide all details relating to paving, treatment of verges and tree planting in the car park;**
   - **Show spot levels and/or contours of the site;**
   - **Indicate any natural vegetation to be retained and the proposed manner in which this will be managed;**
   - **Be based on water sensitive urban design principles to the satisfaction of the City;**
   - **Be based on Designing out Crime principles to the satisfaction of the City; and**
   - **Show all irrigation design details.**

5. **Landscaping and reticulation shall be established in accordance with the approved landscaping plans, Australian Standards and best trade practice prior to the development first being occupied and thereafter maintained to the satisfaction of the City.**

6. **The car parking shade trees as indicated on the approved plans shall be installed prior to the development first being occupied. The trees shall be located within tree wells and protected from damage by vehicles and maintained to the satisfaction of the City.**

7. **Any proposed external building plant, including air conditioning units, piping, ducting and water tanks, being located so as to minimise any visual and noise impact on surrounding landowners, and screened from view from the street, and where practicable from adjoining buildings, with details of the location of such plant being submitted for approval by the City prior to the commencement of construction.**

8. **An onsite stormwater drainage system, with the capacity to contain a 1:100 year storm of 24-hour duration, is to be provided prior to the development first being occupied, and thereafter maintained to the satisfaction of the City. The proposed stormwater drainage system is required to be shown on the Building Licence submission and be approved by the City prior to the commencement of construction.**

9. **The car parking bays, driveways and access points shown on the approved plans are to be designed, constructed, drained and marked in accordance with the Australian Standard for Off-street Car Parking (AS/NZS2890.1 2004), Off-street Parking for People with Disabilities (AS/NZS2890.6 2009) and Off-street Commercial Vehicle Facilities (AS2890.2:2002), prior to the occupation of the development. These bays are to be thereafter maintained to the satisfaction of the City.**

10. Bicycle parking facilities shall be provided in accordance with the Australian Standard for Offstreet Carparking – Bicycles (AS2890.3-1993) prior to the development first being occupied. Details of bicycle parking area(s) shall be provided and approved by the City prior to the commencement of construction.

11. All signage shall be the subject of a separate Development Application

12. The applicant is to provide an acoustic consultant's report examining the activities of the gymnasium and the impact it may have on adjoining units. Specific investigation and recommendations should be made on the method of construction of the slab and any surface treatments that may be required to reduce sound transfer. Recommendations provided in the acoustic report shall be incorporated in the building design to be submitted for a Building Permit. The development is required to comply with the *Environmental Protection (Noise) Regulations 1997* and the *Environmental Protection Act 1986.*

13. All external walls of the proposed building shall be of a clean finish, and shall at all times be maintained to a high standard, including being free of vandalism, to the satisfaction of the City;

Advice notes

1. In relation to condition 1 above, where an approval has so lapsed, no development shall be carried out without the further approval of the City having first been sought and obtained.

2. In relation to condition 3, a refuse management plan is required which must consider the total amount of waste that would be expected, the number and type of bins proposed, the frequency of collection, method of collection and other issues affecting handling of waste.

3. In relation to condition 10 above, the applicant and developer are strongly encouraged to consider the need for the provision of suitable amounts of shaded, secure, bicycle parking areas and end-of-trip facilities on the site.

4. Any tenancies to be used for sale of food are to comply with the *Food Act 2008*.

5. The City's Local laws require all commercial properties to be provided with a bin store and bin wash facilities. Bin stores must be of sufficient size to accommodate the bins to be used and have a solid concrete floor grading to a floor waste connected to sewer and a hose-cock.

6. Undercroft carpark ventilation is to be provided in accordance with Australian Standard 1668.2-1991.

7. The development shall comply with the *Sewerage (Lighting, Ventilation and Construction) Regulations 1971.*

Background:

Property Address:		Lot 5000 (94) Delamere Avenue, Currambine
Zoning	MRS:	Urban
	TPS:	Business
Use Class:		Showroom - 'P' use Medical Centre - 'P' use Consulting Rooms 'P' use Recreation Centre - 'D' use Shop - 'X*' use
Insert Strategy Policy:		N/A
Insert Development Scheme:		City of Joondalup District Planning Scheme No. 2 (DPS2) Currambine District Centre Structure Plan (CDCSP)
Insert Lot Size:		4,692m²
Insert Existing Land Use:		Vacant
Value of Development:		$4,500,000.00

Approval is sought for a proposed commercial development at 94 Delamere Avenue, Currambine. The subject site is located south east of the existing Currambine Central Shopping Centre and is bound by Shenton Avenue to the south, and Delamere Avenue to the east (Attachment 1 refers)

The site is zoned 'Business' under the City of Joondalup District Planning Scheme No.2. In addition to the above, the site is subject to the requirements of the Currambine District Centre Structure Plan (CDCSP). The overall Currambine District Centre area is bound by Marmion Avenue to the west, Shenton Avenue to the south, and Delamere Avenue along the northern and eastern boundaries.

In 2008 the City considered an application (DA07/1158) for a tavern, shop and showroom on this site; however following consultation with the public, the applicant withdrew the application. No other applications for the subject site have been received.

In 2012, the North West Metro JDAP considered and approved a development application for a variety of uses across the adjoining sites to the north of the subject site. The development is currently under construction.

Details:

The development as proposed consists of:

- The construction of a new commercial development with a variety of different land uses proposed; including showrooms, a shop, medical centre, consulting rooms and a recreation centre.

- The provision of 99 parking bays on site, 60 at ground level and 39 within an undercroft car park. All parking is adjacent to the northern boundary of the site and accessed from Tyger Entrance;

- A two storey portion of building will occupy the corner of Shenton Avenue and Delamere Avenue, the upper floor of which is intended to be used as a recreation centre with the lower portion as a showroom;

- The remainder of development proposed is single level in nature, although two storeys in appearance. It includes showrooms, a medical centre, consulting rooms and a shop.

The applicant's proposal includes a variety of uses which are permitted 'P' uses or discretionary 'D' uses within the Business zone. In addition to this the applicant proposes a 'shop' which is an 'X*' use, meaning that it is a prohibited use, but may be approved if the proposal satisfies the requirements set out under clause 3.6.3 of DPS2.

Clause 3.6.3 of DPS2 states that a shop may be permitted within the Business Zone, subject to Council's discretion, provided that the following conditions are met:

(a) Shopping floor space does not exceed 200m² NLA;

(b) The parcel of land is on a separate green title lot of not less than 1,000m²;

(c) The aggregate shopping NLA on any group of adjoining or adjacent lots in the Business and Mixed Use Zones must not exceed 1000m²; and

(d) The direct street frontage of any lot containing a shop must be at least 20 metres in width.

The shop proposed as part of this application meets all of the above mentioned conditions of Clause 3.6.3, for the reasons set out below:

- the proposed shop on the subject site has a maximum floor area of 200m^2
- the subject site has a land area of 4692m^2
- the aggregate shop NLA on the adjoining and adjacent sites is less than 1,000m^2
- the direct street frontage of the lot is greater than 20m in width.

As such, it is considered an appropriate land use in this instance.

Legislation & policy:

Legislation

- City of Joondalup District Planning Scheme No. 2. (DPS2)

  Clause 3.6.3 of DPS2 allows a shop (otherwise an X use) within the Business zone under certain conditions.

  3.6 The Business Zone

  3.6.3 A shop may be permitted in the Business Zone, subject to Council's discretion after giving notice in accordance with Clause 6.7, and provided the following conditions have been met:

(a) Shopping floor space does not exceed 200m² NLA;

(b) The parcel of land is on a separate green title lot of not less than 1000m²;

(c) The aggregate shopping NLA on any group of adjoining or adjacent lots in the Business and Mixed Use Zones must not exceed 1000m²; and

(d) The direct street frontage of any lot containing a shop must be at least 20 metres in width.

3.6.4 The conditions specified in Clause 3.6.3 are not standards or requirements for the purpose of Clause 4.5.1.

Clause 4.5 of DPS2 allows for most provisions of DPS2 and the CDCSP to be varied. Clause 3.6.3 (above) is a notable exception to this, as set out in Clause 3.6.4 above.

4.5 Variations to site and development standards and requirements

4.5.1 Except for development in respect of which the Residential Planning Codes apply and the requirements set out in Clauses 3.7.3 and 3.11.5, if a development is the subject of an application for planning approval and does not comply with a standard or requirement prescribed under the Scheme, the Council may, notwithstanding that non-compliance, approve the application unconditionally or subject to such conditions as the Council thinks fit.

4.5.2 In considering an application for planning approval under this clause, where, in the opinion of Council, the variation is likely to affect any owners or occupiers in the general locality or adjoining the site which is subject of consideration for the variation, the Council shall:

(a) Consult the affected parties by following one or more of the provisions for advertising uses pursuant to clause 6.7.1; and

(b) Have regard to any expressed views prior to making its decision to grant the variation

4.5.3 The power conferred by this clause may only be exercised if the Council is satisfied that:

(a) Approval of the proposed development would be appropriate having regard to the criteria set out in Clause 6.8; and

(b) The non-compliance will not have any adverse effect upon the occupiers or users of the development or the inhabitants of the locality or upon the likely future development of the locality.

Clause 4.8 of DPS2 sets out the requirements for the provision of car parking.

4.8 Car Parking Standards

4.8.2 The number of on-site car parking bays to be provided for specified development shall be in accordance with Table 2. Where development is not specified in Table 2 the Council shall determine the parking standard. The Council may also determine that a general car parking standard shall apply irrespective of the development proposed in cases where it considers this to be appropriate.

Clause 6.8 sets out other necessary considerations when determining an application for planning approval.

6.8 Matters to be considered by Council

6.8.1 The Council when considering an application for Planning Approval shall have due regard to the following:

(a) interests of orderly and proper planning and the preservation of the amenity of the relevant locality;

(b) any relevant submissions by the applicant;

(c) any agreed Structure Plan prepared under the provisions of Part 9 of the Scheme;

(d) any planning policy of the Council adopted under the provisions of clause 8.11

(e) any other matter which under the provisions of the Scheme the Council is required to have due regard;

(f) any policy of the Commission or its predecessors or successors or any planning policy adopted by the Government of the State of Western Australia;

(g) any relevant proposed new town planning scheme of the Council or amendment or proposed Metropolitan Region Scheme Amendment insofar as they can be regarded as seriously entertained planning proposals;

(h) the comments or wishes of any public or municipal authority received as part of the submission process;

(i) the comments or wishes of any objectors to or supporters of the application;

(j) any previous decision made by the Council in circumstances which are sufficiently similar for the previous decision to be relevant as a precedent, provided that the Council shall not be bound by such precedent; and

(k) any other matter which in the opinion of the Council is relevant.

- Currambine District Centre Structure Plan

City of Joondalup Local Planning Policies

- Environmentally Sustainable Buildings in the City of Joondalup

  Encouraging the integration of environmentally sustainable design principles rather than mandating them, the policy requires applicants to complete the City's Environmentally Sustainable Checklist demonstrating that the development has been designed and assessed against a national recognised rating tool. (Attachment 3 refers).

- Signage

  As discussed in the planning assessment section below, the development plans submitted for this application provide indicative detail of the future location of signage panels for the various tenants. However, the level of detail provided at this time is not sufficient to fully assess the proposed signage against the City's Policy and as such it is recommended that all signage form part of a separate development application(s).

State Government Policies

- Nil

The proposal generally complies with the aforementioned legislation and policies, with details of where discretion is sought contained in the following sections of this report.

Consultation:

Public Consultation

The proposed development was advertised via letter to adjoining and nearby landowners for a period of 21 days. In addition to this, notices were placed in the local newspaper and on the City's website over three consecutive weeks.

A total of three submissions were received during the consultation period, of which two were objections and one being a letter stating no objection to the proposal. The objections, as well as the City's response to the concerns raised are discussed in the planning assessment section of this report.

Consultation with other Agencies or Consultants

Nil

Planning assessment:

The subject site is located in the southern part of Currambine in an area designated as the 'Currambine District Centre'. Land to the north of site has development approval granted under DAP11/1358 for showrooms, offices, restaurant, medical centre, take away food outlet and a shop. To the west of the site is the existing Currambine Central Shopping Centre. There are established residential properties to the east and south of the site on the opposite side of Delamere Avenue and Shenton Avenue.

The subject site is located in the Business zone under the CDCSP and DPS2 with assessment of the proposal against the objectives and provisions of the CDCSP being required. The objectives of the Business zone for the purposes of the CDCSP include:

- To create an active focus for the community with a diversity of non-retail mainstreet uses that generate day and evening activity;
- To allow appropriate businesses to locate and develop in close proximity to residential areas for the convenience of the community;
- Encourage high standards of 'Main Street' built form and an active edge to create an attractive facade to vehicle and pedestrian routes providing visual amenity and interaction;
- Provide efficient vehicle access and circulation with pedestrian priority; and
- Encourage a high level of passive surveillance of public and private spaces.

Land Use

The land uses proposed in this application are permitted 'P' uses or discretionary 'D' uses as per DPS2, with the exception of the shop land use which is an 'X*' use under the DPS2. Taking this aspect of the proposal into account and considering the mix of proposed land uses on this site it is considered that the development proposal is appropriate. As set out in the details section previously, the applicant's proposal for a shop is considered to meet the requirements of DPS2 set out in clause 3.6.3.

It is noted that the requirements of clause 3.6.3 cannot be varied under DPS2, with a rigid interpretation of a shop land use in land zoned for business purposes required. Previously the City has approved applications for a shop on land zoned for business purposes within the Currambine District Centre. Inclusive of the area proposed as a shop in this application, the City has approved shop NLA of 867.9m2 on land zoned for business purposes within the Currambine District Centre (see Attachment 4). The other requirements of clause 3.6.3 are considered to be met as explained in the details section of this report.

Design variations to the CDCSP

The development is subject to design provisions of the Business Zone under the CDCSP. Part (v) of the structure plan states that "there shall be no blank facades to the building other than where the building directly abuts another building or a loading bay". The western facade of the proposed building is largely devoid of glazing and does not qualify for an exemption to this aspect of the structure plan.

In support of the design proposed for the western facade, the applicant has stated that:

The external facade of the development is finished in various colours providing relief from any scale and bulk of the development (see Attachment 5). Additionally, a landscaping strip along the western boundary adjacent to the western facade is provided. The landscaping strip is indicated to be 5m wide which allows for substantial landscaping works in the form of trees to be established. The use of

landscaping provides a link between the vertical space of the development and the adjoining site, which is currently relatively bare.

In consideration of these factors the design proposed is considered acceptable, meeting the objectives for development on the site. The other aspect of the proposal which is considered to be non compliant with the provisions outlined in the CDCSP is the provision of glazing to the northern, eastern and southern facade. Details of the glazing proposed are summarised in the table below.

	Required	**Proposed**	**Complies**
Lot 5000 (94) Delamere Avenue			
Shenton Avenue (southern facade)	70%	23.2%	No
Delamere Avenue (eastern facade)	70%	27%	No
Tyger Entrance (northern facade)	70%	19.5%	No

The CDCSP stipulates under part (ix) that "other than areas of blank facades allowed under previous clauses, building frontages are to compromise a minimum 70% of windows and visually permeable doors. Window sills shall be set no less than 600mm from ground level, open shop fronts are encouraged"

The glazing as proposed is a percentage of each facade measured on the total area facing the street, rather than as a linear percentage. Justification provided by the applicant for the glazing provided is based on the difficulty that a building with 70% glazing to each facade would have in achieving necessary energy efficiency requirements.

Additionally, it is noted that the glazing that is provided articulates the development well with the pedestrian scale of development offering surveillance to the street from tenancies to the public realm (car park and pedestrian footpaths). The orientation of glazing to the various facades of the building achieves the objectives of the CDCSP in relation to glazing, and in this regard is considered an appropriate deviation from the provisions of the structure plan.

Further requirements of part (ix) deal with the height of window sills from the pavement level, with all windows to be a minimum of 600mm above ground level. At various points where the development facade adjoins the pedestrian footpath windows are proposed at ground level. It is considered that whilst the proposal varies from the requirements of the structure plan these requirements are an anomaly and are proposed to be rectified via a review of the structure plan which is currently underway. Furthermore the development is consistent with, other developments approved within the structure plan area and the structure plans intent.

<u>Design variations to DPS2</u>

In accordance with the requirements of DPS2, the following table outlines in bold type, the aspects of the development which do not meet the minimum standards outlined in DPS2.

Provision	Lot 5000 (94) Delamere Avenue
4.8.2 – The number of on-site car bays in accordance with Table 2. (114 bays)	**99 bays provided**
4.12.1 – A minimum of 8% of the development site shall be designed, developed and maintained as landscaping.	**4.9% of the site is provided for the purpose of landscaping**
4.12.2 – When a proposed development includes a car parking area abutting a street, an area no less than 3.0 metres wide within the lot along the street boundaries shall be designed, developed and maintained as landscaping.	A minimum of 3m wide landscaping strip is provided where at grade car park adjoins the street (Tyger entrance).
4.12.3 – Landscaping shall be carried out on all those areas of a development site which are not approved for buildings, accessways, storage purposes or car parking with the exception that shade trees shall be planted and maintained by the owners in car parking areas at a rate of one tree for every four (4) car parking bays to the Councils satisfaction.	The applicant indicates 16 shade trees to be provided for at grade parking, which provides cover for up to 64 car parking bays. The applicant is providing 60 car bays at grade with the remainder provided in an under croft car park.

Landscaping

In accordance with clause 4.12.1 of the City's DPS2 a minimum of 8% of the site is required to be designed and maintained as landscaping. The applicant's proposal indicates landscaping on site totalling 234m^2. This equates to 4.9% of the site. In support of the landscaping that is provided on site the following justification is provided.

The subject site is presented with three verge frontages with a cumulative area of 2,020m^2. As part of any subsequent approval landscaping of these verge areas is required in accordance with a Landscape Management Plan. Landscaping of the verge area adjacent to the Shenton Avenue (southern boundary) and also along Delamere Avenue (eastern boundary) is proposed as part of this Landscape Management Plan. This verge landscaping is extensive in nature, offering an attractive transition from the built form of the proposed commercial development to the streetscape along the verge.

Given the manner which the proposed development relates to each of the boundaries and the effect that landscaping of the verge areas has it is considered that the landscaping provision of 4.9% on the subject site is appropriate.

Car Parking

Car parking for the site is based on the individual land uses proposed in accordance with Table 2 of DPS2. The following table outlines the parking requirements for the site.

Land Use	Car Parking Requirements of DPS2
Showrooms	1 per 30m^2 of NLA 1299m^2 of NLA = 44 bays
Medical Centre	5 per practitioner 5 GP's = 25 bays
Consulting Rooms	5 per practitioner 3 consulting rooms = 15 bays
Shop	7 per 100m^2 of NLA 200m^2 of NLA = 14 bays
Recreation Centre	1 per 2.5 persons 40 persons = 16 bays
Overall bays required	**114**
Overall bays provided	**99**

As set out above, the proposed development results in a 15 bay shortfall across the site, this equates to 13.1% overall. The applicant has provided the following comments in justifying the rate of car parking indicated in the proposal.

In regards to the provision of parking on site the applicant makes the following statements in support of the parking provided.

Given the variety of land uses that are proposed on site, a certain amount of reciprocity for car parking is provided, with peak operating times for consulting rooms and the medical centre differing from the peak hours of trade expected for the showroom component of the development and varying again for the recreation centre component.

In addition to this it is noted that the development is integrated into the existing pedestrian scale environment with linkages to bike paths and associated infrastructure provided as part of the development. The development is also provided for with 10 bike racks and end of trip facilities, encouraging a greater utilisation of non motorised forms of transport that require car parking bays.

Finally in respect to car parking on site, attention is drawn to parking standards outlined within proposed Omnibus Scheme Amendment No.65 to DPS2. The City has initiated advertising of the amendment, which seeks to correct minor deficiencies and anomalies in the current scheme and align the scheme with the Model Scheme Text.

Comparison between the current parking requirements of DPS2 and the revised parking requirements under Scheme Amendment 65 for land uses proposed are as follows.

Land Use	Current DPS2 requirements	As proposed under Amendment 65
Showrooms	1 per 30m^2 of NLA 1299m^2 of NLA 44 bays	1 per 50m^2 of NLA 1299m^2 of NLA 26 bays

Medical Centre	5 per practitioner 5GPs in medical centre 25 bays	no change 25 bays
Consulting Rooms	5 per practitioner 3 consulting rooms 15 bays	no change 15 bays
Shop	7 per 100m^2 of NLA 200m^2 of NLA 14 bays	5 per 100m^2 NLA 200m^2 of NLA 10 bays
Recreation Centre (gym)	1 per 2.5 people 40 people 16 bays	no change 16 bays
Total parking required	**114 bays**	**92 bays**
Total parking provided	**99 bays**	**99 bays**

It is noted that under the parking standards identified in the scheme amendment a seven bay surplus would exist on site. Given this and the reciprocal nature of parking on site it is considered that the parking that is provided adequately services the site.

Signage

The applicant's proposal indicates the location of signage panels on the proposed development and appears to be compliant with the City's Signs Policy. However, planning assessment of these panels has not been undertaken as part of this assessment. All future signage by tenants of the premises shall be assessed in accordance with the City's Signs Policy and will be subject to separate development applications. A condition of approval is to apply in this regard.

Public Consultation

Public consultation was undertaken as part of the assessment (refer to the Consultation section of this report). The following concerns were raised by the objectors:

Key issues arising from public consultation

- The impact of an additional medical centre on existing medical centres in the area. Existing medical centres currently operate below full capacity; an additional medical centre would adversely impact on existing medical centres operating capacity.

  City response: A medical centre is a permitted 'P' use within the Business zone. The City cannot require that medical centres not be developed on this site.

- Developments currently under construction in the Currambine area have caused major disruptions to the amenity of the area through additional dust and sand disturbances as well as additional noise created as part of the construction process.

  City response: The City cannot deal with issues relating to other sites as part of this application. However the applicant would be required to complete a construction management plan for submission with the Building Permit Application if this development application were to be approved. Furthermore, the control of noise as a result of construction is covered under the Environmental Protection Act 1986 (WA) and would be subject to enforcement during a construction stage of the development.

- As a result of existing developments as well as those under construction traffic volumes have increased on local roads. Additional development will exacerbate the problems currently experienced with the increase in traffic volumes not being congenial with the adjoining residential area.

  City response: The applicant's traffic report submitted as part of the proposal indicates that the development of the subject site is not expected to increase the traffic to a volume that exceeds the local infrastructure's capacity.

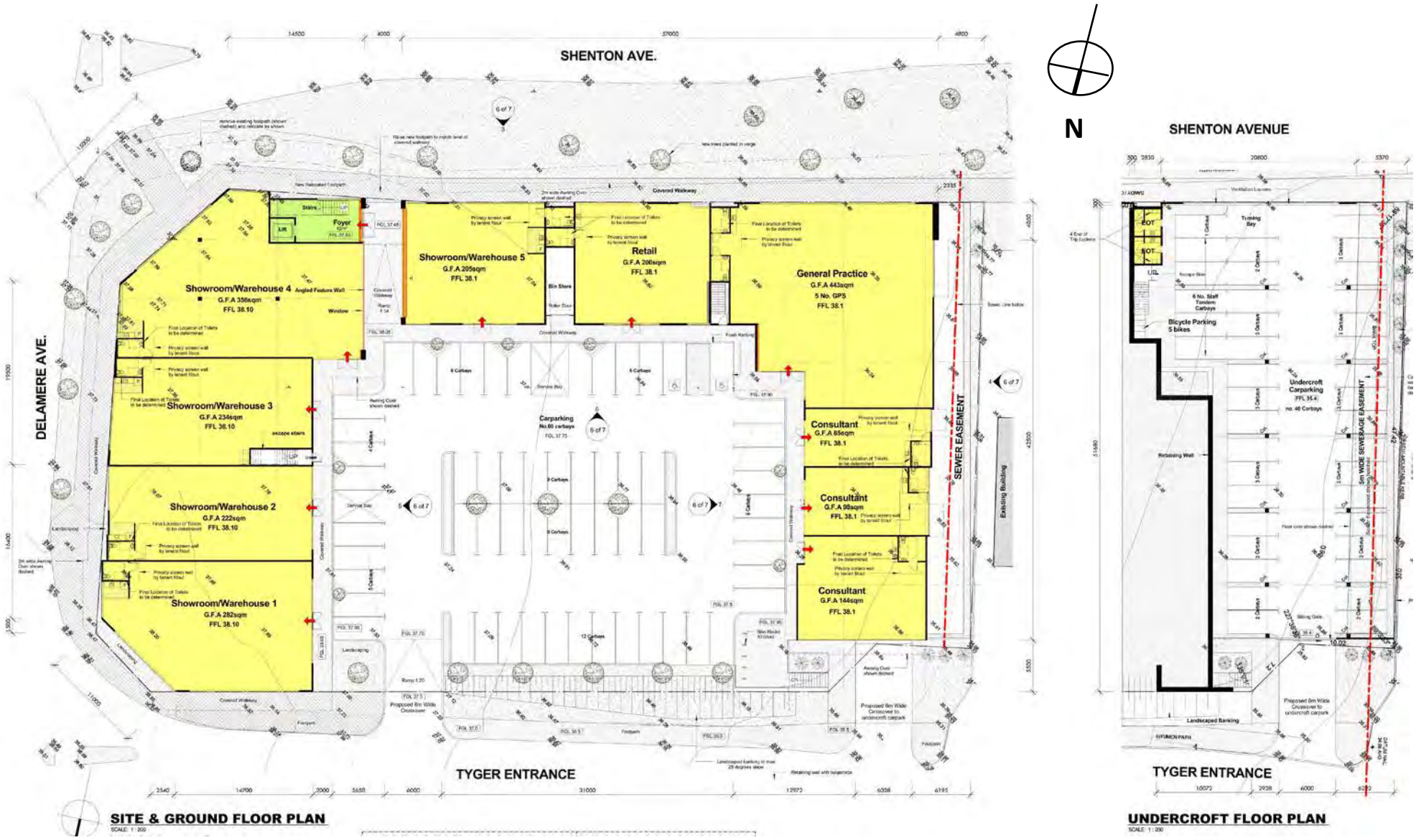
Conclusion

The proposed development generally complies with the requirements of DPS2 as well as the CDCSP. In respect to the CDCSP it is considered that the objectives of the structure plan have been met, with the impact of discrepancies to design principles having minimal impact on properties within the local area.

In regards to the development requirements of DPS2, it is considered that landscaping provided as well as car parking is sufficient to adequately service the needs of the site whilst not detrimentally impacting on surrounding properties. Additionally, the mixture of land uses proposed assists in achieving the intent of the Currambine District Centre Structure Plan.

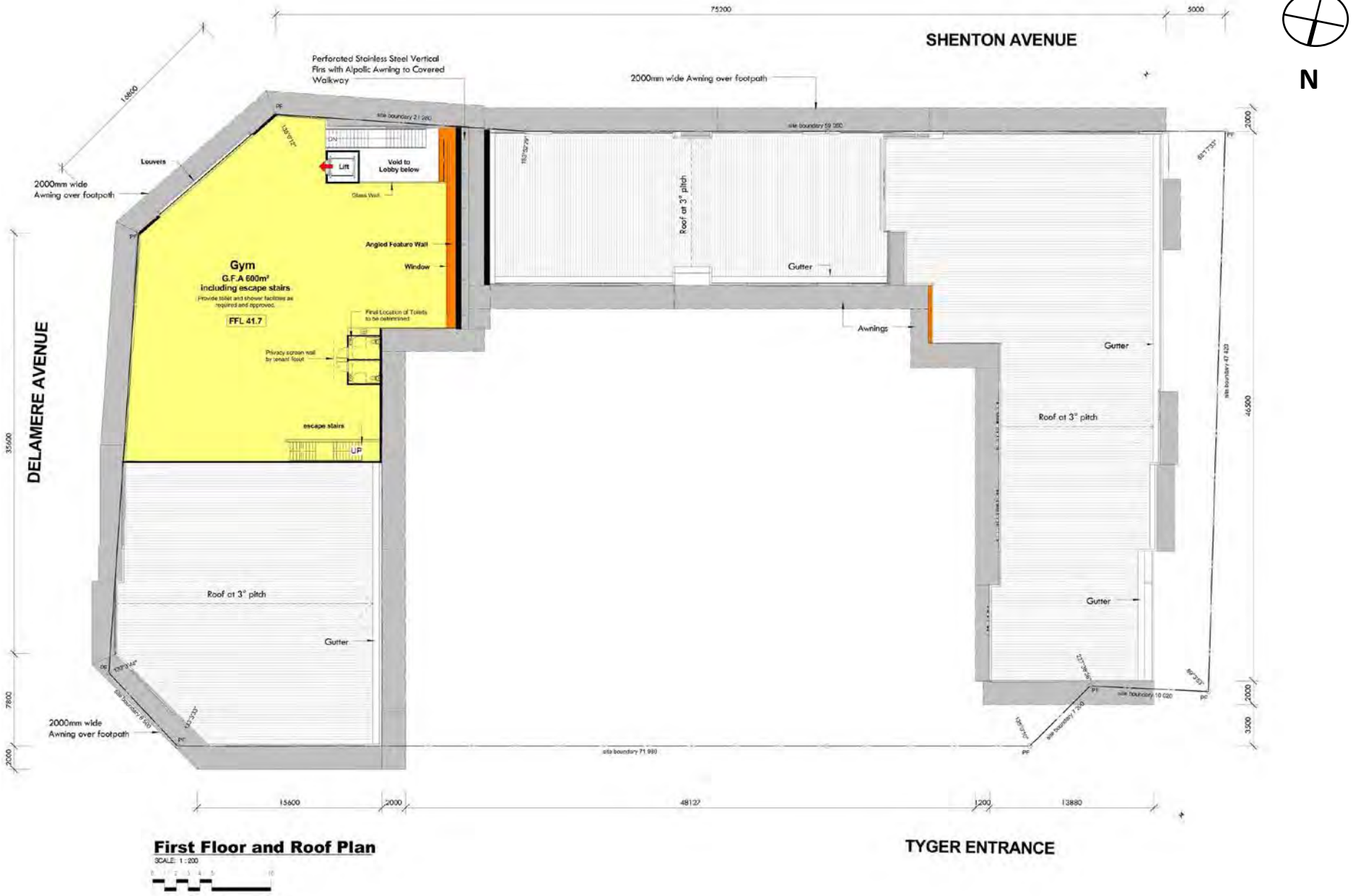
Based on the details covered in this report, the applicants proposal is recommend for approval subject to conditions.


Currambine Marketplace and Cinema Complex
Lot 5000 (94) Delamere Avenue
CURRAMBINE
VERO CT
TOPANGA PASS
CHESAPEAKE WY
HOBSONS GTE
DELAMERE AV
GUARDIAN
LEXINGTON HTS
ABERFOYLE HTS
CYANE WY
CHUSAN
Santa Ana Park
OAKLA
SANUR PL
KEATONS
OCEAN GATE PDE
Kuta Park
KUTA CCT
REDONDO CT
ST SEBASTIEN CH
BAINBRIDGE
ST GEORGES CT
RAY MEADOW
CASTLE



SITE & GROUND FLOOR PLAN
SCALE: 1:200

UNDERCROFT FLOOR PLAN
SCALE: 1:200


SHENTON AVENUE
DELAMERE AVENUE
TYGER ENTRANCE
N
Perforated Stainless Steel Vertical Fins with Alpolic Awning to Covered Walkway
2000mm wide Awning over footpath
2000mm wide Awning over footpath
2000mm wide Awning over footpath
Louvers
Lift
Void to Lobby below
Glass Wall
Angled Feature Wall
Window
Gym
G.F.A 600m²
including escape stairs
Provide toilet and shower facilities as required and approved.
FFL 41.7
Final Location of Toilets to be determined
Privacy screen wall by tenant fitout
escape stairs
UP
Roof at 3° pitch
Gutter
Roof at 3° pitch
Gutter
Awnings
Gutter
Roof at 3° pitch
Gutter
site boundary 71 980
75200
5000
15600
2000
48127
1200
13880
35600
7800
2000
46500
3500
2000
First Floor and Roof Plan
SCALE: 1 : 200



South Elevation (Shenton Avenue)

SCALE: 1:200



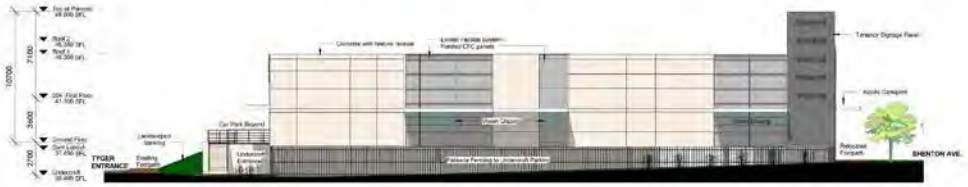
East Elevation (Delamere Avenue)

SCALE: 1:200



North Elevation (Road Reserve)

SCALE: 1:200



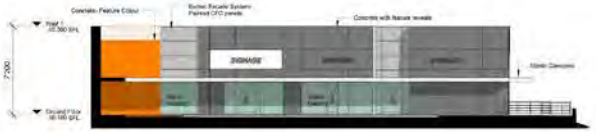
Western Elevation



Shopfronts Elevation 1



Shopfronts Elevation 2



Shopfronts Elevation 3

City of Joondalup

Environmentally Sustainable Design – Checklist

Under the City's planning policy, *Environmentally Sustainable Design in the City of Joondalup*, the City encourages the integration of environmentally sustainable design principles into the construction of all new residential, commercial and mixed-use buildings and redevelopments (excluding single and grouped dwellings, internal fit outs and minor extensions) in the City of Joondalup.

Environmentally sustainable design is an approach that considers each building project from a 'whole-of-life' perspective, from the initial planning to eventual decommissioning. There are five fundamental principles of environmentally sustainable design, including: siting and structure design efficiency; energy efficiency; water efficiency; materials efficiency; and indoor air quality enhancement.

For detailed information on each of the items below, please refer to the *Your Home Technical Manual* at: **www.yourhome.gov.au**, and *Energy Smart Homes* at: **www.clean.energy.wa.gov.au**.

This checklist must be submitted with the planning application for all new residential, commercial and mixed-use buildings and redevelopments (excluding single and grouped dwellings, internal fit outs and minor extensions) in the City of Joondalup.

The City will seek to prioritise the assessment of your planning application and the associated building application if you can demonstrate that the development has been designed and assessed against a national recognised rating tool.

Please tick the boxes below that are applicable to your development.

Siting and structure design efficiency

Environmentally sustainable design seeks to affect siting and structure design efficiency through site selection, and passive solar design.

Does your development retain:

- ☐ existing vegetation; and/or
- ☐ natural landforms and topography

Does your development include:

- ☐ northerly orientation of daytime living/working areas with large windows, and minimal windows to the east and west
- ☑ passive shading of glass
- ☐ sufficient thermal mass in building materials for storing heat
- ☑ insulation and draught sealing
- ☐ floor plan zoning based on water and heating needs and the supply of hot water; and/or
- ☐ advanced glazing solutions

Energy efficiency

Environmentally sustainable design aims to reduce energy use through energy efficiency measures that can include the use of renewable energy and low energy technologies.

Do you intend to incorporate into your development:

- ☐ renewable energy technologies (e.g. photo-voltaic cells, wind generator system, etc); and/or
- ☑ low energy technologies (e.g. energy efficient lighting, energy efficient heating and cooling, etc); and/or
- ☐ natural and/or fan forced ventilation

Water efficiency

Environmentally sustainable design aims to reduce water use through effective water conservation measures and water recycling. This can include stormwater management, water reuse, rainwater tanks, and water efficient technologies.

Does your development include:

- ☐ water reuse system(s) (e.g. greywater reuse system); and/or
- ☐ rainwater tank(s)

Do you intend to incorporate into your development:

- ☑ water efficient technologies (e.g. dual-flush toilets, water efficient showerheads, etc)

Materials efficiency

Environmentally sustainable design aims to use materials efficiently in the construction of a building. Consideration is given to the lifecycle of materials and the processes adopted to extract, process and transport them to the site. Wherever possible, materials should be locally sourced and reused on-site.

Does your development make use of:

- ☐ recycled materials (e.g. recycled timber, recycled metal, etc)
- ☐ rapidly renewable materials (e.g. bamboo, cork, linoleum, etc); and/or
- ☐ recyclable materials (e.g. timber, glass, cork, etc)
- ☐ natural/living materials such as roof gardens and "green" or planted walls

Indoor air quality enhancement

Environmentally sustainable design aims to enhance the quality of air in buildings, by reducing volatile organic compounds (VOCs) and other air impurities such as microbial contaminants.

Do you intend to incorporate into your development:

- ☑ low-VOC products (e.g. paints, adhesives, carpet, etc)

'Green' Rating

Has your proposed development been designed and assessed against a nationally recognised "green" rating tool?

- ☐ Yes
- ☑ No

If yes, please indicate which tool was used and what rating your building will achieve:

_____

_____

_____

If yes, please attach appropriate documentation to demonstrate this assessment.

If you have not incorporated or do not intend to incorporate any of the principles of environmentally sustainable design into your development, can you tell us why:

The project incorporates principles of environmentally sustainable design that fits the Standard Generic Commercial Model. Where sustainable design can be incorporated it will be, however a number of items are impossible to incorporate.

Is there anything else you wish to tell us about how you will be incorporating the principles of environmentally sustainable design into your development:

When you have checked off your checklist, sign below to verify you have included all the information necessary to determine your application.

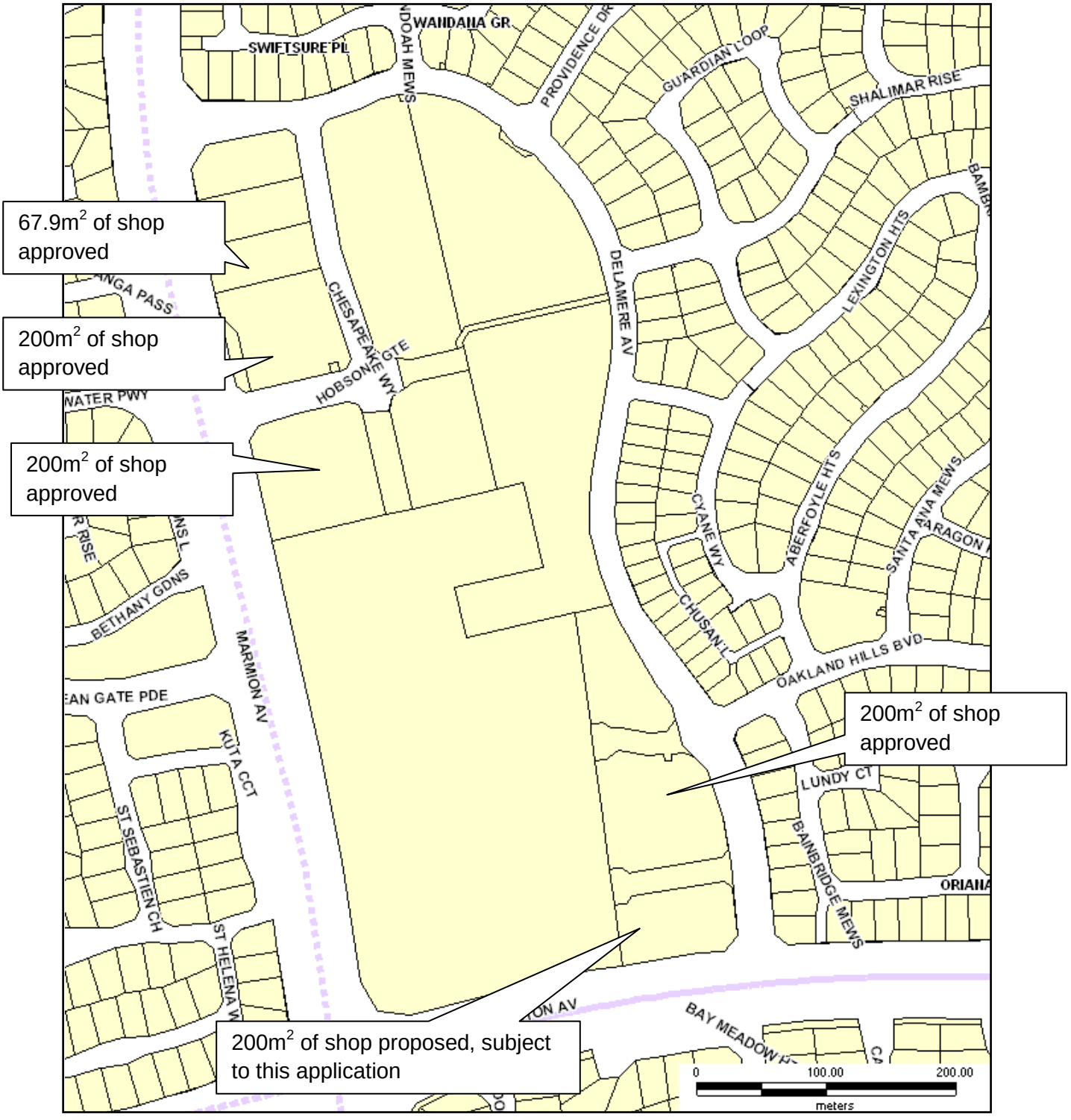
Thank you for completing this checklist to ensure your application is processed as quickly as possible.

Applicant's Full Name: GEORGE NAOUM **Contact Number:** 93491200

Applicant's Signature: [signature] **Date Submitted:** 18-12-12

Accepting Officer's Signature:

Checklist Issued: March 2011


67.9m² of shop approved
200m² of shop approved
200m² of shop approved
200m² of shop approved
200m² of shop proposed, subject to this application
WANDANA GR
SWIFTSURE PL
PROVIDENCE DR
GUARDIAN L'OOP
SHALIMAR RISE
LEXINGTON HTS
DELAMERE AV
CHESAPEAKE WY
HOBSONS GTE
CYANE WY
ABERFOYLE HTS
SANTA ANA MEWS
CHUSAN L
OAKLAND HILLS BVD
BETHANY GDNS
MARMION AV
KUTA CCT
ST SEBASTIEN CH
LUNDY CT
BAINBRIDGE MEWS
BAY MEADOW
0
100.00
200.00
meters


CALTEX
WOOLWORTHS
Save 8¢ Per Litre
141.9
149.9
155.9
MEDICAL CENTRE
DOCTOR
DENTIST
PHYSIO
NEUROPATH
FP


SHENTON
MEDICAL
CENTRE
CARPARK


MEDICAL
CENTRE
DOCTOR
DENTIST
PHYSIO
NEUROPATH


MEDICAL CENTRE
DOCTOR
DENTIST
PHYSIO
NEUROPATH
GENERAL PRACTITIONER

Government of **Western Australia**
Development Assessment Panels

Form 1 - Responsible Authority Report

(Regulation 12)

Application Details:	Additions to Osborne Park Hospital - New Out Patients Building and Theatre Block Expansion
Property Location:	Lot 506 (No. 26) Osborne Place, Stirling
DAP Name:	Metro North-West Joint Development Assessment Panel
Applicant:	Woodhead Architects
Owner:	Department of Health
LG Reference:	City of Stirling DA12/2500
Responsible Authority:	Western Australian Planning Commission
Authorising Officer:	Executive Director Perth and Peel Planning Division
Application No and File No:	DP12/01279 and 20-909-8
Report Date:	8 March 2013
Application Receipt Date:	22 January 2013
Application Process Days:	32 business days (45 total days)
Attachment(s):	1 - Location and Zoning Plan 2 - Draft Stirling City Centre Structure Plan 3 - Osborne Park Hospital Structure Plan 4 - Development Plans and Elevations

Recommendation:

That the Metro North-West Joint Development Assessment Panel resolves to:

Approve DAP Application reference DP12/0279 and accompanying plans (Attachment 4) date stamped 18 January 2013 by the Department of Planning on behalf of the Western Australian Planning Commission in accordance with Clause 30 (1) of the Metropolitan Region Scheme, subject to the following:

a) Conditions

1. Stormwater from all roofed and paved areas to be collected and contained on site to the satisfaction of the Western Australian Planning Commission, on the advice of the City of Stirling.

2. An Access and Parking Strategy to be prepared and implemented to the satisfaction of the Western Australian Planning Commission, on the advice of the City of Stirling.

3. A detailed landscaping plan including lighting is to be prepared and implemented prior to occupation of the buildings, to the satisfaction of the Western Australian Planning Commission, on the advice of the City of Stirling and Stirling Alliance.

4. All landscaped areas are to be maintained in good condition to the satisfaction of the Western Australian Planning Commission, on the advice of the City of Stirling.

5. End-of-trip facilities are to be provided on site, in accordance with the Austroads guidelines as detailed in the submitted Transport Assessment, to the satisfaction of the Western Australian Planning Commission, on the advice of the City of Stirling.

This decision constitutes planning approval only and is valid for a period of 2 years from the date of approval. If the subject development is not substantially commenced within the 2 year period, the approval shall lapse and be of no further effect.

b) Advice notes

1. The Stirling Alliance Performance Framework 2010 has a minimum target of 20% renewable energy production. The Stirling Alliance requests that consideration be given to installation of renewable energy on the building roof space.

2. With regard to Condition 2, the Access and Parking Strategy is to address, but not be limited to:
   - The Department of Health's *Access and Parking Strategy for Health Campuses in the Metropolitan Area* (2009);
   - Who is responsible for the plan's implementation, ongoing operation and review;
   - The management strategies that will be used to ensure the requirements of the planning approval are met;
   - What data and performance measures are going to be used to measure performance and adherence to the planning approvals; and
   - How the landowner/manager will demonstrate to the responsible planning authority that they are in conformity with the elements of the planning approval that relate to site access and parking.

   The applicant is advised to liaise direct with the Infrastructure and Land Use Coordination Unit of the Department of Planning (ph: 6551 9526) in respect of the above requirements.

3. With regard to Condition 3, Stirling Alliance have advised that they are currently undertaking a Landscaping Strategy for the Draft Structure Plan area, and therefore the applicant is requested to work collaboratively on landscaping prior to construction. Landscaping and lighting design is also to address the requirements of the Crime Prevention Through Environmental Design, to the satisfaction of the Stirling Alliance.

4. With regard to Condition 5, end-of-trip facilities to be provided include 60 secure bicycle parking bays, 78 lockers, 7 male showers and 7 female showers, provided for hospital employees.

Background:

Property Address:	Lot 506 (No. 26) Osborne Place, Stirling

Zoning	MRS:	Public Purposes - Hospital
	TPS:	Not Zoned
Development Scheme:		Metropolitan Region Scheme
Lot Size:		13.3572 ha
Existing Land Use:		Hospital
Value of Development:		$14 million

The subject site of the Osborne Park Hospital (OPH) is located in the suburb of Stirling, approximately 9km north-west of the Perth CBD and within the City of Stirling. The site is zoned 'Public Purposes - Hospital' under the Metropolitan Region Scheme (MRS) and is not zoned under the City's Town Planning Scheme No. 3 (**Attachment 1** - Location and Zoning Plan).

The proposed development requires determination under the MRS as the subject land is reserved. Clause 30 (1) of the MRS requires due regard be given to the following factors when determining a development application:

1. *the purpose for which the land is zoned or reserved under the Scheme;*
2. *the orderly and proper planning of the locality; and*
3. *the preservation of amenities of the locality.*

The subject site is within Stirling City Centre, which is identified as a Strategic Metropolitan Centre under the Western Australian Planning Commission (WAPC) State Planning Policy 4.2 Activity Centres for Perth and Peel (SPP4.2). The Stirling Alliance (comprising local and state government agencies, the private sector and local community) was formed in 2008 to progress planning for the City Centre and incorporates:

- Development of a long term transport solution to address the congestion currently impacting the project area (and surrounding area);
- Preparation of detailed road designs for Scarborough Beach Road, the future Stephenson Boulevard and the Mitchell Freeway interchange; and
- Preparation of a structure plan to guide future development.

The Draft Stirling City Centre Structure Plan (Draft Structure Plan) includes six precincts, one of which is the Northern Precinct within which the subject site falls (**Attachment 2** - Draft Stirling City Centre Structure Plan).

The Osborne Park Hospital Masterplan document exists in draft form. The document was prepared to this point however was stopped as the Draft Stirling City Centre Structure Plan was then under preparation. A copy of the Draft Masterplan was provided to the Stirling Alliance for use during the preparation of the Draft Stirling City Centre Structure Plan. The OPH has now advised that they are working on a new Masterplan, however that it will be some time before it is completed.

The previous development applications considered and approved for the site are summarised in the table below:

WAPC REF NO:	**DATE OF ISSUE**	**DETAILS**

20-909-1	1993	Residential hostel for elderly
20-909-2	2003	New theatre block
20-909-3	2003	Office extension to existing therapy building
20-909-4	2007	16 grouped dwellings 'Community Supported Residential Units'
20-909-5	2007	2 grouped dwellings 'Community Options Homes'
20-909-6	2010	Additions and alterations to a theatre block
20-909-7	2012	Additional birthing suites to maternity ward

The Western Australian Planning Commission endorsed the Osborne Park Hospital Structure Plan (**Attachment 3** - Osborne Park Hospital Structure Plan) in April 2007 (WAPC Ref: 755-2-20-2) and the proposal is considered consistent with this structure plan.

The OPH currently provides maternity services (obstetrics), general inpatient services, day surgery services, outpatient services, mental health and rehabilitation / restorative services as well as specialist clinics.

Details: outline of development application

The application proposes:

- two additional operating theatres;
- additional bays to Stage 1, 2 and 3 recovery;
- new standalone Surgical Out-Patient Department;
- modified Endoscopy Suite;
- additional equipment storage areas;
- expansion and redevelopment of Central Sterile Supply Department;
- general refurbishment of the theatre complex, including reception, patient waiting areas and staff support accommodation; and
- expanded remote plant room and associated works.

Attachment 4 - Development Application Plans illustrate details of the proposed development. All proposed buildings are single storey campus style buildings with wall heights of 3.45 metres.

The OPH currently has 205 operational beds and it is proposed that this number will increase to 213 beds. Therefore the proposed development will result in a net increase of 8 beds. Existing employee numbers are 575 and it is proposed that this will increase as a result of the proposed extensions to approximately 630.

No additional car bays are proposed.

Legislation & policy:

Legislation

Planning and Development Act 2005

Metropolitan Region Scheme (MRS)

State Government Strategic Planning Documents

Directions 2031 and Beyond (Directions 2031):

- Stirling City Centre is identified as a 'Strategic Metropolitan Centre'.

Draft Directions 2031 and Beyond Central Metropolitan Perth Sub-Regional Strategy (Draft Sub-Regional Strategy)

State Government Planning Policies

State Planning Policy 4.2 - Activity Centres for Perth and Peel (SPP 4.2)

Development Control Policy 1.6 - Planning to Support Transit Use and Transit Oriented Development (DC 1.6)

Local Policies

Draft Stirling City Centre Structure Plan (Draft Structure Plan)

Consultation:

City of Stirling supports the application subject to conditions.

Stirling Alliance has provided a detailed response in relation to the building height, land uses, parking, landscaping and lighting, design issues, environmental and geotechnical issues, and overall supports the proposal.

Planning assessment:

Site Context

The subject site is bound by residential development to the north and east (to a density of R20 and R30), open space to the south and the Mitchell Freeway to the west.

MRS

The site is zoned 'Public Purposes - Hospital' under the MRS and therefore the proposed development is consistent with the purpose for which the land is zoned.

Whether the proposal is in accordance with the orderly and proper planning of the locality and preservation of amenities of the locality is discussed below and summarised in the Conclusion that follows.

Directions 2031

The highest strategic land use planning document for Perth and Peel is *Directions 2031: Spatial Policy for Perth and Peel*. It provides a framework for the detailed planning and delivery of housing, infrastructure and services necessary to accommodate population growth to 2031. Stirling City Centre is identified as a 'Strategic Metropolitan Centre' which is a high order centre intended to be a multi-purpose centre providing a mix of retail, office, community, entertainment and

employment activities. The proposed development is consistent with Directions 2031.

SPP 4.2

State Planning Policy SPP 4.2 - Activity Centres for Perth and Peel is the overarching State policy utilised by the WAPC to implement the recommendations of *Directions 2031* as they relate to activity centres. SPP 4.2 places a high priority on establishing a coherent and complementary urban form and design outcome for places. The aim is to create diverse mixed use centres which attract investment, employment and people. The proposed development is considered to be consistent with SPP 4.2 as it is providing additional services and employment within the existing hospital.

DC 1.6

Development Control Policy 1.6 - Planning to Support Transit Use and Transit Oriented Development is relevant as the subject land falls within a 'transit oriented precinct' due to being largely within 800m of Stirling train station. The objectives of DC 1.6 include:

- to promote and facilitate the use of public transport as a more sustainable alternative to private cars, to enhance community accessibility to services and facilities, including employment opportunities, community services and recreational facilities, and to improve equity in accessibility for those who do not own or have access to a car;
- to encourage balanced public transport along transit corridors by creating places that are destinations as well as points of departure;
- to ensure the optimal use of land within transit oriented precincts by encouraging the development of uses and activities that will benefit from their proximity and accessibility to public transport, and which will in turn generate a demand for the use of transit infrastructure and services; and
- to promote and facilitate walking and cycling within transit oriented precincts by establishing and maintaining high levels of amenity, safety and permeability in the urban form, and to promote and facilitate opportunities for integrating transport modes by creating opportunities for convenient, safe and secure mode interchange.

The proposed development is consistent with DC1.6 as it will provide employment opportunities which reduce reliance on the Perth CBD and potentially reduce the number of commuter trips.

Stirling City Centre Structure Plan and Amendment No. 1 to LPS3

Draft Structure Plan

The *Draft Stirling City Centre Structure Plan* has been formulated on the principles that underpin the abovementioned strategic documents. The Draft Structure Plan has not yet been adopted, however is considered a seriously entertained planning proposal. The Draft Structure Plan is intended to become the main planning document for this area.

The subject site falls within the Northern Precinct of the Draft Structure Plan. The Character Statement for this precinct is as follows:

- Redeveloped Osborne Park Hospital addressing the new Stephenson Boulevard extension;
- Inner City residential development that is more intense than the current development; and
- Stephenson Avenue, with light rail, will continue through the precinct to Karrinyup Road, providing much improved access to the city core and station for the hospital and local residents.

Amendment No. 1

Amendment No. 1 to the City's Local Planning Scheme No. 3 (Amendment 1) has been submitted to the WAPC for final approval and is likely to be presented to the Minister for Planning for determination in April 2013.

The amendment inserts objectives into the scheme text for the Stirling City Centre Special Control Area including the following:

- to facilitate the development of the Stirling City Centre in a coordinated manner, recognising its significance as a Strategic Metropolitan Centre;
- to provide a strategy for the integrated development of public and private land to facilitate the creation of a safe, vibrant mixed use centre based on 'main street' design principles;
- to ensure provision of an effective, efficient, integrated and safe transport network which is accessible to pedestrians, cyclists and public transport users and motorists;
- to ensure the development of a range of commercial uses that will contribute towards economic development, local employment and the viability of the area as a commercial centre servicing residents, visitors and the local workforce; and
- to ensure the development of a range of community facilities that will service residents, visitors and the local workforces and contribute towards community wellbeing.

For the Northern Precinct, a Detailed Area Plan is required to include the following specific criteria:

- redeveloped Osborne Park Hospital addresses the Stephenson Avenue extension;
- Stephenson Avenue becomes a 2 lane street with on street parking, separated cycling lanes and provision of priority public transport lanes continuing through to Karrinyup Road;
- Karrinyup Road becomes a 4 lane street with separated cycling lanes and provision of priority public transport lanes; and
- building heights are generally mid rise (5-10 storeys) transitioning to low rise (3-5 storeys) to adjacent residential areas.

The proposed development is consistent with the Draft Structure Plan and the objectives and provisions contained within Amendment 1 as:

- it does not preclude achievement of the objectives of these documents;
- the proposal does not impact on proposed Stephenson Ave extension and light rail; and
- the Draft Structure Plan identifies hospital related uses in this part of the Northern Precinct.

<u>Built Form and Design</u>

With respect to the built form, including the height, setbacks, scale, and design of the proposed development, the proposed additions are consistent with the expected development on the subject site and will not compromise the objectives for this precinct.

The Stirling Alliance and City of Stirling have identified a design concern whereby the proposal comprises more blank walls than is ideal from a Crime Prevention Through Environmental Design (CPTED) perspective. However, the proposal has been designed to meet the operational needs of the hospital. It is therefore not appropriate to impose a condition requiring redesign of the proposed buildings for this reason. A condition is proposed that requires a detailed landscaping plan, including lighting, to be prepared and implemented. A corresponding advice note requests that landscaping and lighting design is to address the requirements of the Crime Prevention Through Environmental Design, to the satisfaction of the Stirling Alliance, is recommended.

Transport Assessment Carried Out by Applicant

A Transport Assessment (TA) prepared by Sinclair Knight Merz (SKM) has been submitted by the applicant.

Trip Generation and Distribution

The TA has estimated that the proposal will generate an additional 160 vehicle trips per day. The methods used to calculate vehicle trip generation and distribution are acceptable. It is expected that the proposal will have a low impact on the surrounding road network in the peak hour and therefore further detailed analysis is not necessary.

Parking

The current parking provision on site and along Osborne Place is 643 bays. The TA has estimated that, inclusive of the proposal, approximately 615 bays would be required. Whilst this indicates that sufficient legal parking is available, the TA has identified an issue with illegal verge parking despite vacant bays being available. This highlights the need for an Access and Parking Strategy for the site and a condition is proposed to prepare and implement one.

The provisions of both the Draft Stirling City Centre Structure Plan, as well as the Stirling City Centre Access & Parking Strategy, identify that the provision of parking should be reduced within the City Centre. Whist neither of these documents currently carry any statutory weight, they do provide a clear indication of the future intent of the precinct to significantly limit the provision of parking in the city centre by imposing maximum parking provisions.

The parking provision on site is considered to be consistent with the future planning of the area as identified in the Draft Stirling City Centre Structure Plan. The Draft Structure Plan seeks to limit and restrict car usage within the Stirling City Centre and ensure that the road capacity is not exceeded by limiting the number of bays that are available within the precinct. Development within the Stirling City Centre should encourage high levels of access via public transport and sustainable methods of transport such a walking and cycling. An over-supply of parking would be contrary to this objective. The Draft Structure Plan also identifies that a significant reduction in

the provision of parking within the Stirling City Centre would be possible once the light rail system is committed in the area.

Therefore overall no additional parking bays are desired or required for this site.

Bicycle Parking

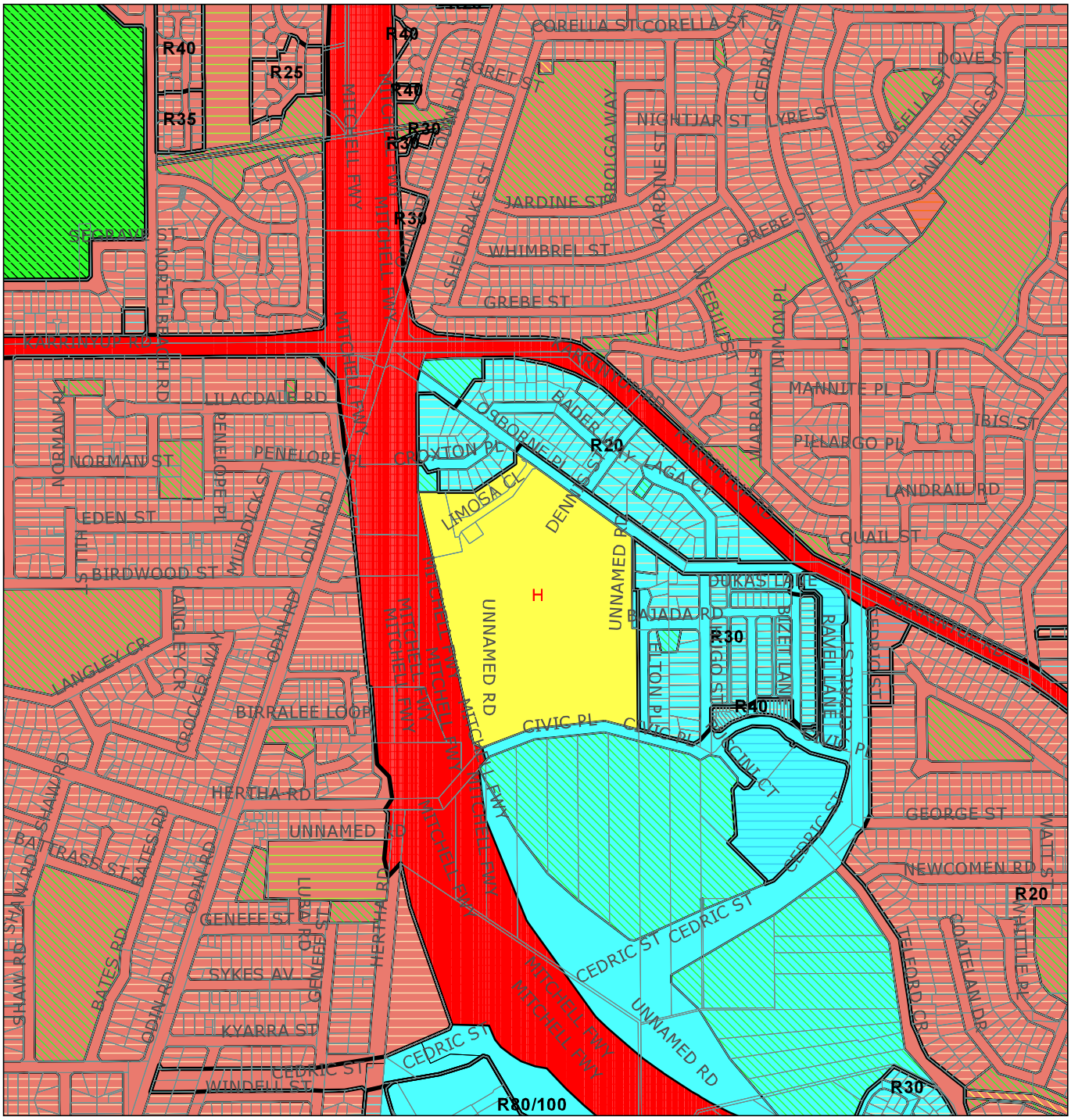
The TA has identified deficiencies in the provision of bicycle parking and end-of-trip facilities. It is recommended that these facilities are provided on site in accordance with the Austroads guidelines as detailed in the TA, and a condition is proposed to require this. This would result in provision of approximately 60 secure bicycle parking bays, 78 lockers, 7 male showers and 7 female showers provided for hospital employees.

Conclusion:

The proposed development will increase the functionality of the Osborne Park Hospital, is consistent with State Planning Policies and the Draft Structure Plan for the Stirling City Centre and is considered to be in accordance with orderly and proper planning.

The proposal will preserve and contribute to the amenity of the locality and is consistent with the overall intent and objectives for development and land use in this area.

Accordingly, conditional approval is recommended.



Cadastre
Cadastre with Lot Numbers Blue - Overlay Images
SPECIAL 10
DEVELOPMENT AREA STRUCTURE PLAN
PRECINCT BOUNDARY
TPS - Scheme Boundaries
TPS - R Code Boundaries
PRIMARY REGIONAL ROADS

PARKS & RECREATION
PP - HOSPITAL
BUSINESS
CITY CENTRE
CIVIC
DEVELOPMENT
LOCAL CENTRE
MIXED USE

PRIVATE INSTITUTION
PUBLIC OPEN SPACE
PUBLIC USE
RESIDENTIAL
SERVICE STATION
Bushforever Area
URBAN
CENTRAL CITY AREA

PRIMARY REGIONAL ROADS
PARKS & RECREATION
PP - HOSPITAL

Scale 1:10,663
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Prepared by: cbeamish
Prepared for:
Date: Wednesday, January 23, 2013 14:33
Plot identifier: P20130123_1433

DP INTERNAL USE ONLY

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Department of Planning

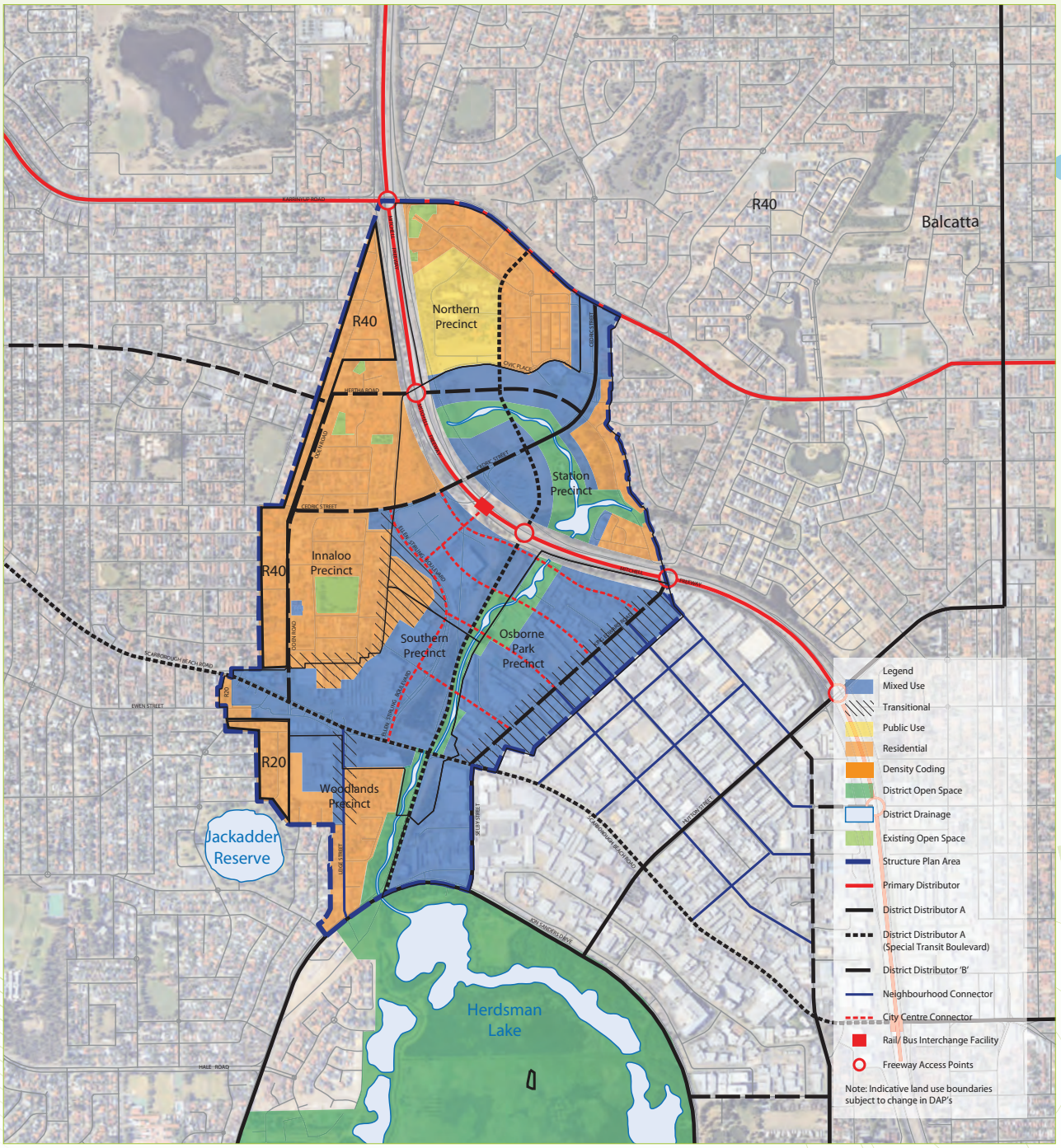

Figure 8. Structure plan



Osborne Park Hospital Structure Plan



O.H.P.D. DRAWING ISSUE LIST			
DWG. NO.	DRAWING NAME	ISSUE REVISION	ISSUE DESCRIPTION
D001A0	COVER SHEET	B	DA SUBMISSION
D101A7	PROPOSED SITE PLAN	B	DA SUBMISSION
D201P5	PROPOSED FLOOR PLAN	C	DA SUBMISSION
D203P5	PROPOSED ROOF PLAN	C	DA SUBMISSION
D221P5	PROPOSED PARTITION FLOOR PLAN	B	DA SUBMISSION
D301C5	REFLECTED CEILING PLAN	B	DA SUBMISSION
D401E5	PROPOSED ELEVATIONS	C	DA SUBMISSION
D501S3	PROPOSED SECTIONS	C	DA SUBMISSION
D701DS	PROPOSED DOOR SCHEDULE	B	DA SUBMISSION
D711WS	PROPOSED WINDOW SCHEDULE	B	DA SUBMISSION
D721RM	ROOM SCHEDULE	B	DA SUBMISSION
D901PV	PROPOSED PERSPECTIVE VIEWS	C	DA SUBMISSION
D902PV	PERSPECTIVE VIEWS	B	DA SUBMISSION

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Key Plan.

Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	24/10/12
B	DA SUBMISSION	14/11/12

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

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BCA Consultant

ESD Consultant

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woodhead™
Level 2, 191 St
Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

Client

Government of Western Australia
Department of Finance

OSBORNE PARK HOSPITAL
NEW OPD

COVER SHEET

DRAWN Author	DESIGNED Designer	REDUCTION	
CHECKED Checker	PRINCIPAL		
APPROVED Approver			
SCALE 1 : 1 A1	DATE 01/07/2012	DRAWING No.	REV B
BMW PROJECT NO.	BMW FILE NO.	OPHD001A0	

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Project Number - 12.7025.07

4
WASTE DISPOSAL BUILDING

A

EXISTING OUTPATIENTS
ANAESTHETIC , ANTE-NATAL, OUTPATIENTS & SURGICAL CLINICS

NEW OUTPATIENT DEPARTMENT

RADIOLOGY FRONT ENTRANCE

29439

SWAN LOCATION

11869

13.4467 Ha

EXISTING
WARD 1
MATERNITY

HOSPITAL FRONT ENTRANCE

SUBSTATION & EMERGENCY GENERATOR

OPERATING THEATRES

B

ADMINISTRATION

RADIOLOGY

DINING

E

GENERAL WARDS
WARDS 4, 5 & 6

KIOSK

KITCHEN

T

THERAPIES BLOCK

LINEN

J

STORES/
PHARMACY

PATHWEST

D

ENGINEERING

C

5

6

WARD 3
REHABILITATION AND AGED CARE

F

EXTENDED CARE
DAY HOSPITAL, OCCUPATIONAL THERAPY, PHYSIOTHERAPY, SPEECH PATHOLOGY

7 SOUTH SUBSTATION

DAY CARE UNIT

ELTON PLACE

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A	ISSUED FOR APPROVAL	8/11/12
B	DA SUBMISSION	16/11/12

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Architects

woodhead
Level 2, 191 St Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
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OSBORNE PARK HOSPITAL
NEW OPD

PROPOSED SITE PLAN

DRAWN FP	DESIGNED JL	REDUCTION	
CHECKED JL	PRINCIPAL		
APPROVED MH			
SCALE As indicated A1	DATE 01.07.2012	DRAWING No OPHD101A7	REV B
BMW PROJECT NO	BMW FILE NO.		

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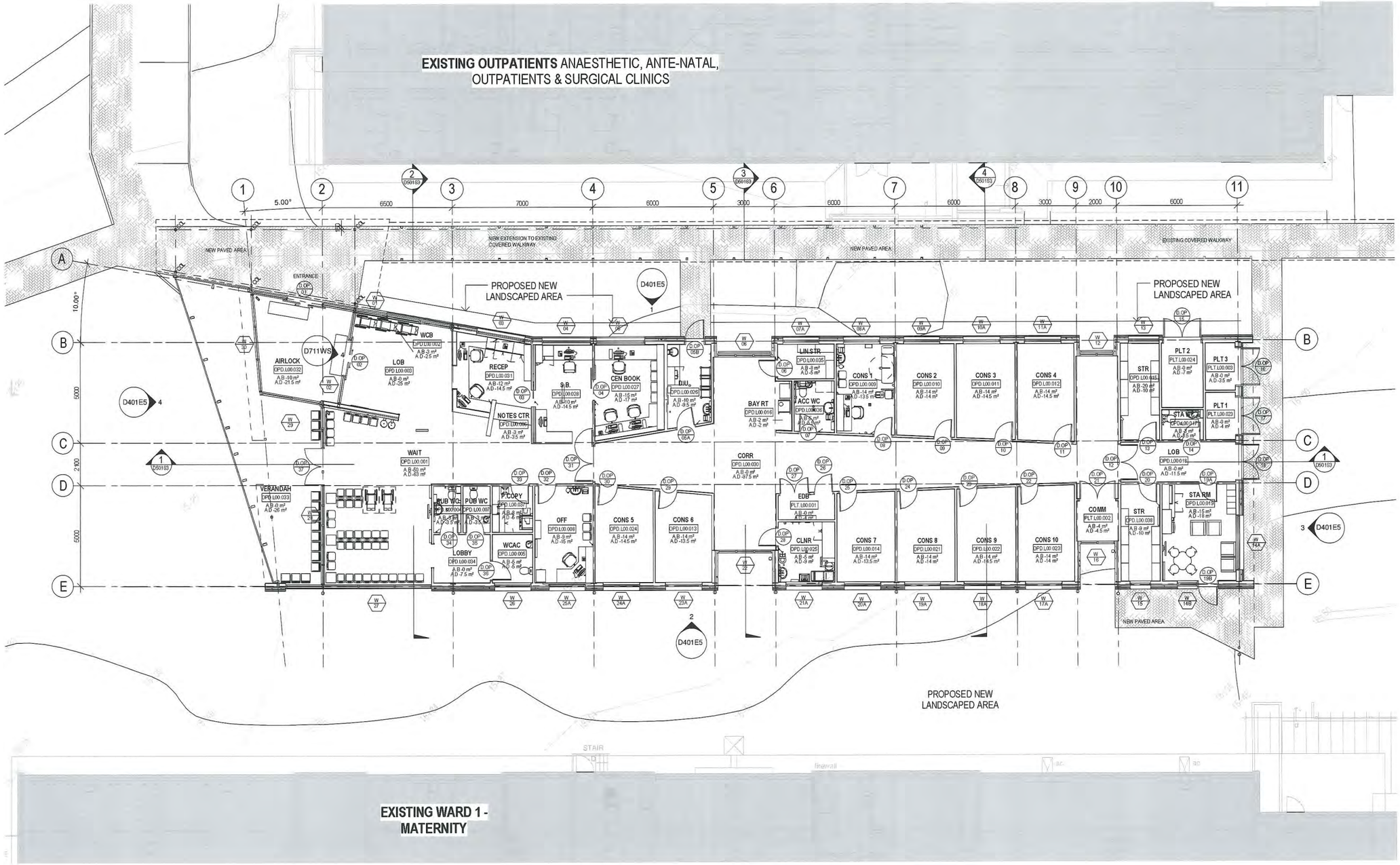

1 GROUND FLOOR PLAN
D401E5 1 : 100

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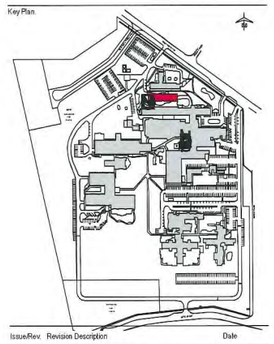
Key Plan



Issue/Rev.	Revision Description	Date
A	ISSUED FOR COMMENT	02/08/12
B	ISSUED FOR APPROVAL	30/08/12
C	DA SUBMISSION	14/11/12

Project Management

Quantity Surveyor

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BCA Consultant

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Architects

woodhead™
Level 2, 191 St Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
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OSBORNE PARK HOSPITAL
NEW OPD

PROPOSED FLOOR PLAN

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CHECKED JL		PRINCIPAL	
APPROVED MH			
SCALE As indicated A1		DATE 01.07.2012	DRAWING No. OPHD201P5 REV C
BMW PROJECT NO.		BMW FILE NO.	

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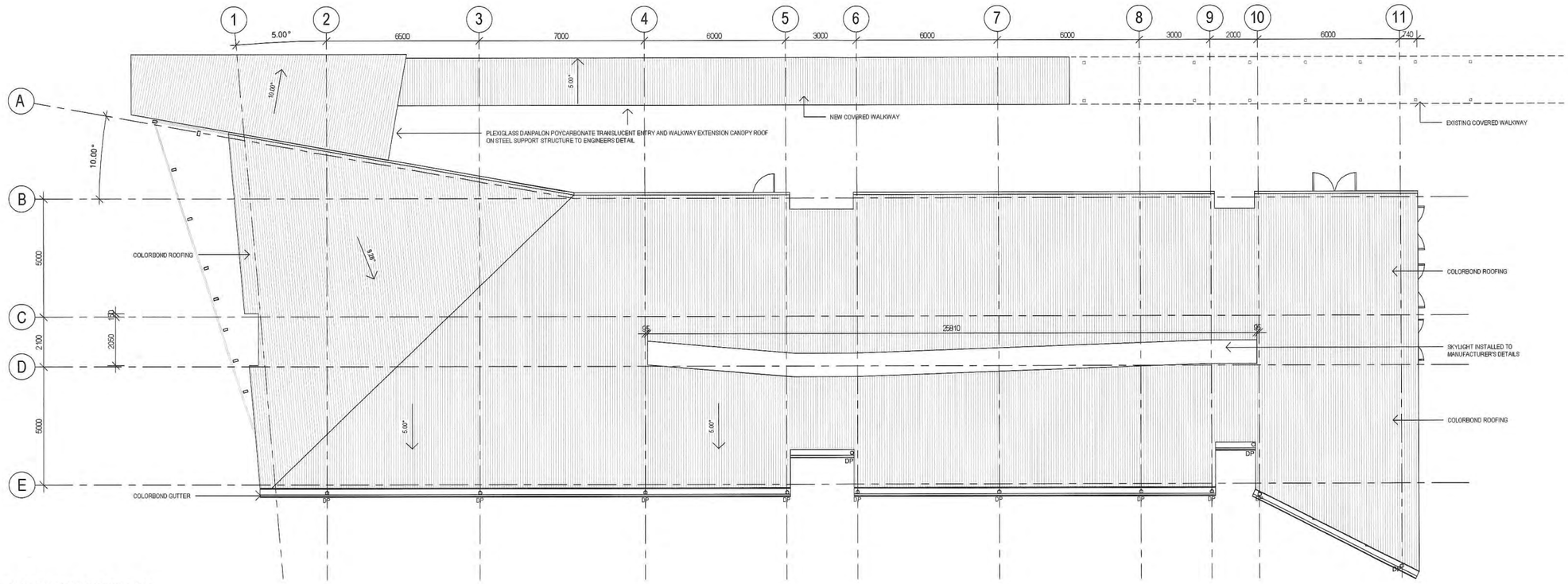

1 D401E5 PROPOSED ROOF PLAN
1 : 100

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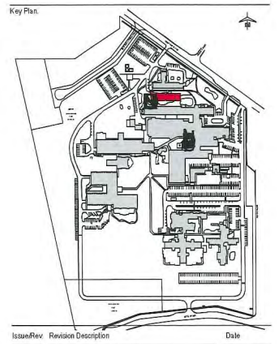

Issue/Rev.	Revision Description	Date
A	ISSUED FOR COMMENT	02/11/12
B	ISSUED FOR APPROVAL	31/10/12
C	DA SUBMISSION	14/11/12

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woodhead™
Level 2, 191 St
Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
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OSBORNE PARK HOSPITAL
NEW OPD

PROPOSED ROOF PLAN

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APPROVED MH			
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BMW PROJECT NO.	BMW FILE NO.		

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Project Number - 12 7025 07

PARTITION TYPE LEGEND	
Type Mark	Description
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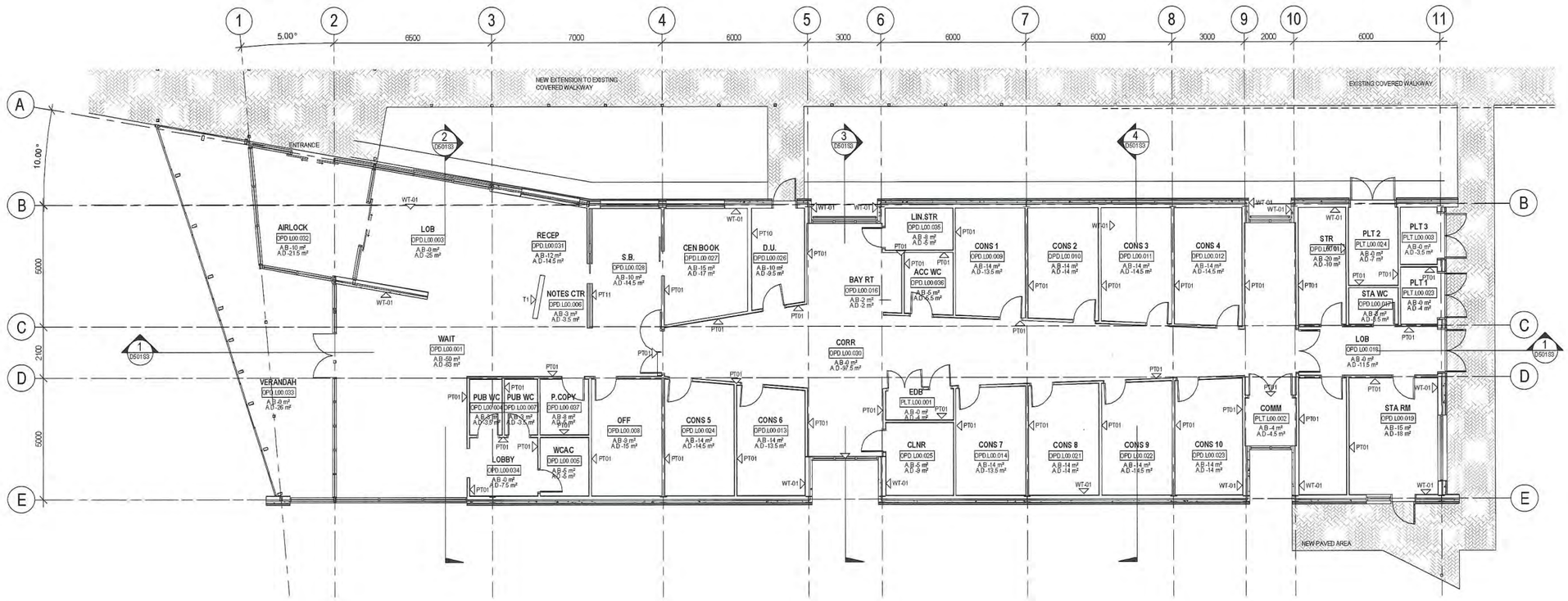
PT10	1x LAYER 13mm FIBEROCK HEALTH + 150mm STEEL STUDS @ 600mm MAX. CTRS (450mm MAX. CTRS. IN WET AREAS) + 1x LAYER 13mm FIBEROCK HEALTH
PT11	1xLAYER 13mm FIBEROCK HEALTH + 2x76mm STEEL STUDS WITH 50mm SLIDER CAVITY AIR + INSULATION R2.0 + LAYER 13mm FIBEROCK HEALTH



1 D401E5 GROUND FLOOR PLAN PARTITION PLAN
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Key Plan

Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	31/01/12
B	DA SUBMISSION	16/11/12

Project Management

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woodhead™
Level 2, 191 St Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

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Department of Finance

OSBORNE PARK HOSPITAL
NEW OPD

PROPOSED PARTITION FLOOR PLAN

DRAWN Author	DESIGNED Designer	REDUCTION	
CHECKED Checker	PRINCIPAL		
APPROVED Approver			
SCALE 1 : 100 A1	DATE 01/07/2012	DRAWING No. OPHD221P5	REV B
BMW PROJECT NO.	BMW FILE NO.		

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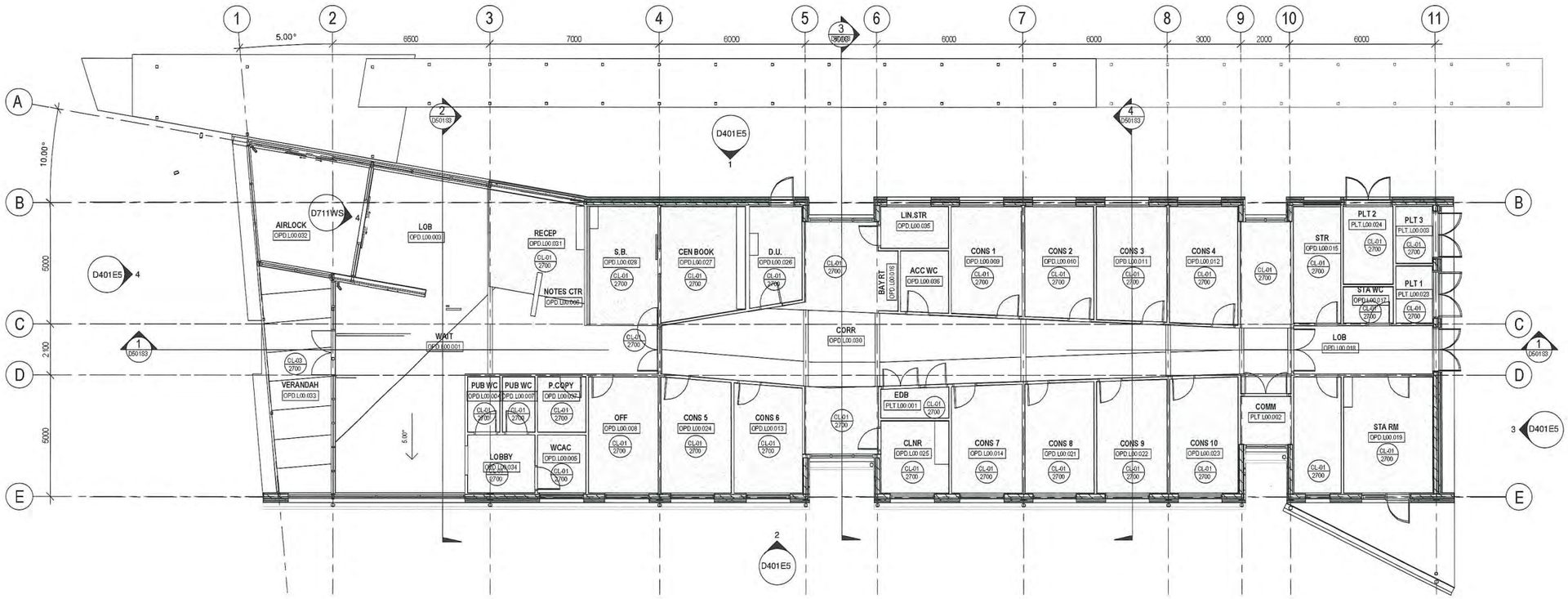
Project Number - 12.7025.07

CEILING LINING LEGEND (CL)

ITEM CODE	DESCRIPTION
CL-01	FLUSH PLASTERBOARD CEILING
CL-03	6mm FC SHEET



1 D401E5 GROUND FLOOR
1 : 100

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CITY OF STIRLING
25 CEDRIC STREET, STIRLING 6021

0 500 2000 4000 5000
1:100 mm

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Key Plan

Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	26/10/12
B	DA SUBMISSION	16/11/12

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead™
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ABN 61 007 747 748

Client

Government of Western Australia
Department of Finance

OSBORNE PARK HOSPITAL
NEW OPD

REFLECTED CEILING PLAN

DRAWN Author	DESIGNED Designer	REDUCTION	
CHECKED Checker	PRINCIPAL		
APPROVED Approver			
SCALE 1 : 100 A1	DATE 01/07/2012	DRAWING No. OPHD301C5	REV B
BMW PROJECT NO.	BMW FILE NO.		

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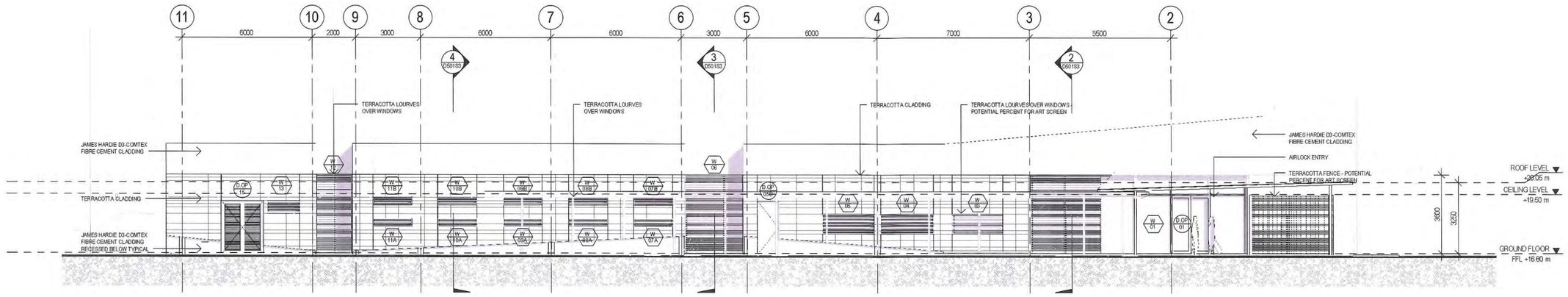
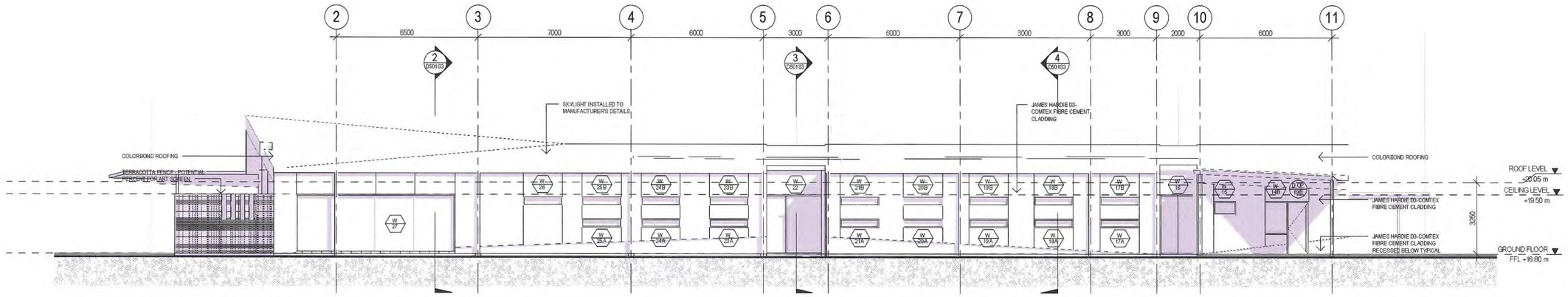
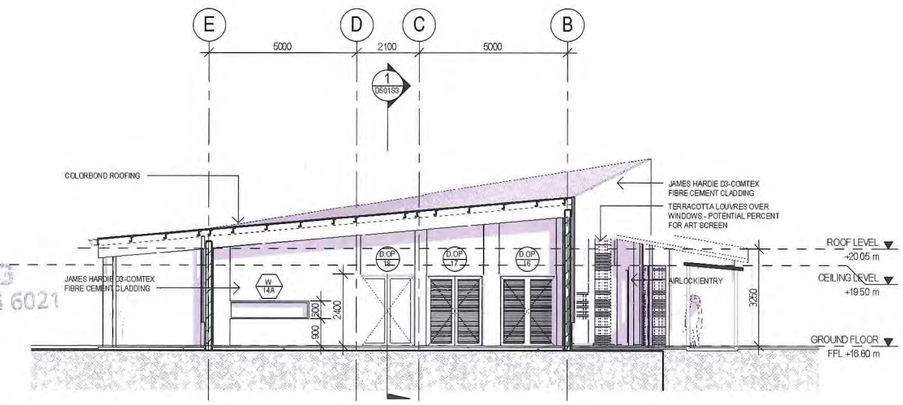
Project Number - 12.7025.07



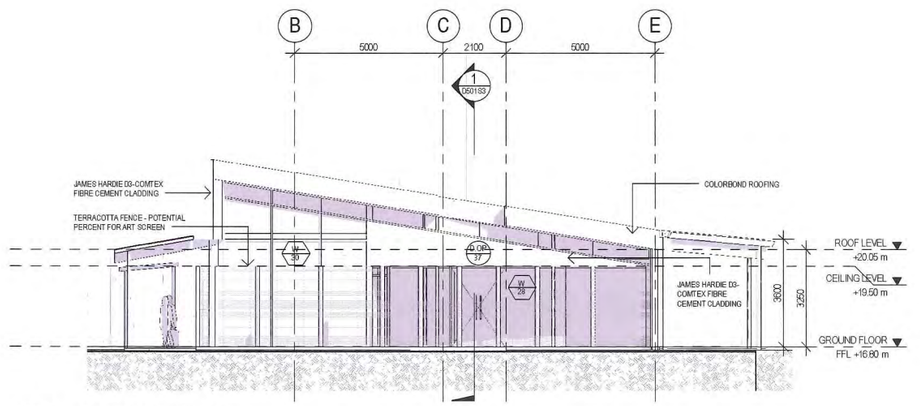
1 D201P5 **ELEVATION - NORTH**
1 : 100



2 D201P5 **ELEVATION - SOUTH**
1 : 100



3 D201P5 **ELEVATION - EAST**
1 : 100



4 D201P5 **ELEVATION - WEST**
1 : 100

0 500 2000 4000 5000
1:100mm

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CITY OF STIRLING
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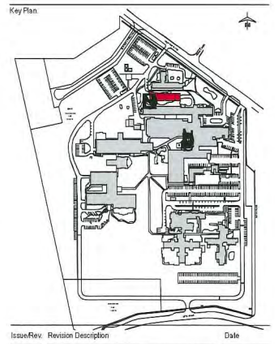
Key Plan



Issue/Rev.	Revision Description	Date
A	ISSUED FOR COMMENT	16/8/12
B	ISSUED FOR APPROVAL	26/9/12
C	DA SUBMISSION	14/11/12

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

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Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead™
Level 2, 191 St Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

Client

Government of Western Australia
Department of Finance

OSBORNE PARK HOSPITAL
NEW OPD

PROPOSED ELEVATIONS

DRAWN CG	DESIGNED JL	REDUCTION	
CHECKED JL	PRINCIPAL		
APPROVED MH			
SCALE As indicated A1	DATE 01/07/2012	DRAWING No.	REV C
BMW PROJECT NO.	BMW FILE NO.	OPHD401E5	

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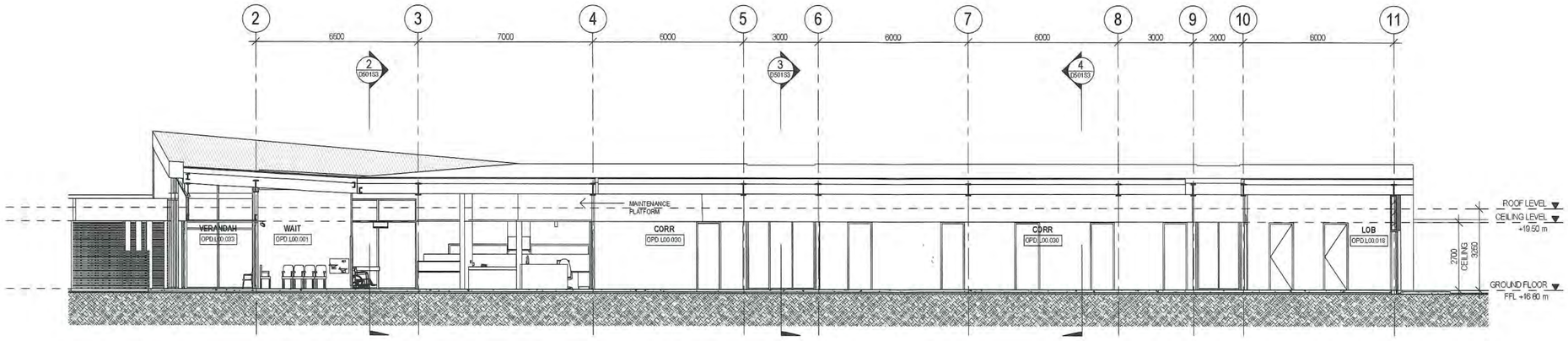
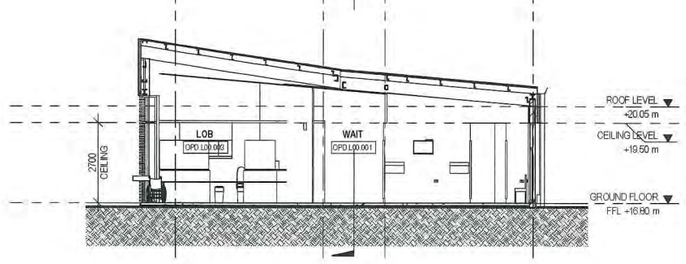
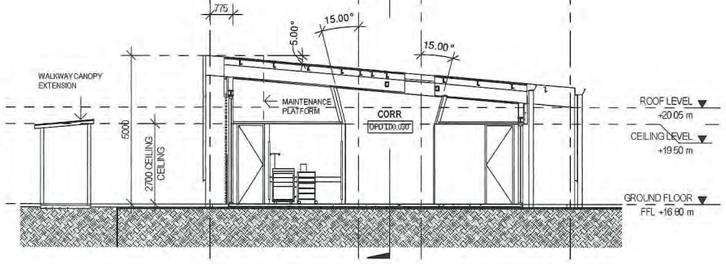
Project Number - 12.7025.07



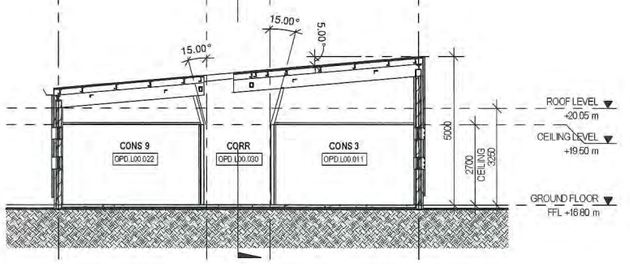
1 D201P5 **SECTION 01**
1 : 100



2 D201P5 **SECTION 02**
1 : 100



3 D201P5 **SECTION 03**
1 : 100



4 D201P5 **SECTION 04**
1 : 100

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0 500 2000 4000 5000
1:100 mm

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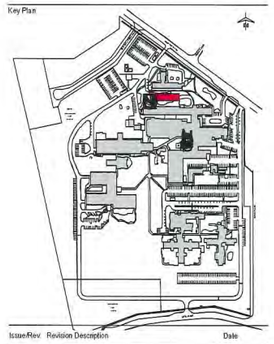
Key Plan



Issue/Rev.	Revision Description	Date
A	ISSUED FOR COMMENT	02/08/12
B	ISSUED FOR APPROVAL	24/08/12
C	DA SUBMISSION	14/11/12

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead
Level 2, 191 St
Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

Client

Government of Western Australia
Department of Finance

OSBORNE PARK HOSPITAL
NEW OPD

PROPOSED SECTIONS

DRAWN CG		DESIGNED JL	REDUCTION
CHECKED JL		PRINCIPAL	
APPROVED MH			
SCALE As indicated A1		DATE 01.07.2012	DRAWING No. OPHD501S3 REV C
BMW PROJECT NO.		BMW FILE NO.	

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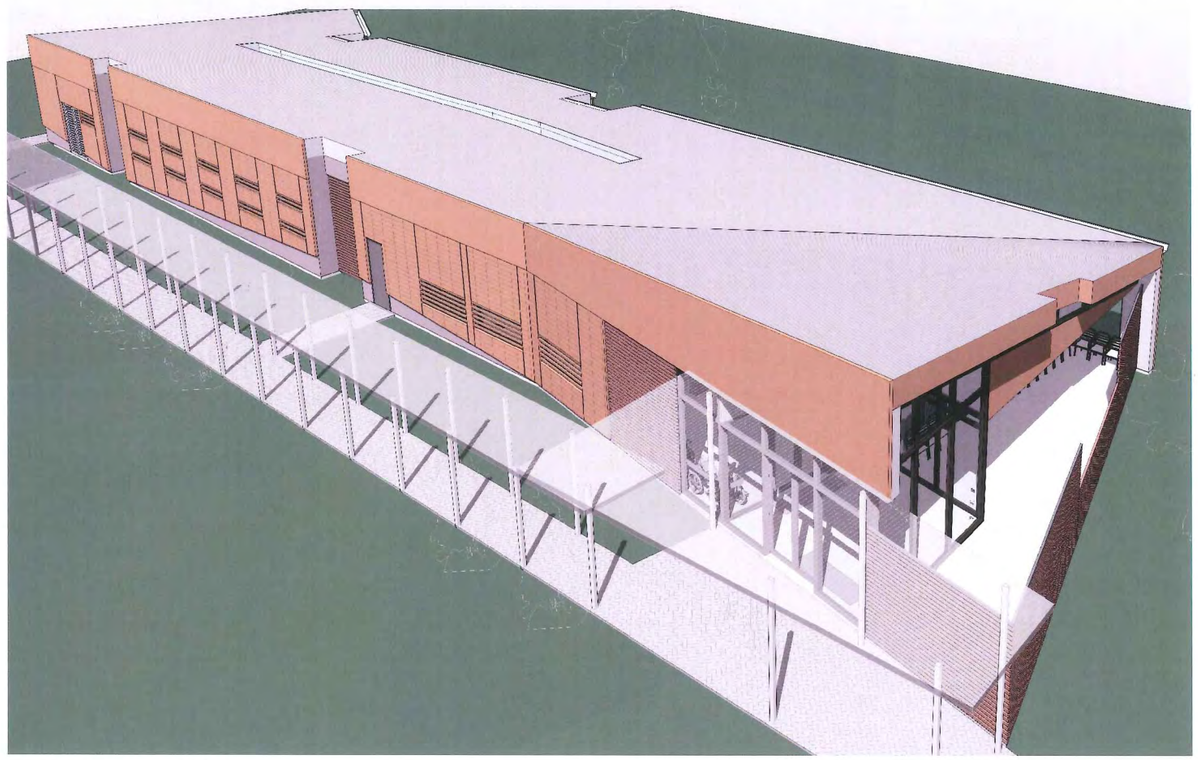
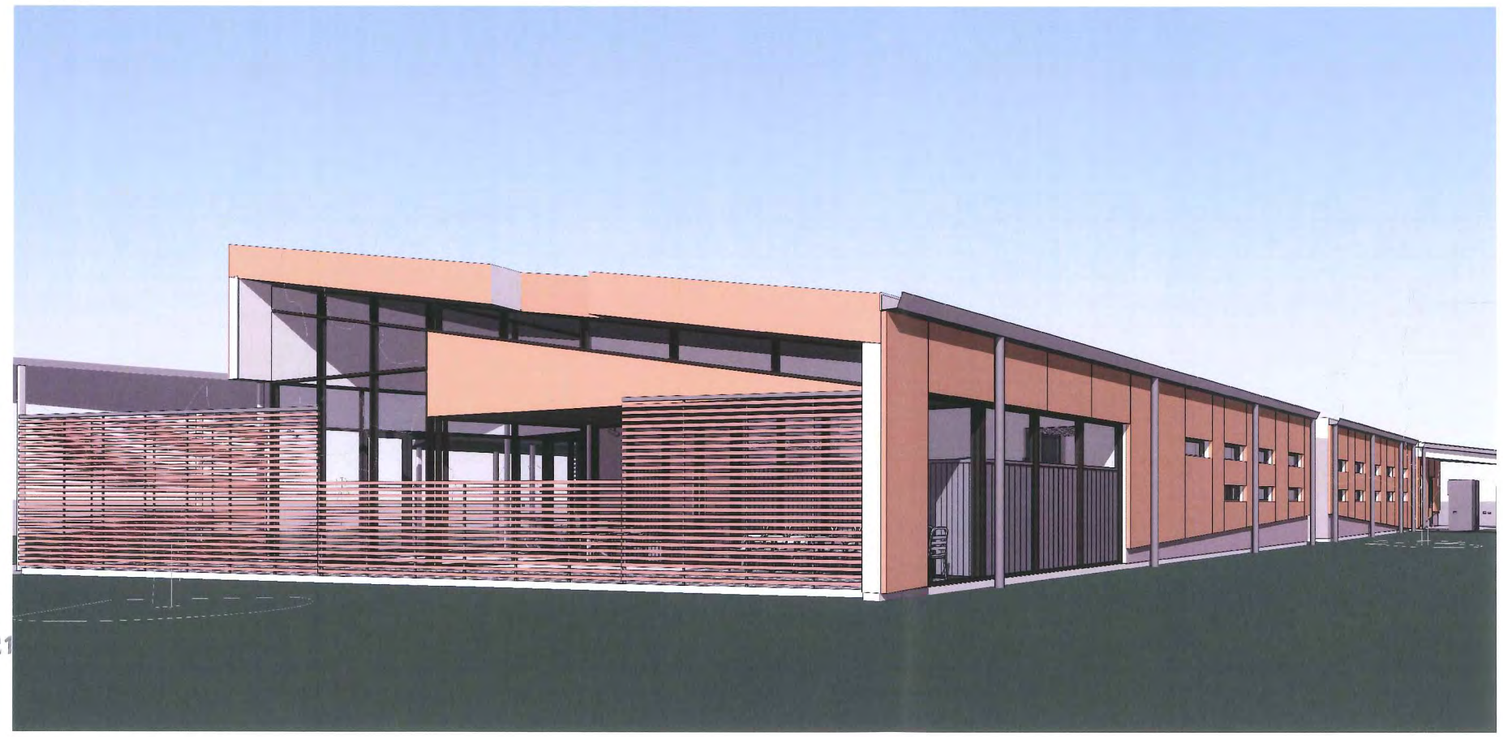
Project Number : 12.702507



1 PERSPECTIVE 01



2 PERSPECTIVE 02

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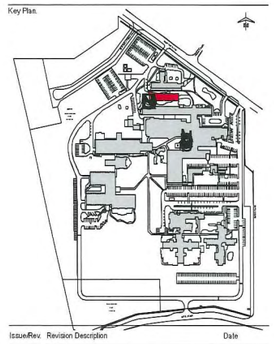
Key Plan



Issue/Rev.	Revision Description	Date
A	ISSUED FOR COMMENT	12/10/12
B	ISSUED FOR APPROVAL	26/10/12
C	DA SUBMISSION	14/11/12

Project Management

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Fire

Architects

woodhead™
Level 2, 191 St
Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

Client

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NEW OPD

PROPOSED PERSPECTIVE VIEWS

DRAWN CG	DESIGNED JL	REDUCTION	
CHECKED JL	PRINCIPAL		
APPROVED MH			
SCALE NOT TO SCALE@A1	DATE 01.07.2012	DRAWING No.	REV C
BMW PROJECT NO.	BMW FILE NO.	OPHD801 PV	

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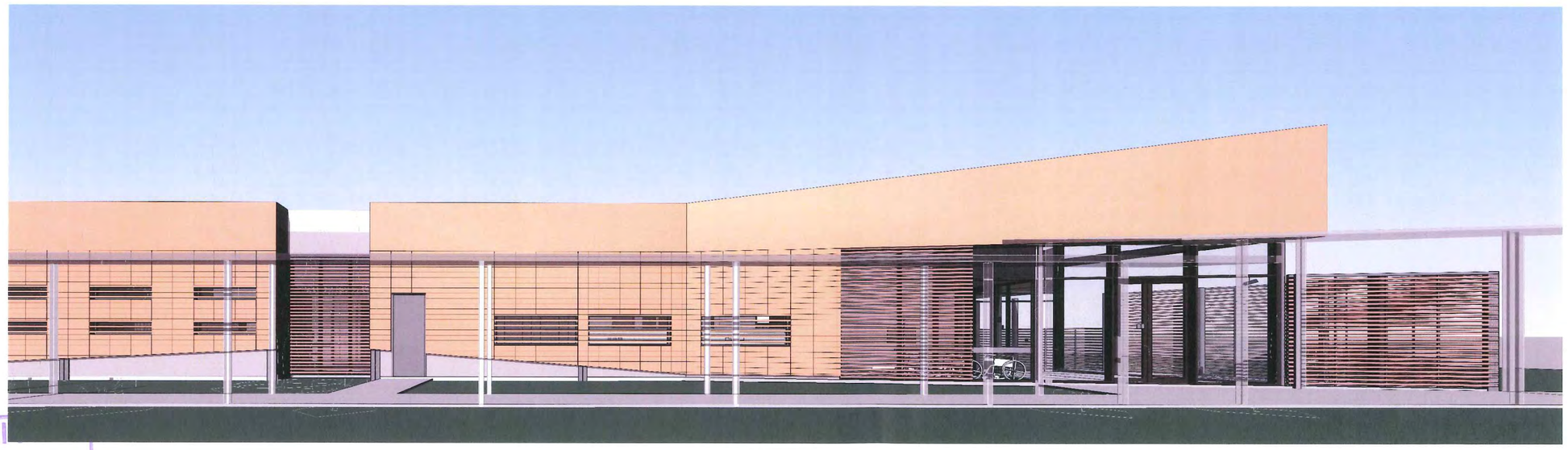
Project Number - 12.7025.07



1 PERSPECTIVE 04



2 PERSPECTIVE 05

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Key Plan.

Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	9/11/12
B	DA SUBMISSION	14/11/12

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

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Perth WA 6000
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F +618 9226 4399
ABN 61 007 747 748

Client

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Department of Finance

OSBORNE PARK HOSPITAL
NEW OPD

PERSPECTIVE VIEWS

DRAWN CG	DESIGNED	REDUCTION	
CHECKED RH	PRINCIPAL		
APPROVED MH			
SCALE A1	DATE 01/07/2012	DRAWING No.	REV B
BMW PROJECT NO.	BMW FILE NO.	OPHD802PV	

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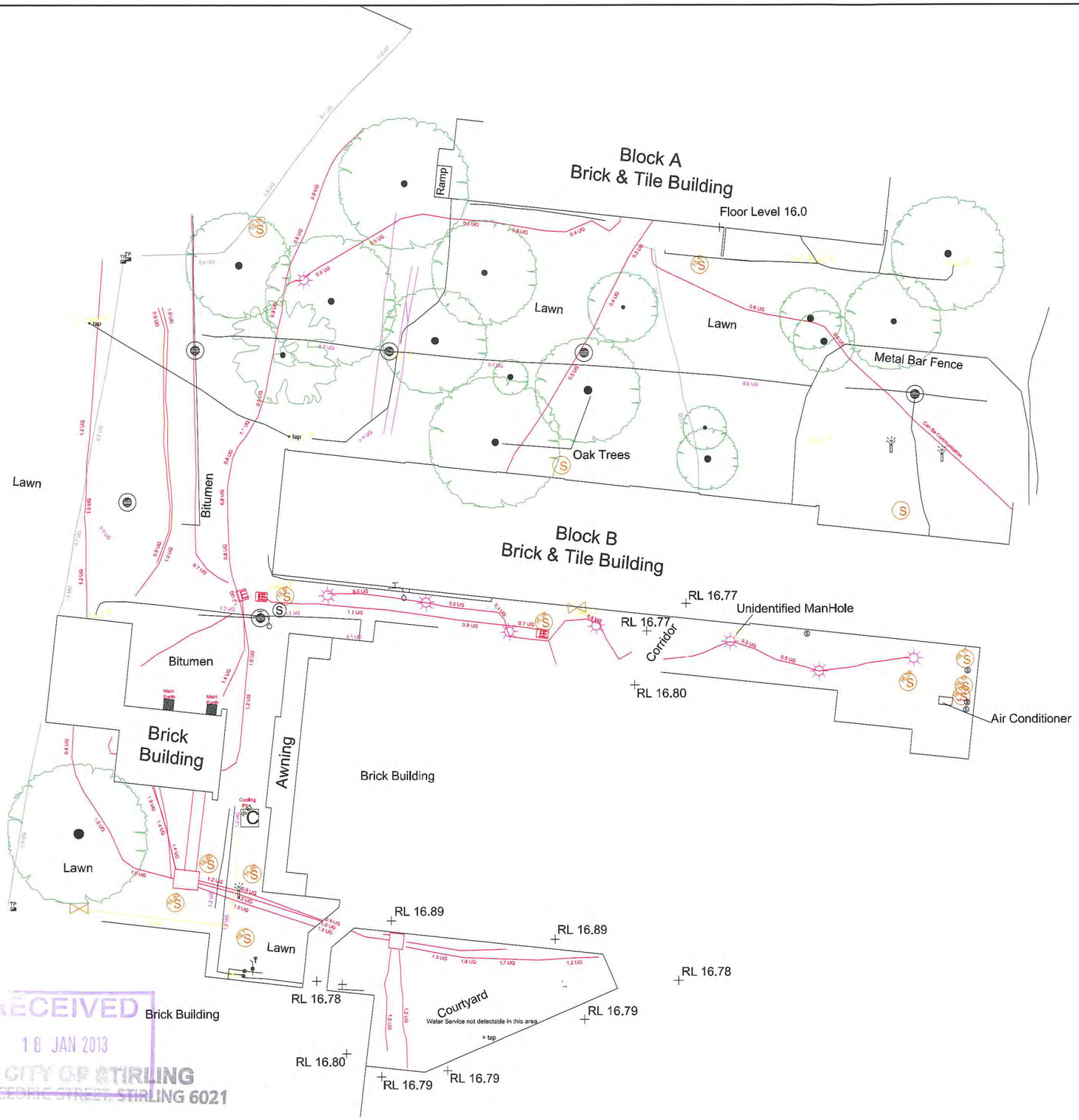
Project Number - 12 7025 07



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NB!

Levels shown have been adopted as a "best fit" from Plan OPHXU1P6

While the positioning of all services is accurate in a spatial sense - Realserve Pty. Ltd. accepts no responsibility for the Underground position of services shown. No Potholing done to verify position and depth of services shown.

Legend

Red	- Power	E
Blue	- Water	
Yellow	- Gas	G
Grey	- Communications	T
Cyan	- Storm Water	
Magenta	- Unknown	?

- Gully Trap
- TP — Telecom Pit
- Irrigation Control Box
- tap — Water Control Tap
- Water Tap
- Hydrant
- Main Earth
- Misc Valve
- E — Elecrtical Inspection Pit
- S — Sewer Vent
- Light Pole
- C — Sewer Cooling Pit

CLIENT:
WOODHEAD ARCHITECTS

DATE	REV	COMMENTS
22/10/12	B	Sewer invert levels added
24/10/12	C	RL'S added

EXISTING CONDITIONS
OSBORNE PARK HOSPITAL,
OSBORNE PLACE, WA.

JOB No.	42792	Date	22/10/2012
Description	EC	Revision	C
Drawn By	PB	Checked by	JS
Scale	1:100 @ A1 1:200 @ A3	Sheet No.	of

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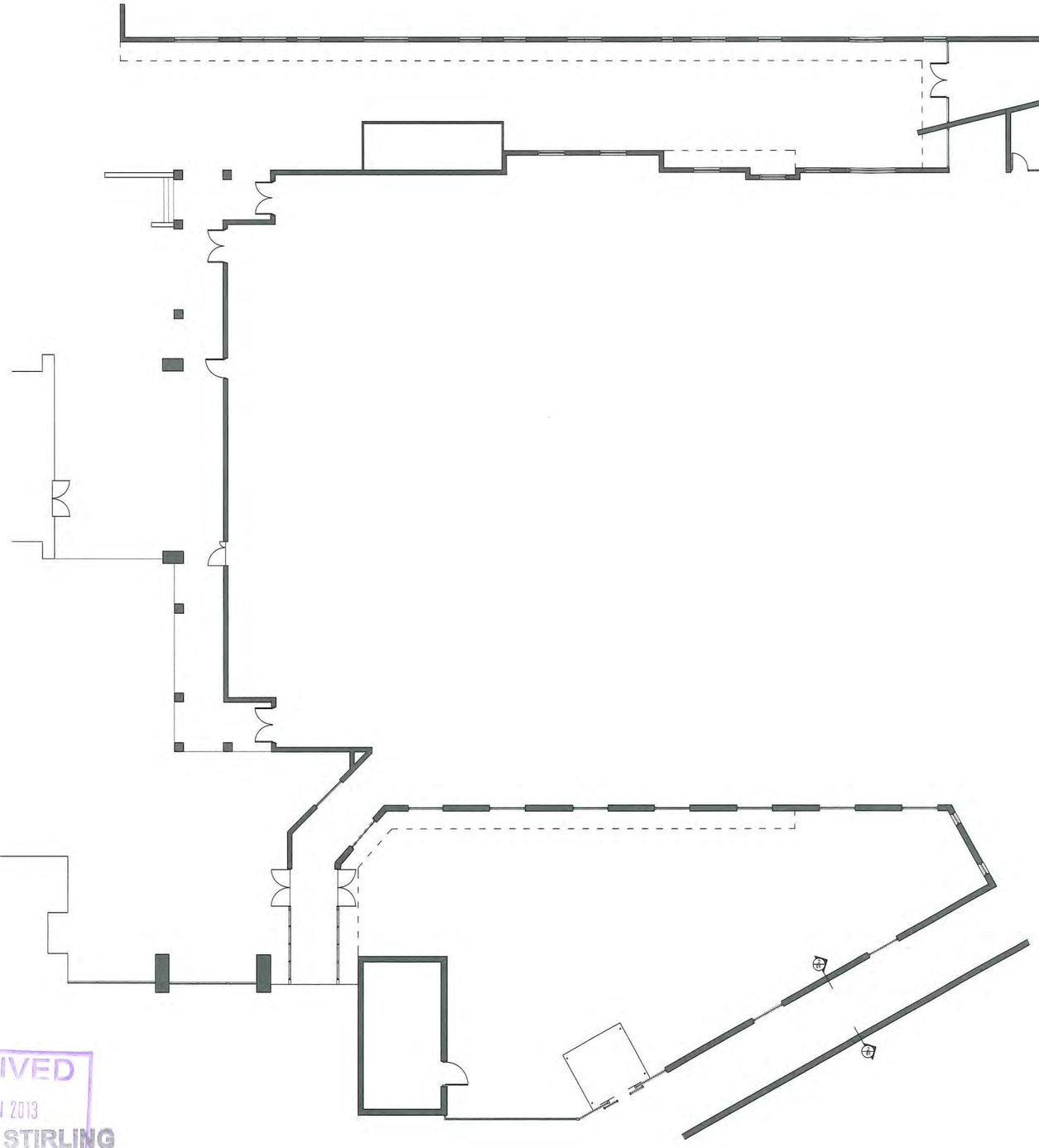
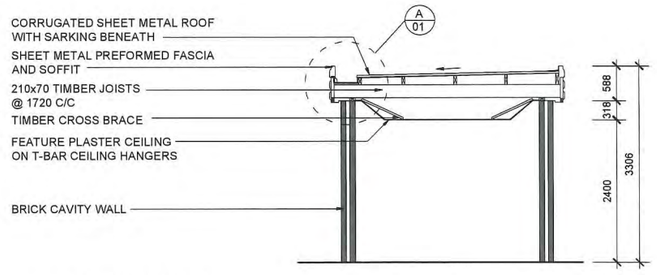
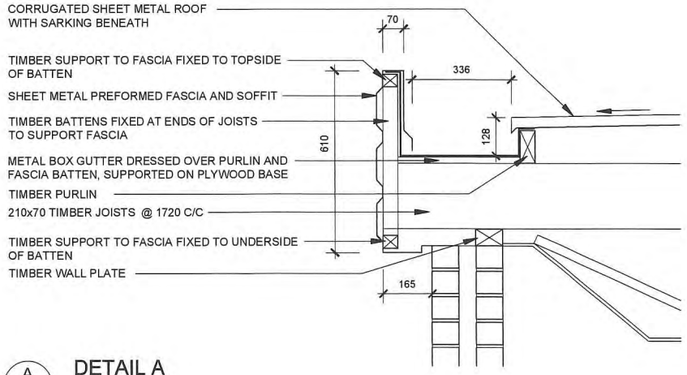


01/01 EXISTING CONDITIONS PLAN
Scale 1:125



02/01 SECTION A-A
Scale 1:50



A/01 DETAIL A
Scale 1:10

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WOODHEAD

DATE	REV	COMMENTS
05/10/12	A	PRELIMINARY ISSUE
07/11/12	B	SECTION A-A UPDATED, DETAIL A ADDED

EXISTING CONDITIONS
Osborne Park Hospital
OSBORNE PARK, WA

JOB No.	42792	Date	07/11/2012
Description	EC	Revision	B
Drawn By	DP	Checked by	JS
Scale	1:125 @ A1 1:250 @ A3	Sheet No.	1 of 2

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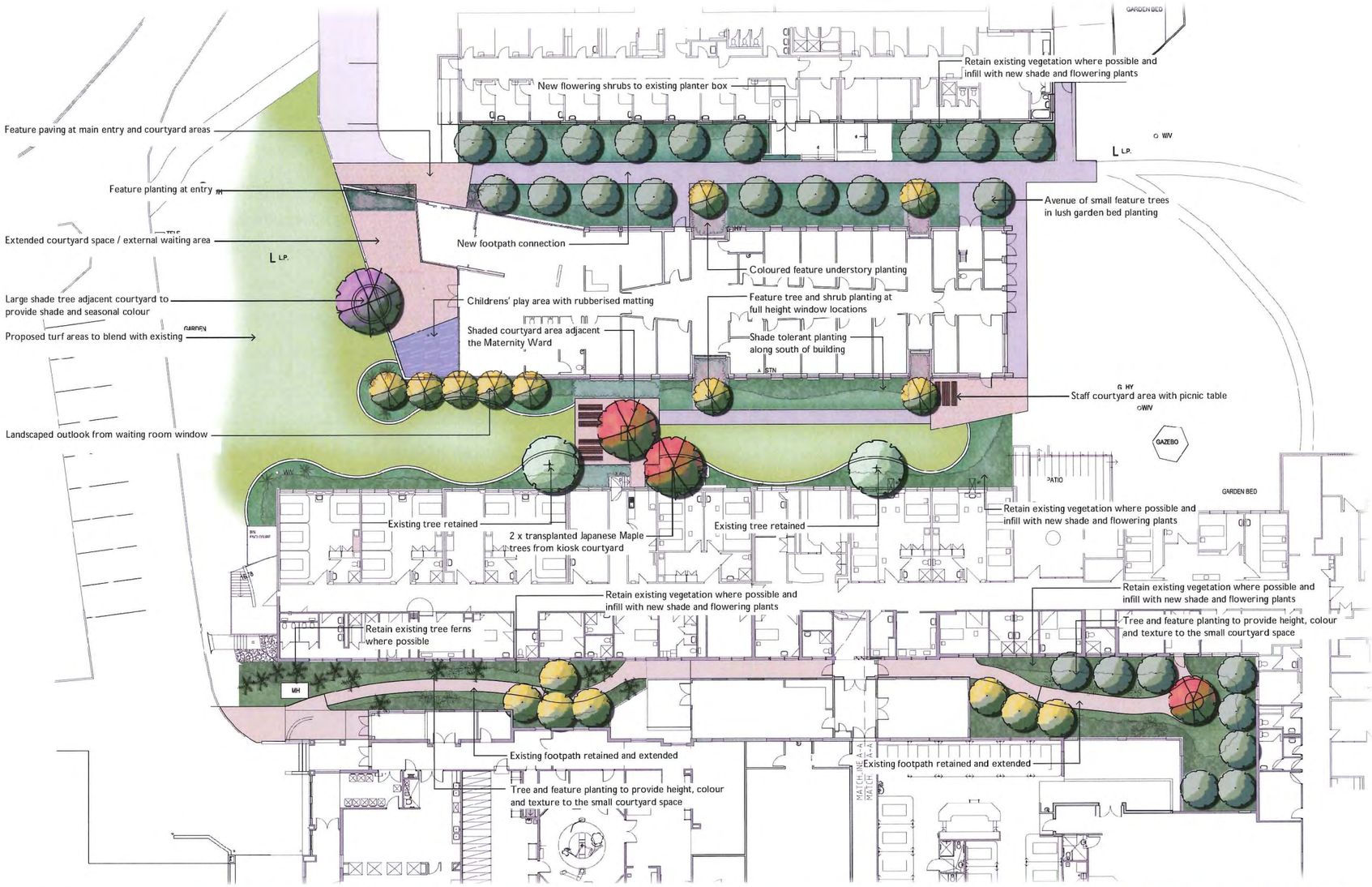



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25 CEDRIC STREET, STIRLING 60

OSBORNE PARK HOSPITAL

PREPARED FOR WOODHEAD ARCHITECTS

LANDSCAPE CONCEPT PLAN

JOB NO. 12052-01 CD-02 REV A OCTOBER 2012

1:200 @ A1

0 2 4 8 12 20m

PLAN (E) LANDSCAPE ARCHITECTURE
414 ROKEBY ROAD SUBIACO WA 6008 T (08) 9388 9566 F (08) 9388 9577 E mail@plane.com.au
LANDSPACE PTY LTD ACN 056 538 679 TRUSTEE FOR THE BRT UNIT TRUST COPYRIGHT PLAN E 2005
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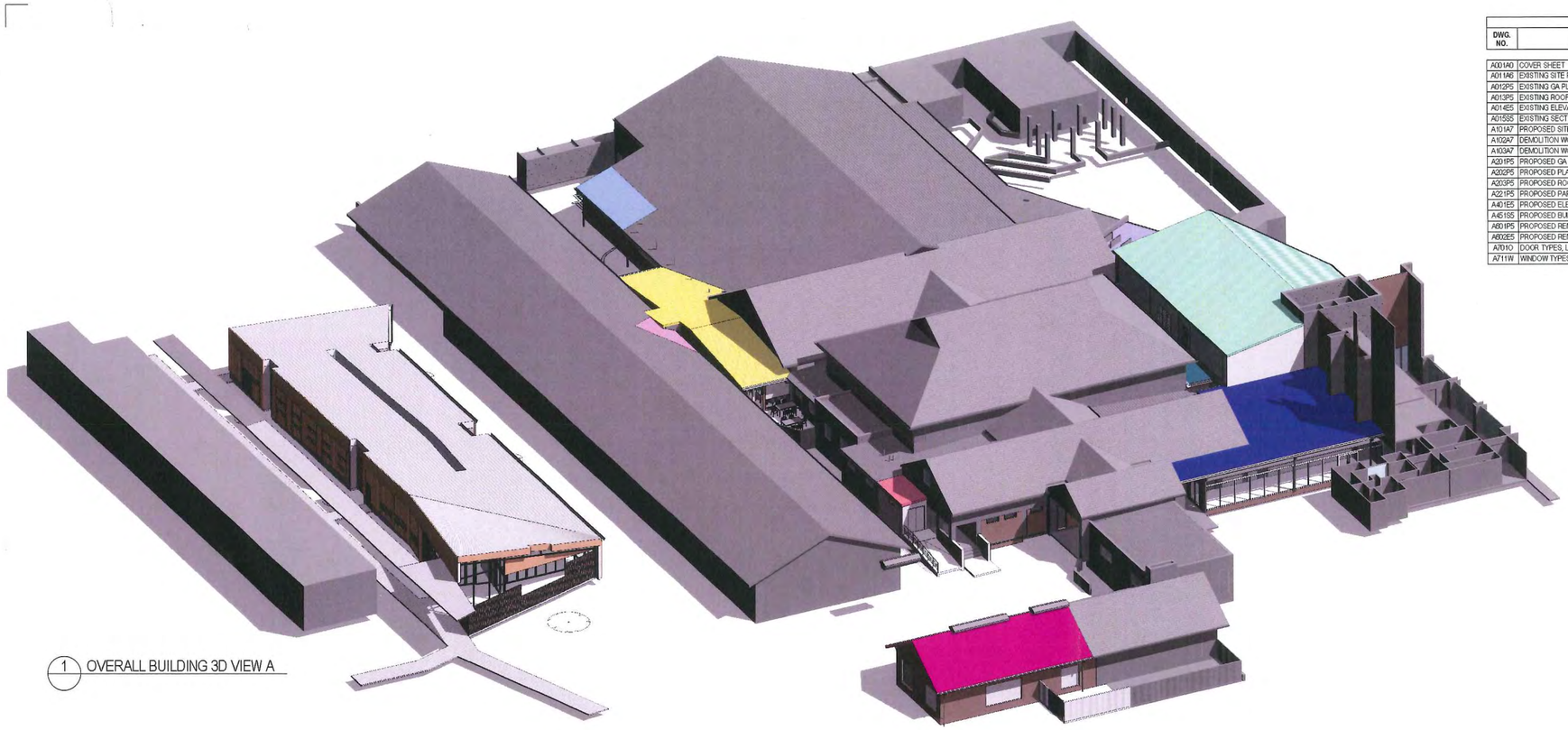
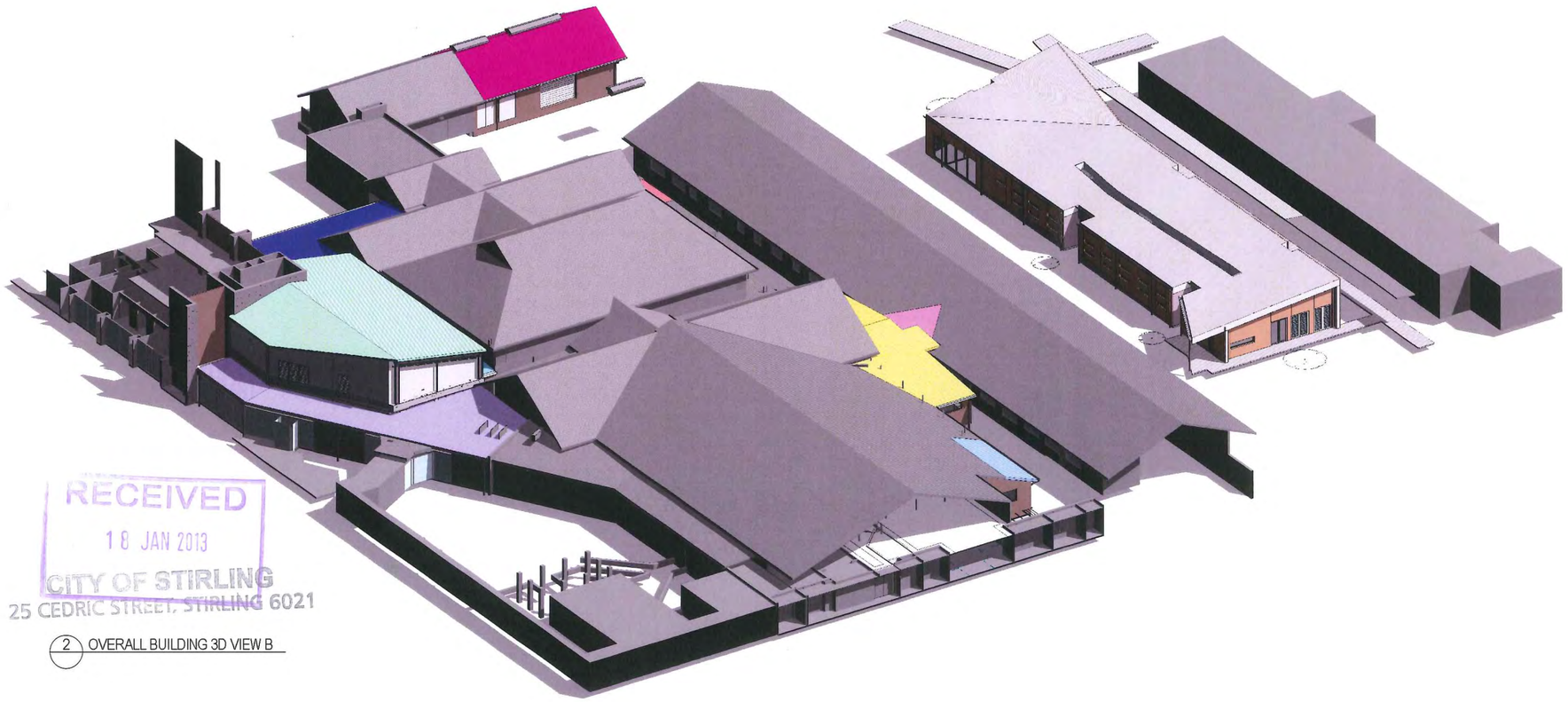


1 OVERALL BUILDING 3D VIEW A



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2 OVERALL BUILDING 3D VIEW B

DRAWING LIST TYPE_1		(ISSUE STAMP AS TEXT)		
DWG. NO.	DRAWING NAME	ISSUE STAMP	ISSUE REVISION	ISSUE DESCRIPTION
A001A0	COVER SHEET		D	DA SUBMISSION
A011A6	EXISTING SITE PLAN		D	DA SUBMISSION
A012P5	EXISTING GA PLAN		D	DA SUBMISSION
A013P5	EXISTING ROOF PLAN		D	DA SUBMISSION
A014E5	EXISTING ELEVATIONS		D	DA SUBMISSION
A015S5	EXISTING SECTIONS		D	DA SUBMISSION
A101A7	PROPOSED SITE PLAN		D	DA SUBMISSION
A102A7	DEMOLITION WORKS GA PLAN		B	DA SUBMISSION
A103A7	DEMOLITION WORKS ROOF PLAN		B	DA SUBMISSION
A201P5	PROPOSED GA FLOOR PLAN		E	DA SUBMISSION
A202P5	PROPOSED PLANTROOM GA		D	DA SUBMISSION
A203P5	PROPOSED ROOF PLAN		C	DA SUBMISSION
A221P5	PROPOSED PARTITION SETOUT & FIRE PLAN		B	DA SUBMISSION
A401E5	PROPOSED ELEVATIONS		C	DA SUBMISSION
A451S5	PROPOSED BUILDING SECTIONS		D	DA SUBMISSION
A601P5	PROPOSED REMOTE PLANTROOM- GA PLAN		D	DA SUBMISSION
A602E5	PROPOSED REMOTE PLANTROOM ELEVATIONS		D	DA SUBMISSION
A7010	DOOR TYPES, LEGEND & SCHEDULE		C	DA SUBMISSION
A711W	WINDOW TYPES, LEGEND & SCHEDULE		B	DA SUBMISSION

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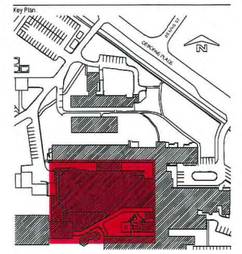
Key Plan



Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	07/05/12
B	ISSUED FOR COMMENT	02/08/12
C	ISSUED FOR APPROVAL	28/08/12
D	DA SUBMISSION	14/01/13

0 5 20 40 60
1:1mm

DA SUBMISSION

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead

Level 2, 191 St
Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4999
ABN 61 007 747 748

Client

Government of **Western Australia**
Department of **Finance**

OSBORNE PARK HOSPITAL
OSBORNE PLACE, STIRLING, WA 6021

COVER SHEET

DRAWN KR	DESIGNED JL		REDUCTION
CHECKED MH	PRINCIPAL		
APPROVED MH			
SCALE 1 : 2000 B1	DATE 01/07/2012	DRAWING No.	REV D
BIMM PROJECT No.	BIMM FILE NO.	OPHA001A0	

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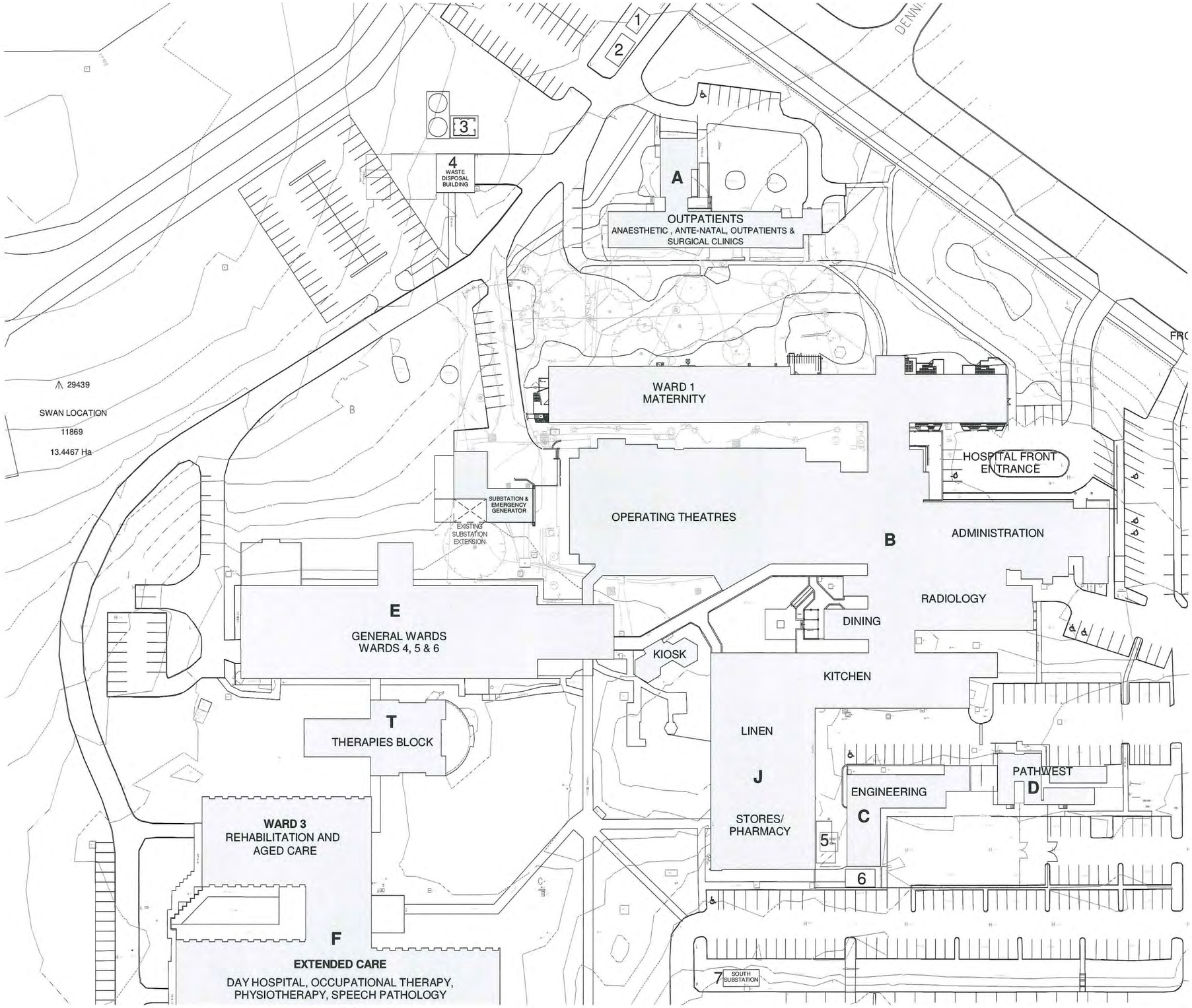
Project Number - 1270250?



1 EXISTING SITE PLAN
A401E5 1:500

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18 JAN 2013
CITY OF STIRLING
25 CEDRIC STREET, STIRLING 6021

0 2500 10000 20000 25000
1:500mm

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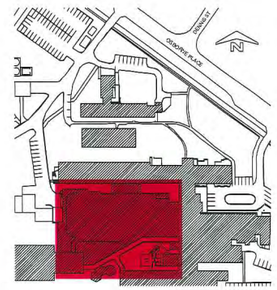
Key Plan



Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	16/08/12
B	ISSUED FOR COMMENT	16/08/12
C	ISSUED FOR APPROVAL	24/09/12
D	DA SUBMISSION	14/11/12

Project Management

Quantity Surveyor

Structural & Civil

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woodhead™
Level 2, 191 St
Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

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OSBORNE PARK HOSPITAL
OSBORNE PLACE, STIRLING, WA 6021

EXISTING SITE PLAN

DRAWN FP		DESIGNED JL	REDUCTION
CHECKED MH		PRINCIPAL	
APPROVED MH			
SCALE As indicated A1		DATE 01/07/2012	DRAWING No. OPHA011A6 REV D
BMW PROJECT NO.		BMW FILE NO.	

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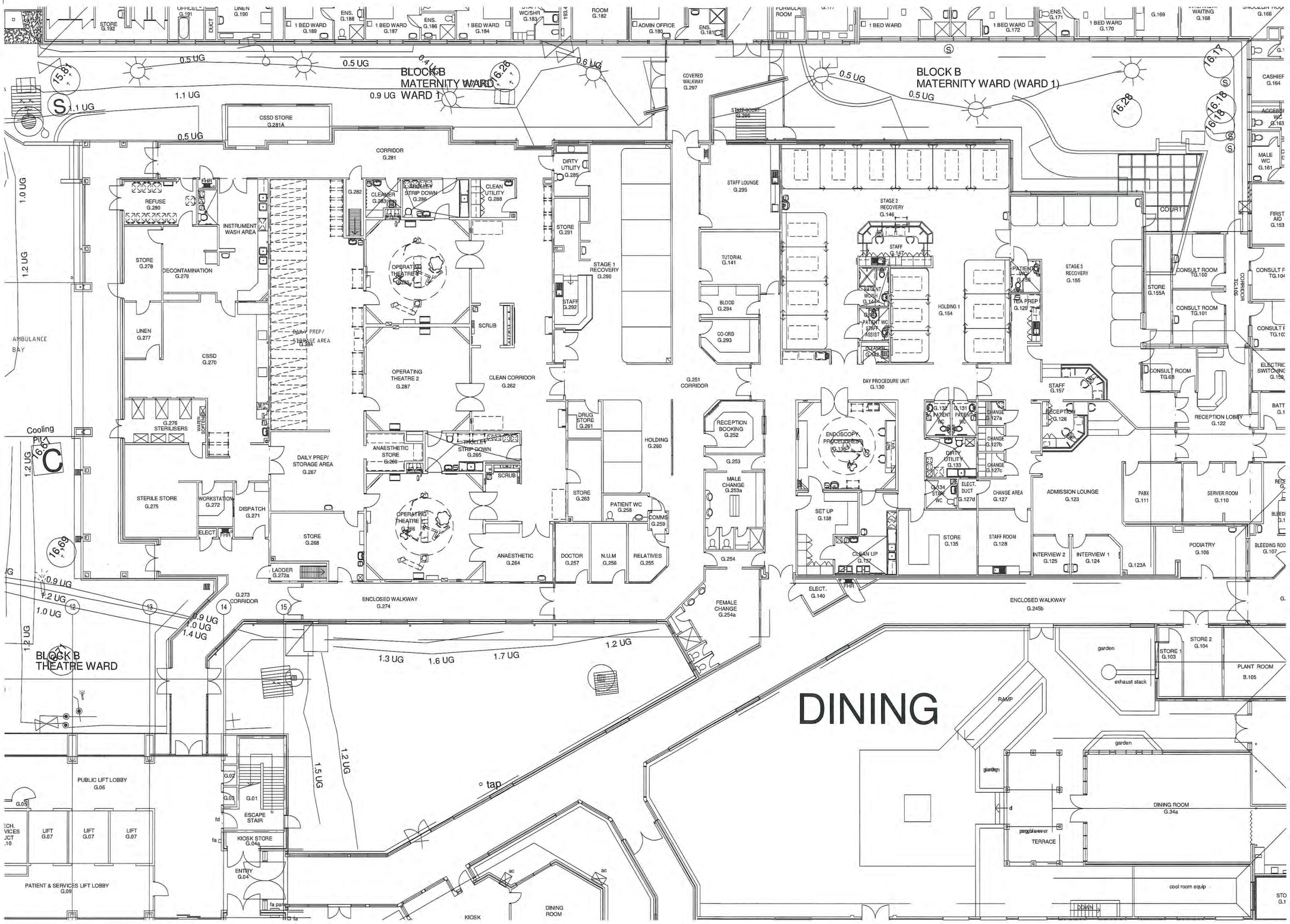
Project Number - 12702507



1 EXISTING GA PLAN
A4 0165 1:100

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0 500 1000 2000 3000 4000 5000
1:100mm

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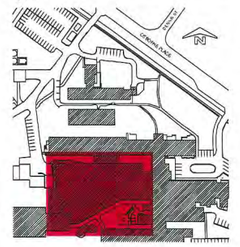
Key Plan



Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	07/09/12
B	ISSUED FOR COMMENT	19/09/12
C	ISSUED FOR APPROVAL	28/09/12
D	DA SUBMISSION	14/01/13

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead
Level 2, 191 St Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4569
ABN 61 007 747 748

Client

Government of Western Australia
Department of Finance

OSBORNE PARK HOSPITAL
OSBORNE PLACE, STIRLING, WA 6021

EXISTING GA PLAN

DRAWN KR	DESIGNED JL	REDUCTION	
CHECKED MH	PRINCIPAL		
APPROVED MH			
SCALE As indicated B1	DATE 01/07/2012	DRAWING No.	REV D
BMM PROJECT NO.	BMM FILE NO.	OPHA012P5	

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Project Number - 12702507

EXISTING ROOF OVER BLOCK 'B' - MATERNITY

REMOVE EXISTING ROOF TILES, FRAME UP FOR NEW ROOF (REFER TO ENG'S DWG'S FOR DETAILS.) ALLOW TO MODIFY EAVES & LINING TO SUIT

NEW COVERED WAY ROOF TO MATCH EXISTING PITCH (APPROX 22.5°)

RE-USE EXISTING ROOF TILES TO NEW ROOF

FACE MATCH EXISTING

NEW TIMBER FASCIA AND GUTTER TO MATCH EXISTING

200x50 TIMBER PERGOLA WITH A SELECTED PAINT FINISH

200ø HALF ROUND COLORBOND EAVES GUTTER

ZINC FLASHING DRESSED OVER ONTO NEW TILE ROOF AND TAKEN 150 UP BEHIND PARAPET LINING

CUSTOM ORB ROOF DECKING AT 30° PITCH

COLORBOND PARAPET LINING WITH CAPPING OVER. CAPPING TO CONTINUE FOR FULL LENGTH OF PARAPET.

COLOR BOND OVER FLASHING TO 450x150 COLOR BOND BOX GUTTER

LINE OF EXISTING WALL BELOW ROOF

LINE OF EXISTING EAVES GUTTER

LINE OF WALL BELOW ROOF

REFER TO DWG A13 FOR CONTINUATION OF ROOF OVER AMBULANCE BAY

FALL 30°

FALL 3°

FALL 20°

COLOR BOND CUSTOM ORB ROOF DECKING AT 30° PITCH WITH FOIL FACED INSULATION UNDER

COLOR BOND 'SPANDEK' ROOF DECKING WITH FOIL FACED INSULATION UNDER

COLOR BOND ROLL TOP RIDGE CAPPING

600 WIDE COLORBOND VALLEY GUTTER

LINE OF VALLEY

RIDGE LINE

LINE OF RIDGE

LINE OF STORMPROOF ALUMINIUM LOUVRE GRILLE IN GABLE END BELOW ROOF

6mm THICK HARDIE VILLABOARD LINING TO GABLE END AND SOFFIT

LOCATION OF RAINWATER PIPE BELOW ROOF

COLOR BOND ROLL TOP HIP CAPPING

COLOR BOND 'SPANDEK' ROOF DECKING AT 3° PITCH WITH FOIL FACED INSULATION UNDER

COLOR BOND 'CUSTOM ORB' ROOF DECKING WITH FOIL FACED INSULATION UNDER

SAND FINISH RENDERED BRICKWORK TO GABLE END

COLOR BOND CUSTOM ORB ROOF DECKING AT 30° PITCH WITH FOIL FACED INSULATION UNDER TO AMBULANCE BAY

2008 HALF ROUND COLORBOND EAVES GUTTER

COLOR BOND ROLL TOP RIDGE CAPPING AND BARGE FLASHING TYPICALLY THROUGHOUT

COLOR BOND APRON FLASHING FIXED TO EXISTING WINDOW TRANSOME

NEW APRON FLASHING ONTO EXISTING ROOF

COLORBOND PARAPET LINING WITH CAPPING OVER.

LINE OF EXISTING FASCIA

LINE OF EXISTING BOX GUTTER

EXISTING ROOF DECKING TO COVERED WALKWAY

EXISTING ROOF TO REMAIN

BUILD IN NEW APRON FLASHING AT LOCATION OF EXISTING ROOF AND NEW ADDITIONS ALLOW TO MAKE GOOD TO EXISTING ROOFING TILES AS REQUIRED TO MAKE ROOF WEATHER PROOF

REMOVE EXISTING METAL DECK ROOF FIX NEW COLOR BOND "KLIP-LOK" ROOF SHEETING AND BOX GUTTER. FIXED TO EXISTING SUPPORT SYSTEM

NEW RW SUMP AND BOX GUTTER

NEW BOX GUTTERS TO BE 450 x 150 DEEP WITH 100 DEEP DUMPS

NEW CBOND SPANDREL/OVER FLASHING TO NEW AND EXISTING ROOF

PROVIDE 50 HIGH x 100Ø OVERFLOW RELIEF OUTLET IN NEW BOX GUTTER DISCHARGING TO RWP

PROVIDE 100Ø OVERFLOW RELIEF OUTLET IN END OF BOX GUTTER DISCHARGING TO OUTSIDE

EXISTING METAL DECK ROOF TO REMAIN

REMOVE 1 ROW OF EXISTING ROOF TILES AND FIX NEW SOAKER / BOX GUTTER AND SUMP TO SUIT

EXISTING CLAY TILE ROOF

COLOR BOND 'SPANDEK' ROOF DECKING WITH FOIL FACED INSULATION UNDER (EXISTING ROOF DECKING TO REMAIN BELOW NEW ROOF).

COLOR BOND 'SPANDEK' ROOF DECKING AT 3° PITCH WITH FOIL FACED INSULATION UNDER

NOTE: CAUTION EXISTING ROOF VOID BELOW HOUSE VITAL SERVICES, EG MEDICAL GASSES, POWER AND DATA THAT MUST REMAIN OPERATIONAL AT ALL TIMES

RWP

SPREADER

1 EXISTING ROOF PLAN
1 : 100

0 6 20 40 60
1:1mm

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Key Plan

Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	07/08/12
B	ISSUED FOR COMMENT	02/09/12
C	ISSUED FOR APPROVAL	20/09/12
D	SUBMISSION	14/01/13

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead
Level 2, 191 St Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 749

Client

Government of Western Australia
Department of Finance

OSBORNE PARK HOSPITAL
OSBORNE PLACE, STIRLING, WA 6021

EXISTING ROOF PLAN

DRAWN KR	DESIGNED JL	REDUCTION	
CHECKED MH	PRINCIPAL		
APPROVED MH			
SCALE As indicated B1	DATE 01/07/2012	DRAWING No. OPHA013P5	REV D
BMM PROJECT NO.	BMM FILE NO.		

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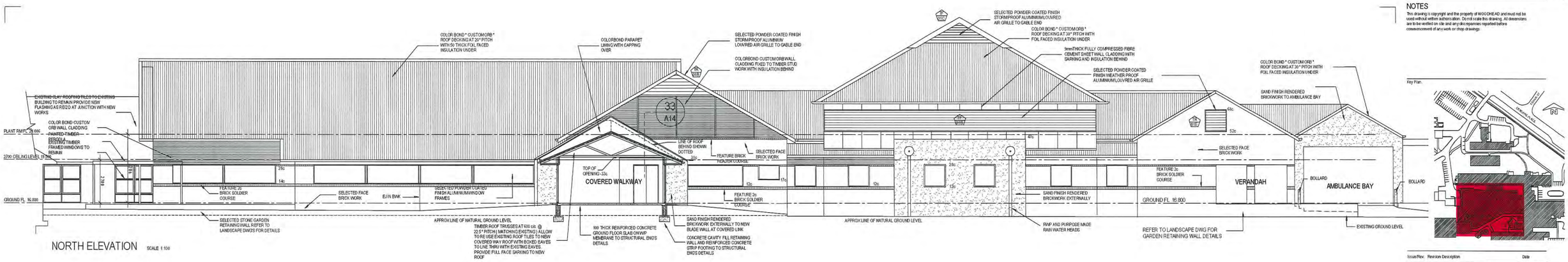
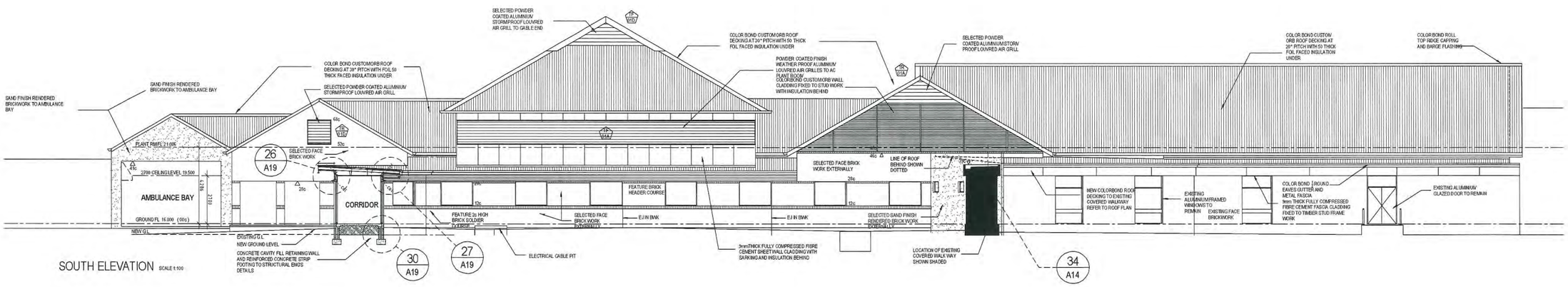
Project Number - 1270250?



NORTH ELEVATION SCALE 1:100



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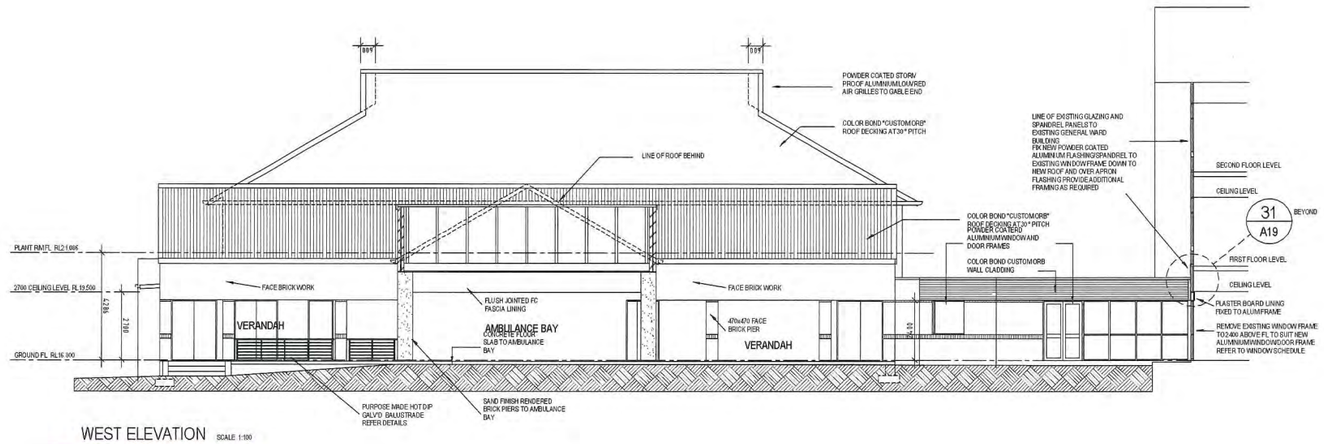

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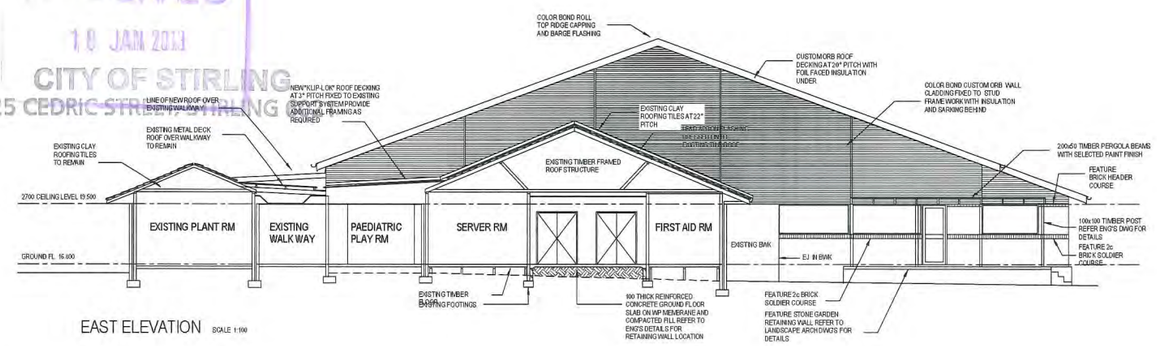

EAST ELEVATION SCALE 1:100

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Key Plan.

Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	17/09/12
B	ISSUED FOR COMMENT	02/10/12
C	ISSUED FOR APPROVAL	26/10/12
D	DA SUBMISSION	14/11/12

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead.
Level 2, 191 St Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

Client

Government of Western Australia
Department of Finance

OSBORNE PARK HOSPITAL
OSBORNE PLACE, STIRLING, WA 6021

EXISTING ELEVATIONS

0 5 20 40 60
1:1mm

DA SUBMISSION

DRAWN KR	DESIGNED JL	REDUCTION	
CHECKED MH	PRINCIPAL		
APPROVED MH			
SCALE As indicated B1	DATE 01/07/2012	DRAWING No.	REV D
BMW PROJECT No.	BMW FILE No.	OPHA014E5	

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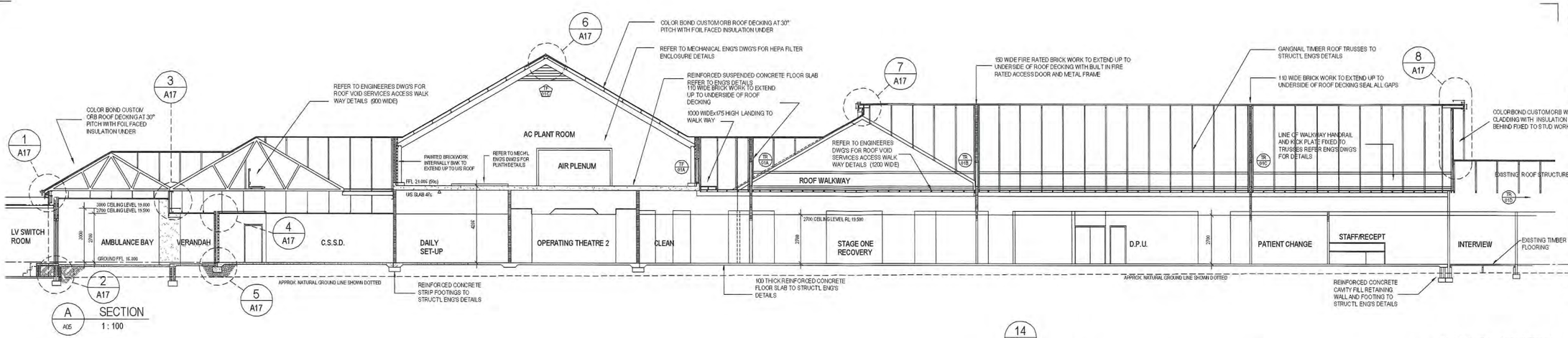
Project Number - 12702507



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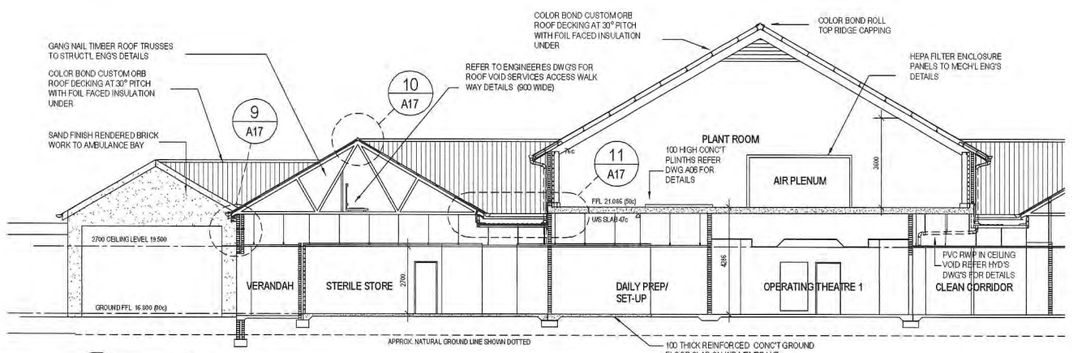

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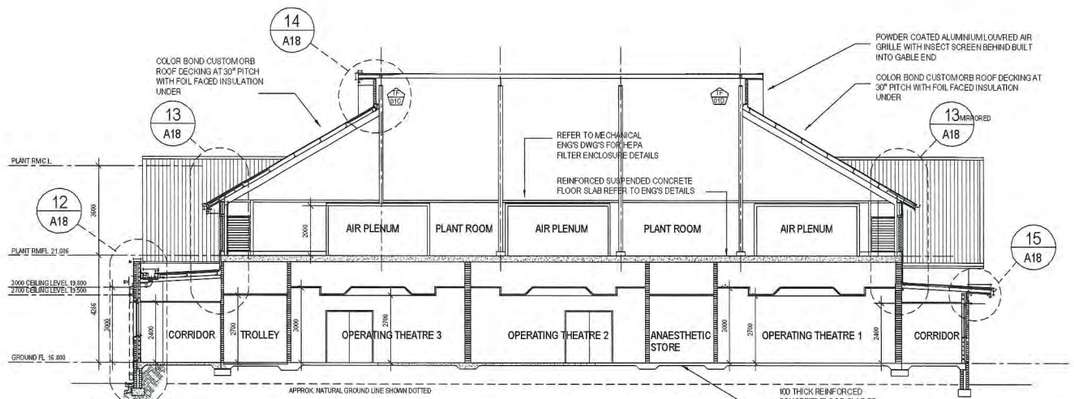
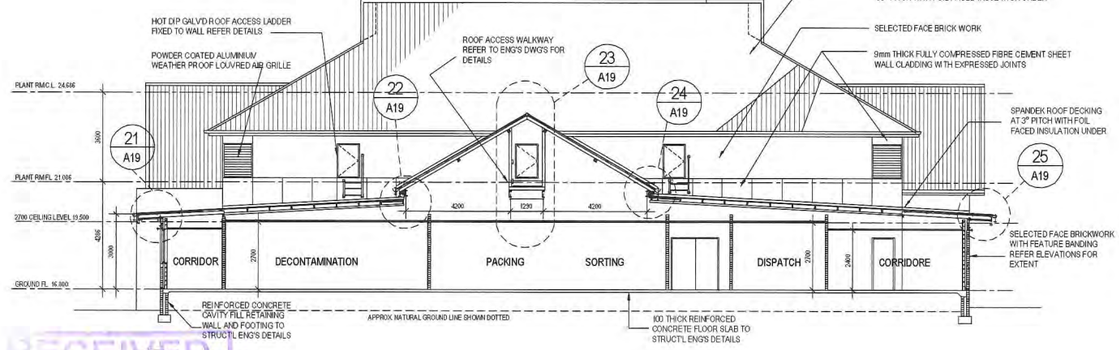


C A05 SECTION 1 : 100



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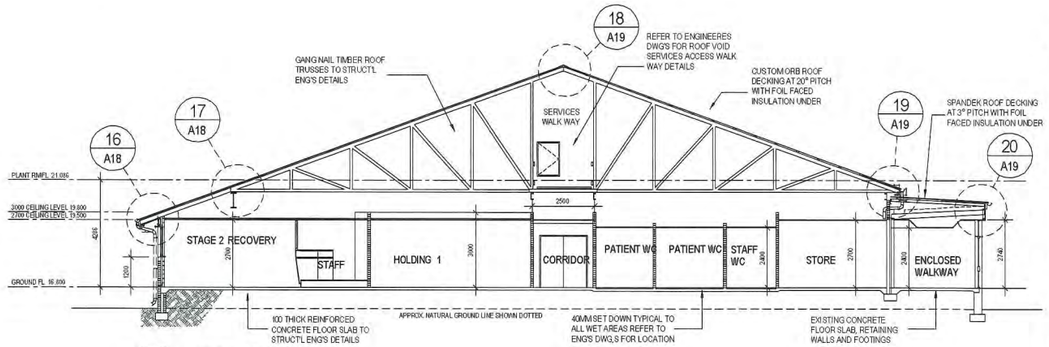

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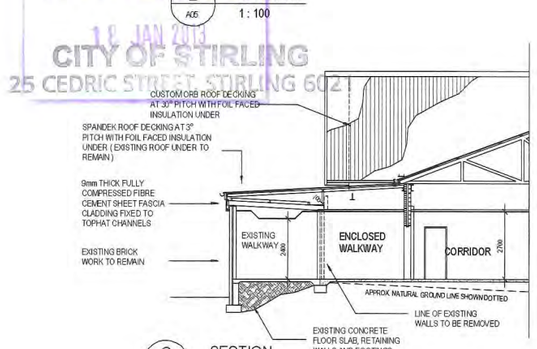
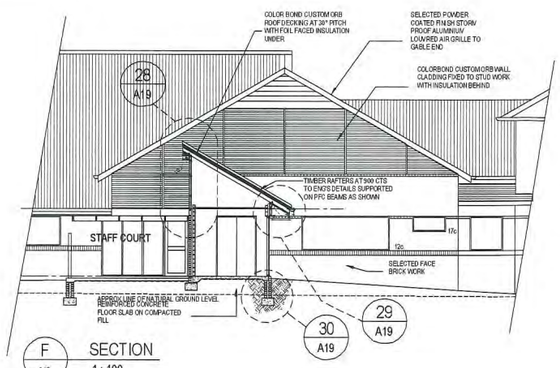


G A12 SECTION 1 : 100



F A12 SECTION 1 : 100

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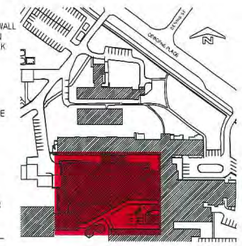

Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	07/05/12
B	ISSUED FOR COMMENT	02/10/12
C	ISSUED FOR APPROVAL	20/10/12
D	DA SUBMISSION	14/01/13

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead
Level 2, 191 St Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

Client

Government of Western Australia
Department of Finance

OSBORNE PARK HOSPITAL
OSBORNE PLACE, STIRLING, WA 6021

EXISTING SECTIONS

DRAWN KR	DESIGNED JL	REDUCTION	
CHECKED MH	PRINCIPAL		
APPROVED MH			
SCALE As indicated B1	DATE 01/07/2012	DRAWING No.	REV D
BMM PROJECT No.	BMM FILE NO.	OPHA015S5	

0 5 20 40 60
1:1 Main

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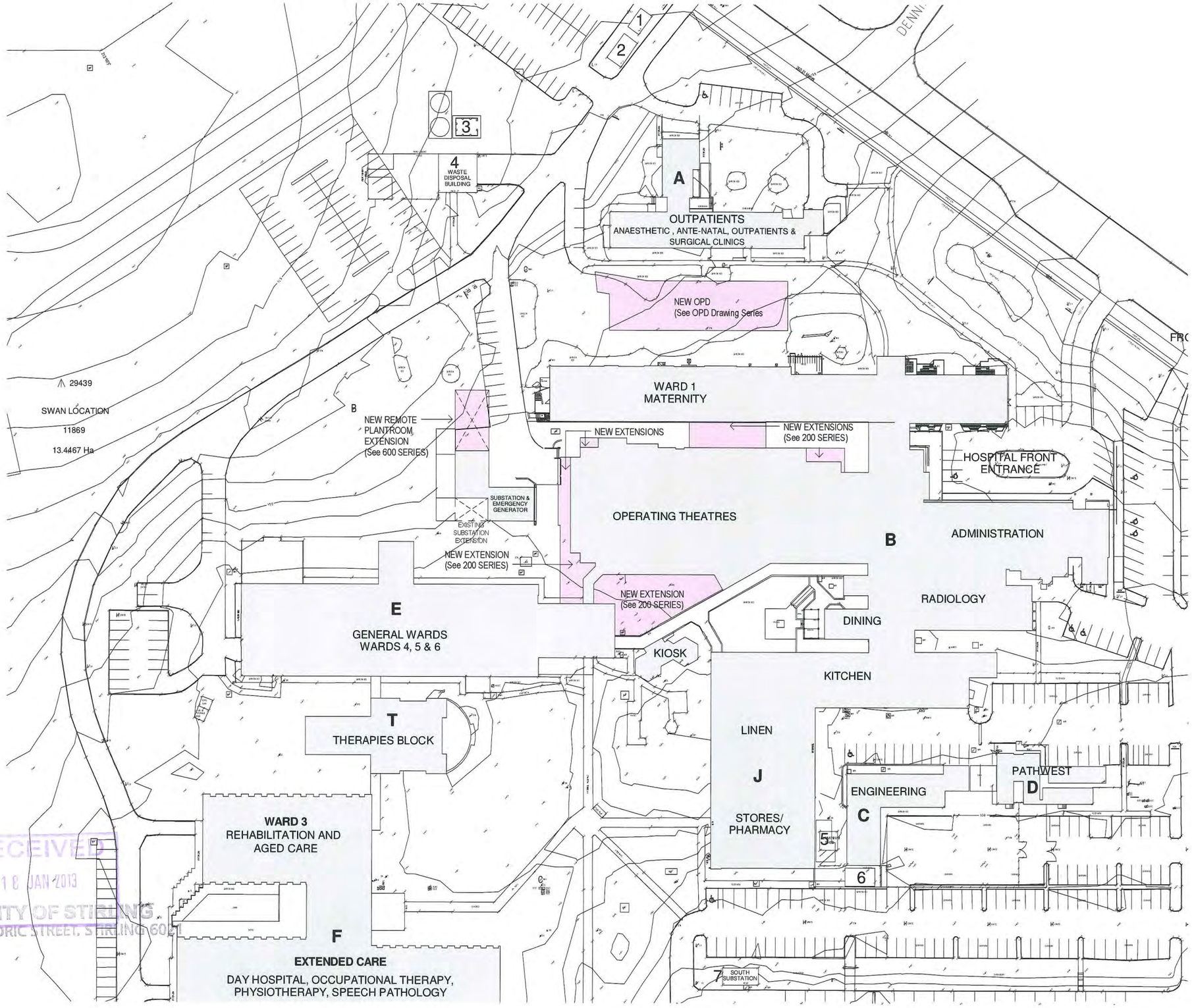
Project Number - 12702501



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1 PROPOSED SITE PLAN
A40 IE5 1 : 500

0 5 20 40 60
1:1mm

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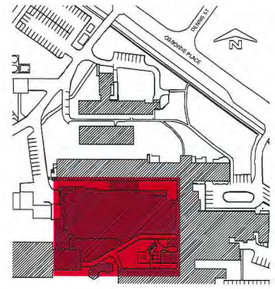
Key Plan



Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	12/10/12
B	ISSUED FOR COMMENT	02/11/12
C	ISSUED FOR APPROVAL	8/11/12
D	DA SUBMISSION	14/11/12

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead
Level 2, 191 St
Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

Client

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OSBORNE PLACE, STIRLING, WA 6021

PROPOSED SITE PLAN

DRAWN KR	DESIGNED JL	REDUCTION	
CHECKED MH	PRINCIPAL		
APPROVED MH			
SCALE As indicated A1	DATE 01/07/2012	DRAWING No.	REV D
BMW PROJECT NO.	BMW FILE NO.	OPHA101A7	

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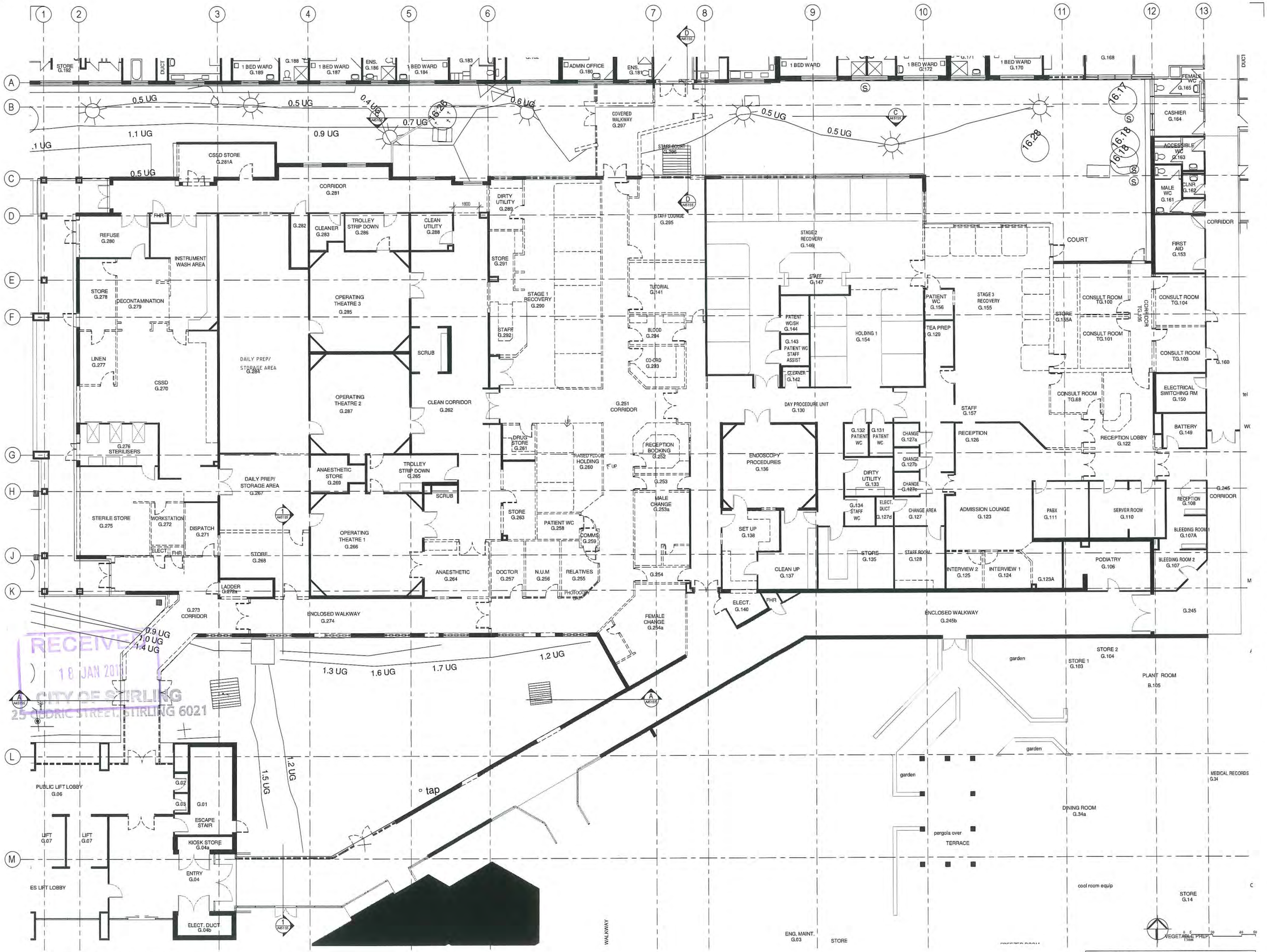
Project Number - 12702507



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1 A401E5 DEMOLITION - GROUND FLOOR
1 : 100

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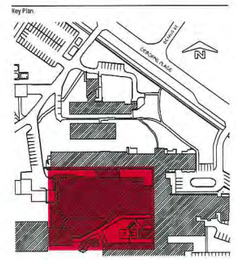
Key Plan



Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	20/05/12
B	DA SUBMISSION	14/11/12

DEMOLITION LEGEND

- EXISTING WALLS/DOORS & WINDOWS TO BE DEMOLISHED
- EXISTING WALLS TO REMAIN

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

EED Consultant

Fire

Architects

woodhead
Level 2, 191 St Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

Client

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Department of Finance

OSBORNE PARK HOSPITAL
OSBORNE PLACE, STIRLING, WA 6021

DEMOLITION WORKS GA PLAN

DRAWN	KR	DESIGNED	JL
CHECKED	MH	PRINCIPAL	
APPROVED	MH		
SCALE	As indicated B1	DATE	01/07/2012
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REDUCTION

DRAWING No. OPHA102A7 REV B

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Key Plan.

Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	26/09/12
B	DA SUBMISSION	14/01/13

REMOVE 22.5° SHEET ROOF
REMOVE 22.5° SHEET ROOF
REMOVE 20° SHEET ROOF
REMOVE 3° SHEET ROOF
SK13 4 2
A401E5 2 1
C A401E5
D A401E5
5 SK13
SK13 1
A A401E5
A401E5
1 A401E5

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18 JAN 2013
CITY OF STIRLING
25 DORIC STREET, STIRLING 6021

1:1mm

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Electrical

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BCA Consultant

ESD Consultant

Fire

Architects

woodhead
Level 2, 191 St
Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

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Department of Finance

OSBORNE PARK HOSPITAL
OSBORNE PLACE, STIRLING, WA 6021

DEMOLITION WORKS ROOF PLAN

DRAWN	KR	DESIGNED	JL	REDUCTION	
CHECKED	MH	PRINCIPAL			
APPROVED	MH				
SCALE	1 : 100 B1	DATE	01/07/2012	DRAWING No.	REV. B
BIMM PROJECT No.		BIMM FILE NO.		OPHA103A7	

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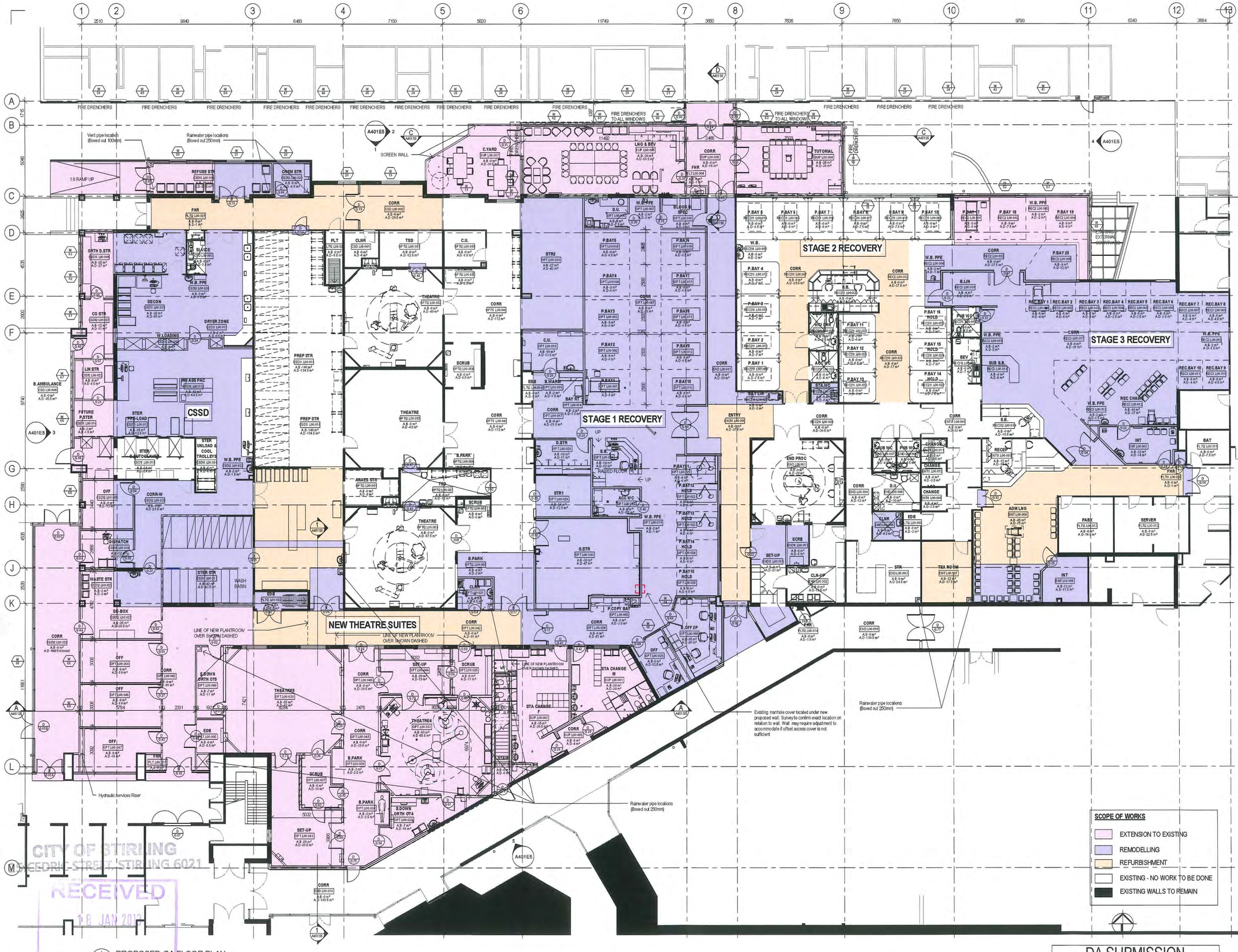
Project Number - 12702507



1 PROPOSED GA FLOOR PLAN
A401E5 1 : 100

CITY OF STIRLING
CEDRIC STREET, STIRLING 6021
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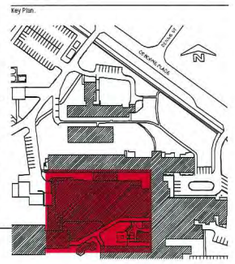
Key Plan



Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	07/08/12
B	ISSUED FOR COMMENT	02/10/12
C	ISSUED FOR APPROVAL	30/10/12
D	ISSUED FOR APPROVAL	06/11/12
E	DA SUBMISSION	14/11/12

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead.
Level 2, 191 St
Georges Terrace
Perth WA 6000
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F +618 9226 4399
ABN 61 007 747 748

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OSBORNE PLACE, STIRLING, WA 6021

PROPOSED GA FLOOR PLAN

DRAWN KR	DESIGNED JL	REDUCTION	
CHECKED MH	PRINCIPAL		
APPROVED MH			
SCALE As indicated B1	DATE 01/07/2012	DRAWING No. OPHA201P5	REV E
BMW PROJECT No.	BMW FILE No.		

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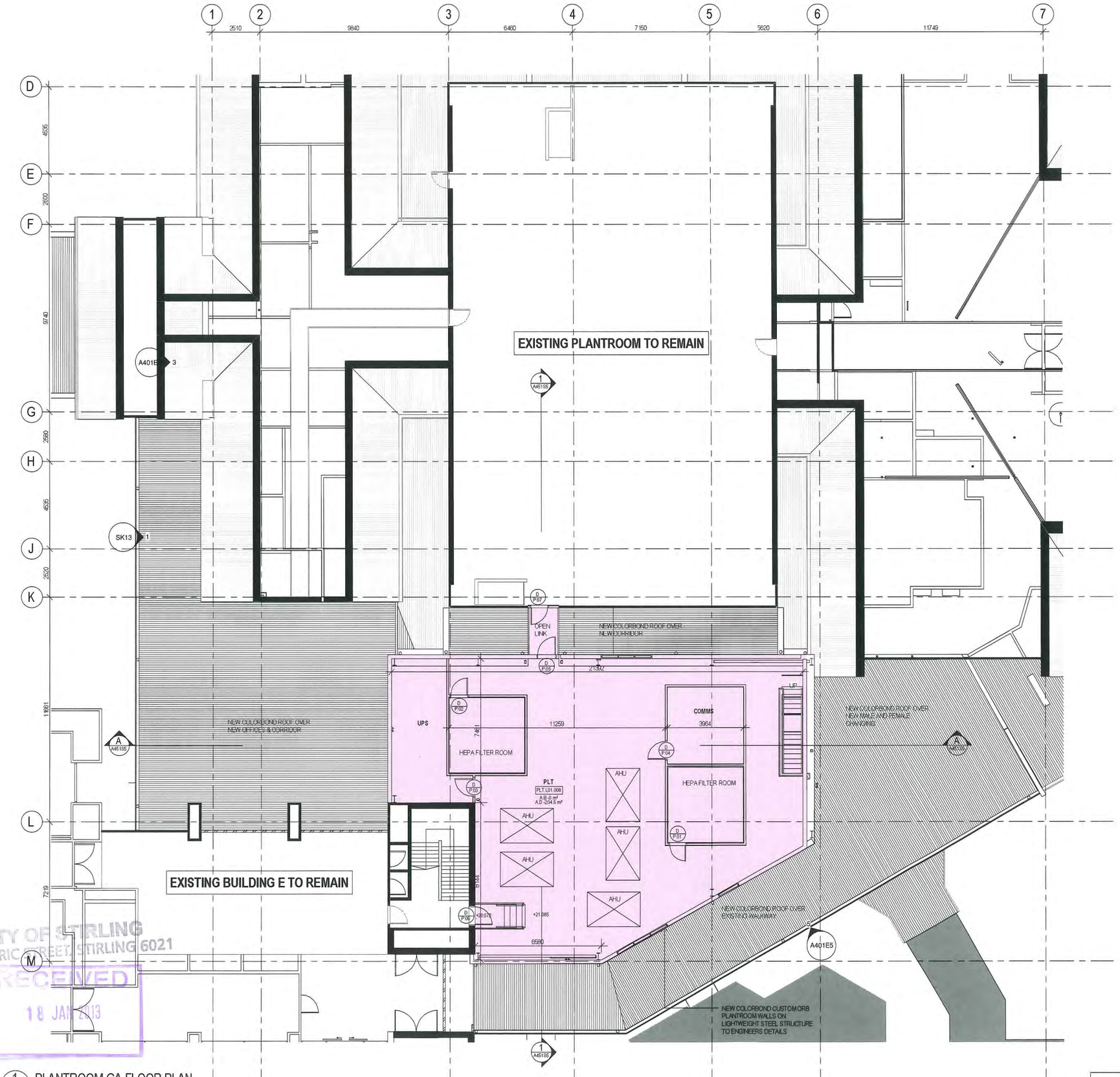
Project Number - 12702507



1 PLANTROOM GA FLOOR PLAN
A401E5 1 100

CITY OF STIRLING
25 CEDRIC STREET, STIRLING 6021
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18 JAN 2013

SCOPE OF WORKS

- EXTENSION TO EXISTING
- REMODELLING
- REFURBISHMENT
- EXISTING - NO WORK TO BE DONE
- EXISTING WALLS TO REMAIN

0 5 20 40 50
1:1mm

DA SUBMISSION

NOTES

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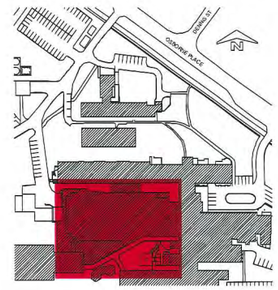
Key Plan



Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	01/06/12
B	ISSUED FOR COMMENT	02/08/12
C	ISSUED FOR APPROVAL	24/08/12
D	DA SUBMISSION	14/11/12

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead™
Level 2, 191 St
Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

Client

Government of Western Australia
Department of Finance

OSBORNE PARK HOSPITAL
OSBORNE PLACE, STIRLING, WA 6021

PROPOSED PLANTROOM GA

DRAWN KR	DESIGNED JL	REDUCTION	
CHECKED MH	PRINCIPAL		
APPROVED MH			
SCALE As indicated A1	DATE 01.07.2012	DRAWING No. OPHA202P5	REV D
BMW PROJECT NO.	BMW FILE NO.		

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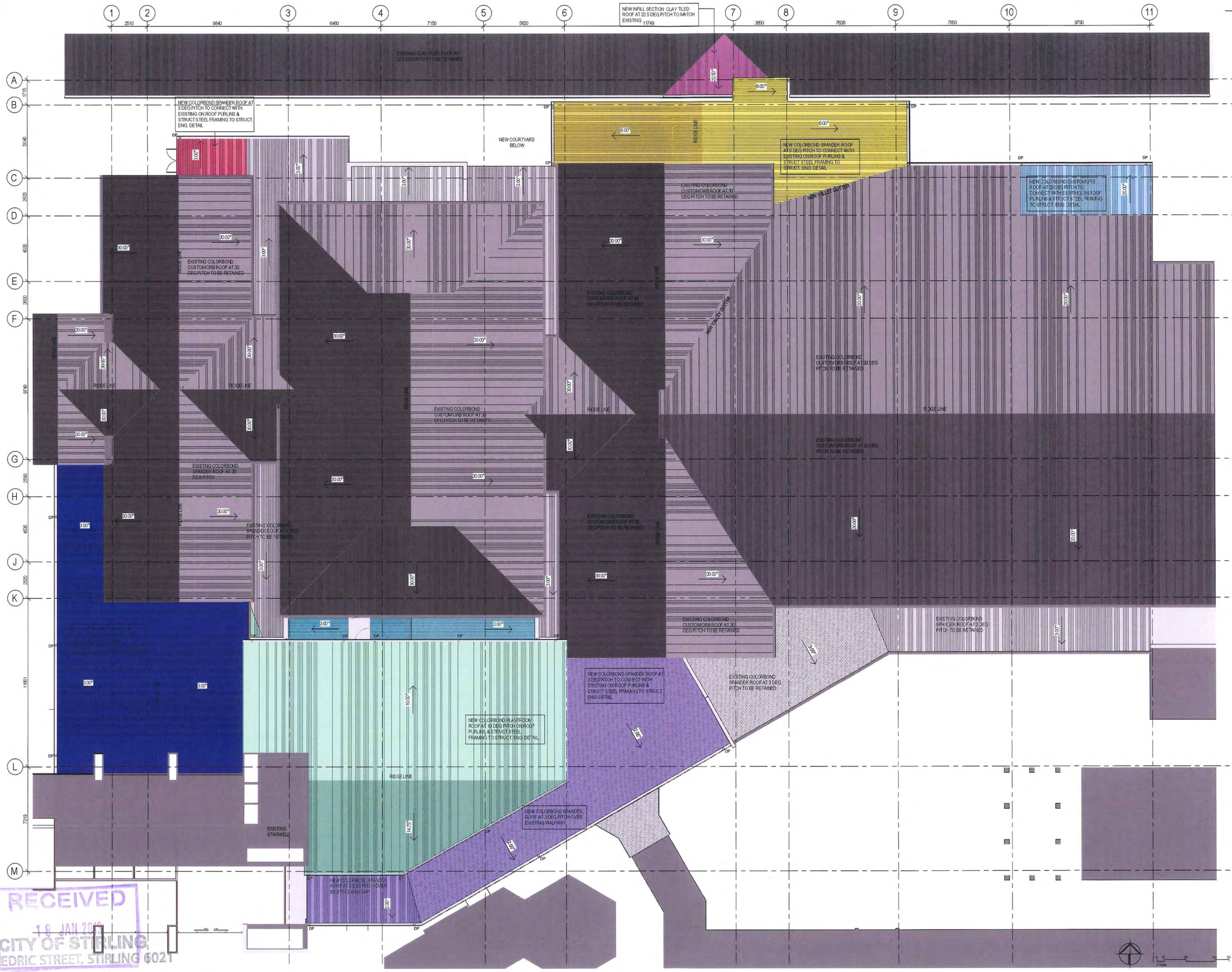
Project Number - 12702507



1 PROPOSED ROOF PLAN
1 : 100

RECEIVED
18 JAN 2013
CITY OF STIRLING
25 CEDRIC STREET, STIRLING 6021

NOTES

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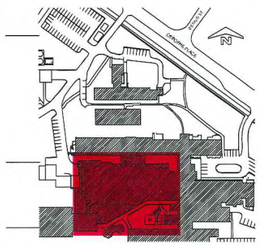
Key Plan



Issue/Rev.	Revision Description	Date
A	ISSUED FOR COMMENT	02/08/12
B	ISSUED FOR APPROVAL	20/08/12
C	DA SUBMISSION	14/01/13

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead
Level 2, 191 St Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 749

Client

Government of Western Australia
Department of Finance

OSBORNE PARK HOSPITAL
OSBORNE PLACE, STIRLING, WA 6021

PROPOSED ROOF PLAN

DRAWN KR	DESIGNED JL	REDUCTION	
CHECKED MH	PRINCIPAL		
APPROVED MH			
SCALE As indicated @ B1	DATE 01/07/2012	DRAWING No. OPHA203P5	REV C
BMW PROJECT No.	BMW FILE No.		

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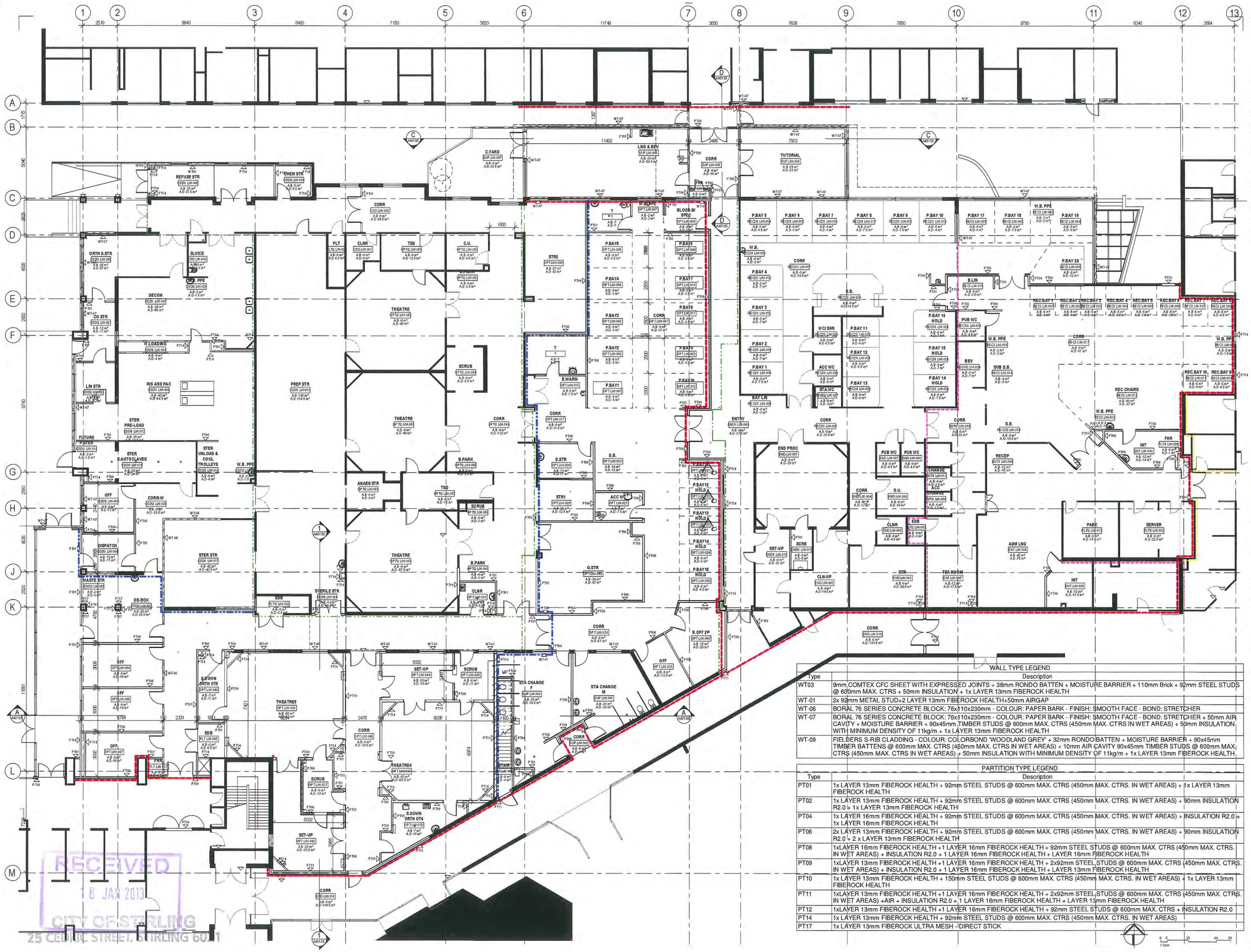
Project Number - 12702507

DA SUBMISSION



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1 A401E5 PROPOSED PARTITION & FIRE WALL FLOOR PLAN
1 : 100

NOTES

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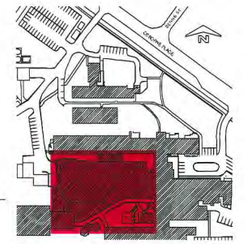
Key Plan



Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	20/01/12
B	DA SUBMISSION	14/01/13

FIRE WALL LEGEND

- EXISTING MASONRY WALL (220x76x110) STD COMMON BRICK - ASSUMED EXISTING FIRE WALL
- EXISTING INCEILING FIRE WALL, CONNECTED TO NEAREST BELOW CEILING WALL BY FIRE-RATED CEILING
- EXISTING LIGHTWEIGHT FIRE WALL (2x16mm Fire-rated plasterboard over 92mm stud)
- EXISTING MASONRY WALL (220x76x110) STD COMMON BRICK - ASSUMED EXISTING SMOKE WALL
- NEW PROPOSED 120mm FIRE WALL, FRL TO BE CONFIRMED BY STRUCTURAL ENGINEER AS PER AS3600. ALL OPENINGS TO BE MADE GOOD/SEALED TO MAINTAIN 120min FIRE RESISTANCE
- EXISTING MASONRY WALL (220x76x110) STD COMMON BRICK - ASSUMED EXISTING SMOKE WALL

WALL TYPE LEGEND	
Type	Description
WT03	9mm COMTEX CFC SHEET WITH EXPRESSED JOINTS + 38mm RONDO BATTEN + MOISTURE BARRIER + 110mm Brick + 92mm STEEL STUDS @ 600mm MAX. CTRS + 50mm INSULATION + 1x LAYER 13mm FIBEROCK HEALTH
WT-01	2x 92mm METAL STUD+2 LAYER 13mm FIBEROCK HEALTH+50mm AIRGAP
WT-06	BORAL 76 SERIES CONCRETE BLOCK: 76x110x230mm - COLOUR: PAPER BARK - FINISH: SMOOTH FACE - BOND: STRETCHER
WT-07	BORAL 76 SERIES CONCRETE BLOCK: 76x110x230mm - COLOUR: PAPER BARK - FINISH: SMOOTH FACE - BOND: STRETCHER + 50mm AIR CAVITY + MOISTURE BARRIER + 90x45mm TIMBER STUDS @ 600mm MAX. CTRS (450mm MAX. CTRS IN WET AREAS) + 50mm INSULATION WITH MINIMUM DENSITY OF 11kg/m + 1x LAYER 13mm FIBEROCK HEALTH
WT-09	FIELDERS S-RIB CLADDING - COLOUR: COLORBOND 'WOODLAND GREY' + 32mm RONDO BATTEN + MOISTURE BARRIER + 90x45mm TIMBER BATTENS @ 600mm MAX. CTRS (450mm MAX. CTRS IN WET AREAS) + 10mm AIR CAVITY 90x45mm TIMBER STUDS @ 600mm MAX. CTRS (450mm MAX. CTRS IN WET AREAS) + 50mm INSULATION WITH MINIMUM DENSITY OF 11kg/m + 1x LAYER 13mm FIBEROCK HEALTH

PARTITION TYPE LEGEND	
Type	Description
PT01	1x LAYER 13mm FIBEROCK HEALTH + 92mm STEEL STUDS @ 600mm MAX. CTRS (450mm MAX. CTRS. IN WET AREAS) + 1x LAYER 13mm FIBEROCK HEALTH
PT02	1x LAYER 13mm FIBEROCK HEALTH + 92mm STEEL STUDS @ 600mm MAX. CTRS (450mm MAX. CTRS. IN WET AREAS) + 90mm INSULATION R2.0 + 1x LAYER 13mm FIBEROCK HEALTH
PT04	1x LAYER 16mm FIBEROCK HEALTH + 92mm STEEL STUDS @ 600mm MAX. CTRS (450mm MAX. CTRS. IN WET AREAS) + INSULATION R2.0 + 1x LAYER 16mm FIBEROCK HEALTH
PT06	2x LAYER 13mm FIBEROCK HEALTH + 92mm STEEL STUDS @ 600mm MAX. CTRS (450mm MAX. CTRS. IN WET AREAS) + 90mm INSULATION R2.0 + 2 x LAYER 13mm FIBEROCK HEALTH
PT08	1xLAYER 16mm FIBEROCK HEALTH +1 LAYER 16mm FIBEROCK HEALTH + 92mm STEEL STUDS @ 600mm MAX. CTRS (450mm MAX. CTRS. IN WET AREAS) + INSULATION R2.0 + 1 LAYER 16mm FIBEROCK HEALTH + LAYER 16mm FIBEROCK HEALTH
PT09	1xLAYER 13mm FIBEROCK HEALTH +1 LAYER 16mm FIBEROCK HEALTH + 2x92mm STEEL STUDS @ 600mm MAX. CTRS (450mm MAX. CTRS. IN WET AREAS) + INSULATION R2.0 + 1 LAYER 16mm FIBEROCK HEALTH + LAYER 13mm FIBEROCK HEALTH
PT10	1x LAYER 13mm FIBEROCK HEALTH + 150mm STEEL STUDS @ 600mm MAX. CTRS (450mm MAX. CTRS. IN WET AREAS) + 1x LAYER 13mm FIBEROCK HEALTH
PT11	1xLAYER 13mm FIBEROCK HEALTH +1 LAYER 16mm FIBEROCK HEALTH + 2x92mm STEEL STUDS @ 600mm MAX. CTRS (450mm MAX. CTRS. IN WET AREAS) +AIR + INSULATION R2.0 + 1 LAYER 16mm FIBEROCK HEALTH + LAYER 13mm FIBEROCK HEALTH
PT12	1xLAYER 13mm FIBEROCK HEALTH +1 LAYER 16mm FIBEROCK HEALTH + 92mm STEEL STUDS @ 600mm MAX. CTRS + INSULATION R2.0
PT14	1x LAYER 13mm FIBEROCK HEALTH + 92mm STEEL STUDS @ 600mm MAX. CTRS (450mm MAX. CTRS. IN WET AREAS)
PT17	1x LAYER 13mm FIBEROCK ULTRA MESH - DIRECT STICK

0 5 20 40 60
1:1mm

DA SUBMISSION

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead™
Level 2, 191 St Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

Client

Government of Western Australia
Department of Finance

OSBORNE PARK HOSPITAL
OSBORNE PLACE, STIRLING, WA 6021

PROPOSED PARTITION SETOUT & FIRE PLAN

DRAWN KR	DESIGNED JL	REDUCTION	
CHECKED MH	PRINCIPAL		
APPROVED MH			
SCALE As indicated B1	DATE 01/07/2012	DRAWING No. OPHA221P5	REV. B
BMW PROJECT NO.	BMW FILE NO.		

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Project Number - 1270250?

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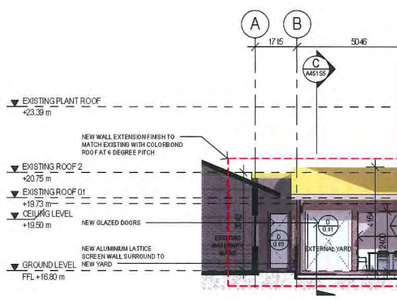
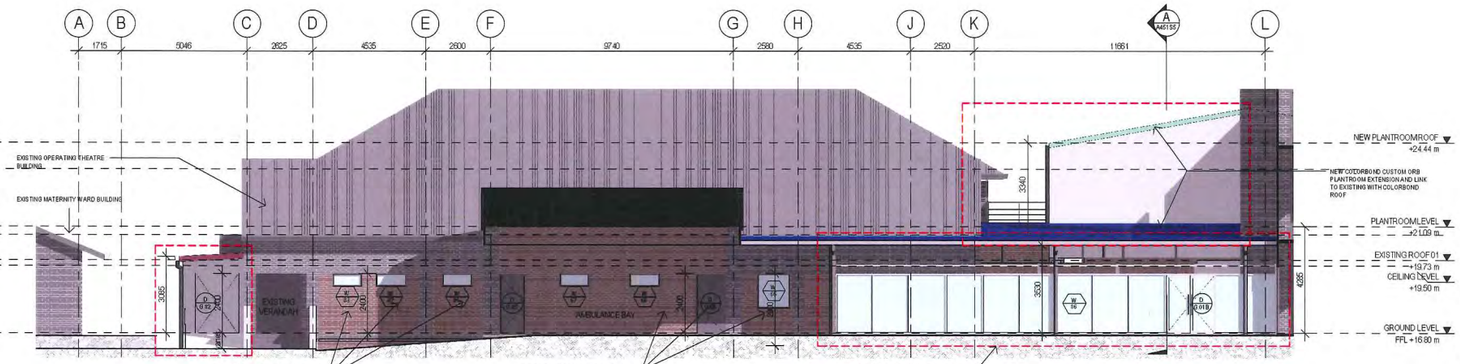
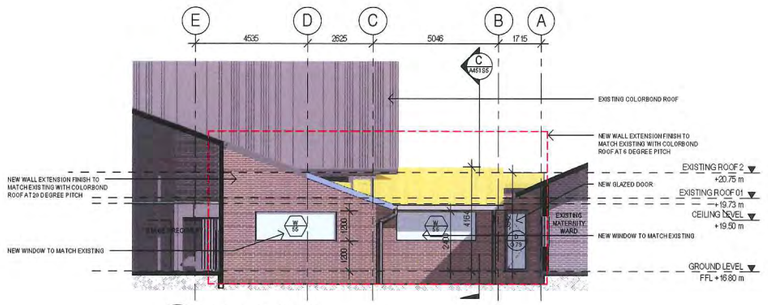
1 NORTH ELEVATION
A301C5 1 : 100



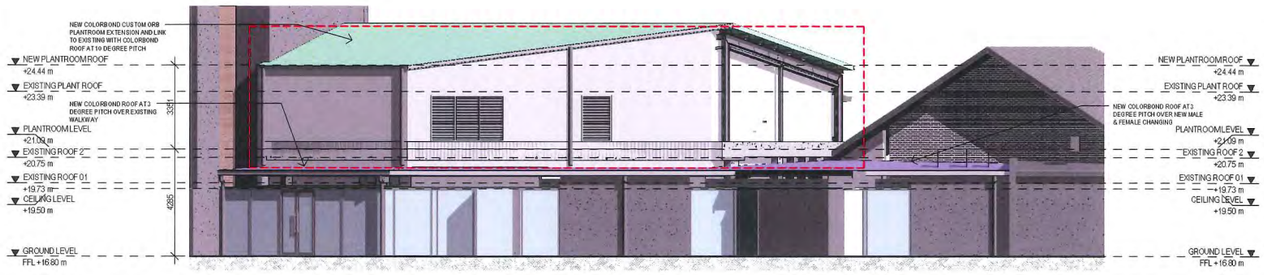
2 WEST ELEVATION A
A301C5 1 : 100



3 WEST ELEVATION B
A301C5 1 : 100



4 EAST ELEVATION
A301C5 1 : 100



5 SOUTH EAST ELEVATION
A301C5 1 : 100

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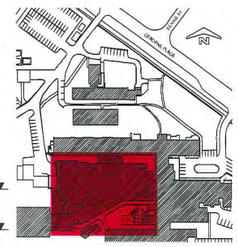
Key Plan



Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	07/06/12
B	ISSUED FOR APPROVAL	20/09/12
C	DA SUBMISSION	14/01/13

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead
Level 2, 191 St Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

Client

Government of Western Australia
Department of Finance

OSBORNE PARK HOSPITAL
OSBORNE PLACE, STIRLING, WA 6021

PROPOSED ELEVATIONS

DRAWN KR	DESIGNED JL	REDUCTION	
CHECKED MH	PRINCIPAL		
APPROVED MH			
SCALE As indicated B1	DATE 01/07/2012	DRAWING No. OPHA401E5	REV C
BMW PROJECT NO.	BMW FILE NO.		

0 5 20 40 60
1:1mm

DA SUBMISSION

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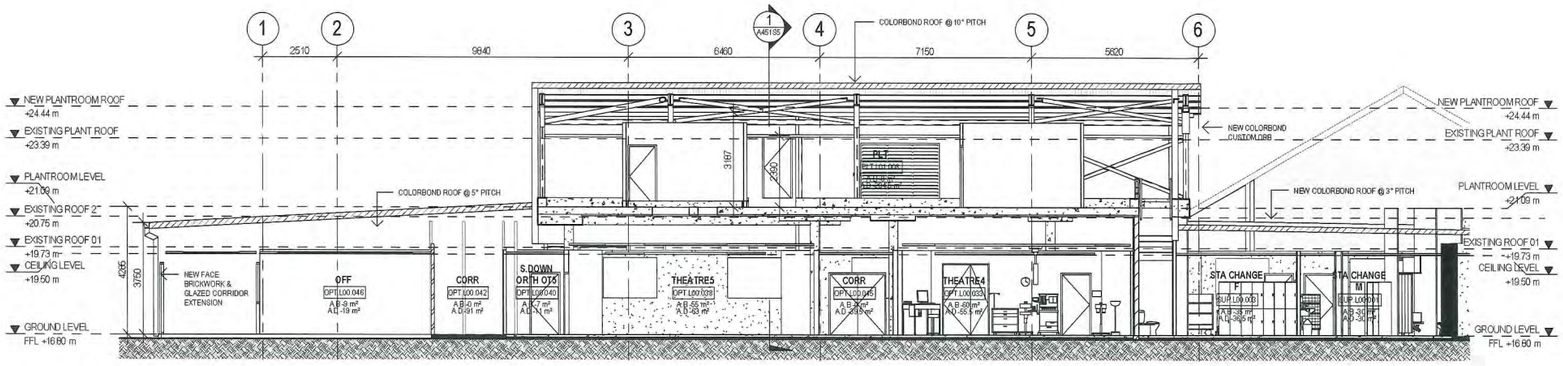
Project Number - 12702507



A SECTION AA
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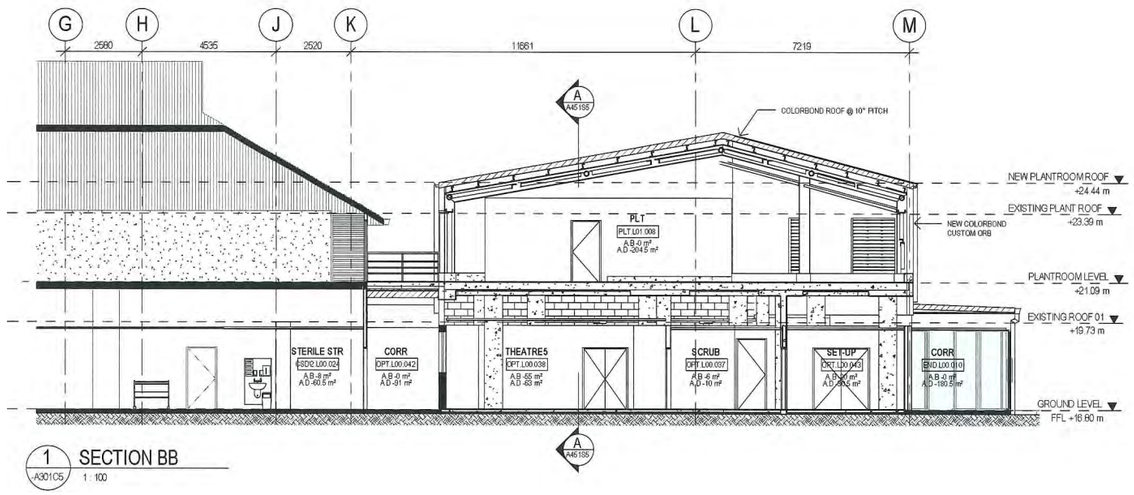

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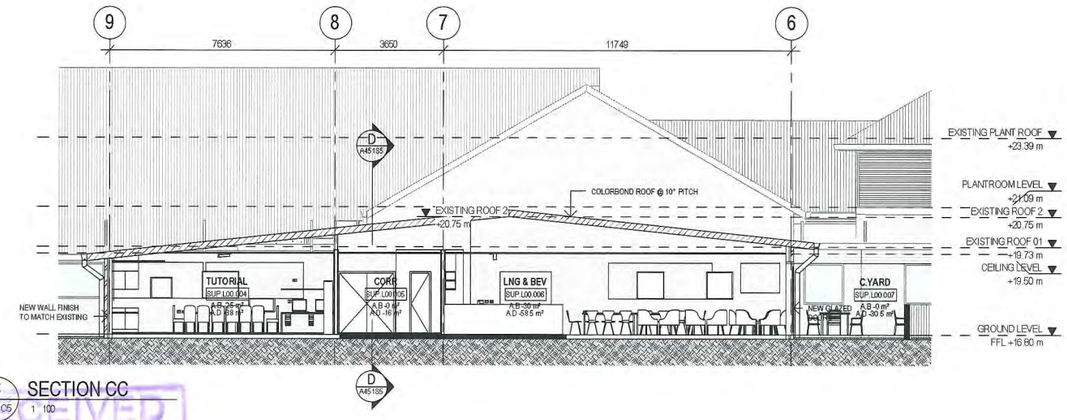
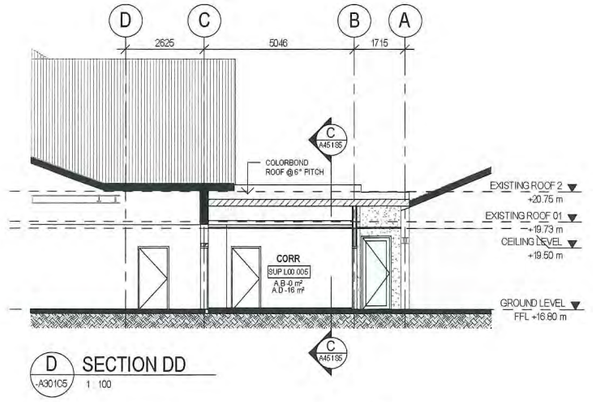


C SECTION CC
A301C5 1 : 100



D SECTION DD
A301C5 1 : 100

0 5 20 40 50
1:1mm

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Key Plan



Issue/Rev.	Revision Description	Date
A	ISSUED FOR INFORMATION	11/05/12
B	ISSUED FOR COMMENT	02/07/12
C	ISSUED FOR APPROVAL	26/07/12
D	DA SUBMISSION	16/01/13

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead™
Level 2, 191 St
Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

Client

Government of Western Australia
Department of Finance

OSBORNE PARK HOSPITAL
OSBORNE PLACE, STIRLING, WA 6021

PROPOSED BUILDING SECTIONS

DRAWN FP		DESIGNED JL	REDUCTION
CHECKED MH		PRINCIPAL	
APPROVED MH			
SCALE As indicated A1		DATE 01/07/2012	DRAWING No. OPHA451S5 REV D
BMW PROJECT NO.		BMW FILE NO.	

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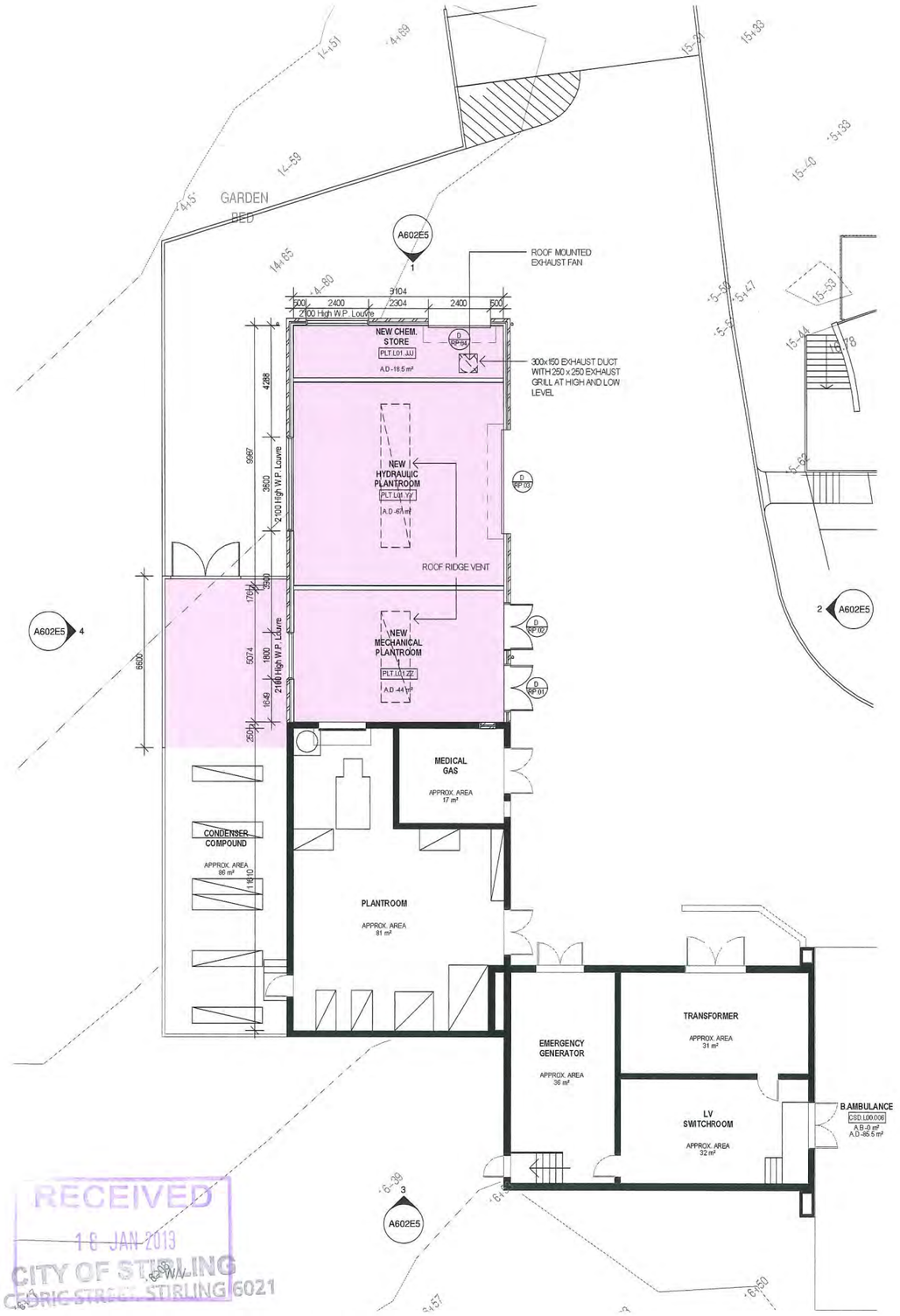
Project Number - 12702507



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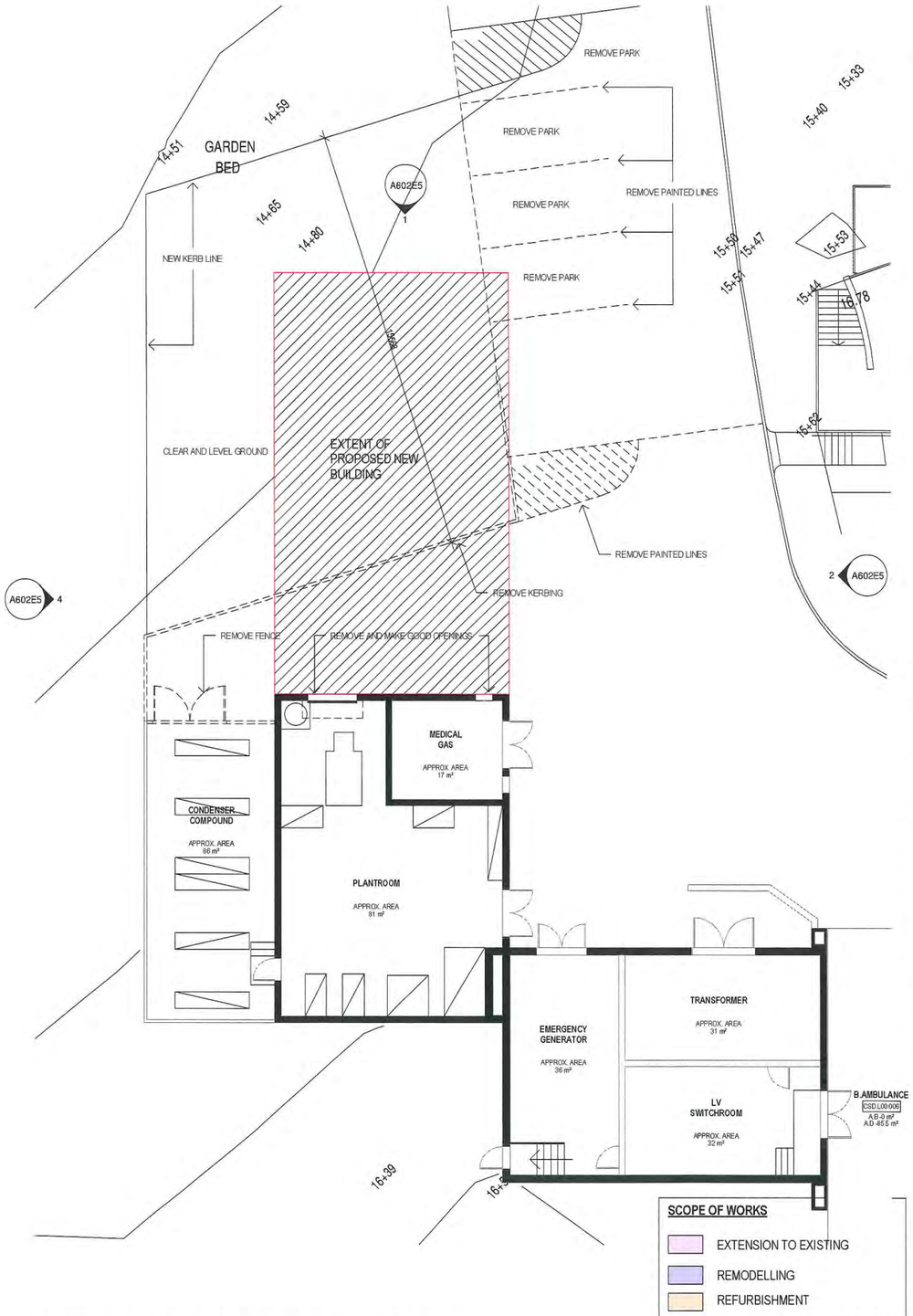
WA

1 A401E5 REMOTE PLANTROOM - GA FLOOR PLAN
1 : 100



2 A401E5 REMOTE PLANTROOM - DEMOLITION FLOOR PLAN
1 : 100

SCOPE OF WORKS

- EXTENSION TO EXISTING
- REMODELLING
- REFURBISHMENT
- EXISTING - NO WORK TO BE DONE
- EXISTING WALLS TO REMAIN

0 5 20 40 50
1:1mm

DA SUBMISSION

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Key Plan

Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	9.08.12
B	ISSUED FOR COMMENT	12.10.12
C	ISSUED FOR APPROVAL	8.11.12
D	DA SUBMISSION	14.11.12

Project Management

Quantity Surveyor

Structural & Civil

Mechanical

Electrical

Hydraulic

BCA Consultant

ESD Consultant

Fire

Architects

woodhead™
Level 2, 191 St Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

Client

Government of Western Australia
Department of Finance

OSBORNE PARK HOSPITAL
OSBORNE PLACE, STIRLING, WA 6021

PROPOSED REMOTE PLANTROOM - GA PLAN

DRAWN FP		DESIGNED JL	REDUCTION
CHECKED MH		PRINCIPAL	
APPROVED MH			
SCALE As indicated A1		DATE 01.07.2012	DRAWING No. OPHA601P5 REV D
BMW PROJECT NO		BMW FILE NO.	

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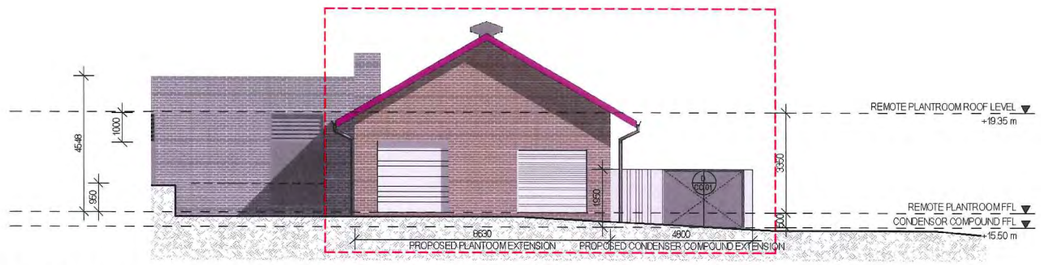
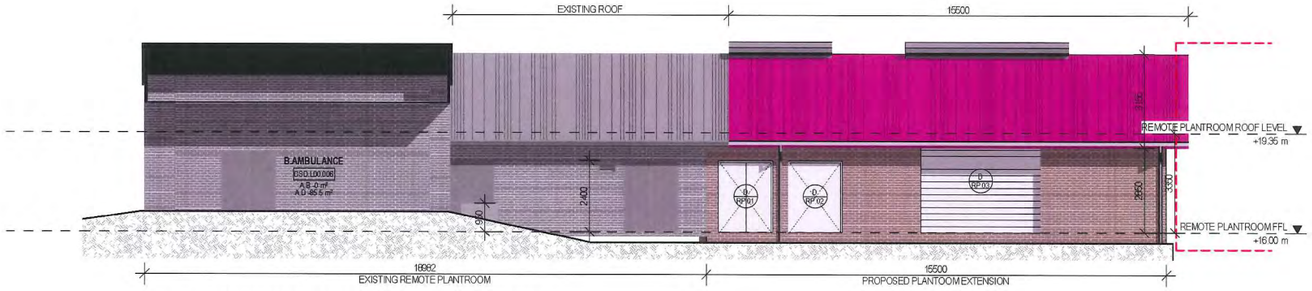
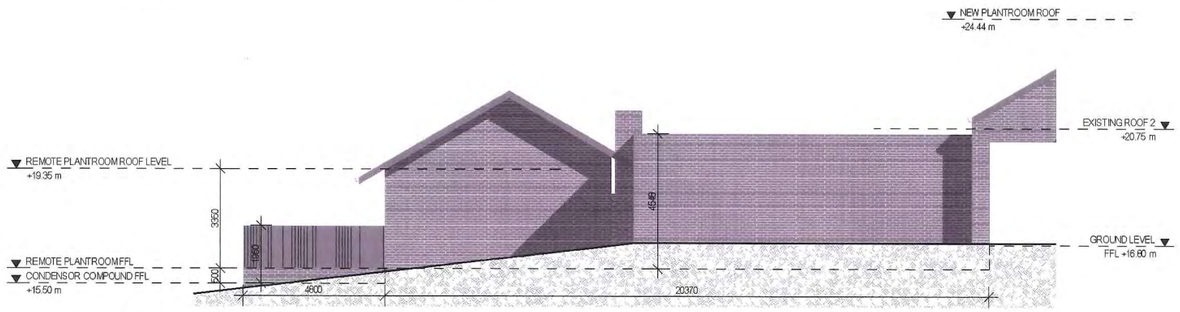
Project Number - 12702507



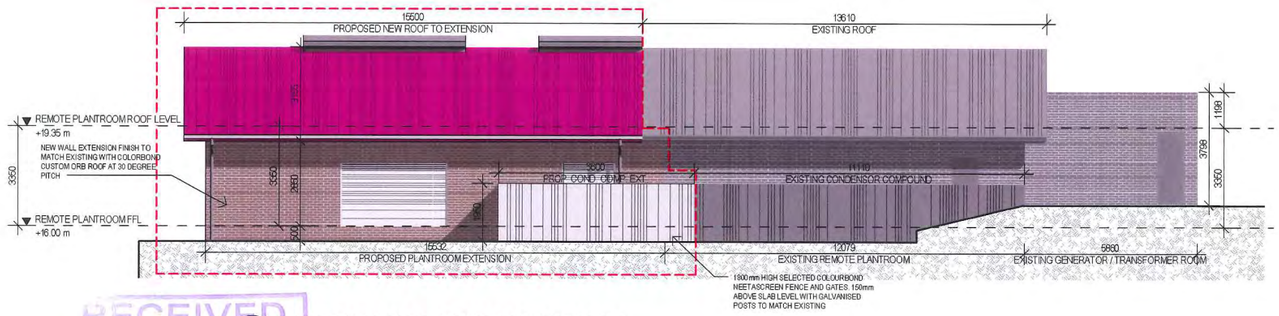
1 A601P5 NORTH ELEVATION - REMOTE PLANTROOM
1 : 100



2 A601P5 EAST ELEVATION - REMOTE PLANTROOM
1 : 100



3 A203P5 SOUTH ELEVATION - REMOTE PLANTROOM
1 : 100



4 A601P5 WEST ELEVATION - REMOTE PLANTROOM
1 : 100

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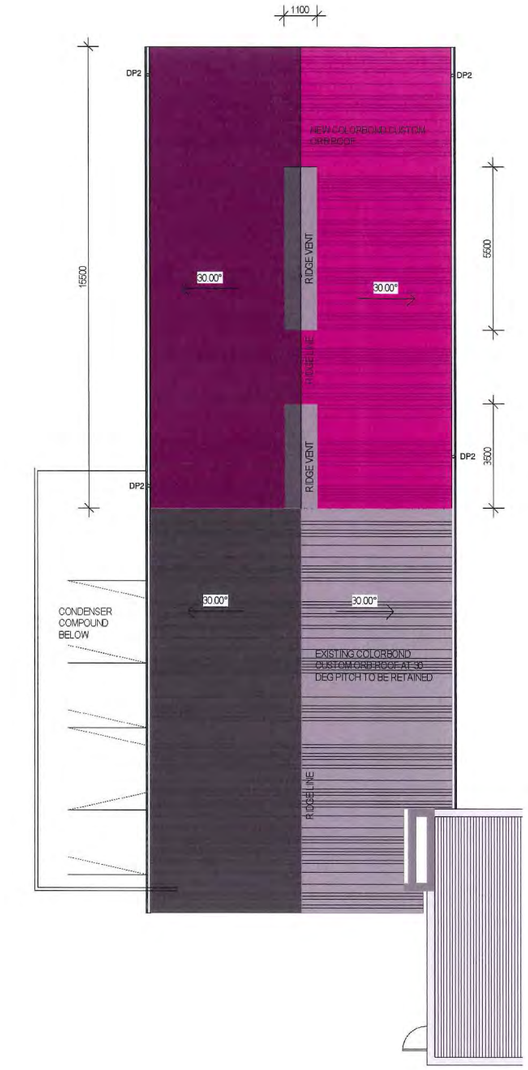
25 CEDRIC STREET, STIRLING 6021



5 PROPOSED REMOTE PLANTROOM ROOF PLAN
1 : 100

0 500 2000 4000 5000
1:100mm

DA SUBMISSION

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Key Plan.



Issue/Rev.	Revision Description	Date
A	ISSUED FOR APPROVAL	9/ 8/12
B	ISSUED FOR COMMENT	12/ 9/12
C	ISSUED FOR APPROVAL	3/10/12
D	DA SUBMISSION	16/11/12

Project Management

Quantity Surveyor

Structural & Civil

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Hydraulic

BCA Consultant

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Architects

woodhead
Level 2, 191 St
Georges Terrace
Perth WA 6000
T +618 9481 3722
F +618 9226 4399
ABN 61 007 747 748

Client

Government of **Western Australia**
Department of **Finance**

OSBORNE PARK HOSPITAL
OSBORNE PLACE, STIRLING, WA 6021

PROPOSED REMOTE PLANTROOM ELEVATIONS

DRAWN FP	DESIGNED JL	REDUCTION	
CHECKED MH	PRINCIPAL		
APPROVED MH			
SCALE As indicated A1	DATE 01/07/2012	DRAWING No.	REV D
BMW PROJECT NO.	BMW FILE NO.	OPHA602E5	

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Project Number - 12702507

Government of **Western Australia**
Development Assessment Panels

Form 1 - Responsible Authority Report

(Regulation 12)

Application Details:	Drive Through Fast Food Outlet (McDonalds Restaurant)
Property Location:	Lot 56, House Number 2, Chesterfield Road, Mirrabooka
DAP Name:	Metro North-West JDAP
Applicant:	Urbis
Owner:	Ark 2000 Pty Ltd
LG Reference:	DA13/0051
Responsible Authority:	City of Stirling
Authorising Officer:	Ross Povey Director Planning and Development
Application No and File No:	DP/13/00058
Report Date:	6 March 2013
Application Receipt Date:	8 January 2013
Application Process Days:	58 days
Attachment(s):	**Attachment 1** Development Application Plans a. Site Feature Survey , date stamped 8 January 2013 b. Locality Plan (Sheet DA01), date stamped 27 February 2013 c. Proposed Site Plan (Sheet DA02), date stamped 27 February 2013 d. Landscaping Plan (Sheet DA03), date stamped 27 February 2013 e. Truck Paths Plan (Sheet DA04), date stamped 27 February 2013 f. Ground Floor Plan (Sheet DA05), date stamped 27 February 2013 g. First Floor Plan (Sheet DA06), date stamped 27 February 2013 h. Elevations 1 & 2 (Sheet DA07), date stamped 27 February 2013 i. Elevations 3 & 4 (Sheet DA08), date stamped 27 February 2013 j. COD Unit Details (Sheet DA09), date stamped 27 February 2013 k. Signage Site Plan (Sheet S01), date stamped 27 February 2013 l. Signage Elevations 1 & 2 (Sheet S02), date stamped 27 February 2013 m. Signage Elevations 3 & 4 (Sheet S03), date stamped 27 February 2013 n. Signage Details (Sheets S04 & S05), date stamped 27 February 2013 o. Coloured Elevations (Sheets D201 – D204), date stamped 25 February 2013 p. Various External Coloured Perspectives (Sheets D301 – D312), date stamped

	25 February 2013 **Attachment 2** Aerial Location Plan **Attachment 3** Metropolitan Region Scheme (MRS) Zoning Map **Attachment 4** City of Stirling Local Planning Scheme No. 3 (LPS3) Zoning Map **Attachment 5** City of Stirling Mixed Business Design Guidelines (Council Policy 4.4) **Attachment 6** City of Stirling Mirrabooka Regional Centre Design Guidelines (Council Policy 5.4) **Attachment 7** City of Stirling Advertising Signs Policy (Council Policy 6.1) **Attachment 8** City of Stirling Bicycle Parking Policy (Council Policy 6.2) **Attachment 9** City of Stirling Landscaping Policy (Council Policy 6.6) **Attachment 10** City of Stirling Parking & Access Policy (Council Policy 6.7) **Attachment 11** Applicant Submission **Attachment 12** Parking Needs Study prepared by Riley Consulting on behalf of the Applicant **Attachment 13** Traffic Impact Assessment prepared by Riley Consulting on behalf of the applicant

Recommendation:

That the Metro North-West JDAP resolves to:

Approve DAP Application reference DP13/00058 and accompanying plans (ATTACHMENT 1) in accordance with Clause 10.3.1 of the City of Stirling Local Planning Scheme No. 3, subject to the following conditions:

a) A total of 3 street trees are to be planted on the verge by the City at the applicant's expense. A fee of $960 is payable prior to the issue of a building licence. The trees are also to be provided with underground reticulation to the satisfaction of the City of Stirling Manager Parks and Reserves Business Unit.

b) Proposed signs "S8" and "S9B" (Sheets S04 & S05) are to be relocated so that they do not conflict with the required 1.5m x 1.5m visual truncation, to the satisfaction of the City of Stirling Manager Approvals Business Unit.

c) The "No Standing / No Parking" street sign which conflicts with the location of the proposed new crossover is required to be relocated at the applicant's expense to the satisfaction of the City of Stirling Manager Engineering Design Business Unit prior to the completion of the development.

d) The design of the car parking bays and aisles must be in accordance with the Australian Standard AS/NZS2890.1:2004 Off-Street Parking to the satisfaction of the City of Stirling Manager Engineering Design Business Unit.

e) Vehicular parking, manouevring and circulation areas indicated on the approved plan being sealed and drained to the satisfaction of the City, the 46 parking spaces being marked out and maintained in good repair.

f) All off street parking is to be available during business hours for all customers and staff, to the satisfaction of the City of Stirling.

g) A Site Management Plan to be submitted to the satisfaction of the City of Stirling Manager Approvals prior to the issue of a building permit. The Site Management Plan to address dust, noise, waste management, storage of materials, traffic and site safety/security. The Site Management Plan is to be complied with for the duration of the construction of the development.

h) All land indicated as landscaped area on the approved plan being developed on practical completion of the building to the satisfaction of the City and in accordance with the submitted landscaping plan. All landscaped areas are to be maintained in good condition thereafter.

i) Any existing crossovers not included as part of the proposed development on the approved plan are to be removed. New kerbing and verge is to be reinstated to the satisfaction of the City of Stirling Manager Engineering Operations Business Unit.

j) Any on site floodlights not being positioned or operated in such a manner so as to cause annoyance to surrounding uses or passing traffic.

k) No goods of materials being stored, either temporarily or permanently, in the car parking or landscaped areas or within access driveways. All goods and

materials are to be stored within the buildings or storage yards, where provided.

The following Advice notes are also recommended:

a) Compliance with the provisions of the Building Code of Australia.

b) Submission of plans showing the details of paving, stormwater drainage and disposal with the Building Permit application.

c) Development is to comply in all respects with the approved plans.

d) The applicant is responsible for ensuring that all lot boundaries as shown on the approved plans are correct.

e) If the development the subject of this approval is not substantially commenced within a period of two years, or such other period as specified in the approval after the date of the determination, the approval shall lapse and be of no further effect.

f) Where an approval has so lapsed, no development shall be carried out without the further approval of the Council having first been sought and obtained.

g) If an applicant is aggrieved by this determination there is a right of appeal under Part V of the *Planning and Development Act 2005*. An appeal must be lodged within 28 days of the determination with the State Administrative Tribunal.

h) This is a Development Approval under the City of Stirling Local Planning Scheme No. 3 and related policies. It is not a building licence or an approval to commence or carry out development under any other law. It is the responsibility of the applicant to obtain any other necessary approvals, consents and licenses required under any other law, and to commence and carry out development in accordance with all relevant laws.

i) This approval is not an authority to ignore any constraint to development on the land, which may exist through statute, regulation, contract or on title, such as an easement or restrictive covenant. It is the responsibility of the applicant and not the City to investigate any such constraints before commencing development. This approval will not necessarily have regard to any such constraint to development, regardless of whether or not it has been drawn to the City's attention.

j) Noisy Construction Work outside the period 7.00 am to 7.00 pm Monday to Saturday and at any time on Sundays and Public Holidays is not permitted unless an approved Noise Management Plan for the construction site has been issued.

k) Connection to deep sewerage in the locality.

l) Compliance with all relevant administrative, structural and operational provisions of the Food Act 2008, Food Standards Code, and City of Stirling Local Laws.

m) Notification to the City as a business involving the provision of food service as required under the Food Act 2008. The applicant is required to contact the City of Stirling Health & Compliance Business Unit to arrange final inspection of premises prior to commencement of business operations.

Background:

Insert Property Address:		Lot 56, House Number 2 Chesterfield Road, Mirrabooka
Insert Zoning	MRS:	Urban
	TPS:	Mixed Business
Insert Use Class:		Drive Through Fast Food Outlet, including incidental Warehouse
Insert Strategy Policy:		Not Applicable
Insert Development Scheme:		Not Applicable
Insert Lot Size:		Local Convenience Store
Insert Existing Land Use:		Fast Food Outlet
Value of Development:		$3,150,000

The subject site is located in the local municipality of Stirling, and is approximately 8km northwest of the Perth CBD. The subject site is on the corner of Chesterfield Road and Yirrigan Drive, with adjoining non-residential properties to the north and east. The site is approximately 200 metres to the east of the intersection of Mirrabooka Avenue and Ravenswood Drive / Yirrigan Drive (ATTACHMENT 2).

The subject lot is zoned 'Urban' under the Metropolitan Region Scheme (MRS) (ATTACHMENT 3) and 'Mixed Business' under the City of Stirling's Local Planning Scheme No. 3 (LPS3) (ATTACHMENT 4). The subject site is located in a non-residential locality, comprising commercial and / or industrial land uses, including the Public Transport Authority bus depot. It is however noted that residential properties are located to the southern side of Yirrigan Drive.

The existing building on the subject site is currently used for the purposes of a 'Local Convenience Store'. Prior to this, the building was used for the purpose of a 'Fast Food Outlet'. This building is proposed to be demolished to allow for the construction of the proposed development. The applicant has advised that approval of the development will enable the relocation of McDonalds from their existing premises at Lot 120, HN 1 Chesterfield Road, which is approximately 130m to the west of the subject site.

LPS3 provides the following objectives for the Mixed Business zone:

a) *To facilitate a development mix of showrooms and service industry of a higher aesthetic quality located on major traffic routes.*

b) *To provide a more intense commercial business development form within established industrial areas of the City.*

c) *To ensure that traffic management, road safety, site access, onsite parking, building design and streetscape appearance are not compromised.*

The subject site is also located within the Mirrabooka Regional Centre Special Control Area. The objectives of this Special Control Area are:

a) *To provide a sound, coordinated strategy for the integrated development of public and private lands to facilitate the creation of a safe, successful, vibrant centre.*

b) *Facilitate more residential and mixed use development.*

Clause 6.8.3 of LPS3 requires development within the Mirrabooka Regional Centre to conform with the adopted Structure Plan, Detailed Area Plans, Local Planning Policy and the Scheme for this Area. It is noted that a Structure Plan has been prepared however remains in a draft format, so cannot be considered a seriously entertained planning document. Notwithstanding the above, the City's City Planning Business Unit, who are involved in the future planning of the area, have provided the following comments in respect of the development proposal:

- *The original versions of the Draft structure plan (circa 2009) indicated substantial development for the area surrounding the bus station, consistent with a regional catchment for this urban centre with objectives to encourage mixed use and multiple level building forms. The City has been progressing the development of new 'main streets' to encourage revitalisation and create night time activity. The original draft document also indicated a place for car /motorised based land use on the periphery of the Centre.*
- *The City has been preparing the Mirrabooka centre strategy since 2000 but the direction in September 2012 changed with the State Government's announcement to introduce light rail into the Mirrabooka Centre. The Centre is presently identified as a 'Secondary' tier centre in the metropolitan centres hierarchy under State Planning Policy, 'Activity Centres for Perth and Peel'.*
- *The State aims for development intensity in the Centre has shifted to a transit oriented development with the potential introduction of the light rail. The Department of Planning has advised that dwelling numbers for the Centre under Directions 2031 will be modified. Amendments to their policy is expected to be by mid 2013. Pending the release of this information the City will be better placed to complete its Activity Centre SP. This will affect the built form standards and likely require mandating of minimum residential land use component in some parts of the centre.*
- *The City is presently in liaison with the Department of Planning on suitability of standards to update the Activity Centre SP for transit oriented development. This is pending the outcome of the State election. There is some level of uncertainty with the focus of the centre as this may change if the state government party change.*

In saying the above I expect that the development can be supported on grounds;

- *there will be significant changes to the centre in the Coming years pending the State Government's position on whether light or heavy gauge rail is linked to the Centre, but will be a slow process. The proposed development can be looked at as somewhat transitionary given if the development standards changes there will still be a lag time with the redevelopment of surrounding sites.*

- *the Departments of Planning and Transport have now agreed to the location of the future light rail east of the bus station away from the proposed development site.*
- *The development is consistent with the present building form and surrounding landuse.*
- *The western corner of the Centre is expected to have more car orientated uses.*

The City of Stirling's *Mirrabooka Regional Centre Design Guidelines* (Council Policy 5.4) (ATTACHMENT 6), provide specific development standards to guide development within the Mirrabooka Regional Centre, including those sites within the Special Control Area. The subject lots are located within the 'Precinct C – Service Commercial' area as defined by these guidelines, for which the following statement of intent applies:

> *The intent of this precinct is to allow for non-street fronted buildings in the Mirrabooka Centre. These buildings shall form strong iconic buildings in an attractive settling with careful detailing of all sides of the development. Entrances shall be celebrated and wherever possible human scale in the form of terraces etc. should be expressed. Therefore, comfort and safety shall be well considered.*

Details: outline of development application

The development application (DA13/0051 refers) proposes the construction of a two storey building for the purpose of a McDonalds Family Restaurant (Drive Through Fast Food Outlet). The works are summarised as follows:

- Ground floor comprising:
  - Indoor and outdoor dining areas with a 117 seat capacity;
  - Outdoor playground area;
  - Party room;
  - Kitchen, preparation and serving areas;
  - A corral for servicing, waste and bin storage;
  - Public bathroom facilities; &
  - A dual lane drive through facility.
- Upper floor comprising:
  - Staff amenities; &
  - Storage warehouse.
- Parking for 46 vehicles is provided, including two staff only bays and 11 stacker bays to the drive through; &
- Signage.

Legislation & policy:

Legislation

- Planning and Development Act 2005
- Metropolitan Region Scheme (MRS)
- Local Planning Scheme No. 3 (LPS3)

State Government Policies

- State Planning Policy 4.2 Activity Centres for Perth and Peel

Local Policies

The following Local Planning Polices are applicable to the Development Assessment Panel's consideration of the proposed development:

- Council Policy 4.4 - Mixed Business Design Guidelines (ATTACHMENT 5)
- Council Policy 5.4 - Mirrabooka Regional Centre Design Guidelines (ATTACHMENT 6)
- Council Policy 6.1 – Advertising Signs Policy (ATTACHMENT 7)
- Council Policy 6.2 – Bicycle Parking (ATTACHMENT 8)
- Council Policy 6.6 – Landscaping (ATTACHMENT 9)
- Council Policy 6.7 – Parking & Access (ATTACHMENT 10)

Consultation:

Public Consultation
Public consultation was not required to be undertaken as part of the assessment.

Consultation with other Agencies or Consultants
Consultation with other external Agencies or Consultants was not undertaken as part of the assessment.

The application was reviewed by the City's Health & Compliance Business Unit, who advised that their approval as a food premises would be required under the provisions of the Food Act 2008. The recommended Advice Notes reflect this advice, as well as the requirements of other regulations which will need to be satisfied prior to the occupation of the proposed building.

The application was reviewed by the City's Engineering Design Business Unit, specifically in relation to the Parking Needs Study (ATTACHMENT 12) and Traffic Impact Assessment (ATTACHMENT 13) undertaken by Riley Consulting. The contents of the transport assessment were endorsed, with the City's Traffic Design Engineer advising that traffic issues should not form an impediment to the relation of McDonalds to the subject site by virtue of the following:

- *The relocation of the store will result in a slight redistribution of development-related trips along Yirrigan Drive and Mirrabooka Avenue. However, this redistribution will not have any adverse impact on the operation of the adjacent signalised intersection of Chesterfield Road and Yirrigan Drive.*
- *The queue length of vehicles on the Chesterfield Road approach to the traffic signals is not expected to extend beyond the proposed driveway access into the new store, thus allowing vehicles to turn right into the new access from Chesterfield Road.*

The contents of the Parking Needs Study relate to the parking requirements for the proposed land use, and are discussed in more detail in the 'Planning assessment' section of this report.

Planning assessment:

The development has been assessed against the City of Stirling's Local Planning Scheme No. 3 (LPS3) and relevant local planning policies. It should be noted that

LPS3 provides guidance in respect to zoning and objectives of zones, however, more specific development standards are provided in relevant local planning policies.

The proposed development requires a discretionary decision to be made in respect to a number of matters, including:

- Proposed land uses
- Parking requirement
- Built form & design
- Landscaping
- Signage

Each of these items is considered in further detail below.

Proposed Land Uses

The table below summarises the zoning permissibility of the proposed uses, as stated in the City of Stirling's Local Planning Scheme No. 3 (LPS3).

USE	LPS3 ZONING PERMISSIBILITY	
Drive Through Fast Food Outlet	D	The use is not permitted unless Council has exercised its discretion by granting planning approval.
Warehouse	P	The use is permitted by the Scheme providing the use complies with the relevant development standards and the requirements of the Scheme.

Under LPS3 Drive Through Fast Food Outlet is defined as:-

> *Means a fast food outlet which includes the sale and serving of food or beverages direct to persons driving or seated in motor vehicles. The term may or may not include the preparation of food for sale and consumption within the building, or portion thereof.*

Under LPS3 Fast Food Outlet is defined as:-

> *Means premises used for the preparation, sale and serving of food or beverages to customers in a form ready to be eaten without further preparation, primarily off the premises.*

Under LPS3 Warehouse is defined as:-

> *Means premises used to store or display goods and may include sale by wholesale.*

In accordance with the above details and LPS3, a discretionary decision is required to be made in relation to the Drive Through Fast Food Outlet use proposed as part of the development.

The applicant has provided the following statement in support of the proposed discretionary land use:

> *The proposed McDonald's restaurant is considered to provide a complimentary use to the existing showrooms and other commercial premises within the locality, as well as provide a convenient food and beverage service to surrounding mixed business uses. The amenity and appearance of the*

restaurant, located adjacent to Yirrigan Drive, is considered to enhance the subject site and broader area. The land use is considered to integrate well into the surrounding development context, which includes a mix of service industries, entertainment uses, commercial premises and large format commercial premises.

The proposed McDonald's restaurant will provide a complimentary and convenient use within the Mirrabooka Regional Centre, assisting in its ongoing maturity and revitalisation. The site is located within an area which is readily and safely accessible in terms of vehicles, pedestrians and cyclists, and public transport users, given the location of the Mirrabooka Bus Station to the east, and existing patters of pedestrian footpaths.

In accordance with the objectives of the Mixed Business zone, the proposed store will deliver a more aesthetic outcome than the current McDonald's Mirrabooka store, and will deliver a significant improvement of what I currently considered an underutilised site with the Mirrabooka Regional Centre. The 2 storey design of the building is not typical of McDonald's restaurant. This additional height and architectural detailing responds to the City's desire for increased heights to achieve a more intense and consolidated building form within the Mirrabooka Regional Centre. Further, the design, bulk and scale of the building and proposed high quality landscaping along the road frontages of the site is considered to be compatible with surrounding development.

It is therefore considered that the proposed use and development is in keeping with the general aims and objectives of the Scheme and the specific objectives for the Mixed Business zone. This is reflected within the statutory framework of LPS3 in the use being classified as discretionary within this zone.

In exercising this discretionary decision required by LPS3, it is appropriate to consider the objectives of the Mixed Business zone and the matters set out in clause 10.2 of LPS3 (Matters to be Considered by the Council).

Clause 10.2 of LPS3 states that the Council, in considering an application for planning approval, is to have due regard to such matters as below that are, in the opinion of the Council, relevant to the use or development the subject of an application.

Specifically, clause 10.2 f) of LPS3 states:

Any Local Planning Policy adopted by Council under clause 2.4, any heritage policy statement for a designated heritage area adopted under clause 7.2.2, and any other structure plan, detailed area plan or guidelines adopted by Council under the Scheme.

The land use is one that has previously existed on the subject site, with the City's records indicating a Fast Food Outlet was approved in 1982 and operated on the subject site until 2008 (M20/8689 refers), at which time the use changed to Local Convenience Store (DA08/0987 refers). The use has therefore historically existed and no changes to the overriding statutory planning framework have occurred since the land use ceased in 2008 which would lead to the City forming the opinion that the use is now unfavourable. The adoption of LPS3 in 2010 did not change the

appropriateness of the Drive Through Fast Food Outlet, as prior to then under the provisions of the City's previous scheme, District Planning Scheme No. 2, the use was an "AA" use, which required advertising and therefore the exercise of discretion in granting approval.

The proposed land use has been assessed against the objectives of the Mixed Business zone as outlined in LPS3, the City of Stirling's Mirrabooka Regional Centre Design Guidelines (ATTACHMENT 6), as well as the Mixed Business Design Guidelines (ATTACHMENT 5). Cumulatively, the vision is for a precinct which provides for more intensive commercial land uses compared to a standard industrial area, allowing for showroom and service industry land uses in an environment which require a high quality built form. Whilst the objectives do not specifically reference fast food outlets, such a use is considered complimentary to the predominant showroom and service industry uses, as evidenced by the provisions of LPS3 which allows for a discretionary approval. Consequently, the City is in this instance supportive of the proposed Drive Through Fast Food Outlet land use on the subject site as it is expected it will activate this precinct and encourage redevelopment of surrounding properties.

Parking Requirement

Table 1 of the City of Stirling's *Parking and Access Policy* (Local Planning Policy 6.7) (ATTACHMENT 10), herein referred to as the Policy, provides the relevant development standards for the number of car parking bays required for a particular use. However, there is no parking ratio listed for a Drive Through Fast Food Outlet land use. Clause 5.1.1 of the Policy states:

> *Where an activity or use is not listed in Table 1, the parking ratio will be determined by Council having regard to the objectives of this policy, similar uses, surrounding uses and off-site parking availability.*

In reviewing the historical parking requirements for the proposed land use, it is clear that the parking requirement for a Drive Through Fast Food Outlet has always been consistent with that of a Fast Food Outlet. In District Planning Scheme No. 2 (DPS2) (superseded by LPS3 in August 2010), Fast Food Outlets and Drive Through Fast Food Outlets had the same parking requirement, being 1 bay per 7sqm GFA. When LPS3 was gazetted in August 2010, the Parking Policy at the time did provide a parking requirement for "Fast Foods" – this phrase was consistent with that used in DPS2 so was continued to be used to cover the parking requirements for both a Fast Food Outlet and a Drive Through Fast Food Outlet, being 1 bay per 7sqm GFA. However, the Parking Policy was amended in July 2012, and the new Parking & Access Policy now refers to a "Fast Food Outlet" only. As this is a specific reference to a land use defined by the Scheme, it is no longer considered to technically apply to a Drive Through Fast Food Outlet. However, the City is of the opinion that in accordance with clause 5.1.1 of the Policy, is appropriate to apply a parking ratio of 1 bay per $7m^2$ GFA for a Drive Through Fast Food Outlet land use because under both DPS2 and the recently superseded Parking Policy of LPS3, the parking requirements for a Drive Through Fast Food Outlet was the same as for a Fast Food Outlet.

In accordance with the Policy, development on the site is permitted the following parking concessions:

- 15% -The proposed development is within 200 metres of a stop on a high frequency bus route;
- 5% - The proposed development to provide 5 bicycle bays greater than required (as per specifications in Council Policy 6.2 Bicycle Parking (ATTACHMENT 8)); &
- 10% - The site is within a Mixed Business zone.

Parking requirements for the proposed development is therefore summarised in the table below:

USE	POLICY PROVISION	VARIABLE (m^2)	BAYS REQUIRED
Drive Through Fast Food Outlet	1 bay per $7m^2$ GFA	356	50.86
Alfresco Area	1 bay per $14m^2$	41	2.93
Warehouse	1 bay per $50m^2$ GFA	138	2.76
TOTAL			56.55
Concessions			30%
Revised total			39.58 (40)
Bays Provided			46
Surplus/Deficit			+6

It is acknowledged that the parking includes two signed staff only bays which are provided behind customer bays (i.e. in tandem). However, clause 8.1 (f) of the policy specifies that parking bays shall not be provided in tandem. Whilst the City is in this instance satisfied that the tandem bays are useable if managed appropriately, if these bays were removed from consideration the development would still allow for a four (4) bay parking surplus.

Eleven (11) car parking bays have been indicated as being contained in the drive through stacker. The inclusion of these bays in the parking assessment is considered appropriate as they are a reasonable and functional alternative to traditional parking bays given the proposed land use is specifically aimed at patrons who use the drive through. Clause 8.1 (g) of the Policy allows for car stacking systems subject to the submission of a parking management plan detailing the operation of the system. Whilst the operation of a drive through fast food outlet is self explanatory, the Parking Needs Study (ATTACHMENT 12) provided with the application has identified that the parking provided for the site, inclusive of the drive through stacker bays, is sufficient for the expected parking demands of the business. Consequently the drive through bays are considered to be acceptable for inclusion in the overall parking requirements as allowed for by clause 8.1 (g) of the Policy.

Built Form & Design

The provisions of the City of Stirling's Mirrabooka Regional Centre Design Guidelines (ATTACHMENT 6) prescribe development standards for the built form on the subject site. The table below summarises the proposed development relative to the built form and design development provisions provided for in the Guidelines:

Element	Satisfies Scheme/ Policy	OR	Variation Required	Comment

Element	Satisfies Scheme/ Policy	OR	Variation Required	Comment
Building Height				
Minimum building height shall be 6 metres.	✓			Building height is 8.55m.
Minimum floor to ceiling heights shall not be less than 3.5m for the ground floor and 3.0m for the subsequent floors.			✓	Ground floor ceiling height is 3.07m. Upper floor ceiling height is 4.9m.
Street Setbacks				
Buildings shall have a maximum 21.0 metre front setback.	✓			The proposed building provides a minimum 14m streets setback to both Chesterfield Road and Yirrigan Drive.
Corner Sites				
Buildings located on corner sites shall give additional prominence to the street corner by using at least one of the following: • Architectural roof features that protrude above the normal roof line by at least 2.0m;or • Increased parapet heights with additional detail, colour and textures; or • Increased number of storeys at the street corner.	✓			The proposal has included increased parapet heights to the upper storey. Additionally, contrasting materials, colours and openings have been included to provide interest to the façade.
Facades				
75% maximum glazing on any façade above the ground floor.	✓			The glazing proposed to the upper floor is minimal, thereby complying with the maximum of 75% permitted by the Guidelines.
The second level and subsequent levels of all buildings shall be articulated to break-up long straight facades through the use of at least four of the following: • Openings; • Protruding separate balconies; • Awnings over windows; • Use of different colours and textures; and • Indentations and additional details to break the building into individual elements.	✓			The upper storey has incorporated the following design elements: • Openings; • Awnings; • Use of different colours and textures; & • Indentations and extrusions.
Openings				
Facades shall express	✓			Windows are predominantly

Element	Satisfies Scheme/ Policy	OR	Variation Required	Comment
verticality through the use of openings than are more vertical than horizontal.				considered to have a vertical emphasis, either by virtue of their size or the proposed window pane configuration.
Parapets				
New buildings that contain parapets shall avoid monotonous flat parapet lines and shall include: • Indentations and patterns on panels; and • Variation in parapet heights and designs so as to provide additional interest to the street.	✓			The use of parapets is proposed for both the grounds and upper floors. The use of contrasting materials (timber panelling and fibre cement cladding, openings, awnings and varying paint colours) as well as indentations of the walls provides sufficient interest to the street. The parapet heights vary from the first to second storey which meets the intent of this provision.
Balconies				
Balcony balustrades shall be 50% visually permeable.	✓			No balconies are proposed as part of the subject application.
Colours and Materials				
• New colours schemes shall take into consideration the colour scheme of existing buildings and shall not be in sharp contrast; and • Fluorescent and intense colours shall not be used.	✓			The proposed colours and materials are modern and considered appropriate within the Mixed Business context. No fluorescent or intense colours are proposed.

The application therefore seeks consideration against the Statement of Intent for the Service Commercial precinct of the Mirrabooka Regional Centre Design Guidelines with respect to the ground floor ceiling height. This is not considered to have an impact upon the external appearance of the building as the ground floor parapets are at a height of 5.6m above the proposed finish floor level. It is this height which will be seen from the exterior rather than the ceiling height, and ultimately affords the development the impression of high ceilings. In considering the nature of the proposed land use, patrons are present for a short period only and the impression of space within the building is not a critical factor. The proposed ceiling height of 3.07m is therefore considered sufficient in this context as ultimately the design is not adversely affected as it still allows for the building to make a strong statement and contributes to an improved built form outcome for the locality.

Landscaping

The City of Stirling's Landscaping Policy (Council Policy 6.6) (ATTACHMENT 9) applies to the subject site. However, as some of the landscaping elements of this Policy are inconsistent with the landscaping standards contained in the Mirrabooka Regional Centre Design Guidelines (ATTACHMENT 6), the standards of the Design Guidelines prevail.

The Design Guidelines specify that a 2.0m wide landscaping strip within the front setback area between the boundary and the parking area is to be provided. The development provides a landscaping strip with a minimum width of 1.7m. The Landscaping Policy specifies that street trees are to be provided where none currently exist. No street trees currently exist and none have been proposed as part of the development.

The Landscaping Policy provides the following Objectives against which variations to its development standards may be considered:

- *To promote improved landscaping provision and design;*
- *To improve the visual appeal of development, screen service areas and provide a buffer to boundaries;*
- *To provide shade and 'green relief' in built up areas; and*
- *To promote more environmentally sustainable landscaping.*

These objectives are considered more relevant to the assessment of departures from landscaping standards, notwithstanding that in this instance the standards are contained in the Design Guidelines, particularly as the objectives of the Design Guidelines do not make reference to landscaping.

The variation to the landscaping strip width is considered minor and unlikely to affect the overall impression of landscaping as viewed from the subject site or the streetscape. The site provides landscaping which equates to 17% of the subject site's area, which is considerably more than the 10% required by the Design Guidelines. On balance the proposed landscaping is considered an improved outcome and will contribute positively to the appearance of the development, notwithstanding the minor variation to the width of the landscaping.

Advice from the City's Parks & Reserves Business Unit confirms there is sufficient space for three (3) trees to be planted along the Yirrigan Drive road reserve. As there is no impediment to street trees being provided along the Yirrigan Drive road reserve, it is recommended that a condition be imposed by the JDAP to this effect. It is advised that the Chesterfield Road verge is unable to accommodate any street trees due to its width and the existing verge infrastructure.

Advertising Signs

The City of Stirling's Advertising Signs Policy (Council Policy 6.1) (ATTACHMENT 7) applies to the subject site.

The Policy provides the following definition for a Created Roof Sign:

> *Sign which is affixed to the facia or parapet, or forms part of a projection above the eaves or ceiling of the building and complements the architectural style of the building, but does not include a Roof Sign.*

The Policy provides the following definition for a Ground Based Sign:

> *Sign which is not attached or otherwise affixed to a building and no portion of which is higher than 1.2 metres above natural ground level.*

The Policy provides the following definition for a Monolith Sign:

> *Sign which is not attached to a building with its largest dimension being vertical. Such a sign may consist of a number of modules and is generally*

uniform in shale from ground level to the top of the sign and is greater than 1.2m in height.

The Policy provides the following definition for a Pylon Sign:

Sign which is affixed to a structure having one or more supports where the overall height (inclusive of the supports) is greater than the sign's horizontal dimension and portion of the sign is greater than 1.2 metres above natural ground level, but does not include a Monolith Sign.

The Policy provides the following definition for a Tethered Sign:

Sign which is suspended from or tethered to any structure, tree or pole (with or without supporting framework) and made of paper, plastic, fabric or similar materials. The term includes lighter than air aerial devices, inflatables, bunting, banners, flags or kites.

The Policy provides the following definition for a Wall Sign:

Sign which is affixed to the external part of a wall of the building but does not project more than 300mm from the wall and no part of which is above the lowest point of the eaves or ceiling of the building.

The table below summarises the proposed signage relative to the development provisions provided for the abovementioned signs in the Policy:

Element	Satisfies Scheme/ Policy	OR	Variation Required	Comment
Created Roof Signs				
Limited to a maximum of one sign per tenancy on a lot.			✓	Six (6) created roof signs are proposed.
Be fixed parallel to the facia or portion of the building to which it is attached.	✓			Parallel as required.
Not project more than 300mm from the portion of the building to which it is attached.	✓			<300mm projection.
Not be within 500mm of either end of the facia, roof or parapet of the building.	✓			Min 0.5m from extent of parapet.
If the sign is less than 7.5m above NGL, limited to $3m^2$ in area.	✓			All created roof signs are less than or equal to $3m^2$.
Ground Based Sign				
Be limited to a maximum of one sign per tenancy on a lot.			✓	Eight (8) ground-based signs are proposed.
Not be permitted if there is a portable ground based sign on the same lot.	✓			No portable ground based signs are proposed.
Have a maximum vertical dimension of 1.2 metres and a maximum area of $1.5m^2$.	✓			Maximum vertical dimension 0.6m and maximum area 0.36sqm.
Advertise only products or	✓			All advertising signs relate to the

Element	Satisfies Scheme/ Policy	OR	Variation Required	Comment
services available from the lot.				proposed business on the subject site.
Monolith Sign				
Be limited to a maximum of one free standing sign on a lot.			✓	Two (2) monolith signs are proposed.
Not be permitted when a pylon sign or hoarding sign is located on the same lot.			✓	A Pylon sign is also proposed.
Not located within 1m of a crossover.	✓			Located more than 1m from the subject site's crossover.
Have a maximum depth of 0.5m.	✓			Maximum depth of 0.2m proposed.
If the lot frontage is between 71m and 100m, then a sign shall be limited to 9.0m in height and 3.0m in width.	✓			Maximum height of 2.3m and maximum width of 0.737m proposed.
Pylon Sign				
Limited to a maximum of one sign per lot.	✓			One pylon sign proposed.
Not permitted if a monolith sign or a hoarding sign is located on the same lot.			✓	A Monolith Sign is also proposed.
Have a minimum clearance of 2.7m from ground level.			✓	Minimum clearance of 2.3m proposed.
Not more than 6.0m above ground level.			✓	The proposed pylon sign is to a height of 8.0m above ground level.
When a lot has an area up to 5000m^2 and one tenancy, a pylon sign shall be limited to 4.0m^2 in area, 6m in height and 2.5m in any dimension.			✓	Total sign area is 10.5m^2, the maximum height proposed is 8.0m, and the maximum dimension proposed is 4.343m.
Tethered Sign				
Be limited to a maximum of one sign per lot.			✓	Two (2) tethered signs are proposed.
Be located wholly within the boundaries of the lot.	✓			Entirely within the subject property.
Have a maximum vertical dimension of 0.75 metres and a maximum area of 2.0m^2.			✓	Maximum vertical dimension of 0.9m and maximum area of 3.24sqm proposed.
Not be less than 2.7 metres or greater than 8.0 metres from ground level.			✓	Minimum height of 1.96m and maximum height 8.5m above ground level.
Not be within 10.0 metres of a Pylon Sign	✓			13.5m from the proposed Pylon sign.
Wall Sign				
Be limited to a maximum of two signs per tenancy on a lot other than a building within a residential zone.	✓			Two wall signs are proposed.
Not exceed 10m^2 in area for			✓	The cumulative area of the two

Element	Satisfies Scheme/ Policy	OR	Variation Required	Comment
non residential areas in aggregate per tenancy.				signs is 3.6m^2.
If place over door openings, have a minimum clearance of 2.7 metres from ground level.	✓			Not applicable as the proposed wall signs are not placed over doors.

The Policy provides the following Objectives against which variations to its development standards may be considered:

- *To ensure that the display of advertisements on private sites does not adversely impact on the amenity of surrounding land;*
- *To avoid a proliferation of signs on individual sites and buildings;*
- *To improve the streetscape of major roads;*
- *Encourage the rationalisation of advertising signs on individual premises;*
- *Encourage the incorporation of advertising signs into the design consideration of buildings;*
- *To ensure that signs are not discriminatory or offensive; and*
- *To ensure that signs only relate to services and products on the site.*

As outlined in the tables above, the signage proposed for the subject site is substantial. However, a large number of these signs are directional and intended to ensure the site's access and egress points, as well as the internal movement network for vehicles, bicycles and pedestrians, is clearly identified. Therefore a lot of the signage, in particular the ground-based signs, will have the effect of ensuring the safety of all customers and staff on site.

With respect to the various other signs, again whilst they do cumulatively represent a significant departure from the development standards of the Policy, in the context of the subject site and the proposed land use the signage is on balance considered reasonable. As there is only one tenancy on the subject site, the signage could be viewed as being less or comparative to what could be supported under the Policy were more tenancies proposed. Additionally, as the subject site has two street frontages, the signage orientates to both streets so only one faced will generally be visible to passersby at any one time. The signage as proposed meets the general development provisions of the Policy and therefore warrants support in that it is therefore deemed to meet the objectives of the Policy.

Conclusion:

The proposed development is considered to be consistent with the objectives of the applicable planning framework, including the City's Local Planning Scheme No. 3, the Mixed Business zone, the Mirrabooka Regional Centre Special Control Area, and the objectives of the relevant local planning policies. Notwithstanding the discretionary land use, as well as the variations to the development standards of some of the applicable policies, the development is recommended for approval, subject to relevant conditions and advice notes.


ROAD
CHESTERFIELD
YIRRIGAN
Drive
56
2378 m²
Brick Fibro & Iron Store
Approx FL 65.85
Colorbond Store
Approx FL 65.50
Cool Room
Sea Container
Covered Concrete
Garden
Ramp
Paving
Concrete
Concrete Ramp
Concrete Path
Bitumen
Limestone Retaining Wall
Low Colorbond Fence
Edge Bitumen
Overhead Sign
Power Pole
Telstra MH
Brick Pursper Wall
162°15'10"
139°52'10"
144°25'21"
153°35'
137°55'
ION SERVICES PTY LTD
LICENSED SURVEYORS
14, 23 Gibberd Road, Balcatta WA 6021
Facsimile (08) 9240 2363
CLIENT: Hindley & Associates
PROJECT: Mirrabooka
Detailed Survey of Lot 56 & Portion Lot 57
Chesterfield Road, Mirrabooka
Date: 13 -7 - 2012
Scale: 1 : 200 @ A1
Datum:
Horiz - PCG94
Vertl - AHD
FB
LB
Ref No. 6312/712-01
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23 JAN 2013
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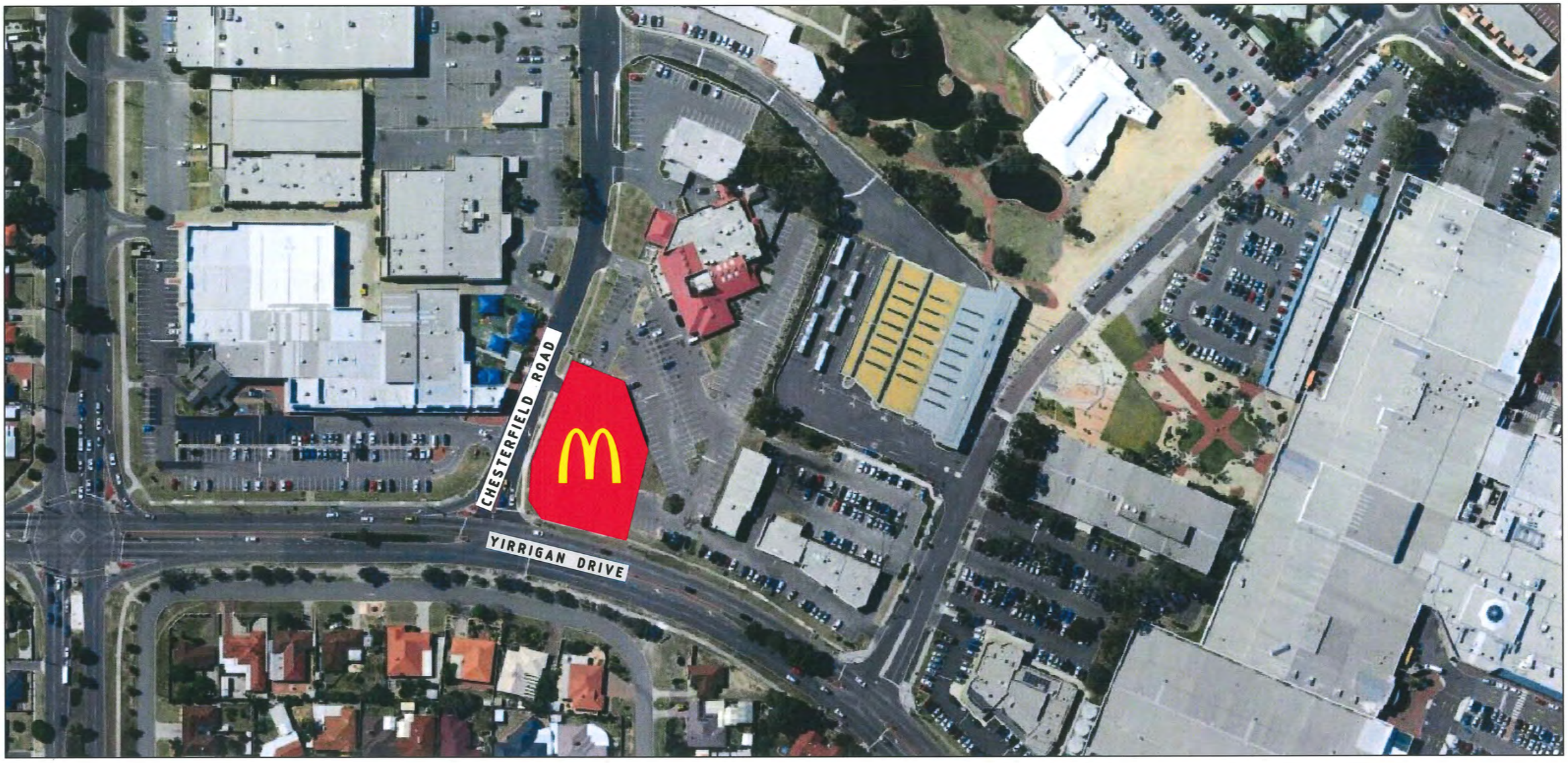

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NO.	AMENDMENT	DATE	INT
-	-	-	-

PROPOSED McDONALD'S RESTAURANT, LOT 56, CNR YIRRIGAN DVE & CHESTERFIELD RD MIRRABOOKA WA

LOCALITY PLAN 0472

○ UNMODIFIED MASTER DRAWING	DRAWN	DIA
○ PROJECT SPECIFIC DRAWING	CHECKED	AJJ
	CREATED	16.11.12
DWG REVISION -	SCALE	NTS
SERIES	DRAWING NO. DA01	AMDT. -

PROJECT CONSULTANT ARCHITECTURAL
HINDLEY & ASSOCIATES PTY LTD
BUILDING DESIGNERS
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NEDLANDS WA 6009
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SITE DETAILS:

LOT 56 DIAGRAM 62810

LOT AREA:	2377 m2
BUILDING GF GFA:	356 m2
BUILDING FF GFA:	138 m2
CORRAL GFA:	26 m2
TERRACE GFA:	41 m2
PLAYLAND GFA:	26 m2
TOTAL GFA:	587m2

CAR PARKING:

2500 X 5500 PARKING BAYS:	24
2500 X 4800 (600mm OVERHANG AVAILABLE) PARKING BAYS:	8
2400 X 4800 ACCESSIBLE BAY:	1
DRIVE-THRU STACK:	11
DRIVE-THRU WAIT BAYS:	2
STAFF BAYS (LOADING BAY):	2
TOTAL PARKING BAYS:	46

RESTAURANT SEATING No.

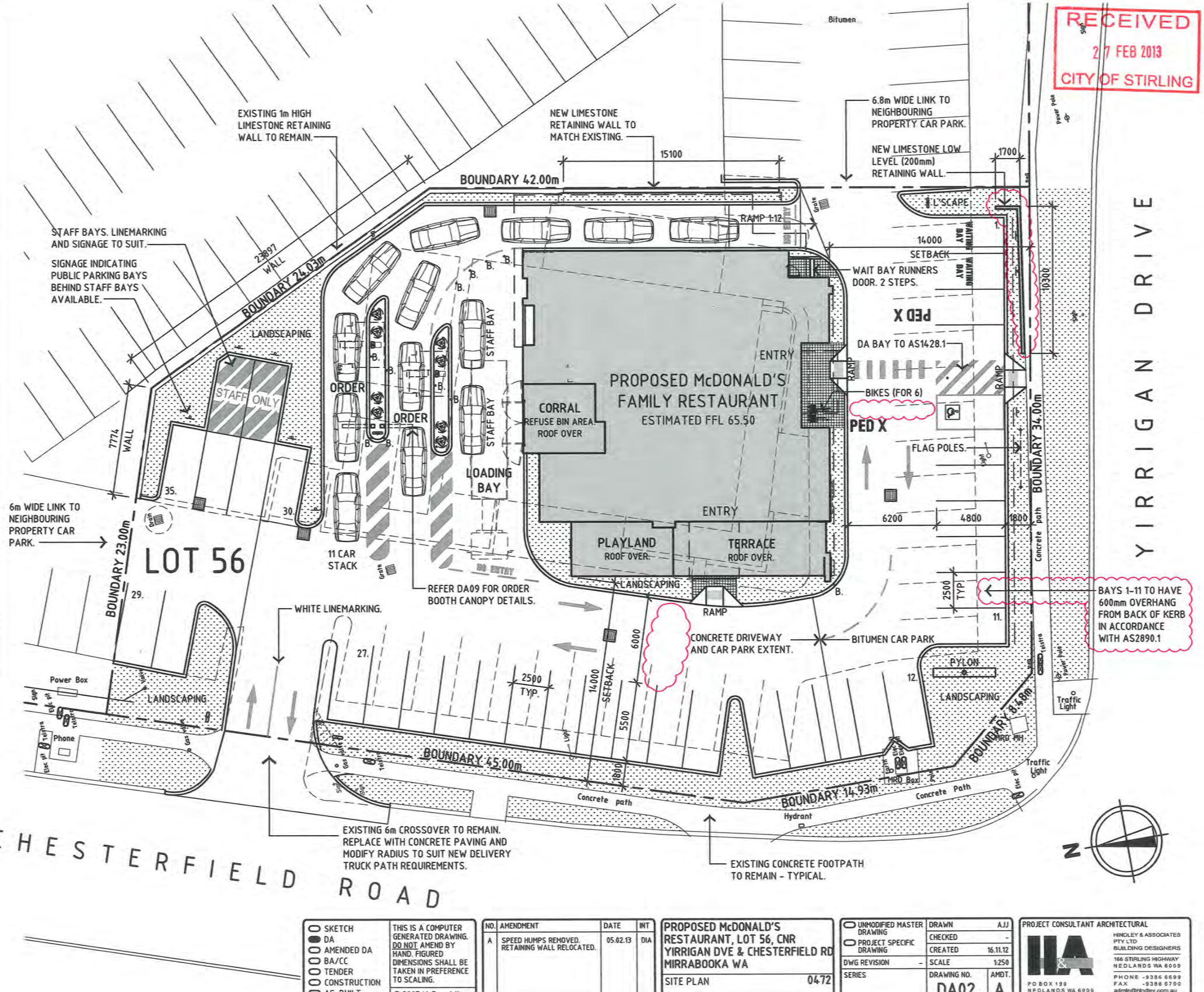
INTERNAL DINING:	83
TERRACE:	34
PLAYLAND:	6
TOTAL SEATS:	123

NOTES:

1. STORMWATER AND FINISHED FLOOR LEVEL TO BE DESIGNED BY CIVIL ENGINEER. DOCUMENTATION SUBMITTED WITH BUILDING LICENCE APPLICATION.
2. EXISTING BUILDING AND SITE TO BE DEMOLISHED AND CLEARED.
3. SITE AND BUILDING SIGNAGE SUBJECT TO SEPARATE APPLICATION.

LEGEND:

- STORMWATER SUMP/ SOAKWELL. LOCATION TO BE CONFIRMED WITH ENGINEER.
- B. TRAFFIC BOLLARD



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A	SPEED HUMPS REMOVED. RETAINING WALL RELOCATED.	05.02.13	DIA

PROPOSED McDONALD'S RESTAURANT, LOT 56, CNR YIRRIGAN DVE & CHESTERFIELD RD MIRRABOOKA WA

SITE PLAN 0472

○ UNMODIFIED MASTER DRAWING	DRAWN AJJ
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BUILDING DESIGNERS
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NEDLANDS WA 6009
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LANDSCAPING:

404m2 (SOFT ONLY) = 17% OF SITE

NEW TREE
NEW SHADE TREES.

NEW SHRUBS
NEW LOW LEVEL LANDSCAPING. SPECIES VARY.

EXISTING VERGE LAWN TO REMAIN.

STAFF ONLY

PROPOSED McDONALD'S FAMILY RESTAURANT

CORRAL
REFUSE BIN AREA
ROOF OVER

PLAY
ROOF OVER.

TERRACE
ROOF OVER.

NO ENTRY

NO ENTRY

WAITING BAY

WAITING BAY

PED X

PED X

YIRRIGAN DRIVE

CHESTERFIELD ROAD

N

○ SKETCH ● DA ○ AMENDED DA ○ BA/CC ○ TENDER ○ CONSTRUCTION ○ AS-BUILT	THIS IS A COMPUTER GENERATED DRAWING. DO NOT AMEND BY HAND. FIGURED DIMENSIONS SHALL BE TAKEN IN PREFERENCE TO SCALING. © 2007 McDonald's

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A	PLAN CHANGES ONLY WHERE CLOUDED.	05.02.13	DIA

PROPOSED McDONALD'S RESTAURANT, LOT 56, CNR YIRRIGAN DVE & CHESTERFIELD RD MIRRABOOKA WA

LANDSCAPING PLAN 0472

○ UNMODIFIED MASTER DRAWING ○ PROJECT SPECIFIC DRAWING	DRAWN	AJJ
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	CREATED	16.11.12
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SERIES	DRAWING NO.	AMDT.
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PROPOSED McDONALD'S
FAMILY RESTAURANT

CORRAL
REFUSE BIN AREA.
ROOF OVER

PLAY
ROOF OVER.

TERRACE
ROOF OVER.

144 TOTAL SEATS

STAFF ONLY

PED X

PED X

WAITING BAY

WAITING BAY

ALLEY 9M

MCD-14 PALLET
MD

MCD-14 PALLET
MD

MCD-14 PALLET
MD

MCD-14 PALLET
MD

TRUCK EXITING IN FORWARD GEAR.

13.8m LONG SEMITRAILER ENTERING
SITE FROM CHESTERFIELD ROAD.

YIRRIGAN DRIVE

CHESTERFIELD
ROAD

N

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PROPOSED McDONALD'S
RESTAURANT, LOT 56, CNR
YIRRIGAN DVE & CHESTERFIELD RD
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TRUCK PATHS 0472

○ UNMODIFIED MASTER DRAWING	DRAWN	AJJ
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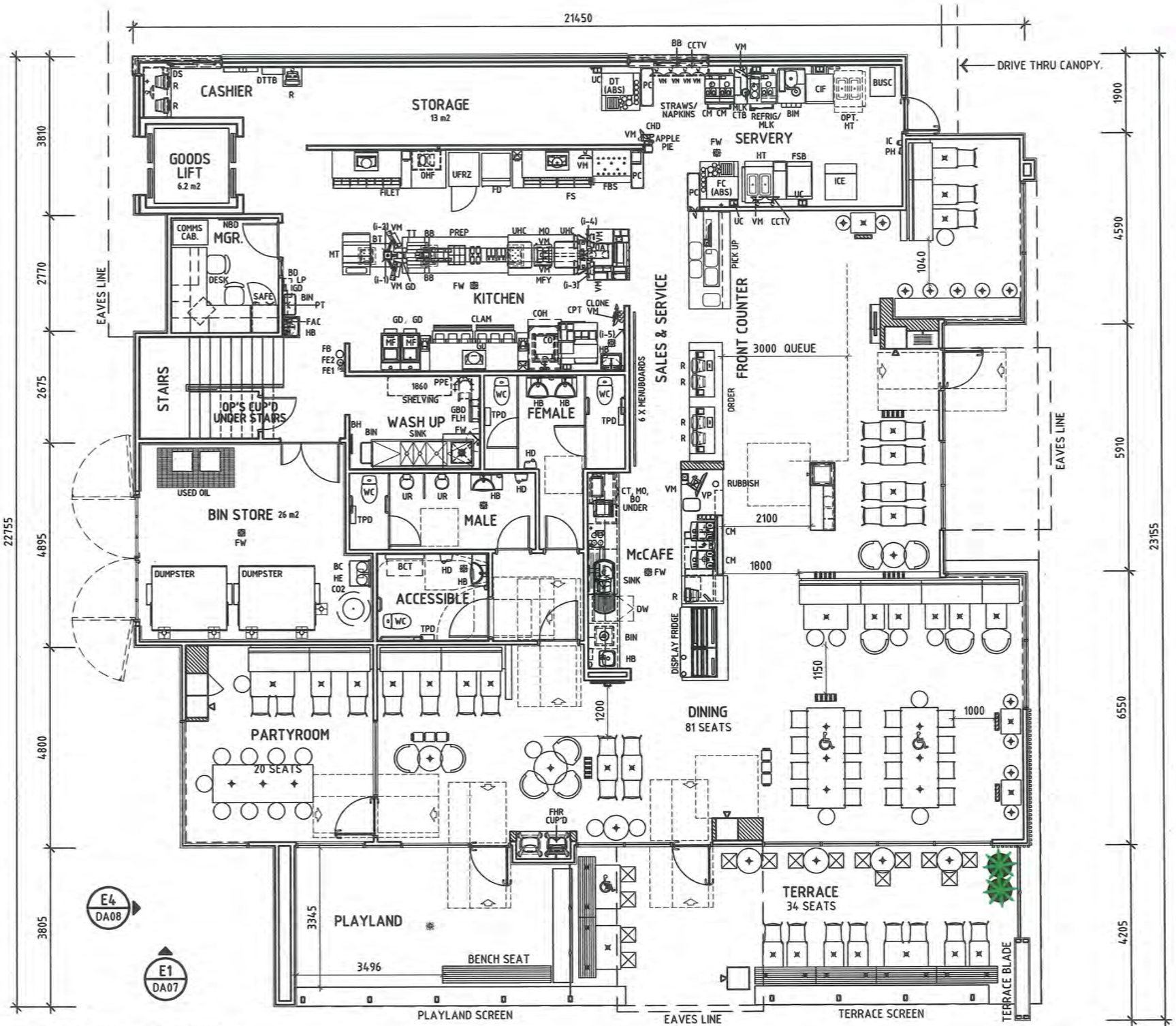
BUILDING DESIGNERS
166 STIRLING HIGHWAY
NEDLANDS WA 6009
PO BOX 199
NEDLANDS WA 6909
PHONE -9386 6699
FAX -9386 6700
admin@hindley.com.au

LEGEND

ABS – AUTOMATIC BEVERAGE SYSTEM.
BB – BUMPBAR
BIM – BLENDED ICE MACHINE
BCT – BABY CHANGE TABLE.
BD – BUNDY CLOCK.
BH – BROOM HOLDER.
BT – BUN TROLLEY.
BUSC – BACK-UP STORAGE CABINET
CARB – CARBONATORS
CCTV – CCTV (SECURITY) CAMERA.
CF – COMBI FREEZER
CHD – CUP HOLDER DISPENSER.
CIF – CENTRE ISLAND FRIDGE.
CLAM – CLAMSHELL GRILL.
CM – COFFEE MACHINE.
COND – CONDIMENT TRAY.
CO – COMBI OVEN
COH – COMBI OVEN HOOD.
CP – CONTROL PANEL
CPT – COMBI PREP TABLE
CT – CONTACT TOASTER.
CTB – COFFEE & TEA BREWER.
DP – DOWNPIPE.
DS – DROP SAFE.
DT – DRINKS TOWER.
DTTB – DRIVE THRU TIMER BASE STATION.
DW – DISHWASHER.
EMC – ELECTRICAL METERING CUBICLE.
FAC – FIRST AID CABINET.
FB – FIRE BLANKET.
FBS – FRY BAGGING STATION.
FD – FRY DISPENSER.
FSB – FROZEN SPARKLING BEVERAGE.
FE1 – C02 FIRE EXTINGUISHER.
FE2 – WET CHEMICAL FIRE EXTINGUISHER.
FILET – PIE / FILET / CHICKEN STATION.
FLH – FRY LID HOLDER.
FRP – FRAPPE.
FS – FRY STATION.
FW – FLOOR WASTE.
GBD – GARBAGE BAG DISPENSER.
GD – GLOVES DISPENSER.
H – HELIUM OUTLET.
HB – HAND BASIN.
HCH – HIGH CHAIR.
HD – HAND DRYER.
HLZ – HEATED LANDING ZONE.
HT – HEAT TREAT.
HWU – HOT WATER UNIT.
It (x)– Ifona
LP – LABEL PRINTER.
MCF – McFLURRY.
MF – MEAT FREEZER.
MFY – MADE FOR YOU EQUIP. LINE.
MLK – MILK DISPENSER.
MO – MICROWAVE OVEN.
MT – MUFFIN TOASTER TROLLEY.
NBD – NOTICE BOARD.
OHF – OVERHEAD FREEZER.
OR – OVEN COOLING RACK
P – PALLET.
PC – PRESENTER CART
PCS – PEST CONTROL SYSTEM.
PFC – POWER FACTOR CORRECTION SYSTEM
PH – PHONE.
PPE – PERSONAL PROTECTIVE EQUIPMENT HANGER.
PRE – DRINKS PRECHILLER (OPTIONAL).
PT – PAPER TOWEL DISPENSER.
R – CASH REGISTER.
RO – REVERSE OSMOSIS UNIT (OPTIONAL)
SBD – SWITCHBOARD.
SD – SOAP DISPENSER.
TPD – TOILET PAPER DISPENSER.
TR – TOMATO RACK.
TT – TOASTER TABLE.
UC – UNIVERSAL CHASE
UFRZ – UPRIGHT FREEZER.
UHC – UNIVERSAL HOLDING CABINET.
UR – URINAL.
VM – VIDEO MONITOR.
VP – VENT PIPE.
WC – WATER CLOSET.
WM – WASHING MACHINE.

DDA CIRCULATION SPACE INDICATED THUS:
(ARROW INDICATES DIRECTION OF APPROACH)





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CORRAL LEGEND

BC – BEVERAGE COMPRESSOR.
CO2 – BULK C02 TANK.
DP – DOWNPIPE.
FW – FLOOR WASTE.
HC – HOSECOCK.
HE – HELIUM TANKS.
ICB – IRRIGATION CONTROL BOX.
WPBP – WATER PRESSURE BOOSTER PUMP (OPTIONAL).

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PROPOSED McDONALD'S RESTAURANT, LOT 56, CNR YIRRIGAN DVE & CHESTERFIELD RD MIRRABOOKA WA

GROUND FLOOR PLAN 0472

○ UNMODIFIED MASTER DRAWING	DRAWN	AJJ
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	CREATED	10.11.12
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SERIES	DRAWING NO.	AMDT.
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BUILDING DESIGNERS
166 STIRLING HIGHWAY
NEDLANDS WA 6009
PHONE -9386 6699
FAX -9386 6700
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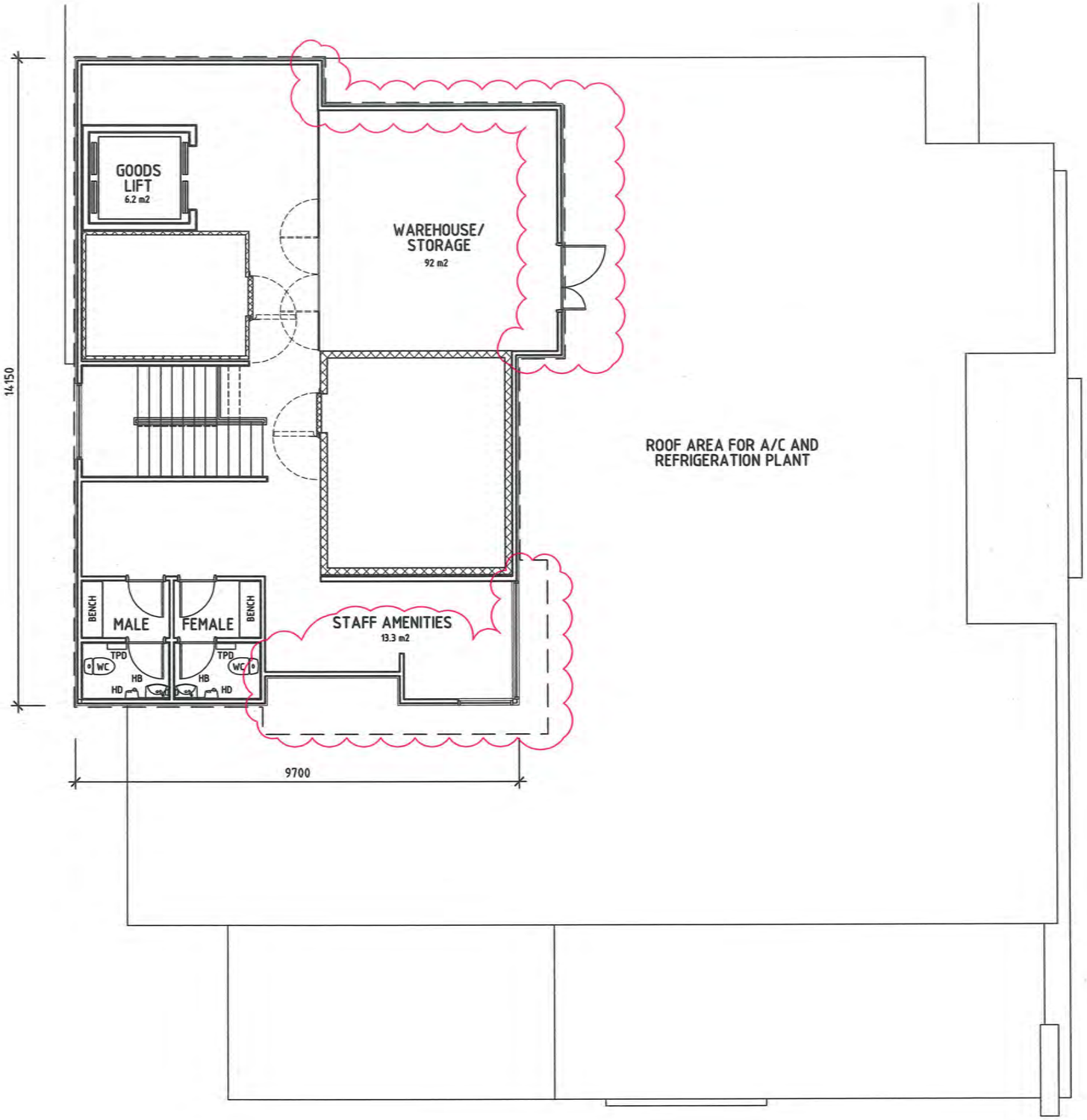



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FIRST FLOOR PLAN 0472

○ UNMODIFIED MASTER DRAWING	DRAWN	AJJ
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BUILDING DESIGNERS
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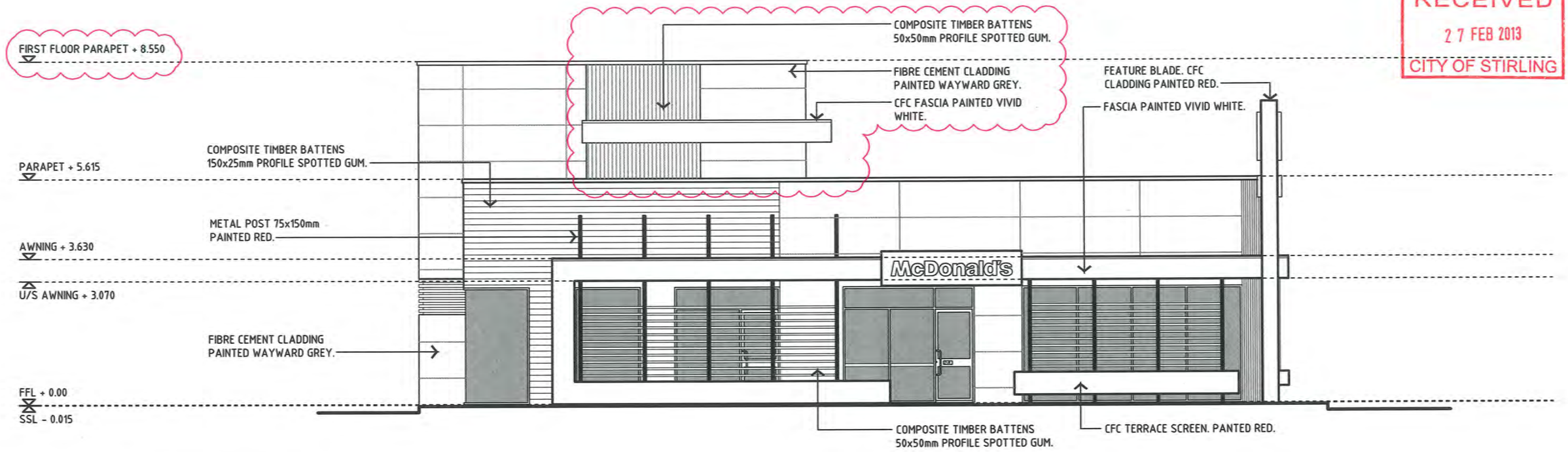
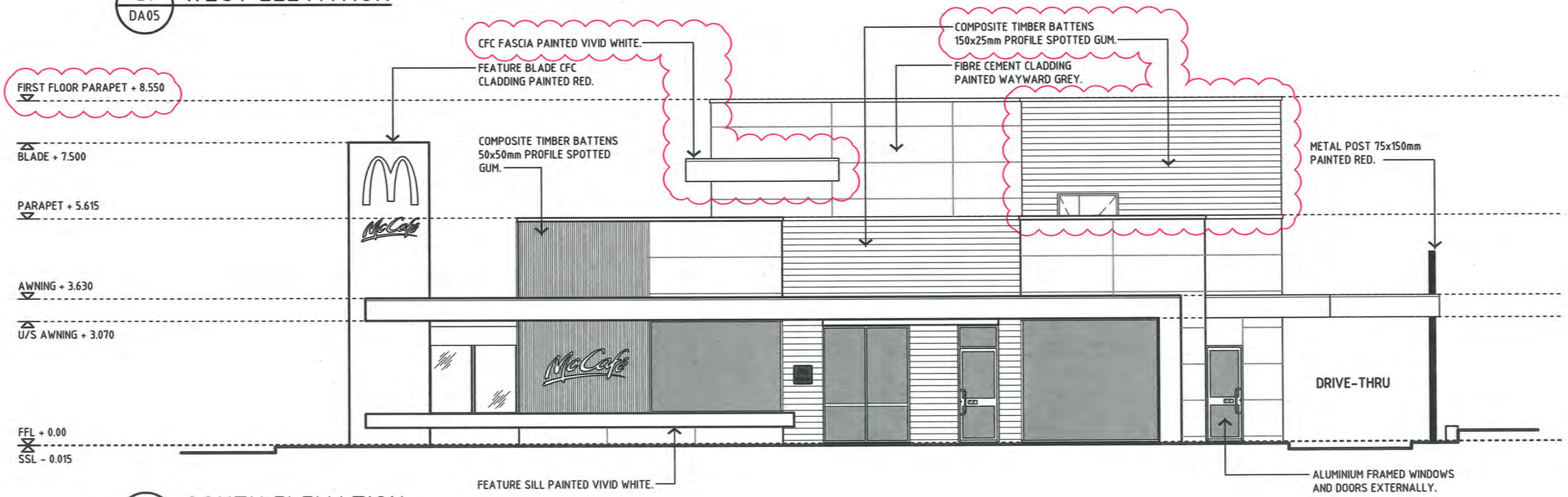


E1 DA05 WEST ELEVATION



E2 DA05 SOUTH ELEVATION

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PROPOSED McDONALD'S RESTAURANT, LOT 56, CNR YIRRIGAN DVE & CHESTERFIELD RD MIRRABOOKA WA

ELEVATIONS 1 AND 2 — 0472

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BUILDING DESIGNERS
165 STIRLING HIGHWAY
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PHONE -9386 6699
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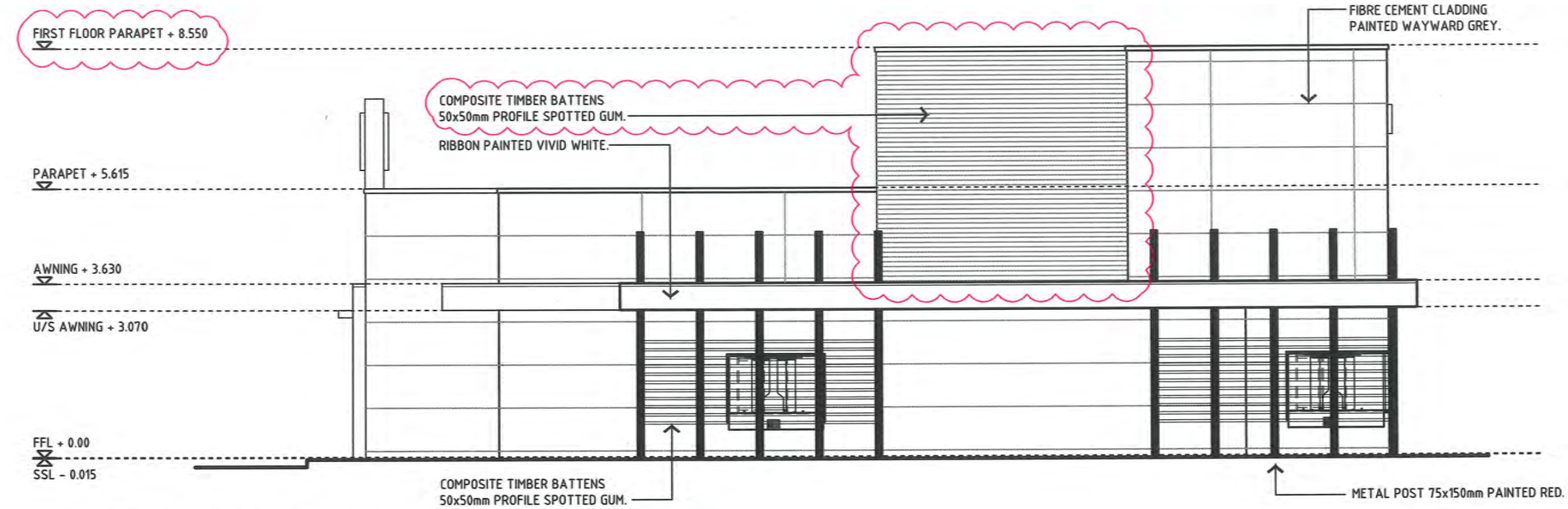
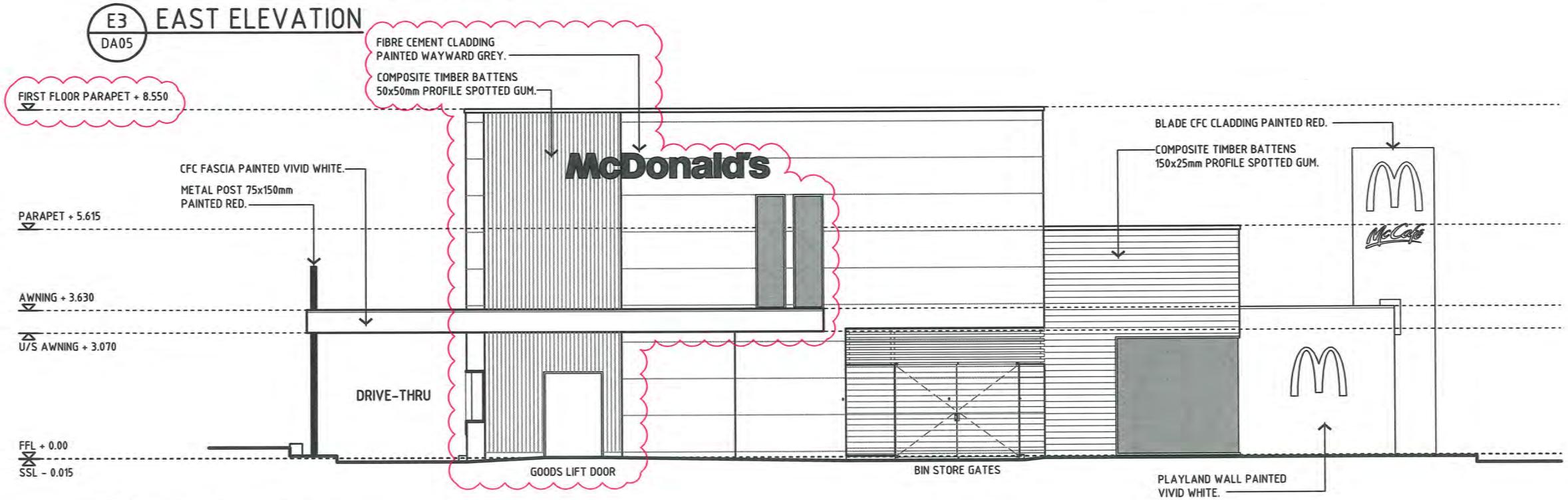


E3 / DA05 EAST ELEVATION



E4 / DA05 NORTH ELEVATION

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PROPOSED McDONALD'S RESTAURANT, LOT 56, CNR YIRRIGAN DVE & CHESTERFIELD RD MIRRABOOKA WA

ELEVATIONS 3 AND 4 — 0472

○ UNMODIFIED MASTER DRAWING	DRAWN	AJJ
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	CREATED	30.07.12
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	DA08	A

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BUILDING DESIGNERS
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NEDLANDS WA 6009
PHONE -9386 6699
FAX -9386 6700
admin@hindley.com.au
PO BOX 199
NEDLANDS WA 6909

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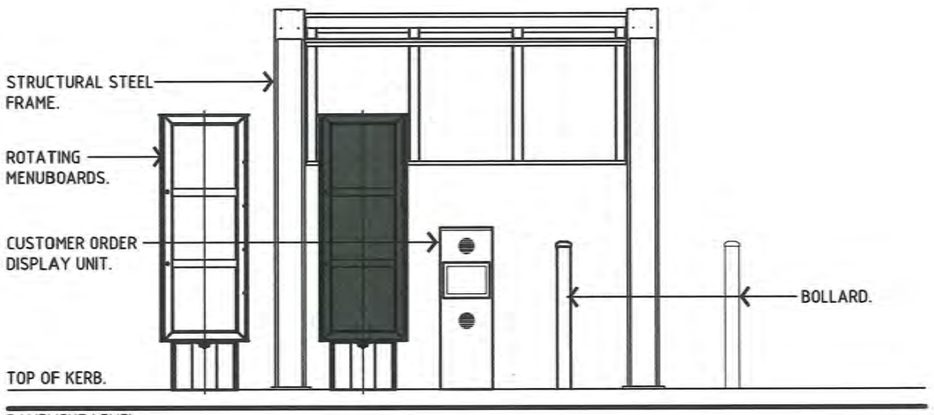
CITY OF STIRLING

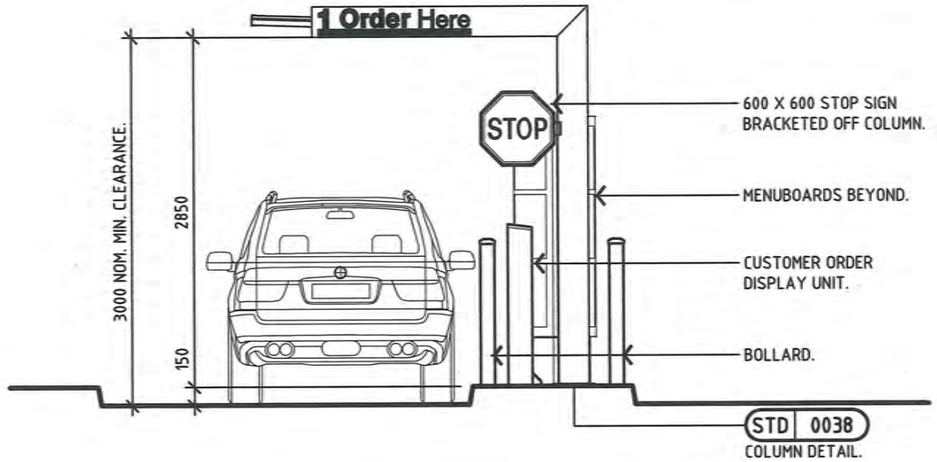


COD UNIT WITH AWNING (FRONT ELEVATION)

STD 0021 C

SCALE 1:50

STD 9010



COLUMN DETAIL.

COD UNIT WITH AWNING (APPROACH SIDE ELEVATION)

STD 0022 E

SCALE 1:50

○ SKETCH ● DA ○ AMENDED DA ○ BA/CC ○ TENDER ○ CONSTRUCTION ○ AS-BUILT	THIS IS A COMPUTER GENERATED DRAWING. DO NOT AMEND BY HAND. FIGURED DIMENSIONS SHALL BE TAKEN IN PREFERENCE TO SCALING. © 2007 McDonald's

NO.	AMENDMENT	DATE	INT
-	-	-	-

PROPOSED McDONALD'S RESTAURANT, LOT 56, CNR YIRRIGAN DVE & CHESTERFIELD RD MIRRABOOKA WA

COD UNIT DETAILS 0472

○ UNMODIFIED MASTER DRAWING ○ PROJECT SPECIFIC DRAWING	DRAWN	AJJ
	CHECKED	-
	CREATED	07.11.12
DWG REVISION 1	SCALE	AS NOTED.
SERIES	DRAWING NO.	AMDT.
	DA09	-

PROJECT CONSULTANT ARCHITECTURAL
HINDLEY & ASSOCIATES PTY LTD
BUILDING DESIGNERS
166 STIRLING HIGHWAY
NEDLANDS WA 6009
PHONE -9386 6699
FAX -9386 6700
admin@hindley.com.au
PO BOX 199
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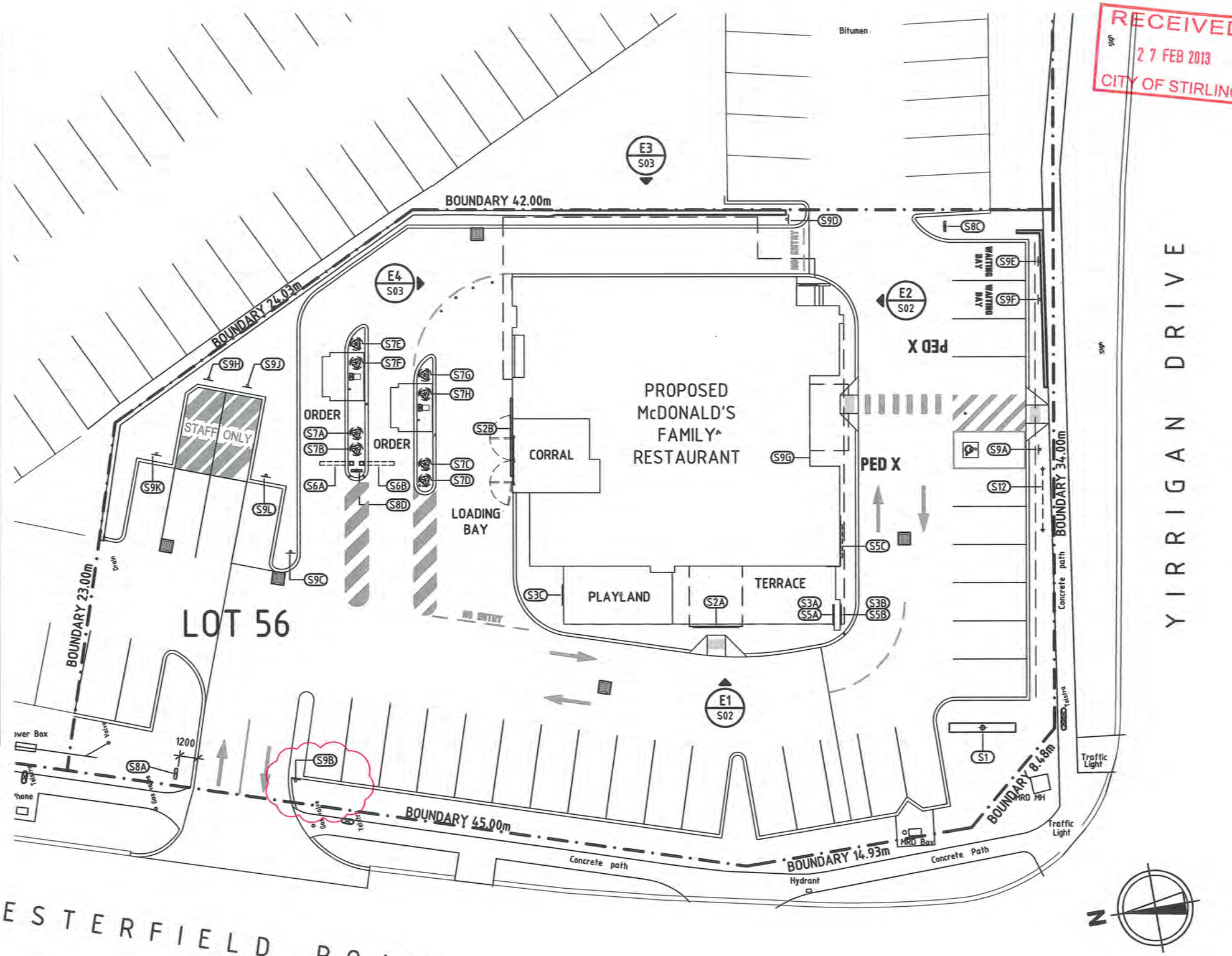
SIGNAGE SCHEDULE		ILLUMINATION
TAG	DESCRIPTION	
S1	PYLON SIGN. 8m O/A HEIGHT.	YES
S2A	FASCIA SIGN. 3.00 X 0.37m HIGH. WORDING: "McDONALD'S".	
S2B	WALL SIGN. 5.00 X 0.61m HIGH. WORDING: "McDONALD'S".	
S3A, S3B	BLADE SIGN. 1.37 X 1.19m HIGH "M" LOGO.	
S3C	WALL SIGN. 1.37 X 1.19m HIGH "M" LOGO.	
S5A, S5B	BLADE SIGN. 1.43 X 0.61m HIGH. WORDING: "McCAFE".	
S5C	WALL SIGN. 2.16 X 0.92m HIGH. WORDING: "McCAFE".	
S6A, S6B	HEIGHT CLEARANCE GANTRY.	
S7A S7B, S7C, S7D	ROTATING PRESELL MENUBOARD.	
S7E, S7F, S7G, S7H	ROTATING MENUBOARD.	
S8A	DIRECTIONAL SIGN. 0.7 X 2.3m HIGH. DOUBLE SIDED. WORDING: "WELCOME / WELCOME".	
S8C	DIRECTIONAL SIGN. 0.7 X 2.3m HIGH. SINGLE SIDED. WORDING: "THANKYOU".	
S8D	DIRECTIONAL SIGN. 0.7 X 2.3m HIGH. DOUBLE SIDED. WORDING: "ANY LANE, ANY TIME".	
S9A	ACCESSIBLE PARKING AS SPECIFIED.	NO
S9B	STOP SIGN.	
S9C, S9D	NO PEDESTRIAN ACCESS SIGN AS SPECIFIED.	
S9E, S9F	WAITING BAYS.	
S9G	BIKE RACK AS SPECIFIED.	
S9H, S9J	"STAFF ONLY BAYS" SIGNS	
S9K, S9L	"PUBLIC PARKING BAYS AVAILABLE" SIGNS	
S12	FLAGPOLES AND BANNER.	

LEGEND

(SX) SIGNAGE TAG.



○ SKETCH	THIS IS A COMPUTER GENERATED DRAWING. DO NOT AMEND BY HAND. FIGURED DIMENSIONS SHALL BE TAKEN IN PREFERENCE TO SCALING.
● DA	
○ AMENDED DA	
○ BA/CC	
○ TENDER	
○ CONSTRUCTION	
○ AS-BUILT	© 2007 McDonald's

NO.	AMENDMENT	DATE	INT
A	PLAN CHANGES ONLY WHERE CLOUDED.	05.02.13	DIA
B	PYLON AND S8B SIGN.	27.02.13	DIA

PROPOSED McDONALD'S RESTAURANT, LOT 56, CNR YIRRIGAN DVE & CHESTERFIELD RD MIRRABOOKA WA

PROPOSED SIGNAGE SITE PLAN 0472

○ UNMODIFIED MASTER DRAWING	DRAWN	DIA
○ PROJECT SPECIFIC DRAWING	CHECKED	AJJ
	CREATED	23.11.12
DWG REVISION -	SCALE	1:250
SERIES	DRAWING NO.	AMDT.
	S01	B

PROJECT CONSULTANT ARCHITECTURAL
HINDLEY & ASSOCIATES PTY LTD
BUILDING DESIGNERS
166 STIRLING HIGHWAY
NEDLANDS WA 6009
PHONE -9386 6699
FAX -9386 6700
admin@hindley.com.au
PO BOX 198
NEDLANDS WA 6909

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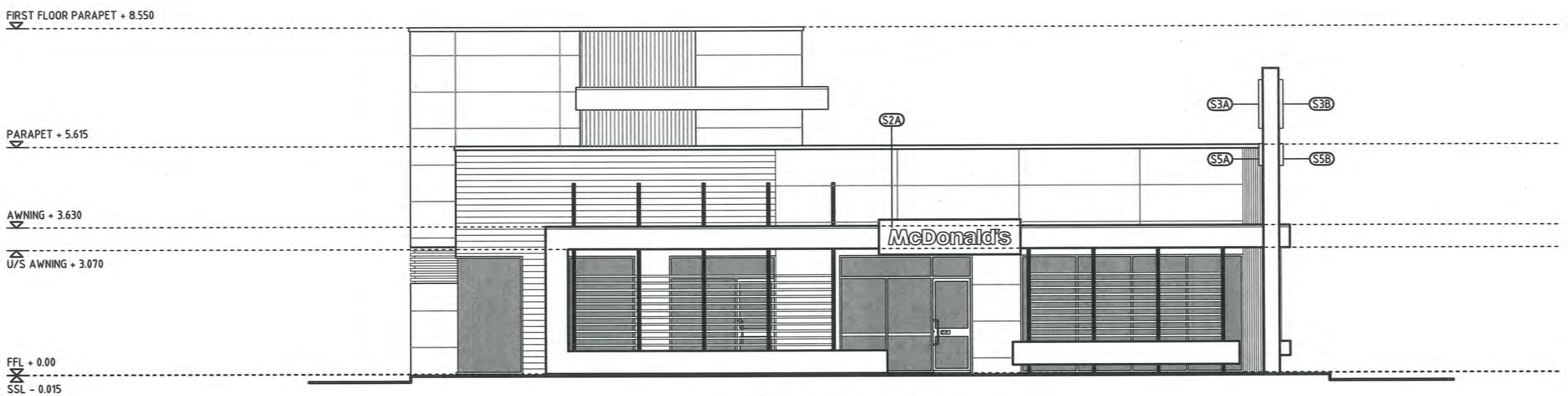
LEGEND

(SX) SIGNAGE TAG.

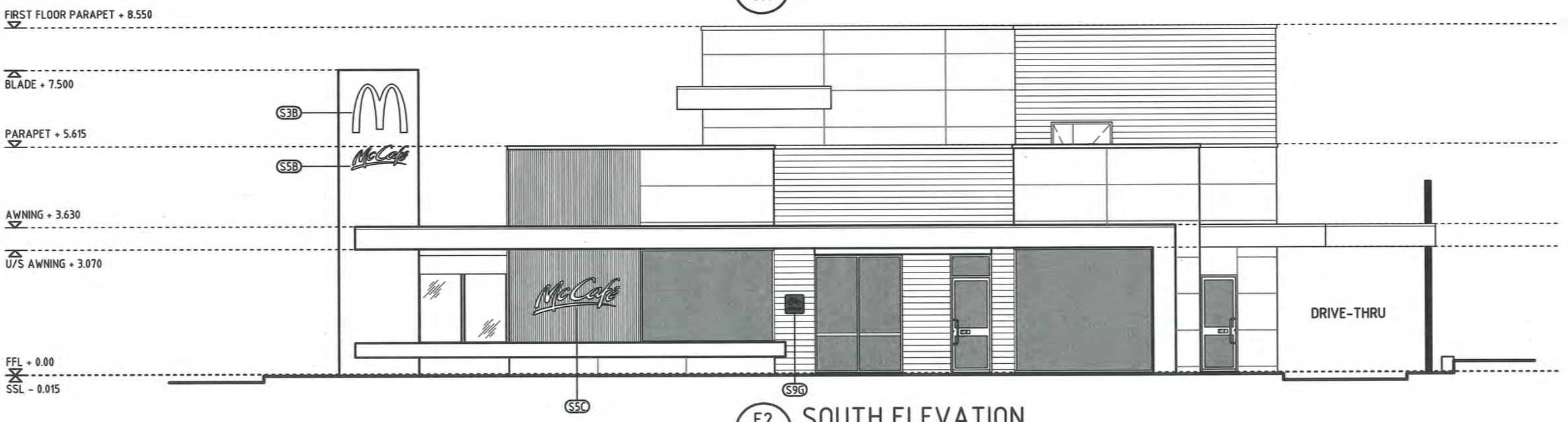
REFERENCES

FOR SIGNAGE PLAN

(REFER DWG | S01)



E1 S01 WEST ELEVATION



E2 S01 SOUTH ELEVATION

○ SKETCH ● DA ○ AMENDED DA ○ BA/CC ○ TENDER ○ CONSTRUCTION ○ AS-BUILT	THIS IS A COMPUTER GENERATED DRAWING. DO NOT AMEND BY HAND. FIGURED DIMENSIONS SHALL BE TAKEN IN PREFERENCE TO SCALING. © 2007 McDonald's

NO.	AMENDMENT	DATE	INT

PROPOSED McDONALD'S RESTAURANT, LOT 56, CNR YIRRIGAN DVE & CHESTERFIELD RD MIRRABOOKA WA

ELEVATIONS 1 AND 2 — 0472

○ UNMODIFIED MASTER DRAWING ○ PROJECT SPECIFIC DRAWING	DRAWN	DIA
	CHECKED	AJJ
	CREATED	23.11.12
DWG REVISION -	SCALE	1:100
SERIES	DRAWING NO.	AMDT.
	S02	-

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HINDLEY & ASSOCIATES PTY LTD
BUILDING DESIGNERS
166 STIRLING HIGHWAY
NEDLANDS WA 6009
PO BOX 199
NEDLANDS WA 6909
PHONE -9386 6699
FAX -9386 6700
admin@hindley.com.au

LEGEND

(SX) SIGNAGE TAG.

REFERENCES

FOR SIGNAGE PLAN

(REFER DWG | S01)

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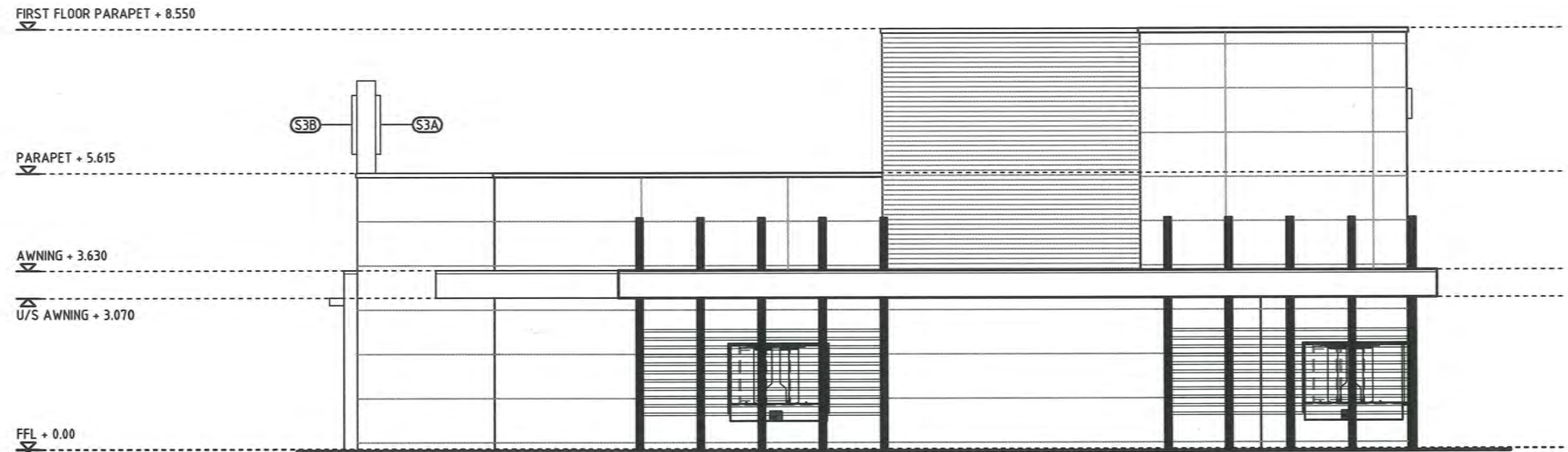
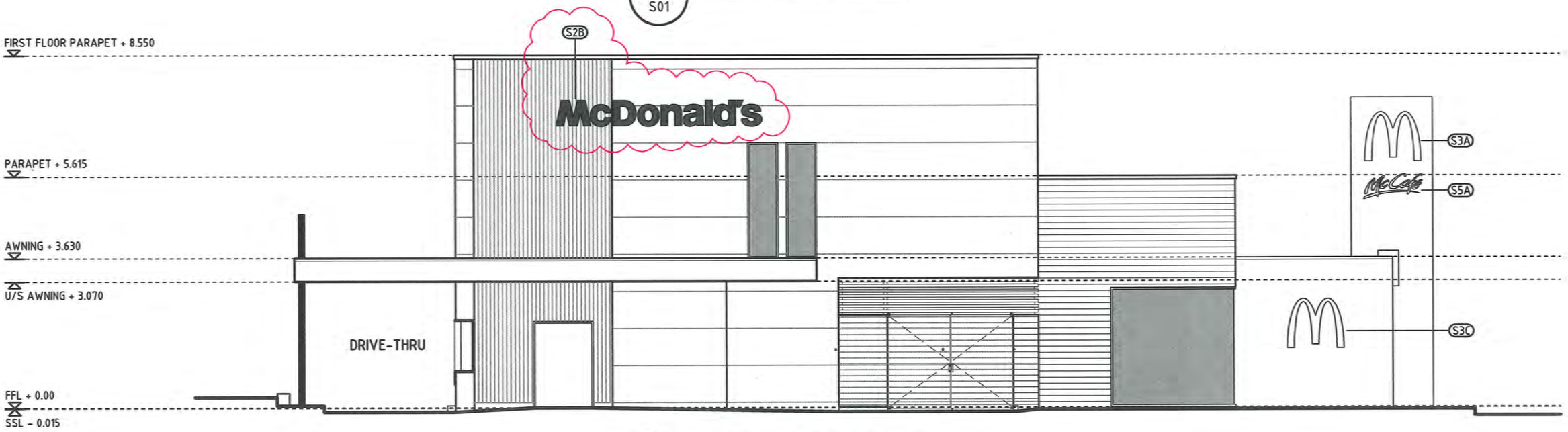


E3 / S01 EAST ELEVATION



E4 / S01 NORTH ELEVATION

○ SKETCH	THIS IS A COMPUTER GENERATED DRAWING. DO NOT AMEND BY HAND. FIGURED DIMENSIONS SHALL BE TAKEN IN PREFERENCE TO SCALING.
● DA	
○ AMENDED DA	
○ BA/CC	
○ TENDER	
○ CONSTRUCTION	
○ AS-BUILT	© 2007 McDonald's

NO.	AMENDMENT	DATE	INT
A	S2B RELOCATED	27.02.13	AJJ

PROPOSED McDONALD'S RESTAURANT, LOT 56, CNR YIRRIGAN DVE & CHESTERFIELD RD MIRRABOOKA WA

ELEVATIONS 3 AND 4 — 0472

○ UNMODIFIED MASTER DRAWING		DRAWN	DIA
○ PROJECT SPECIFIC DRAWING		CHECKED	AJJ
		CREATED	23.11.12
DWG REVISION	-	SCALE	1:100
SERIES		DRAWING NO.	S03
		AMDT.	A

PROJECT CONSULTANT ARCHITECTURAL
HINDLEY & ASSOCIATES PTY LTD
BUILDING DESIGNERS
166 STIRLING HIGHWAY
NEDLANDS WA 6009
PHONE -9386 6699
FAX -9386 6700
admin@hindley.com.au
PO BOX 199
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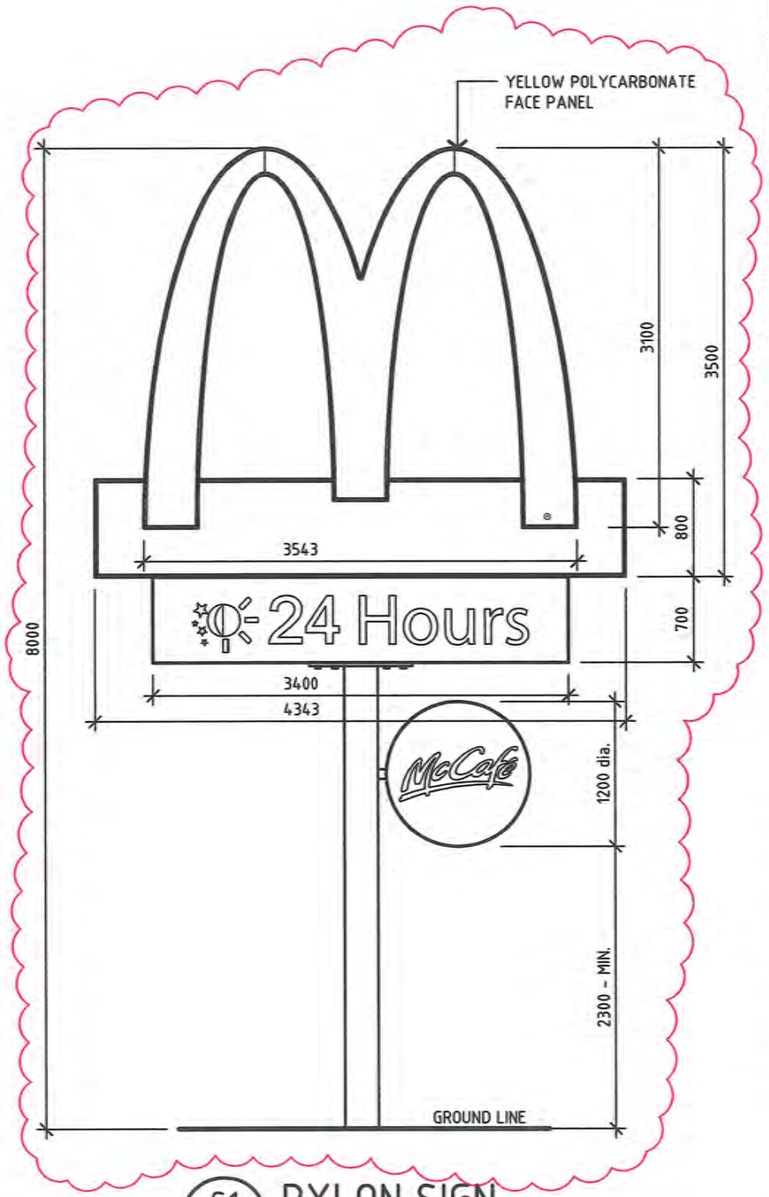
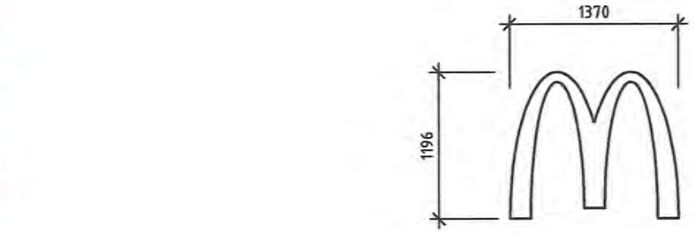
COLOUR	DULUX CODE	PMS CODE	VINYL COLOUR
RED.	#88216.	#485C.	3M DARK RED 3630-73.
YELLOW.	#88217.	#109.	3M YELLOW 3630-015.
WHITE.	VIVID WHITE.	-	-
BLACK.	-	PROCESS BLACK.	3M NON - TRANSLUCENT BLACK 3650-12.
McCAFE BURGUNDY.	10yr09/250.	#491C.	3M NON - TRANSLUCENT BURGUNDY 3630-49.
24/7 YELLOW.	-	#123.	-
24/7 BLUE	-	#2757	C100 M94 Y0 K29

SIGNAGE COLOUR SPECIFICATION

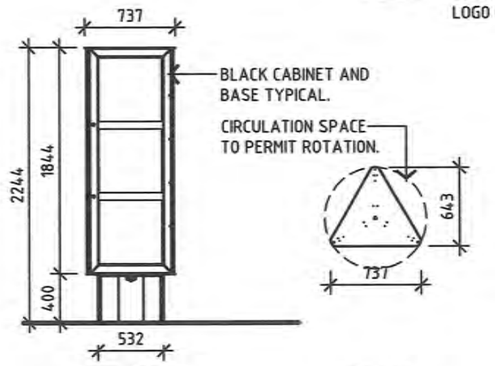


S1 / S01 PYLON SIGN

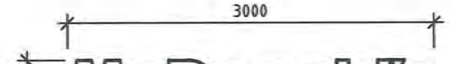


S3 / S01 BLADE & WALL SIGN

YELLOW FLAT FACE POLYCARBONATE LOGO. INTERNALLY ILLUMINATED. YELLOW LOGO ON SOLID RED BACKGROUND.



S7 / S01 ROTATING MENUBOARD / TRANSLITE



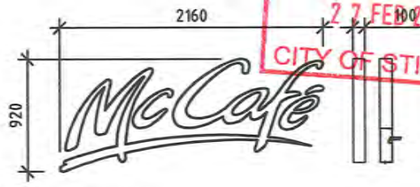
S2A / S01 WALL SIGN

INDIVIDUAL POLYCARBONATE LETTERING. INTERNALLY ILLUMINATED. WHITE LETTERS.



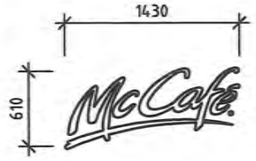
S2B / S01 WALL SIGN

INDIVIDUAL POLYCARBONATE LETTERING. INTERNALLY ILLUMINATED. WHITE LETTERS.



S5C / S01 WALL SIGN

INDIVIDUAL HALO ILLUMINATED REVERSE PAN FABRICATED ALUMINIUM CHANNEL LETTERS. BRUSHED ALUMINIUM FINISH.

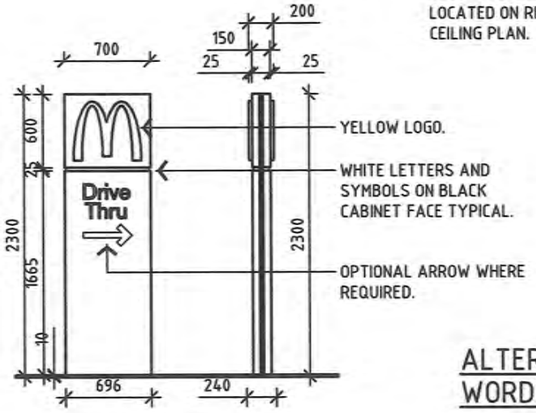


S5A / S01 S5B / S01 BLADE SIGN

INDIVIDUAL HALO ILLUMINATED REVERSE PAN FABRICATED ALUMINIUM CHANNEL LETTERS. BRUSHED ALUMINIUM FINISH.

NOTE

SIGNS S5 WILL REQUIRE REMOTE TRANSFORMERS. TRANSFORMERS SHALL BE CONCEALED AND ACCESSIBLE VIA ACCESS PANELS AS LOCATED ON REFLECTED CEILING PLAN.



S8 / S01 DIRECTIONAL SIGN

FABRICATED ALUMINIUM CABINET FACES SHALL WITH WET SPRAY FINISH. FLAT BAR ALUMINIUM EDGEBANDING WITH WET SPRAY FINISH. LOGO, LETTERS AND SYMBOLS SHALL BE PUSH THROUGH ACRYLIC TYPE. LETTERS AND SYMBOLS SHALL BE INTERNALLY ILLUMINATED BY 240 VOLT FLUORESCENT TUBING.

ALTERNATIVE WORDING

(ALL IN TITLE CASE):
"WELCOME",
"NO ENTRY",
"THANK YOU",
"ANY LANE, ANY TIME"

- SKETCH
- DA
- AMENDED DA
- BA/CC
- TENDER
- CONSTRUCTION
- AS-BUILT

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NO.	AMENDMENT	DATE	INT
A	PYLON HEIGHT REDUCED	22.02.13	AJJ

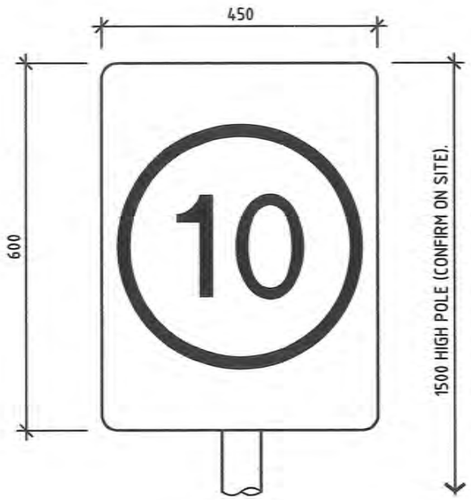
PROPOSED McDONALD'S RESTAURANT, LOT 56, CNR YIRRIGAN DVE & CHESTERFIELD RD MIRRABOOKA WA

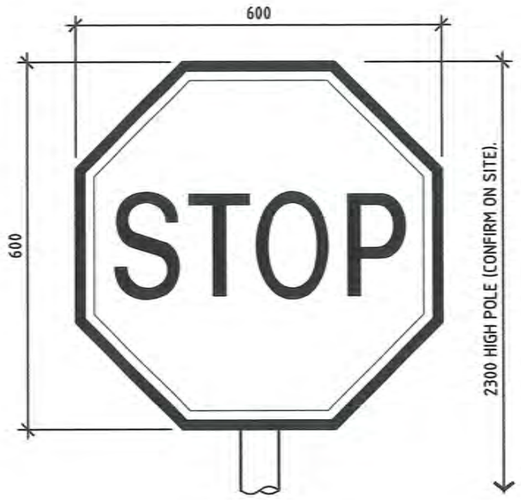
SIGNAGE DETAILS 0472

- UNMODIFIED MASTER DRAWING
- PROJECT SPECIFIC DRAWING

DRAWN	DIA
CHECKED	AJJ
CREATED	23.11.12
SCALE	1:50
DWG REVISION	-
SERIES	
DRAWING NO.	S04
AMDT.	A

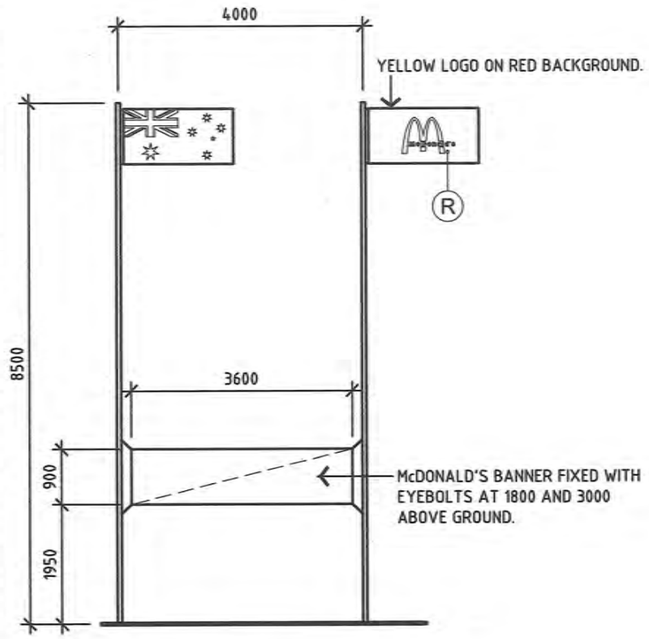
PROJECT CONSULTANT ARCHITECTURAL
HINDLEY & ASSOCIATES PTY LTD BUILDING DESIGNERS
166 STIRLING HIGHWAY NEDLANDS WA 6009
PHONE -9386 6699
FAX -9386 6700
admin@hindley.com.au
PO BOX 199 NEDLANDS WA 6909











S12 / S01 FLAG POLES
SCALE 1:100

REFERENCES

FOR SIGNAGE COLOUR SPECIFICATION
REFER DWG | S04

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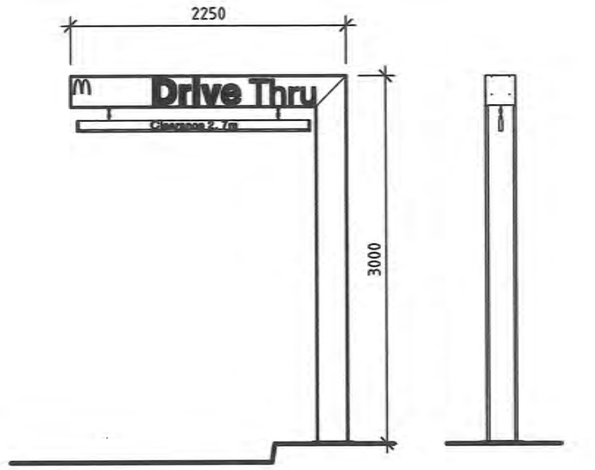

FRONT ELEVATION

SIDE ELEVATION

S6 / S01 HEIGHT CLEARANCE GANTRY
SCALE 1:50

FRAMEWORK CONSTRUCTED FROM HOT DIP GALVANISED STEEL TUBE WITH BLACK PAINT FINISH. NON-ILLUMINATED. WHITE VINYL LETTERS. YELLOW VINYL "M" LOGO.









S9 / S01 CAR PARK SIGNAGE
NON-ILLUMINATED ALUMINIUM REFLECTIVE SIGN ON GALVANISED STEEL POLE TYPICAL.

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○ AMENDED DA	
○ BA/CC	
○ TENDER	
○ CONSTRUCTION	
○ AS-BUILT	© 2007 McDonald's

NO.	AMENDMENT	DATE	INT
-	-	-	-

PROPOSED McDONALD'S RESTAURANT, LOT 56, CNR YIRRIGAN DVE & CHESTERFIELD RD MIRRABOOKA WA

SIGNAGE DETAILS 0472

○ UNMODIFIED MASTER DRAWING	DRAWN	DIA
○ PROJECT SPECIFIC DRAWING	CHECKED	AJJ
	CREATED	23.11.12
DWG REVISION 4	SCALE	1:10 U.N.O.
SERIES	DRAWING NO.	AMDT.
	S05	-

PROJECT CONSULTANT ARCHITECTURAL
HINDLEY & ASSOCIATES PTY LTD
BUILDING DESIGNERS
166 STIRLING HIGHWAY
NEDLANDS WA 6009
PHONE -9386 6699
FAX -9386 6700
admin@hindley.com.au
PO BOX 199
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3. FIGURED DIMENSIONS ARE TO BE USED. CONTACT VILLA AND VILLA FOR CLARIFICATION IF DIMENSIONS ARE NOT CLEAR.
4. ALL DISCREPANCIES AND OMISSIONS ON SITE MUST BE REPORTED TO VILLA AND VILLA FOR THEIR COMMENTS OR APPROVAL PRIOR TO COMMENCING WORK.

- (●) SKETCH
- ( ) DA
- ( ) AMENDED DA
- ( ) BA/CC
- ( ) TENDER
- ( ) CONSTRUCTION
- ( ) AS-BUILT

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NO	AMENDMENT	DATE	INT

McDonald's Mirrabooka
#Project Status
#Architect Address1
#Architect City #Architect Country
#Architect Postcode

EXTERNAL ELEVATION - SOUTH

- ( ) UNMODIFIED MASTER DRAWING
- (●) PROJECT SPECIFIC DRAWING

DWG REVISION -

SERIES REMODEL

DRAWN	EV
CHECKED	EV
MODIFIED	20/02/2013
SCALE	1:100 @ A3
DRAWING NO.	D201
AMDT	-

MASTER CONSULTANT DECOR
villa ⊕ villa
architecture interiors graphics
LEVEL 4, 24 HICKSON RD MILLERS POINT NSW 2000
PH: 61 2 9247 7667 FAX: 61 2 9247 7665
ABN: 27 085 744 958
www.villaandvilla.com.au

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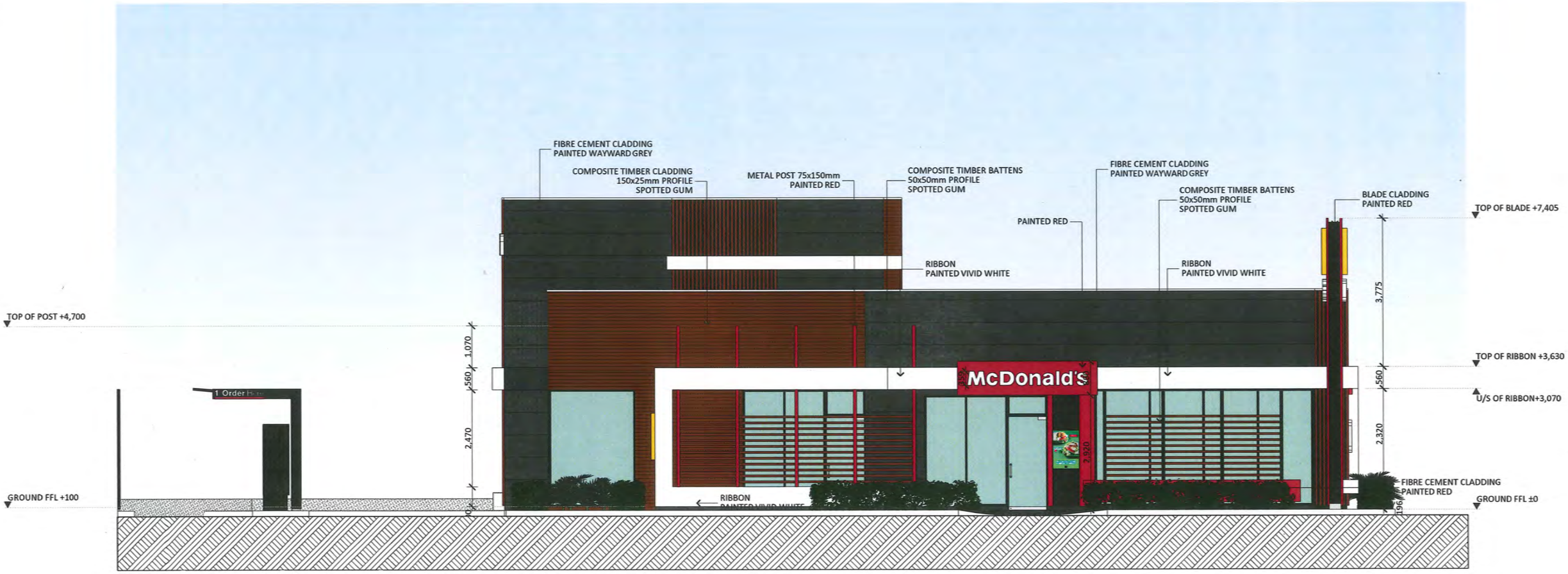

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- (●) SKETCH
- ( ) DA
- ( ) AMENDED DA
- ( ) BA/CC
- ( ) TENDER
- ( ) CONSTRUCTION
- ( ) AS-BUILT

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NO	AMENDMENT	DATE	INT

McDonald's Mirrabooka
#Project Status
#Architect Address1
#Architect City #Architect Country
#Architect Postcode

EXTERNAL ELEVATION - WEST

- ( ) UNMODIFIED MASTER DRAWING
- (●) PROJECT SPECIFIC DRAWING

DWG REVISION -
SERIES REMODEL

DRAWN	EV
CHECKED	EV
MODIFIED	20/02/2013
SCALE	1:100 @ A3
DRAWING NO.	D202
AMDT	-

MASTER CONSULTANT DECOR
villa ⊕ villa
architecture interiors graphics
LEVEL 4, 24 HICKSON RD MILLERS POINT NSW 2000
PH: 61 2 9247 7667 FAX: 61 2 9247 7665
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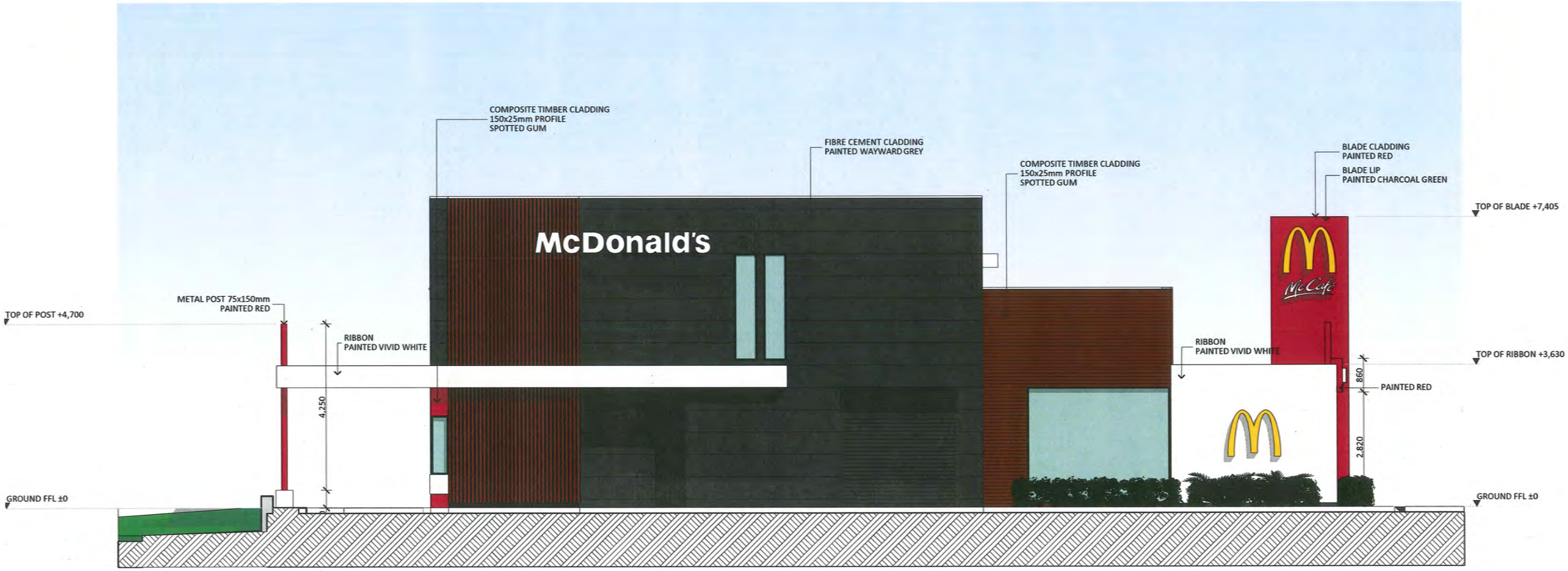

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3. FIGURED DIMENSIONS ARE TO BE USED. CONTACT VILLA AND VILLA FOR CLARIFICATION IF DIMENSIONS ARE NOT CLEAR.
4. ALL DISCREPANCIES AND OMISSIONS ON SITE MUST BE REPORTED TO VILLA AND VILLA FOR THEIR COMMENTS OR APPROVAL PRIOR TO COMMENCING WORK.

- (●) SKETCH
- ( ) DA
- ( ) AMENDED DA
- ( ) BA/CC
- ( ) TENDER
- ( ) CONSTRUCTION
- ( ) AS-BUILT

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EXTERNAL ELEVATION - NORTH

- ( ) UNMODIFIED MASTER DRAWING
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SCALE	1:100 @ A3
SERIES	REMODEL
DRAWING NO.	D203
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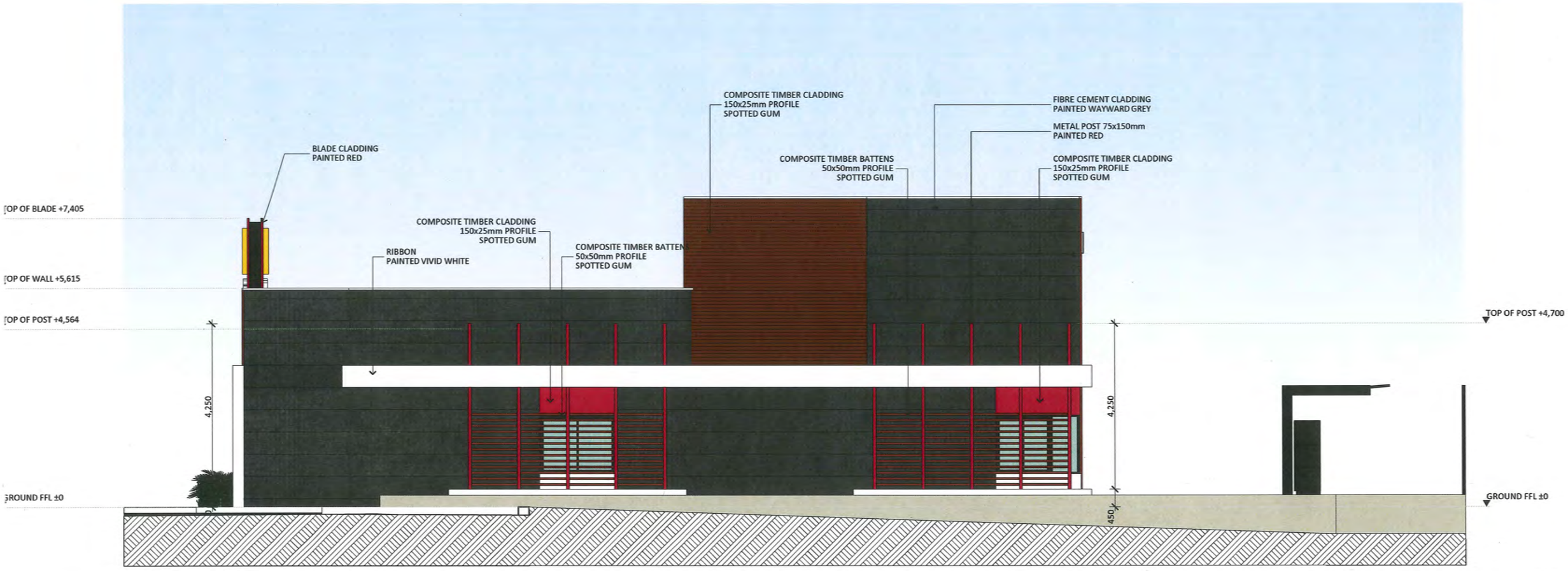

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EXTERNAL ELEVATION - EAST

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SERIES	REMODEL
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Scale - 1:1414

Projection - MGA Zone 50 (GDA 94)

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6485649.11mN

6485649.08mN

391139.02mE

409139.13mE

6473149.04mN

6473149mN

391139mE

409139.06mE

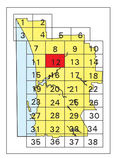
METROPOLITAN REGION SCHEME MAP

SCALE 1:25000

1000 750 500 250 0 1 2

metres Kilometres

INDEX TO ADJOINING 1:25000 MAP SHEETS



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CADASTRAL..... Generated from Landgate Spatial Cadastral Data (SCD)

PROJECTION..... Universal Transverse Mercator

HORIZONTAL DATUM... Geocentric Datum of Australia 1994

GRID VALUES..... Shown in full for map sheet corners only (map sheets do not conform to standard MGA (GDA) map series)

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Legend

scheme boundary

Reserved lands

- parks and recreation
- restricted public access
- railways
- port installations
- State forests
- water catchments
- civic and cultural
- waterways
- primary regional roads
- other regional roads
- public purposes - denoted as follows:
  - H hospital
  - HS high school
  - TS technical school
  - CP car park
  - U university
  - CG Commonwealth Government
  - SEC State Energy Commission
  - SU special uses
  - WSD Water Authority of WA
  - P prison

Zones

- urban
- urban deferred
- central city area
- industrial
- special industrial
- rural
- rural - water protection
- private recreation

Notice of delegation

- bush forever area

Redevelopment schemes

- redevelopment scheme/act area

METROPOLITAN REGION SCHEME

This map has been derived from an electronic version of the scheme held and maintained by the Department of Planning, on behalf of the Western Australian Planning Commission.

This map is one of a set of 38 which depicts the zones and reservations of the Metropolitan Region Scheme as adopted on 30 October 1963. The information shown is correct up to the date shown below as far as the Department and the Commission are aware.

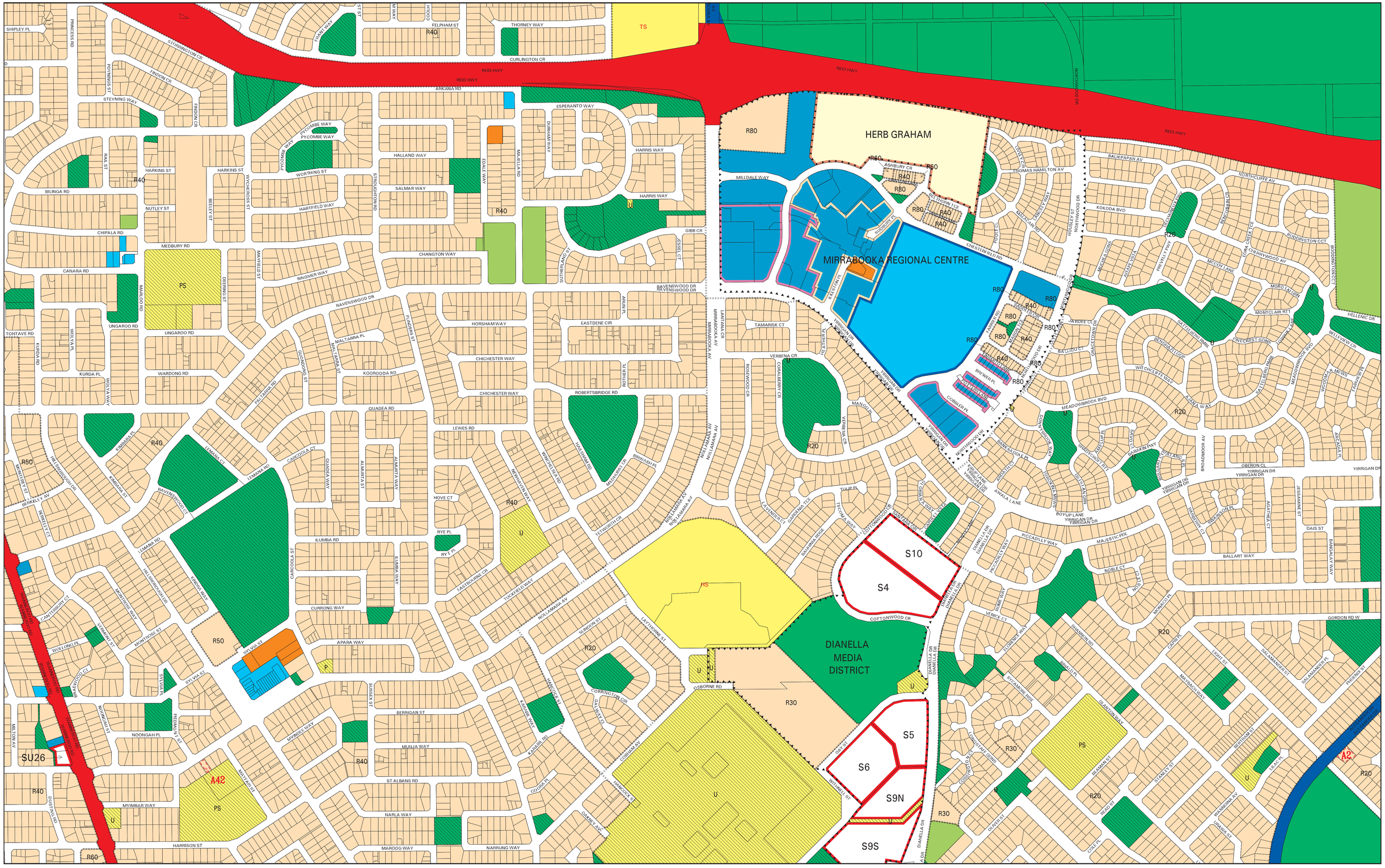
The scheme does not purport to indicate the land use allocation under any local government provision.

Amended to: 23 March 2012

N

METROPOLITAN REGION SCHEME MAP 1:25000 MAP SERIES

MAP SHEET 12


REID HWY
TS
HERB GRAHAM
MIRRABOOKA REGIONAL CENTRE
DIANELLA MEDIA DISTRICT
HS
PS
S10
S4
S5
S6
S9N
S9S
SU26
A42
A2
R80
R40
R60
R20
R30
R50
U
P
ARKANA RD
ESPERANTO WAY
HALLAND WAY
SALMAR WAY
HARRIS WAY
CHANGTON WAY
GIBB CR
MALVELLA RD
DRAKALVA WAY
EDVALE WAY
SUTHERLAND ST
JESSE ST
RAVENSWOOD DR
HORSHAM WAY
EASTDENE CIR
CHICHESTER WAY
ROBERTSBRIDGE RD
LEWES RD
HOVE CT
RYE PL
EASTBOURNE CR
TUCKFIELD WAY
ILUMBA RD
ILUMBA WAY
CURRONG WAY
APARA WAY
QUADEA RD
KOORODA RD
WARDONG RD
UNGAROO RD
MEDBURY RD
CANARA RD
CHIPALA RD
BILINGA RD
NUTLEY ST
HARKINS ST
WORTHING ST
HARTFIELD WAY
STRUGHTON RD
VINCENT ISS ST
BEELEY ST
RAIL ST
STEYNING WAY
FINDON CR
PYCOMBE WAY
PYCOMBE WAY
PUYNINGS ST
STORRINGTON CR
SHIPLEY PL
PRINCESS RD
FLAMI WAY
ST ST
M WAY
HOOD
FELPHAM ST
THORNEY WAY
CURLINGTON CR
MILLDALE WAY
ASHBURY CR
BETHUNE TCE
CHESTERFIELD RD
ROOT CL
FANCOURT WAY
MILLYARD RD
HOUSLEY ST
NORTHWOOD DR
THOMAS HAMILTON AV
TRELLY CR
BALIKPAPAN AV
NORTHCLIFFE AV
KOKODA BVD
MCGLASHAN CR
BEECHBERRY CR
COMA CREEK TCE
RODDINGTON CCT
BODDINGTON CCT
MCLOY LANE
COMA GREENWOOD AV
HELLENIC DR
MORO TALGIN
MONTCLAIR RTT
BELLEVIEW CR
WESTCREST GDNS
CHERMAN AV
SALTERSWAY GRN
REAGRAZ LOOP
WITCHCLIFF WAY
MEADOWBROOK BVD
WOODLANDS MEWS
TARRAWITH
MEADOWBROOK WAY
WATTLEBIRD MEWS
ALBERA WAY
ARCADIA PL
BROADMOOR AV
OBERON CL
YIRRIGAN DR
JESSAMINE ST
DAIS ST
BANGALAY WAY
BALLART WAY
MAJESTIC PDE
PICCADILLY WAY
NOBLE CT
DIANELLA DR
DIANELLA DR
COTTONWOOD CR
VENICE CT
FLORENCE WAY
SHANNON RD
HIMALIA PL
SYCAMORE RISE
ISLAMIA WAY
MAYFAIR WAY
CAPPER PL
LIGHT ST
SALAMANDER ST
SALAMANDER PL
PHOENIX ST
BEATTIE ST
STANLEY ST
BEARMAN ST
HEATH PL
WYNNORMA AV
DIANA ST
DAVEY ST
CONE PL
READ ST
AWALA LANE
BOYUP LANE
YIRRIGAN DR
YIRRIGAN DR
TULIP PL
TEOWAMA WAY
BAUHINIA RISE
LAVENDER CT
DAMIENA TCE
KENTWORTH CR
NOLLAMARA AV
NOLLAMARA AV
MALTARRA AV
MALTARRA AV
MIRRABOOKA AV
LANTANA PL
TAMARISK CT
VERBENA CR
CHARLESIER CR
MANGOLIA
VIRGINIA CR
VIRGINIA DR
VIRGINIA DR
VIRGINIA DR
VIRGINIA DR
HEATHER PL
ROSEWOOD CR
NORTHWOOD DR
NORTHWOOD DR
BREWER PL
CORBLER PL
BRIDGEWATER DR
BRIDGEWATER DR
BRIDGEWATER DR
BALLIDU CT
GRACETOWN CR
JARDEE CT
JARRITAN RD
MARRIOTT LOOP
MARRIOTT LOOP
MARRIOTT LOOP

4.4 MIXED BUSINESS DESIGN GUIDELINES

INTRODUCTION

Where this Policy is inconsistent with the provisions of a specific Policy or Guidelines applying to a particular site or area, the provisions of that specific Policy or Guidelines shall prevail.

Objectives

- To facilitate a development mix of showrooms and service industry of a higher aesthetic quality located on major traffic routes.
- To provide a more intense commercial business development form within established industrial areas of the City.
- To ensure that the Mixed Business areas are accessible by all modes of transport.
- To create attractive and well maintained landscaped areas between the setback line and the street; and
- To ensure that buildings facing the street maintain an attractive façade that enhances the amenity of the streetscape.

Applications Subject of this Policy

All development within the Mixed Business Zone shall be subject to these guidelines.

GENERAL DESIGN GUIDELINES

Lot Layout

Minimum Lot Area

- Green title and Strata lots shall have a minimum lot size of 2000m².

Minimum Width of Lot

- 30m minimum

Built Form & Design

Street Setbacks

- 1.5m landscaping strip on all street frontages; and
- 20.0m building setback on primary street frontages*

  * Secondary Street setbacks may be reduced to 6.0m on lots less than 2000m² in area.

Street Façade

- The Street façade shall be articulated to break-up straight plain facades through the use of at least three of the following:

  Openings;

  Awnings over windows;

  Use of different colours and textures; or

  Indentations and extrusions with details to break the building into individual elements.

- The facades of buildings facing the street shall be constructed of brick, stone, glass or painted or rendered concrete;
- Alternative materials may be approved for the portion of the facade above 3.6m from the ground level; and
- The use of taller parapets and/or awnings is encouraged above the entrance of buildings to clearly identify the entry point;

Corner Sites

Buildings located on corner sites are encouraged to give additional prominence to the street corner by using landmark features such as:

- Architectural roof features that protrude above the normal roof line;
- Increased parapet heights with additional detail, colour and textures; and
- Increase the number of storeys at the street corner.

Roof Features

Objective

To ensure that taller buildings within centres provide landmark features.

- Developments above 6 storeys in height shall include distinguishable roofing to a height of 3 metres and above from the highest point of the wall to which it relates and which is in proportion to the scale of the building.

Multi-storey car parks

Stand alone multi-storey car parks shall not be visible from the street and shall be located behind buildings. Multistorey car parks included within the main building shall be screened/treated so as to provide a seamless appearance between the car park and other floors. Designers are to provide ground level awnings and landscaping in order to soften the visual impact of these structures in line with the provisions applying to building facades, above.

Streetscape Relationship

Activity and Uses

- Showroom and other active commercial uses shall be located on the ground floor level; and
- Office and other non-active uses shall be located on upper levels.

Use of Setback Area

- Setbacks shall not be used for the parking of vehicles that are being wrecked or repaired, the storage of materials, products, by-products or wastes or the storage of fuel, except in underground tanks; and
- The primary and secondary setback areas (excluding the landscaping strip) shall only be used for the parking of vehicles, loading/unloading, trade display, landscaping and access, and not for the storage of materials.

Fencing & Gates

Fencing in the Street Setback Area

- Shall not be permitted.

Fencing Behind the Setback Line

- Solid fencing up to a height of 2.0 metres;
- Fencing up to a maximum height of 2.5m (measured from natural ground level), provided that any fencing above 2.0m is of an open-style. Barbed, razor or electric wire can be considered behind the building setback line, but must be mounted on the inside of the fence, so as not to be significantly visible from the street. Electric fencing must display appropriate warning and otherwise comply with all relevant legislation and standards.
- Service yards visible from a street must be adequately screened.

Non Permitted Fencing Materials

- The use of fibre-cement and timberlap is not supported, in view of the inherent proneness to damage to these materials in an industrial environment.

Fencing on Sites Abutting Non - Industrial Lots

- Fencing shall comply with the standard fencing requirement of the use abutting the site.

Landscaping

A landscaping plan shall be submitted for all Developments in accordance with the City's Landscaping Policy.

Levels

- On sloping sites new developments shall be stepped so as to avoid large differences between the footpath level and the finished level of the building; and
- Filling up to 1000mm shall be permitted.

Weather Protection

An awning shall be provided along the frontage of all buildings facing the primary street covering the 1.5m wide footpath in order to afford weather protection for pedestrians.

Access & Parking

Vehicle Access

- All vehicle movements shall be able to enter and exit the site in a forward gear;

Pedestrian Access

- Pedestrian access, in the form of a footpath, shall be provided from the parking area to the entry point of the proposed development.

Crossovers

A maximum of two crossovers shall be permitted on any one site (i.e. one for entry and one for exiting).

Design of Parking Bays
Parking bays shall be designed in accordance with the relevant Australian Standard.

Reciprocal Parking
Reciprocal parking and access may need to be provided on some lot frontages. It is envisaged that in the near future an engineering concept plan will be prepared for the City providing guidance on suitable vehicle access arrangements for Scarborough Beach Rd. This will enable the City to require access easements to be lodged on titles that will allow for reciprocal parking and access on lot frontages, in order to provide better vehicle access, reduce the number of crossovers and improve pedestrian safety.

New Access Road Connections
The City is providing development incentives to achieve new access road connections between Walters Drive and Scarborough Beach Road.

Specific locations for these roads need detailed assessment by the City's Engineering Department prior to any concessions being granted.

New access roads shall incorporate the following:

- Footpath of 2.0m;
- Street lighting; and
- Dedicated cycle lane

The following development incentives are available to sites that can provide new access road connections:

- 1000m² lot sizes (must front new access road);
- Nil front setback to new access roads; and
- Additional 10 % parking concession.

Bin Storage Areas
- Shall be in accordance with the City's Bin Storage Area Policy.

Other Considerations

Sustainability design standards
In order to optimise the sustainability of buildings, applicants are required to provide the following features in new buildings:

- AAA rated showerheads, tap ware and low flow regulators, dual flush toilets.
- Low flow triple dripper or coarse sprays and timer connection.
- High efficiency lighting
- Gas/solar hot water system.

VARIATIONS

Variations to this policy will be assessed against the objectives of this Policy.

5.4 MIRRABOOKA REGIONAL CENTRE DESIGN GUIDELINES

INTRODUCTION

Where this Policy is inconsistent with the provisions of a general Policy or Guidelines applying to the City as a whole, the provisions of these Guidelines shall prevail.

Guideline Area

These Guidelines apply to the Mirrabooka Regional Centre, which is bound by Yirrigan Drive, Northwood Drive, Reid Highway and Mirrabooka Avenue (refer **Figure 1**).

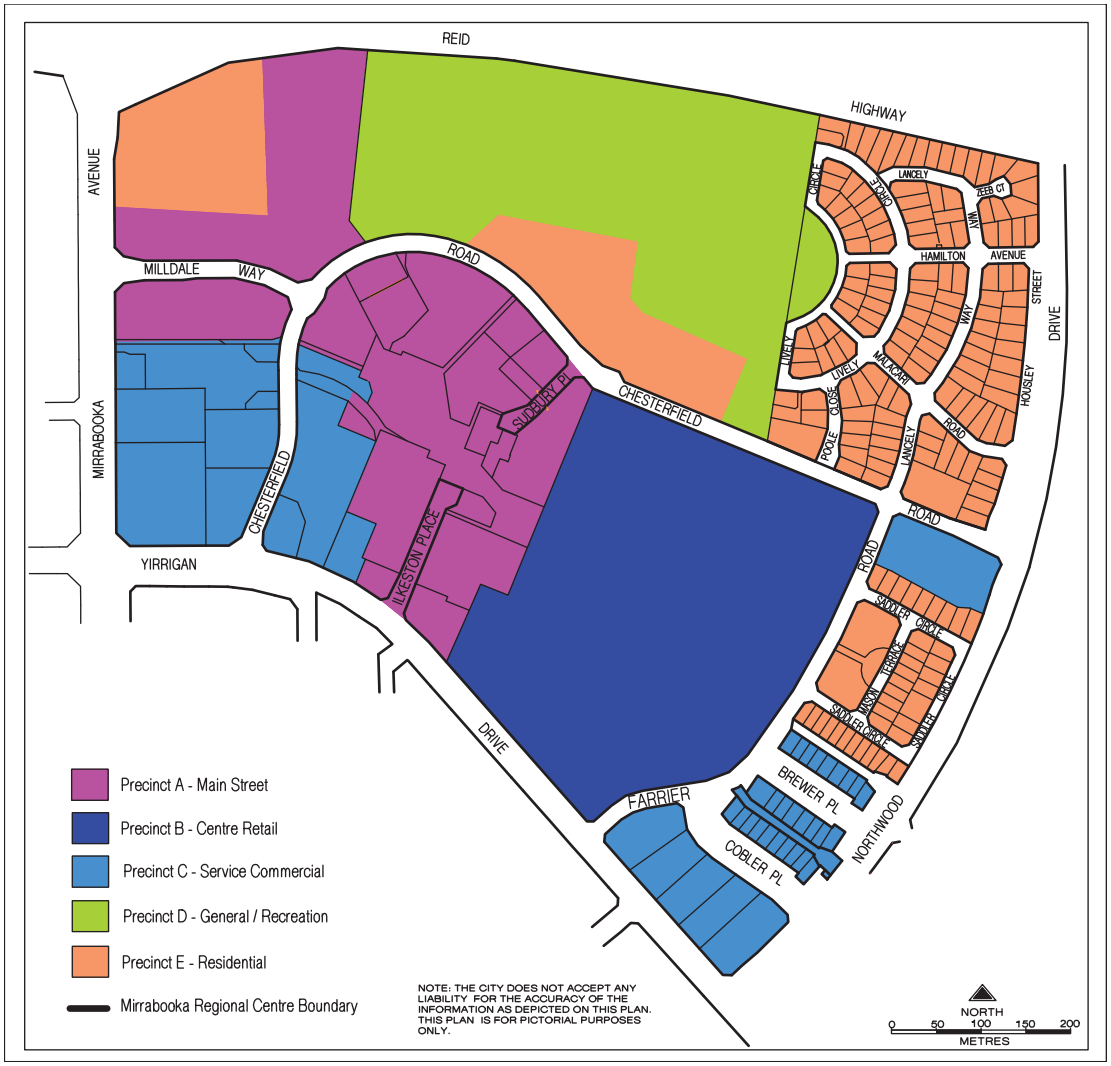


Figure 1 – Mirrabooka Regional Centre – Precinct Plan

Precincts

The Mirrabooka Regional Center has been divided into the following six precincts A - E (refer **Figure 1**). Precinct E – Residential contains separate design guidelines and are not a part of these guidelines. Each Precinct also has a specific Statement of Intent as outlined below:

Precinct A – Main Street
The intent of this precinct is to allow the creation of a west-facing plaza at the entrance to Mirrabooka Shopping Centre, the creation of landmark buildings at entry points to the Mirrabooka Regional Centre and the creation of a pedestrian friendly 'Main Street' which will provide for a variety of uses including retail, office and residential. Activation of the square's edge and prominent corner sites is essential to the square's success.

Precinct B – Centre Retail
The intent of this precinct is to allow for front of development parking through the creation of a parking "street" environment in the front setback area. In all other respects development is expected to provide the same high quality street fronted pedestrian friendly development found in the main street.

Precinct C – Mixed Business
The intent of this precinct is to allow for non-street fronted buildings in the Mirrabooka Centre. These buildings shall form strong iconic buildings in an attractive setting with careful detailing of all sides of the development. Entrances shall be celebrated and wherever possible human scale in the form of terraces etc. should be expressed. Therefore, comfort and safety shall be well considered.

Precinct D – General / Recreation
The intent of this precinct is to allow for the continuation of recreational based activities and in the future other land uses may be permitted should the possibility eventuate and only after a review of the City's land requirements has been completed.

Precinct E - Residential
The intent of this precinct is to allow residential development in close proximity to the town centre.

Applications Subject of these Guidelines

All development within the precincts A – D are subject to these guidelines.

Required Reading

These Design Guidelines should be read in conjunction with the Mirrabooka Regional Centre Outline Development Plan (ODP), the Urban Style Guide. The ODP provides additional controls for design and use by establishing the broad vision for development in the centre and cost allocation and staging. The Urban Style Guide comprises design guidelines for the public domain.

DESIGN GUIDELINES

These design guidelines apply to precincts A, B, C & D within the Mirrabooka Regional Centre Special Control Area. The provisions and clauses of the Residential Design Codes of Western Australia do not apply to precincts A, B, C & D.

Built Form & Design

Objective

To provide built form that reinforces the creation of a safe, mixed use, pedestrian based, efficient and accessible town centre.

Residential Density

Precinct A & B

- A density coding of R100 shall apply for all residential development

Site Coverage

- Maximum ground floor site coverage shall be 80%.

Building Height

The building heights for the specific precincts are detailed below.

Precinct A

- Minimum building height shall be 6 metres (Measured from Average Natural Ground Level);
- Maximum building height shall not exceed 12 metres;
- Open Terrace with pergola structure shall not exceed the maximum building height by more than 4 metres; and (refer to section on open terraces for full details)
- Minimum floor to ceiling heights shall not be less than 3.5m for the ground floor and 3.0m for the subsequent floors.

Precinct B & C

- Minimum building height shall be 6 metres;
- Minimum building height for the site on the corner of Yirrigan Drive & Mirrabooka Avenue shall be 12 metres; and
- Minimum floor to ceiling heights shall not be less than 3.5m for the ground floor and 3.0m for the subsequent floors.

Street Setbacks

The setbacks for specific precincts are detailed below.

Precinct A

- Buildings shall have a nil front setback;
- Any floors above 2 storeys shall be setback 3 metres from the front boundary; and

Precinct B & C

- Buildings shall have a maximum 21.0 metre front setback; or
- Where existing setbacks are different, new development shall match existing setbacks to create a uniform building line.

Side / Rear Setbacks

Precinct A

- Building facades shall be built from side boundary to side boundary but may include covered driveway access up to 6.0 metres wide; and
- Side and Rear setbacks for residential development on the upper floors shall a minimum 3.0m setback where any openings face a boundary.

Corner Sites

Buildings located on corner sites shall give additional prominence to the street corner by using at least one of the following:

- Architectural roof features that protrude above the normal roof line by at least 2.0m; or
- Increased parapet heights with additional detail, colour and textures; or
- Increased number of storeys at the street corner.

Open Rooftop Terraces

Open rooftop terraces provisions for all precincts are detailed below.

- Rooftops may be used as an open terrace;
- Shall not include habitable rooms;
- Shall not have a solid roof or other solid structure within 3 metres of the terrace edge; and
- Pergola rafters may extend to the edge of the terrace.

Facades

- 75% maximum glazing on any façade above the ground floor; and
- The second level and subsequent levels of all buildings shall be articulated to break-up long straight facades through the use of at least four of the following:

  Openings;

  Protruding separate balconies;

  Awnings over windows;

  Use of different colours and textures; and

  Indentations and additional details to break the building into individual elements.



This design requires more articulation such as balconies, awnings over windows and indentations. Openings are horizontal rather than vertical. Parapet is flat rather than varied in height.

Openings

Facades shall express verticality through:

- The use of openings that are more vertical than horizontal; and



This design expresses sufficient articulation through the use of details within panels, indented panels, and differing parapet heights Openings are vertical rather than horizontal.

Parapets

New buildings that contain parapets shall avoid monotonous flat parapet lines and shall include:

- Indentations and patterns on panels; and
- Variation in parapet heights and designs so as to provide additional interest to the street.

Balconies

- Balcony balustrades shall be 50% visually permeable.

Colours & Materials

- New colour schemes shall take into consideration the colour scheme of existing buildings and shall not be in sharp contrast; and
- Fluorescent and intense colours shall not be used.

Streetscape Relationship

Ground Floor Frontage

Objective

To ensure that tenancies facing the street portray an attractive and inviting frontage.

Ground floor shop fronts shall:

- Contain a minimum of 75% glazing; and
- Contain a maximum 20% of signage on individual windows.

Entry Points

Objective

To ensure entrances are designed to enable safe and comfortable access and that building entrances are clearly defined.

Entry points shall include at least two of the following:

- Face the street;
- Signage above the entry door;
- Indentation of the entry point, where recessed entrances are provided, they should be truncated at an angle to the pedestrian route of no less than 60 degrees;
- Highlighting the entry point through the use of different materials; and
- Increasing the height of the awning above the entry point to no higher than 3.2m above footpath level.

Activity & Uses

Objective

To create an active, vibrant and safe town centre by reinforcing the interface between internal and external uses along the street front and by providing passive surveillance.

The following shall apply:

- Retail and other active commercial uses shall be located on the ground floor level; and
- Office and other non-active uses (residential) shall be located on upper levels.

Weather Protection

Objective

To support a comfortable external environment for pedestrians.

All Precincts

- Awnings shall be provided over all footpaths that abut a building, including footpaths that provide access to the rear of buildings;
- Awnings shall be provided above all entrances and exits of a building;

- New awnings shall protrude from the face of the building by a minimum width of 2.0m (where possible);
- Awnings shall be constructed using materials that are opaque and non-reflective (no glass);
- New awnings shall line up with existing awnings (where present); and
- Awnings shall be constructed to comply with the Local Government Miscellaneous Provisions Act 1960 – section 400 (2) and the Building Regulations 1989 Part 9.

Precinct A

- The provision of poles / posts with a minimum spacing of 1.5m shall be provided for all awnings;
- The poles / posts shall not be load bearing; and
- The poles / posts shall be setback from the kerb as required by the City.

Levels

Objective

To ensure that development follows the topography of the land and to ensure that there is equitable access for pedestrians.

- A maximum of 500mm of fill shall be permitted on sites as measured from the Natural Ground Level; and
- The difference between the ground floor level of a building and the footpath level shall generally be nil.

Fencing & Gates

Objective

To provide an open, accessible and attractive urban environment.

- Fencing between the building and the front and secondary boundary shall not be permitted;
- Fencing behind the building line shall generally not be permitted as areas behind the setback line shall be used for the parking of vehicles and shall remain open to the public at all times; and
- Gates and fences, where required, shall be of open style to a maximum height of 1.8m.

Landscaping

Objective

To improve the visual appeal of development, screen service areas and provide shade and 'green relief' in built up areas.

- A landscaping plan shall be submitted for all new non residential development and residential development comprising 5 or more units and be in accordance with the City's Landscaping Policy.

Precinct B & C

- A 2.0m wide landscaping strip shall be provided within the front setback area between the boundary and the parking area and shall be planted in accordance with the City's Landscaping Policy; and
- A minimum of 10% of the site area shall be landscaped.

Access & Parking

Vehicle Access

Objective

To ensure that vehicle access ways are safe and easily traversed.

All Precincts

- No vehicle access from Yirrigan Drive;
- Vehicle access to sites fronting major roads shall be from side streets or ROWs where available;
- All vehicle movements shall be able to enter and exit the site in a forward gear; and
- All parking areas to comply with the Australian Standard 2890.1 in relation to turning circles, and gradients within the site.

Precinct A

- Where vehicle access is from the front street the driveway shall be enclosed, built over and secure. The opening shall not be more than 7.2m wide; and
- Adjacent rear parking areas are to be connected and shared in an integrated manner.

Precinct B & C

- Parking access ways to rear areas shall be limited and shall be no wider than 14m with pedestrian pavement on both sides; and
- Adjacent rear parking areas are to be connected and shared in an integrated manner.

Car Parking Location

Objective

To ensure that car parking areas do not detract from the amenity of the area.

Precinct A

- Car Parking Areas shall not be accommodated between the street front and the building line;
- Car Parking shall be provided behind the building line; and
- Parking areas shall be visible from rear secondary entrances and active internal areas.

Precinct B & C

- Within the 21.0m setback area no more than 19m of this setback area shall be used for parking; and
- Apart from parking in the frontage setback, parking areas shall be located at the back of the development, below ground or on rooftops.

Number & Design of Car Parking Bays

- Shall be in accordance with the City's Parking Policy.

Pedestrian Access

Objective

To create a pedestrian network that is safe and direct.

- Pedestrian access, in the form of a footpath, shall be provided from the parking area to the entry point of the proposed development and along all street frontages;
- For developments with parking at the rear pedestrian access between the street and car parking area shall be provided;
- Pedestrian routes shall be aligned primarily along existing building fronts and thereafter along proposed new development fronts;
- Pedestrian access to basement or rooftop parking shall be provided from the street front;
- Pedestrian routes shall be as direct and level as possible; and
- Pedestrian footpaths shall be a minimum of 2.0m wide.

Crossovers

Objective

To limit the number of crossovers to reduce the impact on pedestrians and traffic.

- A maximum of two crossovers shall be permitted for sites, one for entry and one for exiting.

Service Access and Facilities

Objective

To ensure there is sufficient space for the storage of waste and other materials and sufficient space for the delivery of goods.

- The provision of service access to all commercial premises shall be provided for loading and unloading goods;
- Service access shall be constructed to ensure that vehicles can enter and exit in a forward gear;
- Bin storage areas are required to be provided in accordance with the City's Bin Storage Area Policy.

Lighting, Safety & Security

- Shall be in accordance with the City's Mixed Use & Commercial Centres Design Guidelines.

Other Considerations

Signage

- Signage shall be in accordance with the City's Advertising Signs Policy.

Sound Attenuation

- Shall be in accordance with the City's Mixed Use & Commercial Centres Design Guidelines.

VARIATIONS

Applications seeking variations to this Policy shall be determined in accordance with the objectives of this Policy and the statement of intent for each precinct.

6.1 ADVERTISING SIGNS

INTRODUCTION

This policy should be read in conjunction with Schedule 11 of the City of Stirling Local Planning Scheme No. 3 (LPS3) and the City of Stirling Local Law relating to Signs.

Where this Policy is inconsistent with the provisions of a specific Policy or Guidelines applying to a particular site or area (eg Inglewood Town Centre Design Guidelines), the provisions of that specific Policy or Guidelines shall prevail.

Objectives

- to ensure that the display of advertisements on private sites does not adversely impact on the amenity of surrounding land;
- to avoid a proliferation of signs on individual sites and buildings;
- to improve the streetscape of major roads;
- encourage the rationalisation of advertising signs on individual premises;
- encourage the incorporation of advertising signs into the design consideration of buildings;
- To ensure that signs are not discriminatory or offensive; and
- To ensure that signs only relate to services and products on the site.

Applications Subject of this Policy

Planning Approval

A planning approval is required for all advertising signs located on zoned land and reserved land that seek to vary the provisions of this policy.

Building Licence

Certain advertising signs may also need a building licence approval for the structural aspects of the sign, applicants should liaise with the City's Approvals Business Unit to determine which applications require a building licence.

Submission Requirements

Planning Application

For advertising signs that are not exempt from approval then the applicant needs to submit the following:

- ❑ Completed **Planning Application Form**;
- ❑ Payment of a planning fee (refer fees and charges info sheet);
- ❑ Site plan (1:100) showing the location of the sign(s), all buildings, lot boundaries, street names, north point;
- ❑ Elevations (1:100) illustrating the location of the sign(s) in relation to the building / site;
- ❑ Illustration (1:50) showing the contents, dimensions (including height above ground), surface areas and structural details of the sign;
- ❑ Structural engineering certificate for pylon signs; and

- ❑ Sign strategy containing (**Only for new Commercial or Industrial Developments**):
    - a site plan (1:100) showing the location of all existing and proposed signs, all buildings and neighbouring buildings, lot boundaries, street names, north point;
    - a perspective or photomontage illustrating the location of all existing and proposed signs, buildings, neighbouring properties;
    - an illustration (1:50) showing the contents, dimensions (including height above ground), surface areas and structural details of each sign; and
    - a written justification explaining why Council should grant a variation.

Definitions

All definitions for advertising signs are outlined within Schedule 1 of LPS3 and are referred in this policy for reference purposes.

Definitions of individual sign types are defined and outlined in the Development Provisions section of this Policy.

Sign Types Not Listed

If a Sign Type or a particular advertising sign is not listed or defined, within the general terms of one of the definitions or is not otherwise mentioned in this Policy, such sign shall be deemed to be not permitted.

GENERAL DEVELOPMENT PROVISIONS

The following general provisions apply to all applications for advertising signs.

Design

Advertising signs shall:

- be incorporated into the overall design of the building;
- be in keeping with the scale and form of the building;
- not cause visual clutter of the streetscape or the building;
- not obscure any architectural features of the building;
- not extend beyond any boundary of a lot;
- not cause a nuisance, by way of light spillage, to abutting sites; and
- not comprise of flashing or running lights.

Safety

Advertising signs shall:

- not pose a threat to public safety or health;
- not obstruct visual sightlines of vehicles and/or pedestrians;
- not interfere with or be likely to be confused with traffic control signals; and
- not obstruct pedestrian movement.

Content

Advertising signs shall:

- not advertise services or products other than those available on the lot; and
- not contain any discriminatory or offensive material.

SPECIFIC SIGN DEVELOPMENT STANDARDS

Community Service Sign

Definition

Sign which is a temporary non-illuminated sign that advertises non-profit, short-term events such as a fete, fair, or festival for charitable, religious, education, child care, sporting organisations or the like.

Standard

Community Service Signs shall:

- be located on the site of a community event or the property of the organisation holding the community event;
- have an area of not more than $10m^2$;
- be limited to a maximum of one sign per frontage on a lot;
- not be illuminated;
- not be exhibited more than 2 weeks prior to the event advertised and must be removed by the end of the day following the event.

Permitted Locations (Zones & Reserves)

- All zones



Figure 2 – Example of Community Service Sign

Construction Site / Development Signs & Real Estate Signs

Definition

Sign which is displayed only for the duration of the construction, development or transaction period.

Standards

A Construction Site / Development Sign / Real Estate Sign shall:

- only be in place for the duration of the construction works / development / transaction period;
- be limited to one sign per lot containing details of either the project and the contractors or relating to the sale, leasing or auction; and
- do not exceed:

    - 2.0m² sign for Single Residential Development;
    - 10.0m² sign for Multiple Dwellings, Shops, Commercial and Industrial Projects; and
    - 20.0m² sign for Large Development or redevelopment projects involving shopping centres, office or other buildings exceeding 3 storeys in height.

Permitted Locations (Zones & Reserves)

- All zones

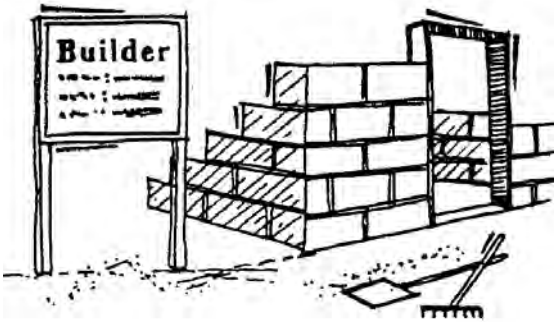


Figure 3 – Example of a Construction Sign



Figure 4 – Example of a Real Estate Sign

Created Roof Signs

Definition

Sign which is affixed to the facia or parapet, or forms part of a projection above the eaves or ceiling of the building and complements the architectural style of the building, but does not include a Roof Sign.

Standards

A Created Roof Sign shall:

- be limited to a maximum of one sign per tenancy on a lot;
- be fixed parallel to the facia or portion of the building to which it is attached;
- not project more than 300mm from the portion of the building to which it is attached;
- not be within 500mm of either end of the facia, roof or parapet of the building;
- If the sign is less than 7.5m above natural ground level, then the sign shall be limited to 3.0m² in area;
- If the sign is between 7.5m and 9.0m above natural ground level, then the sign shall be limited to 4.5m² in area; and
- If the sign is over 9.0m from natural ground level, then the sign shall be limited to 9.0m²in area

Permitted Locations (Zones & Reserves)

- Local Centre
- Business
- Service Station
- Mixed Use
- District Centre
- Industry
- Mixed Business
- Regional Centre
- Hotel
- Special Beach Development

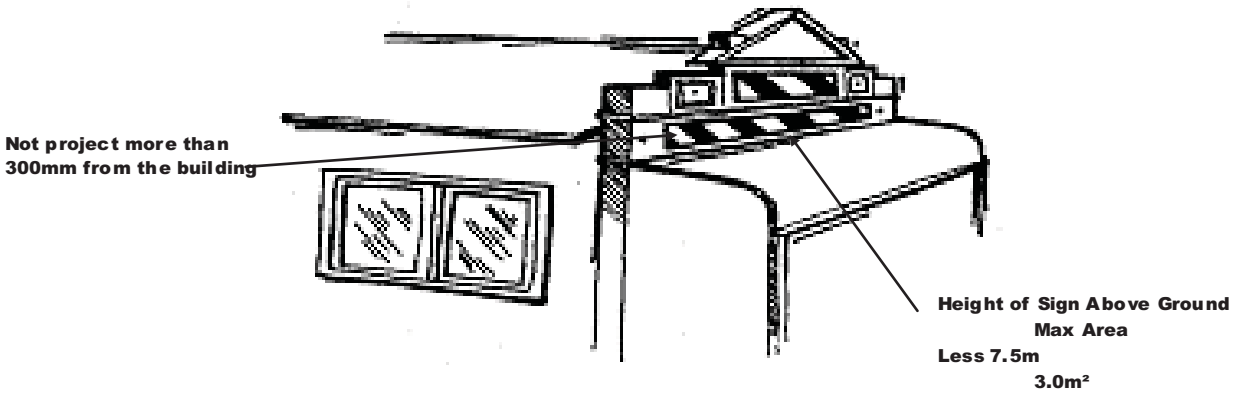


Figure 5 – Example of Created Roof Sign

Display Home Signs

Definition

Sign which is displayed for the period over which homes are on display for public inspection.

Standards

A Display Home Sign shall:

- only be displayed for the period the home is on display;
- not exceed:

  2.0m² sign for each dwelling on display; and

  an additional 3.0m² sign for each group of dwellings displayed by a single project builder giving details of the project building company and the range of dwellings on display.

Permitted Locations (Zones & Reserves)

- All zones

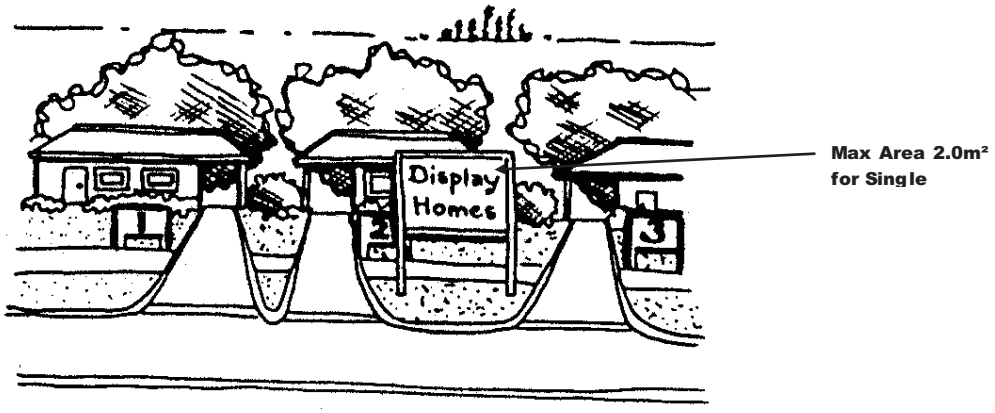


Figure 6 – Example of a Display Home Sign

Ground Based Signs

Definition

Sign which is not attached or otherwise affixed to a building and no portion of which is higher than 1.2 metres above natural ground level

Standards

Ground Based Signs which are portable shall:

- be limited to a maximum of one sign per tenancy on a lot;
- not be permitted if there is a non-portable ground based sign on the same lot;
- be displayed only during the normal business hours of the business to which the sign relates;
- have no moving parts once the sign is in place;
- predominantly display the word "open"; and
- have a maximum vertical or horizontal dimension of 1.0 metres and have an area of not more than 0.6m^2.

Ground Based Signs which are not portable shall:

- be limited to a maximum of one sign per tenancy on a lot.
- not be permitted if there is a portable ground based sign on the same lot;
- have a maximum vertical dimension of 1.2 metres and a maximum area of 1.5m^2; and
- advertise only products or services available from the lot.

Permitted Locations (Zones & Reserves)

- All zones and reserves*

Note * for standards on local reserves refer to the Specific Area Development Standards section of this policy

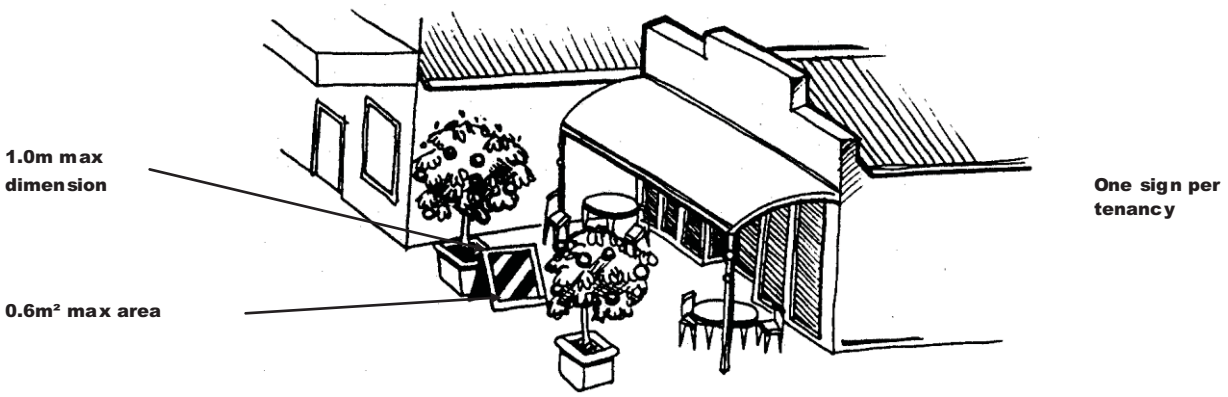


Figure 7 – Example of a Portable Ground Base Sign

Hoarding Signs

Definition

Sign which is affixed to a structure having one or more supports where the overall height (inclusive of the supports) is less than the sign's horizontal dimension and portion of the sign is greater than 1.2 metres above natural ground level.

Standards

Hoarding Signs shall:

- be limited to a maximum of one sign per lot;
- not be permitted if there is a monolith sign or pylon sign on the same lot;
- have a maximum area of 20.0m^2;
- not be less than 1.2 metres or greater than 6.0 metres from ground level; and
- not be erected in the area between any building and the front boundary of a lot except with the approval of the Council.

Permitted Locations (Zones & Reserves)

- Local Centre
- Business
- Service Station
- Mixed use
- District Centre
- Industry
- Mixed Business
- Regional Centre
- Hotel
- Civic

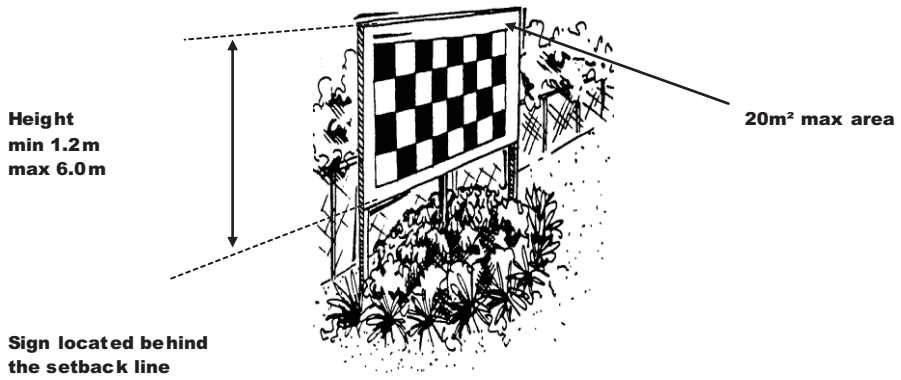


Figure 8 – Example of a Hoarding Sign

Monolith Signs

Definition

Sign which is not attached to a building with its largest dimension being vertical. Such a sign may consist of a number of modules and is generally uniform in shape from ground level to the top of the sign and is greater than 1.2m in height.

Standards

Monolith Signs shall:

- be limited to a maximum of one free standing sign on a lot;
- not be permitted when a pylon sign or hoarding sign is located on the same lot;
- not be located within 1 metre of a crossover;
- have a maximum depth of 0.5m
- If the lot frontage is less than 40m, then a sign shall be limited to 6.0m in height and 2.0m in width;
- If the lot frontage is between 40m and 70m, then a sign shall be limited to 7.5m in height and 2.5m in width;
- If the lot frontage is between 71m and 100m, then a sign shall be limited to 9.0m in height and 3.0m in width; and
- If the lot frontage is above 101m, then a sign shall be limited to 10.5m in height and 3.5m in width;

Permitted Locations (Zones & Reserves)

- Local Centre
- Business
- Service Station
- Civic
- District Centre
- Industry
- Mixed Business
- Mixed Use
- Regional Centre
- Hotel
- Special Beach Development

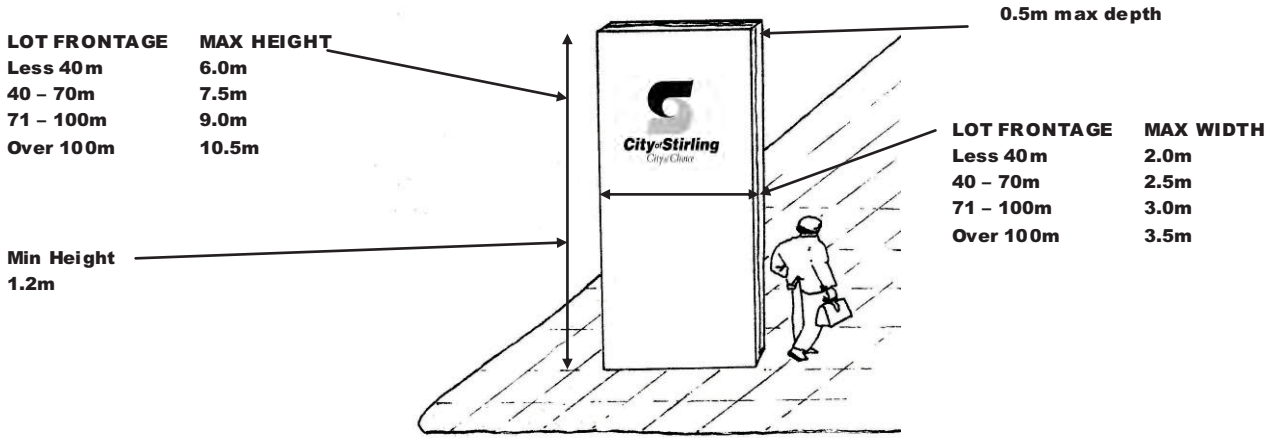


Figure 9 – Example of a Monolith Sign

Panel Signs

Definition

Sign which is affixed to a panel / fence and is greater than 1.2 metres above natural ground level, but does not include a Pylon or a Monolith Sign.

Standards

Panel Signs in non Residential Zones shall:

- be limited to one sign on a lot.
- have a maximum vertical dimension of 2.0 metres and a maximum area of 5.0m^2;
- not be less than 1.2 metres or greater than 6.0 metres from ground level;
- not be erected in the area between any building and the front boundary of a lot; and

Panel Signs in the Residential Zone shall:

- be limited to one sign per lot;
- have a maximum area of 0.2m² for Home Occupation;
- have a maximum area of 0.5m² for Home Business & Bed & Breakfast Developments; and
- have a maximum area of 1.5m² for Child Care Centres and other commercial uses.

Permitted Locations (Zones & Reserves)

- Local Centre
- Business
- Service Station
- Reserves*
- District Centre
- Industry
- Mixed Business
- Residential
- Regional Centre
- Hotel
- Special Beach Development
- Mixed Use

** for standards on local reserves refer to the Specific Area Development Standards section of this policy*

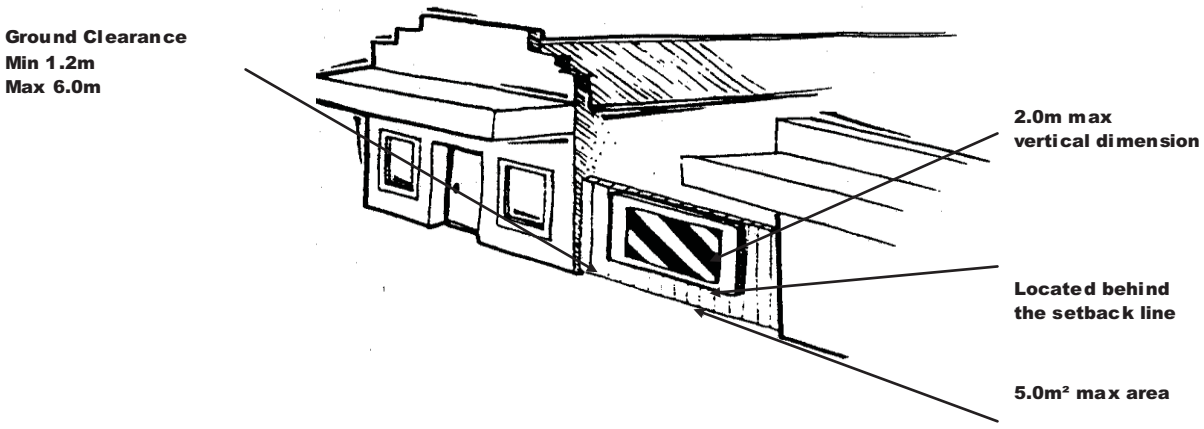


Figure 10 – Example of a Panel Sign

Product Display Signs

Definition

Product / Vehicle Display Signs is defined as:

- *a product or object which is displayed for the purposes of advertisement; or*
- *an advertisement sign which is applied or otherwise attached or placed on a vehicle. For the purposes of this term a vehicle includes a; car, truck, boat, trailer, caravan, machinery, and the like whether moveable or not.*

Standards

Product Display Signs shall:

- be limited to a maximum of one sign per lot;
- be located wholly within the boundaries of a lot;
- be placed so as not to cause any interference, whether directly or indirectly, to vehicular traffic or pedestrians;
- have no moving parts; and
- have a maximum vertical or horizontal dimension of 2.0m.

Permitted Locations (Zones & Reserves)

- Industry
- Mixed Business

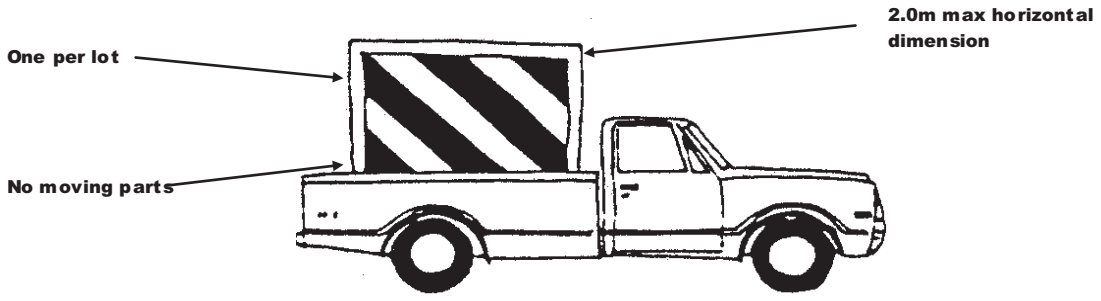


Figure 11 – Example of a Product Display Sign

Projecting Signs

Definition

Sign which is attached to a projection or projects more than 300mm from a wall of the building below the eaves or ceiling height.

Standards

All projecting signs shall:

- be limited to a maximum of one Projecting Sign per tenancy on a lot other than any Projecting Signs which are attached to the facia of a verandah or the like; and
- have a minimum clearance of 2.7 metres from ground level;

Projecting Signs which are attached to the facia of a verandah or the like shall:

- not exceed a vertical dimension of 600mm; and
- not project beyond the outer frame or surround of the facia;

Projecting Signs attached to the underside of a verandah or the like shall:

- not exceed 2.4 metres in length or exceed a vertical dimension of 500mm;
- not weigh more than 50kg;
- not be within 3.0 metres of another such sign attached to the underside of the same verandah;
- be at right angles to the front street boundary except on a corner lot where the signs may be placed so as to be visible from both streets; and
- not project beyond the outer frame or surround of the verandah.

Projecting Signs attached above a verandah or the like shall:

- not exceed 2.0 metres in length or exceed a vertical dimension of 500mm;
- not be within 3.0 metres of another such sign attached above the same verandah; and
- not project beyond the outer frame or surround of the verandah.

Projecting Signs attached directly to a building shall:

- not project more than 1.0 metre from the wall and not exceed 4.0m^2 in area;
- not be placed within 2.0 metres of either end of the wall to which they are attached; and
- not project above the top of the wall to which they are attached.

Permitted Locations (Zones & Reserves)

- All zones, except Residential Zone and Special Beach Development Zone

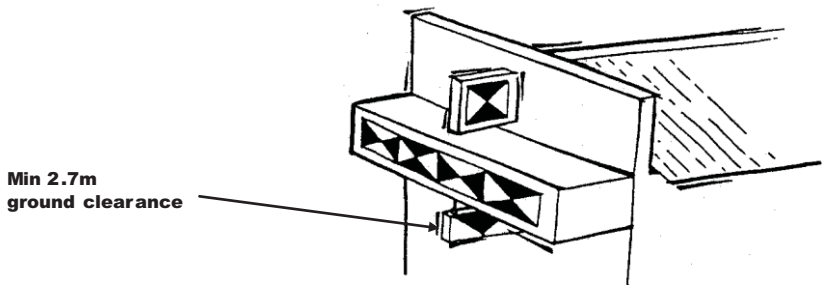


Figure 12 – Example of a Projecting Sign

Pylon Signs

Definition

Sign which is affixed to a structure having one or more supports where the overall height (inclusive of the supports) is greater than the sign's horizontal dimension and portion of the sign is greater than 1.2 metres above natural ground level, but does not include a Monolith Sign.

Standards

Pylon Signs shall:

- be limited to a maximum of one sign per lot;
- not be permitted if a monolith sign or a hoarding sign is located on the same lot;
- have a minimum clearance of 2.7 metres from ground level;
- not be more than 6.0 metres above ground level;
- when a lot has an area up to 5000m² and one tenancy, a pylon sign shall be limited to 4.0m² in area, 6.0m in height and 2.5m in any dimension;
- when a lot has an area up to 5000m² and more than one tenancy, a pylon sign shall be limited to 5.0m² in area, 7.5m in height and 3.0m in any dimension;
- when a lot has an area over 5000m², a pylon sign shall be limited to 6.0m² in area, 9.0m in height and 3.0m in any dimension;

Permitted Locations (Zones & Reserves)

- Local Centre
- Business
- Service Station
- District Centre
- Industry[1]
- Mixed Business
- Regional Centre
- Hotel
- Civic

Note: 1 - Not Permitted in the Herdsman Business Park and the Main Street Special Control Area

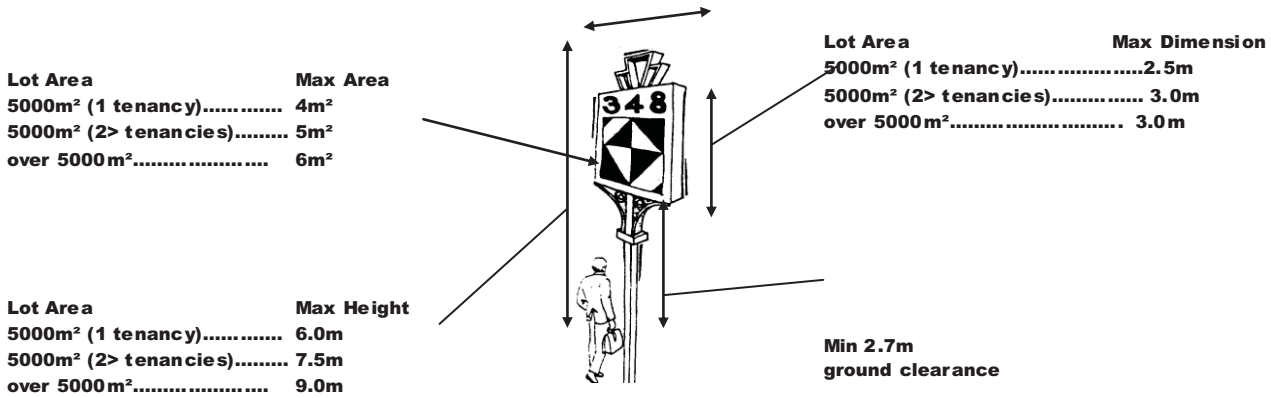


Figure 13 – Example of a Pylon Sign

Roof Signs

Definition

Sign which protrudes above the normal roof line or is on the roof with little or no relation to the architectural design of the building, but does not include a Created Roof Sign.

Permitted Locations (Zones & Reserves)

- Not Permitted in any zone or reserve

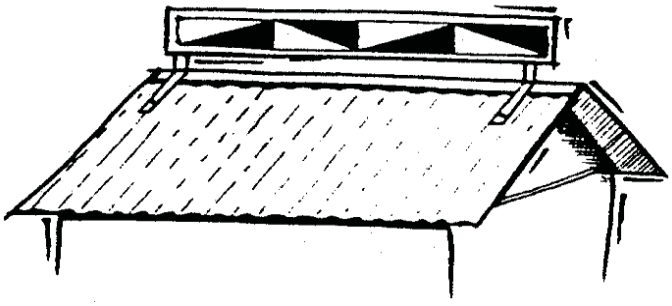


Figure 1 – Example of Roof Sign

Tethered Signs

Definition

Sign which is suspended from or tethered to any structure, tree or pole (with or without supporting framework) and made of paper, plastic, fabric or similar materials. The term includes lighter than air aerial devices, inflatables, bunting, banners, flags and kites.

Standards

Tethered Signs shall:

- be limited to a maximum of one sign per lot;
- be located wholly within the boundaries of the lot;
- have a maximum vertical dimension of 0.75 metres and a maximum area of 2.0m^2;
- not be less than 2.7 metres or greater than 8.0 metres from ground level; and
- not be within 10.0 metres of a Pylon Sign.

Notwithstanding the above, Tethered Signs which consists of balloon type objects shall:

- be limited to a maximum of one sign per lot;
- not exceed 7.0 metres in diameter or 9.0 metres in height; and
- not be displayed for more than 14 days in aggregate for any one calendar year.

Furthermore, the advertiser shall supply to the Council prior to erecting such a sign a certificate from a structural engineer certifying that the connection of the balloon type object to the building or lot is of a structurally sound design.

Permitted Locations (Zones & Reserves)

- Local Centre
- Business
- Mixed Business
- District Centre
- Hotel
- Special Beach Development
- Regional Centre
- Service Station

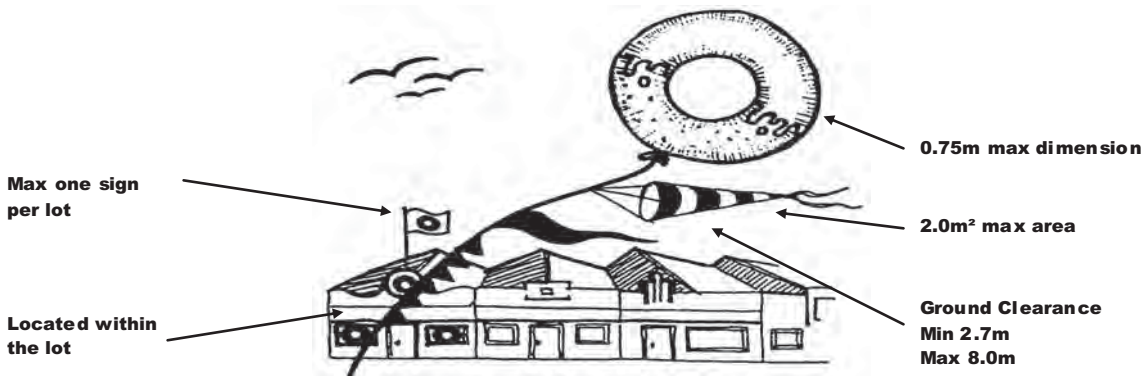


Figure 14 – Example of a Tethered Sign

Wall Signs

Definition

Sign which is affixed to the external part of a wall of the building but does not project more than 300mm from the wall and no part of which is above the lowest point of the eaves or ceiling of the building.

Standards

All Wall Signs shall:

- be limited to a maximum of two signs per tenancy on a lot other than a building within a residential zone;
- not exceed 10m^2 in area for non residential areas in aggregate per tenancy;
- if placed directly over door openings, have a minimum clearance of 2.7 metres from ground level;

if attached to the building by means of cables, ropes or the like:

- be non-flammable; or
- not be erected for more than 14 days in aggregate in any one calendar year.

if located within a residential zone and attached to a building used predominantly for a residential use:

- not exceed 0.2m^2 in area per lot; and
- not exceed one sign per lot.

if located within a residential zone and attached to a building used predominantly for a commercial use:

- not exceed 1.2m^2 in area per lot; and
- not exceed one sign per lot.

Permitted Locations (Zones & Reserves)

- All zones and reserves*

Note * for standards on local reserves refer to the Specific Area Development Standards section of this policy

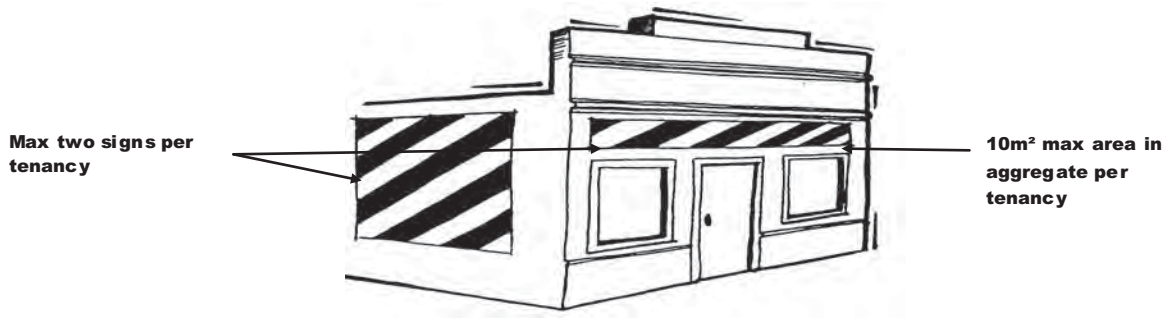


Figure 15 – Example of Wall Sign in a Commercial Area

Window Signs

Definition

Sign which is affixed to either the interior or exterior of the glazed area of a window.

Standard

Window Signs shall:

- not cover more than 20% of the glazed area of any one window
- exceed 10.0m^2 in area in aggregate per tenancy on a lot.

Permitted Locations (Zones & Reserves)

- Local Centre
- Business
- Service Station
- Civic
- District Centre
- Hotel
- Mixed Business
- Mixed Use
- Regional Centre
- Industry
- Special Beach Development

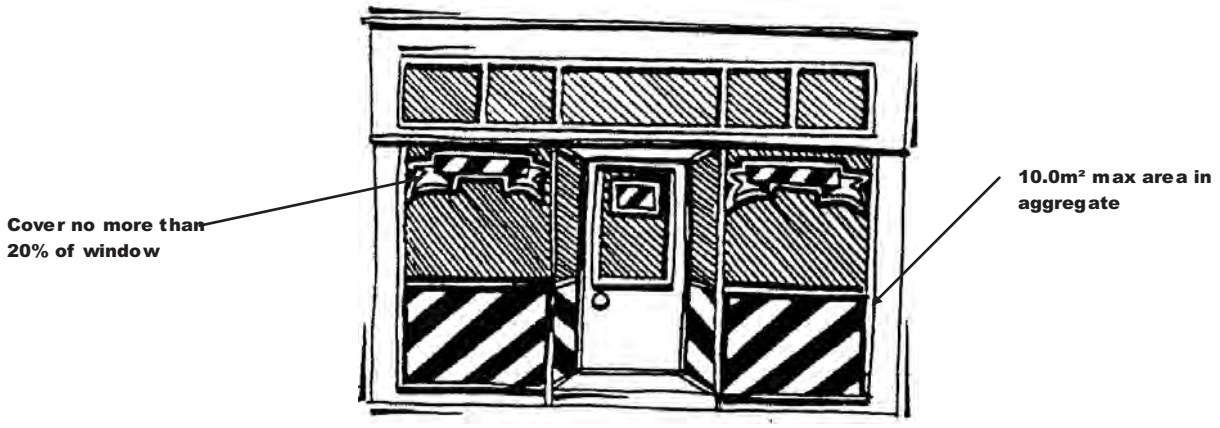


Figure 16 – Example of Window Signs

SPECIFIC AREA DEVELOPMENT PROVISIONS

The following provisions are in addition to the General Development Provisions and the Specific Sign Development Provisions contained within this Policy and relate to specific areas within the City that contain individual provisions.

Where there is a conflict between the provisions outlined below and other provisions contained in this policy, the provisions outlined below will prevail for these specific areas.

Sponsorship Signs on Reserves

These provisions relate only to signage located on a site reserved as Public Open Space and Local Authority Purposes under Local Planning Scheme No. 3. Applications are also be subject to relevant local laws (543 – 579). Applicants should contact the City for further information.

Moveable Sponsorship Signs on Reserves

A moveable sign shall:

- be displayed for not more than eight hours per day;
- be removed if the wind velocity exceeds 30km/hr;
- be made of canvas or sheet plastic with a steel, timber or plastic frame or supports;
- not cause an obstruction;
- not be dangerous;
- not be erected, placed or maintained on or over a public street or thoroughfare;
- not be affixed to a building;
- include the club's name on at least some part of the sign.

Fixed Sponsorship Signs

A fixed sign shall:

- take into account the aesthetic characteristics of a reserve;
- not obstruct a resident's view;
- include the club's name in a legible form;
- be removed at the expiration of the sponsorship agreement;
- be restricted to a maximum of three per club;
- be restricted to a maximum number six signs, where there are two or more clubs on one reserve; and
- comply with the relevant provisions of the Club's Lease Agreement with the City of Stirling.

Sponsorship Signs on Coastal Reserves

These provisions relate only to signage located on a Reserve 12992, which is reserved as Regional Parks and Recreation under the Metropolitan Region Scheme. Only signs for the City of Stirling, Scarborough Surf Lifesaving Club and Trigg Surf Lifesaving Club are permitted on this reserve.

Applications are also be subject to relevant local law 342(d) Beaches and Bathing. Applicants should contact the City for further clarification.

Moveable Sponsorship Signs
Moveable signs shall:

- not exceed - $5m^2$ in area;
- be removed if the wind velocity exceeds 30km/hr;
- be made of canvas or sheet plastic with a steel frame;
- not cause an obstruction;
- not be dangerous;
- only be erected only during normal Surf Lifesaving Club patrols hours;
- include the club's name on at least some part of the sign; and
- be subject to annual approval.

Fixed Sponsorship Signs
Fixed signs shall:

- not exceed 1 roof-mounted sign with a max area of $18m^2$;
- not exceed 3 fixed signs attached to the external walls of the building and not exceed $8m^2$;
- not causes interference with the aesthetics of a reserve;
- not obstructs a resident's view;
- include the club's name on at least 25% of the overall area of the sign;
- be removed at the expiration of the sponsorship agreement;
- not be unsightly; and
- comply with the relevant provisions of the Club's Lease Agreement with the City of Stirling.

Temporary Sign
The Manager Recreation and Reserves is authorised to approve of the erection of sponsorship and other signs for events approved under Policy H700106 - Beach Utilisation - Organised Groups.

Permanent Signs other than on Buildings
A Surf Life Saving Club may apply in writing to erect fixed signs within the coastal reserve. The Executive Manager Infrastructure in considering the merits of an application shall take the following into account with respect to the sea wall at Scarborough Beach.

- The maximum size of each sign shall not exceed 10m x 1.2m and in total shall not cover more than 15% of the area of the sea wall;
- No sponsorship sign shall contain cigarette advertising;
- Each sign shall clearly indicate that the proceeds are in support of Surf Life Saving;
- Sponsorship signs are to be removed at the expiration of the sponsorship agreement;
- The design, advertising material and location of each sign is to be subject to approval of the Manager Approvals.

Signage Visible from Mitchell Fwy, Stephenson Ave & Reid Hwy

Applications for signs designed to be visible for travellers on the Mitchell Freeway, Stephenson Avenue, Reid Highway and the railway shall:

- be limited to identification signs;
- form part of the facade and contain only the corporate logo and/or company identifier;
- be contained within the outline of the building and designed so as not to detract from the architecture of the building;
- roof, pylon, monolith, tethered or freestanding signs and internally illuminated signs are not permitted; and
- advertising signs, bunting and other such advertising devices are not permitted.

On any site containing multiple tenancies a signage application will be considered only where a sign strategy for the total site has been prepared and approved.

These provisions need to be read in conjunction with the provisions of the Main Roads (Control of Advertising) Regulations 1996 and the Roadside Advertising Policy. Applicants' attention is drawn to the landscape theme being developed by the Main Roads Department as this will result in properties losing their exposure to the freeway reservation.

GUIDELINE AREAS

Council has a number of specific policy guideline areas that contain provisions relating to signage, including:

- Inglewood Town Centre Development Guidelines; and
- Main Street Plaza Precinct Development Guidelines.

Applicants should contact the City's Approvals Business Unit to clarify if the development site is subject to specific design guidelines.

NEIGHBOUR CONSULTATION

For applications that do not comply with the provisions contained within this Policy the Council may require neighbour consultation as determined by Council.

VARIATIONS

Applications seeking variations to this Policy are required to submit a planning application and shall be determined in accordance with the objectives and the general development provisions of this policy.

In addition Council may request the removal of other signs on a site where a variation is being sought in accordance with Schedule 8 of Local Planning Scheme No.3.

CONTROL & MAINTENANCE OF EXISTING ADVERTISING SIGNS

Existing Advertising Signs

Clause 6 of Schedule 8 of Local Planning Scheme No. 3 enables Council to permit the continuing display of existing advertising signs.

Maintenance of Existing Advertising Signs

Clause 8 of Schedule 8 of Local Planning Scheme No. 3 enables Council to require the removal or repair of existing advertisement signs if it is considered that the signs have deteriorated to a point where they cease to be effective.

Removal of Existing Advertising Signs

Clause 9 of Schedule 8 of Local Planning Scheme No. 3 enables Council to remove unauthorised advertising signs or dangerous signs on zoned land.

The Local Law relating to Signs, Hoardings and Billpostings enables Council to remove unauthorised advertising signs within road reserves where the signs have been erected without approval, are considered to be dangerous or placed on a thoroughfare.

6.2 BICYCLE PARKING

Introduction

Where this Policy is inconsistent with the provisions of a specific Policy or Guidelines applying to a particular site or area (eg Heritage Protection Area Guidelines), the provisions of that specific Policy or Guidelines shall prevail.

Objectives

- To facilitate the development of adequate bicycle parking facilities;
- To ensure the provision of end of journey facilities; and
- To encourage the use of bicycles for all types of journeys.

Applications Subject of this Policy

This policy applies to the following:

- All non residential development in excess of 400m² gross floor area (new or existing); and
- Multiple dwelling residential developments involving 5 or more units.

Submission Requirements

Plan highlighting the location and number of bicycle parking bays and end of trip facilities.

Development Provisions

Bicycle Parking Ratios

All developments with 400m² or more of gross floor area shall be provided bicycle parking bays in accordance with the following ratios.

ACTIVITY / USE	No. BIKE PARKING SPACES FOR EMPLOYEES / RESIDENTS / STUDENTS	No. BIKE PARKING SPACES FOR CUSTOMERS / VISITORS
All other uses	1 space per 400m² of the gross floor area (GFA)	N/A
Convenience Store	As above	1 space per 50m² of GFA
Shop 0 – 5000m² 5000m² – 10,000m² 10,000m² plus	As above	 1 space per 200m² of GFA 1 space per 300m² of GFA 1 space per 400m² of GFA
Educational Establishment Pre-primary Primary Secondary Tertiary / Technical	 N/A 1 space per 5 **students** (over year 4) 1 space per 5 **students** 1 space per 20 **students**	 N/A
Residential - Multiple Dwelling	1 space per dwelling for **residents** (may be located within required storeroom provided sufficient space is available)	N/A

End of Journey Facilities

End of Journey facilities support the use of bicycle transport by allowing cyclists the opportunity to shower and change at the beginning or end of their journey to and from work. The following facilities shall be provided for all developments that are required to provide 10 or more bicycle parking spaces:

- There shall be a minimum of one female and one male shower, located in separate changing rooms (The changing rooms shall be secure facilities capable of being locked);
- Additional shower facilities shall be provided at rate of 1 female and 1 male shower for every additional 10 bicycle parking spaces, to a maximum of five male and five female showers per building; and
- A locker shall be provided for every bicycle parking space provided (only if 10 or more spaces provided). Lockers shall be well ventilated and be of a size sufficient to allow the storage of cycle attire and equipment.

Location of Bicycle Parking Facilities

All bicycle parking spaces and end of trip facilities shall comply with the following:

- Bicycle Parking Facilities shall be located at ground floor level and not require access via steps;
- Parking facilities shall be located as close as possible to main entrance points;
- Parking facilities shall be located in an area that allows informal surveillance of the facility to occur where ever possible; and
- Parking facilities shall be located away from areas of high pedestrian activity in order to minimise inconvenience or danger to pedestrians.

6.6 LANDSCAPING

Introduction

Where this Policy is inconsistent with the provisions of a specific Policy or Guidelines applying to a particular site or area (eg Inglewood Town Centre Design Guidelines), the provisions of that specific Policy or Guidelines shall prevail.

Objectives

- To promote improved landscaping provision and design;
- To improve the visual appeal of development, screen service areas and provide a buffer to boundaries;
- To provide shade and 'green relief' in built up areas; and
- To promote more environmentally sustainable landscaping.

Applications Subject of this Policy

This policy applies to:

- All non residential developments;
- Non-residential uses in residential areas such as child care centres, etc; and
- Multiple & grouped dwelling residential developments involving 5 or more units.

The following applications are exempt from this policy:

- Applications under Town Planning Scheme No. 38 – (Subject to separate landscaping provisions);
- Applications for a Change of Use & Home Occupations; and
- Minor extensions or changes to existing developments.

Submission Requirements

All development applications subject of this policy are required to submit a landscaping plan containing the following:

- Scale 1:100 – 1:250;
- North Point;
- Lot boundaries;
- Levels;
- Verge Areas;
- Building layout, including major openings;
- Paved areas, footpaths and driveways;
- Existing vegetation; and
- Proposed vegetation including plant sizes, plant species, number of plants and notation of existing vegetation proposed to be retained.

Development Provisions

The following provisions are supplementary to the Acceptable Development standards specified under Clause 6.4.5 - A5 of the Residential Design Codes of Western Australia.

Landscaping Areas

The following requirements are applicable to all applications subject of this policy:

- All individual planting areas, excluding those in or adjacent to public car parks, must have a minimum width in any direction of 500mm and a minimum plantable area of two square metres; and
- The inclusion of verge areas (abutting the site) in the overall landscaping design is required.

Plant Numbers & Types

All landscaped areas (beds) are required to be planted with a suitable number of plants that satisfy the objectives of this policy (plant numbers will be assessed with due regard to the eventual size of the species selected). Species should be chosen to suit the climate, environment, location and required function whilst taking into consideration surrounding landscapes. The use of native species is encouraged to reduce water and fertiliser use.

Street Trees

The provision of new street tree(s) are required where no street tree(s) currently exist. Species must be approved by the City's Parks Department.

Retention of Existing Vegetation

Council encourages the retention of existing vegetation and will *consider* the exercise of discretion in its application of scheme requirements and adopted local policies where such a variation would allow for the retention of significant existing vegetation on a site. (Note: Concessions cannot apply to non-discretionary provisions such as residential density).

Reticulation and Mulching

All landscaped areas shall be reticulated unless the applicant can provide satisfactory evidence that reticulation is not necessary. A minimum of 75mm of mulch (gravel not permitted) is to be applied to all landscaping beds.

Parking Areas

A minimum of 1 tree per 6 bays (Minimum 45 litre for exotics and 11 litre for natives) is required in open parking areas. Shrubs are generally not permitted as they may interfere with sight lines in and around parking areas and driveways. Acceptable examples of tree planting patterns within car parking areas are shown in the following illustrations.

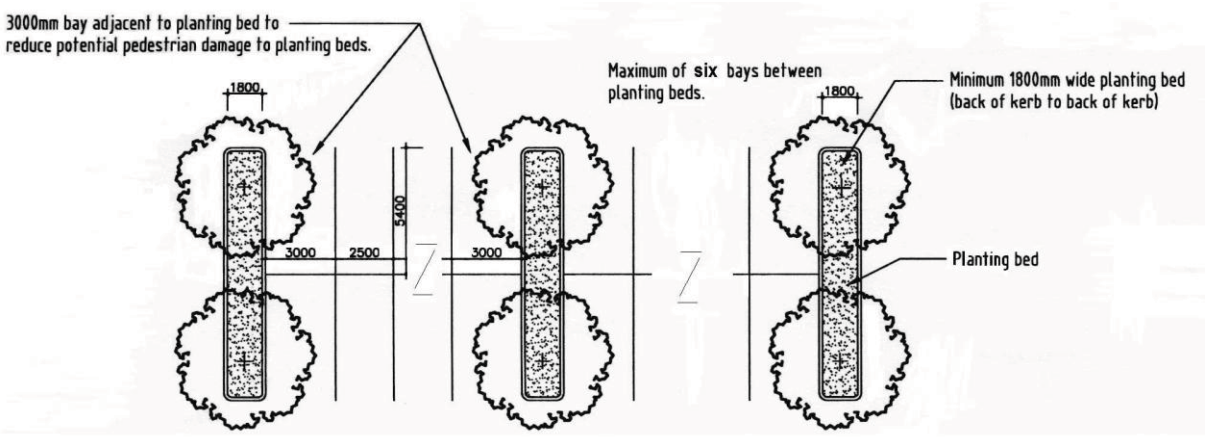


Figure 1 – Preferred Design

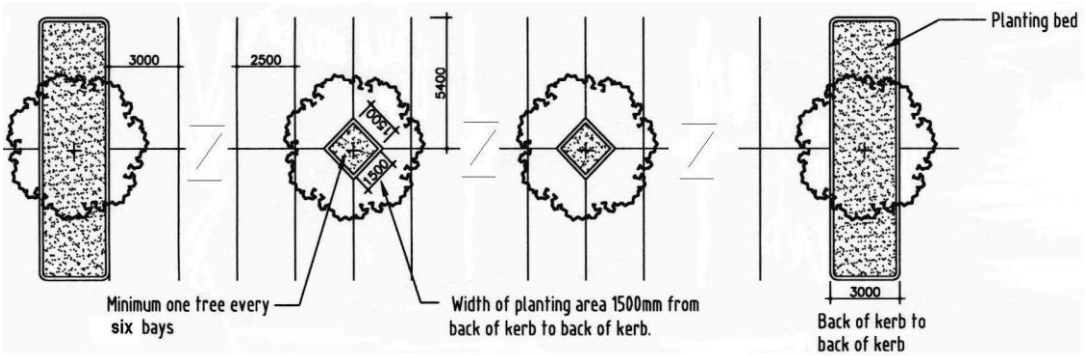


Figure 2 – Acceptable Design

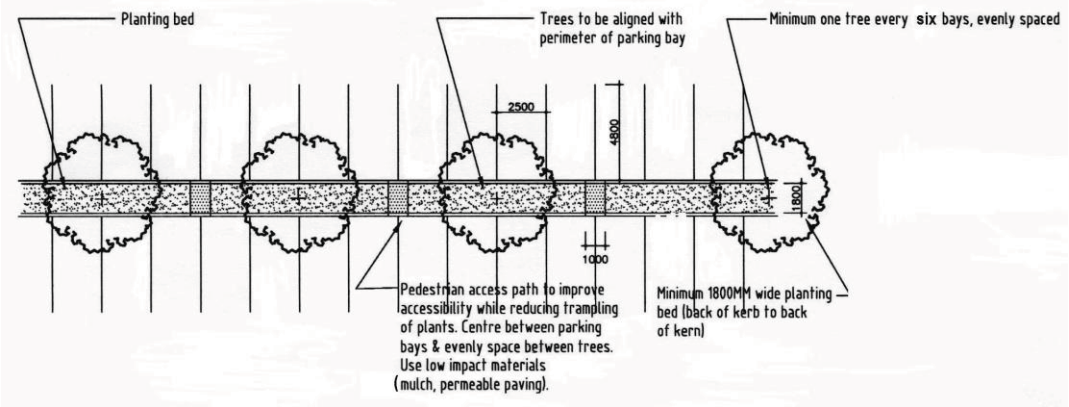


Figure 3 – Acceptable Design

Specific Landscaping Provisions for Commercial Developments

Development applications for commercial development must contain a minimum of 10% landscaping of the total site area. This must include 'soft' landscaped buffers, where setbacks are provided, to adjacent properties with a minimum width of 1.5m.

Specific Landscaping Provisions for Industrial Developments

The following Industrial zones contain specific provisions for landscaping:

- In all industrial precincts (except the Balcatta Precint), a landscaped area not less than 1.5m wide shall be provided adjoining all street boundaries, primarily as planting bed;
- In the Balcatta Precinct and the Mixed Business zone, a minimum of one-sixth of the gross site area shall be landscaped. Landscaping should be provided primarily as buffers to adjacent properties, and along the street boundary; and
- In the Balcatta Precinct and the Mixed Business zone, a minimum landscaping strip of 6m wide along a primary road and 1.5m wide along a secondary road shall be provided, primarily as planting bed.

Assessment Procedure

Applications subject of this policy will be assessed against this policy by the City's Parks Department. Applicants are encouraged to undertake preliminary discussions with the City's Parks Department. Unsuitable species selection, insufficient numbers of species or inappropriate design (as determined by Parks & Reserves) will require the submission of a revised species list and plant numbers.

Variations

Should a residential application not comply with the requirements of this Policy, it may be assessed under the appropriate Performance Criteria of the R-Codes and the objectives of the Policy.

6.7 PARKING & ACCESS

1.0 Introduction

Where this policy is inconsistent with the provisions of a local planning policy applying to a particular site or area, the provisions of that local planning policy shall prevail to the extent of the inconsistency.

2.0 Objectives

a) To facilitate the development of adequate parking facilities;

b) To ensure safe, convenient and efficient access for pedestrians, cyclists and motorists;

c) To ensure that a major parking problem is unlikely to occur;

d) To ensure that car parking areas and accessways do not have a detrimental impact on the character and amenity of an area; and

e) To ensure that an oversupply of parking does not occur that discourages alternative forms of transport and is detrimental to the urban design and character of the locality.

3.0 Applications Subject of this Policy

All development on either zoned land or reserved land is subject to this policy.

4.0 Definitions

Gross Floor Area (GFA): means the total floor area within the building measured from the outside of main faces of external walls (including the portion of any common or party wall forming part of the building) exclusive of parking facilities sited within the building.

Public Floorspace: means any floor area of a building openly accessible to the public excluding private storage areas, kitchens, staff areas and the like.

Gross Leasable Area (GLA): means in relation to a building, the area of all floors capable of being occupied by a tenant for its exclusive use measured from the internal finished surface of external building walls, but excluding features such as balconies and verandahs and, if there are two or more occupants or tenants, excluding common use areas, service areas, and non-exclusive public spaces and thoroughfares.

Alfresco Area: means an area with direct access from a restaurant, hotel or the like which is not permanently enclosed, may include a covered roof, and is utilised for the consumption of food or beverages.

Reciprocal Parking: refers to parking facilities serving separate uses or a mixed-use development (i.e. a development comprising of both residential and non-residential uses), but not shared concurrently between the uses.

Redundant Crossover: means a crossover which no longer provides vehicular access to a site or is no longer adjoined to a driveway or access way on a site.

Residential Development: refers to development of single house/s, grouped dwellings, multiple dwellings, aged persons dwellings, single bedroom units and residential buildings as defined in the Residential Design Codes of Western Australia.

Mixed Use Development: means a development comprising of both residential and non-residential uses.

End-of-Journey Facilities: means facilities which support the use of bicycle transport by allowing cyclists the opportunity to shower and change at the beginning or end of their journey to and from work. The facilities include separate male and female changing rooms and shower facilities and lockers for the storage of clothing and other personal items.

District Distributor Road: means as defined in the functional road hierarchy published by Main Roads WA.

Local Road: means as defined in the functional road hierarchy published by Main Roads WA.

Australian Standard: means a document having that title and reference number published by Standards Australia Limited.

Austroads 2009: means the publication titled Guide to Road Design Part 4 published by the Association of Australia and New Zealand Road Transport and Traffic Authorities.

Service Access: means vehicular access for non-residential uses to provide a function which includes but is not limited the loading and un-loading of goods, deliveries, dispatch and the like.

5.0 Parking Ratios

5.1 Provision of Car Parking

The number of car parking bays required to be provided for the uses and activities referred to in Table 1: Car Parking Ratios shall be in accordance with the car parking ratios in Table 1 unless otherwise approved by Council.

Table 1: Car Parking Ratios

ACTIVITY / USE	CAR PARKING RATIO
Alfresco Area	1 bay per 14m^2 of alfresco area
Bank	1 bay per 20m^2 of GFA
Bed & Breakfast	2 bays per dwelling, plus one bay per bedroom (used for accommodation)
Boarding House	1 bay per bed or 1 bay per unit as the case may be
Child Care Premises	1 bay per staff member and 1 bay per 7 children
Club Premises	1 bay per 9m^2 of public floorspace

Consulting Rooms and Medical Centres	6 bays for 1 health consultant 10 bays for 2 health consultants 2 additional bays for each health consultant in excess of 2 health consultants; and Where a medical centre includes a chemist as an ancillary service, the number of parking bays to be provided for the purpose of that chemist shall be calculated at the rate of 1 bay per 25m^2 of GFA.
Educational Establishment Pre-primary Primary Secondary Tertiary / Technical	 1 bay per staff member; 1.25 bays per classroom; 3 bays per classroom; 1.25 bays per classroom, plus one bay per 3.5 students.
Garden Centre	1 bay per 50m² of nursery area
Hardware Showroom	1 bay per 20m² GFA
Hospital	1 bay per bed
Hotel/Motel	1 bay per bedroom; and 1 bay per 3m^2 of public floorspace (including dining areas and function rooms)
Industry – Extractive[(a)] **Industry – General**[(a)] **Industry – Light**[(a)] **Industry – Noxious**[(a)]	1 bay per 50m^2 of GFA
Industry - Service[(a)]	1 bay per 50m^2 of GFA (industry component) 8 bays per 100m^2 of GLA (retail component)
Motor Vehicle, Boat or Caravan Sales	1 bay per 100m² of open display area and one bay per staff member
Motor Vehicle Repair	1 bay per 40m^2 of GFA
Nursing Home	1 bay per three beds
Office	1 bay per 30m^2 of GFA
Place of Worship	1 bay per 4m² of public floorspace and 1 bay per staff member
Public Amusement Cinema/Theatre	 1 bay per 3m^2 of auditorium area;
Recreation Private Bowling Alley Health Studio Indoor Cricket Skating Rink Sports Hall Squash Court Swimming Pool	 2.5 bays per lane 1 bay per 9m^2 of public floorspace; 16 bays per court; 1 bay per 20m^2 of GFA 1 bay per 20m^2 of GFA 2 bays per court; and 1 bay per 4 people accommodated.
Residential	As per the Residential Design Codes of Western Australia.
Restaurant, Fast Food Outlet , Reception Centre	1 bay per 7m^2 of gross floor area

Service Station	3 bays per working bays
Shop/Personal Services 0 - 5000m^2 5001 – 10,000m^2 10,001m^2 plus	 8 bays per 100m^2 of gross leasable area (GLA) 400 bays plus 7 bays per- 100m^2 of GLA in excess of 5001m^2 750 bays plus 6 bays per- 100m^2 of GLA in excess of 10001m^2
Showroom	1 bay per 30m^2 of GFA
Tavern	1 bay per 3m^2 of public floorspace (including dining areas and function rooms)
Veterinary Centre Practitioners	 6 bays for one practitioner 10 bays for two practitioners 2 additional bays for each practitioner in excess of 2 practitioners
Warehouse[(a)]	1 bay per 50m^2 of GFA

a) The parking ratio for an office which is incidental to the activity or use referred to in Table 1, where the area of the office is less than 60m^2, is the same ratio as the activity or use to which it relates.

5.1.1 Uses Not Listed

Where an activity or use is not listed in Table 1, the parking ratio will be determined by Council having regard to the objectives of this policy, similar uses, surrounding uses and off-site parking availability.

5.1.2 Rounding of Parking Bays Required

All parking requirements are to be calculated by rounding to the nearest whole number.

5.2 Reduction of the Required Number of Car Parking Bays

With respect to non-residential development, the following clauses specify criteria for consideration by Council in permitting reductions to the number of car parking bays required by applying the car parking ratios in Table 1. Reductions may be granted cumulatively under clauses 5.2.1, but the maximum variation that will be permitted is 65% of the required number of bays under clause 5.1.

5.2.1 Parking Reduction

The required number of car parking bays derived by the application of the parking ratios for non-residential development in Table 1 may be reduced where the performance criteria in Table 2 are satisfied. The reductions in parking as outlined in Table 2 are not applicable where under Local Planning Scheme No.3 and /or a specific local planning policy specifies a parking ratio different to Table 1 or a modified overall parking requirement.

Table 2: Proposed Car Parking Reductions

Reduction %	Performance Criteria
20% **or** 10%	The proposed development is within 400 metres[(b)] of a rail station shown in Figure 1; **or** The proposed development is within 800 metres[(b)] of a rail station shown in Figure 1.
15%	The proposed development is within 200 metres[(b)] of a stop on a high

or 10%	frequency bus route or a bus station shown in Figure 1; **or** The proposed development is within 400 metres[b] of a stop on a high frequency bus route or a bus station shown in Figure 1.
20% **or** 10%	The proposed development is within 50 metres[b] of an existing public car parking area as shown in Figure 2; **or** The proposed development is within 400 metres[b] of an existing public car parking area as shown in Figure 2.
5% **or** 10%	The proposed development is to provided 5 bicycle bays greater than required (as per specifications in 6.2 Bicycle Parking); **or** Where the above concession is sought and 'end-of-journey' facilities are provided[c] (as per specifications in 6.2 Bicycle Parking);
10%	The proposed development is within a Local Centre, District Centre, Regional Centre, Mixed Use or Business Zone.
10%	Where the building/place is listed on the City's Heritage List, Municipal Inventory or the State Register of Heritage Places (subject to the building being appropriately conserved).

b) Distance is calculated via constructed footpaths or along road reserves (where no footpaths exist) and not "as the crow flies".
c) Granted if additional bicycle bays take the total number of bays to 10 or more requiring end-of-journey facilities to be provided.

Any additional reductions to those specified in the above Table will require Council's approval, having due regard to the circumstances of a particular case, any justification submitted by the applicant and the likely impact on the amenity of the surrounding area and residents.

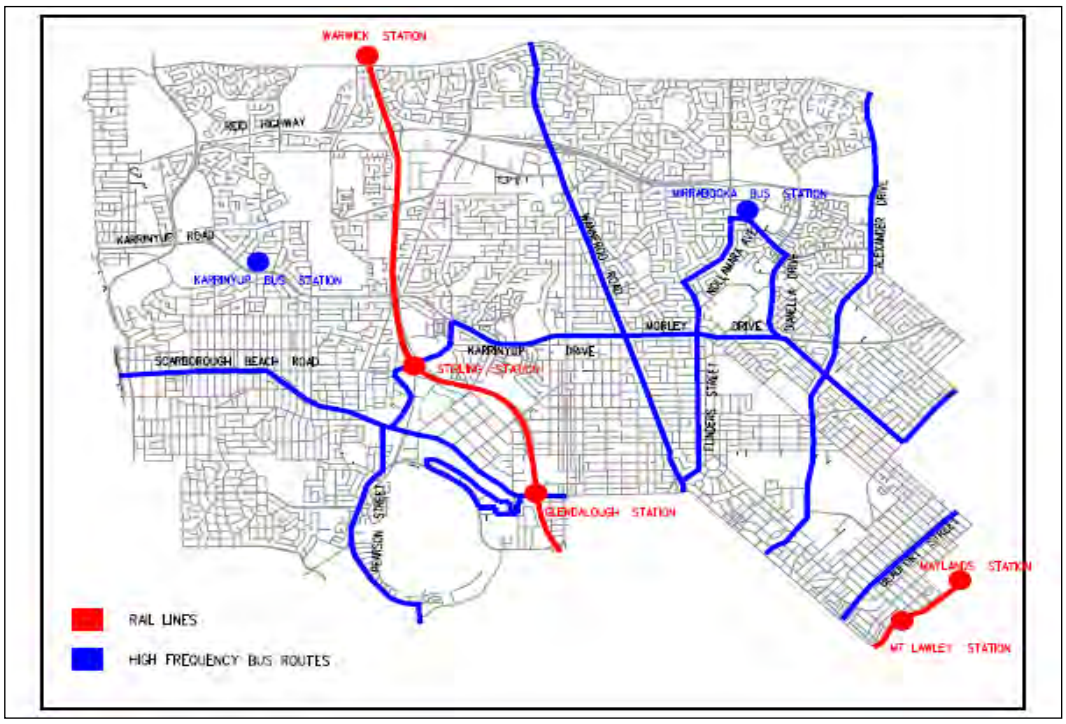


Figure 1 – High Frequency Bus Routes and Train Lines

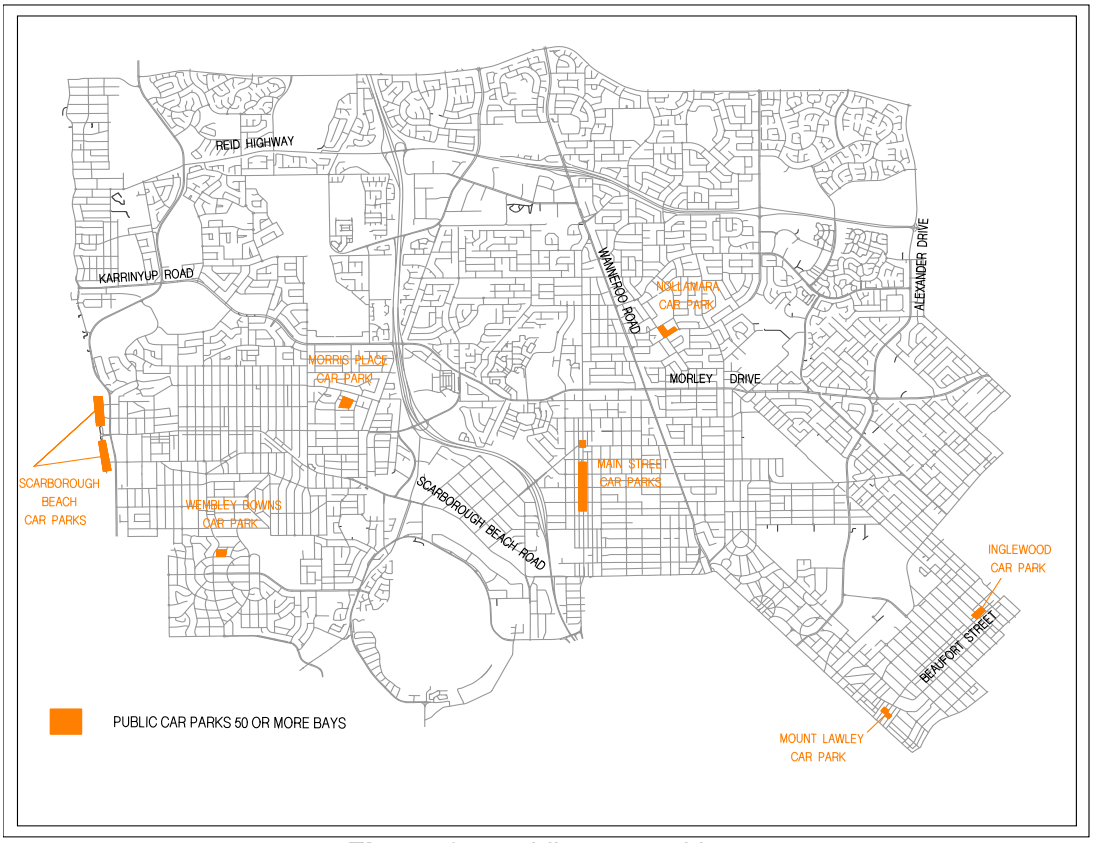


Figure 2 – Public Car Parking Areas

5.2.1.1 Cumulative Reduction in Car Parking Bays

Reductions may be granted cumulatively under clause 5.2.1, but the maximum variation that will be permitted is 65% of the required number of bays as calculated under clause 5.1.

5.2.2 Reciprocal parking

Reciprocal parking arrangements, up to the full parking requirement specified in Table 1: Car Parking Ratios of this policy, may be considered acceptable where Council is satisfied that:

a) Demand for parking by the various uses proposed will not unreasonably coincide;
b) The parking facilities serving the proposed uses will be located on the one lot, or if located on a separate lot, the parking arrangements are permanent (e.g. through an easement, amalgamation, legal agreement, restrictive covenant or any other formal arrangement acceptable to Council);
c) Parking demand both in the immediate and long term can be satisfied; and
d) No substantial conflict will exist in the peak hours of operation of the uses for which the reciprocal parking arrangements are proposed.

5.2.3 Cash in Lieu

Cash-in-lieu of parking shall be considered only where non-residential developments are unable to meet the Scheme parking requirements (i.e. they have a shortfall of parking). This provision is not replacing the developer's responsibility to provide sufficient on-site parking, but rather as a mechanism to enable desirable developments, for which the full amount of parking cannot be provided on site but can be provided elsewhere, to proceed. In determining whether to accept cash in lieu of parking, the following will be considered / required:

a) The actual provision of an adequate supply of parking;
b) An identified location (on or off-street) within close vicinity of the subject site for the provision of additional bays exists (either proposed or already constructed);
c) Contributions will be calculated per bay based on the estimated average cost of providing a public parking bay (including turning areas) in that locality at current market costs for both the land component (to be determined by an independent valuer, at the applicant's cost) and construction (to be determined by the City's Engineering Design Unit). Where opportunities exist for both on-street and off-street parking to be provided by the City, an averaged cost shall be applied, unless otherwise approved by Council;
d) Payment by installments may be considered for ten or more bays;
e) Monies thus collected will be placed in a Special Parking Fund which may only be used by the City for:
    - Acquisition of land for parking in the municipal district;
    - Construction of public parking, both on-street and in a parking station;
    - Improvements to existing parking stations and on-street parking;
    - Servicing of loans obtained to provide parking;
    - Maintenance of public parking areas and bays; or
    - Public transport infrastructure, where Council considers that such expenditure would result in a reduced demand for parking in that area.

Whilst the City will make every effort to ensure the expenditure of cash in lieu occurs within the appropriate location to meet the parking shortfall, the collection of sufficient funds to complete works may take time to accumulate. Consequently, the City makes no commitment in accepting cash-in-lieu of parking to expend that money within a particular time-frame.

6.0 Submission Requirements - Transport Analysis

The City requires the submission of a transport analysis for certain developments as outlined below or where deemed necessary by Council.

Brief Transport Analysis

A brief Transport Analysis (non-technical report) is required to be submitted for Child Care Centres, Education Establishments and non-residential developments fronting a District Distributor Road or above and in instances where a proposal seeks reciprocal parking or cash in lieu of parking bays. The Transport Statement shall include but not limited to:

a) Description of the development;
b) Vehicle access and parking arrangement;
c) Provision for service vehicles;
d) Hours of operation;
e) Estimate of daily traffic volumes and type of vehicles (staff & customers);
f) Location of nearest bus stops train stations and level of accessibility;
g) Pedestrian access / facilities (footpaths);
h) Cycle access / facilities (bike paths); and
i) Survey of existing car parking usage in the locality

Full Transport Analysis

A full Transport Analysis (technical report) is required to be submitted for developments requiring or proposing more than 50 parking spaces (after factoring in any reductions) and shall include but not limited to:

a) Assessment of impact of vehicular movements upon surrounding roads and intersections;
b) Description of the development;
c) Assessment of the likely parking demand;
d) Consideration of nearby developments including those with valid approvals which are yet to be constructed;
e) Assessment of accessibility to the site by non-car modes;
f) Assessment of the impact of the development traffic on existing pedestrians, cyclists and public transport users; and
g) Assessment of the potential impact on the amenity of the surrounding area.

7.0 Residential Parking Layout, Design and Access

7.1 Residential Parking Layout and Design

All car parking and manoeuvring areas for residential developments are to be designed in accordance with the Residential Design Codes of Western Australia and the provisions set out hereunder:

a) Parking for all residential developments shall be paved and drained to the satisfaction of the Council and maintained thereafter;
b) Parking areas shall be designed so as to enable vehicles to return to the street in forward gear where it is considered that reversing onto the road will pose a traffic hazard;
c) Car parking areas for single, grouped or multiple dwelling developments or developments with more than one driveway should be brick-paved or be of alternative finishes, such as concrete that are suitably treated with a decorative type finish to the City's satisfaction;
d) Any parking bays provided in the road reserve do not contribute towards the number of on-site bays required; and

e) Where a loss of off-site parking occurs due to new vehicular access arrangements, the applicant must either pay cash in lieu for the loss in parking or provide the loss of parking on-site or at an appropriate location off-site.

7.2 Residential Access

Access to residential parking areas shall be provided in accordance with the provisions set out hereunder:

7.2.1 Driveways and Crossovers

Driveways and Crossovers (where applicable) shall;

a) Be no closer than 0.5m to side boundary and street poles;

b) Be no closer than 1.0m from the nearest point of a street tree;

c) Be aligned at right angles to the street: and parallel in width;

d) Be designed for vehicles to enter the street in forward gear where it is considered that reversing onto the road will propose a traffic hazard;

e) Be no wider than the width of the garage or carport opening in which it services;

f) For multiple and grouped dwellings, be designed to allow vehicles to pass in opposite directions where a change of direction occurs along an access; and

g) Where a lot has access to both a Distributor Road and a Local Road, all access must be from the local road unless it can be demonstrated that access can be safely accommodated from the Distributor Road.

7.2.1.1 Turning Circles (manoeuvring)

a) A manoeuvring depth of 6.0 metres is required for single vehicle garages or multiple vehicle garages containing internal walls and/or obstructions between vehicles.

b) A manoeuvring depth of 5.8 metres may be considered for multiple vehicle garages with no internal walls and/or obstructions between vehicles.

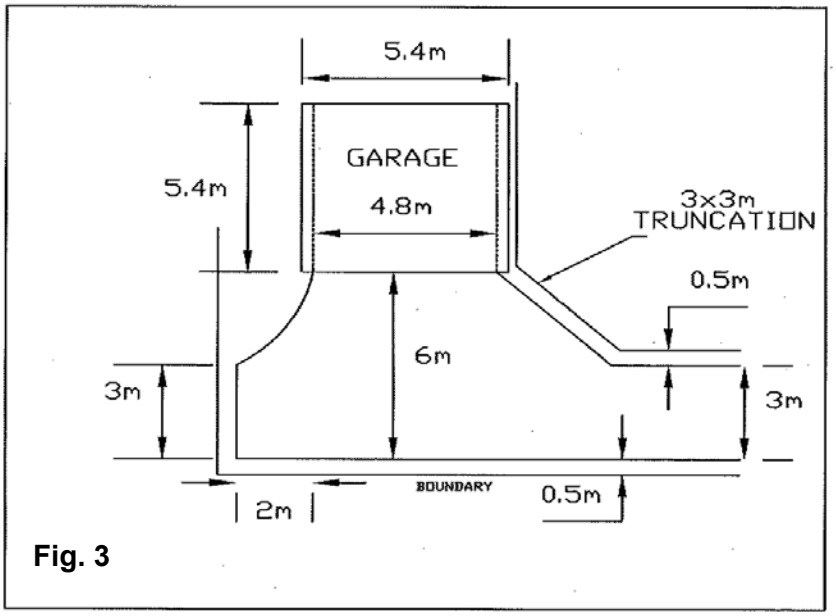


Fig. 3

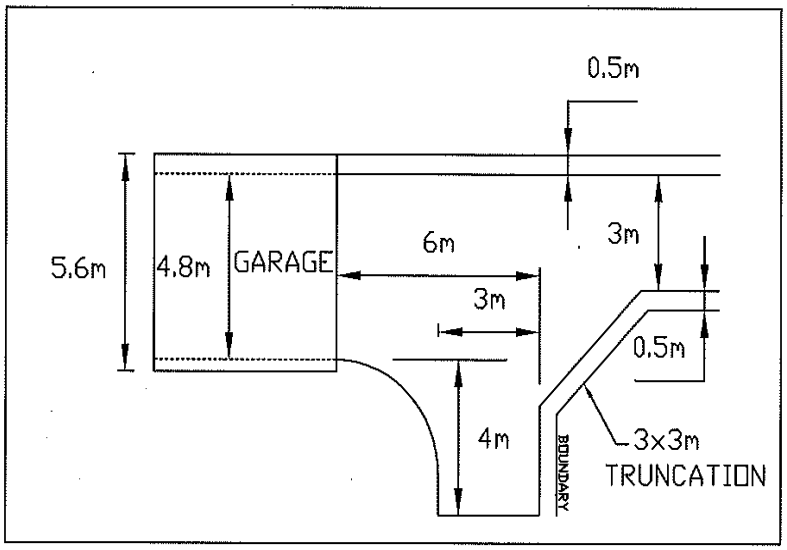


Fig. 4

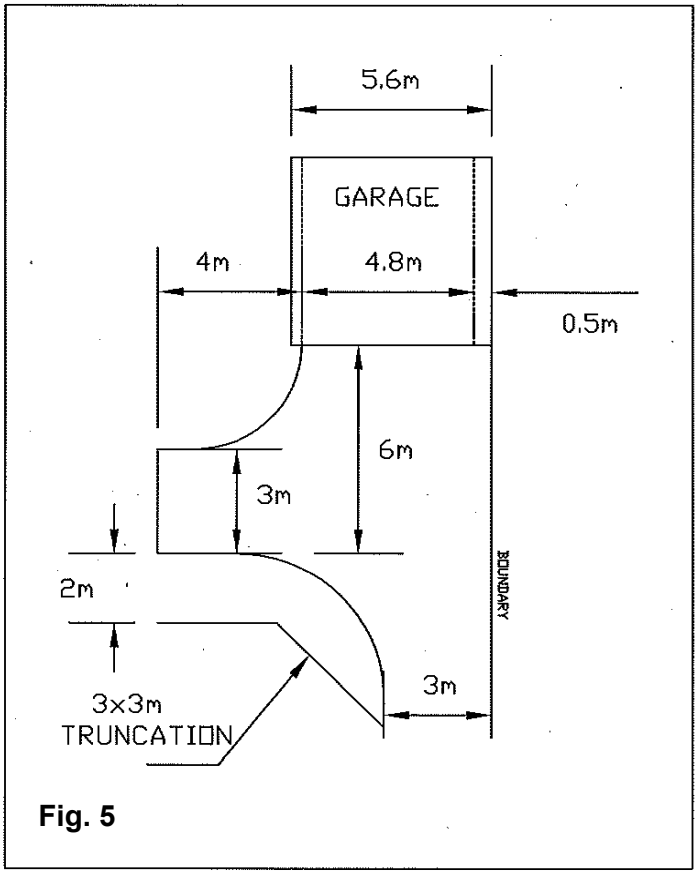


Fig. 5

Figures 3, 4 and 5 – Examples of acceptable turning circles

7.2.2 Driveway Taper

a) A maximum internal driveway taper of 1:5 is permitted; and

b) A decrease in the internal driveway tapers must comply with the "Standard single turn swept path templates" as detailed in Australian Standard AS 2890.1.

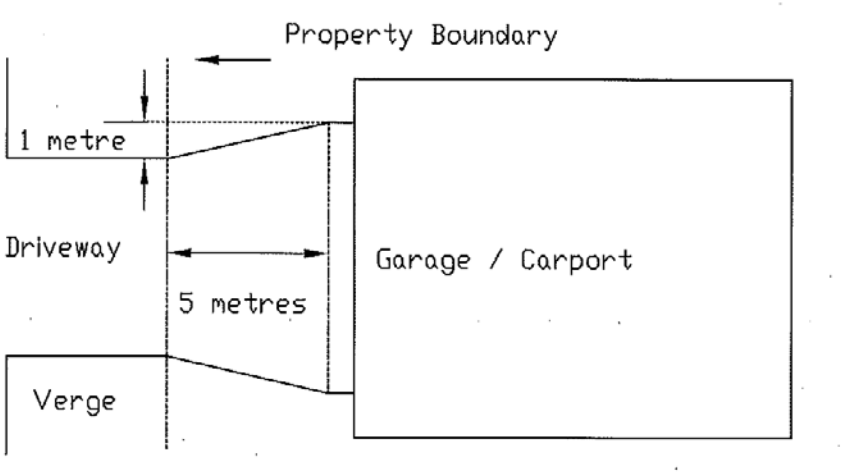


Figure 4 – Driveway Taper

7.2.3 Driveway Gradients

Driveway gradients shall comply with Australian Standard AS 2890.1. A longitudinal section may be required to demonstrate compliance with Australian Standard AS 2890.1.

7.2.4 Removal of Redundant Crossovers

Any redundant crossover is to be removed and verge and kerb reinstated to the City's requirements

7.2.5 Verge Levels

Existing verge levels are not to be modified unless determined necessary by the City due to topography considerations.

8.0 Non-Residential Parking Layout, Design and Access

8.1 Non-Residential Parking Layout and Design

All car parking and maneuvering areas for non-residential developments are to be designed in accordance with the Australian Standards AS 2890.1 and the provisions set out hereunder:

a) Parking areas shall be sealed, drained and marked to the satisfaction of the Council and maintained thereafter;

b) Parking areas shall be designed so as to enable all vehicles to return to the street in forward gear;

c) Disabled parking bays as required under the provisions of the Building Codes of Australia may be in included in the number of bays calculated in accordance within Table 1. The provision of disabled parking bay/s should not reduce the number of parking bays being able to be provided on site as required by this policy;

d) Disabled parking bays are required to provide a shared area in accordance with Australian Standard AS 2890.6;

e) Entry and exit points and vehicle circulation patterns are to be clearly indicated

f) Parking bays shall not be provided in tandem;

g) Car stacking systems or other such systems may be supported subject to the submission of a parking management plan detailing the operation of the system to the satisfaction of Council

h) Parking areas developed for the following uses shall accommodate for a 12.5m turning radius (single truck) as per Austroads 2009, Table 5.1:

   a) Garden Centre
   b) Hardware Showroom
   c) Industry – Extractive
   d) Industry – General
   e) Industry – Light
   f) Industry – Noxious
   g) Industry – Rural
   h) Industry - Service
   i) Media Establishment
   j) Motor Vehicle Repair
   k) Motor Vehicle, Boat or Caravan Sales
   l) Salvage Yard
   m) Service Station
   n) Showroom
   o) Storage (outdoor)
   p) Transport Depot
   q) Warehouse
   r) Wrecking

8.2 Non-Residential Access

Access to non residential parking areas shall be provided in accordance with the provisions set out hereunder:

8.2.1 Access ways and Crossovers

Access ways and crossovers (where applicable) shall;

a) Be provided at a rate of no greater than one per street frontage;
b) Be no less than 6.0m in width and no greater than 10m in width;
c) Be no closer than 0.5m to side boundary and street poles;
d) Be no closer than 1.0m from the nearest point of a street tree;
e) Be aligned at right angles to the street and parallel in width;
f) Be designed so as to minimise traffic or pedestrian hazards, conflict with pedestrian/cyclist pathways and interference with public transport facilities;
g) Be designed are to be designed in accordance with Australian Standard AS 1742;
h) Be subject to Main Roads WA approval where they connect onto roads under Main Roads WA control such as but not limited to Primary Distributor Roads, roads designated as truck haulage routes and properties that abut traffic lights; and
i) Be accessed from a local road in cases where a lot has access to both a Distributor road or local road unless it can be demonstrated that access can be accommodated safely

8.2.2 Non residential Service Access

Service Access shall be provided to the rear of a shop, showroom, restaurant, warehouse or other commercial use for the purpose of loading and unloading off goods unless, in the opinion of the Council, the circumstances do not warrant the provision of such access. Where alternative service access is provided, and such access is considered acceptable by the Council, the Council may waive the requirement of this Clause. Service Access shall be provided in accordance with the provisions set out hereunder:

a) The service access shall be so constructed that vehicles using it may return to a street in forward gear;
b) If a right of way is located to the rear of the lot, an area shall be paved on the lot so that vehicles when loading or unloading shall not remain on the right of way. The area shall be of such a size that if no alternative route exists, vehicles may turn so as to return to the street in forward gear;
c) The service access shall not be less than six metres in width. If the size of the lot makes the provision of a six metre wide access way impracticable or unreasonable, the Council may permit an service access of a lesser width, but in no case less than three meters in width;
d) The service access as required above shall be designed so as to segregate vehicles, both moving and stationary, from parking areas and access ways provided for customer parking; and
e) Loading/unloading areas should not be located within close proximity to any adjoining residential uses;

8.2.3 Removal of Redundant Crossovers

Any redundant crossover is to be removed and verge and kerb reinstated to the City's requirements.

8.2.4 Verge Levels

Existing verge levels will not be modified unless determined necessary by the City due to topography considerations.

9.0 Landscaping

All landscaping of parking areas is to be in accordance with the City's Landscaping Policy.

10.0 Specific Purpose Bays

The provision of bays marked exclusively for the use of motor cycles, bicycles, delivery and service vehicles, taxis, buses, coaches, courier services, and timed bays where the nature of the development requires specific purpose bays may be required in addition to the requirements of Table 1. Council will determine the number of bays to be marked for specific purpose bays depending on the nature of the development; however, the following rates are to be used as a guide:

a) In non-residential developments with over 500m² of GFA, at least one bay shall be permanently set aside and marked for the exclusive use of delivery and service, and courier vehicles;
b) In childcare premises an area shall be provided for the adequate setting down and picking up of children which is separate from the car parking area.;
c) The provision of bays marked exclusively for use by drivers with disabilities at the rate specified in the Building Code of Australia and relevant Australian Standards shall be required; and
d) The location of specific purpose bays shall be determined by Council having regard to the nature of the specific purpose bays required.

11.0 Minor Additions and Changes of Use within the Scarbourough Special Control Area.

When considering an application for a minor addition or a change of use within the Scarborough Special Control Area (as defined under Clause 6.9 of Local Planning Scheme No.3), parking bays in addition to those already existing on-site will not be required where the application meets all of the following:

a) The addition is non-residential;
b) The change of use is to a non-residential use, or occurs upon a site which is zoned mixed use;
c) The addition and/or the change of use would not require more than 3 additional parking bays;

d) The addition does not increase the non-residential floorspace of a building by more than 50m^2; and

e) The applicant satisfies Council that the addition will not substantially increase the intensity of the use of the site.

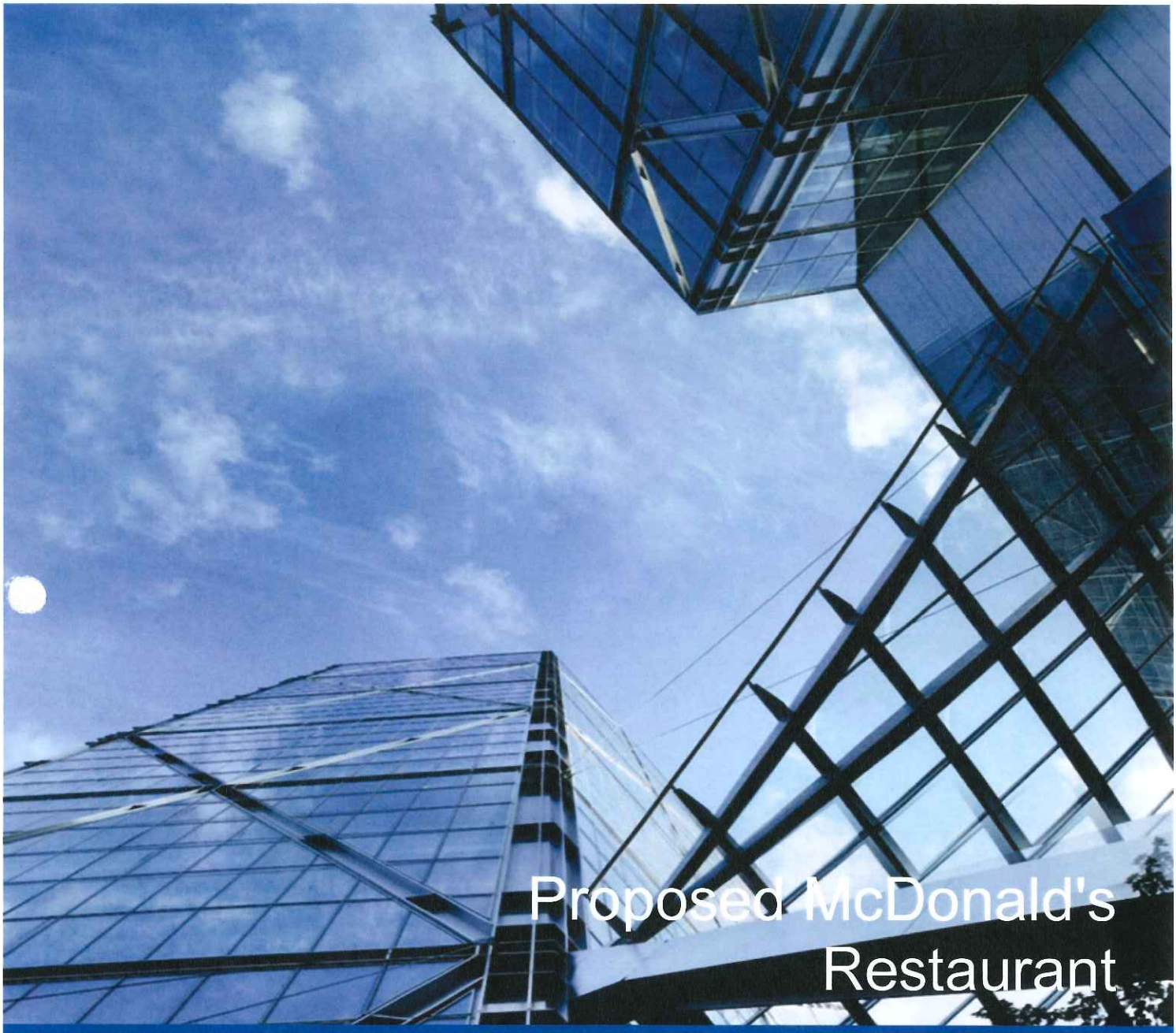
12.0 Variations

Applications seeking variations to this Policy shall be determined by Council in accordance with the objectives of this Policy and, in doing so, Council may seek the comments of adjoining or nearby neighbours.

Office Use Only:

Policy Adoption and Amendment History:

Reviewed / Modified	Date	Resolution Number
Adopted	10 July 2012	0710/005



Proposed McDonald's Restaurant

Lot 56 (2) Chesterfield Road, Mirrabooka

DEVELOPMENT APPLICATION

December 2012

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urbis

URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

Director	Ray Haeren
Associate Director	Simon Wilkes
Consultant	Megan Gammon
Job Code	PA0875
Report Number	Rev1

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Executive Summary

McDonald's Australia Limited (McDonald's) is seeking planning approval for the use and development of Lot 53 (No.2) Chesterfield Road, Mirrabooka, for a drive-through fast food outlet (McDonald's Family Restaurant) and associated parking, access, signage and landscaping. The site is zoned 'Mixed Business' in the City of Stirling Local Planning Scheme No.3.

THE PROPOSAL

The restaurant proposed as a 2 storey building on the corner of Chesterfield Road and Yirrigan Drive, within the Mirrabooka Regional Centre, and will comprise the following:

- Indoor and outdoor dining areas.
- A café.
- A party room.
- A playground area.
- A dual-lane drive-through facility.
- Kitchen and preparation areas.
- Food/Equipment Storage Areas.
- Bathroom facilities.
- Staff facilities including a training area and manager's office.
- A corral for servicing, waste and bin storage.

It is proposed that the restaurant will operate 24 hours per day, 7 days per week.

This development application proposes to redevelop an existing Indian Growers Market and relocate the existing McDonald's store, located on Mirrabooka Avenue, with a new McDonald's store, approximately 150m west of the proposed store site.

SITE CONTEXT & CONSIDERATIONS

The following considerations are relevant to the proposed restaurant:

- The site is located on the edge of the Regional Centre in a traffic dominated environment, with a need to balance current setting with possible future development. The restaurant building proposed is not typical of other McDonald's restaurants and is 2-storey to achieve a more consolidated building form, given its location within the Mirrabooka Regional Centre.
- The proposed McDonald's restaurant is considered an improvement upon existing built form and gives additional prominence to the Yirrigan/Chesterfield street corner through increased parapet heights and architectural detailing and panelling, delivering a visually interesting outcome.
- Passive surveillance to Chesterfield Road and Yirrigan Drive is facilitated through the location of terrace and playground areas to front this corner, thereby providing 'eyes on the street'.
- The spatial arrangement of the restaurant building and drive-through facility was driven by the need to retain links to adjoining landholdings (to the north and east) and to deliver a legible, easy to use and efficient drive-through, access and carparking arrangement, which will not result in congestion or conflict.
- Although needing to acknowledge the existing site context and conditions the development provides improved pedestrian access to the site from surrounding areas and transit, and improved accommodation for bicycle parking.

PLANNING CONSENT

This development application seeks approval to develop a drive-through fast food outlet at the abovementioned location. The proposal complies with the planning framework set out by the City of Stirling, and where minor variations to standard provisions have been proposed, justification has been provided.

It is respectfully requested that the City of Stirling have regard to the individual merits and broader benefits of the proposal in applying discretion and making a determination on the proposal. Further, it is respectfully requested that the application be approved subject to relevant and reasonable conditions.

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Introduction

This report has been prepared by Urbis on behalf of McDonald's Australia Limited as part of an application for development approval for the use and development of Lot 53 (No.2) Chesterfield Road, Mirrabooka, for a fast food outlet (McDonald's Family Restaurant) and associated parking, access, signage and landscaping.

The report has been structured in the following manner:

- A contextual discussion of the Mirrabooka Regional Centre.
- A description of the subject site and surrounds.
- An explanation of the proposal.
- Planning context, assessment and rationale.
- Key matters for consideration.
- Local and regional contribution.

In preparing this application, Urbis has undertaken several inspections of the site and its surrounds. Urbis has also had discussions with the City of Stirling staff in relation to this application, including pre-lodgement discussions (dated 30 November 2012 and 7 December 2012) with City Planning Officers to discuss the proposal and any preliminary issues moving forward. The City's feedback was considered in the finalisation of this application.

It is acknowledged that Council staff have identified possible future changes in requirements and context associated with the possible development of Light Rail. Although this is understood, this application must be assessed under the existing planning framework given no final decisions have been made and no amendments have been formally adopted to the associated framework to facilitate the development of Light Rail. McDonald's has sought to have regard to the potential future environment, however the development will need to respond to the existing site context and environment given the current uncertainty and timeframes associated with the development of Light Rail.

1 Mirrabooka Regional Centre

The Mirrabooka Regional Centre (MRC) is bound by Reid Highway to the north, Yirrigan Drive to the south, Northwood Drive to the east and Mirrabooka Avenue to the west. The Centre is located approximately 9km north of the Perth CBD and was developed in the 1970's, with its original purpose to service surrounding suburbs only.

The predominant retail component of the MRC Centre is the Mirrabooka Square Shopping Centre, which provides the region with a wide range of comparative and convenience goods and services and also offers a significant number of employment opportunities. This centre serves a regional function, serving suburbs such as Mirrabooka, Nollamara, Balga, Westminster and Dianella. The MRC is also characterised by bulky goods commercial, showroom and retail, as well as recreation, civic and transport facilities.

The MRC is classified as a 'secondary centre' under *State Planning Policy 4.2 – Activity Centres for Perth and Peel.* The main role/function of a secondary centre is described as follows:

> *'Secondary centres share similar characteristics with strategic metropolitan centres but serve smaller catchments and offer a more limited range of services, facilities and employment opportunities. They perform an important role in the city's economy, and provide essential services to their catchments'.*

Organic and gradual expansion and redevelopment of the MRC is ongoing, including the recent development of the Northwood Grove subdivision, the construction of a new Town Square area to provide the community with a focal point within the centre of the MRC, and the redevelopment of the Mirrabooka Bus station and integrating this with the new Town Square. The extension of Sudbury Road has also been completed, to improve traffic movement and linkages to and within the MRC. The form of the centre is transitioning with new development having a strong focus on the creation of a safe, successful and vibrant centre, which serves the needs of the local and regional community.

In order to comprehensively and holistically plan for this ongoing growth and evolution and in accordance with State Planning Policy 4.2, we understand the City of Stirling has commenced preparation of an Activity Centre Structure Plan over the entire MRC, with an anticipated completion date of end-2014. We understand the key objective of this Plan is to provide a coordinated strategy for the integrated development of the Centre, which provides a range of needs for its broader regional catchment. Further, the State Government has recently announced a light rail project, which is proposed to extend through the MRC.

This development application proposes a McDonald's Family Restaurant, to replace its existing store, located on Mirrabooka Avenue, approximately 150m west of the proposed store site. The existing store is part of a strata-lot, and therefore is constrained from an operational perspective, both in relation to the drive-through facility and internal storage/food preparation areas. To provide McDonald's with greater flexibility, as well as improve the overall efficiency and appearance of the store, McDonald's is seeking approval for a new store on a standalone lot. This proposed restaurant is appropriately located within the south-eastern portion of the MRC, on the corner of Yirrigan Drive and Chesterfield Road.

Development of the restaurant will significantly improve the amenity of a currently under-utilised site, and will continue to deliver a convenience and community use to the surrounding local and regional community. The design of the restaurant responds to its surrounding regional centre context, through provision of a 2-storey building to achieve a more consolidated building form. Appropriate interface treatments and connections to surrounding activity generators, including the Mirrabooka Square Shopping Centre, has been balanced with the need for a functional and accessible restaurant which responds well to the site and its contextual surrounds.

The proposal balances existing and possible future environments, as a single consolidated development and as such will not result in the further fragmentation of landownership in the MRC. Accordingly, the development will not undermine the ability for the site to be redeveloped in the longer term, once key infrastructure (such as the light rail system) is in place. Further, the approval of the development will not be prejudicial to the City's Activity Centre Structure Plan process.

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The proposed McDonald's restaurant presents an appropriate response to the site context and current planning framework, at a time when the future planning for the MRC is still evolving. The development proposes a substantial and tangible improvement to the site, in accordance with the City of Stirling's overarching vision for the centre, and will contribute to the existing diversity of land uses within the MRC.

2 Site Context

2.1 LOCATION

The subject site is located at Lot 56 (No.2) Chesterfield Road, Mirrabooka. The site is located on the corner of Chesterfield Road and Yirrigan Drive, within the Mirrabooka Regional Centre, and is located approximately 200m west of the Mirrabooka Square Shopping Centre and 120m west of the Mirrabooka Bus Station.

Figure 1, below, illustrates the location of the store in context within the surrounding area:

FIGURE 1 – LOCATION PLAN (SOURCE: LANDGATE 2012)



2.2 LAND TENURE AND SITE DETAILS

The subject site is identified as Lot 56 on Diagram 62810, as identified in Table 1 and Figure 2, below. The subject site has frontage to Chesterfield Road to the west and Yirrigan Road to the south.

The total area of the subject site is 2,378m². A copy of the Certificates of Title and Sketch are included at **Appendix A.**

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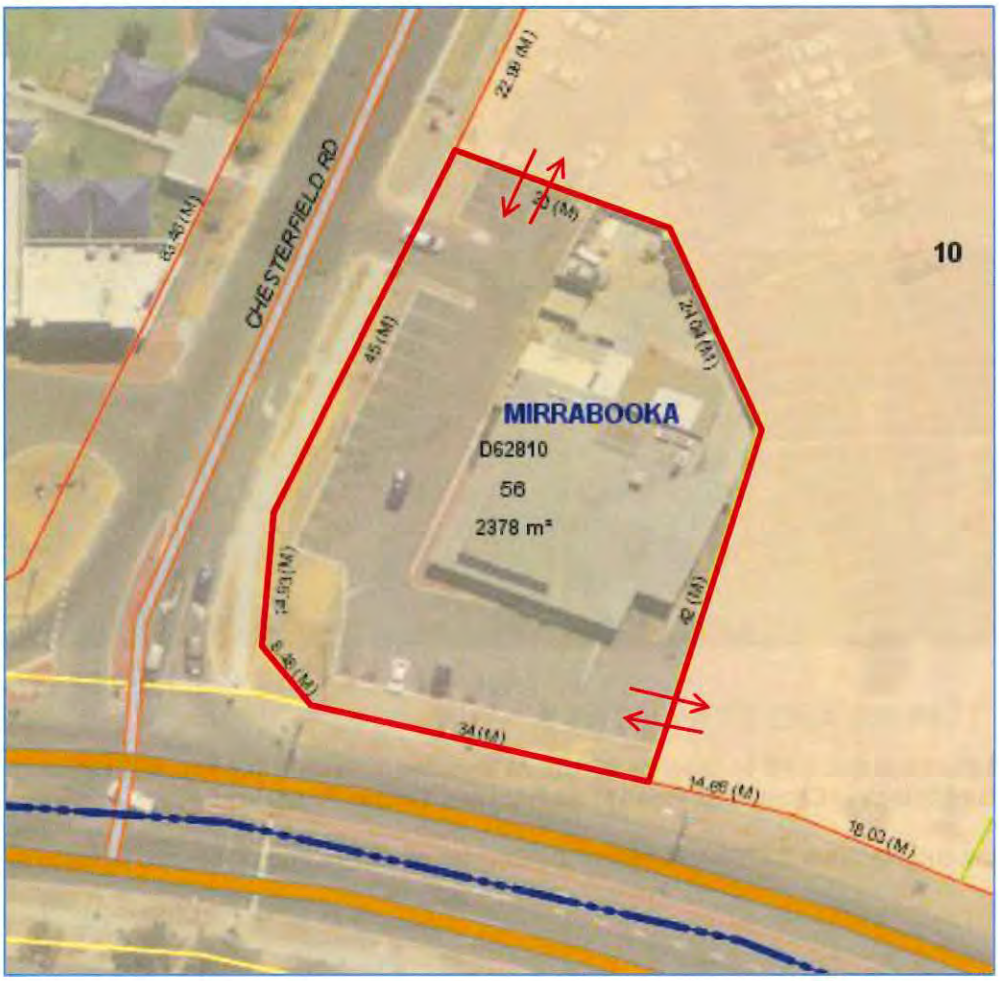
TABLE 1 – LAND TENURE DETAIL (SOURCE: LANDGATE)

LOT NO.	STREET	PLAN/ DIAGRAM	LOT AREA	REGISTERED PROPIETER	EMCUMBRANCES
Lot 56	Chesterfield Road	D62810	2,378m²	ARK 2000 Pty Ltd	1. Caveat – State Housing Commission (lodged 23.9.1982) 2. Caveat - State Housing Commission (lodged 9.11.2005)*

* *Caveats relate to granting of easements with respect to reciprocal parking rights and rights of way for motor vehicles and pedestrians.*

The existing reciprocal rights of access are indicated on the plan below:

FIGURE 2 – LANDGATE EXTRACT (SOURCE: LANDGATE 2012)



Subject Site

Existing Reciprocal Access Arrangement

2.3 PHYSICAL CONDITION

The subject site is currently developed and is being operated as an Indian Growers Supermarket with associated parking. The existing building is located to the north-east of the site, with a carparking area fronting both Chesterfield and Yirrigan Road.

2.4 TRAFFIC AND ACCESS

Existing site access is provided via a crossover on Chesterfield Road, to the north-west of the subject site. Pedestrian access to the site is provided via existing footpaths along Yirrigan Drive, continuing east to the Mirrabooka Square Shopping Centre, and on Chesterfield Road, extending north to the Northwood Tavern.

Chesterfield Road is a 1-lane, 2-way undivided local road that runs on a north-south axis, and is located west of the subject site. Yirrigan Drive is a 2-lane, 2-way divided district distributor road, located south of the subject site. The Yirrigan Drive/Chesterfield Road intersection is a controlled intersection.

The subject lot is also subject to 2 caveats on title, in order to protect reciprocal rights of access between the subject site and neighbouring sites. One accessway is located to the north-west of the site, and the other is located to the south-east.

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2.5 SURROUNDING LAND USE, DEVELOPMENT AND ZONING

Table 2 below identifies key land uses, development and zoning surrounding the subject site. A Context Plan is also provided at Figure 3, which demonstrates these surrounding land uses.

TABLE 2 – SURROUNDING LAND USE, DEVELOPMENT AND ZONING

LOT	ZONING	CURRENT LAND USE AND DEVELOPMENT
Immediate north	Mixed Business	Mirrabooka Tavern (Northwood Ale House), TAB
		Carparking Area
Further north	Mixed Business	Metropolitan Migrant Resource Centre, Western Cellars, Bottlemart. Xtreme Ice Arena (north-west).
	Mixed Use	
Immediate east	Mixed Business	Large format Service Industrial/Commercial development – Tyre Plus, Ray White Real Estate, Breast Screen WA
	Mixed Use	Low density mixed commercial and business uses.
Further east	Mixed Use	Mirrabooka Bus Station
	Regional Centre	Mirrabooka Square Shopping Centre
Immediate south	Local Road	Yirrigan Drive
Further south	Residential R20	Low density residential development.
	Local Scheme Reserve – Public Open Space	Public Open Space
Immediate west	Local Road	Chesterfield Road
	Mixed Business	Great Beginnings Child Care Centre, Sultan Kebabs (Restaurant)
Further west	Mixed Business, Residential R20	Large format commercial – Supercheap Auto, Chemist Warehouse
		Domino's Pizza
		Low density residential development
		Existing McDonald's Store

FIGURE 3 – CONTEXT PLAN (SOURCE: URBIS 2012)



CONTEXT PLAN

MCDONALD'S MIRRABOOKA - PA0875

DATE 14.12.2012 | DWG NO 001 | REV X | SCALE NTS

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2.6 SITE PHOTOGRAPHS

The following figures illustrate key land uses surrounding the subject site:

FIGURE 4 – EXISTING DEVELOPMENT – INDIAN GROCERIES SUPERMARKET



FIGURE 5 – SUBJECT SITE – YIRRIGAN DRIVE FRONTAGE



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FIGURE 6 – SUBJECT SITE - CHESTERFIELD ROAD FRONTAGE



FIGURE 7 – DEVELOPMENT TO THE WEST



FIGURE 8 – DEVELOPMENT TO THE EAST



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FIGURE 9 – NORTHERN INTERFACE



FIGURE 10 – SOUTHERN INTERFACE – YIRRIGAN DRIVE AND RESIDENTIAL DEVELOPMENT



3 Proposal

It is proposed to develop the subject site for a McDonald's Family Restaurant. The proposal contains 3 principal components:

- The use, layout and design of a 2 storey building including restaurant with a drive-through facility and associated car parking, access and loading facilities.
- Associated Signage.
- Landscaping.

Site, floor and elevation plans of the proposed McDonald's restaurant are contained in **Appendix B**. A set of perspectives are included in **Appendix C.**

3.1 RESTAURANT

3.1.1 RESTAURANT DESIGN

The restaurant is proposed as a 2 storey building on the corner of Chesterfield Road and Yirrigan Road, Mirrabooka, and will comprise the following:

- Ground Level
    - Indoor and outdoor dining areas.
    - A café.
    - A party room.
    - A playground area.
    - A dual-lane drive-through facility.
    - Kitchen, preparation and food storage areas.
    - Bathroom facilities.
    - Staff facilities including a manager's office.
    - Storage areas.
    - A corral for servicing, waste and bin storage.
- First Level –
    - Storage/Warehousing area – dry goods, freezer and refrigerator.
    - Staff facilities, including staff toilets and amenity areas.

The first level of the restaurant will be accessed via a goods lift, which is located to the north-east of the restaurant building. Given the nature of uses proposed on this first level, access will be restricted to staff only.

The proposed store will provide 2 customer entrances, 1 via a doorway on the southern façade from Yirrigan Drive the carparking area and the other via a doorway on the western façade from Chesterfield Road and another carparking area. The outdoor dining area is located within the south-western portion of the restaurant, providing an activated building façade which overlooks Chesterfield Road.

A playground area and party room are proposed to the north-west side of the building, with access from the inside of the restaurant. Internal access between the play land and party room is also proposed.

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An enclosed corral will be provided within the central northern portion of the store, allowing for deliveries and storage, as well as a separate area for waste storage. Waste will be collected from the corral area on a regular basis.

It is proposed that the restaurant will operate 24 hours per day, 7 days per week.

3.1.2 VEHICLE ACCESS, DRIVE-THROUGH AND CARPARKING

Direct vehicle access to the site will be provided via the existing single crossover, however this will be modified to suit the new delivery truck path requirements. This crossover is a full movement crossover, located on Chesterfield Road. The site can also be accessed via 2 links from neighbouring carparks, to the north of the site and to the east, which will assist in facilitating vehicle movement between the subject site and neighbouring sites.

Direct access to the drive-through facility can be achieved from the Chesterfield Road crossover. Orders will be placed along the northern side of the building, through a dual-lane drive through, and drivers will then turn right and drive up the eastern side of the building to make payment and collect orders. To minimise any vehicle stacking issues associated with the Chesterfield Street crossover, 2 lanes are provided for the placement of orders and 2 windows are proposed; 1 for payment and the other for the collection of orders. The drive-through area will be able to accommodate 13 cars (including 2 waiting bays). The provision for vehicle stacking is considered ample in the context of avoiding obstructions to carparking and access, and given drive-through ordering is the prevalent means of ordering. A Site Plan, which illustrates this access arrangement, is attached at **Appendix B.**

The merging of vehicles into 1 lane is controlled by the drive-through operator, who will instruct cars to remain stationary or proceed along to the payment/collection booth. CCTV cameras will be installed to enable staff members to direct the flow of vehicles from the cashier booth. Directional signage will also be positioned at the entrance of the drive-through lane advising customers that both lanes can be utilised.

Two waiting bays are also provided within the south-eastern corner of the subject site, directly in front of the drive-through stack, for short term parking while patrons wait for their order. These bays are appropriately located to minimise disruption to the drive-through traffic flow during peak periods and in situations where large orders are placed.

Efficiency is a key driver behind the design and operation of a McDonald's drive-through, and is vitally important to the successful operation of the restaurant. It is in McDonald's interest to ensure that the drive-through, access and carparking arrangement on site are legible, easy to use, efficient and do not result in congestion or conflict. To this extent, a well-tested model has been developed which relies on the combined operation of 2 drive-through lanes, 2 ordering stations, 2 payment and collection booths and 2 waiting bays. This system results in an average turn-around time of 60 seconds for each vehicle entering the drive-through. McDonald's stores throughout Australia are timed on their drive-through efficiency, with the data being collected and displayed within each store in real time and further used to rate each store based on its performance.

A total of 33 'fixed' car parking bays are proposed on the subject site, including 1 disabled accessible bay. This car parking provision does not include the 11 vehicles which can be stacked within the dual-lane drive through, the 2 additional waiting bays located towards the exit of the drive-through and the 2 staff bays which are located within the loading bay area, which will be utilised outside of the delivery period. When the drive through stacking capacity is taken into consideration, there is the potential for the restaurant to accommodate 46 cars. The car parking bays within the Yirrigan Drive frontage will have a length of 4.8m (with 600mm of overhand available), and the carparking bays on Chesterfield Road, and rear parking bays, will have a length of 5.5m. All parking bays have a width of 2.5m. Internal access aisles on the site will have a minimum width of 6m.

The disabled accessible bay (2.4m x 4.8m) is located directly adjacent to a pedestrian accessway, allowing sufficient room for patrons to enter and exit their vehicle. This size and location of this bay is in accordance with Australian Standards (AS 2890.6).

Two tandem carparking bays, for the exclusive use of McDonald's staff, are also provided within the northern portion of the site, and sit behind 4 public parking bays. To ensure the ongoing management of the 2 tandem staff parking bays, these bays will only be available to staff who finish late at night/early in the morning, when the public parking bays that sit in front of the staff bays are unlikely to be occupied.

3.1.3 PARKING NEEDS ASSESSMENT

A Parking Needs Assessment has been undertaken by Riley Consulting (dated December 2012) to assess the minimum level of parking bays considered sufficient to cater for the proposed McDonald's Mirrabooka restaurant. The assessment concludes that a minimum of 13 bays would be sufficient to cater for the expected parking demand of walk-in customers.

A summary of the outcomes of this assessment has been undertaken as part of the Parking Policy assessment (refer Section 4.2.2.13 of this report). A full copy of the Parking Needs Assessment is attached at **Appendix D.**

3.1.4 BICYCLE FACILITIES

In addition to the car spaces provided, a bike rack to cater for 6 bicycles is proposed on the southern side, within proximity to the main entrance and footpath on Yirrigan Drive. This provision will facilitate an alternative form of non-motorised access to the store, which is encouraged in a regional centre location such as Mirrabooka.

3.1.5 PEDESTRIAN ACCESS

Although currently a car dominated environment, the proposal provides for effective pedestrian access. The primary pedestrian access point to the restaurant will be from Yirrigan Drive, utilising an existing pedestrian footpath on Yirrigan Drive, which is a continuous path which links to the Mirrabooka Square Shopping Centre. A clearly defined footpath link will be developed to the southern entrance to the store, with a crosswalk provided to ensure safe access across the drive-through exit. The extent and nature of pedestrian access is considered appropriate in the site context and represents a significant improvement to existing conditions.

3.1.6 DELIVERIES

Deliveries will occur in a designated corral area, located adjacent to the main parking aisle of the development. Service vehicles will enter the site via the Chesterfield Road crossover into a designated delivery area, and egress the site in forward gear via the same crossover. The 6-metre Chesterfield Road crossover will ensure it is easy for the truck to enter and exit. The radius of the existing crossover will however be modified to suit the delivery path requirements. A plan is included in **Appendix E** identifying the proposed delivery truck path.

Deliveries will occur only between 7am and 8pm. The inclusion of larger storage and freezer areas in the store design allows for a minimal number of deliveries each week. The restaurant store-person is notified of the truck arrival time and ensures the service bay is not blocked. Upon arrival of the truck, employees are available to guide access in and out of the loading bay area.

As previously mentioned, efficiency is a key driver behind the design and operation of a McDonald's restaurant, and is vitally important to the success of the restaurant. It is in McDonald's interest to ensure that the delivery process causes minimal disruption. As the service vehicles are expected to access the site outside of peak operating times, no significant traffic conflicts are expected.

3.2 LANDSCAPING

A Landscaping Plan has been prepared and included at **Appendix F.**

The landscaping will provide a significant enhancement to the public realm in line with the standards applied to other stores in Australia. To improve the amenity and appearance of the site, an existing verge landscape strip will be landscaped and reticulated along both Yirrigan Drive and Chesterfield Road. A key element of the landscape design has been to provide an appropriate and amenable interface with public realm, whilst at the same time providing for passive surveillance. Ten (10) trees have also been provided, to provide shade relief to open air carparking areas.

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3.3 SIGNAGE

A series of signage plans and schedules of detail are contained within **Appendix G,** identifying the form, function and location of all signage proposed.

3.3.1 ANCILLARY SIGNAGE

The subject proposal includes ancillary signage in the following forms:

- Signage attached to the building identifying the use of the premises as a McDonald's restaurant.
- Directional, traffic, parking and pedestrian signage on and surrounding the McDonald's site, including the drive-through facility.
- Various other signage on and surrounding the site (welcome signs, menu boards, thankyou signs etc.).

3.3.2 FLAGS

Two flagpoles are proposed on the Yirrigan Drive frontage, 1 flying the Australian flag and the other flying a red and yellow McDonald's flag.

3.3.3 PYLON SIGN

A pylon sign is proposed to the south-west of the subject site, on the corner of Yirrigan Drive and Chesterfield Road. The pylon sign will entail an illuminated McDonald's sign at the top, an 'Open 24 Hours' sign immediately below, and a circular 'McCafe' sign, extending south. An assessment of the pylon sign against the City's statutory requirements is provided within Section 4.2.2.5.

3.4 PLANNING APPROVAL

Pursuant to the requirements of the City of Stirling Local Planning Scheme No.3 (LPS 3), planning approval is sought for:

- The use of the subject site for a 2-storey drive-through fast food outlet, and warehousing/storage uses.
- Development of the drive-through fast food outlet and associated parking, access and loading.
- Erection of signage.

4 Planning Context, Assessment and Rationale

This section identifies the relevant parts of the strategic and statutory planning framework applicable to the subject site and provides an assessment of the proposed McDonald's restaurant within this context.

4.1 STATE AND REGIONAL PLANNING FRAMEWORK

4.1.1 STATE PLANNING STRATEGY

The State Planning Strategy is a land use planning strategy for Western Australia's development up to the year 2029.

The Strategy prepares for significant population growth, an expanding economy, a changing and vibrant community and a sustainable future. It provides a vision to assist strategic decision-making and a set of principles by which coordinated, sustainable development will be implemented. It is a plan to meet community needs and aspirations, and facilitate wealth creation, the provision of public infrastructure and the protection and improvement of the environment.

The key principles of the State Planning Strategy, relevant to this proposal, include:

- *Environment – to protect and enhance the key natural and cultural assets of the State and delivery to all Western Australians a high quality of life which is based on environmentally sustainable principals.*
- *Community - to respond to social changes and facilitate the creation of vibrant, accessible, safe and self-reliant communities.*
- *Economic – to actively assist in the creation of regional wealth, support the development of new industries and e in accordance with sustainable principals.*
- *Infrastructure – to facilitate strategic development by ensuring land use, transport and public utilities are mutually supportive.*

In accordance with the key principals of the State Planning Strategy, the proposed McDonald's store will actively encourage economic development within the Mirrabooka Regional Centre, and provide a convenience service to the local and regional community.

4.1.2 STATE PLANNING POLICY NO.4.2 – ACTIVITY CENTRES FOR PERTH AND PEEL

State Planning Policy No. 4.2 (SPP 4.2) has been prepared to specify broad requirements for the planning and development of new activity centres and the redevelopment and renewal of existing centres in Perth and Peel. It is mainly concerned with the distribution, function, broad land use and urban design criteria of activity centres, and with coordinating their land use and infrastructure planning.

Other purposes of the Policy include the integration of activity centres with public transport; ensuring they contain a range of activities to promote community benefits through infrastructure efficiency and economic benefits of business clusters; and lower transport energy use and associated carbon emissions. The policy also reflects the Western Australian Planning Commissions (WAPC) intention to encourage and consolidate residential and commercial development in activity centres so that they contribute to a balanced network.

A key element of SPP 4.2 is the requirement for activity centre structure plans to be prepared. Secondary centres are identified as requiring such structure plans, and are to be approved by the WAPC. We understand the City of Stirling have commenced preparation of an Activity Centre Structure Plan over the Mirrabooka Regional Centre, with an anticipated completion date of late-2014.

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In accordance with SPP 4.2, Mirrabooka is classified as a 'secondary centre' under SPP 4.2. The Policy describes secondary centres as follows:

> *'Secondary centres share similar characteristics with strategic metropolitan centres but serve smaller catchments and offer a more limited range of services, facilities and employment opportunities. They perform an important role in the city's economy, and provide essential services to their catchments'.*

Typical development within a secondary centre is identified as including department stores, discount department stores, supermarkets and specialty shops. Whilst a majority of these retail uses are prominent within the Mirrabooka Regional Centre currently (excluding a department store), the proposed McDonald's restaurant will provide a convenience service to support these uses and provide for the broader regional catchment visiting the centre, as well as provide community facilities and employment opportunities.

4.1.3 LIGHT RAIL PROPOSAL

In September 2012, the State Government announced its intention to formally investigate a light rail project, extending 22km from Mirrabooka in the north through the Perth CBD, before splitting into 2 branches – 1 to the QEII Medical Centre and the other to the Causeway. A proposed second phase could potentially extend the route in future from the QEII Medical Centre to the University of Western Australia and add links to Curtin University and the new Perth Stadium planned for the Burswood Peninsula. Subject to detailed investigations and funding it is understood construction on the light rail proposal may start in 2016, with completion set for 2018.

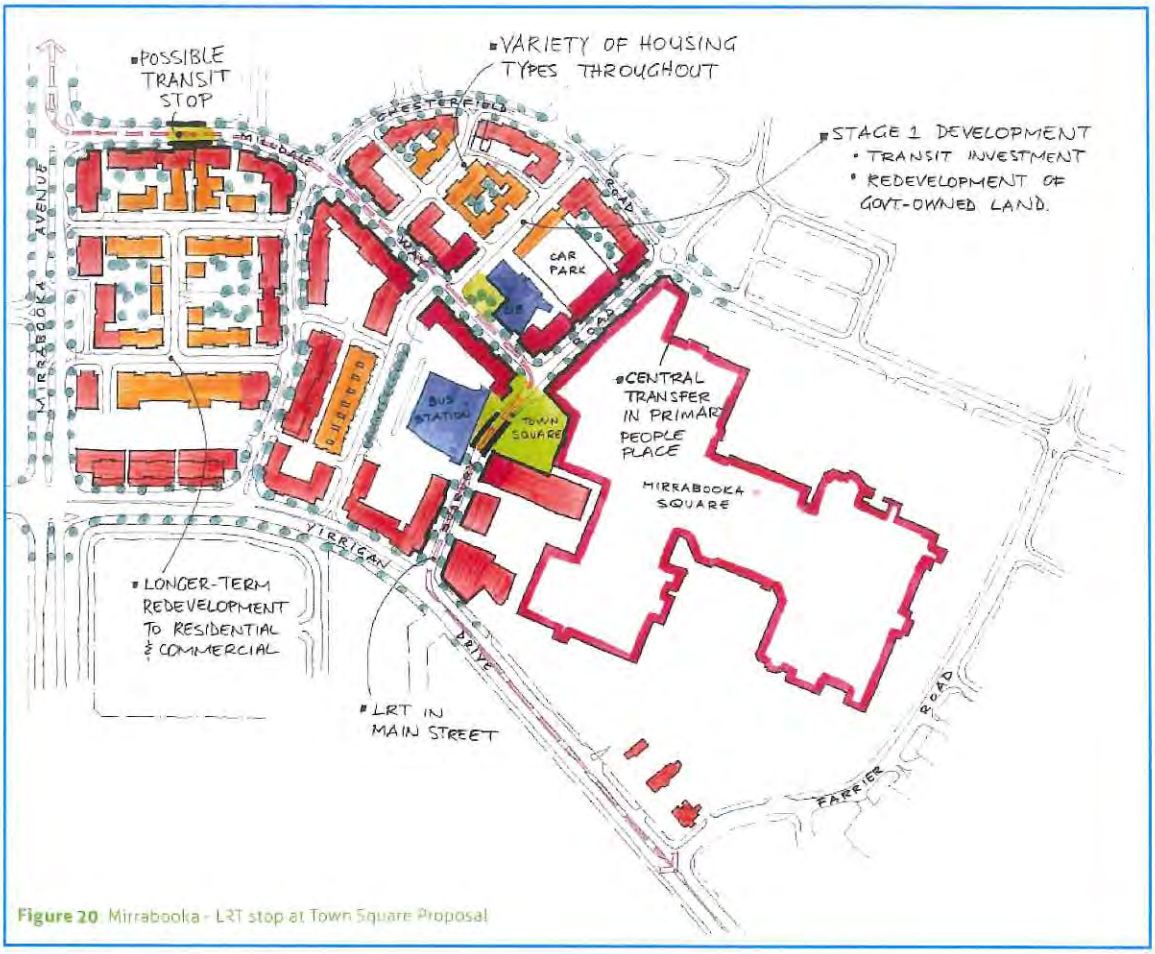
Although no formal detail is currently available, based on the outcomes of a Light Rail Masterclass, held in September 2011, we understand the preferred location for the light rail terminal in Mirrabooka is:

> *'...the town square at the front of the bus station, to ensure that the square is fed with passengers embarking and disembarking, ensuring a more lively and functional space – which in turn will catalyse further redevelopment of the centre'.*

The Masterclass Outcomes Report states that the option of locating the terminal on the rear (westward side) of the bus station was also investigated, however, it was generally agreed as an inferior outcome that would have less synergy with the urban renewal of the Mirrabooka Centre.

An extract of the proposed light rail route as shown in the Masterclass Outcomes Report, is shown in Figure 11, below.

FIGURE 11 – PROPOSED LIGHT RAIL PROPOSAL (SOURCE: AUSTRALIAN COUNCIL FOR NEW URBANISM/PLANNING INSTITUTE OF AUSTRALIA 2011)



However, based on further discussions with the City's Strategic Planning Officers (dated 7 December, 2012), we understand the City of Stirling and Department of Transport have adopted an agreed position on an alternative light rail route, which runs approximately 20m east of the proposed McDonald's restaurant. We understand, however, that this is subject to negotiations with the Department of Planning and the Public Transport Authority (PTA), and accordingly, we understand the final route is still speculative at this stage.

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4.2 LOCAL STATUTORY PLANNING FRAMEWORK

The following elements of the City of Stirling statutory planning framework are considered relevant to the subject site.

4.2.1 CITY OF STIRLING LOCAL PLANNING SCHEME NO.3

The City of Stirling Local Planning Scheme No.3 (LPS 3) is the statutory basis for land use and development control within Mirrabooka. An assessment of the proposed McDonald's store against relevant provisions of LPS 3 is provided within the following sections.

It should be noted that the zoning and classification of the site are consistent with the existing McDonalds operation.

4.2.1.1 SCHEME OBJECTIVES

The overarching objectives of LPS 3 are detailed in Clause 1.6. The objectives relevant to this proposal are detailed below:

- *'To provide for convenient, attractive and viable commercial centres, which service the needs of the community and are accessible to pedestrians, cyclists and public transport users as well as motorists.*
- *To assist employment and economic growth by facilitating the timely provision of suitable land for retail, commercial, industrial, entertainment and tourist developments, as well as providing opportunities for home based employment.*
- *To assist in the effective implementation of regional plans and policies including the State Planning Strategy'.*

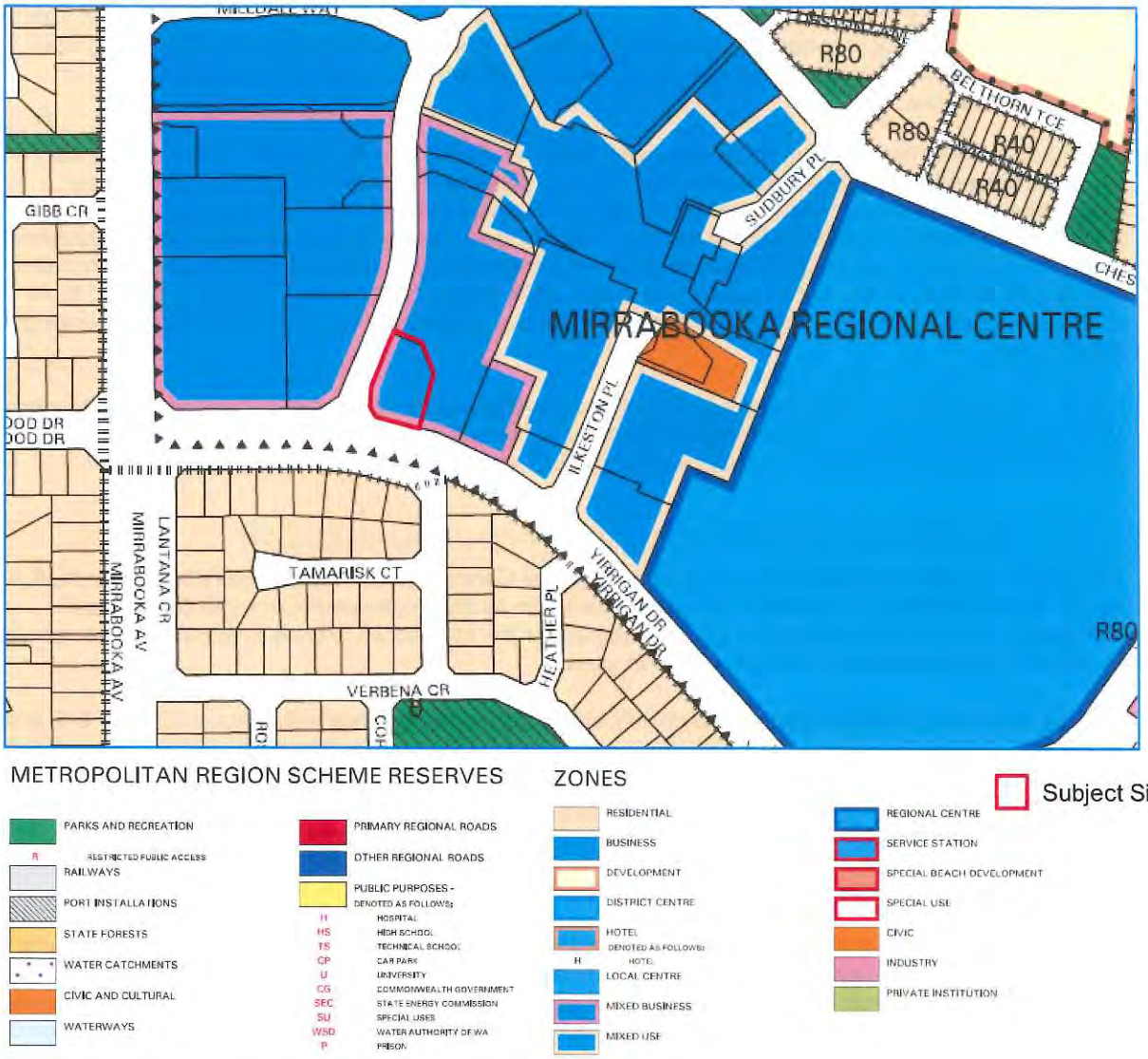
In accordance with the above Scheme objectives, the proposed McDonald's store will promote employment and economic growth and will continue to provide a convenience service to the local residential and working community, as well as the broader regional catchment. The proposed store will also have a local community focus, through provision of various community facilities such as the playground and party room, catering for children and family-units.

The proposed McDonald's store will also promote the use of sustainable forms of transport, through the inclusion of pedestrian accessways, linking to other focal areas of the regional centre such as the Mirrabooka Square Shopping centre. The restaurant also provides ample bicycle parking and is well-positioned in proximity to the Mirrabooka Bus Station, promoting other non-motorised forms of transport.

4.2.1.2 ZONING

The proposed McDonald's store is located within a 'Mixed Business' zone of LPS 3, and is also located within the 'Mirrabooka Regional Centre Special Control Area', as illustrated in Figure 12, below:

FIGURE 12 – SCHEME EXTRACT (WAPC 2012)



4.2.1.3 OBJECTIVES FOR THE MIXED BUSINESS ZONE

The general objectives for the 'Mixed Business' zone are set out in Clause 4.2.8 of LPS 3, as detailed below:

> *'4.2.8 Mixed Business Zone*
>
> *a) To facilitate a development mix of showrooms and service industry of a higher aesthetic quality located on major traffic routes.*
>
> *b) To provide a more intense commercial business development form within established industrial areas of the City.*
>
> *c) To ensure that traffic management, road safety, site access, onsite parking, building design and streetscape appearance are not compromised'.*

The proposed McDonald's restaurant is considered to provide a complimentary use to the existing showrooms and other commercial premises within the locality, as well as provide a convenient food and beverage service to surrounding mixed business uses. The amenity and appearance of the restaurant, located adjacent to Yirrigan Drive, is considered to enhance the subject site and broader area. The land use is considered to integrate well into the surrounding development context, which includes a mix of service industries, entertainment uses, commercial premises and large format commercial premises.

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The proposed McDonald's restaurant will provide a complimentary and convenient use within the Mirrabooka Regional Centre, assisting in its ongoing maturity and revitalisation. The site is located within an area which is readily and safely accessible in terms of vehicles, pedestrians and cyclists, and public transport users, given the location of the Mirrabooka Bus Station to the east, and existing patterns of pedestrian footpaths.

In accordance with item (a), above, the proposed store will deliver a more aesthetic outcome that the current McDonald's Mirrabooka store, and will deliver a significant improvement of what is currently considered an underutilised site within the Mirrabooka Regional Centre. The 2 storey design of the building is not typical of McDonald's restaurant. This additional height and architectural detailing responds to the City's desire for increased heights to achieve a more intense and consolidated building form within the Mirrabooka Regional Centre. Further, the design, bulk and scale of the building and proposed high-quality landscaping along the road frontages of the site is considered to be compatible with surrounding development.

It is therefore considered that the proposed use and development is in keeping with the general aims and objectives of the Scheme and the specific objectives for the Mixed Business zone. This is reflected within the statutory framework of LPS 3 in the use being classified as discretionary within this zone.

4.2.1.4 MIRRABOOKA REGIONAL CENTRE SPECIAL CONTROL AREA

The subject site also sits within the Mirrabooka Regional Centre Special Control Area (SCA). The SCA is bound by Reid Highway to the north, Yirrigan Drive to the south, Northwood Avenue to the east and Mirrabooka Avenue to the west. The SCA encompasses the Mirrabooka Square Shopping Centre, as well as surrounding commercial, civic and transport uses.

The key objectives of the Mirrabooka Regional Centre SCA, in accordance with Clause 6.8 of TPS 3, are as follows:

> *'a) To provide a sound, coordinated strategy for the integrated development of public and private land to facilitate the creation of a safe, successful, vibrant centre.*
>
> *b) Facilitate more residential and mixed use development'.*

In accordance with the above objectives, the proposed McDonald's store demonstrates the coordinated and integrated development of land, whilst securing the amenity of residential development in the locality. The proposed store is appropriately located on Yirrigan Drive (a district distributor road) and in a regional centre, which provides for the daily, weekly and more specialised shopping needs of a diverse catchment.

The proposed store will have direct synergies with the nearby Mirrabooka Square Shopping Centre and other surrounding commercial uses, as it will likely draw walk-in customers also utilising these commercial uses, which will be beneficial from a street activation and surveillance perspective. In addition, night time activation of the subject site will assist in addressing any potential crime and anti-social behaviour when a majority of the Mirrabooka Regional Centre is closed.

The proposed store is appropriately located on the fringe of the SCA, which is better suited to accommodate larger format commercial, as opposed to smaller scale retail and entertainment uses which should be provided in the core of the SCA, on Sudbury Road.

Given the Mirrabooka's status as a 'secondary centre' under the state planning framework, the centre has a regional drawing power, catering for the daily convenience needs of local residents and well as the more infrequent specialist needs of its district and regional catchment (approximately 150,000 people). The location of the proposed McDonald's store will provide a convenience service to customers also utilising the shopping centre and other commercial uses, improving the overall level of service offering in the MRC.

Further, a key objective of the SCA is to facilitate more residential development. Given this strategic objective, it is important daily convenience needs are appropriately provided to service these new residential communities.

4.2.1.5 LAND USE DEFINITION

The proposed McDonald's restaurant is considered a 'drive through fast food outlet' as defined in LPS 3. The definition of a drive through fast food outlet within LPS 3 is as follows:

> *'**Drive Through Fast Food Outlet** means a fast food outlet which includes the sale and serving of food or beverage direct to persons driving or seated in motor vehicles. The term may or may not include the preparation of food for sale and consumption within the building, or portion thereof'.*

Whilst the proposed McDonald's store will provide in-house dining as an option to patrons, it is expected that the majority of the food produced will be consumed off-site for both walk-in, park and walk-in and drive-through customers. Based on an analysis of existing stores, it is expected that approximately 60 percent of patrons will use the drive-through while the remaining 40 percent are expected to either park at the store and walk-in, or be pedestrians which walk to the store.

4.2.1.6 PERMISSIBILITY

In accordance with Table 1 – Zoning Table of LPS 3, a 'drive-through fast food outlet' is a discretionary 'D' use within the Mixed Business zone, meaning the use is not permitted unless Council has exercised its discretion by granting planning approval.

4.2.1.7 ADVERTISING REQUIREMENTS

Whilst a discretionary 'D' use does not require mandatory advertising under LPS 3, we acknowledge that the City may choose to advertise the application, in accordance with Clause 9.4.2 of LPS 3. Clause 9.4.3 of LPS 3 identifies that for an application for planning approval, the City has discretion to require advertising in one or more of the following ways:

- Notice served on nearby owners or occupiers, who, in the opinion of Council, are likely to be affected by the granting of planning approval, inviting submissions to be made.
- Notice published in a newspaper circulating in the Scheme area, inviting submission to be made.
- A sign to be erected on the subject site.

In all instances, a period of not less than 14 days is identified, after which the City is required to make a determination on the application. As outlined earlier in this report, the site is located in a commercial area. The closest residential uses are located on the opposite side of Yirrigan Drive.

Based on discussions with Council Officers (dated 30 November, 2012 and 7 December, 2012), we understand the City will unlikely advertise the proposal for public comment, however this will be determined based on the application lodged. We further understand that the application is likely to be referred to the Western Australian Planning Commission (WAPC) for comment.

4.2.1.8 SETBACK AND LANDSCAPING REQUIREMENTS

The minimum setback between any of the restaurant building and the lot boundary is 14m. This minimum setback has largely been determined through the appropriate siting of the restaurant to address a number of competing interests.

Firstly, from an operational and Scheme compliance perspective, it was necessary to provide a certain number of car parking bays on the subject site. In the interest of land use efficiency and to ensure an appropriate design interface and a high level of accessibility in and around the site, the carparking area is located within the front setback to Yirrigan Drive and Chesterfield Road, and is located in a similar configuration as the carparking currently provided on site.

Further, this 14m setback was required to be retained in order to maintain reciprocal rights of access to neighbouring landholdings to the north and east of the subject site, in accordance with Clause 6.8.7 of LPS 3 (refer Section 4.2.1.10 of this report for additional information on reciprocal access rights), in accordance with Scheme requirements and applicable Caveats relating to the subject lot. Existing reciprocal access rights are provided to and from the subject site, and accordingly, it is not possible to building within these access areas at this point in time.

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The building has been appropriately sited to allow the drive-through to wrap around the rear of the building and exit via Chesterfield Road. It is however recognised that vehicles may exit via the access to the neighbouring carpark to the east. The design is considered to provide an active façade and passive surveillance, whilst ensuring a functional restaurant operation and design. The 2-storey scale of the proposed building is in keeping with the localities role as a regional centre, and aims to achieve a more consolidated building form able to accommodate the future light rail system, which is a key strategic aim of the City of Stirling.

Overall, the site treatment and building design is considered appropriate to the site context, and satisfies the current Scheme requirements.

4.2.1.9 SIGNAGE/ADVERTISEMENTS

Schedule 8 of LPS 3 deals specifically with the control of advertisements. The purpose of this Schedule is to ensure that the display of advertisements and advertising signs on private sites do not adversely impact on the amenity of surrounding land while providing appropriate exposure of activities or services. The approvals process for advertising signs, in accordance with Schedule 8, can be summarised as follows:

i. All advertising signs require approval to commence development. Applications for signage need to have regard for the provisions of the Local Planning Policy relating to Advertising Signs.
ii. Where applications requiring planning approval do not conform to Scheme or Policy provisions, the application shall include a sign strategy for the whole of the subject site.
iii. In considering an application for approval, Council may require the removal of existing signs.

For clarity purposes, a separate and consolidated assessment of signage is provided in Section 4.2.2.3 of this report. In accordance with item (ii), above, we highlight that an assessment of the proposed McDonald's signage against the Policy provisions has identified some variations from the standard requirements and some signage which may not be included within the Policy. Therefore, in accordance with the Policy, Section 4.2.2.3 has been prepared as a 'signage strategy'.

Schedule 8 also includes a sign zoning table, which prescribes the advertising sign types which may be permitted in each zone. A summary of the proposed sign types and their permissibility within a 'Mixed Business' zone is provided in the table below:

TABLE 3 – ADVERTISING SIGN ZONING TABLE

SIGN TYPE	PERMISSIBILITY IN MIXED BUSINESS ZONE
Pylon	P
Wall	P
Monolith	P

Based on the above, we understand all signage proposed as part of the McDonald's restaurant is permitted within a 'Mixed Business' zone.

4.2.1.10 VEHICLE PARKING AND ACCESS

Section 6.8 of LPS 3 provides guidance on parking within the Mirrabooka Regional Centre, particularly in relation to reciprocal access rights. This section states that, in order to promote multi-use trips and increased pedestrian activity within the Mirrabooka Regional Centre, Council will facilitate reciprocal access and parking rights, to enable to access and park their vehicles on land not directly associated with the place they are visiting.

In relation to reciprocal access and parking rights for new developments such as the proposed McDonalds restaurant, Section 6.8.8 of LPS 3 states that following:

> *'Subject to clause 6.8.8(c), below, upon the approval of the Council of any development within the Mirrabooka Regional Centre Special Control Area:-*
>
> *i. Reciprocal Access Rights shall apply in relation to the lot the subject of the development; and*
>
> *ii. Reciprocal Parking Rights shall apply in relation to all parking on the lot the subject of the development, whether that parking is approved as part of the development or is existing as part of any existing development of the lot'.*

Accordingly, we acknowledge that whilst the parking proposed on the subject lot is intended to accommodate McDonald's customers exclusively, the parking provided will be subject to reciprocal parking rights under LPS 3, and accordingly, people have the right to park in this area, at any time, whether visiting the McDonald's restaurant or any other business within the Mirrabooka Regional Centre.

Accordingly, the proposed McDonald's restaurant retains 2 links to neighbouring properties to the north and east, to facilitate reciprocal access rights to these adjoining lots, in accordance with LPS 3.

4.2.2 LOCAL PLANNING POLICIES

4.2.2.1 POLICY 5.4 – MIRRABOOKA REGIONAL CENTRE DESIGN GUIDELINES

Local Planning Policy 5.4 (LPP 5.4) provides a set of Design Guidelines to guide development within the Mirrabooka Regional Centre, which is bound by Yirrigan Drive, Northwood Drive, Reid Highway and Mirrabooka Highway, and includes the proposed McDonald's restaurant site. The subject site is included within 'Precinct C – Service Commercial' of the Policy, as shown by Figure 13, below:

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FIGURE 13 – LPP 5.4 – PRECINCT PLAN



The Statement of Intent for Precinct C is as follows:

> *'The intent of this precinct is to allow for non-street fronted buildings in the Mirrabooka Centre. These buildings shall form strong iconic buildings in an attractive setting with careful detailing of all sides of the development. Entrances shall be celebrated and wherever possible human scale in the form of terraces etc. should be expressed. Therefore, comfort and safety shall be well considered'.*

In accordance with the above, the proposed McDonald's restaurant provides an attractive and high quality built form outcome, achieving a high standard of design and detailing on all sides of the development. Entrances to the restaurant have been appropriately located to front Yirrigan Drive and Chesterfield Road, providing active frontages and promoting passive surveillance.

The Statement of Intent also allows for 'non-street fronted buildings', recognising the precincts location away from the core of the regional centre. Accordingly, the location of the carparking area within the font setback area is considered appropriate in this locality.

It should also be highlighted that the existing McDonald's Mirrabooka store is also located within Precinct C of the Mirrabooka Regional Centre Design Guidelines.

The key objectives of the Policy are as follows:

- *'Built Form and Design - to provide built form that reinforces the creation of a safe, mixed use, pedestrian based, efficient and accessible town centre.*
- *Streetscape Relationship –*
    - *Ground Floor Frontage – to ensure that tenancies facing the street portray an attractive and inviting frontage.*
    - *Entry Points – to ensure entrances are designed to enable safe and comfortable access and that building entrances are clearly defined.*
    - *Activity and Uses – to create an active, vibrant and safe town centre by reinforcing the interface between internal and external uses along the street front and by providing passive surveillance.*
    - *Weather Protection – to support a comfortable external environment for pedestrians.*
    - *Levels – to ensure that development follows the topography of the land and to ensure that there is equitable access for pedestrians.*
    - *Fencing and Gates – to provide an open, accessible and attractive urban environment.*
    - *Landscaping - to improve the visual appeal of development, screen service areas and provide shade and 'green relief' in built up areas.*
- *Access and Parking –*
    - *Vehicle Access - to ensure that vehicle access ways are safe and easily traversed.*
    - *Car Parking Location – to ensure that car parking areas do not detract from the amenity of the area.*
    - *Crossovers – to limit the number of crossovers to reduce the impact on pedestrians and traffic.*
    - *Service Access and Facilities – to ensure there is sufficient space for the storage of waste and other materials and sufficient space for the delivery of goods'.*

In accordance with the above policy objectives, the proposed McDonald's restaurant provides an attractive and inviting frontage to both Yirrigan Drive and Chesterfield Road. The proposed restaurant will also assist in facilitating and progressing ongoing revitalisation within the Mirrabooka Regional Centre, and redevelop what is currently considered an underutilised site, in the context of Mirrabooka 'secondary centre' status.

The appropriate location of the alfresco terrace area and playground facing the Chesterfield Road frontage will promote a level of vibrancy and provide passive surveillance to both street frontages. Further, building entrances are clearly indicated and appropriately located to provide safe and efficient access from the pedestrian accessways and carparking area, to the restaurant. The location of the carparking within the front setback area to Chesterfield Road and Yirrigan Drive is a result of the need to retain reciprocal rights of access to adjoining properties to the north and east. The retention of these accessways will facilitate easy access between landholdings, which is particularly important given many customers will utilise other services in the immediate locality as part of their overall trip. Further, the proposed McDonald's restaurant will be accessible by a range of transport modes (car, pedestrian and cyclists), as well as light rail in the future.

McDonald's acknowledge that the holistic planning for the MRC will continually evolve over the next 2-3 year period, with the final adoption of an Activity Centre Structure Plan envisaged in late-2014. As discussed previously in this report, the proposal will not result in the further fragmentation of landownership in the Mirrabooka Regional Centre, and accordingly will not undermine the ability for the site to be redeveloped in the longer term, once key infrastructure (such as the light rail system) is in place. Further, the approval of the development will not be prejudicial to overall Activity Centre Structure Plan process.

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An assessment against the key requirements of LPP 5.4 is provided in the table below. In accordance with the Policy, where variations to the Policy requirements are sought, justification is provided.

FIGURE 14 – LPP 5.4 REQUIREMENTS

ITEM	REQUIREMENT	ASSESSMENT/RATIONALE	COMPLIANCE
Built Form and Design			
Site Coverage	- Maximum ground floor site coverage shall be 80%	Total GFA – 587m² Site Area – 2,377m² = 25% site coverage.	✓
Building Height	- Minimum building height – 6m	Ground floor building height – 5.615m (measured from the ground floor level to underside of the awning). First level building height – 7.950m Whilst we acknowledge that the ground level building height does not achieve the 6m height requirement, we highlight that this is a only a minor shortfall (0.385m). Further, the first level significantly exceeds the height requirement by 1.95m. These differing building heights achieves an interesting and attractive built form outcome, particularly given its corner location.	Partially complies. A minor variation to this Policy requirement is respectfully requested.
	- Minimum floor to ceiling height shall be not less than 3.5m for ground floor and 3.0m for subsequent floors.	Ground Level - 3.070m First Level - 4.2m	A minor variation to this Policy requirement is respectfully requested.
Street Setbacks	- Buildings shall have a maximum 21.0m front setback	Chesterfield Road setback – 14m Yirrigan Drive setback – 14m The proposed setbacks comply with this Policy requirement. An appropriate balance has been sought between providing a functional store, appropriate interfaces with surrounding development and surveillance of the surrounding public realm.	✓

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ITEM	REQUIREMENT	ASSESSMENT/RATIONALE	COMPLIANCE
		Further, there was a requirement to retain reciprocal rights of access to landholdings north and east of the subject site.	
	- Where existing setbacks are different, new development shall match existing setbacks to create a uniform building line.	The proposed restaurant building maintains the existing setback, which is consistent with surrounding development.	✓
Corner Sites	- Buildings located on corner sites shall give additional prominence to the street corner by using <u>at least</u> one of the following: - Architectural roof features that protrude above the normal roof line by at least 2.0m. - Increased parapet heights with additional detail, colour and textures. - Increased number of storeys at the street corner.	The proposed McDonald's restaurant gives additional prominence to the Yirrigan/Chesterfield street corner through increased parapet heights with additional detail, colour and textures (refer Perspectives, **Appendix C**), as well as an increased number of storeys.	✓
Facades	- 75% maximum glazing on any façade above the ground floor.	The second level of the proposed McDonald's restaurant proposes 5.5% of glazing.	✓
	- The second level and subsequent levels of all buildings shall be articulated to break up long straight facades through the use of <u>at least</u> 4 of the following: - Openings. - Protruding separate balconies. - Awnings over windows. - Use of different colours and textures. - Indentations and additional details to break the building into individual elements.	N/A – the McDonald's restaurant does not propose a second level.	N/A
Openings	- Facades shall express vertically though the use of openings that are more vertical than horizontal.	Ground level glazing/openings are expressed vertically, where possible, to promote passive surveillance to the street.	✓
Parapets	- New buildings that contain parapets shall avoid monotonous flat parapet lines and shall include: - Indentations and patterns on panels.	Building parapets include indentations and different patterns/textures in order to create a level of interest.	✓

ITEM	REQUIREMENT	ASSESSMENT/RATIONALE	COMPLIANCE
	- Variation in parapet heights and designs so as to provide additional interest to the street.		
Colours and Materials	- New colour schemes shall take into consideration the colour scheme of existing buildings and shall not be in sharp contrast. - Fluorescent and intense colours shall not be used.	The proposed restaurant facades will be of a high architectural standard, including a combination of colours and finishes to create an attractive building and not adversely affect the streetscape. Materials proposed include metal panels with paint finishes, cement sheeting with paint finishes, fibre cement weatherboard with paint finishes, powder coated aluminium battens, wood battens, stone features, steel and aluminium framing, colour bond folded metal and zincalume metal. Full façade colours and finishes are detailed on the perspectives contained in **Appendix C.**	✓
Streetscape Relationship			
Ground floor shop fronts	- Ground floor shop fronts shall: - Contain a minimum 75% glazing. - Contain and maximum 20% of signage on individual windows.	The ground level shopfront facades (southern and western façade only) provides the following percentage of glazing (please note that the façade has been measured from the ground floor level to the underside of the awning): - West elevation - 68% of façade. - South elevation - 50% of façade. Whilst we acknowledge glazing proposed does not achieve the 75% policy requirement on either façade, McDonald's has sought to provide an appropriate balance between glazing and architectural panelling, to create a more visually interesting built form outcome, as well as to limit signage on glazed areas. Accordingly, no signage is proposed on windows.	A minor variation to this Policy requirement is respectfully requested.

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ITEM	REQUIREMENT	ASSESSMENT/RATIONALE	COMPLIANCE
Entry Points	- Entry points shall include at least 2 of the following: - Face the street. - Signage above the entry door. - Indentation of the entry point, where recessed entrances are provided, they should be truncated at an angle to the pedestrian route of no less than 60°. - Highlighting the entry point through the use of different materials - Increasing the height of the awning above the entry point to no higher than 3.2m above footpath level.	Proposed entry points achieve the following: - Are oriented towards Chesterfield Road and Yirrigan Drive. - Propose signage above the entry door. - Utilises separate colours, materials and textures to signify the entrances to pedestrians. - Includes an awning, at a height of 3.070m.	✓
Activity and Uses	- Retail and other active commercial uses shall be located on the ground floor level. - Office and other non-active uses (residential) shall be located on upper levels.	Active commercial (restaurant, alfresco dining) uses will be provided on the ground floor, with the second level used as a non-active warehousing and storage/staff amenity area.	✓
Weather Protection	- Awnings shall be provided over all footpaths that abut a building, including footpaths that provide access to the rear of buildings.	Awnings are provided over overall pedestrian entrances (including the recessed entry on the western frontage) .	✓
	- Awnings shall be provided above all entrances and exits of a building.	Awnings are provided over all entrances/exits to the restaurant.	✓
	- New awnings shall protrude from the face of the building by a minimum width of 2.0m (where possible).	Awnings in excess of 2m in width are provided over pedestrian entrances to the restaurant, to provide weather protection for pedestrians.	✓
	- Awnings shall be constructed using materials that are opaque and non-reflective (no glass).	Awnings to be constructed of a steel framing lined with 9mm fibre cement sheeting, and paint finish. Materials will be non-reflective.	✓
	- New awnings shall line up with existing awnings (where present).	The restaurant proposed is a standalone building and therefore there are no existing awnings present on site.	✓

ITEM	REQUIREMENT	ASSESSMENT/RATIONALE	COMPLIANCE
	- Awnings shall be constructed to comply with the Local Government Misc. Provisions Ac t1960 – section 400 (2) and the Building Regulations 1989 Part 9.	Awnings will be constructed to comply with the Local Government Misc. Provisions Ac t1960 – section 400 (2) and the Building Regulations 1989 Part 9. Details will be provided at the building license stage.	✓
Levels	- A maximum of 500mm of fill shall be permitted on sites as measured from the natural ground level.	The proposed development will require less than 500mm of fill.	✓
	- The difference between the ground floor level of a building and the footpath level shall generally be nil.	The difference between the ground floor level and the pedestrian footpath levels is approximately 0.015mm.	✓
Fencing and Gates	- Fencing between the building and the front and secondary boundary shall not be permitted.	N/A – no fencing is proposed as part of the development.	N/A
	- Fencing behind the building line shall generally not be permitted as areas behind the setback line shall be used for the parking of vehicles and shall remain open to the public at all times.	N/A – no fencing is proposed as part of the development. A 1m high existing limestone wall to the north-east of the site is proposed to be retained. A new limestone wall is proposed on the eastern boundary of the site, to frame the drive-through area.	N/A
	- Gates and fences, where required, shall be of an open style and to a maximum height of 1.8m.	N/A – no fencing is proposed as part of the development.	N/A
Landscaping	- All landscaping plans shall be submitted for all new non-residential development and be in accordance with the City's Landscaping Policy.	Refer Landscape Plan at **Appendix F.**	✓
	- A 2.0m wide landscaping strip shall be provided within the front setback area between the boundary and the parking area and shall be planted in accordance with the City's Landscaping Policy.	In order to comply with the access requirements within the carpark and drive-through area and to provide for the existing rights of carriageway, a 1.8m landscape strip is provided within the Chesterfield Road and Yirrigan Drive front setback areas (measured to the lot boundary). The broader site, however, includes significant landscaping (17% of site), with soft landscaping areas to be provided between the development site and the surrounding car park consisting of	A minor variation to this Policy requirement is respectfully requested.

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ITEM	REQUIREMENT	ASSESSMENT/RATIONALE	COMPLIANCE
		mulching and low shrubs. This landscaping response is considered to achieve an appropriate balance between improving the visual appeal of the site and promoting passive surveillance, and improves the general amenity of the Mirrabooka Regional Centre. This landscaping is considered adequate in terms of providing visual appeal and amenity.	
	- A minimum of 10% of the site area shall be landscaped.	Proposed Soft Landscaping – 404m² = 17% of the development area (refer **Appendix F** for Landscaping Plan)	✓
Access and Parking			
Vehicle Access	- No vehicle access from Yirrigan Drive.	Access to the site is provided via Chesterfield Road only.	✓
	- Vehicle access to sites fronting major roads shall be from side streets or ROW's where available.	The subject site is not situated on a major road. However, access to the site is provided from the minor road, Chesterfield Drive, only.	✓
	- All vehicle movements shall be able to enter and exit the site in a forward gear.	The proposed store allows for all vehicle movements to enter the site via Chesterfield Road and egress the site in forward gear via Chesterfield Road also, or alternatively rat-run through	✓
	- All parking areas to comply with the Australian Standard 2890.1 in relation to turning circles, and gradients within the site.	All parking bays are in accordance with AS2890.1.	✓
	- Parking access ways to rear areas shall be limited and shall be no wider than 14m with pedestrian pavement on both sides.	No dedicated pedestrian accessways to the rear parking area are proposed.	✓
	- Adjacent rear parking areas to be connected and shared in an integrated manner.	Parking is primarily concentrated within the front setback area, however a rear parking area is also provided (providing for 6 car bays), between the drive-through facility and the northern boundary of the site. This rear parking area is easily accessible from the Chesterfield Road crossover, and is well connected to	✓

ITEM	REQUIREMENT	ASSESSMENT/RATIONALE	COMPLIANCE
		other parking areas.	
Car Parking Location	- Within the 21.0m setback no more than 19m of this setback area shall be used for parking.	Of the 14m setback to both Chesterfield Road and Yirrigan Drive, only 4.8m-5.5m is used for parking.	✓
	- Apart from parking in the front setback, parking areas shall be located at the back of the development, below ground or on rooftops.	Parking areas are predominantly located within the front setback to Yirrigan Drive and Chesterfield Road, with 1 parking area (totalling 6 bays) located to the rear of the site.	✓
Number and Design of Car Parking bays	- Shall be in accordance with the City's Parking Policy.	Refer to Section 4.2.2.13 of this report for a detailed assessment of the proposed carparking against the City's Parking Policy.	-
Pedestrian Access	- Pedestrian access, in the form of a footpath, shall be provided from the parking area to the entry point of the proposed development and along all street frontages.	A marked pedestrian crossing from the carparking area to the Yirrigan Drive entrance has been provided, facilitating safe and effective pedestrian movement across the site and car parking area.	✓
	- For developments with parking at the rear, pedestrian access between the street and car parking area shall be provided.	Pedestrian movement to the rear parking area will be achievable from the pedestrian footpath on Chesterfield Road.	✓
	- Pedestrian routes shall be aligned primarily along existing building fronts and thereafter along proposed new development fronts.	Pedestrian routes to the restaurant are provided within the front setback area, from Yirrigan Drive and Chesterfield Road.	✓
	- Pedestrian access to basement or rooftop parking shall be provided from the street front.	N/A – basement/rooftop parking is not proposed.	N/A
	- Pedestrian routes shall be as direct and level as possible.	Pedestrian routes from the verge footpaths to the restaurant are as direct and level as possible, with ramp access provided at each entrance, to facilitate universal access.	✓
	- Pedestrian footpaths shall be a minimum of 2.0m wide.	McDonald's propose to retain the 1.2m pedestrian footpath currently provided within the Chesterfield Road and Yirrigan Drive verge.	A minor variation to this Policy requirement is

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ITEM	REQUIREMENT	ASSESSMENT/RATIONALE	COMPLIANCE
			respectfully requested.
Crossovers	- A maximum of 2 crossovers shall be permitted for sites, one for entry, one for exiting.	One crossover is proposed on Chesterfield Road. However, 2 access points (protected by a caveat relating to reciprocal access rights) will be provided to the neighbouring property carparks, 1 to the north of the site, and the other to the south-east. It is acknowledged that customers will also utilise these access points to access/egress the site, reducing pressure on the Chesterfield Road crossover, particularly at peak times.	✓
Service Access and Facilities	- The provision of service access to all commercial premises shall be provided for loading and unloading goods.	A designated corral/service area is located immediately south of the drive-through ordering area.	✓
	- Service access shall be constructed to ensure that vehicles can enter and exit in a forward gear.	Service vehicles will enter the site via the Chesterfield Road crossover, into the loading bay area, and egress the site in forward gear also via the Chesterfield crossover. This truck movement path is shown in **Appendix E.**	✓
	Bin storage areas are required to be provided in accordance with the City's Bin Storage Area Policy.	Refer Section 4.2.2.11 of this report.	-
Lighting, Safety and Security	- Shall be in accordance with the City's Mixed Use and Commercial Centres Design Guidelines.	N/A – does not apply to Mixed Business zones.	N/A
Other Considerations	- Signage shall be in accordance with the City's Advertising Signs Policy	Refer Section 4.2.2.3 of this report.	-
	- Shall be in accordance with the City's Mixed Use and Commercial Centres Design Guidelines.	N/A – does not apply to Mixed Business zones.	N/A

We are also aware that the City recently revised Policy 5.4, and understand the Draft Policy was adopted by Council for the purpose of advertising, at their Council Meeting of 11 December 2012. We have reviewed the Draft Policy and note that the minimum building height for Precinct C has been increased from 6m to 10m, in order to accommodate a more consolidated building form and land use appropriate for a light rail transit oriented development area.

Whilst we acknowledge this draft policy position, we note that the final adoption of the Activity Centre Structure Plan and the confirmation of the light rail route is still some time away. The approval of the proposed McDonald's restaurant on the subject site will not prejudice the site from being redeveloped in accordance with this Policy in the longer term future.

4.2.2.2 POLICY 4.4 – MIXED BUSINESS DESIGN GUIDELINES

Policy 4.4 applies to all Mixed Business zoned areas within the City of Stirling. The following provides an outline of the key objectives of the Policy is provided below:

- *'To facilitate a development mix of showrooms and service industry of a higher aesthetic quality located on major traffic routes.*
- *To provide a more intense commercial business development form within established industrial areas of the City.*
- *To ensure that the Mixed Business areas are accessible by all modes of transport.*
- *To create attractive and well maintained landscaped areas between the setback line and the street.*
- *To ensure that buildings facing the street maintain an attractive façade that enhances the amenity of the streetscape'.*

In accordance with the above, the proposed McDonald's restaurant provides a convenience and complimentary use to the existing showroom, service industry and commercial premises within the locality. The proposed restaurant building integrates well with the surrounding area and achieves an attractive facade with areas of high activity (ie terrace, playground) facing the Yirrigan Drive/Chesterfield Road corner, promoting a high level of passive surveillance. The proposed store will be accessible by all modes of transport – private vehicle, pedestrian, cyclist and bus users, given the location of the Mirrabooka Bus Station approximately 120m east of the subject site.

The Policy states that, where it is inconsistent with the provisions of a site specific policy (Mirrabooka Regional Centre Design Guidelines), the provisions of that site specific Policy shall prevail. Accordingly, a detailed assessment against all provisions has not been undertaken. The following, however, provides an assessment against the key items not addressed in the Mirrabooka Regional Centre Design Guidelines:

TABLE 4 – MIXED BUSINESS DESIGN GUIDELINES – ASSESSMENT TABLE

REQUIREMENT	COMPLIANCE	DISCUSSION
<u>Lot Layout</u>		The lot size is 2,377m².
- Minimum Lot Area – Green Title and Strata lots shall have a minimum lot size of 2,000m²	✓	
- Minimum Lot Width – 30m	✓	The lot width (Yirrigan Drive frontage) is 34m.

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4.2.2.3 POLICY 6.1 – ADVERTISING SIGNS

Policy 6.1 applies to all advertising signs within the City of Stirling. The key objectives of this Policy are:

- *'To ensure that the display of advertisements on private sites does not adversely impact on the amenity of surrounding land.*
- *To avoid a proliferation of signs on individual sites and buildings.*
- *To improve the streetscape of major roads.*
- *Encourage the rationalisation of advertising signs on individual premises.*
- *Encourage the incorporation of advertising signs into the design consideration of buildings.*
- *To ensure that signs are not discriminatory or offensive.*
- *To ensure that signs only relate to services and products on the site'.*

In accordance with the above objectives, signage proposed as part of the development is considered to be consistent with the intent and objectives of this Policy. Specifically, signage proposed is considered consistent with the existing form, bulk and scale of development within the regional centre, and surrounding locality. The proposed signage has also been designed and located in a manner to minimise visual clutter and ensure traffic safety is not compromised.

The Policy provides an outline of general development requirements applicable to all signage within the City. A summary of these requirements is provided below:

- Design - Advertising signs shall:
  - Be incorporated into the overall design of the building.
  - Be in keeping with the scale and form of the building.
  - Not cause visual clutter of the streetscape or the building.
  - Not obscure any architectural features of the building.
  - Not extend beyond the boundary of a lot.
  - Not cause a nuisance, by way of light spillage, to abutting sites.
  - Not comprise flashing or running lights.
- Safety - Advertising signs shall:
  - Not pose a threat to public safety or health.
  - Not obstruct visual sightlines of vehicles and/or pedestrians.
  - Not interfere with or be likely to be confused with traffic control signals.
  - Not obstruct pedestrian movement.
- Content - Advertising signs shall:
  - Not advertise services or products other than those available on the lot.
  - Not contain any discriminatory or offensive material.

The signage proposed as part of the development generally complies with all the above requirements, in that it relates to the McDonald's store only and has been designed and located in a manner to ensure it is incorporated into the overall building design, is consistent with the scale of built form in the locality and will not cause visual clutter. Further, minimal signage is provided on key architectural features of the building (second storey, building parapets), to ensure these areas are not obscured.

Where illumination is proposed, an acrylic plastic shell is used to dull out the light significantly, resulting in negligible light spill. No flashing or running lights are proposed.

The following sections provide a detailed assessment of the various types of signage provided as part of this application and should be read in conjunction with the signage plans set out in **Appendix G.** As discussed previously in this report, we highlight that our below assessment of the proposed McDonald's signage against the Policy provisions has identified some variations from the standard requirements and some signage which may not be included within the Policy. Therefore, in accordance with the Policy, this section of the report has been prepared as a 'signage strategy'.

This section should be read in conjunction with the signage plans included at **Appendix G,** which includes the following, and accordingly meets the requirements of the Policy in relation to signage strategies:

- A Site Plan, showing the location of proposed signs and buildings (Plan S01, **Appendix G**)
- Perspectives illustrating the location of all proposed signage, buildings (Plans S01, **Appendix G**)
- Illustrations showing the contents, dimensions, surface areas and structural details of each sign (Plans S04 and S05, **Appendix G**)
- A written justification explaining why Council should grant a variation (below)

4.2.2.4 WALL SIGNS

A Wall Sign is defined within the Policy as follows:

> *'Sign which is affixed to the external part of a wall of the building but does not project more than 300mm from the wall and no part of which is above the lowest point of the eaves or ceiling of the building'.*

The proposed restaurant will include 8 wall signs (S2A, S2B, S3A, S3B, S3C, S5A, S5B, S5C) as part of the overall restaurant. This includes a 'blade' sign located to the south-west of the restaurant building, fronting Yirrigan Drive and also facing the lot to the north (S3A, S5A, S3B, S5B).

An assessment of each wall sign is provided in the table below:

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TABLE 5 – WALL SIGN ASSESSMENT

REQUIREMENT	COMPLIANCE	DISCUSSION
Be limited to a maximum of 2 signs per tenancy on a lot other than a building within a residential zone.	A variation to this policy requirement is respectfully requested.	Eight (8) wall signs are proposed as part of the development. The subject site fronts Yirrigan Drive to the south. This southern façade of the building contains the following wall signs: - A 'McCafe' sign (S5B) and an 'M' sign (S3B), as part of the wall blade. - A 'McCafe' sign (S5C). The subject site also fronts Chesterfield Road, to the west. The following wall signs are directed towards this frontage: - A 'McDonald's sign (S2A), above the entry to the store. The restaurant also has 2 internal frontages to surrounding land uses, to the north and east. The following walls signs are directed to these frontages: - North – An 'M' sign (S3C), 'McDonald's' sign (S2B). Also, a 'McCafe' sign (S5A) and 'M' sign (S3A) face the northern façade, as part of the wall blade. - East – no wall signs proposed.
Not exceed 10m² in area for non-residential areas in aggregate per tenancy.	A variation to this policy requirement is respectfully requested.	The total aggregate area for the wall signs proposed is 12.81m², and accordingly exceeds this Policy requirement by 2.81m². See justification below.
If placed directly over door openings, have a minimum clearance of 2.7m from ground level.	✓	1 wall sign (S2A) is located over a pedestrian entrance to the store. This sign achieves a 2.97m clearance from ground level, and therefore complies.

Variations from the standard requirements of the City's Advertising Signs Policy for the proposed wall signs are sought, and the following justification is provided:

- The proposed McDonald's Mirrabooka store comprises 3 separate components that require identification signage, which is comparable to 3 different tenancies on a single lot. These components include the McDonald's Restaurant, McCafe and Drive-Through Facility. Accordingly, the quantity of wall signs proposed is considered appropriate.
- Four of the wall signs are proposed to street frontages and the other 4 wall signs are proposed to internal lot boundaries. Accordingly, the wall signs proposed will not be concentrated on a particular façade, and will therefore not result in visual clutter.
- The wall signs are considered to be appropriately designed for the purpose of the proposed McDonald's store, and have been incorporated into the overall design of the 2-storey building, ensuring key architectural features are not obscured.
- The nature and quantity of wall signs proposed is considered to be appropriate for a drive-through fast food outlet, within a Mixed Business zone. Whilst we note that the McDonald's total proposed aggregate wall sign area is 2.81m² above the Policy requirement of 10m², the wall signage proposed is considered appropriate given the restaurant will be visible from all sides, and it will not present safety concerns to traffic or pedestrians. The signage is of a high design standard and is considered to not have an adverse impact on the amenity of the site or its surrounds. Whilst it is noted that residential development exists to the south of the subject site, the signage on this frontage is considered minimal and accordingly, it is not believed the signage proposed will impact on the amenity of these residents.
- The proposed wall signs will not be hazardous in terms of public safety and traffic. This is demonstrated in the perspectives, attached at **Appendix C.**

In conclusion, all wall signage proposed is considered vital to the operation of the store, and will contribute to the safe, efficient and effective operation of the restaurant development and as such, should be approved accordingly.

4.2.2.5 PYLON SIGN

A pylon sign is defined in the Policy as follows:

> *'Sign which is affixed to a structure having one or more supports where the overall height (inclusive of the supports) is greater than the sign's horizontal dimension and portion of the sign is greater than 1.2m above natural ground level, but does not include a Monolith Sign'.*

The proposed restaurant will include 1 pylon sign, located on the corner of Yirrigan Drive and Chesterfield Road, to the south-west of the subject site. An assessment of the pylon sign, in accordance with the Policy, is provided in the table below:

TABLE 6 – PYLON SIGN ASSESSMENT

REQUIREMENT	DISCUSSION	COMPLIANCE
Limited to a maximum of 1 sign per lot.	One pylon sign is proposed as part of the development.	✓
Not be permitted if a monolith sign or a hoarding sign is located on the same lot.	Four monolith directional signs are proposed. Refer justification in Section 4.2.2.6 of this report.	A variation to this policy requirement is respectfully requested.
Have a minimum clearance of 2.7m from ground level.	The proposed pylon sign achieves a clearance of 2.8m.	✓

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REQUIREMENT	DISCUSSION	COMPLIANCE
Not be more than 6.0m above ground level.	The pylon sign is 9.0m in height, Whilst the pylon sign only relates to a single business restaurant on the proposed lot, it does entail signage elements also highlighting the café, drive-through facility, and proposed 24/7 operation of the store. This has contributed to the need for an additional sign height. Further, we note that the pylon sign at the existing McDonald's Mirrabooka store is a 9.0m sign.	A variation to this policy requirement is respectfully requested.
When a lot has an area up to 5,000m² and one tenancy, a pylon sign shall be limited to 4m² in area, 6.0m in height and 2.5m in any direction.	The pylon sign dimensions/area exceeds these requirements. As stated above, as the sign entails elements also highlighting the café and proposed 24/7 operation of the store, an additional sign area, height and width is required. The scale of the pylon sign will provide ample advanced warning of the store, and allow ample time for a driver to signal for a turning movement; avoiding erratic driving movements.	A variation to this policy requirement is respectfully requested.

Variations from the standard requirements of the City's Advertising Signs Policy for the proposed pylon sign are sought, and the following justification is provided:

- The size and height of the sign is considered appropriate in the context of the Mirrabooka Regional Centre and Mixed Business zoned in which it is sited. The proposed pylon sign is also considered consistent with the general bulk and scale of surrounding development, including the Mirrabooka Square Shopping Centre. The proposed pylon sign is also consistent with other pylon signage provided within the locality.
- The internal illumination of the sign, combined with an acrylic plastic shell will dull the light significantly and result in negligible light spill. In this regard, it should be noted that immediately surrounding land is a wide road reserve (Yirrigan Drive), with the nearest residential dwelling being approximately 60m to the south of the sign.
- The proposed sign will be internally illuminated to avoid any conflict with nearby traffic signals at the intersection of Yirrigan Drive and Chesterfield Road.
- The location and scale of the signage will provide ample advanced warning of the store, and allow ample time for a driver to signal for a turning movement; avoiding erratic driving movements.

Based on the above and having reference to the objectives set out within the Policy, the proposed pylon sign is considered appropriate in that it will not adversely affect the character and amenity of the area and will not present safety issues.

A structural engineering certificate for the proposed pylon sign will be provided at the building license stage.

4.2.2.6 MONOLITH SIGN

A monolith sign is defined in the Policy as follows:

> *'Sign which is not attached to a building with its largest dimension being vertical. Such a sign may consist if a number of modules and is generally uniform in shape from ground level to the top of the sign and is greater than 1.2m in height'.*

The proposed restaurant will include 4 monolith 'directional' signs (S8A, S8B, S8C and S8D). The design of these signs is shown as sign S8 on signage plan S04, and their location of signage plan S01. Signs will be located at the site entrances on Chesterfield Road to the west, the eastern access to the site from the neighbouring lot, as well as at the beginning of the drive-through ordering booth. The directional signs will be 2.3m in height and 0.7m in width, incorporating a McDonald's 'M' and directional arrow as required. The symbols will be internally illuminated to allow for visibility at night.

An assessment of the monolith signs, in accordance with the Policy, is provided in the table below:

TABLE 7 – MONOLITH SIGN ASSESSMENT

REQUIREMENT	DISCUSSION	COMPLIANCE
Be limited to a maximum of one free standing sign on a lot.	Four (4) monolith directional signs are proposed as part of the restaurant.	A variation to this policy requirement is respectfully requested.
Not be permitted when a pylon sign or hoarding sign is located on the same lot.	A pylon sign is proposed on the corner of Yirrigan Drive and Chesterfield Road.	A variation to this policy requirement is respectfully requested.
Not be located within 1 metre of a crossover.	The 2 monolith directional signs located on either side of the Chesterfield Road crossover are located in excess of 1m from the edge of the crossover.	✓
Have a maximum depth of 0.5m	All 4 monolith directional signs are approximately 0.25m in depth.	✓
If the lot frontage is between 40m and 40m, then a sign shall be limited to 7.5m in height and 2.5m in width.	All 4 monolith directional signs are 2.3m in height, and 0.7m wide.	✓

Variations from the standard requirements of the City's Advertising Signs Policy for the proposed monolith directional signs are sought in relation to the overall quantity proposed. All 4 monolith directional signs are required to safely guide vehicles, pedestrians and cyclists through the restaurant to the entrance of the drive-through facility. The signs will be minor in nature, are consistent with the character and amenity of the regional centre and will not have an adverse impact on surrounding public roads or residential areas. Similar directional signage is located at the existing McDonald's Mirrabooka restaurant.

Based on the above and having reference to the objectives set out within the Policy, the proposed monolith directional signs are considered appropriate to the scale and efficient functioning of the site, and we therefore request they be approved accordingly.

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4.2.2.7 CAR PARKING SIGNAGE

The application proposes various car parking and access signage elements, as indicated in signage plan S04 and S05, attached at **Appendix G**. These include instructional signs for vehicles, pedestrians and cyclists, as well as minor signage relating to the drive through facility.

The various carparking signage is shown as sign S09 on signage plan S05, and consists of the following:

- A '10' sign, advising drivers of the 10km/hr speed limit throughout the drive-through facility.
- A Bicycle Parking sign.
- A 'Stop' sign.
- A 'Disabled Parking only' sign.
- A 'No Pedestrian Access' sign.
- A 'McDonald's Drive-Thru Wait Bay Only' sign.

All of the above signage is considered to be vital and standard requirements to the safe, efficient and effective operation of the restaurant development and should be approved accordingly. All signs remain in character with the area and will not have an adverse impact on the surrounding locality.

4.2.2.8 FLAGS

Two flags are proposed on the subject site adjacent to Yirrigan Drive. The flag poles are proposed to be 8.5m in height, with one flying a McDonald's flag and the other flying an Australian flag. Details of the flags are indicated as sign S12 on signage plan S05, and the proposed location of the flags is identified on signage plan S02.

The flags are considered to enhance the visual amenity and character of the district centre site and will not present a traffic safety hazard. The flags will present an alternative and high standard in the design and presentation of outdoor advertising.

4.2.2.9 SIGNAGE CONCLUSION

This section of the development application report has considered the signage proposed in light of the City's LPS 3 and supporting Advertising Signs Policy. Where variations from the standard requirements within the Policy are sought, justification has been provided having particular regard to the objectives set out in the Policy and within

It is considered the above justifications sufficiently demonstrate the need for the extent and designs of signage proposed in order to achieve the safe and efficient operation of the McDonald's site and the interaction of the restaurant and its customers with the surrounding environment. Read in association with the appended signage plans, the information provided satisfies the requirements for a comprehensive signage strategy, as required by Schedule 8 of LPS 3, where variations to Policy requirements are sought.

In particular, it is noted that the signage proposed is consistent with the locality including the existing form, bulk and scale of development within the Mirrabooka Regional Centre, and surrounds. The specific design and location of the proposed signage, relating to the intended use of the signs in providing an appropriate interface within the surrounding environment, including residential development to the south, and facilitating safe efficient and legible pedestrian and vehicle movement to, from and within the site is considered to be consistent with the intent and objectives of the Policy. Furthermore, the proposed signage has been designed and located in a manner to ensure traffic safety is not compromised.

4.2.2.10 POLICY 6.2 – BICYCLE PARKING

Policy 6.2 applies to all non-residential development in excess of 400m² gross floor area, and therefore is applicable to the proposed McDonald's restaurant. The key objectives of this Policy are as follows:

- *'To facilitate the development of adequate bicycle parking facilities.*
- *To ensure the provision of end of journey facilities, and*
- *To encourage the use of bicycles of all types of journeys'.*

The Policy also provides a bicycle parking ratio table for specific uses. A 'drive through fast food outlet' is not specifically listed in this table, therefore the 'all other uses' ratio applies. This is indicated in the table below:

TABLE 8 – BICYCLE PARKING RATIO

ACTIVITY/USE	NO. BIKE PARKING SPACES FOR EMPLOYEES/RESIDENTS/STUDENTS	NO. BIKE PARKING SPACES FOR CUSTOMERS/VISITORS
All other uses	1 space per 400m² of GFA	N/A

The GFA of the proposed McDonald's restaurant is 587m², accordingly only 1 bicycle bay is required to be provided in accordance with this Policy. The proposed McDonald's development proposed a total of 6 bicycle parking bays, which is 5 in excess of the requirement. In accordance with the Policy, end of journey facilities are not required to be provided.

The Policy also provides guidance on the location of bicycle facilities. In summary facilities shall be located:

- At ground floor level and not require access via steps.
- As close as possible to main entrance points.
- In an area that allows informal surveillance of the facility to occur wherever possible.
- Away from areas of high pedestrian activity in order to minimise inconvenience or danger to pedestrians.

Bicycle facilities are proposed to be located to the south of subject site, at the southern entrance to the proposed restaurant. In accordance with the Policy, the facilities are located on ground level, at the southern entrance to the restaurant. Accordingly, informal surveillance will be achieved as the counter area will directly face the facilities area. In response to the final point, above, whilst the facilities will be located at the southern entrance to the restaurant, they will be in a distinct area away from pedestrian walkways, minimising the potential for conflict.

4.2.2.11 POLICY 6.3 – BIN STORAGE AREAS

The City of Stirling also has a Policy relating to bin storage areas, which is applicable to all non-residential development. The key objectives of this Policy are to:

- *'Provide sufficient space for the storage of bulk refuse bins.*
- *Ensure that bin areas are screened from the street and are in harmony with the materials and finishes of the building'.*

In accordance with the above objectives, the proposed bin storage (corral) area is completely enclosed and located to the rear of the site, and therefore will be screened from public view. The materials and finishes of the corral area will also be consistent with the restaurant building (refer Perspectives at **Appendix C**).

The Policy also provides guidance in relation to specific development provisions relating bin storage areas within non-residential zones:

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TABLE 9 – BIN STORAGE AREAS – ASSESSMENT TABLE

REQUIREMENT	ASSESSMENT	COMPLIANCE
<u>Size</u> Bin storage areas in non-residential areas shall have the following minimum sizes: - Size – 10m² - Width – 3.5m	The proposed corral area is 26m² , and 4.8m wide, and therefore complies with this Policy requirement.	✓
<u>Location</u> Shall be located behind the building setback line.	The proposed bin storage area is proposed behind the building setback line, within a designated, enclosed corral area, located within the northern portion of the restaurant.	✓
Shall ensure that adequate space is available for the bulk refuse truck to access the bin area and manoeuvre.	The proposed bin storage area is located immediately adjacent a designated loading bay. A plan showing the turning circles of the delivery truck is provided at **Appendix E**.	✓
<u>Design</u> Shall be screened from view to a minimum height of 1.8m so that it is not visible from the street.	The corral area will be enclosed and screened from public view.	✓
Materials shall match with the building.	The external materials integrate with the materials used for the remainder of building, as shown on the Perspectives, attached at **Appendix C.**	✓
Shall be sealed and regularly cleaned and maintained.	The designated corral area will be appropriately screened from public view and adjoining properties, and cleaned on a regular basis.	✓
Stormwater and effluent drainage facilities shall be contained within this area.	The corral area is enclosed, therefore stormwater/effluent drainage facilities are not proposed.	N/A

4.2.2.12 POLICY 6.6 – LANDSCAPING

Policy 6.6 is applicable to all non-residential development. The key objectives of the Policy are as follows:

- *'To promote improved landscaping provision and design.*
- *To improve the visual appeal of the development, screen service areas and provide a buffer to boundaries.*
- *To provide shade and 'green relief' in built up areas.*
- *To promote more environmentally sustainable landscaping'.*

In accordance with the above objectives, the landscaping proposed will deliver a visually appealing development, with the introduction of street trees to provide shade to open parking areas and provide 'green relief' to what is a predominantly a built up commercial area. Plant/shrub species proposed are as follows:

- Plant Species –
  - Grevillea 'Gin Gin Gem' – Grevillea.
  - Juniperus Conferta – Shore Juniper.
  - Liriope 'Evergreen Giant' – Giant Liriope.
  - Dianella Cearulea 'Aranda' – Flax Lily.
  - Dianella Purina 'Utopia' – Native Flax Lily.

- Medium/Tall Shrubs –
  - Callistemon 'Little John' – Bottlebrush.
  - Viburnum Suspensum – Laurusinus.
  - Nandina Domestica – Sacred Bamboo.
  - Westringia 'Jervis Gem' – Native Rosemary
  - Yucca Elephantipes – Spineless Yucca.
  - Prunus Cerasifera Nigra – Flowering Plum Tree.
  - Pyrus Calleryana – Ornamental Pear Tree.

For all commercial developments, the Policy requires a minimum of 10% of the total site area is required to be dedicated to landscaping. This must include 'soft' landscaped buffers, where setbacks are provided. In accordance with the Policy, the proposed McDonald's store proposes to provide 404m² of soft landscaping, which equates to 17% of the site area, and therefore complies.

Landscaping strips are proposed to Chesterfield Road and Yirrigan Drive site to improve amenity and visual appeal whilst allowing for passive surveillance. A Landscaping Plan (Plan DA03), in accordance with the submission requirements outlined in the Policy, is provided at **Appendix F**.

Other key development provisions outlined in the Policy include:

TABLE 10 – LANDSCAPING POLICY

REQUIREMENT	ASSESSMENT	COMPLIANCE
<u>Landscaping Areas</u> All individual planting areas, excluding those in or adjacent to public car parks, must have a minimum width in any direction of 500mm and a minimum plantable area of 2m².	All landscaped areas are in excess of 500mm wide and with a minimum plantable area of 2m².	✓
The inclusion of verge areas (abutting the site) in the overall landscaping design is required.	Landscaped verge areas will be retained as part of the development of the site.	✓

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REQUIREMENT	ASSESSMENT	COMPLIANCE
Plant Numbers and Types All landscaped areas are required to be planted with a suitable number of plants that satisfy the objectives of the Policy (plant numbers assessed with due regard to the eventual size of the species selected). Species should be chosen to suit the climate, environment, location and required function, whilst taking into consideration surrounding landscapes. The use of native species is encouraged.	Species proposed have been chosen to suit the local climate, environment and location. A schedule of species types is provided at **Appendix F.** Some species proposed are native species.	✓
Street Trees The provision of new street trees is required where no street trees currently exist. Species must be approved by the City's Parks Department.	10 trees are proposed as part of the development, to provide shade to open carparking areas, and provide a soft landscaping treatment to Yirrigan Drive and Chesterfield Road.	✓
Retention of Existing Vegetation Council encourages the retention of existing vegetation and will consider the exercise of discretion in the application of scheme requirements and adopted local policies where such a variation would allow for the retention of significant existing vegetation on a site.	No vegetation currently exists on site or within the verge.	✓
Reticulation and Mulching All landscaped areas shall be reticulated unless the Applicant can provide satisfactory evidence that reticulation is not necessary. A minimum of 75mm of mulch (gravel not permitted) is to be applied to all landscaping beds.	All landscaped areas are to be automatically reticulated. Mulch will also be added to the surface of all landscaping areas at a thickness of 100mm , as noted on the Landscaping Plan, attached at **Appendix F.**	✓
Parking Areas A minimum of 1 tree per 6 bays (minimum 45L for exotics and 11L for natives) is required in open parking areas. Shrubs are generally not permitted as they may interfere with sight lines in and around parking areas and driveways.	1 tree per 4 bays are proposed for open parking areas within the front setback, resulting in 9 trees over the site.	✓

4.2.2.13 POLICY 6.7 - PARKING AND ACCCESS

Policy 6.7 applies to all zoned and reserved land within the City of Stirling. The key objectives of the Policy are as follows:

- *'To facilitate the development of adequate parking facilities;*
- *To ensure safe, convenient and efficient access for pedestrians, cyclists and motorists;*
- *To ensure that a major parking problem is unlikely to occur;*
- *To ensure that car parking areas and accessways do not have a detrimental impact on the character and amenity of an area; and*
- *To ensure that an oversupply of parking does not occur that discourages alternative forms of transport and is detrimental to the urban design and character of the locality'.*

Based on a review of Table 1 of the Policy (Car Parking Ratios), it is evident that a 'drive through fast food outlet' use is not specifically listed in this table. In the absence of a specific 'drive-through fast food outlet' use, the proposed carparking has been assessed based on the following uses within

- Fast Food Outlet.
- Warehouse.
- Alfresco Area.

As detailed previously in this report, the entire first level of the building is proposed to be dedicated to warehousing and staff amenities (totalling 138m²), with a storage area and goods lift on the ground floor (19.2m²) and the bin storage area (26m²). Accordingly, the total area applicable to the warehousing use is 183m².

A summary of the applicable areas subject to each use and associated parking requirement is summarised in the table below:

TABLE 11 – POLICY 6.7 – PARKING REQUIREMENTS

USE	POLICY PROVISION	APPLICABLE AREA	CARPARKING REQUIREMENT
Fast Food Outlet	1 per 7m² GFA	337m²	48.1 bays
Warehouse	1 per 50m² GFA	183m²	3.6 bays
Alfresco Area	1 per 14m² of alfresco area	41m²	2.9 bays
		TOTAL	**55 bays (54.6)**

However, we understand the required number of carparking bays may be reduced where performance criteria in Table 2 of the Policy are satisfied. Accordingly, we believe the follow performance criteria to be applicable to the proposed McDonald's store:

- Proximity to Mirrabooka bus station - 15% reduction
- Provision of greater cycle facilities - 5% reduction

Overall, a 20% reduction of the total parking requirement is applicable (10.92 bays), and accordingly, the Policy requires a total of 44 bays (43.68).

McDonald's propose to provide a total of 46 carparking bays, and therefore the proposal is compliant with the Policy requirement. This includes the 11 vehicles which can be stacked within the dual-lane drive through and the 2 additional waiting bays located towards the exit of the drive-through. However, given drive-through transactions typically attract approximately 60% of the overall transactions of a McDonald's store, this is considered appropriate.

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In order to further justify the carparking proposed, a Parking Needs Study was prepared by Riley Consulting (dated December 2012), to assess the minimum level of carparking bays considered sufficient to cater for the proposed McDonald's Mirrabooka restaurant. A summary of the study approach and key outcomes is provided below:

- Surveys were undertaken over a 2 hour period of walk-in customers at 3 existing McDonald's restaurants (Morley, North Perth, Innaloo), which are similar to the proposed new Mirrabooka store.
- Assessment of the future parking requirements for the relocated Mirrabooka restaurant indicates that a minimum of 13 bays would be sufficient to cater for the expected parking demand of walk-in customers.
- A sensitivity test of doubling the walk-in customer attraction suggests that 19 bays would be sufficient.

A full copy of the Parking Needs Study report is attached at **Appendix D.**

In the context of the Parking Needs Assessment, the 33 'fixed' carparking bays proposed as part of the McDonald's Mirrabooka store is 20 bays in excess of the recommended 13 'fixed' bays, and accordingly the parking proposed is considered sufficient. In accordance with the Policy objectives, the parking provision will provide ample parking for walk-in customers, whilst balancing this with the promotion of alternative forms of transport, such as walking and cycling. The overall parking provision is consistent with other comparable stores in the Perth Metropolitan Area.

The application proposes high quality pedestrian access from the surrounding road network, the Mirrabooka Bus Station and shopping centre to the restaurant, through retention of existing pedestrian footpaths on Yirrigan Drive and Chesterfield Road. This will further work towards encouraging pedestrian access and reducing demand on car parking facilities. Ample bicycle parking facilities are also provided to facilitate cycle access as a mode of transport to the store.

Finally, it is in McDonald's best interest to ensure that the amount of parking and drive-through space is ample to cater for envisaged business. The carparking proposed will provide for safe and convenient access, and will not have an adverse impact on the amenity of the site, the nearby shopping centre and surrounding commercial areas.

The following provides an assessment of the proposed McDonald's restaurant against Section 8 of the Policy – Non-Residential Parking Layout, Design and Access:

TABLE 12 – NON RESIDENTIAL PARKING, DESIGN AND ACCESS – ASSESSMENT TABLE

REQUIREMENT	ASSESSMENT	COMPLIANCE
<u>Parking Layout and Design</u> All carparking and manoeuvring areas are to be designed in accordance with AS 2890.1.	All carparking bays and manoeuvring bays have been designed in accordance with AS 2890.1.	✓
Parking areas shall be sealed, drained and marked to the satisfaction of Council and maintained thereafter.	All parking bays will be constructed to the satisfaction of Council.	✓
Parking areas shall be designed so as to enable all vehicles to return to the street in forward gear.	The proposed store allows for vehicles to enter and egress the site via Chesterfield Drive, in forward gear.	✓
Disabled parking bays are required to provide a shared area in accordance with AS 2890.6.	One accessible, disabled car parking bay is proposed directly adjacent to the pedestrian crossing within the Yirrigan Road frontage. This disabled bay is in accordance with AS 2890.6.	✓

REQUIREMENT	ASSESSMENT	COMPLIANCE
Entry and exit points and vehicle circulation patterns are to be clearly indicated.	All entry and exist points will be clearly articulated, through appropriate linemarking and signage, particularly at access points to neighbouring lots and the drive-through facility.	✓
Parking bays shall not be provided in tandem.	Two tandem staff parking bays are provided within the northern portion of the site. The management of these bays is provided in Section 3.1.2 of this report.	A variation to this Policy requirement is respectfully requested.
Car stacking systems or other such systems may be supported subject to the submission of a parking management plan detailing the operation of the system to the satisfaction of Council.	The proposed development does not propose any vertical car stacking system.	N/A
<u>Access</u>		
Accessways and crossovers shall be: - Provided at a rate of no greater than 1 per street frontage.	One crossover is provided on Chesterfield Drive only.	✓
- Be no less than 6m in width and no greater than 10m in width.	Chesterfield Road crossover width – 6m Northern Accessway width – 6m Eastern Accessway width – 6.8m	✓
- Be no closer than 0.5m to a side boundary and street poles.	Chesterfield Road crossover – 7m from the northern boundary of the site Northern Accessway –minimum 7.6m from side boundary Eastern Accessway – 9m from side boundary	✓
- Be no closer than 1.0m from the nearest point of a street tree.	The Chesterfield Road crossover is approximately 5m from the nearest proposed street tree. Other accessways are not located within close proximity to proposed trees.	✓
- Be aligned at right angles to the street and parallel in width.	The proposed Chesterfield Road crossover is at right angles to the street and is parallel in width.	✓

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REQUIREMENT	ASSESSMENT	COMPLIANCE
- Be designed so as to minimise traffic or pedestrian hazards, conflict with pedestrian/cyclist pathways and interference with public transport facilities.	The Chesterfield Road crossover is appropriately located to minimise traffic hazards, conflict with pedestrian/cyclist pathways or interfere with public transport facilities.	✓
- Be designed in accordance with AS 1742.	All accessways and crossovers in accordance with AS 1742.	✓
- Be subject to Main Roads WA approval where they connect to Main Roads WA controlled roads (including properties that abut traffic lights)	Given the subject site abuts a controlled intersection (cnr Yirrigan Drive and Chesterfield Road), we understand referral to Main Roads WA will be required.	✓
<u>Service Access</u> - The service access shall be so constructed that vehicles using it may return to a street in forward gear.	Service vehicles will enter the site via the Chesterfield Road crossover into the delivery area and egress the site is forward gear also via Chesterfield Road. A plan showing the movement and turning circles of the delivery truck is provided at **Appendix E**.	✓
- The service access shall be no less than 6m in width.	The service access is 5m in width. A plan showing the ability for the delivery truck to manoeuvre within this service area is however provided at **Appendix E**.	A variation to this Policy requirement is respectfully requested.
- Shall be designed so as to segregate vehicles (moving and stationary) from parking areas and access ways provided for customer parking.	The service area will be located between the restaurant and the drive-through facility, alongside the northern façade of the building. This is appropriate segregated from the customer parking area. A dedicated service bay is provided for loading and unloading of. The service bay will allow for rubbish collection to occur without adversely affecting parking or access.	✓
- Loading/unloading areas should not be located within close proximity to any adjoining residential uses.	A designated corral area is located to the rear of the store, screened from residential uses on the opposite site of Yirrigan Drive.	✓

REQUIREMENT	ASSESSMENT	COMPLIANCE
Verge Levels - Existing verge levels will not be modified unless determined necessary by the City.	Existing verge levels will not be modified as part of this proposal.	✓
Specific Purpose Bays - In non-residential developments over 500m² GFA, at least 1 bay shall be permanently set aside and marked for the exclusive use of delivery and service, and courier vehicles.	A loading bay, for the exclusive use by service vehicles, is appropriately located adjacent to the designated corral areas for ease of delivery.	✓

With respect to variations from the above Policy requirements, we respectfully request that Council use their discretion to approve the minor variations proposed, in accordance with Section 12 of the Policy.

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4.3 LOCAL STRATEGIC PLANNING FRAMEWORK

4.3.1 CITY OF STIRLING STRATEGIC PLAN 2009-2014

The key aim of the City's Strategic Plan (2009-2014) is as follows:

> *'to lead in the delivery of responsive, sustainable services to the City's diverse community. In doing this, the City seeks to preserve and enhance its environment and lifestyle, now and into the future'.*

As part of the Strategic Plan, 5 key goals have been identified. Relevant goals to this application include (in summary):

- *'To create and develop a responsive and inclusive community that provides opportunities for all, balancing the competing needs of the local and wider communities.*
- *To plan, develop, enhance and maintain a quality built and natural environment based on sustainability principles.*
- *To foster the ongoing economic development of the City, encouraging investment and employment in a sustainable manner.*
- *To foster the use of alliances and partnerships committed to achieving sustainable economic benefits and enhanced expertise to benefit the community'.*

In accordance with the above goals, the proposed McDonald's restaurant promotes the ongoing economic development of the City, encouraging investment in the Mirrabooka Regional Centre and will provide additional employment opportunities. The relocation and upgrade of the McDonald's Mirrabooka store will assist in reinforcing the role and function of Mirrabooka as a 'secondary centre', as it will assist in creating a mix of active commercial land uses synonymous with a regional centre.

The proposed store will also promote pedestrian movement from the Mirrabooka Square Shopping Centre, the bus station and the proposed light rail station. The store will also operate on a 24/7 basis, ensuring the centre is alive both during the day and night time.

4.3.2 MIRRABOOKA REGIONAL CENTRE IMPROVEMENT STRATEGY

The City of Stirling commenced the preparation of the Mirrabooka Regional Centre Improvement Strategy (MRCIS) in 2001, with an Enquiry by Design workshop led by the Department of Planning. The MRCIS seeks to address key issues, including access, zoning, land use and built form, community needs, security and appearance and overall image. The overall aim of the MRCIS was to revitalise the Centre by creating an attractive, popular and successful focus for the region's shopping, social and service needs.

As a result of this project, various projects have commenced/been completed, such as the development of the Northwood Grove residential subdivision, the construction of Sudbury Road to improve movement and linkages to and within the Mirrabooka Regional Centre, the construction of a new Town Square area to provide the community with a focal point located in the centre of the development area, and the redevelopment of the existing Mirrabooka Bus Station and integrating this with the new Town Square.

An indicative development plan was prepared as part of this process. An extract showing the subject site within the context of this plan, is provided below:

FIGURE 15 – MRCIS – INDICATIVE DEVELOPMENT PLAN – EXTRACT (CITY OF STIRLING)



The development of a McDonald's restaurant at the subject site will not prejudice the overall intent of the MRCIS.

4.3.3 MIRRABOOKA REGIONAL CENTRE – ACTIVITY CENTRE STRUCTURE PLAN

It is understood a Draft Activity Centre Structure Plan (Draft ACSP) is currently being prepared by the City of Stirling. Once the Draft ACSP has been adopted by the City of Stirling, the Plan will be required to be approved by the Western Australian Planning Commission. We understand the key aim of the ACSP is as follows:

> *'To create a centre with a diverse range of uses, which is attractive, safe and is a focus for the region's shopping, social and service needs'.*

A set of objectives have also been identified for the Draft ACSP. These include:

- *'To provide a sound, coordinated strategy for the integrated development of public and private land to facilitate the creation of a safe, successful, vibrant centre, which provides a range of needs for a regional community;*
- *To provide sound economic reasoning to substantiate and inform the development of recommendations in relation to land use zoning and allocation of costs;*
- *To provide guidance on statutory planning provisions for desired development outcomes for private land within the centre, consistent with the adopted vision;*
- *To provide guidance for an implementation strategy that builds on the outcomes of the Mirrabooka Regional Centre Improvement Strategy; and*
- *To provide for integration of built form and land uses with public transport infrastructure'.*

The proposed McDonald's store is aligned with the overarching aims and objectives of the Draft ACSP, in that it will contribute towards the creation of a diverse mix of active commercial land uses and provide for the convenience needs of the local and regional community. The proposed 24/7 operation of the store will contribute to overall vibrancy and vitality of the centre, both during the day and night-time, and will also provide a level of passive surveillance during all hours, contributing towards the creation of a safe centre.

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To achieve a more consolidated built form outcome within the Mirrabooka Regional Centre, the proposed McDonald's incorporates a second-level, which is not typical of other McDonald's restaurants, having been designed specifically for the site.

Further, the subject site is appropriately located in close proximity to the Mirrabooka Bus Station and proposed light rail and accordingly, promotes non-motorised forms of travel, through the provision of pedestrian paths and bicycle parking.

In summary, the proposed McDonald's restaurant presents an appropriate response to the site context and the current City of Stirling planning framework, at a time when the future planning for the broader MRC is still evolving. The development proposes a revitalisation and improvement to the site, in accordance with the City of Stirling's overarching vision for the centre, and will contribute to the existing diversity of land uses within the MRC. The approval of the proposed McDonald's restaurant will not be prejudicial to the overall ACSP process.

5 Other Matters for Consideration

The following sections discuss various matters which are not necessarily subject to specific City of Stirling planning and development controls, but are considered prudent to address through the planning application. This information is particularly relevant given the proposed 24/7 operation of the McDonald's.

McDonald's prepares detailed management plans for all of its restaurants, recognising the need to ensure the safety, security and amenity for customers, staff, nearby residents and the greater community in which the proposed McDonald's operation resides at all times. A summary of key elements of the management plan for Mirrabooka is provided below.

5.1 SECURITY AND SAFETY

The security and safety of employees and the general public is highly valued by the management of the premises. Security and safety practices will be constantly reviewed and tailored to suit the Mirrabooka store in consultation with the City of Stirling and the local police.

The existing McDonald's Mirrabooka store has practices in place to ensure that all reasonable steps will be taken to prevent undesirable impacts on the local community.

5.1.1 SURVEILLANCE

5.1.1.1 CCTV CAMERA SYSTEMS

McDonald's Management will install CCTV surveillance cameras in and around the premises in strategic places including the drive-through facility and cashiers/service areas. This system has automated recording technology, longer video storage capacity, video motion detection and more advanced camera technology allowing greater video resolution and coverage.

All cameras will operate 24 hours a day. The quality of the images filmed will satisfy Police requirements. TV monitors will be located within the premises and will allow staff to monitor the activities on the camera. Management will ensure the system is maintained in good working order. Management will also ensure that the coverage will be operated with due regard to the privacy and civil liberties of all persons within the development.

McDonald's employees and adjoining properties will be encouraged to assist with passive surveillance of all areas of the development and in particular the car park, by providing efficient reporting systems for any security or safety concerns on a 24 hour basis.

5.1.1.2 INTRUDER ALARM SYSTEMS

McDonald's will install an extensive intruder alarm system including perimeter protection, movement detection and access control. This system achieves an added sense of crime prevention and security. The system will allow monitoring of who is accessing what areas, better response to alarms and audit breaches of security in a timely and efficient manner.

5.1.1.3 LIGHTING

Perimeter lighting will be provided around the premises and car park to enable clear vision and will be designed in such a manner so as to prevent concealment and shadowing. The standard of lighting will not only reduce the fear of crime in accordance with Australian lighting standards, but also serves to provide clear identification of activity using the high technology CCTV cameras proposed.

Broken light fixtures and bulbs within the premises and car park will be replaced within 24 hours.

5.1.1.4 CLEAR SITE LINES

The restaurant has been designed to and takes into account the need to maximise clear sight lines. The restaurant incorporates the maximum use of natural surveillance and minimises potential obstructions such as physical barriers to ensure these clear sight lines.

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5.1.1.5 ACCESS CONTROL

The McDonald's operation will utilise an intruder alarm, access control and CCTV systems to monitor access within the car park. Upon commissioning the facility a risk assessment will be undertaken to consider any pedestrian or vehicular access control issues which may arise.

5.1.1.6 HIGH RISK AREAS

The McDonald's store has been designed so as not to create a hostile environment. Access will be restricted particularly in relation to nominated "secure areas" such as the kitchen/back of house areas, exits and the loading dock. This will be achieved by the installation of movement detectors and security hardware (locks etc.).

5.1.1.7 GRAFFITI AND VANDALISM

It is McDonald's policy to provide a safe environment for patrons and employees. The store manager is required to undertake regular inspections of the store and surrounds during opening hours and any graffiti is immediately removed. Any antisocial behaviour or vandalism is reported directly to the Local Police. In addition, the design of the restaurant and the fact that it is an active use provides passive surveillance outside shopping centre trading hours to the car park and surrounding area.

5.1.1.8 SIGNAGE

Clearly identifiable signage will be installed in and around the restaurant to indicate which areas are open to customers and members of the public and which areas are restricted.

Signage and clear sight lines will assist with the anticipated pedestrian flows within the restaurant car park.

Warning signs, at strategic locations are to be placed around the perimeter of the premises, at entry/exits to warn people of existing security measures.

A sign at the entry of the premises advising residents to forward any complaints regarding the operation of the premises to the Duty Manager will be provided. The sign will include a phone number and state that complaints can be made 24 hours a day/7 days per week. All reasonable endeavours are to be used to answer the telephone and the telephone will include a message bank.

The Duty Manager's phone number will be provided to surrounding properties.

5.2 SPACE MANAGEMENT

5.2.1 SEATING DESIGN

The McDonald's operation takes into account the need to provide seating and other comforts for persons visiting without interfering or disrupting pedestrian flows. This philosophy is designed to encourage increased use of the common areas to reduce the potential for security breaches by natural surveillance.

5.2.2 LANDSCAPING

Landscaping is to be maintained regularly with trees and shrubs trimmed away from doors and windows (as relevant).

5.3 OPERATIONAL PROCEDURES

5.3.1 COMMUNICATION

Staff training days will be held on a regular basis to reinforce safety and security procedures for the restaurant. Employees will be encouraged to report any suspicious activity or persons in and around the area to the Duty Manager and/or Local Police.

5.3.2 INCIDENT REPORT

An Incident Report will be required to be completed on all incidents that necessitate action by an emergency service, fire brigade, police and maintenance called in after hours. As well, the duty manager is required to be informed.

All incidents including vandalism and graffiti will be recorded, together with the response time taken to repair or remove the property affected or offending material. The frequency of incidents together with the respective response will be included in the regular site performance reviews to ensure the maintenance of acceptable standards.

5.3.3 TELEPHONES

Telephones are to be pre-programmed with the emergency number '000'. Telephone lines are to be secured with an approved lock to avoid unlawful tampering.

5.3.4 REGISTERING OF COMPLAINTS

Any complaints will be received will be documented in a register and followed up by the Duty Manager. The register will include details of the complainant's name, the date the problem occurred, the nature of the complaint and outcome of the complaint.

5.3.5 UNLOADING/LOADING OF SERVICE AND DELIVERY VEHICLES

The loading and unloading of service and delivery vehicles will occur within the designated loading dock. Loading and unloading times are restricted to the approved hours of 7.00am to 8.00pm daily. This will limit any disturbance to patrons on the premises or the amenity of the surrounding area, in particular potential residential development to the east of the site.

5.4 NOISE MANAGEMENT

The duty manager will closely monitor the following noise management procedures:

- The premises will comply with the relevant acoustics requirement in relation to noise emanating from the premises.
- The duty manager/security personnel (where appropriate) will ensure that customers keep noise to an appropriate level upon entering and leaving the premises. The duty manager/security personnel will ask customers making any noise to leave quietly and quickly and ask any customers loitering to move on.
- Signs will be placed at the points of exit requesting customers leave quietly and in a prompt manner so as not to cause any disturbance to the surrounding neighbourhood.

Particular attention will be made to cars which enter the site and either park or enter the drive-through facility where noise from these vehicles (including noise generated from any car stereo) exceed acceptable noise levels. Should this occur, the owners of such vehicles will be instructed to reduce noise levels or move on. McDonald's will not provide a service to customers or vehicles in the drive-through facility who refuse to comply.

Reports of all noise complaints received by the Duty Manager will be documented in a register.

Order boxes have a variable volume and the management of the store can allocate which speakers are to be used. In this way the noise emitted from the speakers can be managed as required. At night, one lane of the drive-through can be closed and orders can be directed to the pick-up windows rather than taken at the speaker boxes if it is considered appropriate.

Inside the restaurant, staff members are alerted to the appearance of a car by a buzzer that is activated by vehicles passing through the drive-through. In using these indicators, it can be ensured that vehicles are not left unattended at the order window without the staff being aware of their presence. The efficient movement of patrons through the drive-through is the intention of the facility and is the best way in which

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to manage noise within the site. Screening opposite the cashier and food collection windows also works toward addressing noise which may emit from the windows cars.

The air conditioning units and extractor fans used within the new generation McDonald's restaurants have been designed to be quieter than previously used in older restaurants.

Acoustic assessments of similar restaurants have determined that the stores operate within acceptable Environmental Protection Authority set noise levels, and in closer proximity to residential development than the Mirrabooka proposal.

5.5 CLEANING OF SURROUNDING PUBLIC DOMAIN

Litter is a major issue for Australian consumers as well as a significant environmental, brand and compliance issue for McDonald's. It is therefore considered necessary to reduce the litter around McDonald's restaurants and the negative impact it has on business. McDonald's already has a nationwide 'Clean Streets' program, that uses regular Litter Patrols to keep restaurant grounds and nearby streets clear of litter.

The Duty Manager will ensure that the footpath, gutter, building entry and surrounds are kept clean and clear of litter at all times. A litter patrol area will be determined in consultation with the City. At a minimum, McDonald's staff will perform litter patrols twice daily for a restaurant trading 24/7.

All non-hazardous litter will be collected, with hazardous items reported to the appropriate authorities. Bins will also be located through-out the premises. This will help mitigate the potential litter impact upon the surrounding environment.

Vandalism and graffiti (where possible) will be removed within 24 hours. McDonald's Australia also sponsors the annual "Clean-Up Australia" program in the local community.

5.6 ODOUR

Odour emissions resulting from the operations will be compliance with the City's health requirements and State legislation. The sources of potential odours are associated with cooking and waste storage on the premises. Mechanical mechanisms to address odour will include filtration and ventilation systems. All waste will be stored in the proposed waste storage area and cleared regularly. This area is of a sufficient size to accommodate the number of required bins and will be cleaned regularly as part of the premises ongoing management.

5.7 LITTER

The management of litter is undertaken by each franchise owner and the staff on site. Regular pick-ups are undertaken by staff throughout the day and appropriate bins are provided on-site to ensure that litter is kept to a minimum. Policies on this matter may vary slightly depending on the franchise owner however it is expected that litter can be kept to a minimum through active management by staff.

McDonald's have strict operational procedures relating to litter control and indoor and outdoor aesthetics of the store. Hourly inspections of the restaurant including the car park, landscape areas, footpaths, verges and neighbouring properties (if permitted) are undertaken daily to collect litter discarded by McDonald's patrons. This patrol is undertaken twice daily on weekends.

Waste bins are provided in appropriate locations both inside and outside the restaurant and within the car park, and these are checked and emptied on a regular basis throughout the day by staff. McDonald's Australia also sponsors the annual "Clean-Up Australia" program in the local community.

5.8 CONSULTATION AND ASSESSMENT

McDonald's are committed to ongoing consultation with adjoining property owners, the Police and Council, to foster a better understanding of relevant security issues. A risk assessment will be undertaken upon commissioning of this McDonald's store. Once completed, the results of this assessment will be included in the operating strategies and procedures of a management plan.

McDonald's as a brand prides itself in providing excellent and efficient customer service which results in continuing improvement of processes to ensure that any adverse impacts of its operation are recognised and mitigated. McDonald's licensees and operation managers work closely with local communities to ensure they are aware of any issues as they arise, and to ensure best practice management techniques are applied in handling issues if they do occur. It is important to ensure that the quiet amenity of neighbouring properties is maintained at all times during the operation of the premises.

Further, as part of the preparation of the Development Application, McDonald's has undertaken engagement with local residents, to canvas their views in relation to the proposed McDonald's restaurant. No major objections to the proposal were voiced by local residents.

5.9 HOURS OF OPERATION

McDonald's are confident that a 24 hour/7 day a week restaurant will help create a safer environment by providing constant surveillance of the surrounding area and immediately reporting any anti-social or illegal activities.

As previously identified, the restaurant and drive-through is proposed to operate 24 hours a day 7 days a week. This is no longer an unusual concept as many fast food restaurants operate on these hours. The existing McDonald's Mirrabooka store operates on a 24/7 basis

Whilst it is acknowledged that the proposed restaurant is in proximity to residential development, with responsive store and site design and appropriate operational practices it is considered that the proposed hours of operation should not to be a prohibitive factor. The restaurant has a suite of management tools that can be implemented to ensure that any negative impacts on the surrounding area are minimised. At night, operations are substantially modified to address the impact that the business may have.

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6 Local and Regional Contribution

6.1 CORPORATE SOCIAL RESPONSIBILITY

Besides providing a convenient source of a variety of food and beverages to serve the surrounding area, including health conscious options, McDonald's corporate social responsibility include the building of social capital within local communities. Examples of these activities include:

- Operation by local franchisees.
- Significant youth employment opportunities.
- Training and career advancement opportunities.
- Sourcing of local products.
- Support of charities, community groups, sporting clubs and events.
- Providing healthier menu options.
- Engagement of local builders and associated construction companies.
- Adoption of sustainable practices in construction and operation.

6.1.1 COMMUNITY INITIATIVES

McDonald's Australia works with a variety of experts, environmental organisations and government agencies to build cooperative relationships and deliver community initiatives. A key example is Clean Up Australia and its major annual event, Clean Up Australia Day, which McDonald's has been a sponsor of since its inception in 1989. Each year, in addition to the national sponsorship, McDonald's crew and managers join their local communities to help clean up rubbish in the area. McDonald's Duncraig runs a litter control program, which is designed to manage litter not only on McDonald's property, but also in the neighbouring streets and local areas, including the adjoining Retirement Village.

McDonalds's Australia is closely involved in environmental awareness both in its corporate and restaurant operations and through its supply of sustainable goods. McDonald's is committed to sustainable business practices and conducts its operations in a manner that does not compromise the ability of future generations to meet their needs.

Specifically, McDonald's is involved in a country wide program called Earth Hour, which is designed to clearly connect energy use with climate change and to demonstrate the small actions that can be taken to make a difference to global warming *(McDonalds Corporate Responsibility and Sustainability Report 2010).* In February 2010, McDonald's also joined the Sustainability Advantage Program (led by the NSW Department of Environment, Climate Change and Water) to accelerate its environmental agenda.

6.2 EMPLOYMENT AND ECONOMIC CONTRIBUTION

McDonald's are renowned for their contribution to local and youth employment. Each new McDonald's restaurant provides approximately 100 full time, part-time and casual jobs, with majority of the staff living within the local community. This means wages will be reinjected into the local economy. Many of the casual positions are filled by young people attending high school and tertiary institutions.

The proposed extended trading hours will have a positive impact on the local employment market, offering opportunities for both young and older people who due to household or family caring obligations are not able to work during the day.

The estimated economic contribution of a typical McDonald's restaurant is detailed in the following table:

TABLE 13 – ECONOMIC CONTRIBUTION OF A TYPICAL MCDONALD'S STORE

JOBS	WAGES	LOCAL SERVICES	REPAIRS AND MAINTENANCE
80-90 crew and 10 managers	$1,200,000-1,300,000 per year	$60,000 per year	$50,000 per year

A more detailed explanation of the numerous positive attributes which a McDonald's store can deliver to the community can be found in **Appendix H**.

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7 Conclusion

This development application seeks approval for a McDonald's Family Restaurant, located at Lot 56 Chesterfield Road, Mirrabooka. The store will service the immediate locality and wider catchment given its location within a regional centre, as well as provide many social and economic benefits to the local community.

Specifically, McDonald's has demonstrated the following in support of the application:

- The proposed development is a replacement to an existing operation and the site has the same planning parameters as the existing store on Mirrabooka Drive. The development will be a substantial improvement for both the site and the store.
- The proposed McDonald's restaurant presents an appropriate response to the site context and the current City of Stirling planning framework, at a time when the future planning for the broader Mirrabooka Regional Centre is still evolving. The development proposes a substantial improvement to the site, in accordance with the City of Stirling's overarching vision for the centre.
- The building proposed is not typical of other McDonald's restaurants, with the incorporation of a 2-storey building, to achieve a more consolidated building form, given its location within the Mirrabooka Regional Centre.
- The proposed McDonald's restaurant is considered to provide a complementary and convenient use to the existing commercial environment within the Mirrabooka Regional Centre.
- The proposed store is considered to be ideally located in an outer precinct of the Mirrabooka Regional Centre, which is better suited to accommodate larger format commercial development as opposed to smaller scale retail uses, which should be concentrated along the main street.
- Passive surveillance to Chesterfield Road and Yirrigan Drive is facilitated through the location of terrace and playground areas to front this corner, thereby providing 'eyes on the street'.
- The spatial arrangement of the restaurant building and drive-through facility was driven by the need to retain reciprocal access to adjoining landholdings (to the north and east) and to deliver a legible, easy to use and efficient drive-through, access and carparking arrangement, which will not result in congestion or conflict. The setbacks provided at consistent with the applicable Design Guidelines.
- The development promotes pedestrian access to the site, and encourages the use of public transport and non-private vehicle use.
- The proposal will not result in the further fragmentation of landownership in the Mirrabooka Regional Centre, and accordingly will not be prejudicial to overall Activity Centre Structure Plan process, which we understand is currently in its early stages of investigation and preparation.

This report has presented a balanced and objective assessment of the proposal. The proposal generally complies with the planning framework set out by the City of Stirling, and where minor variations to standard provisions have been proposed, justification has been provided.

It is respectfully requested that the City of Stirling have regard to the individual merits and broader benefits of the proposal in applying discretion and making a determination on the proposal, and therefore it is respectfully requested that the application be approved subject to relevant and reasonable conditions.

Appendix A Certificate of Title and Sketch

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WESTERN AUSTRALIA

REGISTER NUMBER	
56/D62810	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
1	2/12/2005

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

VOLUME 1622 FOLIO 685

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 56 ON DIAGRAM 62810

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

ARK 2000 PTY LTD OF POST OFFICE BOX 18, FLOREAT FORUM
(T J502611) REGISTERED 9 NOVEMBER 2005

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. SAVE AND EXCEPT THE RIGHTS TO MINES OF COAL OR OTHER MINERALS
2. *C427702 CAVEAT BY THE STATE HOUSING COMMISSION LODGED 23.9.1982.
3. J502612 MORTGAGE TO NATIONAL AUSTRALIA BANK LTD REGISTERED 9.11.2005.
4. *J502615 CAVEAT BY THE STATE HOUSING COMMISSION LODGED 9.11.2005.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

----------END OF CERTIFICATE OF TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 1622-685 (56/D62810).
PREVIOUS TITLE: 1602-565.
PROPERTY STREET ADDRESS: 2 CHESTERFIELD RD, MIRRABOOKA.
LOCAL GOVERNMENT AREA: CITY OF STIRLING.

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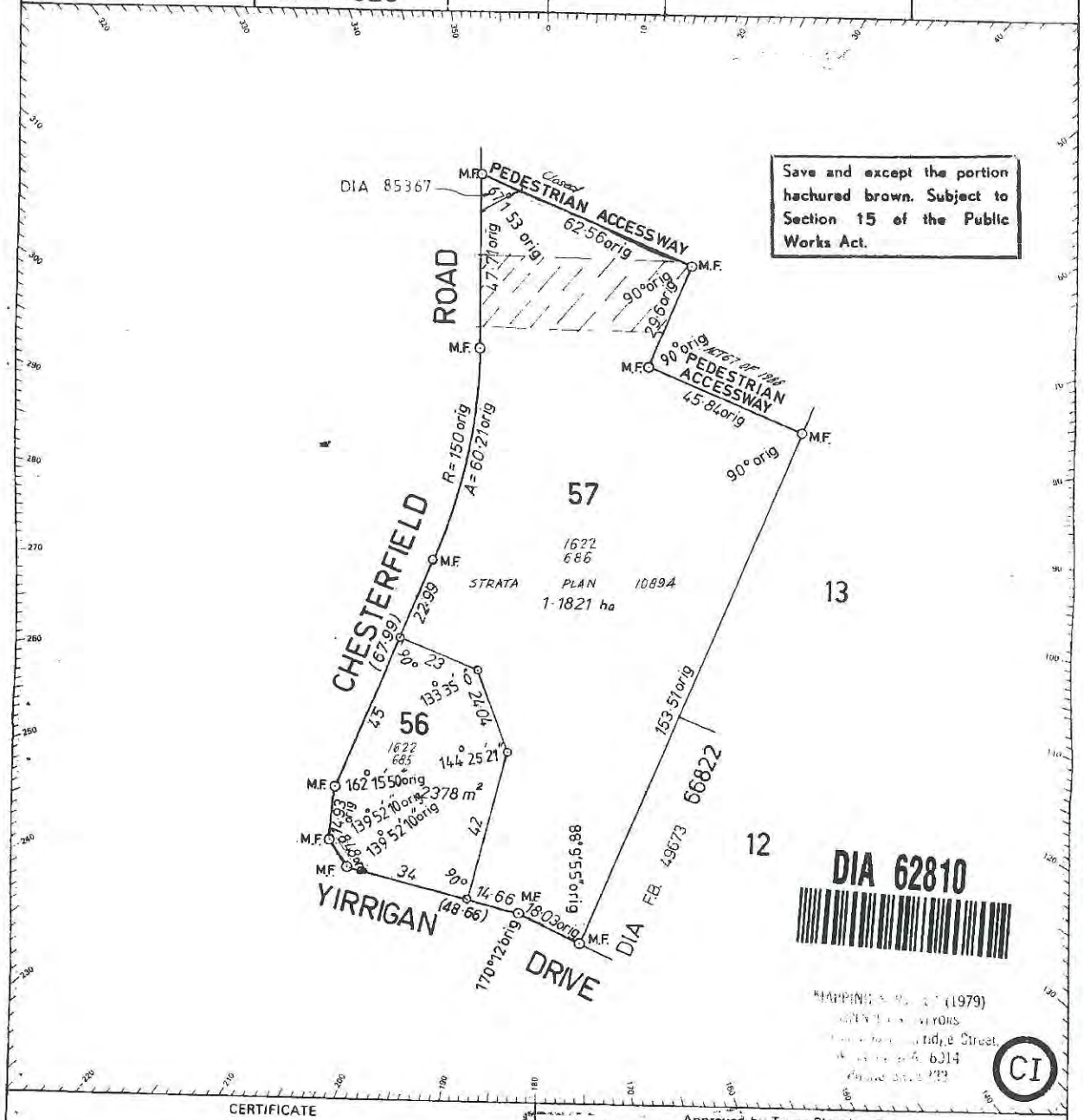
LANDGATE COPY OF ORIGINAL NOT TO SCALE Tue Dec 4 16:42:45 2012 JOB 40635179

Town or District.	Number of Lot or Location.	Field Book.	Scale.	Certificate in which Land is Vested.	Area
SWAN	LOT 11 OF LOC. 1323	46768	1:1250	Vol. 1602 Fol. 565	1·4199 HA



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MIRRABOOKA McDONALDS

ASSESSMENT OF CAR PARKING DEMANDS

December 2012

PO Box Z5578
Perth WA 6831
0413 607 779 Mobile

Issued on	18-12-2012	Amendment	Date
Version	V4	Parking requirements reviewed	12-12
Reference	684		

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CONTENTS

1.0 EXECUTIVE SUMMARY

2.0 CUSTOMER DEMANDS

3.0 PARKING DEMANDS

4.0 CONCLUSIONS

1.0 EXECUTIVE SUMMARY

Riley Consulting has been commissioned by McDonalds to assess the minimum level of parking bays considered sufficient to cater for the proposed relocation of its restaurant in Mirrabooka. The findings of this study are as follows:

- Surveys have been undertaken over a 2 hour period of the walk-in customers at 3 existing McDonald's restaurants. Walk-in customers are customers that park, as opposed to customers using the drive-through facility. The surveyed restaurants were chosen for their similarity to the Mirrabooka restaurant. Key findings of the surveys are:
    - The average car occupancy of walk-in customers to McDonald's is 1.68 persons per car, with a minimum of 1.30 and a maximum of 2.34 persons per car.
    - The average proportion of walk-in customers arriving by car was 47.4% with a maximum of 60.8% and a minimum of 30.9%.

- Customer numbers have been provided by McDonalds to identify the peak periods of attraction. The data suggests that the weekday lunchtime period between 12pm and 2pm is the busiest period for the Mirrabooka restaurant.

- Assessment of the future parking requirements for the relocated Mirrabooka restaurant indicates that a minimum of 13 bays would be sufficient to cater for the expected parking demands of walk-in customers.

- A sensitivity test of doubling the walk-in customer attraction suggests that 19 bays would be sufficient.

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2.0 CUSTOMER DEMANDS

McDonalds is a very well established fast food restaurant chain offering dine-in and drive-through facilities at most stores. Based on data contained in the RTA *Guide to Traffic Generating Developments*, McDonalds is considered as the highest traffic attractor of all the well-known fast food outlets.

Customer attraction to McDonald's restaurants varies considerably throughout the metropolitan region with some restaurants attracting 8,000 customers per week, with high turn-over restaurants attraction up to 13,000 customers per week. McDonalds understand their business and can predict with reasonable accuracy how a restaurant can be expected to perform in terms of customer numbers.

There are two components of customer attraction – walk-in customers and drive-through customers. The ratio of walk-in customers varies between 32% and 42% of total customers. The drive-through attracts 60% to 70% of customers.

McDonald's drive-through counters cater for 60% to 70% of total customers.

The purpose of this study is to consider the car parking demands of a typical McDonald's restaurant and the demand will arise as a result of customers walking in, either to dine-in or pick up a take-away. Figure 1 shows the current walk-in customer profile for the Mirrabooka restaurant.

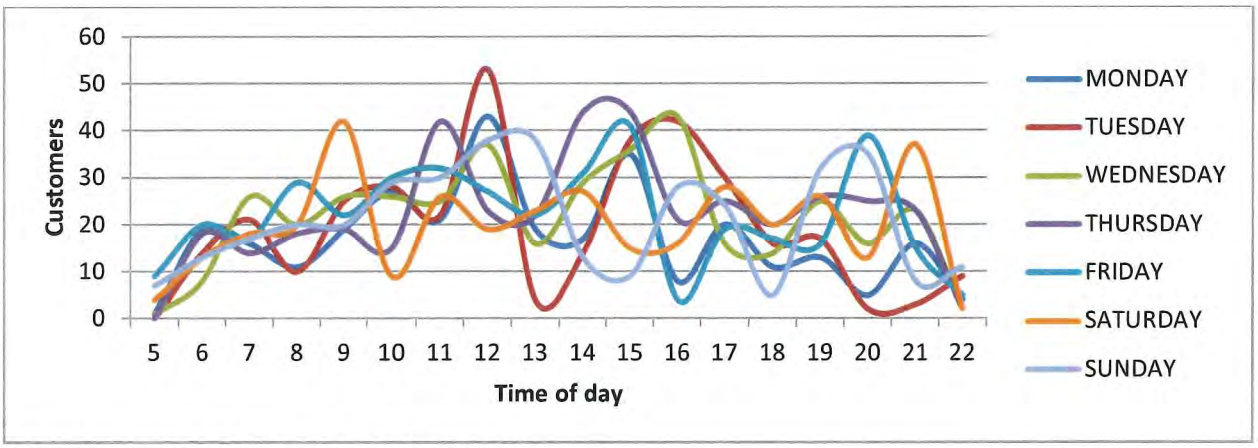

Figure 1 Mirrabooka Walk-in Customers

Figure 1 shows that the demand profiles change each day, but the graph indicates that the peak periods are lunchtimes and after school (3pm – 4pm). Based on the data used to create Figure 1, Table 2 identifies the peak periods of walk-in customers.

Table 1 Peak Attraction Periods at Existing Mirrabooka Restaurant

Time of day	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
MONDAY																		
TUESDAY																		
WEDNESDAY																		
THURSDAY																		
FRIDAY																		
SATURDAY																		
SUNDAY																		

Note: The maximum peak attraction recorded is 53 customers on the Tuesday lunchtime.

Table 1 shows more clearly that the peak periods of attraction are the lunchtime and after school periods during the week. At weekends, Sunday is shown to experience longer peak period of attraction. It can be expected that the longer peak periods are as a result of family dining.

The peak period of trade was recorded to be on a Tuesday with a total of 53 walk-in customers during the lunch hour. The next highest attraction was recorded between 3pm and 4pm on a Thursday with a total attraction of 34 walk-in customers[1]. During the traditional peak periods of lunchtime (12pm – 1pm) the average is about 35 walk-in customers. During the traditional evening peak (5pm - 6pm) the Mirrabooka restaurant experiences an average of about 30 walk-in customers.

The customer attraction at the existing Mirrabooka restaurant could change as a result of the intended relocation and therefore surveys of other McDonald's restaurants have been undertaken to determine the typical attraction.

Demand Surveys

Three survey restaurants were selected to reflect the possible operation of the new Mirrabooka restaurant. The restaurants were:

- North Perth
- Morley
- Innaloo

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[1] It would be expected that the majority of afternoon customers would not be driving to the restaurant.

Customer data for these restaurants has been provided to assist with this study (the data is commercially confidential). The peak periods of attraction across all 3 restaurants has been extracted and is shown in Figure 2. The peak periods are derived from periods when records show more than 50 customers walk-in to the restaurant.

Table 2 Peak Attraction Periods of McDonalds

Time of day	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
MONDAY																		
TUESDAY																		
WEDNESDAY																		
THURSDAY																		
FRIDAY																		
SATURDAY																		
SUNDAY																		

The peak periods are shown where more than 50 customers walk-in during the hour. The highest peak is 110 customers - Saturday 1pm to 2pm.

As can be expected, Figure 2 shows that the lunchtime between 12pm and 1pm is the period of peak activity during the week and Saturdays and Sundays are relatively busy throughout the day.

Peak Attraction

The data provided on customer attractions shows significant attraction profiles over the northern metropolitan area. The peak attraction recorded was 110 walk-in customers entering the Innaloo restaurant on Saturday between 1pm and 2pm. During this period, the survey recorded 22 cars parking in the car park containing 48 customers. This suggests that during the Saturday peak 43% of walk-in customers arrived in a car. However, only 20% of walk-in customers actually drove to the restaurant (where 22 cars contained 48 people). Located adjacent to a major shopping centre it is obvious that the major attraction is walk-up customers.

Conversely, the North Perth restaurant experienced a peak attraction of 81 customers between 12pm and 1pm on a Wednesday. During this period, the survey recorded 23 cars parking in the car park containing 31 customers. This suggests that during the weekday peak (31/81) 38% of walk-in customers arrived in a car. However, only (23 car drivers / 81 customers) 28% of walk-in customers actually drove to the restaurant

Parking Surveys

To identify the parking demands for the restaurants, a survey of the North Perth, Morley and Innaloo restaurants has been undertaken. The surveys recorded the number of customer's cars parking in the car park, the number of people in the cars (and who entered the restaurant) the number of people walking into the restaurant and the number of people walking out of the restaurant. The survey did not identify whether customers without cars walked or cycled.

The restaurants selected are considered to be of a similar type to the new restaurant in Mirrabooka. The surveyed restaurant all have adjacent commercial land uses and the surveyor noticed that much of the car parking provided on the McDonalds site was utilised by adjacent businesses customers. This was most prevalent at the Innaloo restaurant where the car park was often occupied by customers to the shopping centre who did not use the restaurant.

The surveys were undertaken over a 2 hour period to provide reliable base data. Appendix A shows a breakdown of the data recorded.

The surveys show that during peak activity of McDonalds:

- Average car occupancy is 1.68 customers per car, with a minimum of 1.30 and a maximum of 2.34 customers per car.
- The average proportion of customers arriving by car was 47.4% with a maximum of 60.8% and a minimum of 30.9%.

From a simple perspective, it can be seen that a restaurant attracting 50 walk-in customers during the lunchtime peak would attract (50 x 0.47) 24 cars. However, not all these vehicles will require parking for the duration of the lunchtime peak.

McDonalds Lunchtime Peak Period Arrival / Departure Profile

The survey data was recorded every 15 minutes to provide an understanding of the car parking turn-over. Some customers choose to dine-in and will spend anywhere from 10 minutes to an hour in the restaurant. Other customers will park and browse the menu before purchasing food to take away. To determine the arrivals and departures, the total number of walk up customers entering and leaving the restaurants is graphed. Figure 2 shows the arrival / departure profile during the lunchtime period. Figure 2 also shows the profile for the Innaloo restaurant, which was the busiest surveyed restaurant.

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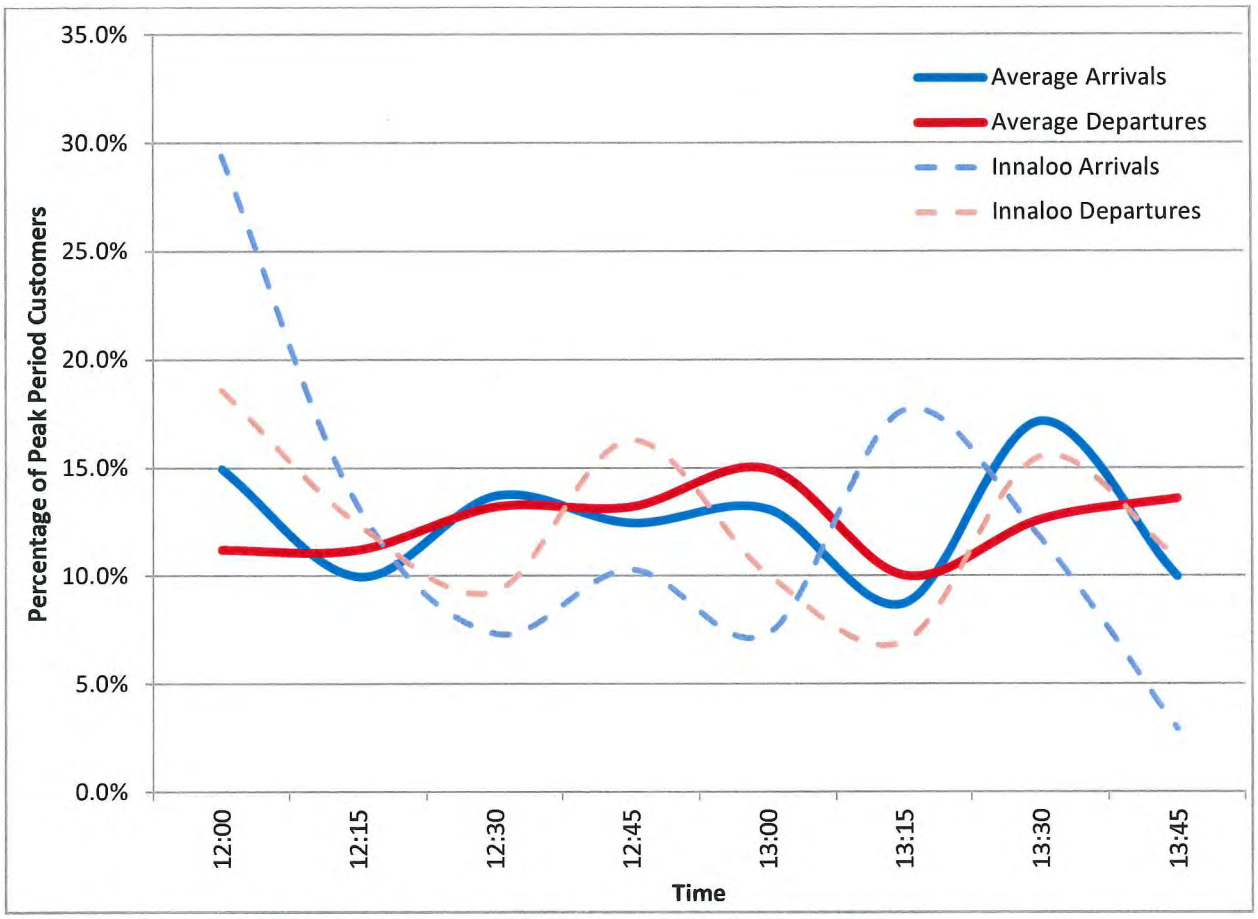

Figure 2 Lunchtime Peak - Arrivals and Departures Profile

3.0 MIRRABOOKA RESTAURANT PARKING DEMANDS

The results of the surveys indicated in Figure 2 are used to determine the expected peak parking demands for the proposed Mirrabooka restaurant. The Mirrabooka restaurant is currently experiencing peak attraction during the week when the surveys indicate that car arrivals can be expected to be higher. Whilst the average level of car arrivals was shown to be 47%, the peak level was recorded as 60.8%. The peak level of car attraction is therefore used to assess the future Mirrabooka restaurant.

Table 3 shows the expected peak customer arrival / departures based on the current attraction to the existing restaurant. The minimum car occupancy of 1.3 customers per vehicle is also applied.

Table 3 Mirrabooka Arrival / Departure Profile

Time	**12:00**	**12:15**	**12:30**	**12:45**	**13:00**	**13:15**	**13:30**	**13:45**
Customers arrive	11	8	10	9	10	7	13	8
Arrive in a car	7	5	6	6	6	4	8	5
Car arrivals	**5**	**4**	**5**	**4**	**5**	**3**	**6**	**4**
Customers departing	9	9	10	10	11	8	10	10
Depart in a car	5	5	6	6	7	5	6	6
Car departures	**4**	**4**	**5**	**5**	**5**	**4**	**4**	**5**
Residual parking	1	1	1	1	0	0	1	0
Maximum Parking Demands	***5***	***5***	***6***	***5***	***5***	***3***	***6***	***5***

The table is based on 76 customers between 12pm and 2pm.

Table 3 shows that based on typical arrival / departure profiles of McDonalds restaurants, the Mirrabooka restaurant can be expected to require 6 parking bays in any 15 minute period during the lunchtime peak.

Based on current operations, the Mirrabooka restaurant would be expected to require 6 parking bays to cater for peak customer attraction.

It would be recommended that at least 2 additional bays be provided to cater for fluctuations and provide easy access to parking. Further, staff parking would also be required of about 5

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bays. It would be suggested therefore that the proposed Mirrabooka restaurant could operate with a minimum of (6 + 2 + 5) 13 bays.

The parking demand surveys suggest 13 bays would be sufficient for the proposed Mirrabooka restaurant.

Sensitivity Test

A sensitivity test is applied using the average profiles based on the peak attraction to the three restaurants surveyed. A customer attraction of 150 persons over the 2 hour peak is applied to the arrival / departure profile, equating to a potential doubling of walk-in trade from the existing Mirrabooka restaurant. Table 4 shows the potential parking demands.

Table 4 Mirrabooka Arrival / Departure Profile of 196 customers 12pm – 2pm

Time	**12:00**	**12:15**	**12:30**	**12:45**	**13:00**	**13:15**	**13:30**	**13:45**
Customers arrive	*22*	*15*	*21*	*19*	*20*	*13*	*26*	*15*
Arrive in a car	14	9	13	11	12	8	16	9
Car arrivals	**10**	**7**	**10**	**9**	**9**	**6**	**12**	**7**
Customers departing	*17*	*17*	*20*	*20*	*22*	*15*	*19*	*20*
Depart in a car	10	10	12	12	14	9	11	12
Car departures	**8**	**8**	**9**	**9**	**10**	**7**	**9**	**9**
Residual parking	4	3	3	3	1	0	4	1
Maximum Parking Demands	***10***	***11***	***12***	***12***	***12***	***7***	***12***	***10***

The table assumes the maximum 60.8% car attraction with 1.3 persons per car

Table 4 shows that the maximum parking demands in any 15 minute period would be 12 bays.

As discussed, it would be recommended that at least 2 additional bays be provided to cater for fluctuations and provide easy access to parking. Including 5 staff parking bays, thus the highest parking demand that could be anticipated for the proposed Mirrabooka restaurant would be (12 + 2 + 5) 19 bays.

It is anticipated that the maximum parking demand would be 19 bays.

Local Planning Scheme Requirements

It is proposed to lodge the DA as a fast food restaurant which has no formal car parking requirement under the Scheme. Under Scheme policy 5.1.1 the City has the ability to determine the level of car parking required for such developments based on supporting evidence of the car parking needs. Such evidence is provided within this report. However, for completeness, a review of the Scheme requirements is provided below.

The City of Stirling's Local Planning Scheme No 3 Policy 6.7 requires specific levels of parking to be provided for development. A parking provision of 1 bay per 7m^2 of internal gross floor area is stated for restaurant, fast food outlet and reception centre. Al-fresco facilities attract a requirement of 1 bay per 14m^2 and warehouses require 1 bay per 50m^2 (taken as store facilities).

It is noted that fast food outlets and sit down restaurants have the same parking requirement. Fast food outlets operate with a turn-over of customers staying on-site for between 5 minutes and perhaps up to an hour. Restaurants operate with a limited turn-over and have an expected stay of over an hour. It is evident that a fast food outlet will be able to utilise a single parking bay for multiple customers, whereas a restaurant will not. The surveys undertaken for this report demonstrate that a fast food outlet requires significantly less parking than would be required for a restaurant.

Parking Requirements

Al-fresco

McDonalds Mirrabooka has an al-fresco area of 41m^2 with an associated play area of 26m^2. Whilst both of these areas are external to the building, the play area is for customers children only. Seating for children using the play area is provided in the al-fresco terrace (or inside) at their parents table. Children cannot drive to McDonalds and therefore must be accompanied by an adult. That adult will occupy a table sufficient for all persons in the group. It is argued therefore, that the play area will not attract a parking requirement in its own right and therefore additional parking for the play area is not required under the Scheme. The difference is 2 bays.

- *Al-fresco area with play area =67m^2 @ 1 bay per 14m^2* — *4.7 bays*
- Al-fresco area without play area =41m^2 @ 1 bay per 14m^2 — 2.9 bays

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Gross floor area

Overall the gross floor area of the Mirrabooka McDonalds is 587m^2 of which 67m^2 is al-fresco, 337m^2 is restaurant and 183m^2 is provided for bin stores and general storage. The restaurant

parking requirement is applied to the total floor area, however, the individual uses within the site need to be considered. The areas for storage will not attract customers and can be considered as warehousing on-site.

Gross floor area of restaurant 587m^2 @ 1 bay per 7m^2	*83.8 bays*
Gross floor area of restaurant 520m^2 @ 1 bay per 7m^2	*74.2 bays*

- Gross floor area of restaurant 337m^2 @ 1 bay per 7m^2 — 48.1 bays
- Warehousing / storage 183m^2 @ 1 bay per 50m^2 — 3.6 bays

In total the car parking requirement under the Scheme could be (4.7 + 83.8) 88.5 bays if the full alfresco area is added to the gross floor area, which is clearly wrong as the Scheme is effectively double counting the alfresco parking requirements.

Without double counting of the al-fresco area and excluding the play area, the requirements would reduce to (2.9 + 74.2) 77.1 bays. However, taking into consideration that a large part of the building area is dedicated to storing of merchandise, it is considered that the actual Scheme parking requirement should be (2.9 + 48.1 + 3.6 = 54.6) 55 bays.

The Scheme is considered to require 55 bays before performance criteria are applied.

It is permissible to reduce the overall level of parking provided on the site by up to 65% of the requirements through the application of performance criteria. Parking reductions allowable under the performance criteria are as follows:

- Proximity to Mirrabooka bus station — 15% reduction
- Provision of greater cycle facilities — 5% reduction

Overall a reduction of 20% of the total parking requirement is permissible or a provision of (55 bays x 80%) 44 bays.

The Scheme requires 44 bays to be provided for the proposed restaurant.

The proposed McDonalds at Mirrabooka will provide 46 car parking bays.

The Scheme also provides for a reduction of 10% for "*Proximity to Mirrabooka town centre*" although officers of the City of Stirling state this does not apply, even though Mirrabooka has

been identified as the terminus for the proposed new light rail system and McDonalds will be very close to this high frequency public transport terminus.

Drive-Through

This study has considered the parking demands of McDonalds customers walking into the restaurant. The Mirrabooka restaurant also provides a drive-through facility with two service points. Data provided by McDonalds indicates that the maximum number of drive-through customers in any hour at the existing Mirrabooka restaurant is 57 customers (and is assumed to be 57 vehicles, but vehicle numbers can be lower if the vehicle has multiple occupants). The peak attraction was recorded between 12pm and 1pm on a Saturday.

It is understood that serving times vary, but generally McDonalds drive through service is fast and efficient. A survey of the Morley drive through recorded 13 vehicles using the drive through in a 10 minute period. Whilst a queue formed between the ordering point and the service window, at no time did the queue extend to restrict access to the ordering point. The maximum number of cars waiting at the ordering point was 3 vehicles (2 ordering with one waiting). From the survey it can be stated that with 12 vehicles every 10 minutes there will be no queuing beyond the two ordering points. Further, the queue for service will not affect the ordering point. On this basis (12 vehicles x 6) 72 vehicles per hour can be accommodated by a McDonalds drive through facility with no impact to approaching traffic.

McDonalds drive through facilities can easily cater for 72 vehicles per hour.

Data provided by McDonalds shows that their drive throughs have accommodated up to 90 customers in an hour. No survey data is available to determine the queuing impacts of these very high turn-over operations. However, if 90 customers can be served, the impacts cannot be too great, or customers would not use the drive through.

As indicated, the current peak demand at Mirrabooka is 57 drive through customers. Based on the Morley survey the proposed Mirrabooka restaurant can easily accommodate 72 customers per hour. This suggests a 35% increase in peak demands for drive through sales.

The proposed drive through can accommodate a 35% increase to current peak customer demands.

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4.0 CONCLUSIONS

Fast food chain restaurants do not perform in the same manner as a standard restaurant, although many local government Town Planning Schemes apply standard restaurant car parking requirements to fast food restaurants. As land becomes more expensive and inner city development seeks to reduce car dependency, there is a need to re-evaluate the level of parking provided for many land uses.

There is much variety in the arrival and departure profiles of fast food restaurants with some restaurants attracting a high proportion of car based trips, whilst others attract a high level of cross-visitation from adjacent land uses.

Due to the absence of specific parking requirements for a drive-through fast food outlet, a study of current parking demands for McDonalds has been undertaken. The study has considered 3 similar type restaurants and recorded the peak period arrivals and departures of walk-in customers (as opposed to customers using the drive-through). The study demonstrates that the level of parking required is not specifically related to the number of seats provided, but is a function of customer numbers.

The survey shows that the peak attraction to McDonalds is typically the Saturday lunchtime around 1pm when trade at restaurants close to major shopping centres (Innaloo) is very high. In comparison, the existing Mirrabooka restaurant experiences a customer attraction of just 20% of the Innaloo restaurant during the same period.

To determine the car parking demand for the new Mirrabooka restaurant, the highest level of customer attraction by car has been used. The lowest level of car occupancy has also been applied and shows that the proposed restaurant can be expected to require 6 bays to cater for the normal customer parking demands. To allow for circulation and staff, a total of 13 bays are suggested as a minimum level of parking to be provided.

A sensitivity test of the parking demands has been undertaken an indicates that under the same arrival / departure profile, with a possible doubling of walk-in customers, a total of 19 bays would be able to cater for the restaurant parking demands.

It is considered however, that the proposed development can meet the car parking requirements of the Local Planning Scheme.

APPENDIX A
SURVEY DATA

Innaloo Thursday	Time								
	12	12:15	12:30	12:45	13:00	13:15	13:30	13:45	
Car arrivals	8	4	3	5	5	7	5	1	
People in cars	9	7	4	7	5	12	10	1	
Customers	20	9	5	7	5	12	8	2	
Out	24	16	12	21	13	9	20	14	
Car occupancy	1.125	1.75	1.333333	1.4	1	1.714286	2	1	1.415327
% by car	40.0%	44.4%	60.0%	71.4%	100.0%	58.3%	62.5%	50.0%	60.8%
Cars per customer	0.40	0.44	0.60	0.71	1.00	0.58	0.63	0.50	0.608383

North Perth Friday	Time								
	12	12:15	12:30	12:45	13:00	13:15	13:30	13:45	
Car arrivals	2	3	4	5	1	3	2	4	
People in cars	2	4	6	6	1	5	3	5	
Customers	10	6	8	8	8	7	6	3	
Out									
Car occupancy	1	1.333333	1.5	1.2	1	1.666667	1.5	1.25	1.30625
% by car	20.0%	50.0%	50.0%	62.5%	12.5%	42.9%	33.3%	133.3%	50.6%
Cars per customer	0.20	0.50	0.50	0.63	0.13	0.43	0.33	1.33	0.505655

Innaloo Saturday	Time								
	12	12:15	12:30	12:45	13:00	13:15	13:30	13:45	
Car arrivals	5	7	7	5	4	8	3	7	
People in cars	11	14	18	14	12	16	7	13	
Customers	18	17	31	25	29	9	41	27	
Out									
Car occupancy	2.2	2	2.571429	2.8	3	2	2.333333	1.857143	2.345238
% by car	27.8%	41.2%	22.6%	20.0%	13.8%	88.9%	7.3%	25.9%	30.9%
Cars per customer	0.28	0.41	0.23	0.20	0.14	0.89	0.07	0.26	0.309325

1.69 Average car occupancy
47.4% Average by car
0.47 Cars per customer

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EXECUTIVE SUMMARY

Riley Consulting has been commissioned by McDonalds to consider the possible traffic impacts as result of the proposed relocation of the McDonalds Mirrabooka store to a location approximately 100 metres east of its present location. The findings of this study are as follows:

- The change in local traffic movements during the road network peak period are considered to have no significant impact to the current operation. Overall the traffic increases to selected movements can be considered to be of little consequence.

- Analysis of the operation of the Yirrigan Drive / Chesterfield Road intersection has been undertaken. The analysis indicates no significant change to the current operation of the intersection or Levels of Service.

- Access to McDonalds will be taken at the location of the current site access, approximately 52 metres from the Chesterfield Road stop line. Analysis indicates that queues are not expected to interfere with the access to McDonalds. However, it is recommended that a "KEEP CLEAR" marking be provided to minimise any obstruction of the access.

BACKGROUND

McDonalds has recently submitted a development application for a new store to be provided on the corner of Yirrigan Drive and Chesterfield Road. McDonalds already have a store on the corner of Mirrabooka Road and Yirrigan Drive which will close once the new store is constructed. Figure 1 shows the location of the stores.

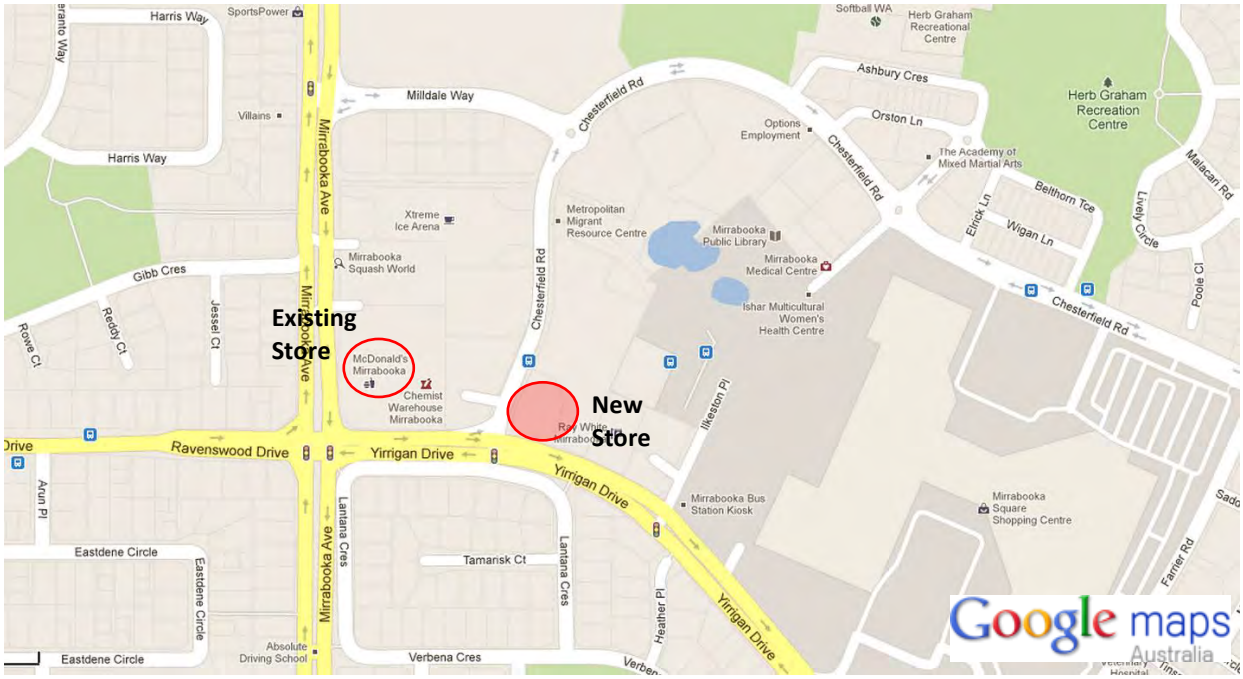


Figure 1 Location of McDonalds Mirrabooka and the Proposed New Store

TRAFFIC ATTRACTION

As discussed, the proposed new McDonalds store will replace an existing store located less than 100 metres to the west. Access to the new store will be slightly different and a re-distribution of existing trips can be expected. It can be expected that the current trade will continue. There are some arguments to suggest that trade may increase as a result of the store relocations, but conversely there are also arguments to suggest that trade may decrease due to less visibility from Mirrabooka Avenue. However, the most likely outcome is that current levels of attraction will continue.

A recent report has considered the expected car parking demands of the new store and has been based on the parking demands of similar stores, although with a higher turn-over. The customer attraction data used for the car parking study is available for the existing Mirrabooka store. The study found that the peak period of attraction was during Tuesday lunchtime, which is typically a period of low traffic movement on the local road network.

Scats traffic data has been sourced from Main Roads and shows the peak period of activity at the Yirrigan Drive / Chesterfield Road intersection is between 5pm and 6pm on a weekday evening. During this peak period, the existing McDonalds store has an attraction of 77 customers, of which 52 use the drive-through and 25 dine-in. The parking survey identified that a maximum of 30% of dine-in customers drove, indicating that dine-in customers would

make (25 x 30% x 2) 15 vehicle movements. The drive-through vehicle occupancy / customer purchase profile was not determined and thus 100% of drive-through customers are assumed as vehicle trips. Therefore (52 x 2) 104 vehicle movements can be expected from drive-through customers (although it is obvious that some vehicles will have multiple purchases).

The evening peak may generate up to 120 vehicle movements.

Figure 2 shows the anticipated changes to local traffic movements as a result of the relocation of the Mirrabooka McDonalds. The green figures reflect the current traffic movements associated with the existing store and the red figures reflect the redistribution of traffic to the new store.

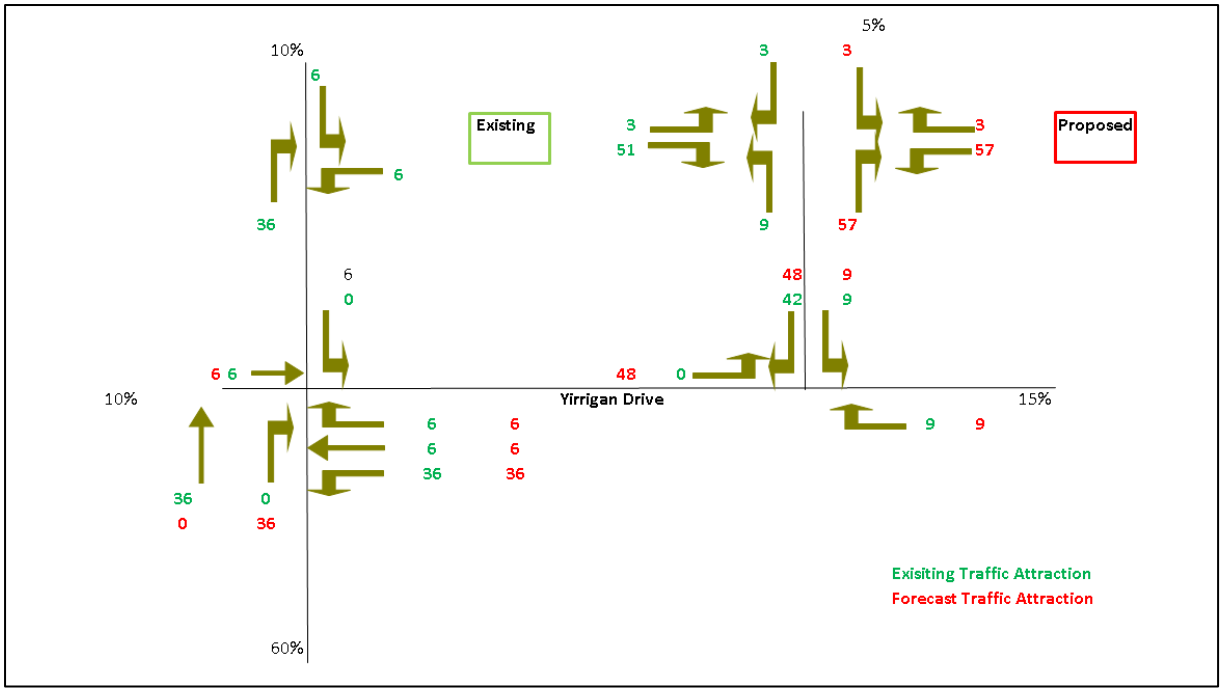


Figure 2 Anticipated Traffic Movements – Existing and Future

TRAFFIC IMPACTS

It is expected that as a result of the relocation of the McDonalds restaurant, traffic will utilise Yirrigan Drive to access the new store. The significant changes are expected to be:

1. An increase of 48 vehicles turning left into Chesterfield Road
2. An increase of 6 vehicles turning right from Chesterfield Road
3. A demand for 57 vehicles to turn right into the new store.

The anticipated changes to local traffic movements during the peak period of road network operation are low. However, Sidra analysis has been undertaken to assess the impact to the operation of the traffic signals of Yirrigan Drive / Chesterfield Road. The analysis is attached as Appendix A and shows that the expected changes will have minimal impact to the operation of the intersection.

Sidra analysis shows no impact to current Levels of Service.

Of significance is the potential increase to the queue length on Chesterfield Road. Whilst Sidra cannot exactly model how Main Roads operates traffic signals in Perth, it can be seen that overall the length of the queue would only be expected to increase slightly (possibly 2m). In reality, the analysis suggests that the current queue length of about 7 vehicles is unlikely to change.

Exiting queue lengths are not expected to change.

The distance from the Chesterfield Road stop line to the southern kerb of the current site access is about 52 metres. The DA plans indicate that the access to McDonalds will be located at the location of the existing access, with minor modifications to kerb radii. It can be seen therefore, that the queue from Yirrigan Drive would not be expected to block the access to McDonalds.

Queues created by the traffic signals at Yirrigan Drive are not expected to affect the McDonalds access.

Whilst no impact from the traffic signals is expected, it is recommended that a “KEEP CLEAR” marking be provided on Chesterfield Road at the McDonalds access.

CONCLUSIONS

The analysis undertaken in this technical note is based on the current operation of the existing Mirrabooka McDonalds. The development proposal seeks to relocate the store one block to the east and will be accessed solely from Chesterfield Road. As the store will replace an existing facility, it is considered unlikely that current patronage will change. Indeed, the current patronage of the existing Mirrabooka store reflects the typical expectations for a McDonald's store.

It is likely that any increase in patronage will come from walk-in trade as the proposed store will be adjacent to the existing tavern, will be just 250 metres from the current shopping centre and 150 metres from the bus terminus.

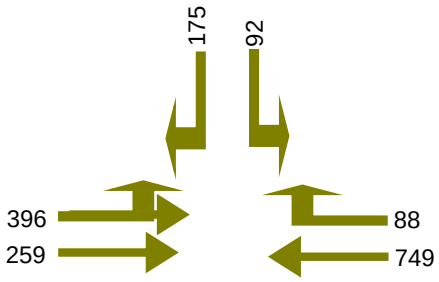
The change in local traffic movements during the road network peak period as a result of the relocation of McDonalds are considered to be low. The highest increase to traffic flows will be the left turn from Yirrigan Drive to Chesterfield Road, which currently operates under yield conditions. All other increases are considered to be insignificant.

Analysis of the operation of the Yirrigan Drive / Chesterfield Road intersection has been undertaken and shows that the relocated store will have no significant impact to current Levels of Service. The only significant impact is a possible lengthening of the Chesterfield Road queue length. However, the analysis indicates a possible queue of about 7 vehicles, which is not expected to change. Based on the analysis, the access to McDonalds would not be expected to be blocked by traffic queuing on Chesterfield Road.

APPENDIX A

PEAK HOUR TRAFFIC DATA

Yirrigan Drive / Chesterfield Road



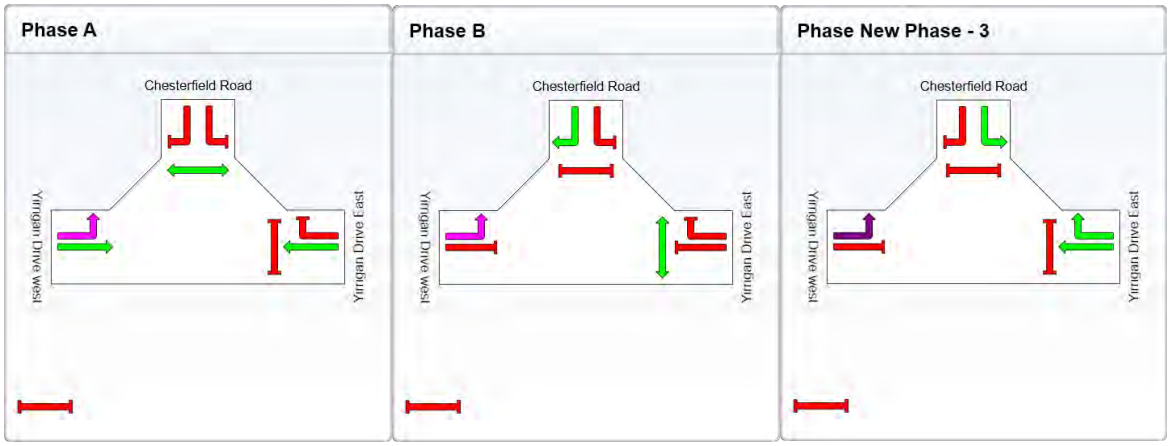
Existing PM Peak Hour Traffic Flows (MRWA data)

SIDRA ANALYSIS EXISITNG

Yirrigan Drive / Chesterfield Road PM Peak Existing
Signals - Fixed Time Cycle Time = 70 seconds (Practical Cycle Time)

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
							Vehicles	Distance			
		veh/h	%	v/c	sec		veh	m		per veh	km/h
East: Yirrigan Drive East											
5	T	788	0.0	0.524	13.7	LOS A	13.7	95.7	0.71	0.62	41.3
6	R	93	0.0	0.523	34.3	LOS C	8.7	61.0	0.93	0.83	31.8
Approach		881	0.0	0.524	15.9	LOS B	13.7	95.7	0.74	0.64	40.0
North: Chesterfield Road											
7	L	97	0.0	0.278	35.5	LOS C	4.2	29.1	0.90	0.77	30.3
9	R	184	0.0	0.483	28.8	LOS C	6.5	45.8	0.82	0.78	33.5
Approach		281	0.0	0.483	31.1	LOS C	6.5	45.8	0.85	0.78	32.3
West: Yirrigan Drive west											
10	L	143	0.0	0.129	8.6	LOS A	1.1	7.8	0.24	0.65	48.5
11	T	546	0.0	0.539	24.8	LOS B	10.0	69.7	0.91	0.76	33.9
Approach		689	0.0	0.539	21.4	LOS B	10.0	69.7	0.77	0.74	36.2
All Vehicles		1852	0.0	0.539	20.3	LOS B	13.7	95.7	0.77	0.70	37.2

MRWA Traffic Signal Phasing



SIDRA ANALYSIS FUTURE

Yirrigan Drive / Chesterfield Road PM Peak New McDonalds
Signals - Fixed Time Cycle Time = 70 seconds (Practical Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
							Vehicles	Distance			
		veh/h	%	v/c	sec		veh	m		per veh	km/h
East: Yirrigan Drive East											
5	T	788	0.0	0.524	13.7	LOS A	13.7	95.7	0.71	0.62	41.3
6	R	93	0.0	0.523	34.3	LOS C	8.7	61.0	0.93	0.83	31.8
Approach		881	0.0	0.524	15.9	LOS B	13.7	95.7	0.74	0.64	40.0
North: Chesterfield Road											
7	L	97	0.0	0.278	35.5	LOS C	4.2	29.1	0.90	0.77	30.3
9	R	191	0.0	0.500	28.9	LOS C	6.8	47.3	0.82	0.79	33.4
Approach		287	0.0	0.500	31.1	LOS C	6.8	47.3	0.85	0.78	32.3
West: Yirrigan Drive west											
10	L	194	0.0	0.175	8.6	LOS A	1.5	10.8	0.25	0.66	48.4
11	T	546	0.0	0.539	24.8	LOS B	10.0	69.7	0.91	0.76	33.9
Approach		740	0.0	0.539	20.5	LOS B	10.0	69.7	0.74	0.74	36.8
All Vehicles		1908	0.0	0.539	20.0	LOS B	13.7	95.7	0.75	0.70	37.4

Government of **Western Australia**
Development Assessment Panels

Form 1 - Responsible Authority Report

(Regulation 12)

Application Details:	Multi-storey development comprising Office, Shop, Tavern, 154 Multiple Dwellings and associated car parking
Property Location:	Lot 222, House Number 1, Sunray Drive, Innaloo
DAP Name:	Metro North-West JDAP
Applicant:	TPG Town Planning, Urban Design and Heritage
Owner:	Fabray Pty Ltd
LG Reference:	DA12/3095
Responsible Authority:	City of Stirling
Authorising Officer:	Ross Povey Director Planning and Development
Application No and File No:	DP13/00033
Report Date:	8 March 2013
Application Receipt Date:	12 December 2012
Application Process Days:	85 days
Attachment(s):	**Attachment 1** Development Application Plans a) Site context plan (A001) date stamped 4 February 2013 b) Site plan (A002) date stamped 4 February 2013 c) Title plan and site survey (A003) date stamped 4 February 2013 d) Lower ground floor plan (A100) date stamped 4 February 2013 e) Ground level floor plan (A200) date stamped 5 March 2013 f) Level 1podium top carpark floor plan (A201) date stamped 5 March 2013 g) Level 2 floor plan (A202) date stamped 5 March 2013 h) Levels 3-5 floor plan (A203) date stamped 4 February 2013 i) Levels 6 – 7 floor plan (A206) date stamped 4 February 2013 j) Levels 8-9 floor plan (A208) date stamped 4 February 2013 k) Roof plan (A210) date stamped 4 February 2013 l) Café, bar, restaurant floor plan (A250) date stamped 4 February 2013 m) Building 01 floor plan (A300) date stamped 12 December 2012 n) Building 02 floor plan (A305) date stamped 12 December 2012 o) Building 03 office floor plan (A310) date stamped 12 December 2012

	p) North-east & south-east elevation (A400) date stamped 5 March 2013 q) North-west & south-west elevation (A401) date stamped 5 March 2013 r) Section A-A (A500) date stamped 5 March 2013 s) Section B-B (A501) date stamped 5 March 2013 t) Site section C-C (A502) date stamped 5 March 2013 **Attachment 2** Aerial Location Plan **Attachment 3** Metropolitan Region Scheme (MRS) Zoning **Attachment 4** City of Stirling Town Planning Scheme No.38 (TPS38) Zoning **Attachment 5** Stirling Alliance comments **Attachment 6** Applicant submission **Attachment 7** Additional applicant submission **Attachment 8** Revised transport assessment **Attachment 9** Draft Stirling City Centre Structure Plan **Attachment 10** Stirling Regional Centre Precinct 4 Outline Development Plan **Attachment 11** Stirling City Centre Access & Parking Strategy **Attachment 12** Technical Note from Transcore **Attachment 13** 3D Colour Perspectives

Recommendation:

That the Metro North-West JDAP resolves to:

Approve DAP Application reference DP13/00033 and accompanying plans (ATTACHMENT 1) in accordance with Clause 2.8.2 of the City of Stirling's Town Planning Scheme No. 38, subject to the following conditions:

a) Pursuant to Clause 4.5.3 of Town Planning Scheme No 38 that a monetary contribution calculated in accordance with clause 4.5.2 be made for 122 bays, being a discounted parking shortfall as outlined in the report, and is to be paid prior to the commencement of development to the satisfaction of the City of Stirling Manager Approvals.

b) That amended plans be provided prior to the issue of a building permit to the satisfaction of the City of Stirling Manager Approvals to demonstrate the necessary access, egress and loading area for service/delivery vehicles. (Refer Advice Note)

c) All awnings to have a maximum height of 3.5m above footpath level and a minimum depth of 2.0m unless otherwise restricted by verge infrastructure to the satisfaction of the City of Stirling Manager Approvals.

d) No clothes drying is permitted on balconies unless adequately screened so as to not be visible from adjoining residences or the public realm.

e) The proposed tenancies indicated as "retail" on the approved plans are approved to operate as "shop" only as per the definition of shop prescribed in Town Planning Scheme No. 38.

f) A geotechnical report is to be submitted to the satisfaction of the City of Stirling Manager Approvals prior to the issue of a building permit verifying that the site is capable of sustaining the proposed development.

g) A CCTV design plan for the development is to be submitted prior to the commencement of the development, to the satisfaction of the City of Stirling Manager Community Safety.

h) The provision of a CCTV system including all entrances into the development, parking and loading areas prior to practical completion of the development in accordance with the relevant Australian Standards, Guidelines and City of Stirling Policies to the satisfaction of the City of Stirling Manager Community Safety.

i) The internal partitions between the tenancies not being altered without the written consent of the City of Stirling first being obtained.

j) The dimensions of all parking bays and manoeuvring areas to be in accordance with AS2890.1.

k) The submission of a landscaping plan to the satisfaction of the Manager Approvals prior to commencing development.

l) Architectural lighting of the building in addition to lighting under all awnings and at all entry points to be provided to the satisfaction of the Manager Approvals prior to occupation of the building.

m) Any on-site floodlights not being positioned or operated in such a manner so as to cause annoyance to surrounding uses or passing traffic.

n) The submission of a signage strategy to the satisfaction of the City of Stirling Manager Approvals prior to the erection of any signs.

o) A Site Management Plan to be submitted to the satisfaction of the City of Stirling Manager Approvals prior to the issue of a building permit. The Site Management Plan to address dust, noise, waste management, storage of materials, traffic and site safety/security. The Site Management Plan is to be complied with for the duration of the construction of the development.

p) A Car Parking Management Plan be provided to the satisfaction of the City of Stirling Manager Approvals prior to the issue of a building permit. The Car Parking Management Plan is to address the management of staff, visitor and delivery parking. The Car Parking Management Plan is to be complied with for the duration of the occupation of the development, unless otherwise varied by the City of Stirling.

q) The Car Parking Management Plan is to include provision for five (5) residential visitor bays within the 152 bays allocated for commercial parking as part of this application.

r) Vehicular parking, manoeuvring and circulation areas indicated on the approved plan being sealed and drained to the satisfaction of the City of Stirling Manager Engineering Design with all parking spaces being marked out and maintained in good repair.

s) All off street parking to be available onsite during business hours for all customers and staff to the satisfaction of the City of Stirling Manager Approvals.

t) No goods or materials being stored, either temporarily or permanently, in the parking or landscape areas or within access driveways. All goods and materials are to be stored within the buildings or storage yards, where provided.

u) All stormwater to be collected and contained on site. A Stormwater Management Plan demonstrating this to be submitted to the City to the satisfaction of the Manager Engineering Design prior to commencing development.

v) Any existing crossovers not included as part of the proposed development on the approved plan are to be removed. New kerbing and verge to be reinstated to the satisfaction of the City of Stirling Manager Engineering Design.

w) Connection to deep sewer in the locality.

x) This approval is valid for a period of 2 years from the date of approval. If the subject development is not substantially commenced within the 2 year period, the approval shall lapse and be of no further effect.

Advice to Applicant

- In relation to condition (a) the applicant is advised that an application for approval of any amended proposal may be required in accordance with Regulation 17 of the Planning and Development (Development Assessment Panels) Regulations 2011.

Background:

Insert Property Address:		Lot 222, House Number 1, Sunray Drive, Innaloo
Insert Zoning	MRS:	Central City Area
	TPS:	Stirling City Centre – Precinct 4: Mixed Use, Office and Entertainment Precinct
Insert Use Class:		Office, Shop, Tavern and Multiple Dwellings
Insert Strategy Policy:		Not applicable
Insert Development Scheme:		Not applicable
Insert Lot Size:		6,543m²
Insert Existing Land Use:		Vacant lot
Value of Development:		$55 million

The subject lot is located in the local municipality of Stirling, approximately 7.9 km north of the Perth CBD and 220m from the Stirling Train Station.

The subject lot is located within Precinct 4 “Mixed Use, Office and Entertainment Precinct” of the Stirling City Centre. The current statutory framework that applies to the subject lot is the City of Stirling’s Town Planning Scheme No.38.

The plan of subdivision that created the subject lot was endorsed by the Western Australian Planning Commission on 19 November 2007. The title of the subject property is burdened with the following:

- A restrictive covenant restricting vehicular access; and
- A Section 70A notification regarding proximity to a Class “P” fill area.

In relation to the above, vehicle access is proposed in accordance with the deposited plan. The applicant is aware of the Class “P” fill area along the south-western boundary of the property and advises that construction of the development will accommodate for this.

The site is the subject of a Clause 32 resolution under the Metropolitan Region Scheme (MRS) and would normally require the separate approval of the WAPC under the MRS in addition to the approval of the City of Stirling under Town Planning Scheme No. 38.

Clause 1.14.1 of Town Planning Scheme No. 38 (TPS38) contains the general objectives of the Scheme. The general objectives are:

a) to provide a system for the orderly control of development;

b) *to facilitate the process of development and redevelopment;*

c) *to make provision for Infrastructure Works within the Scheme Area;*

d) *to make provision for the recovery of Infrastructure Costs, on a fair and equitable basis;*

e) *to provide certainty to enable location and investment decisions to be made with reasonable confidence;*

f) *to ensure that individual developments can occur without detriment to the integrity of the Scheme Area and locality as a whole;*

g) *to provide flexibility and discretion to minimise the need for amendment to the Scheme;*

h) *to establish rights of appeal in respect of decisions of the Council;*

i) *to provide an effective means of determining the urban design and visual quality of the Scheme Area;*

j) *to provide effective standing for planning policies; and*

k) *to facilitate the implementation of the specific objectives of the Scheme.*

Clause 1.14.2 of Town Planning Scheme No. 38 (TPS38) contains the specific objectives of the Scheme. The specific objectives are:

a) *to create an "urban centre" with readily identifiable character within the Scheme Area;*

b) *to develop a functional Centre which is open to the public seven days per week by encouraging a wide range of uses including theatres, cinemas, restaurants, markets, recreational and leisure uses.*

c) *to ensure that future growth and development which occurs in the Scheme Area is in accord with the adopted elements of the Structure Plan and all the planning policies of the Council.*

d) *to encourage innovations in land development and renewal.*

e) *to facilitate the provision of adequate public services such as transportation, drainage, public utility services, open space and public parks.*

f) *to encourage the replacement of inappropriate uses and development;*

g) *to create diversity of land use and development and to ensure a wide range of residential, working and leisure opportunities within the area as a whole;*

h) *to create a mixture of mutually beneficial uses and developments within individual Precincts and, where appropriate, on individual sites;*

i) to create a safe and comfortable environment for people and to ensure access for the disabled;

j) to create and facilitate development which minimises energy consumption, pollution and dependence on private motor vehicle usage;

k) to increase access to the Public Transport system;

l) to create a visually attractive locality in the Scheme Area with appropriately scaled streetscapes and other elements, providing a diverse but unified urban townscape and landscape characterised by high quality urban design;

m) to arrange for the planning, design and construction of Scheme Works and the payment of Scheme Costs; and

n) to facilitate the re-subdivision of land and land holdings to create viable redevelopment sites that are capable of sustainable development.

In relation to residential development within the Stirling City Centre, TPS38 contains the following provisions:

4.3 Residential Development - Residential Design Codes

4.3.1 Unless otherwise provided for by the Scheme, and notwithstanding the provisions of Clause 1.2 of the Scheme, the development of land for any of the residential purposes dealt with by the Residential Design Codes shall conform with the provisions of those Codes and the City of Stirling District Planning Scheme No. 2 (LPS3).

4.3.2 The Residential Planning Code density applicable to land within the Scheme Area shall be determined by reference to the Residential Planning Code density numbers superimposed on the particular areas shown on the Scheme Map.

4.4 Variations to the Residential Design Codes

4.4.1 ***Minimum Distance Between Buildings on the Same Lot***

The Council may reduce the required minimum distance between buildings in different occupancies on the same lot, where in the interests of maintaining amenity, traditional built forms, or streetscapes, the Council is satisfied that such a reduction is desirable.

4.4.2 ***Car Parking***

a) Subject to the provisions of Clause 4.11 the Council may reduce the car parking requirements in respect of any proposed development provided the Council is satisfied that such a reduction is in the interest of orderly and proper planning and will not detract from the amenity of the locality.

b) Before deciding to reduce the car parking requirements pursuant to the preceding paragraph of this subclause, the Council shall take into consideration:

i) the effect of the proposed development on parking demand in the locality, having regard to the availability of alternative parking space and the public transport system;

ii) any irregularity in the shape, topography or size of the subject lot or any adjoining lots;

iii) the effect on the amenity of the locality; and

iv) any relevant Policy.

c) To the extent that they are applicable the provisions of Subclauses 4.5.4 and 4.5.5 shall apply to the determination of the parking requirements for residential development.

4.4.3 ***Open Space***

In a particular case the Council may relax the open space requirements of the R.Codes if one or more of the following circumstances apply:

a) the open space requirements would prevent, in the opinion of Council, a reasonable extension of an existing building;

b) where, in the opinion of Council, the interests of visual amenity would be better served by permitting a relaxation; or

c) the modification is in accordance with a Policy made pursuant to this Scheme.

4.4.4 ***Densities***

The Council may increase the permitted dwelling density by not more than 50% if one or more of the following circumstances apply:

a) the proposed development would effect the discontinuance of a non-conforming use;

b) the proposed development incorporates and conserves a building which is, in the opinion of Council, worthy of retention;

c) a significant proportion of lots in the immediate vicinity is developed to densities higher than the applicable code; or

d) the modification is in accordance with a Policy made pursuant to this Scheme.

Clause 5.8.1 of TPS38 provides the following statement of intent specifically for Precinct 4: Mixed Use, Office and Entertainment Precinct:

> *This Precinct is considered to be a key area in terms of the success of the Stirling Regional Centre and its integration with the Stirling Railway Station.*
>
> *Currently it comprises largely undeveloped but degraded damplands/wetlands and directly abuts the Stirling Railway Station as delineated on the Scheme Map.*
>
> *While major scale development in this Precinct is considered essential to ensure the success of the Regional Centre, design of such development should retain key elements of the existing landscape/wetland environment in the north-east corner of the Precinct if practical. Cycleway/pedestrian links are proposed between this Precinct and other Stirling City Centre Precincts, to the residential areas and the Railway Station.*
>
> *The major land uses within this Precinct will comprise a large high-rise office park with buildings having accessibility and visual exposure to both the station and the freeway. Major car parking areas are proposed to be accessed off the re-aligned Oswald Street and Cedric Street as required. The office towers are recommended up to 12 storeys in height adjoining the Stirling Railway Station.*
>
> *In association with the office park it is proposed to develop an entertainment/residential node at a lower scale (ie eight storey maximum height) containing uses such as a tavern/brasserie, alfresco restaurants and markets surrounding a central open piazza. Major `people' attractions such as cinemas and public amusement/leisure centres are considered essential as it is envisaged that this area will be a focus of nightlife activity based on proximity to public transport and pedestrian links; and to the Mitchell Freeway. It will also offer limited support retail facilities for office workers in the office park. A significant provision of residential development both in stand alone and mixed use buildings will be encouraged by Council.*
>
> *Once again the importance of maintaining a landscaped environment is recognised. However, the scale of the adjoining Stirling Link Road/Mitchell Freeway interchange, as well as the height of the railway station overbridge and the Stirling Link Road embankments, provide opportunities for large scale high rise development which will be separated from residential areas by the re-aligned Oswald Street and pedestrian systems.*
>
> *Opportunities also exist within this Precinct to develop the surplus road reserve for commercial activities which would offset the cost of the Main Roads WA relocating existing embankments.*
>
> *South of the proposed road under the Stirling Link Road, a triangular parcel of land will be created of approximately one hectare in area. This would be available for development and would be suitable for a facility providing accommodation for business persons. This would have good regional accessibility and visual exposure to the Stirling Link Road and the railway/transfer station.*

One of the specific objectives of the Scheme is to facilitate the re-subdivision of land holdings so as to create new allotments based on a re-distribution of land brought about by Scheme requirements, the identification of surplus land and the extent of reservation requirements for road purposes.

In addition to the provisions of TPS38 the City has adopted an Outline Development Plan (ODP) for Precinct 4 of the Stirling City Centre. In accordance with Clause 5.8.4 j) ii) of TPS38 the City was required to develop an ODP to the satisfaction of the Western Australian Planning Commission (WAPC) prior to any development commencing within the precinct. The final ODP for Precinct 4 was adopted on 14 December 2005 (See Attachment 10).

The ODP for Precinct 4 contains the following statement with regards to the "Desired Character" of the precinct:

Development of Precinct 4 marks a significant milestone in the expansion and integration of the Stirling Regional Centre with the Stirling Railway Station. It is anticipated that the character of the buildings will contribute to a stimulating and attractive area with strong streetscapes.

The precinct provides the opportunity to create 'landmark' developments of high quality contemporary design that are compatible with the nature and character of the site. The buildings will have visual exposure to both the station and the freeway and be accessible from these areas. Office buildings are recommended up to 12 storeys in height adjoining the Stirling Railway Station.

The precinct has the potential to accommodate a range of uses including residential and entertainment uses. The uses proposed need to attract people to the precinct due to its proximity to public transport, pedestrian links and the Mitchell Freeway. The precinct is to be developed maintaining a landscaped environment, however the scale of surrounding infrastructure provides opportunities for large scale high rise development.

The "Guideline Objectives" of the ODP are as follows:

- *To ensure the proposed developments are part of a cohesive, and attractive extension of the Stirling Regional Centre;*
- *To ensure that the design and development contributes to the overall identity;*
- *To promote sustainable built form;*
- *To minimise any adverse effect of the natural environment by utilising appropriate design solutions and applying specific impact mitigation requirements;*
- *To provide a context for a range of scales and forms of business;*
- *To ensure development is responsive to pedestrian movement and other modes of transport;*
- *To encourage built form to promote security and safety within the Precinct;*
- *To minimise any impact on areas adjacent to the Precinct.*
- *To encourage residential development as a stand alone development or located above commercial uses.*

The current statutory framework for the site consists of the provisions of TPS38 and the ODP however, a scheme amendment (Amendment 1 to Local Planning Scheme

No. 3) is currently in the process of being considered by the WAPC that will see TPS38 extinguished and the Stirling City Centre incorporated into the City's Local Planning Scheme No. 3 (LPS3) as a "Development" zone. The Stirling City Centre Draft Structure Plan has also been developed and adopted however the draft structure plan currently has no statutory effect. (See Attachment 9)

A traffic report was submitted with the application and has been reviewed by the City's Engineering Design Business Unit. The City's conclusions regarding the traffic report are outlined in further detail in the "Comments" section below.

The specific development control provisions in relation to the proposed development are discussed in further detail within the "Planning Assessment" section of this report.

Details: outline of development application

The application proposes development of the subject lot for the purpose of a mixed commercial development consisting of offices, shops, a restaurant and tavern, and multiple dwellings. The development is summarised in the table below:

Development Application DA12/3095	
Height	1 x 6 Storey Office Tower; 1 x 8 Storey Residential Tower; and 1 x 10 Storey Residential Tower
Parking	152 Commercial bays 120 Residential bays
Land Uses	Shop – 1,451m² Tavern – 1,135m² Office – 5,666m² Multiple Dwellings – 154 (98 single bedroom dwellings and 56 two bedroom dwellings.

Legislation & policy:

Legislation

- Planning and Development Act 2005
- Metropolitan Region Scheme (MRS)
- Town Planning Scheme No. 38 (TPS38)

State Government Policies

- Directions 2031
- Residential Design Codes of Western Australia (R-Codes)
- WAPC Development Control Policy 1.6 – Planning to Support Transit Use and Transit Oriented Development

Local Policies

The Outline Development Plan for Precinct 4 of the Stirling City Centre has been adopted for the precinct in accordance with Clause 5.8.4 j) ii) of TPS38.

Consultation:

Public Consultation

The application was advertised for public comment in accordance with the City's "Planning Consultation Procedure". The consultation period was for 21 days and letters were sent to all property owners within 100m of the subject lot. A sign providing a basic description of the proposed development was also erected on site.

During the consultation period the City received one (1) submission in the form of a letter of support. The submission is summarised below:

- *The development would be a great addition to the ongoing growth currently occurring within the Innaloo area;*
- *The development has been carefully designed in order to achieve appropriate mixed use functions required as per the Stirling City Centre Zone as well as various other considerations such as the architecture and master plan layout;*
- *The land uses are appropriate and desirable given the sites close proximity to Stirling Train Station.*

Consultation with other Agencies or Consultants

The City of Stirling consulted with the Stirling Alliance with regards to the subject application. Comments from the Stirling Alliance have been considered in the planning assessment of this application (See Attachment 5).

The application was also referred to the WAPC for consideration under the provisions of the MRS. The application would normally require dual determinations from the City of Stirling under TPS38 and the WAPC under the MRS.

Planning assessment:

The development has been assessed against the City of Stirling's Town Planning Scheme No. 38 (TPS38), the Outline Development Plan for Precinct 4 of the Stirling City Centre and the R-Codes.

The proposed development requires a discretionary decision to be exercised in respect to a number of matters, including:

- Car parking;
- Traffic and vehicle movement;
- Service access;
- Awnings (weather protection);
- Building setback;
- Site coverage;

- Outdoor living areas;
- Dwelling sizes; and
- Essential facilities

Car Parking
TPS38 provides the relevant development standards for the number of car parking bays required for a particular use. In relation to the commercial uses proposed as part of this development, the following ratios are applicable:

- *Shop – Minimum 1 bay per 20m2 of net lettable area (NLA) and Maximum of 1 bay per 14.5m² NLA*

- *Office – Minimum 1 bay per 50m2 of gross floor area (GFA) and maximum of 1 bay per 30m² GFA*

- *Tavern – Minimum 1 bay per 5m² of public floor space (PFS) and Maximum of 1 bay per 3m² of public floor space*

Subsequently, commercial parking for the proposed development is summarised in the table below:

USE	POLICY PROVISION	VARIABLE (m²)	BAYS REQUIRED
Shop	1 bay per 20m2 NLA	1,451m²	72.55
Office	1 bay per 50m2 GFA	5,666m²	113.32
Tavern	1 bay per 5m² PFS	1,053m²	210.6
TOTAL			396
Provided			152
Surplus/Deficit			-244

In relation to residential parking standards, Clause 7.3.3 “On-site parking provision” of the R-Codes provides the relevant parking standards for multiple dwellings. Clause 7.3.3 specifies the following parking ratios:

- *Small (<75m² or 1 bedroom) – 0.75 bays per dwelling*

- *Medium (75-110m²) – 1 bay per dwelling*

- *Visitors – 0.25 bays per dwelling*

Subsequently, residential parking for the proposed development is summarised in the table below:

DWELLING TYPE	R-CODE REQUIREMENT	VARIABLE	BAYS REQUIRED
Small	0.75 bays per dwelling	138 dwellings	104
Medium	1 bay per dwelling	16 dwellings	16
Visitor	0.25 bays per dwelling	154	39

TOTAL			159
Provided			120
Surplus/Deficit			-39

As demonstrated in the tables above, the application proposes a 244 bay commercial parking shortfall in accordance with the parking provisions of Table 1 of TPS38 and a 39 bay residential parking shortfall in accordance with Clause 7.3.3 of the R-Codes.

Commercial Parking Shortfall
The ODP for Precinct 4 of the Stirling City Centre contains the following provisions in relation to the number of parking bays to be provided on-site:

> *Parking provisions shall be in accordance with Table 1 of TPS No. 38, however, the Council may vary the car parking provisions if it can be demonstrated that the proposed level of parking is appropriate for the use.*

It is acknowledged that the parking provision does not comply with the TPS38 requirements. However, it is evident that the development has been designed with the future transport system in mind, as outlined in the Stirling City Centre Access & Parking Strategy (prepared by Sinclair Knight Mertz, August 2010) (See Attachment 11).

The Stirling City Centre Access & Parking Strategy identifies the provision of a lesser parking requirement of TPS38 but has no statutory effect. It is however an acknowledgement of the future intent of the precinct to significantly limit the provision of parking in the city centre by imposing maximum parking provisions. In the case of offices, the Strategy identifies parking provision is to be no more than 1 bay per 100sqm of office space and in the case of large retail, 4 bays per 100m² GFA. The effect of this, as well as other mechanisms as outlined in the Strategy, will be that the precinct will evolve from one dominated by vehicular traffic to one which actively discourages their use and consequently prioritises other forms of transport. The development has provided parking in accordance with this Strategy, an approach which is supported by the Department of Planning and the Stirling Alliance.

In addition to the contents of the Stirling City Centre Access & Parking Strategy, the 244 bay shortfall is also considered to be consistent with the future planning of the area as identified in the Draft Stirling City Centre Structure Plan (See Attachment 9). The Draft Structure Plan seeks to limit and restrict car usage within the Stirling City Centre and ensure that the road capacity is not exceeded by limiting the number of bays that are available within the precinct. Development within the Stirling City Centre should encourage high levels of access via public transport and sustainable methods of transport such a walking and cycling. An over-supply of parking would be contrary to this objective. The Draft Structure Plan also identifies that a significant reduction in the provision of parking within the Stirling City Centre would be possible once the light rail system is committed in the area.

Based on the principles of planning to facilitate sustainable methods of transport and reduce private vehicle usage within the Stirling City Centre the Draft Structure Plan provides for a maximum parking allowance of 200 bays per hectare within the Stirling City Centre. For the subject site this would equate to the provision of 131 bays on site. This maximum of 131 bays however, is based on significant transport infrastructure upgrades within the precinct such as road extensions and light rail

which at present have not been committed and will not exist in the immediate future. The proposed number of commercial parking bays being 152 is between the minimum provisions of TPS38 (396 bays) and the Draft Structure Plan maximum (131 bays) and is therefore considered appropriate in this transitional phase.

In view of the above, the 244 bay parking shortfall is supported on the basis that the site is located in close proximity to Stirling Train Station and the future intended "City Centre" precinct. Additionally, the parking provided is consistent with both the Parking & Access Strategy and the Draft Structure Plan.

The JDAP has the ability to vary parking requirements for development in accordance with Clause 4.11 of TPS38, as follows:

> *"Without affecting the generality of Clause 2.15, the Council may vary the parking requirements in Table 1, the plot ratio and any development criteria specified in the Scheme in regard to any development application where the Council is of the opinion that;*
>
> *a) such a variation will not prejudice the achievement of the objectives of the Scheme;*
>
> *b) such a variation will not detract from the amenity of the locality of the proposed development or the streetscape;*
>
> *c) sufficient area is set aside in the form of additional landscaping to permit the subsequent construction of additional parking bays;*
>
> *d) different uses on the land will generate parking demand at different times, allowing parking spaces to be shared;*
>
> *e) the number of parking spaces required under Table 1 can only be provided in a manner which results in a built form in conflict with the existing development in the locality;*
>
> *f) contractual arrangements have been made for the parking or shared use of parking areas which are in the opinion of the Council satisfactory;*
>
> *g) a contribution has been made to be credited to a Special Fund in the Council Accounts for the provision of public parking space in a locality where the development will generate the need for such parking space; or*
>
> *h) the development is within 800 metres of the Stirling Railway Station."*

Notwithstanding this, clause 4.11 needs to be considered in the context of clause 4.5.3 a) of TPS38 which states:

> *"4.5.3 Parking Provision*
>
> *a) Car parking spaces shall be provided as follows:*

i) not less than the minimum requirement stipulated in Table 1;

or

ii) to a level agreed by the Council, but where the Council agrees to allow less than the minimum level stipulated in Table 1, any shortfall shall be made up by way of contribution of money to the Special Fund referred to in Clause 3.3 at a rate per bay equal to the Parking Contribution."

In relation to calculating the parking contribution payable (cash-in-lieu), clause 4.5.2 of TPS38 states:

"4.5.2 Parking Contribution

a) For the purposes of Clause 4.5.3, the Parking Contribution shall be the cost of a parking bay calculated in accordance with the following paragraph.

b) The Council may from time to time calculate or estimate the cost of providing a parking bay within the Scheme Area including but not limited to:

i) the market value of the land required for the parking bay and the necessary access and manoeuvring space;

ii) any structure required; and

iii) other improvements including forming, paving, kerbing, drainage, landscaping, crossovers and lighting.

c) The Parking Contribution may be calculated in respect of the Scheme Area as a whole, or in respect of any Precinct, reflecting the differences in the market value of land in the different Precincts.

d) The Council may from time to time vary or adjust the Parking Contribution to reflect changes in values and costs."

The parking demand generated by the uses on site will be unable to be accommodated by the car parking proposed until significant improvements are made to public transport infrastructure. As outlined above, TPS38 requires the provision of parking shortfall to be accommodated through the provision of a monetary contribution in accordance with Clause 4.5.3.

The requirement for monetary contribution for parking is further supported in the Parking & Access Strategy. Part 6 of the Strategy outlines that cash in lieu will play a vital role in the funding of essential transport infrastructure, as follows:

Cash-in-Lieu is a mechanism that has been employed by councils in Perth and elsewhere in Australia for many years to provide for the access needs in

a particular area. Cash-in-Lieu is particularly beneficial where parking needs to be limited and funds are required for alternative forms of access, such as public transport. It can also be beneficial to small commercial developments or retail outlets, where physically it is both impractical and expensive to provide off – street private parking. In these instances, the cash-in-lieu can be used for provision of public transport, walking or cycling provision or for a combination of public parking and public transport.

There are a wide variety of ways in which cash-in-lieu can be applied. This proposal has been developed specifically to meet the needs of the Stirling City Centre and is based on the following principles;

- *All cash-in-lieu revenue shall be hypothecated for improvements to transport infrastructure for public transport walking or cycling, or for the provision of public parking within the city centre.*
- *The cash-in-lieu payment shall be based on a proportion of the cost of provision of a parking bay, including the cost of land.*
- *The benefit of the cash-in-lieu payment shall increase as the level of on-site parking is decreased in a manner that ensures the overall cost to the developer is reduced.*

The Parking & Access Strategy recommends that for the Stirling City Centre, a monetary contribution be required, however is to be reduced by 50% for non-residential uses. This 50% reduction is considered reasonable in acknowledging that there are long term benefits of providing reduced parking, once the transport infrastructure is upgraded to the levels necessary for a Transit Oriented Development. On this basis a monetary payment for 122 parking bays would be required.

Residential Parking Shortfall

As indicated in the table above, the development provides 120 residential parking bays which are sufficient to accommodate for the residential tenant parking however, no visitor parking bays are proposed for the residential dwellings. The applicant however, proposes that the 39 visitor bays be accommodated for after business hours in a reciprocal arrangement with the commercial parking bays. Whilst it is considered that the office use will have different peak trip generation hours than the visitor demand for the residential dwellings, the retail uses and the tavern use are considered to have similar peak trip generation hours to the residential apartments. The retail and tavern uses will still be operating after business hours and on weekends. For the purpose of the proposed reciprocal parking arrangement it is therefore considered reasonable to have regard to the office use only.

In considering the office parking it is also considered unreasonable to assume that the residential dwellings will not require any visitor parking during business hours. There should therefore be at least some provision made for residential visitor parking during business hours. This could be dealt with by virtue of the Parking Management Plan which would see a small number of the allocated commercial bays allocated for the exclusive use of residential visitors.

Under the requirements of TPS38 the office use requires a minimum of 113 bays. As stated above, 39 visitor bays are required for the dwellings. The applicants proposal that residential visitor parking can be accommodated by a reciprocal arrangement with the commercial parking is considered acceptable in this instance. It is reasonable to expect that the peak periods for residential visitors will be after

business hours and on weekends – both times when the office uses will not be generating a demand for parking. The reciprocal arrangement is therefore considered acceptable subject to a small number of exclusive visitor bays being provided at all times and managed via a Parking Management Plan.

Traffic and vehicle movement

The City's Engineering Design Business Unit has reviewed the proposed development as well as the transport report submitted by Transcore (See Attachment 8). The report addresses the cumulative impact of the development proposed on the subject site, as well as the approved developments on the adjoining properties at Lot 211, 212 and 214. The advice received is that the developments will have a significant and adverse impact on the operation of the adjacent traffic signals and local road network. This is due to the number of vehicle trips expected to be generated by the proposed developments, as well as the substantial technical parking shortfall. The following extract summarises their advice:

> *The report shows that that the number of trips generated by the site is approximately one-third the number of trips that would be generated if traditional methods were used. The assumed number of trips to be generated by the site therefore correlates reasonably with the number of bays to be provided, however this is subject to the assumption that the site will operate as a Transport Oriented Development (TOD).*
>
> *Even if the rationale of a TOD is accepted (in yielding a much lower trip rate), the SIDRA results demonstrate that the queue lengths at the two signalised intersections along Ellen Stirling Boulevard would be significant, resulting in significant congestion. As such, it is considered that the proposed development will have a significant and potentially adverse impact on the current operation of the adjacent road network. Crash data shows that the Ellen Stirling/Cedric intersection already exhibits significant crash patterns, and this development will only exacerbate those issues. In the long term, these issues will be addressed by modifications to the configuration of the road network. However, the time frame of these modifications is uncertain at this stage and more than likely to be beyond the 10-year time frame.*

In view of the above the applicant provided an additional Technical Note from Transcore (See Attachment 12) to clarify their methodology in the report, particularly in relation to trip generation. The City's Engineering Design Business Unit provided the following additional comments in response to this additional information:

> *While Transcore have detailed the assumptions made in the development of their new trip generation rates, these still appear to be just assumptions, some of which we do not entirely agree with. For example, the trip rate of two vehicle trips per parking bay per day for residential uses means that a vehicle will only enter and exit the bay once over the entire day – this does not appear to be a realistic assumption, even if the occupancy of these apartments is primarily 'young professional people'. Another example is the statement that child care uses do not have a pronounced peak hour, but trips are usually spread over a 3-hour period. This is contradictory to the NSW RTA Guidelines, which suggest that day-care centres typically have peaks in both commuter peak periods.*

As I indicated in my previous correspondence regarding this matter, the Transcore report estimates that this development will generate in the order of 4,000 daily trips and 770 peak hour trips. This is approximately one third the number of trips that would be generated using traditional rates per floor area (which is approximately 13,600 daily trips and 2,100 peak hour trips). I have done some very quick research of trip rates for TODs and found a study in the USA comparing traditional and TOD trip rates for 17 different TODs. The average daily trip rate for these TODs was approximately 53% of the normal trip rates, while the peak hour trip rate was found to be around 50-60% of normal trip rates. Given that the US is ahead of Australia in terms of TODs (and certainly ahead of WA), this data suggests that the trip rates being proposed for this development are underestimating the actual number of trips that will be generated. Perhaps what is needed are trip surveys of existing TODs located in Perth to demonstrate that the assumptions being made by Transcore are indeed valid.

Even if these lower trip rates are adopted, the results of the intersection modelling showed that the increase in the queue lengths at the two signalised intersections along Ellen Stirling Boulevard would be significant, resulting in significant congestion along this road. As such, it is still our view that the proposed development will have a significant and potentially adverse impact on the current operation of the adjacent road network.

It is acknowledged that the development will have a considerable impact on the efficient operation of the immediate surrounding road network. It is noted that any development of a scale and intensity envisaged by the Draft Stirling City Structure Plan will in the short term result in impacts on the immediate surrounding network.

However in the long term the transport system will evolve considerably, as outlined not only in the City's Parking & Access Strategy for the area but also at a State level as per Development Control Policy 1.6 – Planning to Support Transit Use and Transit Oriented Development, which seeks:

- *To promote and facilitate the use of public transport as a more sustainable alternative to the private car for personal travel, to enhance community accessibility to services and facilities, including employment opportunities, community services and recreational facilities, and to improve equity in accessibility for those who do not own or have access to a car.*
- *To encourage spatial patterns of development that make it easier to plan and efficiently operate public transport services, and for the existing and potential users of public transport to access those services.*
- *To encourage balanced public transport rider-ship along transit corridors by creating places that are destinations as well as points of departure.*
- *To ensure the optimal use of land within transit oriented precincts by encouraging the development of uses and activities that will benefit from their proximity and accessibility to public transport, and which will in turn generate a demand for the use of transit infrastructure and services.*
- *To ensure that opportunities for transit supportive development are realised, both on public and privately owned land, and that transit infrastructure is effectively integrated with other development, to maximise safety, security and convenience for transit users.*
- *To promote and facilitate walking and cycling within transit oriented precincts by establishing and maintaining high levels of amenity, safety and*

permeability in the urban form, and to promote and facilitate opportunities for integrating transport modes by creating opportunities for convenient, safe and secure mode interchange.

Service Access
The service vehicle access has been assessed by the City's Engineering Design Business Unit and it has been determined that the turning circles and access for the proposed "loading zones" is insufficient to accommodate a standard refuse truck or service vehicle. The turning circles have not been provided in accordance with AS2890.2 which requires turning areas to be based on a 12.5m rigid vehicle. The proposed manoeuvring areas are based on a 6.5m long vehicle and are therefore insufficient.

Condition b) has therefore been imposed so that the development may function adequately in relation to service vehicle access and refuse collection.

Awnings (Weather Protection)
The ODP for the precinct requires that all elevations at street level provide pedestrian shelter for pedestrians. This is consistent with established planning and urban design principles for pedestrian environments and city centres. The subject development application proposes weather protection however, the proposed awnings are approximately 5.5m above the level of the footpath. It is considered that the proposed awning height will not provide effective or sufficient weather protection for pedestrians.

The issue has been raised with the applicant however, they are of the opinion that the proposed awning height of 5.5m will provide sufficient weather protection for pedestrians and have elected not to amend the plans to provide a reduced awning height. The City therefore recommends that a condition be imposed restricting the awning height to a maximum of 3.5m above the level of the foot path in order to provide effective weather protection for pedestrians in accordance with the ODP (Condition c).

Building Setback
In relation to setbacks TPS38 requires a 20m setback to the primary street whilst a 50% reduction may be considered for a secondary street setback, making the minimum secondary street setback 10m. A nil setback is permitted where the site abuts the Freeway Reserve.

The ODP for the precinct contains the following relevant provisions in relation to setbacks:

Setbacks are identified in Town Planning Scheme No. 38, however, variations to the setback requirements of Town Planning Scheme No. 38 will be considered and may be required where development, located with frontage to streets, provides an active frontage while also providing pedestrian shelter. The variations to the required setbacks should promote an urban edge to the street rather than buildings isolated in landscaped surrounds.

The setback requirements of TPS38 are significant (20m Primary Street, 10m Secondary Street) and are considered onerous to the extent that compliance with the setback requirements would make the site unviable to develop. The setback

requirements of TPS38 are also contrary to City Centre principles and are not conducive to street activation or pedestrian friendly urban environments.

The proposed nil setback for the development is supported based on City Centre principles and the desired objective of creating active streetscapes and pedestrian friendly environments. With regards to the setback provisions of the ODP the proposed nil setback can be supported as the development is considered to "provide an active frontage whilst also providing pedestrian shelter" and "promote an urban edge to the street rather than buildings isolated in landscaped surrounds". The proposed nil setbacks are considered to be consistent with the specific objectives of Clause 1.14.2 of TPS38 and the Statement of Intent for Precinct 4, as stated above.

In further support of the proposed nil setbacks, the City's Draft Stirling City Centre Structure Plan encourages activation and interaction with the public realm. Specific design requirements include entries and frontages fronting the street, awnings adjacent pedestrian routes and clearly visible lobbies and entry points from the street.

The proposed development is considered to meet the objectives and specific design requirements in relation to building setbacks of the Draft Stirling City Centre Structure Plan. Compliance with the setback provisions of TPS38 would therefore be contrary to the intended built form of the Stirling City Centre.

Site Coverage
The provisions of TPS38 restricts site coverage for office towers to 30% of the site area. The ODP for the precinct contains the following provision in relation to site cover:

> *A site coverage of 30% is identified in Town Planning Scheme No. 38, however, variations to the site coverage requirements of Town Planning Scheme No. 38 will be considered where the development is located to create active street frontages, as identified on the ODP, and promotes active street frontages and pedestrian amenity.*

Compliance with the above open space provision would limit the development footprint of the subject site to 1,963m². The subject development application proposes almost 100% site coverage. The open space requirements of TPS38 are considered unreasonable and make development of the subject site in accordance with city centre principles problematic. The level of open space proposed by the subject development is considered reasonable in accordance with the open space provisions of the ODP as stated above. The development is "*located to create active street frontages…and promotes active street frontages and pedestrian amenity".* The proposed retail shop uses and tavern are considered to meet active frontage and pedestrian amenity objectives as outlined above. The proposed area of the ground floor footprint in relation to the area of the site is not considered to be detrimental to the amenity of the locality and is considered to be consistent with the intended built form of the Stirling City Centre.

Outdoor Living Areas
In accordance with Clause 7.3.1"Outdoor living areas" of the R-Codes the acceptable development standards require that:

Each unit is to be provided with at least one balcony or equivalent, accessed directly from a habitable room with a minimum area of 10m² and a minimum dimension of 2.4m.

Where a development does not satisfy the above acceptable development standards the development is to be considered against the following performance criteria:

Balconies or equivalent outdoor living areas capable of use in conjunction with a habitable room of each dwelling, and if possible, open to winter sun.

Each dwelling is proposed to have a balcony. Some dwellings have a balcony with an area of approximately 7m² and a minimum dimension of less than 2.4m, whilst others have an area of approximately 5.5m² and a minimum dimension of less than 2.4m. Although the proposed dwellings do not have the required minimum size outdoor living areas, an equivalent, more practical area is provided for outdoor living by virtue of the garden podium on Level 2. The garden podium will provide a communal area for outdoor living and will offer a larger, more diverse space for outdoor living as compared to a compliant exclusive balcony. It will also facilitate and encourage a sense of place and community for residents of the building.

For the above reasons, the communal garden top podium is considered an acceptable area for outdoor living in lieu of the provision of full size balconies in accordance with the acceptable development standards of the R-Codes.

Dwelling Size
Clause 7.4.3 "Dwelling size" of the R-Codes contains the following acceptable development standards in relation to dwelling sizes for multiple dwellings:

Development that contains more than 12 dwellings are to provide diversity in unit types and sizes as follows:

- *Minimum 20 per cent 1 bedroom dwellings, up to a maximum of 50 per cent of the development; and*
- *Minimum of 40 percent 2 bedroom dwellings.*

Where a development does not satisfy the above acceptable development standards the development is to be considered against the following performance criteria:

Each dwelling within the development is of a sufficient size to cater for the needs of residents. The development must provide diversity in dwellings to ensure that a range of types and sizes is provided.

The development proposes the following number and percentage of dwelling types:

Dwelling Type	Number of Dwellings Proposed	Percentage of Total	Permitted Percentage
Single bedroom	98	64%	Maximum 50%
Two bedroom	56	36%	Minimum 40%

As the above table demonstrates, the proposed development does not meet the diversity requirements of the R-Codes. The variations however, are considered acceptable in this instance. The development is considered to satisfy the above performance criteria as each dwelling is of a sufficient size to cater for the needs of residents whilst providing a range of types and sizes. Although the minimum and maximum requirements are not strictly satisfied, the variation is considered minor.

In addition to meeting the relevant performance criteria, the higher percentage of single bedroom dwellings is considered acceptable given the developments location within a city centre and its close proximity to Stirling Train Station. It is considered that single bedroom dwellings within a city centre and in close proximity to a train station are more appropriate than in other suburban areas to which the standards of the R-Cods also apply. Given the context and location of the subject application, it is considered appropriate to vary the diversity requirements of the R-Codes in this instance.

Essential Facilities
The acceptable development standards of Clause 7.4.7 "Essential facilities" of the R-Codes requires that:

> *Developments are provided with:*
>
> - *An adequate communal area set aside for clothes-drying, screened from the primary or secondary street;*
>
> *Or*
>
> - *Clothes drying facilities excluding electric clothes dryers screened, from public view, provided for each multiple dwelling.*

Where a development does not satisfy the above acceptable development standards the development is to be considered against the following performance criteria:

> *Provision made for external storage, rubbish collection/storage areas and clothes-drying areas that are:*
>
> - *Adequate for the needs of residents; and*
> - *Without detriment to the amenity of the locality*.

The applicant proposes that each dwelling will have access to a nominated laundry that has provision to accommodate a dryer. The applicant also expects that clothes drying will be carried out by residents on mobile racks which could be located within the dwelling, on the balcony or in the communal podium area.

In relation to the acceptable development standards of the R-Codes it is acknowledged that communal clothes dying areas are not ideal and are not desirable for residents, particularly given the size of the subject development and the number of potential occupants. At the same time it is also considered onerous and impractical for each dwelling to be provided with an exclusive area for the drying of clothes. In a development such as this, it is considered a reasonable outcome that residents will either utilise the mechanical drying facilities available to them or dry clothes within the apartments on mobile clothes racks. Drying of clothes on balconies however, is not acceptable due the unsightly nature and detrimental impact that it has on a building and the locality. Clothes drying is not permitted on balconies unless adequately screened (Condition d).

Conclusion:

The subject lot is located in the local municipality of Stirling, approximately 7.9 km north of the Perth CBD and 220m from the Stirling Train Station. The subject lot is located within Precinct 4 “Mixed Use, Office and Entertainment Precinct” of the Stirling City Centre. The current statutory framework that applies to the subject lot is the City of Stirling’s Town Planning Scheme No.38.

The site is the subject of a Clause 32 resolution under the Metropolitan Region Scheme (MRS) and would normally require the separate approval of the WAPC under the MRS in addition to the approval of the City of Stirling under Town Planning Scheme No. 38.

The proposal is considered to be consistent with the current statutory framework for the Precinct and the future planning for the Stirling City Centre. The proposed development in terms of its scale, design and function is considered to be consistent with the expected urban environment of the Stirling City Centre. Whilst the development will have an adverse impact on the short term functionality of the surrounding traffic network, it is considered consistent with the ultimate intent of the precinct in becoming a Transit Oriented Development.

The development is considered to meet the objectives of TPS38 including the statement of intent for Precinct 4 and the guideline objectives of the ODP.

For the reasons outlined in this report the subject development application is recommended for approval subject to conditions.

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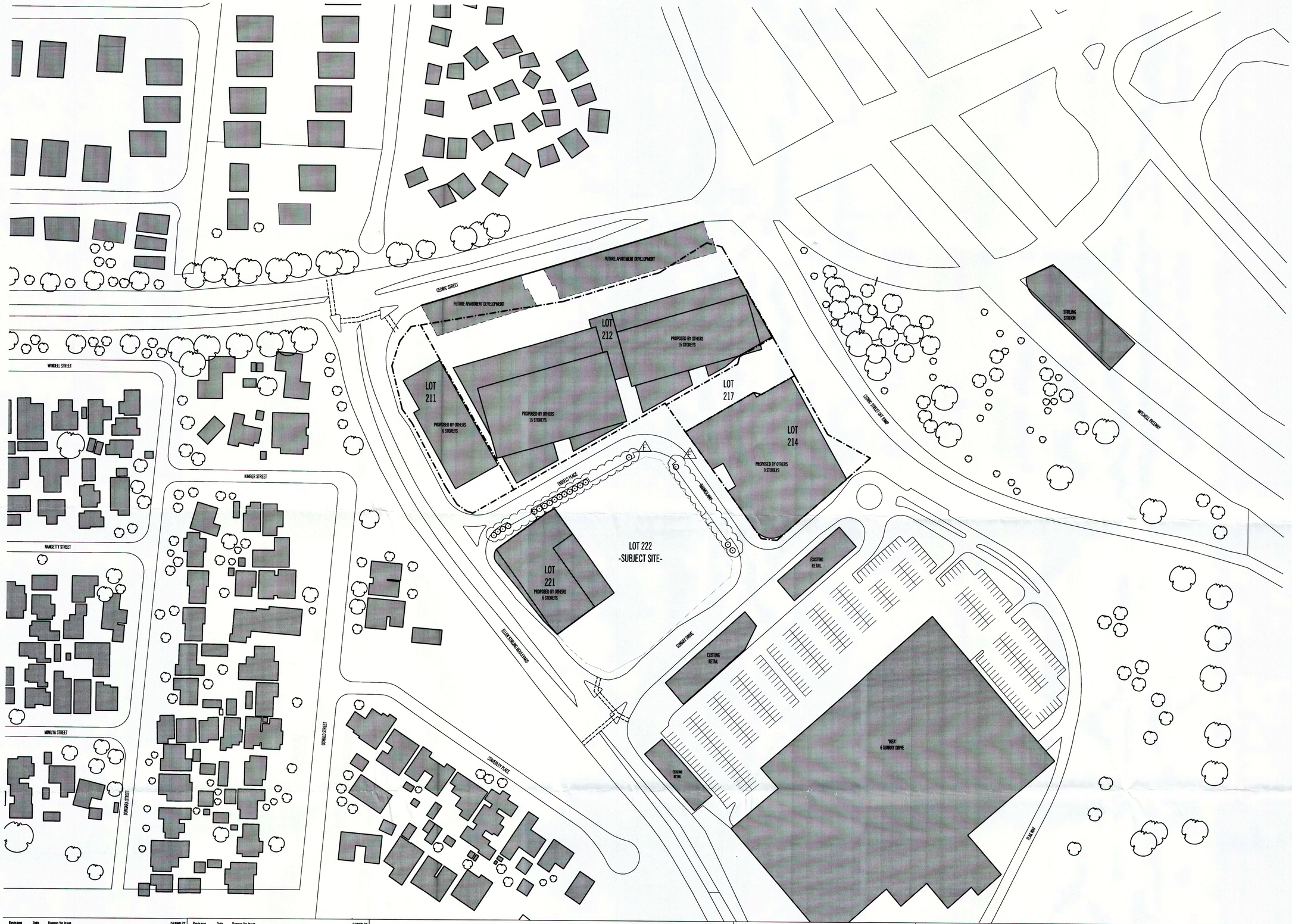

LOT 222
STIRLING CROSS
INNALOO, WA

SITE INFORMATION (000-004)

A000 LOCATION PLAN / DRAWING LIST
A002 SITE PLAN
A003 TITLE PLAN & SITE SURVEY

GENERAL ARRANGEMENT FLOOR PLANS (100-249)

A100 LOWER GROUND FLOOR PLAN
A200 GROUND FLOOR PLAN
A201 LEVEL 01 FLOOR PLAN
A202 LEVEL 02 FLOOR PLAN
A203 LEVELS 03-05 FLOOR PLAN
A206 LEVELS 06-07 FLOOR PLAN
A208 LEVELS 08-09 FLOOR PLAN
A210 ROOF PLAN

ELEMENTAL FLOOR PLANS (250-349)

A250 GROUND FLOOR CAFE FLOOR PLAN
A300 BUILDING 01 TYPICAL FLOOR PLAN
A301 BUILDING 02 TYPICAL FLOOR PLAN
A302 BUILDING 03 TYPICAL FLOOR PLAN

ELEVATIONS (400-449)

A400 NORTH EAST & SOUTH EAST ELEVATIONS
A401 NORTH WEST & SOUTH WEST ELEVATIONS

SECTIONS (500-549)

A500 SECTION AA
A501 SECTION BB
A502 SECTION CC

Revisions	Date	Reason for issue	DRAWN BY
A	05.11.12	ISSUED FOR INFORMATION	RAD
B	15.11.12	ISSUED FOR INFORMATION	RAD
C	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAD
D	23.11.12	ISSUED FOR INFORMATION	TMO
E	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD
F	30.01.13	ISSUED FOR INFORMATION: DA RFI SUBMISSION	TMO

Revisions	Date	Reason for issue	DRAWN BY

SCALE@A1 1:1000 SCALE@A3 1:2000

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ELENBERG FRASER
LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 556 188 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA
Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
SITE CONTEXT PLAN

Project Number
12072
Drawing Number
A001
Drawing Status
TP
Revision
F

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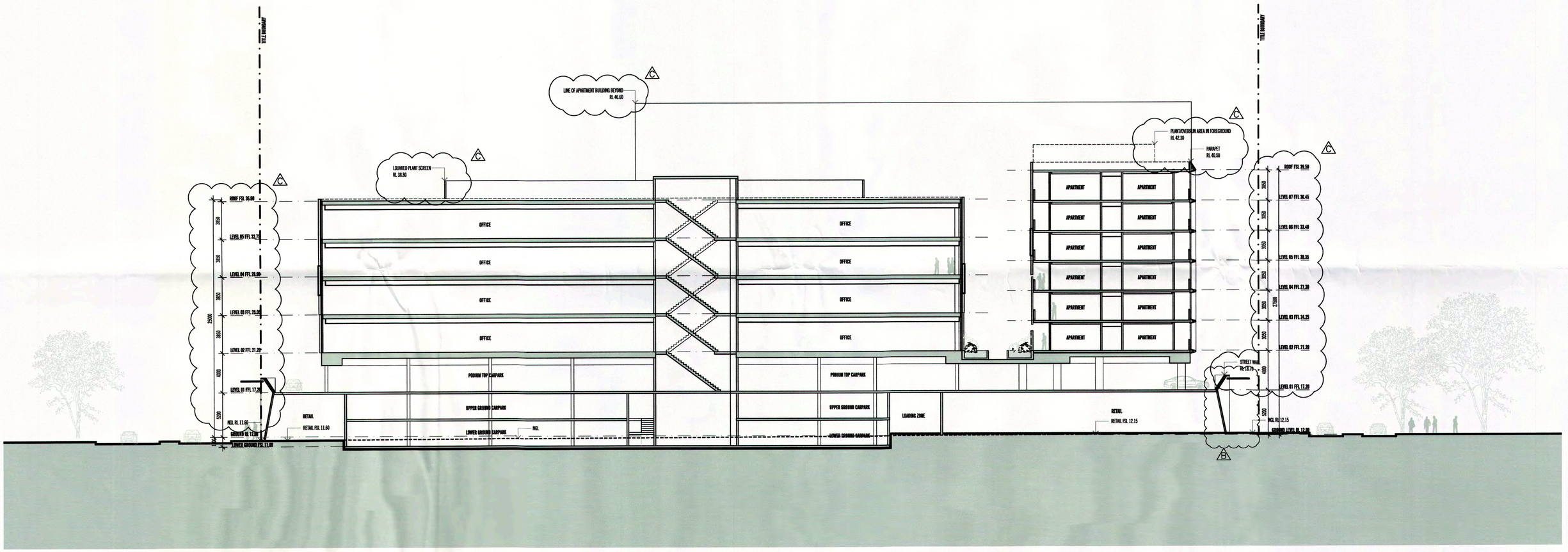

Revisions	Date	Reason for issue	DRAWN BY
A	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	JA
B	21.01.13	ISSUED FOR INFORMATION: DA RFI SUBMISSION REVIEW	TMD
C	01.03.13	ISSUED FOR INFORMATION: DA RFI SUBMISSION REVIEW	CSM

Revisions	Date	Reason for issue	DRAWN BY

SCALE@A1 1:200 SCALE@A3 1:400

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VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2250 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 556 188 726

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Drawing Title
SITE SECTION C-C

Project Number
12072

Drawing Number
A502

Drawing Status
TP

Revision
C

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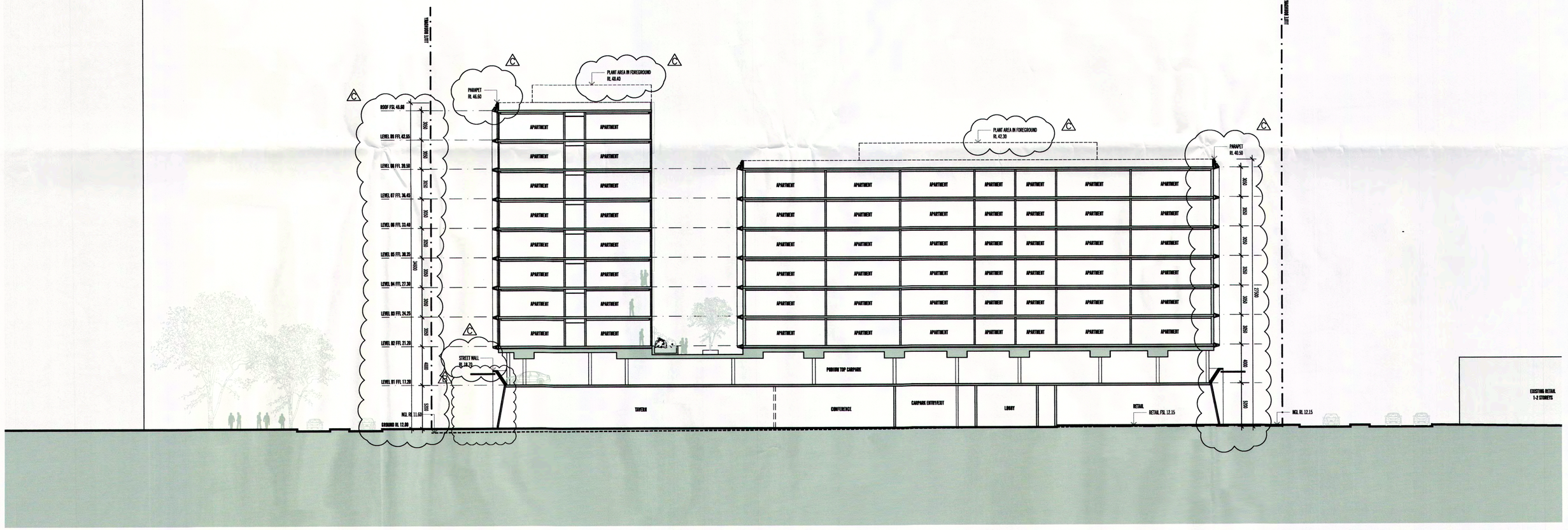
PROPOSED DEVELOPMENT
15 STOREYS



Revisions	Date	Reason for Issue	DRAWN BY
A	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	JA
B	21.01.13	ISSUED FOR INFORMATION: DA RFI SUBMISSION REVIEW	YMD
C	01.03.13	ISSUED FOR INFORMATION: DA RFI SUBMISSION REVIEW	CSM

Revisions	Date	Reason for Issue	DRAWN BY

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VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 556 188 726

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Drawing Title
SITE SECTION B-B

Project Number
12072
Drawing Number
A501
Drawing Status
TP
Revision
C

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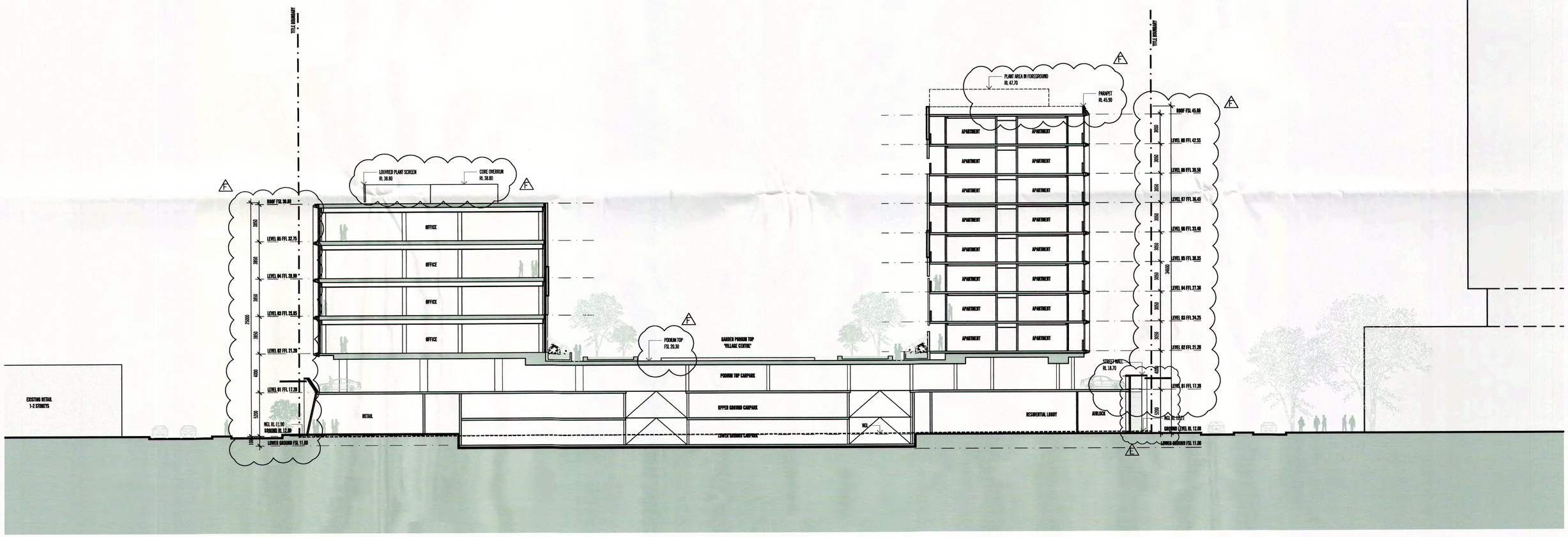
TITLE BOUNDARY
TITLE BOUNDARY
LOUVRED PLANT SCREEN
RL 38.80
CORE OVERRUN
RL 38.80
PLANT AREA IN FOREGROUND
RL 42.70
PARAPET
RL 45.90
ROOF FSL 45.60
LEVEL 09 FFL 42.55
LEVEL 08 FFL 39.50
LEVEL 07 FFL 36.45
LEVEL 06 FFL 33.40
LEVEL 05 FFL 30.35
LEVEL 04 FFL 27.30
LEVEL 03 FFL 24.25
LEVEL 02 FFL 21.20
LEVEL 01 FFL 17.20
GROUND LEVEL 01 12.00
LOWER GROUND FSL 11.00
ROOF FSL 36.60
LEVEL 06 FFL 32.75
LEVEL 04 FFL 28.90
LEVEL 03 FFL 25.05
LEVEL 02 FFL 21.20
LEVEL 01 FFL 17.20
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GROUND RL 12.00
LOWER GROUND FSL 11.00
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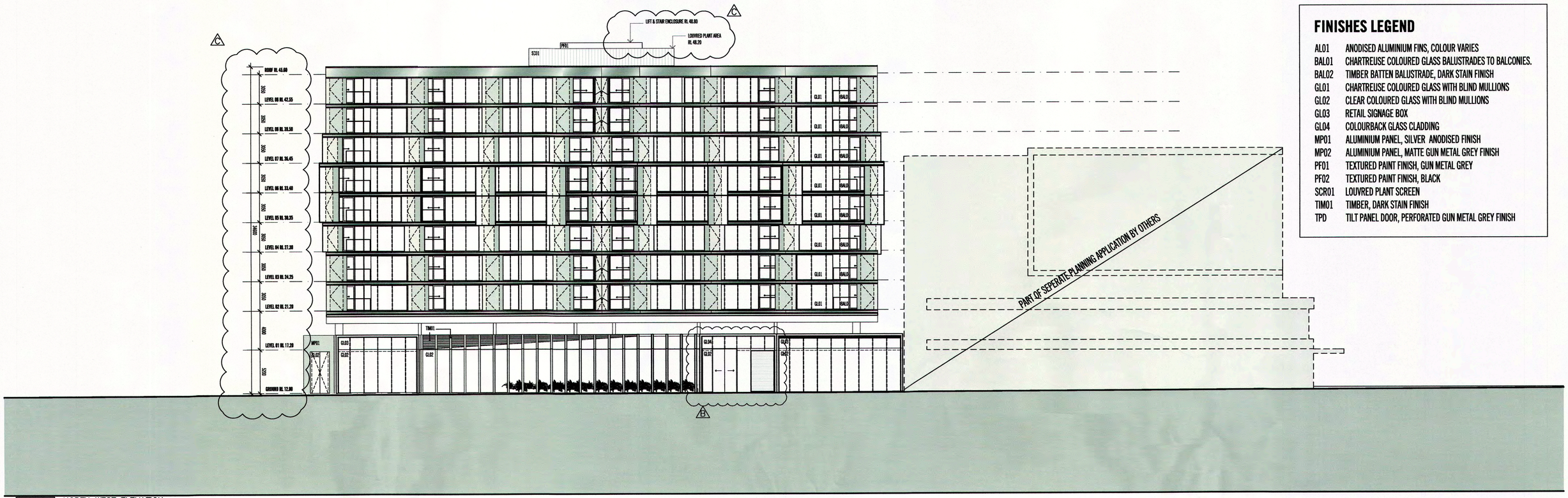
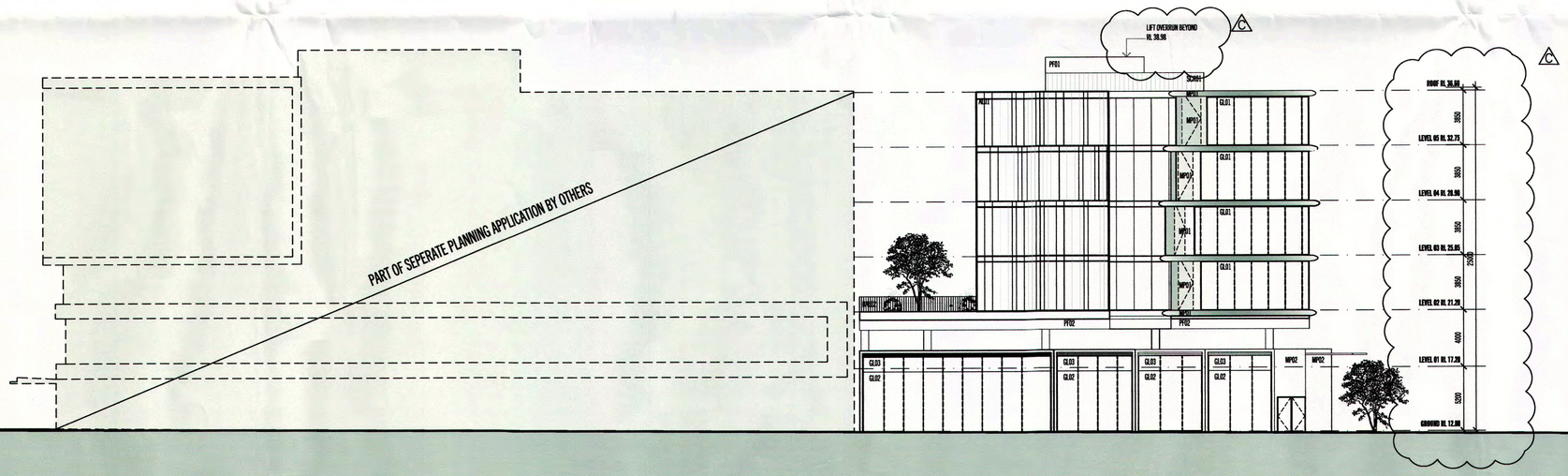


01 NORTH WEST ELEVATION
1:200



02 SOUTH WEST ELEVATION
1:200

FINISHES LEGEND

AL01	ANODISED ALUMINIUM FINS, COLOUR VARIES
BAL01	CHARTREUSE COLOURED GLASS BALUSTRADES TO BALCONIES.
BAL02	TIMBER BATTEN BALUSTRADE, DARK STAIN FINISH
GL01	CHARTREUSE COLOURED GLASS WITH BLIND MULLIONS
GL02	CLEAR COLOURED GLASS WITH BLIND MULLIONS
GL03	RETAIL SIGNAGE BOX
GL04	COLOURBACK GLASS CLADDING
MP01	ALUMINIUM PANEL, SILVER ANODISED FINISH
MP02	ALUMINIUM PANEL, MATTE GUN METAL GREY FINISH
PF01	TEXTURED PAINT FINISH, GUN METAL GREY
PF02	TEXTURED PAINT FINISH, BLACK
SCR01	LOUVRED PLANT SCREEN
TIM01	TIMBER, DARK STAIN FINISH
TPD	TILT PANEL DOOR, PERFORATED GUN METAL GREY FINISH

Revisions	Date	Reason for Issue	DRAWN BY
A	05.12.12	ISSUED FOR PLANNING SUBMISSION	CGM
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C	01.03.13	ISSUED FOR INFORMATION: DA RFI SUBMISSION REVIEW	CGM

Revisions	Date	Reason for Issue	DRAWN BY

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LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 506 189 735

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
NORTH WEST ELEVATION
SOUTH WEST ELEVATION

Project Number
12072

Drawing Number
A401

Drawing Status
TP

Revision
C

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05 MAR 2013

FINISHES LEGEND

AL01	ANODISED ALUMINIUM FINS, COLOUR VARIES
BAL01	CHARTREUSE COLOURED GLASS BALUSTRADES TO BALCONIES.
BAL02	TIMBER BATTEN BALUSTRADE, DARK STAIN FINISH
GL01	CHARTREUSE COLOURED GLASS WITH BLIND MULLIONS
GL02	CLEAR COLOURED GLASS WITH BLIND MULLIONS
GL03	RETAIL SIGNAGE BOX
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SCR01	LOUVRED PLANT SCREEN
TIM01	TIMBER, DARK STAIN FINISH
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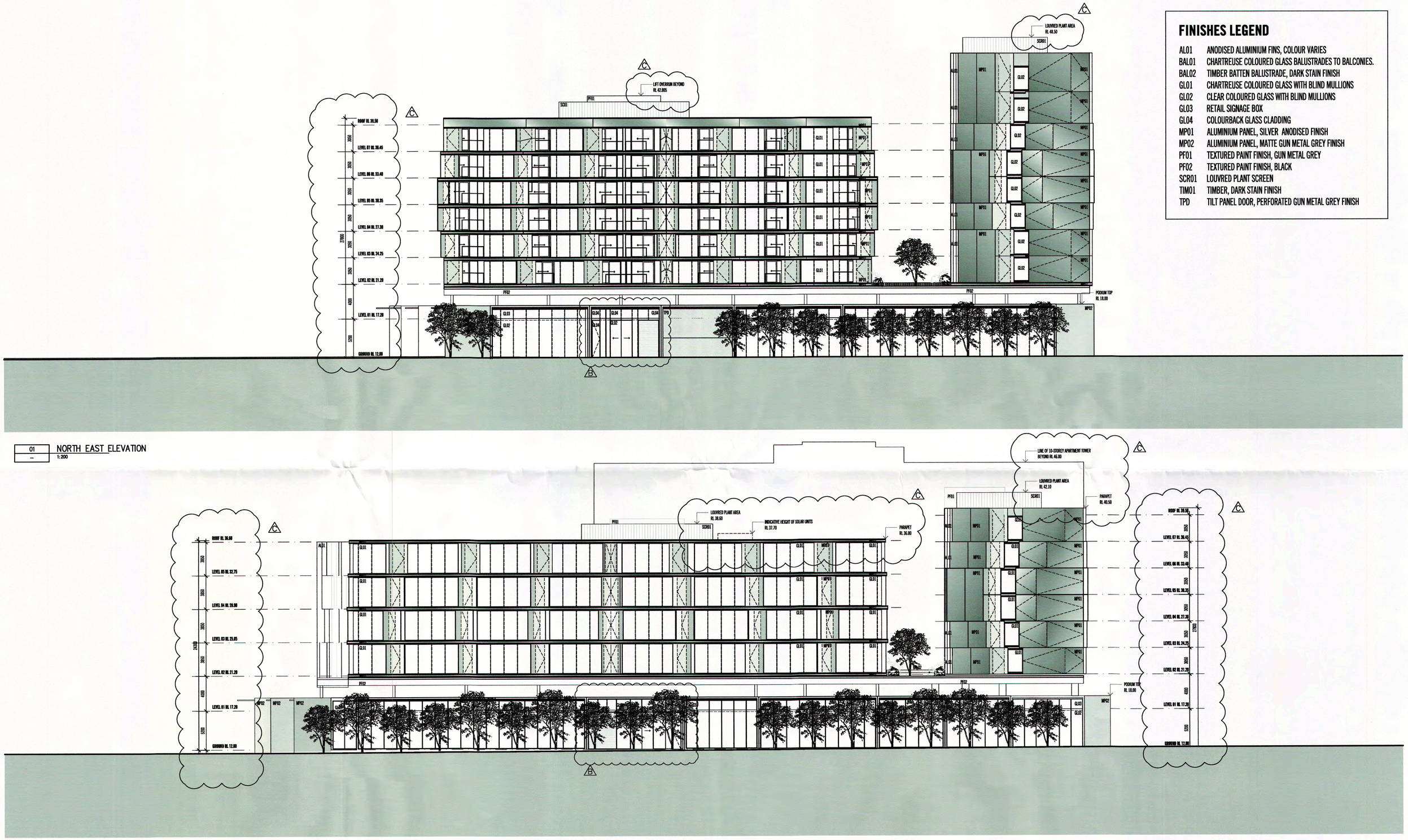

01 — NORTH EAST ELEVATION
1:200

02 — SOUTH EAST ELEVATION
1:200

Revisions	Date	Reason for issue	DRAWN BY
A	05.12.12	ISSUED FOR PLANNING SUBMISSION	CDM
B	21.01.13	ISSUED FOR INFORMATION. DA RFI SUBMISSION REVIEW	DMD
C	01.03.13	ISSUED FOR INFORMATION. DA RFI SUBMISSION REVIEW	CDM

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EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 556 180 726

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Drawing Title
NORTH EAST ELEVATION
SOUTH EAST ELEVATION

Project Number **12072**
Drawing Number **A400**
Drawing Status **TP**
Revision **C**

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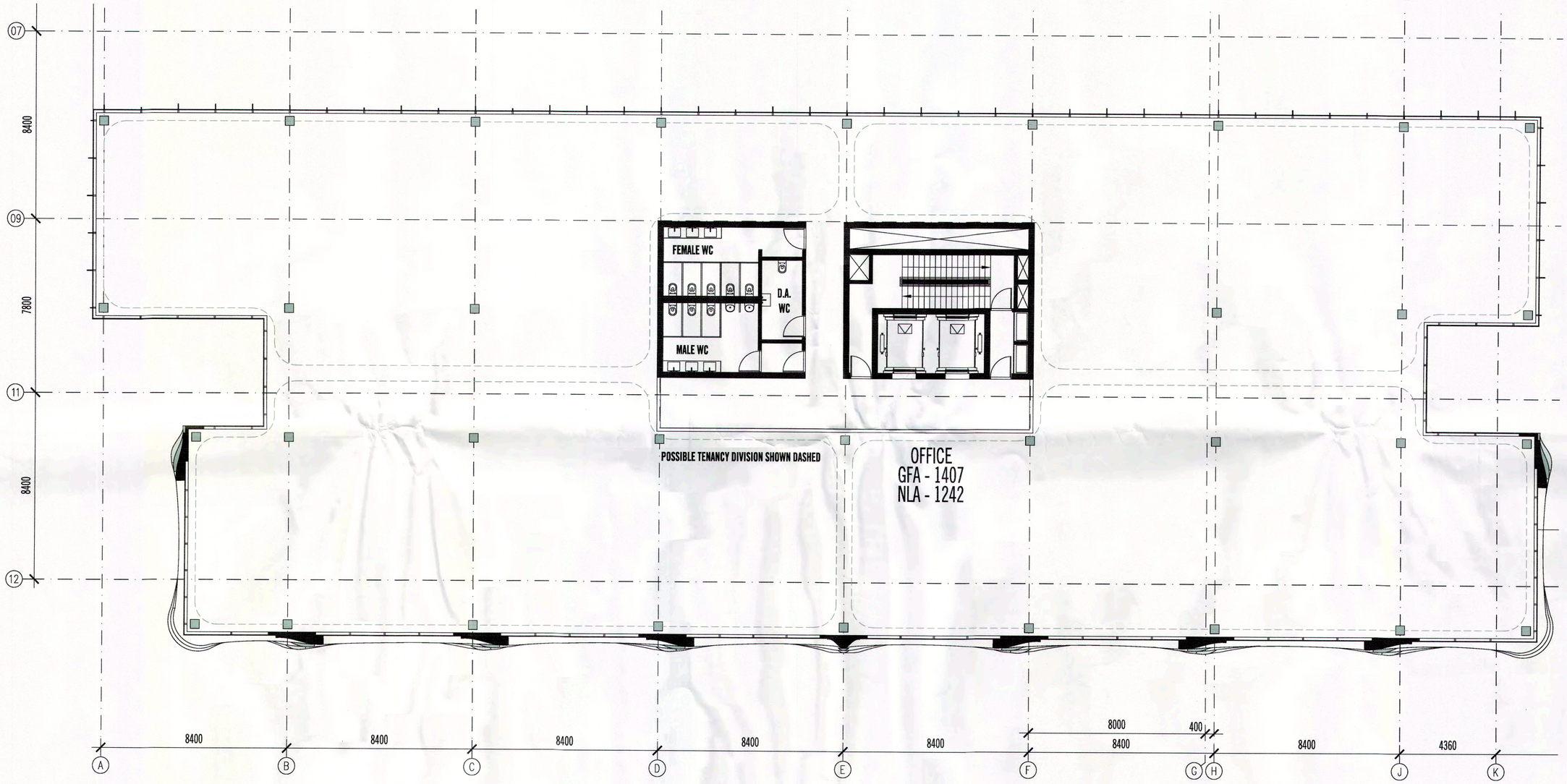

Revisions	Date	Reason for issue	DRAWN BY
A	15.11.12	ISSUED FOR INFORMATION	RAD
B	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAD
C	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD

Revisions	Date	Reason for issue	DRAWN BY

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ABN 97 556 188 726

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LOT 222, STIRLING CROSS
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Drawing Title
BUILDING 03_OFFICE FLOOR PLAN

Project Number
12072

Drawing Number
A310

Drawing Status
TP

Revision
C

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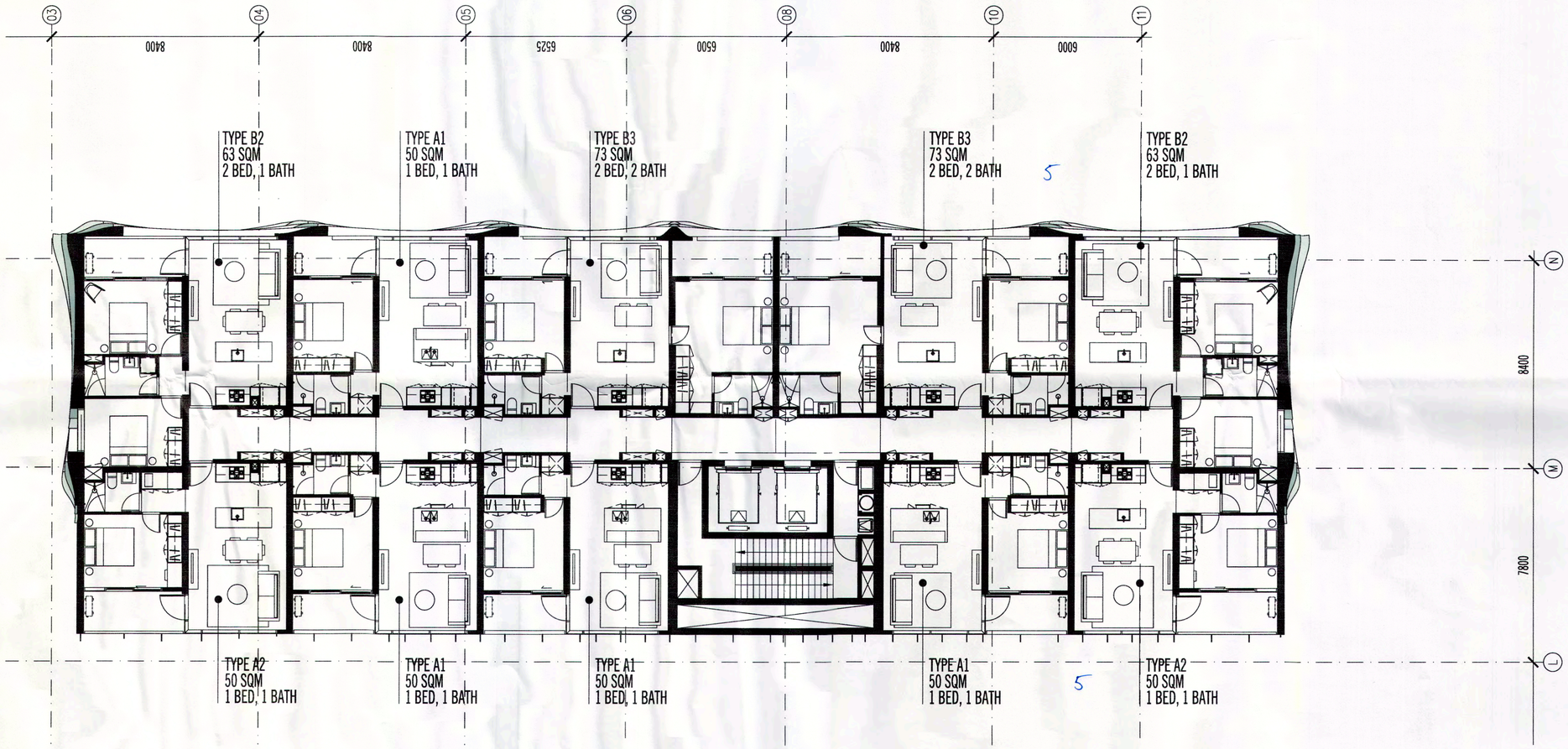
12 DEC 2012



Revisions	Date	Reason for issue	DRAWN BY
A	15.11.12	ISSUED FOR INFORMATION	RAD
B	16.11.12	ISSUED FOR INFORMATION	RAD
C	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD

Revisions	Date	Reason for issue	DRAWN BY

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WWW.ELENBERGFRASER.COM
ABN 97 550 186 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA
Client
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Drawing Title
BUILDING 02
FLOOR PLAN

Project Number	Drawing Number
12072	A305
Drawing Status	Revision
TP	C

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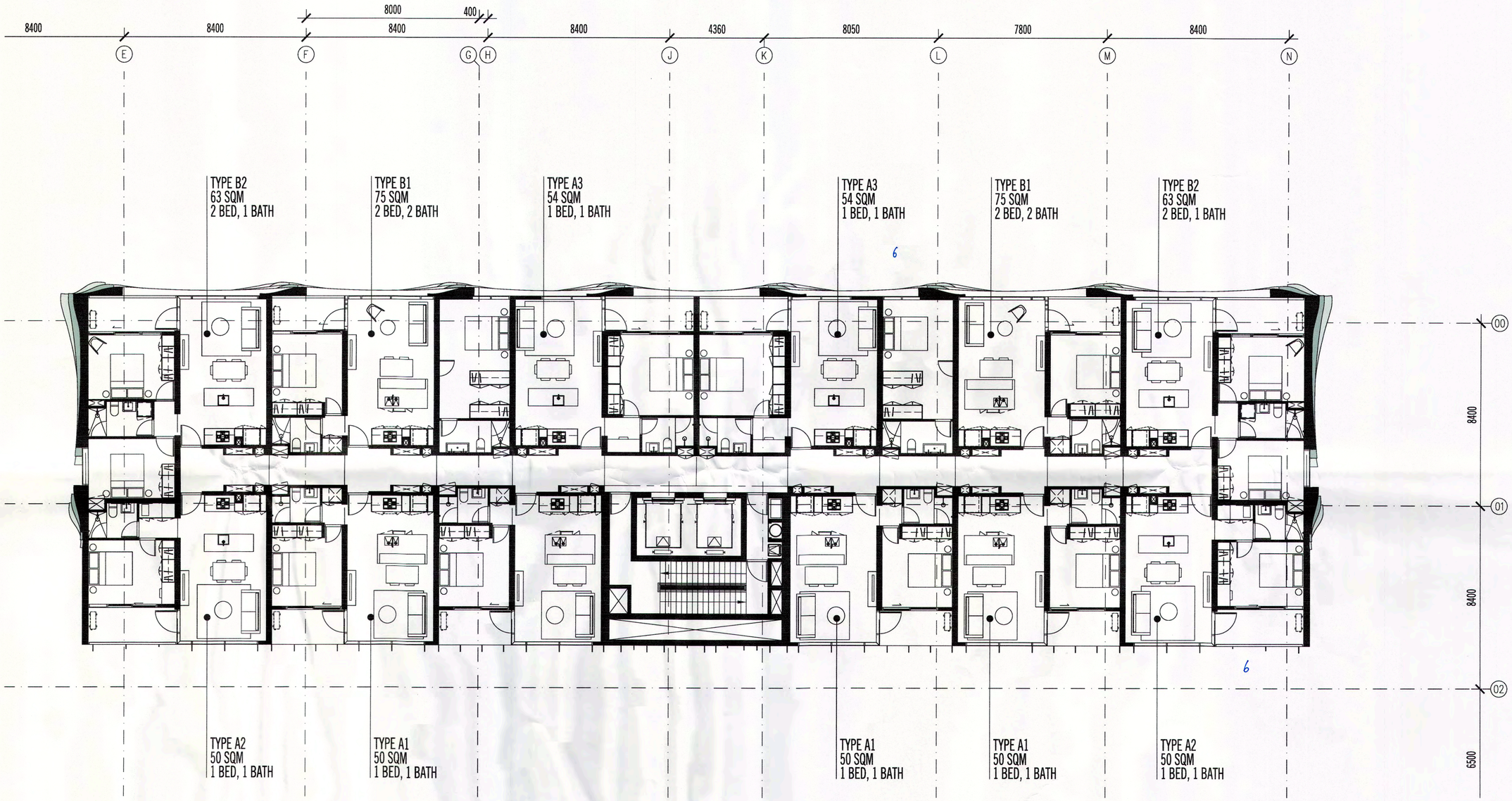

Revisions	Date	Reason for issue	DRAWN BY
A	15.11.12	ISSUED FOR INFORMATION	RAD
B	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAD
C	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD

Revisions	Date	Reason for issue	DRAWN BY

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ABN 97 556 188 726

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LOT 222, STIRLING CROSS
INNALOO, WA
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Drawing Title
BUILDING 01
FLOOR PLAN

Project Number
12072
Drawing Number
A300
Drawing Status
TP
Revision
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MAILROOM

AIRLOCK

CAFE - OUTDOOR
138 SQM

CAFE - INDOOR
264 SQM

LOCKERS

LOCKERS

LOCKERS

LOCKERS

BOH ACCESS

1:8

RAMP
1:5

1:8

WASTE
58 SQM

BOH / KITCHEN
135 SQM

SERVERY
57 SQM

BAR
320 SQM

G.I.T

LOADING
ZONE

DINING/ CONFERENCE ROOMS
331 SQM

Revisions	Date	Reason for issue	DRAWN BY
A	15.11.12	ISSUED FOR INFORMATION	RAD
B	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	JA
C	23.11.12	ISSUED FOR INFORMATION	RAD
D	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD
E	21.01.13	ISSUED FOR INFORMATION: DA 911 SUBMISSION REVIEW	TMO
F	30.01.13	ISSUED FOR INFORMATION: DA 911 SUBMISSION	TMO

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WWW.ELENBERGFRASER.COM
ABN 57 566 188 726

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Drawing Title
CAFE, BAR, RESTAURANT FLOOR PLAN

Project Number
12072

Drawing Number
A250

Drawing Status
TP

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ELLEN STIRLING BOULEVARD

BAUMEA WAY

56.438M

OFFICE FLOOR PLATE ABOVE

AMENITY AND SERVICES

LANDSCAPED TERRACE RL: 8.4

ENCLOSED PLANT AREA

MECH PLANT

HYD. PLANT

AHU

SOLAR SERVICE AREA. NO. TBC

ARCHITECTURAL FEATURE PROJECTED OVER TITLE BOUNDARY

Revisions	Date	Reason for issue	DRAWN BY
A	15.11.12	ISSUED FOR INFORMATION	RAD
B	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAD
C	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD
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TEL +61 3 9600 2250 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 550 180 726

Project Title
LOT 222, STIRLING CROSS
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Client
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Drawing Title
ROOF PLAN

Project Number
12072

Drawing Number
A210

Drawing Status
TP

Revision
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ELLEN STIRLING BOULEVARD

BAUMEA WAY

TYPE B2
63 SQM
2 BED, 1 BATH

TYPE B1
75 SQM
2 BED, 2 BATH

TYPE A3
54 SQM
1 BED, 1 BATH

TYPE A3
54 SQM
1 BED, 1 BATH

TYPE B1
75 SQM
2 BED, 2 BATH

TYPE B2
63 SQM
2 BED, 1 BATH

TYPE A2
50 SQM
1 BED, 1 BATH

TYPE A1
50 SQM
1 BED, 1 BATH

TYPE A1
50 SQM
1 BED, 1 BATH

TYPE A1
50 SQM
1 BED, 1 BATH

TYPE A2
50 SQM
1 BED, 1 BATH

56.438M

OFFICE FLOOR PLATE
RL: VARIES

SOLAR
SERVICE AREA.
NO. TBC

HYD. PLANT

ENCLOSED
PLANT AREA

AHU

MECH
PLANT

AHU

HYD. PLANT

SOLAR
SERVICE AREA.
NO. TBC

MECH
PLANT

ENCLOSED
PLANT AREA

ARCHITECTURAL
FEATURE PROJECTED
OVER TITLE BOUNDARY

ARCHITECTURAL
FEATURE PROJECTED
OVER TITLE BOUNDARY

Revisions	Date	Reason for issue	DRAWN BY
A	15.11.12	ISSUED FOR INFORMATION	RAD
B	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAD
C	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD
D	30.01.13	ISSUED FOR INFORMATION: DA RFI SUBMISSION	TMO

Revisions	Date	Reason for issue	DRAWN BY

SCALE@A1 1:200 SCALE@A3 1:400

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ELENBERG FRASER
LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 556 180 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA
Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
LEVELS 08-09
FLOOR PLAN

Project Number
12072
Drawing Number
A208
Drawing Status
TP
Revision
D

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- 4 FEB 2013

ELLEN STIRLING BOULEVARD

BAUMEA WAY

56.438M

OFFICE FLOOR PLATE
RL: VARIES

TYPE B2
63 SQM
2 BED, 1 BATH

TYPE B1
75 SQM
2 BED, 2 BATH

TYPE A3
54 SQM
1 BED, 1 BATH

TYPE A3
54 SQM
1 BED, 1 BATH

TYPE B1
75 SQM
2 BED, 2 BATH

TYPE B2
63 SQM
2 BED, 1 BATH

TYPE A2
50 SQM
1 BED, 1 BATH

TYPE A1
50 SQM
1 BED, 1 BATH

TYPE A1
50 SQM
1 BED, 1 BATH

TYPE A1
50 SQM
1 BED, 1 BATH

TYPE A2
50 SQM
1 BED, 1 BATH

TYPE A2
50 SQM
1 BED, 1 BATH

TYPE A3
54 SQM
1 BED, 1 BATH

TYPE B1
75 SQM
2 BED, 2 BATH

TYPE B2
63 SQM
2 BED, 1 BATH

TYPE A1
50 SQM
1 BED, 1 BATH

TYPE A3
54 SQM
1 BED, 1 BATH

TYPE B1
75 SQM
2 BED, 2 BATH

TYPE B3
73 SQM
2 BED, 2 BATH

TYPE A1
50 SQM
1 BED, 1 BATH

TYPE A3
54 SQM
1 BED, 1 BATH

TYPE B1
75 SQM
2 BED, 2 BATH

TYPE B3
73 SQM
2 BED, 2 BATH

TYPE A2
50 SQM
1 BED, 1 BATH

TYPE A3
54 SQM
1 BED, 1 BATH

TYPE B1
75 SQM
2 BED, 2 BATH

TYPE B2
63 SQM
2 BED, 1 BATH

AHU

HYD. PLANT

SOLAR
SERVICE AREA.
NO. TBC

MECH
PLANT

ENCLOSED
PLANT AREA

ARCHITECTURAL
FEATURE PROJECTED
OVER TITLE BOUNDARY

Revisions	Date	Reason for issue	DRAWN BY
A	15.11.12	ISSUED FOR INFORMATION	RAD
B	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAD
C	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD
D	30.01.13	ISSUED FOR INFORMATION: DA RFI SUBMISSION	TMD

Revisions	Date	Reason for issue	DRAWN BY

SCALE@A1 1:200 SCALE@A3 1:400

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LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2250 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 57 556 188 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
LEVELS 06-07
FLOOR PLAN

Project Number
12072

Drawing Number
A206

Drawing Status
TP

Revision
D

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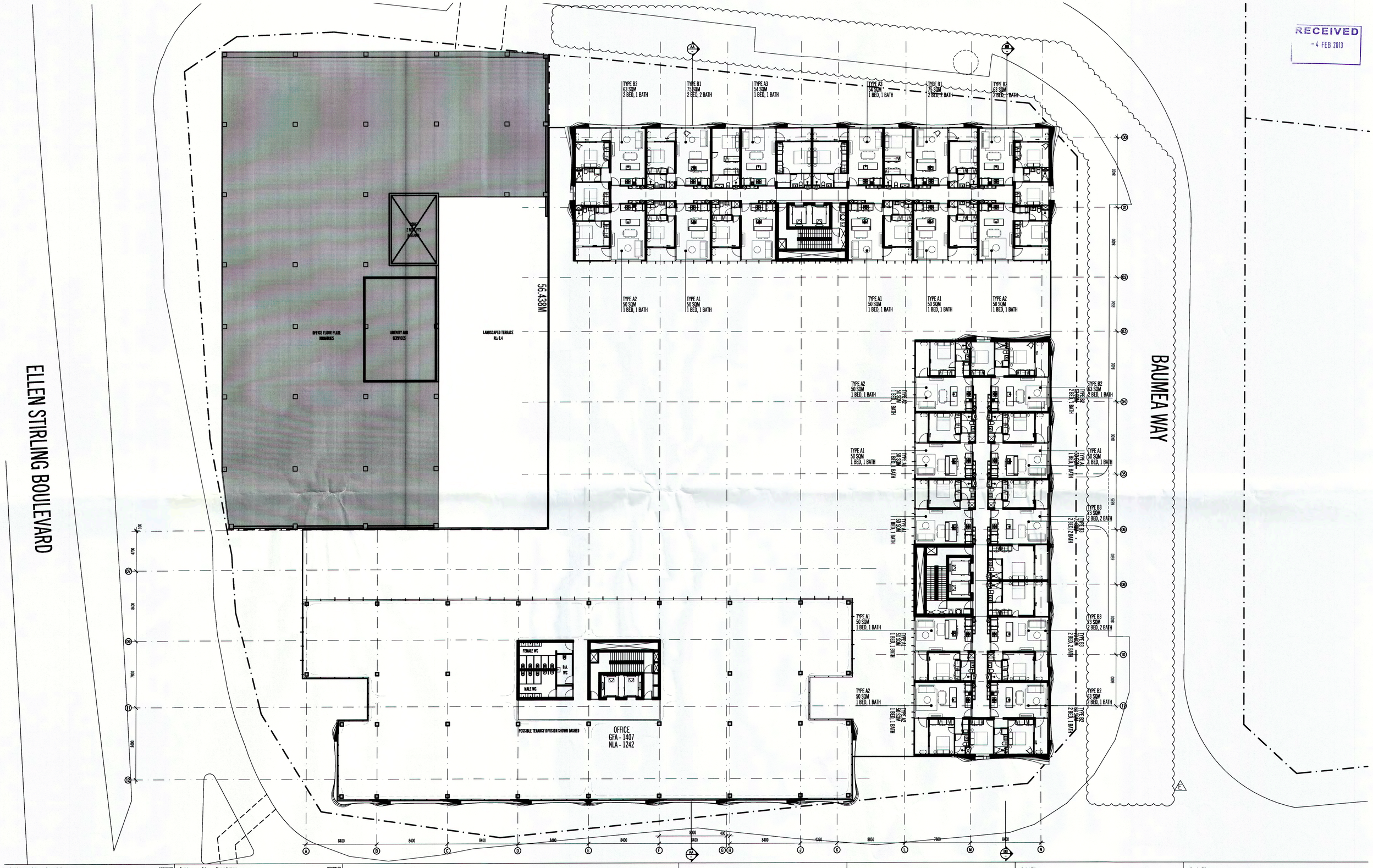

Revisions	Date	Reason for issue	DRAWN BY
A	05.11.12	ISSUED FOR INFORMATION	RAD
B	15.11.12	ISSUED FOR INFORMATION	RAD
C	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAD
D	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD
E	30.01.13	ISSUED FOR INFORMATION: DA RFI SUBMISSION	TMO

Revisions	Date	Reason for issue	DRAWN BY

SCALE@A1 1:200 SCALE@A3 1:400

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VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 556 188 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
LEVELS 03-05
FLOOR PLAN

Project Number
12072

Drawing Number
A203

Drawing Status
TP

Revision
E

RECEIVED
05 MAR 2013

ELLEN STIRLING BOULEVARD

BAUMEA WAY

OFFICE FLOOR PLATE
RL: VARIES

56.438M

TYPE B2
63 SQM
2 BED, 1 BATH

TYPE B1
75SQM
2 BED, 2 BATH

TYPE A3
54 SQM
1 BED, 1 BATH

TYPE A3
54 SQM
1 BED, 1 BATH

TYPE B1
75 SQM
2 BED, 2 BATH

TYPE B2
63 SQM
2 BED, 1 BATH

COMMUNAL
KITCHEN / BAR

TYPE A2
50 SQM
1 BED, 1 BATH

TYPE A1
50 SQM
1 BED, 1 BATH

TYPE A1
50 SQM
1 BED, 1 BATH

TYPE A2
50 SQM
1 BED, 1 BATH

GARDEN PODIUM TOP
RL: 20.50
REFER PLACE LABORATORY
LANDSCAPE DESIGN FOR DETAIL

TYPE A2
50 SQM
1 BED, 1 BATH

TYPE A1
50 SQM
1 BED, 1 BATH

TYPE B2
63 SQM
2 BED, 1 BATH

TYPE A1
50 SQM
1 BED, 1 BATH

TYPE B3
73 SQM
2 BED, 2 BATH

COMMUNAL
KITCHEN / BAR

TYPE B3
73 SQM
2 BED, 2 BATH

TYPE A1
50 SQM
1 BED, 1 BATH

TYPE A2
50 SQM
1 BED, 1 BATH

TYPE B2
63 SQM
2 BED, 1 BATH

FEMALE WC

MALE WC

POSSIBLE TENANCY DIVISION SHOWN DASHED

OFFICE
GFA - 1445
NLA - 1276

8400 8400 8400 8400 8400 8400 8400 4360 8050 7800 8400

Revisions	Date	Reason for Issue	DRAWN BY
A	09.10.12	ISSUED FOR INFORMATION	RAD
B	05.11.12	ISSUED FOR INFORMATION	RAD
C	15.11.12	ISSUED FOR INFORMATION	RAD
D	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAD
E	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION_DRAFT	RAD
F	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD
G	30.01.13	ISSUED FOR INFORMATION. DA RFI SUBMISSION	TMO
H	01.03.13	ISSUED FOR INFORMATION. DA RFI SUBMISSION	CGM

SCALE@A1 1:200 SCALE@A3 1:400

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LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 554 100 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
LEVEL 02
FLOOR PLAN

Project Number
12072

Drawing Number
A202

Drawing Status
TP

Revision
H

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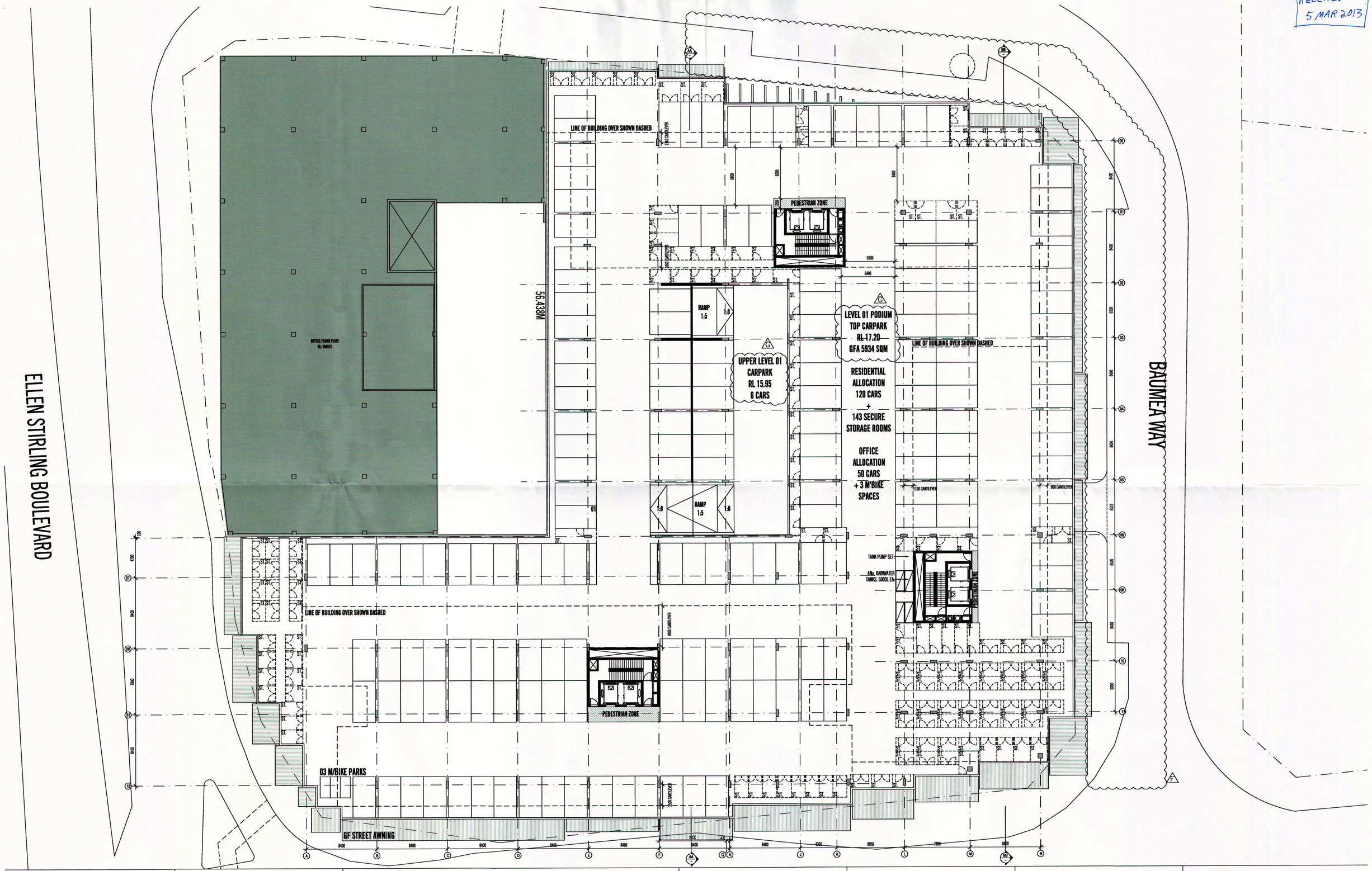
5 MAR 2013



Revisions	Date	Reason for issue	DRAWN BY
A	09.10.12	ISSUED FOR INFORMATION	RAD
B	05.11.12	ISSUED FOR INFORMATION	RAD
C	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAD
D	23.11.12	ISSUED FOR INFORMATION	RAD
E	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD
F	30.01.13	ISSUED FOR INFORMATION: DA RFI SUBMISSION	TMO
G	01.03.13	ISSUED FOR INFORMATION: DA RFI SUBMISSION	CGM

SCALE@A1 1:200 SCALE@A3 1:400

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VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 556 188 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
LEVEL 01_PODIUM TOP CARPARK FLOOR PLAN

Project Number: **12072**
Drawing Number: **A201**
Drawing Status: **TP**
Revision: **G**

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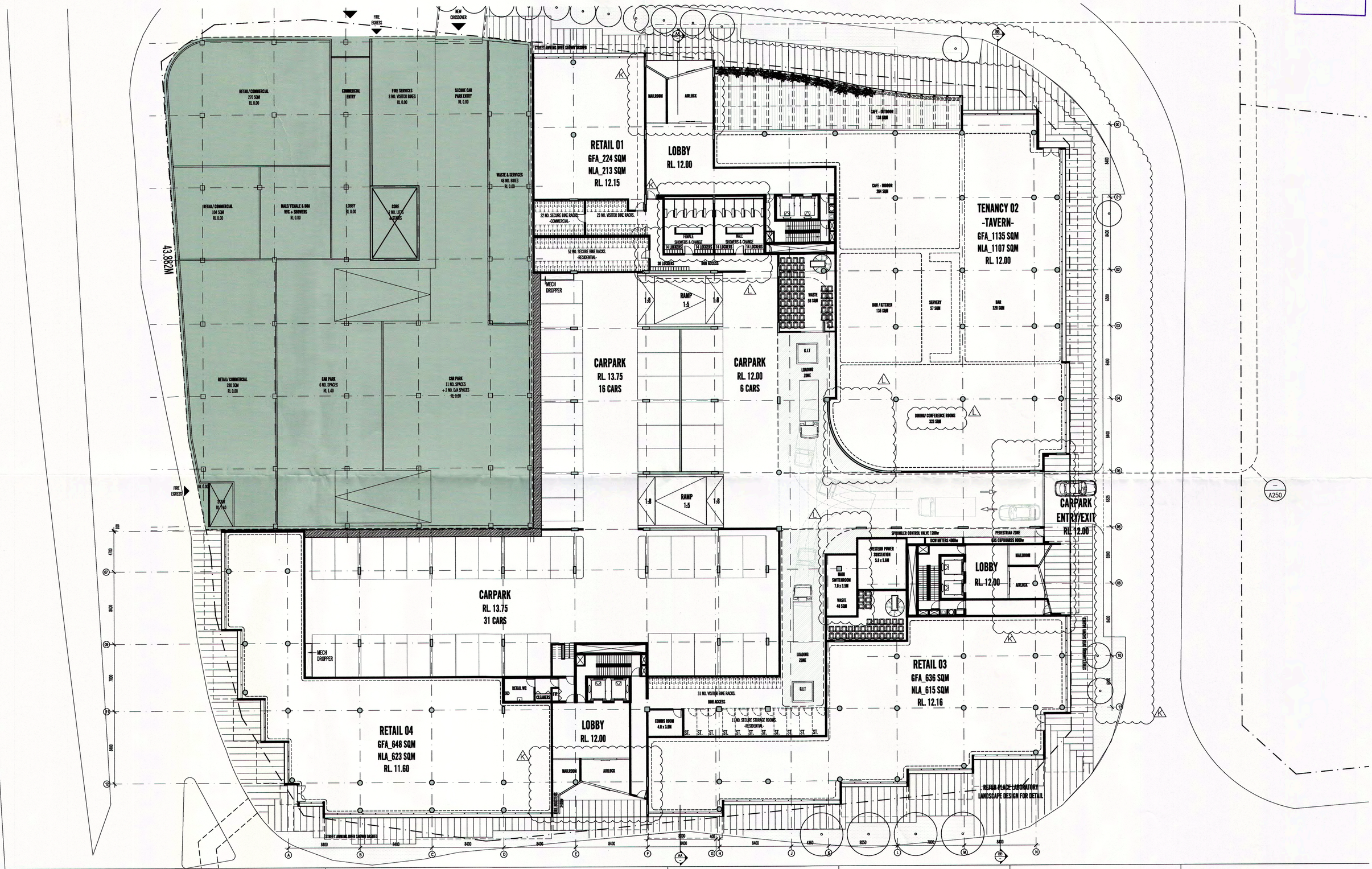
05 MAR 2013



Revisions	Date	Reason for issue	DRAWN BY
A	09.10.12	ISSUED FOR INFORMATION	RAD
B	05.11.12	ISSUED FOR INFORMATION	RAD
C	15.11.12	ISSUED FOR INFORMATION	RAD
D	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAD
E	23.11.12	ISSUED FOR INFORMATION	RAD
F	05.12.12	ISSUED FOR INFORMATION; CITY WASTE REVIEW	RAD
G	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION_DRAFT	RAD
H	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD
I		NOT IN USE	RAD
J	21.01.13	ISSUED FOR INFORMATION; DA RFI SUBMISSION REVIEW	RAD
K	30.01.13	ISSUED FOR INFORMATION; DA RFI SUBMISSION	TWO
L	01.03.13	ISSUED FOR INFORMATION; DA RFI SUBMISSION	COM

Revisions	Date	Reason for issue	DRAWN BY

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VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 556 180 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
GROUND LEVEL FLOOR PLAN

Project Number **12072**

Drawing Number **A200**

Drawing Status **TP**

Revision **L**

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- 4 FEB 2013

LINE OF GROUND FLOOR OVER SHOWN DASHED

43.382M

RETENTION ZONE

MECH DROPPER

RAMP 1:5

1:8

1:8

CARPARK
RL: -11.0 - 10 CARS

RETENTION ZONE

RAMP OVER

CARPARK
RL: -11.0 - 25 CARS

TYP. WATER SOAK WELLS 1800dia. 1290d No. TBC

FIRE SERVICES SUPPLY TANK -200kl 10.5 x 9.5m x 2.0h

PCGBOTTOM ZONE

MECH DROPPER

GF ACCESS

FIRE PUMP ROOM 4.6 x 2.7m

DOMESTIC CW STORAGE. 6 x 5m x 1.8h

LINE OF GROUND FLOOR OVER SHOWN DASHED

Revisions	Date	Reason for issue	DRAWN BY
A	05.11.12	ISSUED FOR INFORMATION	RAD
B	15.11.12	ISSUED FOR INFORMATION	RAD
C	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAD
D	23.11.12	ISSUED FOR INFORMATION	RAD
E	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD
F	30.01.13	ISSUED FOR INFORMATION: DA RFI SUBMISSION	TMD

Revisions	Date	Reason for issue	DRAWN BY

SCALE@A1 1:200 SCALE@A3 1:400

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TEL +61 3 9600 2260 FAX +61 3 9600 2266
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WWW.ELENBERGFRASER.COM
ABN 97 556 189 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
LOWER GROUND FLOOR PLAN

Project Number
12072

Drawing Number
A100

Drawing Status
TP

Revision
F

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PLACE

TBM
NAIL IN BRICK
PAVING
RL:11.92m

11.58M
7.472M
43.882M
56.438M
56.438
38.318M
38.318
57.378
TITLE BOUNDARY
84°44'53"
concrete
11.58M
footpath
brick paved
approx sewer location
137°57'34"
8.5M
8.5
20.707
BAUMEA WAY
222
6543m²
vacant
sandy surface
ELLEN
STIRLING BOULEVARD
13.827M
3.014
186°39'16"
6.908M
6.908
169°44'28"
12.336
12.33M
162°10'
13.45
13.45M
130°23
21.52
21.52M
166°12'
63.075
63.075M
137°49'30"
8.5M
8.5
72.017
67.926M
67.926
brick
concrete
island
traffic
pole
TBM

DATE:	SURVEYED:
19/09/2012	D.R.D.
SURVYD 13/09/2012	DRAWN: D.R.D.
DATUM: AMG'84 FROM SSM SCA87 RL: 15.269m AHD	CHECKED

Revisions	Date	Reason for issue	DRAWN BY
A	15.11.12	ISSUED FOR INFORMATION	RAD
B	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAD
C	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD
D	30.01.13	ISSUED FOR INFORMATION: DA RFI SUBMISSION	TMO

SCALE@A1 1:200 SCALE@A3 1:400

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LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 156 180 776

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA
Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
TITLE PLAN & SITE SURVEY

Project Number: **12072**
Drawing Number: **A003**
Drawing Status: **TP**
Revision: **D**

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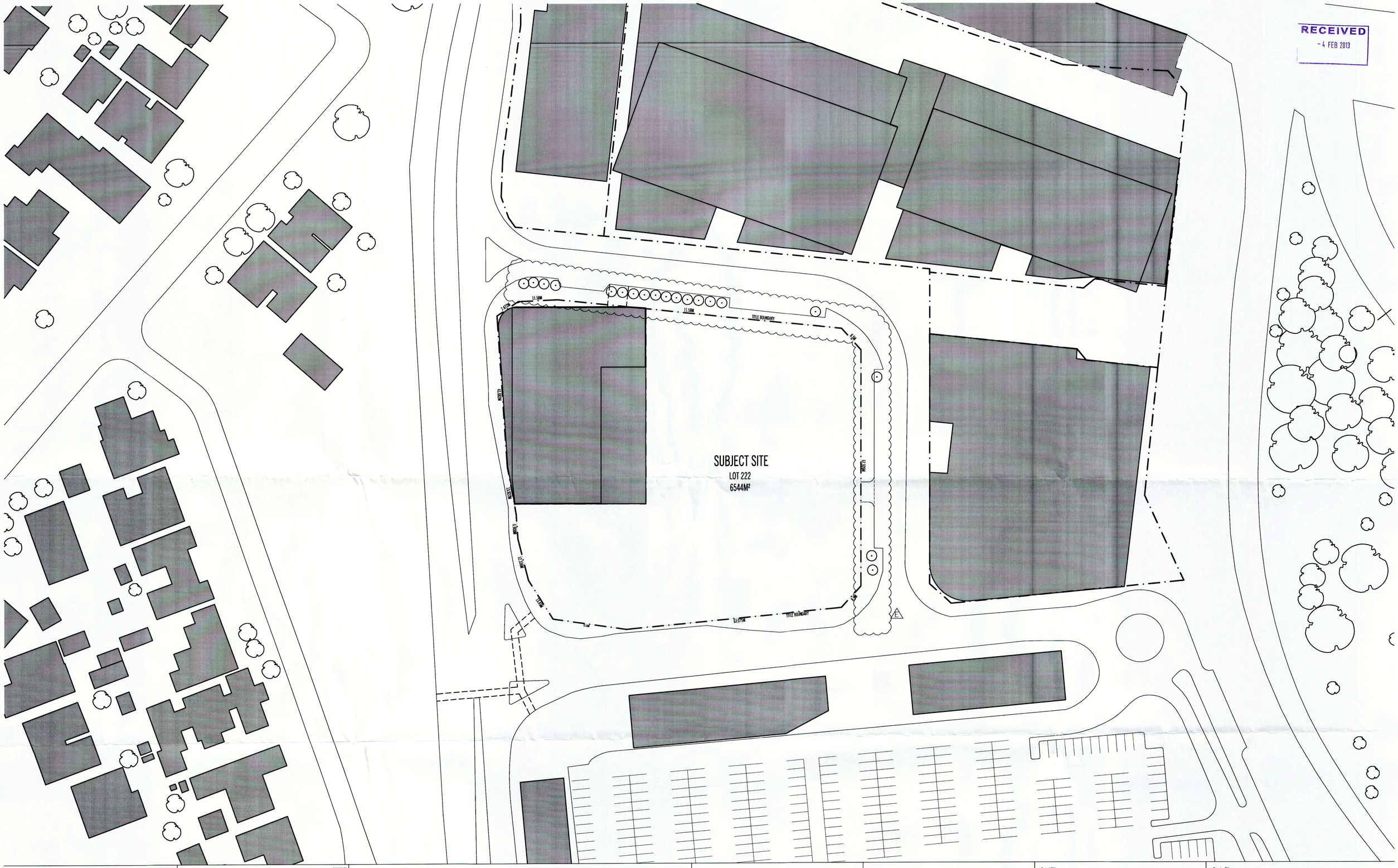

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C	23.11.12	ISSUED FOR INFORMATION	TMO
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E	30.01.13	ISSUED FOR INFORMATION: DA RFI SUBMISSION	TMO

Revisions	Date	Reason for issue	DRAWN BY

SCALE@A1 1:500 SCALE@A3 1:1000

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TEL +61 3 9600 2250 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 556 188 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
SITE PLAN

Project Number
12072

Drawing Number
A002

Drawing Status
TP

Revision
E



City of Stirling
City of Choice

Scale - 1:1893

Projection - MGA Zone 50 (GDA 94)

N

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6473149.13mN

6473149.04mN

373138.95mE

391139mE

INDIAN OCEAN

WATERWAYS RESERVATION EXTENDS TO THE WESTERN BOUNDARY OF THE METROPOLITAN REGION SCHEME.

Bennion Beach
Trigg Beach
South Trigg Beach
Scarborough Beach
Brighton Beach
Floreat Beach
City Beach
Swanbourne Beach

TRIGG
KARRINYUP
GWELUP
LAKE GWELUP
STIRLING
NOLLAMARA
BALCATTA
DOUBLEVIEW
SCARBOROUGH
INNALOO
TUART HILL
OSBORNE PARK
WOODLANDS
JOONDANNA
WEMBLEY DOWNS
HERDSMAN
HERDSMAN LAKE
CHURCHLANDS
MT. HAWTHORN
LAKE MONGER
CITY BEACH
FLOREAT
WEMBLEY
LEEDERVILLE
Subiaco Redevelopment Area
West Leederville
PERRY LAKES
Perry Lakes Redevelopment Area
JOLIMONT
DAGLISH
SUBIACO
WEST PERTH
MT CLAREMONT
SHENTON PARK
SWANBOURNE
LAKE CLAREMONT
KARRAKATTA
NEDLANDS
COTTESLOE
CRAWLEY
Matilda Bay
SWAN RIVER
Mill Point
Quarry Point

6460649.02mN

6460648.97mN

391138.98mE

373138.84mE

Legend

scheme boundary

Reserved lands

- parks and recreation
- restricted public access
- railways
- port installations
- State forests
- water catchments
- civic and cultural
- waterways
- primary regional roads
- other regional roads
- public purposes - denoted as follows:

H	hospital
HS	high school
TS	technical school
CP	car park
U	university
CG	Commonwealth Government
SEC	State Energy Commission
SU	special uses
WSD	Water Authority of WA
P	prison

Zones

- urban
- urban deferred
- central city area
- industrial
- special industrial
- rural
- rural - water protection
- private recreation

Notice of delegation

- bush forever area

Redevelopment schemes

- redevelopment scheme/act area

METROPOLITAN REGION SCHEME

This map has been derived from an electronic version of the scheme held and maintained by the Department of Planning, on behalf of the Western Australian Planning Commission.

This map is one of a set of 38 which depicts the zones and reservations of the Metropolitan Region Scheme as adopted on 30 October 1963. The information shown is correct up to the date shown below as far as the Department and the Commission are aware.

The scheme does not purport to indicate the land use allocation under any local government provision.

Amended to: 23 March 2012

N

METROPOLITAN REGION SCHEME MAP
1:25000 MAP SERIES

MAP SHEET 15

METROPOLITAN REGION SCHEME MAP

SCALE 1:25000

1000 750 500 250 0 1 2
metres Kilometres

INDEX TO ADJOINING 1:25000 MAP SHEETS

1	2			
3	4	5	6	
7	8	9	10	
11	12	13	14	
15	16	17	18	
19	20	21	22	
23	24	25	26	
27	28	29	30	
31	32	33	34	
35	36	37	38	

PRODUCED.....Under the direction of the Manager, Mapping and Geospatial Data Branch, Department of Planning, Perth, Western Australia

CADASTRAL.....Generated from Landgate Spatial Cadastral Data (SCD)

PROJECTION.....Universal Transverse Mercator

HORIZONTAL DATUM... Geocentric Datum of Australia 1994

GRID VALUES.....Shown in full for map sheet corners only (map sheets do not conform to standard MGA (GDA) map series)

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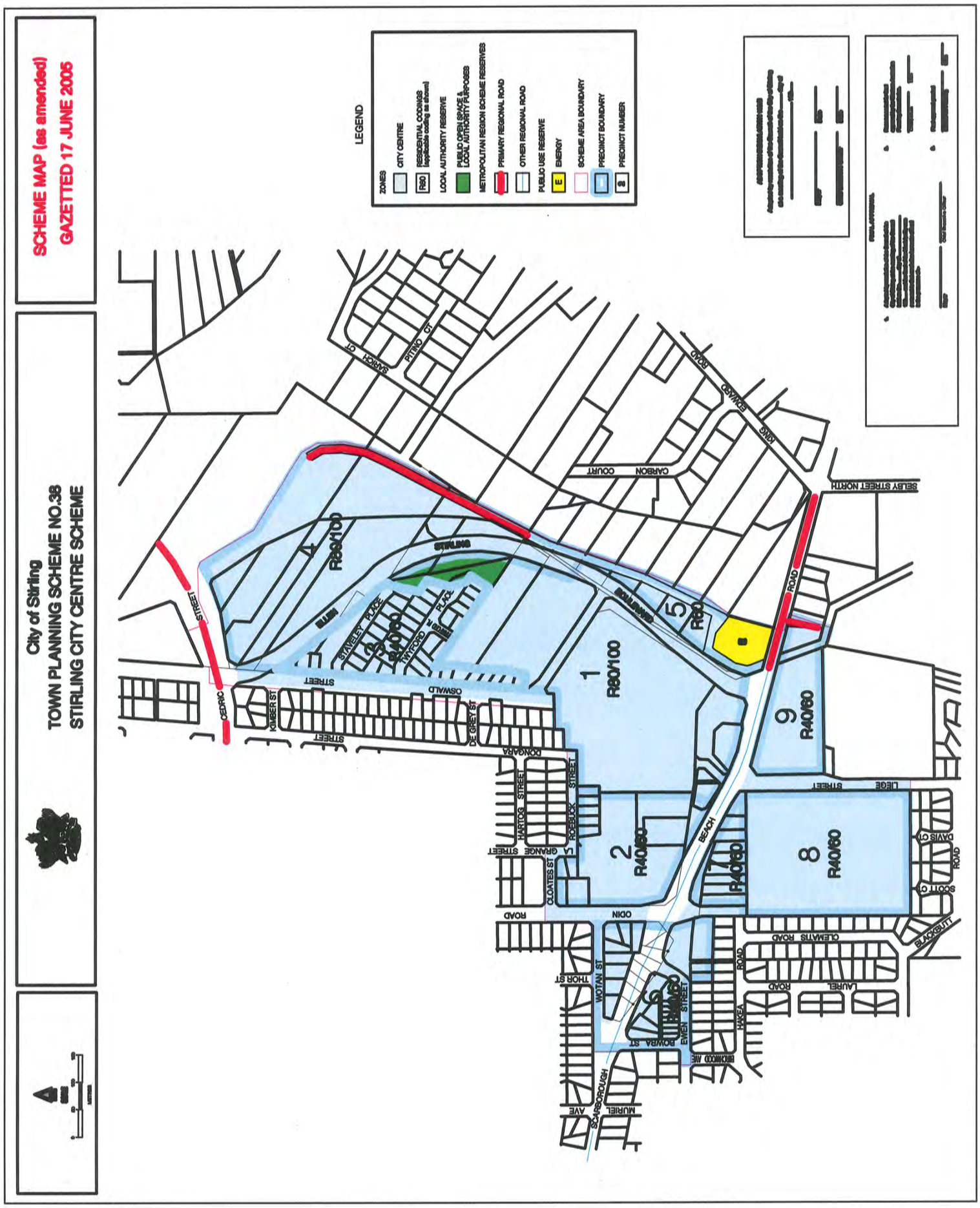
City of Stirling

TOWN PLANNING SCHEME NO.38

STIRLING CITY CENTRE SCHEME

SCHEME MAP (as amended)

GAZETTED 17 JUNE 2005



MEMORANDUM
DEVELOPMENT APPLICATION REFERRAL

TO:	Daniel Martinovich
FROM:	Stephen Kovacs
DATE:	19 February 2013
PROPOSAL:	Mixed Use Development
DA REFERENCE:	DA12/3095
LOCATION:	Lot 222, No.1 Sunray Drive, Innaloo
ZONING (TPS38):	Precinct 4 – Mixed Use, Office and Entertainment Precinct
ZONING (SCCSP):	Station Precinct – Mixed Use

COMMENTS & RECOMMENDATIONS:

Building Heights

- Proposal is for a 6 storey office building and a 10 storey and an 8 storey building incorporating 154 apartments, retail tenancies and car parks;
- Amendment No. 1 LPS 3 identifies heights between 5 and 20 storeys in the Station Precinct;
- Draft Concept Plan identified heights of up to 20 storeys for this site; and
- 10 storeys is supported on this site.

Land Uses

- Proposal is for residential and office uses over three separate buildings with three floors of parking and retail uses and a tavern on the ground floor;
- The developments will front Ellen Stirling Boulevard, Tassels Place, Baumea Way and half of Sunray Drive;
- Amendment No. 1 and draft Structure Plan identified mixed use in the Station precinct with residential;
- Draft Concept Plan identified retail, office and residential on this site
- Yield analysis identified a minimum of 51 dwellings on the subject site;
- All the proposed land uses are supported on the site;

Parking

- Proposal is for a total of 272 parking bays;
- TPS38 identifies a minimum of 494 bays for the proposed development;
- The draft Structure Plan and Parking Strategy identify:
  - a maximum of 130 parking bays for this site, given a max 200 bays per hectare; and
  - that the majority of parking should be for short term public parking;
- Given that the site is next to the Stirling Train Station and that the provision of new road and public transport links has not been delivered the amount of parking being proposed is supported as it is between the existing Scheme and the proposed Scheme; and
- Inclusion of a condition requiring a legal agreement to ensure that 60% of the parking provided is for short term public parking, once the new Stephenson Avenue is constructed, to ensure that long term office parking is limited to ensure road capacity is not exceeded.

Landscaping and Lighting

- Proposal identifies new paving at the entry point along the Tassels Place;
- The proposal does not indicate whether or not there is lighting underneath the awning, at entry points or architectural lighting;
- Stirling Alliance is currently undertaking a Landscaping Strategy for the entire Structure Plan area, the Alliance and the applicant have agreed to work collaboratively on landscaping prior to construction; and

- Inclusion of a condition requiring the submission of a landscaping plan prior to construction of building; and
- Inclusion of a condition requiring lighting under all awnings, at entry points and architectural lighting of the building.

Design Issues

- The following design issues have been identified with the proposal:
  - A continuous awning (min 2.5m wide and max 3.5m high) is required along Ellen Stirling Boulevard, Tassels Place, Baumea Way and Sunray Drive frontages (with the exception of the area in front of the proposed outdoor café) of the building to ensure continuous weather protection from rain and summer sun;
  - No indication of signage panels.

Environmental & Geotechnical Issues

- Proposal is built over the future Stirling Link Tunnel which is to provide a link between the Mitchell Fwy and the Stephenson Hwy reservation south of Jon Sanders Drive, the future Tunnel requires a particular building foundation as outlined in the BG&E report commissioned by Main Roads.
- Inclusion of a condition requiring all storm water is harvested on site;
- Inclusion of advice requesting renewable energy on roof space if possible to meet the Stirling alliance min target for renewable energy of 20%;
- Inclusion of a condition requiring the development to use conventional spread footings supporting 6.0max spaced centre to centre building columns founded in soil with an assumed load bearing pressure between 160kPa to 200kPA so as to not interfere with a future tunnel under the site (which would be constructed a min 13.0m below the surface of the site).

The proposal is **supported**.

Yours sincerely

John Humphreys
Manager Planning & Sustainability

TOWN PLANNING
AND URBAN DESIGN

LOT 222 (NO.1) SUNRAY DRIVE, INNALOO

Proposed Mixed Use Development

713-128
December 2012

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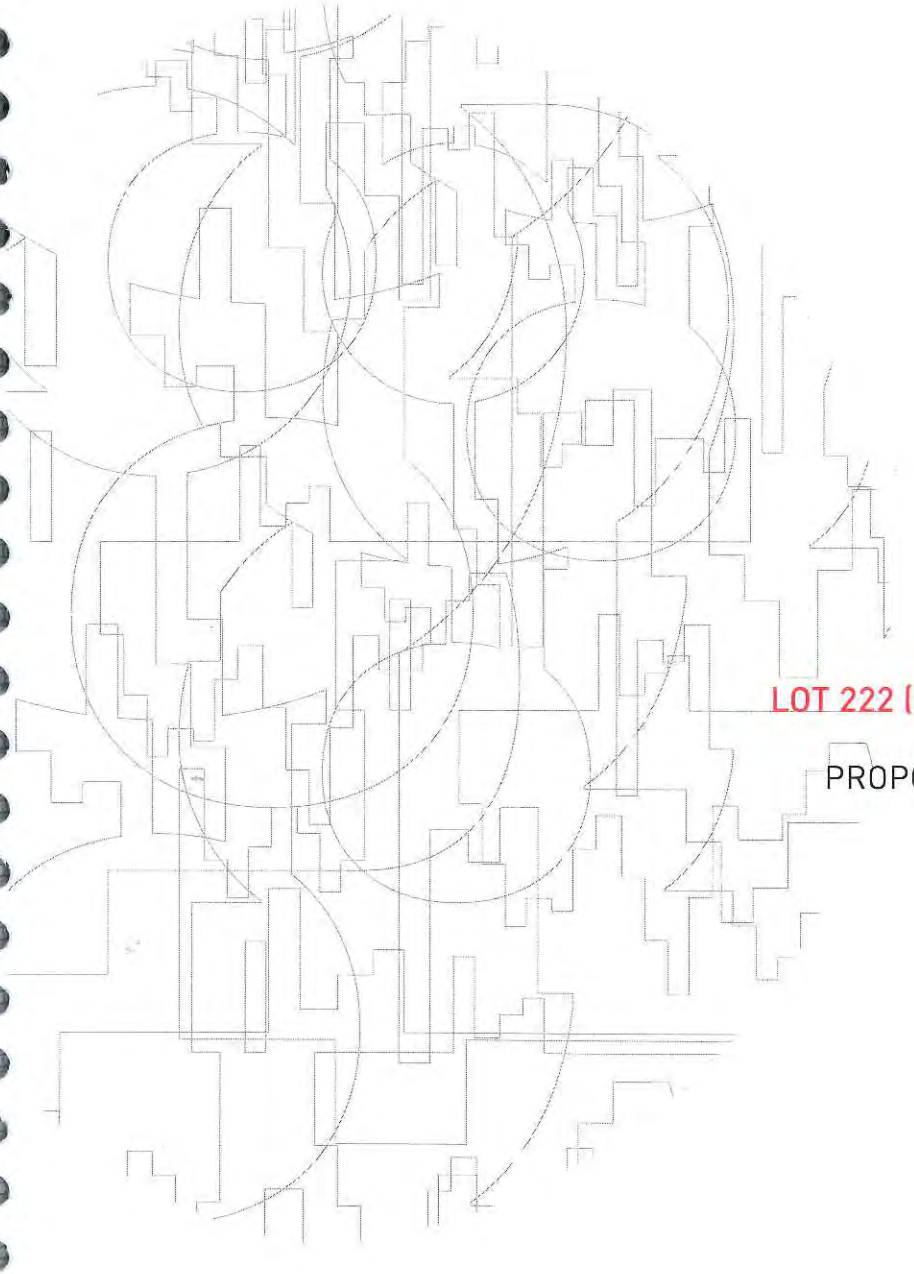
TOWN PLANNING
URBAN DESIGN AND HERITAGE



LOT 222 (NO.1) SUNRAY DRIVE, INNALOO

PROPOSED MIXED USE DEVELOPMENT

713-128
DECEMBER 2012

perth
sydney

DOCUMENT CONTROL

Document ID: PLANNING/PG 2013/713-128/Final Documents/Lodged/Innaloo Lot 222 Sunray Drive DA 11.12.12						
Issue	Date	Status	Prepared by		Approved by	
			Name	Initials	Name	Initials
1	10.12.12	Draft	Bronwyn Slater		Peter Simpson	
2	11.12.12	Final	Bronwyn Slater	BS.	Peter Simpson	PS

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EXECUTIVE SUMMARY

TPG Town Planning, Urban Design and Heritage (TPG) has prepared this report in support of a Development Application for a mixed-use development comprising 154 multiple dwellings, office floorspace, shop and cafe/ restaurant/tavern uses. The subject site is located at Lot 222 Sunray Drive, Innaloo.

The development involves the following key elements:

- 154 multiple dwellings across the ten and eight storey buildings.
- 5959m² GFA of office space over four storeys.
- 1451m² of retail floor space at ground level fronting Sunray Drive, Baumea Way and Tassels Place.
- A 1107m² tavern at ground level including a bar, café, kitchen and conference rooms.
- Three levels of car parking that incorporate 272 car bays, 3 motorcycle bays, 128 bicycle bays and end of trip facilities.

This report provides details of the proposed development and a planning assessment that addresses all relevant statutory compliance, policy requirements and planning merit considerations.

The proposed development:

- Provides a mix of uses, including high density residential development within an Activity Centre, close to accessible public transport.
- Is located with good access to a variety of public transport services and complies with the provisions of Western Australian Planning Commission (WAPC) Development Control Policy 1.6 (Planning to Support Transit Use and Transit Oriented Development).
- Is identified in Directions 2031 as being within the 'Central Sub-Region' and specifically the Stirling Strategic Metropolitan Centre Transit Oriented Development, where increased employment opportunities should be promoted.
- Provides an alternative to the current supply of low-density housing in the surrounding areas.
- Satisfies the intent of Town Planning Scheme No. 38, which strongly encourages the incorporation of employment and residential components in developments within the Scheme Area.
- Is substantially consistent with the provisions of Town Planning Scheme No. 38, for land within Precinct 4: Mixed Use, Office and Entertainment Precinct.

- Is seen as consistent with the aims of the Stirling City Centre Alliance Structure Plan, as it provides significant employment and residential development within the Stirling train station's 800 metre walkable catchment area.

The subject site is zoned City Centre under Town Planning Scheme No. 38 and is also located within a Clause 32 area under the Metropolitan Region Scheme. Consequently the JDAP determination will require approval under TPS38 and the MRS.

The proposed development requires approval from the Metropolitan North-West Joint Development Assessment Panel (JDAP) as the estimated cost of the development exceeds $7 million.

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INTRODUCTION

This report has been prepared by TPG Town Planning, Urban Design and Heritage on behalf of Fabray Pty Ltd in support of a Development Application for a mixed-use development comprising 154 multiple dwellings, office floorspace, shop and cafe/restaurant/tavern uses. The subject site is located at Lot 222 Sunray Drive, Innaloo.

The development involves the following key elements:

- 154 multiple dwellings across the ten and eight storey buildings.
- 5959m² GFA of office space over four storeys.
- 1451m² of shop floor space at ground level fronting Sunray Drive, Baumea Way and Tassels Place.
- 1107m² of tavern floor space at ground level including a bar, café, kitchen and conference rooms.
- Three levels of car parking that incorporate 272 car bays, 3 motorcycle bays, 128 bicycle bays and end of trip facilities.

This report provides details of the proposed development and a planning assessment that addresses all relevant statutory compliance, policy requirements and planning merit considerations.

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BACKGROUND

Town Planning Scheme No. 38 (Stirling City Centre Scheme) was gazetted on 18 July 1997 with the objective of facilitating diverse land uses within the Scheme Area through a wide range of residential, business and leisure development opportunities.

The Scheme covers the portion of Innaloo generally bounded by Scarborough Beach Road, Bowra Avenue, Oswald Street, Cedric Street and Stephenson Highway reserve.

The Scheme provides a number of major capital and infrastructure works (Scheme Works) to be carried out which are to be funded from contributions by landowners within the Scheme Area in the form of General Scheme Costs and Precinct Scheme Costs contributions.

In September 2005, under the provisions of Town Planning Scheme No. 38 (TPS38), an Outline Development Plan (ODP) was approved by the City to guide future subdivision and development of the area. The WAPC endorsed the final ODP in October 2005.

The subdivision of the site was approved by the WAPC in October 2005 and included a number of easements for drainage and pedestrian access and a notification relating to the adjoining Class 'P' fill area.

The Stirling Alliance was formed in 2005 for the purposes of reviewing the existing Structure Plan for the City Centre and investigating alternative means by which objectives of the Structure Plan could be implemented.

The subject site was prepared for development in 2006 in association with the IKEA development. The site has remained vacant pending improved economic conditions subsequent to the global financial crisis (GFC).

In June 2011, the Stirling Alliance released a new Structure Plan that was advertised for public comment. This plan has not yet received final approval as the underlying zoning does not support the provisions of a Structure Plan. It is understood, however, that during the assessment of this Development Application, the draft Stirling City Centre Structure Plan (SCCSP) will be considered.

The City adopted Amendment No. 1 to Town Planning Scheme No. 3 (TPS3) on 10 July 2012. This Amendment is currently being reviewed by the WAPC. Amendment No.1 seeks to revoke TPS38 and include the area within TPS3 as a Special Control Area, thereby allowing the City and the WAPC to adopt the draft Structure Plan referred to above. The amendment requires that development comply with an approved structure plan and a detailed area plan.

As Amendment No.1 has not yet been formally gazetted, this Development Application has been lodged in accordance with the provisions of TPS38.

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SUBJECT SITE

The subject site comprises Lot 222 (No. 1) Sunray Drive, Innaloo and is owned by Fabray Pty Ltd.

Refer to Figure 1 - Location Plan

The subject site is 6,543m² in area and adjoins Lot 221 (No.2) Tassels Place to the west. Lot 222 is bound by Sunray Drive to the south, Baumea Way to the east, Tassels Place to the north, and Lot 221 and Ellen Stirling Boulevard to the west. Excluding Lot 221 (2400m² in area), the site is generally square in shape, and has a frontage to Sunray Drive of approximately 85 metres, to Baumea Way of approximately 68 metres, to Tassels Place of approximately 57 metres, and to Ellen Stirling Boulevard of approximately 33 metres.

Refer to Figure 2 - Site Plan

The following table provides the property details of the subject land:

Lot	Street	Volume/ Folio	Deposited Plan	Area	Registered Proprietor
Lot 222	Sunray Drive	2688/791	58517	6,543m²	Fabray Pty Ltd

Refer to Appendix A - Certificates of Title

There are a number of easements and other encumbrances on the subject site:

- A restrictive covenant to City of Stirling, restricting vehicle access to Ellen Stirling Boulevard from the subject site.
- Notification on title that the subject site is located adjacent to Class 'P' fill area.

SITE CONTEXT

The subject site is located west of the Mitchell Freeway, and maintains active frontages to Tassels Place, Ellen Stirling Boulevard, Sunray Drive and Baumea Way. The surrounding area is predominantly characterised by commercial development to the south, single-storey residential to the west (excluding lot 221), and proposed office developments to the north and east. The site is located adjacent to major commercial development centred around IKEA, which also includes a pharmacy, shoe store, camping store and commercial offices.

The site is located approximately 175 metres (450 metres distance along road reserves) from the Mitchell Freeway entry/exit and Stirling Railway Station and bus interchange. Fourteen bus routes stop at Stirling interchange, and eight of those routes make additional stops within 300 metres of the subject site, providing easy access by both private car and public transport.

Refer to Figure 3 - Aerial Plan

CURRENT LAND USE AND EXISTING DEVELOPMENT

The subject site is currently vacant and was prepared for development in 2006 in association with the IKEA development.

HERITAGE

A desktop search of Indigenous and European heritage registers has revealed that the site has no heritage constraints. A Section 18 clearance has been obtained under the Aboriginal Heritage Act.

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FIGURE 1 - LOCATION PLAN



FIGURE 2 - SITE PLAN

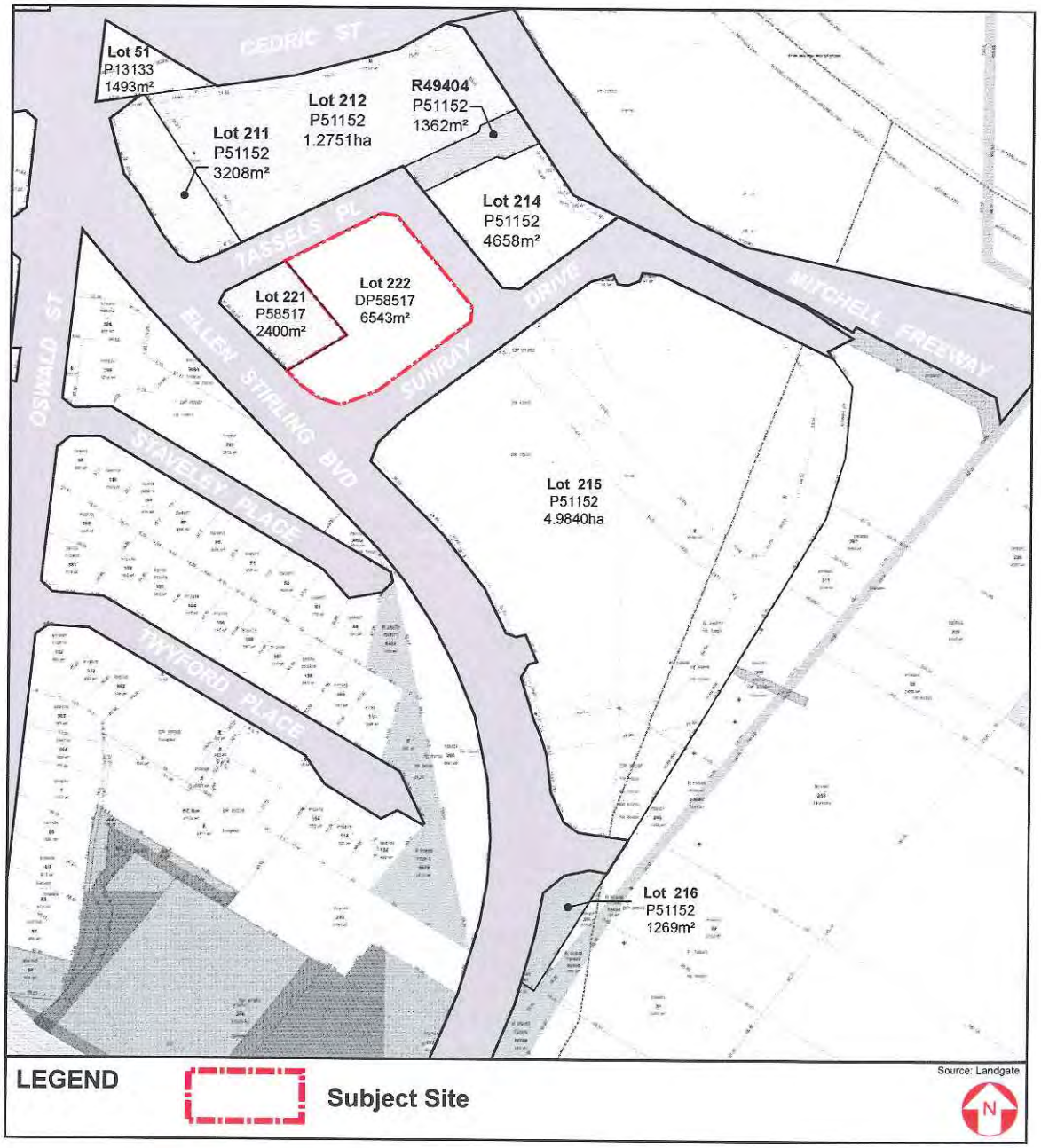

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FIGURE 3 - AERIAL PLAN



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DEVELOPMENT OVERVIEW

Precinct 4 contains the IKEA development, located on Lot 215 Sunray Drive, and the recently approved Georgiou Development located on Lot 221, currently under construction.

The remainder of the land being Lots 211, 212 and 214 (as indicated on the attached plan) are currently vacant, awaiting development.

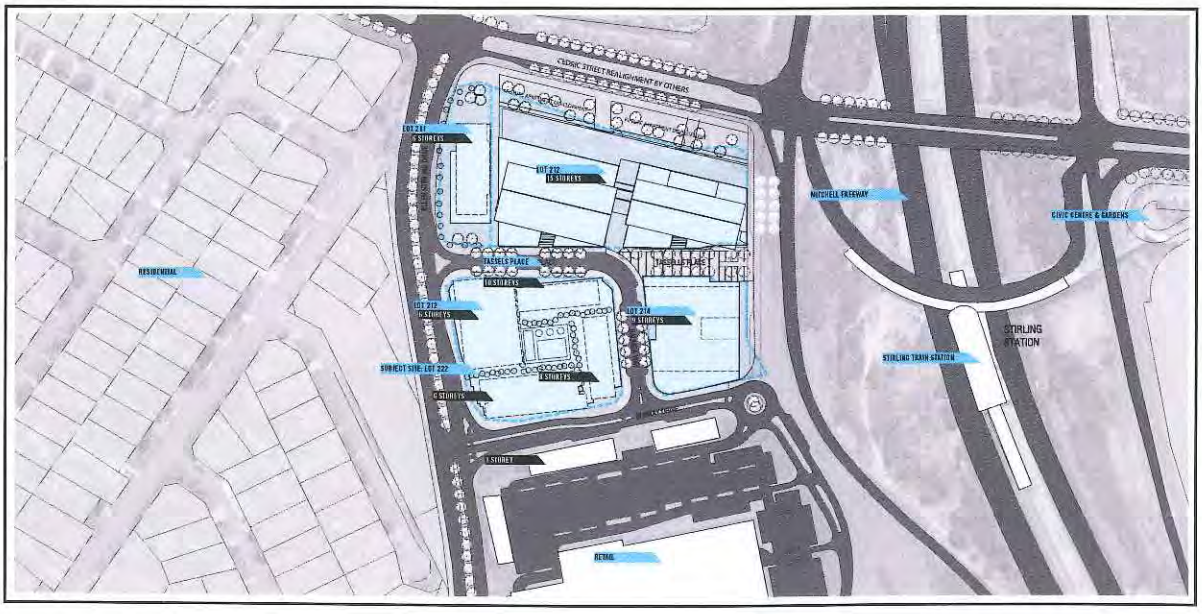
This Application, being Lot 222, proposes the development of 154 multiple dwellings, 5,959m² GFA office floor space and 1,451m² retail floorspace and an 1,107m² tavern.

An application has been submitted for Lot 214, which proposes an office development with retail tenancies at ground level. An application has also been submitted for Lot 211, which proposes an office development with ground level café. An application has been submitted for Lot 212, which proposes an office development with retail tenancies at ground level.

As part of the development of Precinct 4, landowners have been working together to facilitate the development of the Precinct. This has involved the production of a joint Traffic Impact Assessment, taking into account the total Precinct development (the four applications and the IKEA and Georgiou developments).

REFER TO FIGURE 4 - SURROUNDING PRECINCT DEVELOPMENT

FIGURE 4 - SURROUNDING PRECINCT DEVELOPMENT



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PLANNING FRAMEWORK

METROPOLITAN REGION SCHEME

The Metropolitan Region Scheme (MRS) identifies the subject site as being zoned 'Central City Area'. The Mitchell Freeway 'Primary Regional Road' Reserve is located east of the subject site. The site is also subject to a Clause 32 resolution under the MRS, given the site's proximity to the Stirling Railway Station, in which applications for development shall be referred to the Commission for determination.

Refer to Figure 5 – Metropolitan Region Scheme Extract

CITY OF STIRLING TOWN PLANNING SCHEME NO. 38

The City of Stirling TPS38 currently applies to the subject site and the wider City Centre area. TPS38 exists to guide the development of the Stirling Regional Centre with respect to controlling land development and promoting the health, safety, convenience and economic general welfare of the landowners, its inhabitants and the amenities of the area.

TPS38 also facilitates the administration of scheme costs that apply to landowners undertaking subdivision and development within the TPS38 area. All scheme costs have been paid.

The subject site is zoned 'City Centre' and identified as being within 'Precinct 4' under TPS38. The site is given a residential coding of R80/100. The 'Statement of Intent' for Precinct 4 includes that:

The major land uses within this Precinct will comprise a large high-rise office park with buildings having accessibility and visual exposure to both the station and the freeway. Major car parking areas are proposed to be accessed off the re-aligned Oswald Street and Cedric Street as required. The office towers are recommended up to 12 storeys in height adjoining the Stirling Railway Station.

Refer to Figure 6 – Extract of City of Stirling Town Planning Scheme No. 38

Preferred Uses

The preferred uses for 'Precinct 4' include:

Shop	Car Park	Recreation facilities
Office	Hotel	Consulting rooms
Office Professional	Restaurant	Multiple Dwelling
Cinema/Theatre	Market	Grouped Dwelling
Betting Agency	Motel	Amusement Area
Service Station	Research and Development	Serviced Apartments
Boarding House	Tavern	Fast Food Outlet
Public amusement	Entertainment venue	

FIGURE 5 – METROPOLITAN REGION SCHEME EXTRACT

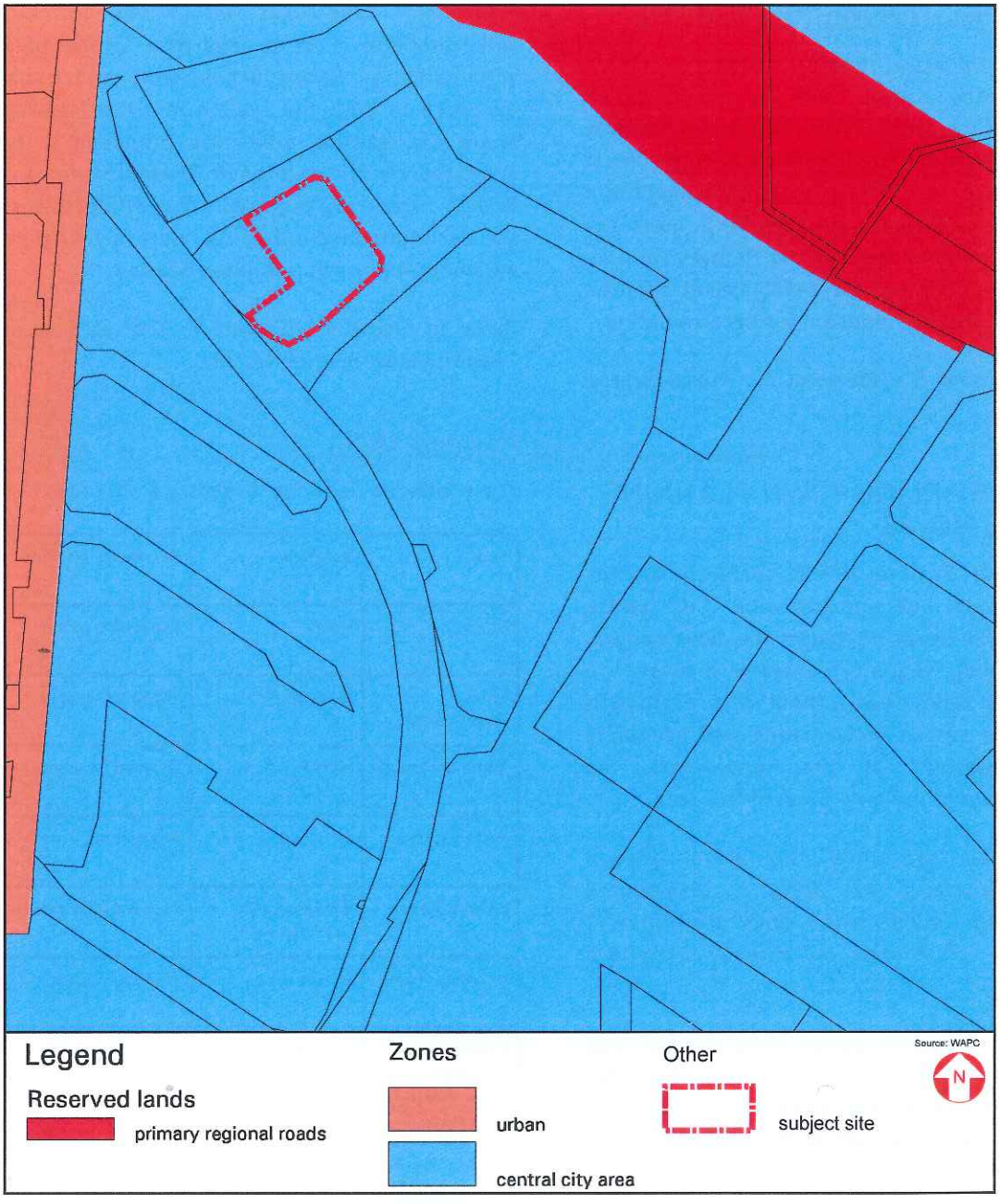

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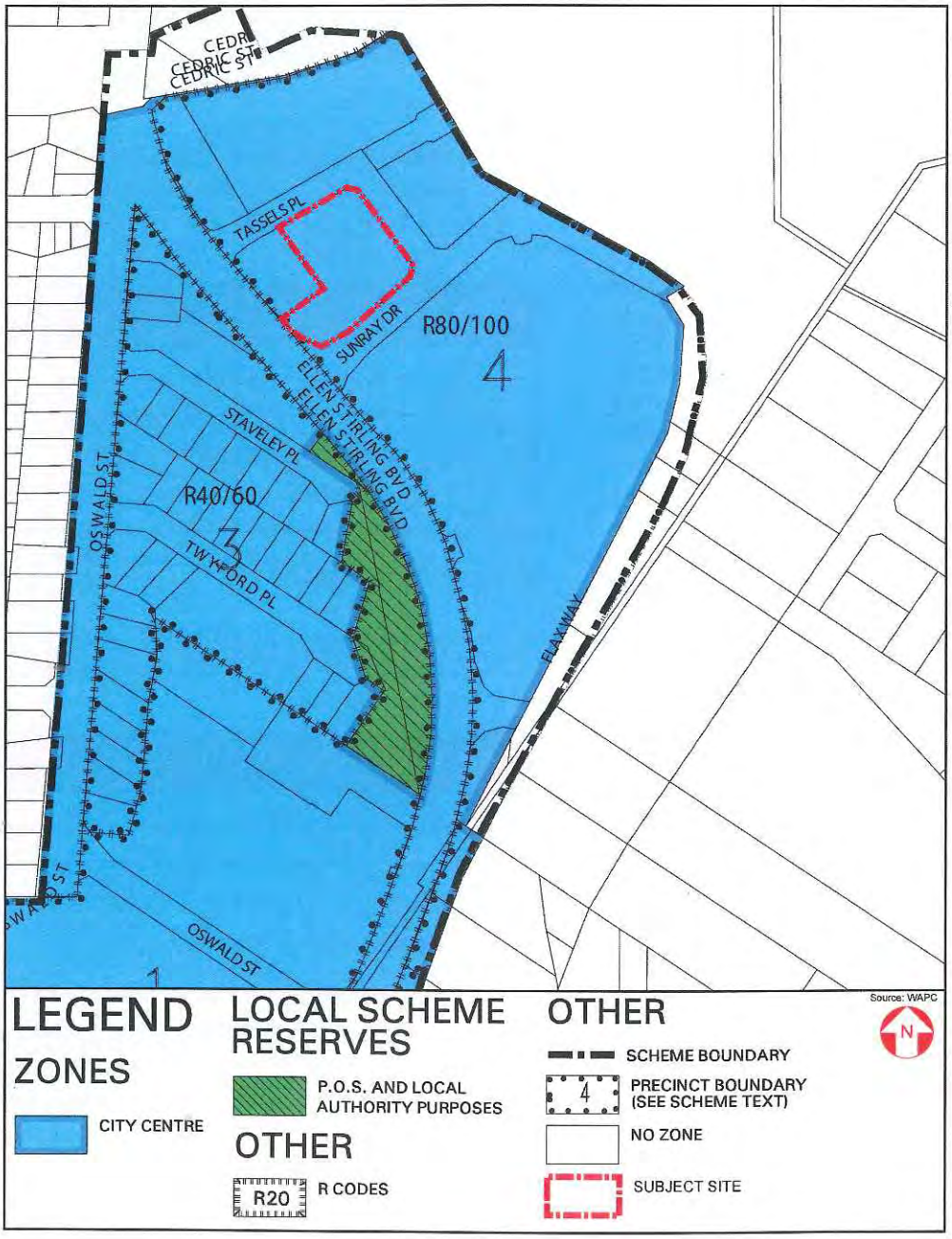
FIGURE 6 – EXTRACT OF CITY OF STIRLING TOWN PLANNING SCHEME NO. 38



Development Criteria

Clause 5.8.4 of TPS38 stipulates development criteria for 'Precinct 4', which are summarised below:

Height, Scale and Appearance

- The maximum height allowed is 12 storeys for landmark office buildings with residential, and up to 8 storeys for entertainment/residential uses.
- Generally, individual developments shall reflect a consistent and high quality of architecture and reinforce, visually and physically, at-ground and vertical linkages.
- Developments over 5 storeys are required to incorporate façade treatments to the Stirling Railway Station and Mitchell Freeway reserve.
- Car parking shall be designed as much as possible to be unobtrusive to the surrounding area, and appropriate landscaping may be necessary to screen parking decks.

Plot Ratio and Site Cover

- The permitted plot ratio is 2.5:1. Council may increase the plot ratio to 5.0:1 for a comprehensively designed 'office tower' development including landmark buildings.
- The Scheme identifies 30% site coverage based on a suburban outcome. However, the approved ODP identifies site coverage of 100% based on a town-centre development outcome.

Setbacks

- Setbacks identified for development within 'Precinct 4' are summarised in the table below, and are to be landscaped as determined appropriate by Council.

Height	To Freeway Reserve	To Other Streets*
<5 storeys	Nil	10m
5-10 storeys	Nil	20m
>10 storeys	Nil	Min. 20m
* For corner sites, setbacks to the secondary street may be reduced by 50%		

Car Parking and Access

- The car parking provisions for land uses set out under TPS38 are summarized in the table below.

Land use	Minimum car parking requirements	Maximum on-site parking allowed
Residential	At discretion of Council	See R Codes
Office	1:50sqm GFA	1:30sqm GFA
Shop	1:20sqm NLA	1:14.5sqm NLA
Hotel, Motel, Tavern 1: 5m² public floorspace, 1 per bedroom 1: 3m² public floorspace, 1 per bedroom		

- A minimum of 50% of the car parking associated with commercial or mixed commercial/residential developments are to be provided in undercroft or decked car parking stations.

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- The development must ensure that it attracts or provides for pedestrian and cyclist patronage.

Approval Despite Non-compliance and Relaxation of Development Requirements

Clause 2.15 of TPS38 states that an application may be approved notwithstanding non-compliance with a Scheme standard or requirement, such that:

Subject to Clause 4.11, Subclause 2.8.1 and Part 5 of the Scheme, if a development proposal the subject of a development application does not comply with the development criteria prescribed by the Scheme which otherwise would be applicable, the Council if it is satisfied that:

a. *The development would be consistent with:*

   i) *the orderly and proper planning of the Precinct; and*

   ii) *the interests of the amenity of the Precinct, and*

b. *The non-compliance will not have any significant adverse effect upon:*

   i) *the occupiers or users of the proposed development;*

   ii) *the occupiers or users of land and buildings in the Precinct; or*

   iii) *the desirable future development of the Precinct,*

Clause 4.4.2 of TPS38 states that:

"Subject to the provisions of Clause 4.11 the Council may reduce the car parking requirements in respect of any proposed development provided the Council is satisfied that such a reduction is in the interest of orderly and proper planning and will not detract from the amenity of the locality.

Before deciding to reduce the car parking requirements pursuant to the preceding paragraph of this subclause, the Council shall take into consideration:

   i) *the effect of the proposed development on parking demand in the locality, having regard to the availability of alternative parking space and the public transport system;*

   ii) *any irregularity in the shape, topography or size of the subject lot or any adjoining lots;*

   iii) *the effect on the amenity of the locality; and*

   iv) *any relevant Policy."*

Clause 4.11 of TPS38 states that:

Council may relax standards of development, without affecting the generality of Clause 2.15, so long as the variation will not prejudice the achievement of the objectives of the Scheme, detract from the amenity of the locality, or is within 800 metres of the Stirling Railway Station.

PROPOSED SCHEME AMENDMENT NO. 1 TOWN PLANNING SCHEME NO. 3

Proposed Scheme Amendment No.1 to TPS3 identifies the subject site as being within the 'Station Precinct', as identified in the draft SCCSP.

Refer to Figure 7 - Extract of City of Stirling Amendment No. 1 to Town Planning Scheme No. 3

The following specific criteria shall be included in the Detailed Area Plans for the 'Station Precinct':

a) Lots for civic, cultural, educational and community uses;

b) A minimum of two land uses bridges (with land uses on both sides of bridge) across the freeway;

c) 4 urban spaces, 3 north of the freeway and 1 south of the freeway in public ownership;

d) New local park north of the freeway;

e) New district and community open space north of the freeway;

f) New natural conservation area north and south of the freeway;

g) New special purpose north and south of the freeway;

h) Current amount of developed active open space to be maintained although reconfigured;

i) Stephenson Avenue north of Cedric Street becomes a 2 lane street with on street parking, separated cycling lanes and provision of priority public transport lanes;

j) Identification of an appropriate light rail route;

k) Cedric Street becomes a 4 lane street with on street parking, separated cycling lanes and possible provision of priority public transport lanes;

l) Building heights surrounding the station are generally mid-rise to high rise (5-20 storeys); and

m) Building heights away from the station are generally mid-rise (5-10 storeys) transitioning to low rise (3-5 storeys) close to adjacent residential areas.

n) Active streets identified in the Structure Plan shall contain continuous non-residential uses on both sides at ground level.

STIRLING CITY CENTRE ALLIANCE STRUCTURE PLAN

The Stirling City Centre Alliance is a collaborative partnership between the community, the Government and the private sector. The Structure Plan identifies encouraging public transport over private as a key element of the local and regional transport plans, and aims to provide 30,000 jobs within 800 metres of the Stirling Railway Station.

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FIGURE 7 - EXTRACT OF CITY OF STIRLING AMENDMENT NO. 1 TO TOWN PLANNING SCHEME NO. 3



The Structure Plan promotes Transit Oriented Development, including commercial and residential development within walking distance of the train station, and encourages a wider variety of housing stock in the area.

In July 2011, a Yield Analysis was conducted for the Stirling City Centre Station Precinct. This is intended to guide future development within the Precinct, with proposed Scheme Amendment No. 1 stating through various clauses that future development is to have due regard to the Yield Analysis.

Plot Ratio

The Yield Analysis identifies the subject site as having a plot ratio of 4.1:1, equating to a plot ratio floor space of 36,666.3m^2.

Building Height

The Yield Analysis identifies the site and the surrounding lots as being suitable for development up to 12 storeys.

Car Parking

The Yield Analysis identifies approximately 217 car-parking bays across the subject site and adjoining Lot 221.

Residential Component

The Yield Analysis identifies the minimum residential target on the subject site to be 39 dwellings and the preferred residential target as 60 dwellings. The minimum residential target across the Station Precinct is 2,914 dwellings and the preferred residential target is 4,500 dwellings. The minimum residential target is 136 dwellings within the immediate area (Lots 211, 212, 214, 221 and 222).

WAPC DEVELOPMENT CONTROL POLICY 1.6 - PLANNING TO SUPPORT TRANSIT USE AND TRANSIT ORIENTED DEVELOPMENT

The WAPC has prepared Development Control Policy 1.6 (DCP 1.6) to ensure that planning takes into account the opportunities created by the provision of public transport. The Policy adopts goals in accordance with Statement of Planning Policy No. 3 Urban Growth and Settlement, including:

- To promote and facilitate the use of public transport as a more sustainable alternative to the private car for personal travel, to enhance community accessibility to services and facilities, including employment opportunities, community services and recreational facilities, and to improve equity in accessibility for those who do not own or have access to a car;
- To encourage spatial patterns of development that make it easier to plan and efficiently operate public transport services, and for the existing and potential users of public transport to access those services;

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- To encourage balanced public transport ridership along transit corridors by creating places that are destinations as well as points of departure;
- To ensure the optimal use of land within transit oriented precincts by encouraging the development of uses and activities that will benefit from their proximity and accessibility to public transport, and which will in turn generate a demand for the use of transit infrastructure and services; and
- To promote and facilitate walking and cycling within transit oriented precincts by establishing and maintaining high levels of amenity, safety and permeability in the urban form, and to promote and facilitate opportunities for integrating transport modes by creating opportunities for convenient, safe and secure mode interchange.

DIRECTIONS 2031 AND BEYOND

Directions 2031 and Beyond (Directions 2031) is a spatial planning framework; a high level strategic plan that establishes a vision for future growth of the Perth and Peel region, and provides a framework to guide the detailed planning and delivery of housing, infrastructure and services necessary to accommodate that growth.

The Western Australian Planning Commission's Directions 2031 and Beyond document establishes a vision for the future growth of the metropolitan Perth and Peel region in which:

"By 2031, Perth and Peel people will have created a world class liveable city: green, vibrant, more compact and accessible with a unique sense of place".

This vision is supported by several objectives based around five strategic themes:

- Liveable: Living in, or visiting our city should be a safe, comfortable and enjoyable experience.
- Prosperous: Our success as a global city will depend on building on our current prosperity.
- Accessible: All people should be able to easily meet their education, employment, recreation, service and consumer needs within a reasonable distance of their home.
- Sustainable: We should grow within the constraints placed on us by the environment we live in.
- Responsible: We have a responsibility to manage urban growth and make the most efficient use of available land and infrastructure.

The subject site is identified in Directions 2031 as being within the 'Central Sub-Region' and specifically the Stirling Strategic Metropolitan Centre Transit Oriented Development, where increased office and service sector employment opportunities should be encouraged to capitalise on their various urban qualities and potential for development, redevelopment and employment generation. Strategic Metropolitan

Centres are second in the activity centre hierarchy to the City of Perth.

LOCAL PLANNING POLICIES

The following section outlines relevant design standards not mentioned previously within Scheme requirements.

Stirling City Centre Design Guidelines

The following objectives and relevant requirements are to be applied to development applications within the Stirling City Centre:

Integration and Structure

- All developments should address the street and abutting pedestrian routes;
- Pedestrian spaces and linkages should be clearly defined; and
- All developments must seek to minimise the impact on residential amenity.

Character

- Buildings should have a strong vertical emphasis and visible landmark buildings in areas abutting the Freeway and on street corners are encouraged;
- Architectural detailing is encouraged, particularly along pedestrian routes;
- Buildings should integrate into their surroundings and contribute to an attractive, coherent streetscape;
- Building silhouettes should be uncluttered; and
- Signage should integrate with the development.

Streetscaping and Landscaping

- Streetscape treatment elements should harmonise with the City's selection.

Precinct 4 Design Guidelines

The precinct guidelines were prepared to ensure that proposed developments are part of a cohesive, attractive and sustainable extension of the Stirling Regional Centre and contribute to an overall identity. The relevant guidelines are summarised below:

- **Solar access and energy efficiency** - developments should embody environmental sustainability and be designed to be energy efficient, with particular attention paid to passive solar design and ventilation.
- **Landscaping** - all open areas are to be appropriately landscaped with both 'hard' and 'soft' elements.
- **Building elevations** - portions of subject site identified to have 'Active Frontages' and 'Facades of Interest'. Development adjacent public open space is required to enable a high level of intensity and passive surveillance.
- **Roof form** - features on prominent corners and over main entrances.
- **Corner sites** - elevations of buildings on corner lots should provide detail on both street facades and reinforce its landmark role.

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- **Pedestrian/ Cycle Access** - access to development should be level with adjacent footpath/ roads and provide access by people with impaired mobility. Development is required to provide bicycle parking and end of trip facilities.
- **Lighting** - external building lighting should be designed to ensure security and general use.
- **Storage areas** - outdoor storage requirements must avoid separate small structures around the site and should be located out of public view, and consistent with the building's architecture.
- **Public art** - art should be incorporated into the development and contribute to the creation of a sense of place, including signage, paving, façade details, lighting structures, entry statements and sculptures.

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PROPOSED DEVELOPMENT

The development comprises a ten storey building, an eight storey building and a six storey building over the site. The podium comprises car parking over three levels, three retail tenancies and a tavern at ground level facing onto the surrounding streets. Office floorspace is located in the southern building fronting Sunray Drive.

- The lower ground level consists of 43 car-parking bays; fire services supply tank, fire pump room, domestic CW storage and a staircase.
- The ground floor of the podium incorporates three retail tenancies of 213m², 623m², and 636m² plot ratio area that face onto the surrounding streets and are open to the general public; a 1107m² tavern that faces Baumea Way and Tassels Place; 53 car-parking bays; 11 residential stores; 128 bicycle racks and end of trip facilities; waste bin storage area; three lobbies including lifts and stairs for access; the main switch room and Western Power substation; and two loading bays.
- The second floor comprises 176 car-parking bays, 143 residential stores, 3 motorcycle bays, and three access points each including two lifts and two staircases.
- The third floor of the podium proposes a garden roof terrace, including shade trees, communal tables, sheltered and recreation spaces; providing interconnecting open space between the three taller buildings. The third level also comprises twelve 1-bedroom apartments, eight 2-bedroom apartments shared over the north and eastern buildings, along with 1445m² GFA Office space in the southern building.
- Levels four to six each comprise twelve 1-bedroom apartments, eight 2-bedroom apartments shared across the northern and eastern buildings; and 1445m² GFA Office space in the southern building.
- The seventh and eighth level each consist of twelve 1-bedroom apartments and eight 2-bedroom apartments shared across the northern and eastern buildings.
- The ninth and tenth floor each consist of eight 1-bedroom apartments and four 2-bedroom apartments in the northern building.

There are six different designs for the multiple dwellings, ranging from one-bedroom one-bathroom apartments, to two-bedroom two-bathroom apartments. Single vehicle access is via Baumea Way.

ACCESS

Pedestrian access to the buildings is via three main entrance lobbies opening onto Tassels Place, Baumea Way and Sunray Drive. The main lobby in each building provides access to all floors, with each having two lifts and two staircases.

Refer to Appendix B - Development Plans

Refer to Appendix C - Landscape Plans

ARCHITECTURAL STATEMENT

Design Synopsis

The exciting new development has afforded the opportunity to develop a new town centre for the area. Lot 222 is conceived as an oasis, a fertile hinterland, to provide amenity, facility and destination for the surrounding development.

The harsh Australian environment prescribed that settlement and colonisation of communities occurred around a natural communal area, a river, stream, lake or billabong that would provide for the area.

The pinwheeling nature of the sites masterplan allows a controlled microclimate in the centre site shielded by its surrounding buildings. The outer skin of the buildings have been designed as a protective outer shell, molded by the forces of nature, providing refuge either within the building residences or the communal open space.

Building on the narrative of Australian settlement the interior surfaces of the buildings facing the open space are designed to rise like an artificial landscape from fertile ground. An array of anodised aluminium louvres have been coloured from an abstracted landscape image series. The fins catch the sunlight providing an engaging building surface whilst also protecting against adjacent overlooking and passively managing the solar gain for the building.

These building and podium sit atop an active ground floor plane. The language of the podium as a series of extruded boxes proportions the retail experience and edge engagement to the personable scale - likened more to an outdoor mall than big box retail.

Floor Plate Arrangement

The shallow perimeter to core depth of the residential floor plans provides the residences with wide frontage allowing maximized amenity. Our study of the demographic for the area has allowed us to design a mixed product range to appeal to the market.

The development programme of the project allows for the flexibility of modern living and contemporary commercial practice. The scale of the ground floor retail facade allows opportunity for both small grain retailers or open big box tenants.

Whilst the residences in addition to their own private internal and outdoor space propose larger format dining rooms with bar and kitchen, semi private outdoor facility and the open communal green space.

Similarly the office has been designed to allow for a single building tenant to a multi tenant arrangement that would facilitate numerous tenants per floor.

Sustainability

The buildings have been designed from first principle ESD ideals. The orientation of the site with exposure NE and NW required a facade

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treatment that could provide a horizontal project for the northern aspect and vertical expressions for the east and western exposures. The waffle on the exterior works to reduce the solar gain on the glazing protecting the interior. The rhythmic facade will also protrude into the breeze to slow down passing air creating positive and negative wind pockets for occupants to use to passive ventilate their residence. Similarly the extruded fins on the interior faces of the building work to the same principles of passive solar and ventilation control. It is also proposed to catch rainfall on the site and reticulate it to water the podium top landscape.

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PLANNING ASSESSMENT

METROPOLITAN REGION SCHEME

The site is zoned 'Central City Area' under the MRS and is therefore considered suitable for the proposed office, residential and ground floor retail development.

WAPC PLANNING POLICIES

The site is located with good access to a variety of public transport options and services and is consequently considered to be in line with the provisions of WAPC Development Control Policy 1.6 (Planning to Support Transit Use and Transit Oriented Development) and Directions 2031.

CITY OF STIRLING TOWN PLANNING SCHEME NO. 38

Development Criteria

The Development Standards and Requirements of the Scheme highlight the importance of Precinct 4 to the success of the Stirling Regional Centre and its integration with the Stirling Railway Station. The proposal is considered to strongly align with this objective as it provides a high quality office development with high density residential development.

The development's compliance with relevant development criteria as prescribed by TPS 38 and the ODP is summarised in the below table. "Office", "Shop", "Tavern" and "Residential" use classes are considered "preferred uses" in this Precinct, and as such are uses that Council encourages.

Criteria	Development Response	Comment
Height, Scale and Appearance		
Max. 12 storeys	By providing 10 storeys, the development is consistent with the height requirements of TPS 38, as well as the Stirling Alliance's view of building height. The proposal is consistent with identified building heights in the Proposed Scheme Amendment No. 1 to TPS3, which identifies that building heights surrounding the station should generally be mid-rise to high-rise, allowing the development of up to 20 storeys.	Complies
Consistent, high quality architecture, with visual/physical at-ground and vertical links	The architecture lends a sense of place to Sunray Drive, Tassels Place, Baumea Way and the Precinct as a whole. The design of the exterior tower shell omits direct summer sun, and admits winter sun into the building. The tower façade articulation zone preserves views and amenity from inside the building to the exterior streetscape. The angled glazing engages street occupants, reflects streetscape greenery and creates common datum with neighbouring retail, whilst screening views of the car parking and allowing natural ventilation. Stepped back storeys provide visual interest, vitality and human scale, activating the lower levels of the buildings.	Complies
Façade treatments to Stirling Railway Station and Mitchell Freeway	Treatments to the eastern façade include the use of varied setback, vertical sunshades and articulation. Visual interest from the east elevation includes the use of awnings and articulation. The building will be largely screened from this elevation by development Lot 214.	Complies
Unobtrusive car parking areas	All car parking is provided within decked parking, screened from public view and sleeved by active ground floor uses. Vehicular and pedestrian access points are clearly defined through quality design and without need for excessive signage. Access to car parking areas is restricted to a single vehicle access point on Baumea Way.	Complies
Plot Ratio and Site Cover		
Max. 5.0:1	• A Plot ratio of 4:1 is proposed. This is considered appropriate, as the development is a comprehensively designed office and residential development that features an array of architectural features.	Complies
Max. 100% site coverage (ODP)	• Site coverage of 100% is proposed. This is considered an appropriate degree of coverage given the development is located to create active street frontages and pedestrian amenity to the wider Stirling City Centre area.	Complies
Setbacks		
To Sunray Drive: 20m	• There is a proposed nil setback to Sunray Drive, which is consistent with the surrounding town centre development. • The proposal provides active ground level uses surrounded by walkways to create an attractive pedestrian environment.	Variation
To other streets: 20m	• The site occupies a corner location and is therefore eligible for a 50% reduction in this requirement. • The nil setbacks to Tassels Place and Baumea Way are considered appropriate as the site occupies a corner location. • The proposed retail use at ground level provides active street frontage, natural surveillance to the street, and views into the building. This creates an interesting streetscape, and a safer and more stimulating pedestrian experience. • The upper levels of each building are setback further into the site, which help to define the human scale and active uses on the ground level.	Variation
Car Parking and Access		
Car parking requirements	Refer to separate table below (section 6.2.2)	Variation
Min. 50% of bays provided in undercroft or decked car parking	Majority of car parking is provided within 2 floors of screened, decked parking and has been designed as much as possible to be unobtrusive to the public realm. The remaining car parking is provided in the basement level. Car parking decks are screened at ground level by retail use with active frontage, and are screened by offices and the multiple dwellings at the higher levels. Car parking decks are capped with landscaped open terraces.	Complies
Attracts or provides for pedestrian and cyclist patronage and flow through	The development is well integrated with the surrounding environment and is in close proximity to Stirling Interchange. Bicycle parking and high quality end of trip (EOT) facilities are provided on the ground floor.	Complies

RESIDENTIAL DESIGN CODES

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The following table provides a detailed planning assessment of the residential component of the proposed development against the requirements of the Residential Design Codes (R-Codes). TPS 38 designates the site a density of R80/100, and therefore the proposal will be assessed against the requirements under Part 7 and Table 4 of the R-Codes, relating to multiple dwellings in areas with a coding of R30 of greater and within mixed use development and activity centres.

R-Codes Provision	Required	Proposed	Comments
Plot Ratio	1.0/1.25 Maximum Refer to Comments	A plot ratio of 4.0:1 is proposed which exceeds the requirement, however TPS38 allows for a maximum plot ratio of 5.0:1.	Consistent with policies and scheme provisions.
Building Height	Wall: 12 metres Concealed Roof: 13 metres	32.9 metres to the ten-storey building roof.	Consistent with policies and scheme provisions
Street Setbacks	Primary: 2 metres Secondary: 2 metres	Primary: nil. Secondary: nil.	Consistent with surrounding town centre provisions.
Side and Rear Setbacks	Side setback: 4 metres	Nil.	Consistent with surrounding town centre provisions.
Surveillance of the Street	Habitable rooms to overlook the street.	Bedrooms, living rooms and balconies facing Baumea Way and Tassels Place.	Complaint.
Outdoor Living Areas	Each dwelling is provided with greater than 10m² with a minimum dimension of 2.4m.	Each unit is provided with a 4.48m² or 5.6m² balcony, which have minimum dimensions of 1.4m x 3.2m, and 1.4 m x 4m respectively.	Although the outdoor living area for each unit is less than what is required, the garden podium provides communal open space. There is no communal open space requirement and in accordance with the performance provisions communal open space has been provided.
On-Site Parking Provision	Less than 75m² or 1 bedroom (0.75 per dwelling) = 104 bays	= 104 bays	Compliant. Refer to car-parking table.
	Medium (1 per dwelling) = 16 bays	= 16 bays	
	Visitor bays (0.25 per dwelling)= 39 bays	= 39 bays (will be reciprocal bays)	
	Total = 159 bays	A total of 159 bays are provided.	

R-Codes Provision	Required	Proposed	Comments
Bicycle Parking	1 bicycle space for each 3 dwellings for residents and 1 bicycle space to each 10 dwellings for visitors: Total = 52 residential + 6 visitor	128 bicycle spaces are provided in total, with 52 secure bike racks for residential, 22 secure bike racks for commercial, and 54 visitor bike racks.	Complaint
Design of Parking Spaces	To comply with AS2890.1.	Complies with AS2890.1 and AS2890.6 for disabled parking.	Compliant.
Vehicular Access	One opening per 20m street frontage that is visible from the street.	One two-way 6.525 metre access way is provided to Baumea Way.	Compliant.
Visual Privacy	No acceptable development requirement for R80/100 therefore the performance criteria applies.	There are no overlooking issues between the dwellings.	Compliant.
Dwelling Size	Minimum 20% 1-bedroom dwellings, up to a maximum of 50% of the development and minimum of 40% 2 bedroom dwellings (and does not contain any dwellings smaller than 40m² plot ratio area).	There are 98 one-bedroom dwellings, being 64% of the total dwellings. The remaining dwellings are two-bedroom (56 dwellings), comprising 36% of the total. All of the dwellings are larger than 40m² plot ratio area.	The provided mix of dwellings is suitable for the location, as most of the demand is for single bedroom dwellings. It also provides an appropriate mix in contrast to the surrounding low-density dwellings, and is appropriate for the proposed town centre. Furthermore the proposed dwelling mix provides a more affordable residential product.
Essential Facilities	Lockable storage areas are provided for each dwelling with a minimum dimension of 1.5m, with an area of at least 4sqm. A fully screened communal pick-up area is provided. Communal clothes drying facilities	Lockable storage areas are provided for each dwelling at an area of 4m².	Compliant.

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Car Parking

The following table summarises the number of required and provided car-parking bays for the proposed development:

Use	Area / No's of people	TPS38 Car parking Requirements		Car Bays
		Minimum	Maximum	
Office	5,959sqm GFA	1:50sqm GFA	1:30sqm GFA	119.18 (119)
Shop	1,451sqm NLA	1:20sqm NLA	1:14.5sqm NLA	72.55 (73)
Restaurant	787sqm GFA	1:10sqm GFA	1:7sqm GFA	78.7 (79)
Tavern	320sqm public floorspace	1:5sqm public floorspace + 1:bedroom	1:3sqm public floorspace + 1:bedroom	64
Residential	154 multiple dwellings	At discretion of the Council	See (R Codes)	120+39 visitor (159)
			Total Required (Min.)	494
			Total Provided	272
			Shortfall	222

113 comm

Having regard to TPS38 and to the above table, the shortfall of 222 car bays is considered appropriate in this instance, and is justified for the following reasons:

- The development is part of a transit-oriented development adjacent to the Stirling train and bus interchange, and is within the 800 metres walkable catchment of the station. It promotes priority access by public transport through planned pedestrian linkages and amenity, and the provision of quality and accessible end-of-trip facilities;
- The development is consistent with the interests of amenity and land efficiency within an activity centre by taking into account the need for parking accorded to different occupiers and modes of travel, as well the desirable future development of Stirling Cross as an integrated and sustainable workplace;
- The development of the site is designed to sustain high levels of pedestrian movement, comfort and convenience by incorporating shelter, street trees, lighting and active ground floor uses in a human scale context;
- The car parking reflects the impact of traffic volume in the locality and on the adjoining roads. Any additional car parking will add to possible congestion in the area as the level of car parking is dictated by the volume of traffic on the adjacent roads;
- A considerable amount of the parking requirement is generated from the tavern, which is proposed to have peak use during the evening-night, opposite to that of the office and retail, and therefore can generate a reciprocal parking arrangement; and

- The Yield Analysis identifies a cumulative total requirement of 217 bays over Lots 221 and 222. The proposed development provides 272 car bays, equating to a surplus of 55 bays.

Variation is therefore sought under Clause 2.15 for the provision of car parking based on the locality of the development.

PROPOSED SCHEME AMENDMENT NO. 1 TOWN PLANNING SCHEME NO. 3

The majority of the provisions referred to in the draft SCCSP do not relate to the subject site as the criteria generally relates to the greater 'Station Precinct'. However, the proposal is consistent with identified building heights surrounding the Stirling Railway Station. As such, a detailed area plan prepared for the subject site would not include many of the items referred to in the document.

The proposal is considered to adequately address the intricacies of development to achieve a high level of design and built form in line with the Precinct's vision, and therefore would not prejudice the specific purposes of Amendment 1.

STIRLING CITY CENTRE ALLIANCE STRATEGIC PLAN

The Stirling City Centre Alliance is a collaborative partnership between the community, the government and the private sector. The strategic plan identifies encouraging public transport over private as a key element of the local and regional transport plans, and aims to provide 30,000 jobs within 800 metres of the Stirling train station. The aim is to transform the Stirling City Centre into an integrated and modern mixed-use, transit-oriented centre around the Stirling Train Station.

The proposed development is seen as strongly consistent with these aims, as it provides significant employment within the Stirling train station's 800 metre walkable catchment area.

Plot Ratio

The Yield Analysis identifies the subject site and the adjoining Lot 221 as having a combined plot ratio of 4.1:1, equating to a plot ratio floor space of 89,193m^2. A plot ratio of 4.0:1 is proposed, with a plot ratio floorspace of 26,142m^2. The proposed plot ratio is justified by the immediate proximity to the Stirling Interchange, the city centre, corner site location, residential component and comprehensive architectural design and features.

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Building Height

The Yield Analysis identifies the subject site and surrounding lots as being suitable for development up to 12 storeys. By providing 10 storeys the proposed development is within this height limit and provides an architectural landmark visible from Stirling Railway Station and the Mitchell Freeway.

Car Parking

The Yield Analysis identifies a cumulative total requirement of 217 car-parking bays across the subject site and Lot 221, with 272 bays proposed on Lot 222. The parking provided has been designed to reflect the needs of the occupants and aligns with the intent of the Structure Plan.

Residential Component

The Yield Analysis contains a significant anomaly with respect to the land area of the precinct as it states 34,000m² (for Lots 211, 212, 214, 222, and 221) while it is only 29,560m². The minimum dwellings requirement for the lots is 136 based on 34,000m², which represents 121 dwellings based on 29,560m². The minimum requirement for Lot 222 based on the 29,560m² requirement is 27 dwellings at an average of 80m². Lot 222 will provide 154 residential dwellings, catering for the residential requirement for Lots 214, 212 and 222 under the Structure Plan.

STIRLING REGIONAL CENTRE, PRECINCT 4: OUTLINE DEVELOPMENT PLAN

The development proposal is in accordance with the Stirling Regional Centre Outline Development Plan for Precinct 4. In particular, it meets the design requirements of the ODP through the provision of:

- A landmark building, several storeys in height, marking the gateway to the Precinct
- Facades of interest and active street frontages at ground level, enabling passive surveillance and visual interest for pedestrians
- A mixture of hard and soft landscaping of setback areas
- Public open space, including a garden podium area, contributing to a vibrant public realm
- All parking within the site being provided either at basement level, or in a decked car park

TRAFFIC AND VEHICLE ACCESS

A single vehicle access point is provided from Baumea Way to the east of the site. Clause 4.5.6 of TPS No. 38 states that vehicular access shall be provided to all lots. A restrictive covenant to the City of Stirling restricts vehicle access to Ellen Stirling Boulevard from the subject site.

Refer to Figure 8 - Access to the Subject Site and the Proposed Access Within the Precinct

Refer to Appendix D – Traffic Impact Assessment

PEDESTRIAN ACCESS

Pedestrian access throughout the Precinct is demonstrated on Figure 8 which indicates the access from the Train Station and throughout via an access along the eastern boundary of Lot 212.

Refer to Figure 9 - Pedestrian Circulation

SERVICING AND INFRASTRUCTURE CONSIDERATIONS

No major servicing constraints are envisaged for the development. The site is capable of being fully supplied with all essential services, and with careful and considerate design will result in a high quality development.

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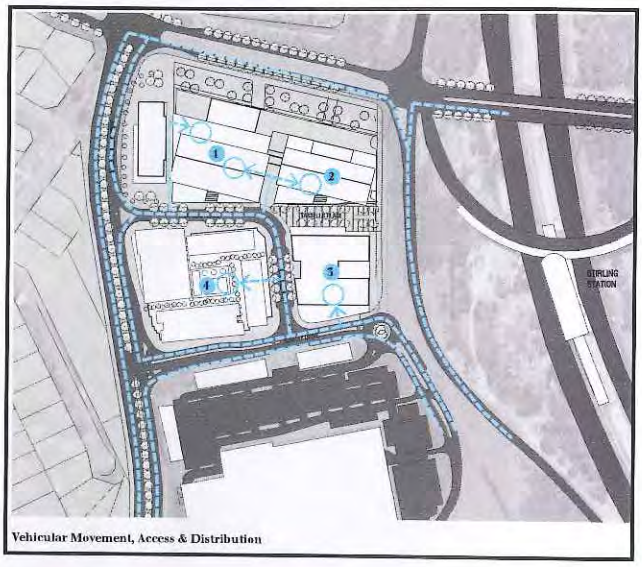
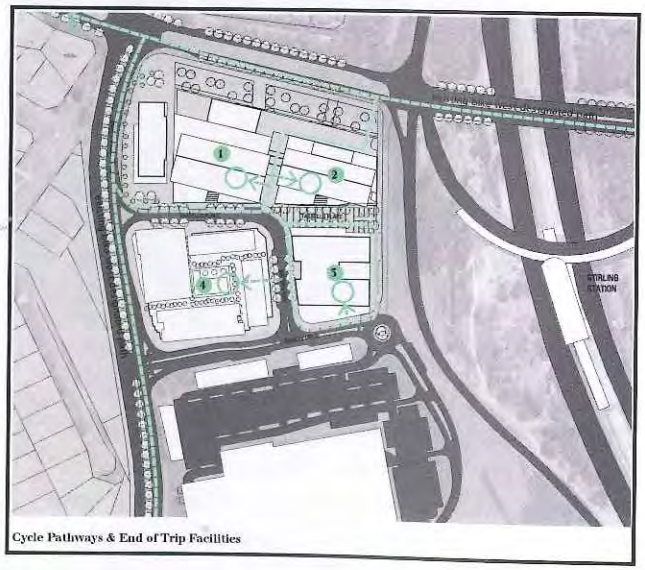
FIGURE 8 - ACCESS TO THE SUBJECT SITE AND THE PROPOSED ACCESS WITHIN THE PRECINCT

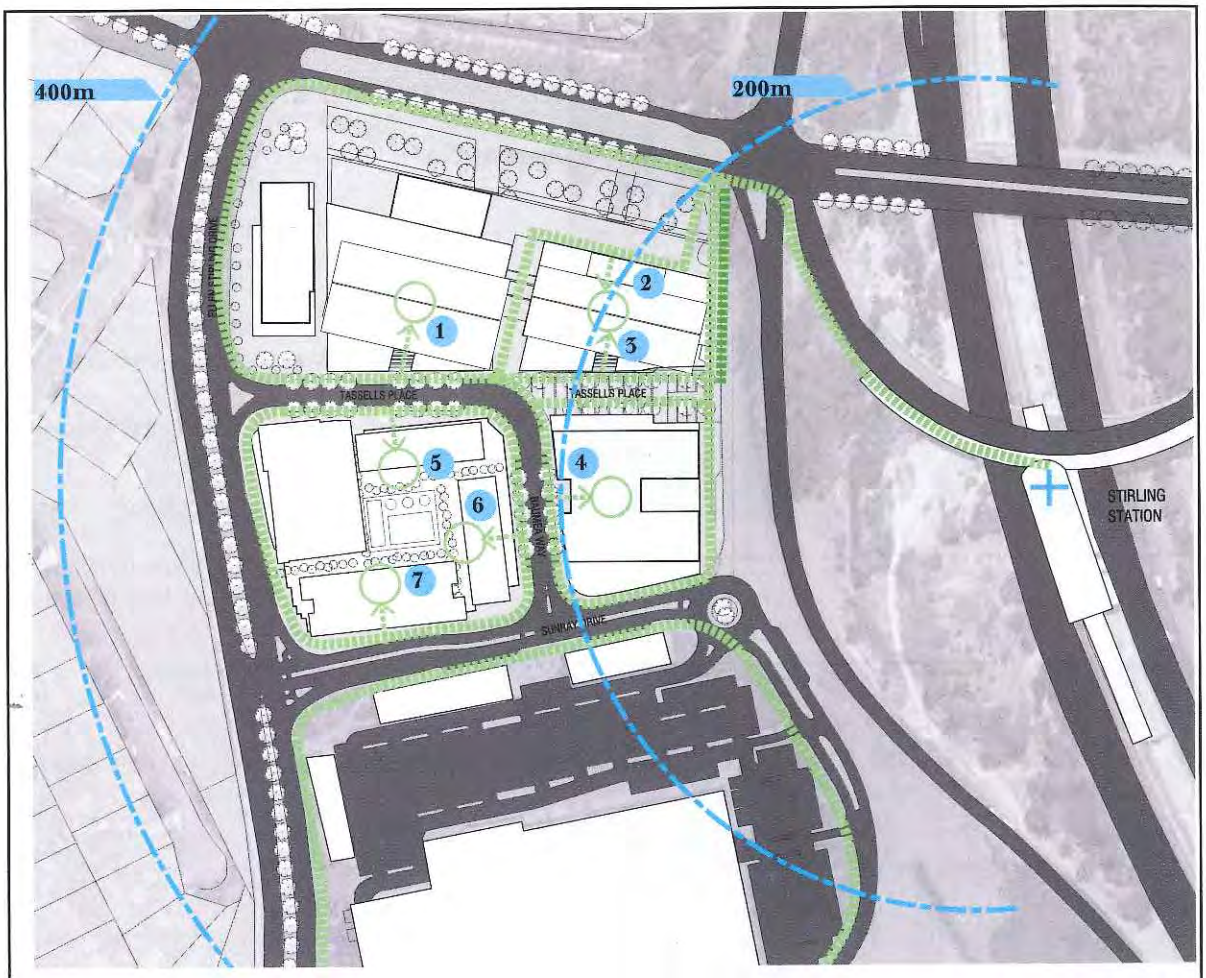


Vehicular Movement, Access & Distribution



Cycle Pathways & End of Trip Facilities

FIGURE 9 - PEDESTRIAN CIRCULATION



Pedestrian Travel Distances to Entry Points from Stirling Station

1. 385 metres (Lot 212 Building 1)
2. 250 metres (Lot 212 Building 2)
3. 310 metres (Lot 212 Building 2)
4. 375 metres (Lot 214)
5. 385 metres (Lot 222 Residential 1)
6. 380 metres (Lot 222 Residential 2)
7. 400 metres (Lot 222 Office)

Ambulant Path
Non-ambulant Path

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PLANNING MERIT

ORDERLY AND PROPER PLANNING

The proposal is considered to be a logical extension and critical development to the success and integration of the Stirling City Centre. The development will form a key catalyst in the early growth of the precinct, providing an anchor for the existing and future development around the Stirling Railway Station. The residential component provides opportunity for diversity in the surrounding housing stock, and helps to create a mixed-use precinct with greater opportunities for passive surveillance. The proposed development is therefore considered to be in pursuit of orderly and proper planning in line with City Centre and Precinct visions.

AMENITY AND COMPATIBILITY

As part of the wider development, the proposal will contribute to a unique and sustainable work and living destination immersed in a contemporary urban village environment in which social exchange will be fostered by the fusion of working life with daily street life:

- Provision of office development at an appropriate scale and design to suit the current market demand for office floorspace in Regional Centres.
- Provision of high density residential development within an Activity Centre to help create an effective mixed use precinct, and provide diversity in housing choice from the surrounding low-density residential.
- Integration with surrounding development that will contribute to an attractive, coherent streetscape with safe, functional and attractive access arrangements.

STATUTORY COMPLIANCE

In brief, the proposal:

- Is consistent with the provisions of the City of Stirling TPS38 and ODP;
- Is consistent with DC1.6 Planning for Transit Use and Transit Oriented Development;
- Takes into account the vision of the draft Stirling City Centre Structure Plan; and
- Generally meets all local planning policy design guidelines and Precinct visions.

Variations to the City's general development standards relate to plot ratio, car parking and setbacks and have been justified in the contents of this report.

Based on the justification contained in this report and the comments made above, it is considered that the development application for an office development, with multiple dwellings, retail and office space at street level and associated decked car parking, has planning merit and is consistent with the overall intent and objectives for development and land use in this location.

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CONCLUSION

This report has been prepared by TPG Town Planning, Urban Design and Heritage in support of a Development Application for 154 multiple dwellings located in two buildings including the podium, approximately 5,959sqm of office floor space located in one building over the podium, and 1,451sqm of ground-level active retail space and a 1,107sqm tavern, at Lot 222 Sunray Drive, Innaloo.

The proposed development will provide an architecturally designed building that relates to its surrounds; improves the amenity of the neighbourhood by promoting activity and increasing employment opportunities in the area. The provision of 154 multiple dwellings achieves one of the key visions for the Stirling City Centre area, and will provide housing opportunities within a higher density business centre, close to accessible public transport. There are six different types of dwelling designs, ranging from 1 bedroom 1 bathroom, to 2 bedroom 2 bathroom apartments, which will help to provide a greater diversity of housing choice from the surrounding low-density residential area.

On the basis of the assessment and information provided by this report, it is considered that the proposed development is consistent with State Government Strategies and Policies, the statutory provisions of TPS 38 and the intent of the draft Stirling City Structure Plan.

It is respectfully requested that the City of Stirling and the WAPC give timely consideration and support for this proposal, and seek approval from the North West Joint Development Assessment Panel.

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APPENDIX A

CERTIFICATES OF TITLE

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WESTERN AUSTRALIA

REGISTER NUMBER	
222/DP58517	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
1	6/5/2008

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

VOLUME 2688 FOLIO 791

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES

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LAND DESCRIPTION:

LOT 222 ON DEPOSITED PLAN 58517

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

FABRAY PTY LTD OF 104B STIRLING HIGHWAY, NEDLANDS
(AF K578500) REGISTERED 28 APRIL 2008

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1.	*K434783	NOTIFICATION CONTAINS FACTORS AFFECTING THE WITHIN LAND. AS TO PORTION ONLY. SEE SKETCH ON DEPOSITED PLAN 58517 LODGED 5.12.2007.
2.	K578499	RESTRICTIVE COVENANT TO CITY OF STIRLING SEE SKETCH ON DEPOSITED PLAN 58517 REGISTERED 28.4.2008.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

----------END OF CERTIFICATE OF TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND:	DP58517 [SHEET 1].
PREVIOUS TITLE:	2677-752.
PROPERTY STREET ADDRESS:	1 SUNRAY DR, INNALOO.
LOCAL GOVERNMENT AREA:	CITY OF STIRLING.

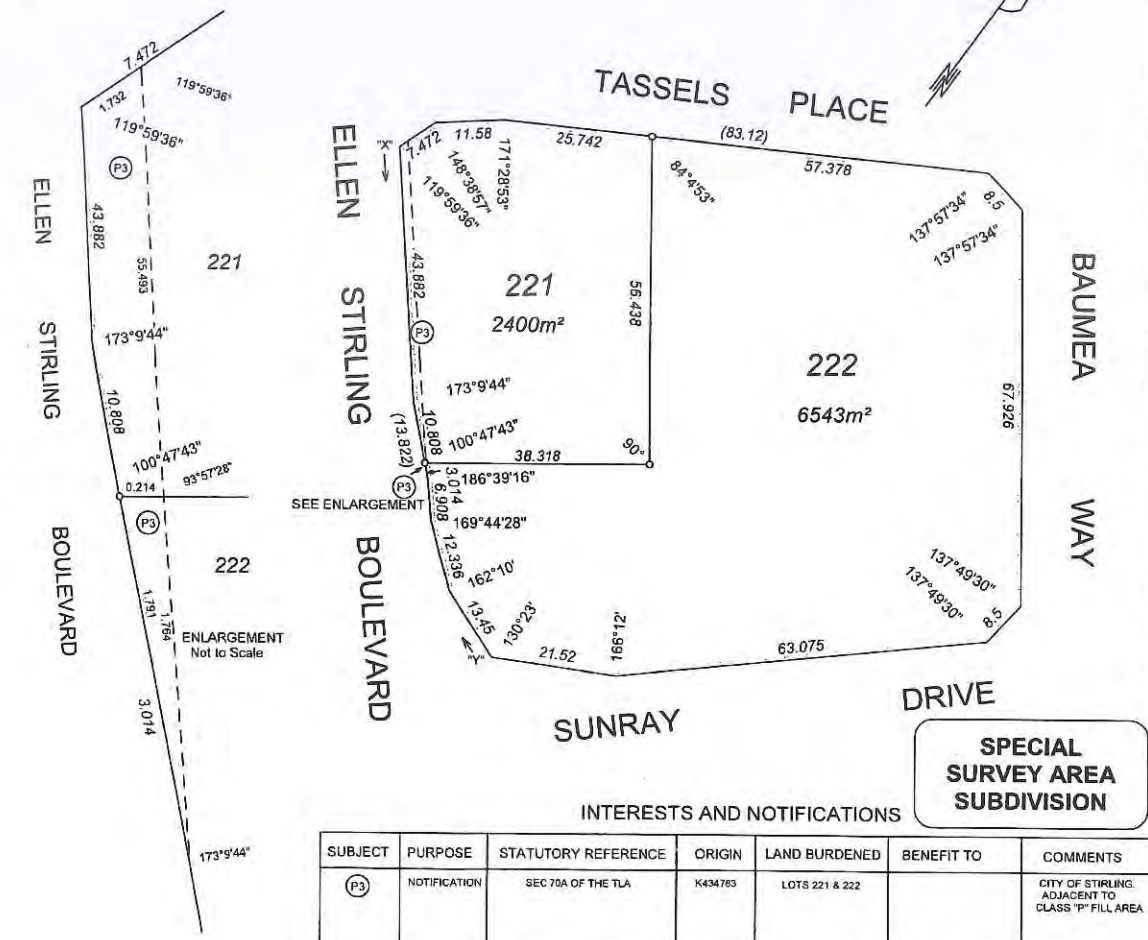
LANDGATE COPY OF ORIGINAL NOT TO SCALE Thu Oct 18 14:10:00 2012 JOB 40291027

LANDGATE COPY OF ORIGINAL NOT TO SCALE Thu Oct 18 14:10:00 2012 JOB 40291027

VERSION	AMENDMENT	AUTHORISED BY	DATE

SURVEY CARRIED OUT UNDER REG 26A
SPECIAL SURVEY AREA GUIDLINES

REFER TO FINAL SURVEY SHEET -
SHEET 2 FOR MARKS PLACED



SPECIAL SURVEY AREA SUBDIVISION

INTERESTS AND NOTIFICATIONS

SUBJECT	PURPOSE	STATUTORY REFERENCE	ORIGIN	LAND BURDENED	BENEFIT TO	COMMENTS
(P3)	NOTIFICATION	SEC 70A OF THE TLA	K434763	LOTS 221 & 222		CITY OF STIRLING ADJACENT TO CLASS "P" FILL AREA
"X" TO "Y"	RESTRICTIVE COVENANT	SEC 129BA OF THE TLA	DOC	LOTS 221 & 222	CITY OF STIRLING	ACCESS RESTRICTION

TYPE FREEHOLD

PURPOSE SUBDIVISION

PLAN OF

LOTS 221 & 222

DP 58517 (01)

SSA YES

DISTRICT SWAN FILE

TOWNSITE

LOCAL AUTHORITY CITY OF STIRLING

LOCALITY INNALOO

FORMER TENURE	ON	FIELD BOOK
LOT 213 ON DP 51152 C/T: 2677-752	INDEX BG 34(2) 10,31	75533

Scale: @ A3 1 : 750
ALL DISTANCE ARE IN METRES
10 5 0 10 20 30 40

SURVEYOR'S CERTIFICATE - Reg 54

I, NIGEL J. SIMPSON hereby certify that this plan is accurate and is a correct representation of the -

(a) survey; and

(b) calculations from measurements, undertaken for the purposes of this plan and that it complies with the relevant written law(s) in relation to which it is lodged.

Licensed Surveyor Date

SURVEYOR'S CERTIFICATE - Compiled

I, hereby certify that this compiled plan

(a) is a correct and accurate representation of the survey(s) of the subject land ; and

(b) is in accordance with the relevant law in relation to which it is lodged.

Licensed Surveyor Date

LODGED

DATE 7-Apr-08

FEE PAID $295.00

ASSESS No. 3692549

TYPE OF VALIDATION

FULL AUDIT

LEGAL COMPONENT M. Schofield

DOCKET 1728-05/3

CERTIFIED CORRECT 10-4-08

I.S.C.

F.S.C.

SURVEY FIRM

GIUDICE SURVEYS

36/08 L213PRE DP58517
8 Stirling Street
FREMANTLE WA
T: 9335 6222
F: 9430 4980

LICENSED LAND SURVEYORS
E: giudice@giudicesurveys.com

IN ORDER FOR DEALINGS

SUBJECT TO Sec 129BA of the T.L.A.

NOTIFICATION SEC.70A OF THE TLA

24.4.08
FOR INSPECTOR OF PLANS & SURVEYS DATE
AUTHORIZED LAND OFFICER

APPROVED REG 26 A(4)

28/4/08
INSPECTOR OF PLANS & SURVEYS DATE
AUTHORIZED LAND OFFICER

APPROVED BY
WESTERN AUSTRALIAN PLANNING COMMISSION
FILE 136076
DELEGATED UNDER S.16 P & D ACT 2005
DATE 25-4-08

Landgate
Western Australian Land Information Authority

DEPOSITED PLAN

58517

ORIGINAL

SHEET 1 OF 2
VERSION 1

RECEIVED
12 DEC 2012

RECEIVED
- 4 FEB 2013

Our ref: 713-128
Your Ref: DA 12/3095

4 February 2013

Mr Daniel Martinovich
Senior Development Assessment Officer
City of Stirling
25 Cedric Street
STIRLING WA 6021

TOWN PLANNING
URBAN DESIGN AND HERITAGE

Dear Daniel

PROPOSED MIXED USE DEVELOPMENT - 1 (LOT 222) SUNRAY DRIVE, INNALOO

Further to your electronic correspondence received on 20 December 2012, we provide the enclosed amended plans and the following response to the issues raised. We provide three hard copies and two electronic copies to the City of Stirling and two hard copies and one electronic copy to the Department of Planning.

City of Stirling Comments	Response to Comments
Building within compressible fill area abutting Ellen Stirling Boulevard.	The notification on the certificate of title is noted. An environmental risk management strategy will be undertaken during the building permit to ensure that issues such as ASS are addressed. The final engineering outcome is still to be confirmed pending geotechnical advice, however, the preliminary advice is a combination of raft and screw piling can be achieved within the compressible fill area. The construction methodology is not a planning issue but rather a building permit issue and the preliminary advice is that the notification can be accommodated. A construction methodology will be prepared for the building permit.
Site plan to make clear exactly which trees and light poles will be affected by the proposed development. Further comments in relation to this will be forthcoming once this has been provided.	It is not proposed to change any of the car parking bays, lights or trees, other than where required to facilitate vehicle access. The plans have been amended to reflect this arrangement.
Weather protection to be provided over footpaths on all ground floor facades.	The amended plans provide for continuous awnings over all footpaths with the exception of the areas over the vehicle entrances (given the heights of the entrance).

PERTH OFFICE
Level 7, 182 St Georges Tce Perth Western Australia 6000
PO Box 7375 Cloisters Square Perth Western Australia 6850
Telephone +61 8 9289 8300 Facsimile +61 8 9321 4786
The Planning Group WA Pty Ltd ABN 36 097 273 222
www.tpgwa.com.au

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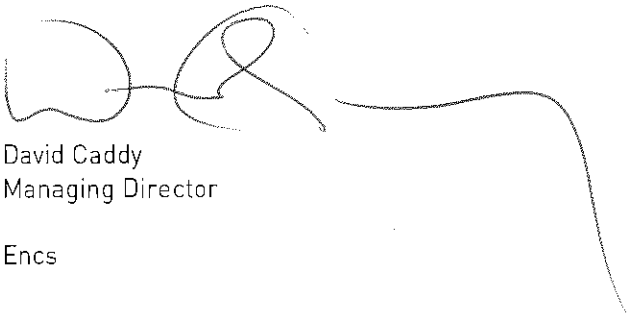
The entry points for the building need to be clearly identified and emphasized.	The ground level entry points have been designed with a different language from the typical retail facade to create contrast and to highlight the entrances.
In relation to the allocated "retail" floor space, please clarify a specific use class in accordance with TPS 38 i.e. Shop or restaurant;	The 'retail' floor space is allocated as 'shop', which is a preferred use.
Please provide details of signage for the proposed development i.e. the size and location of the future areas to be used for signage by tenants;	The proposed signage cannot be confirmed at this stage, as the tenants are not known, however, we would be happy to provide a signage strategy as a condition of any approval.
No lockers have been provided for bike parking end of trip facilities. Lockers to be provided in accordance with Australian standards.	The plans have been amended to include the lockers. A condition of any approval can be imposed requiring the lockers to be provided in accordance with the Australian Standards.
Lighting to be provided under all awnings and at entry points. Architectural lighting of the building also required.	This is noted and agreed and we suggest that this be a condition of any approval.
Justification is required as to how the bin store areas will function i.e. how such a large number of individual bins will be accessed by users.	Each building contains a waste chute within the building core. This allows residents access at each level to dispose of refuse which tracks the chute to the ground floor waste room. The waste is received by a carousel of bins which can either be changed over automatically or by the building manager. Similarly each building has a nominated location for a recycle bin in the core allowing residents to dispose of recycling on their floor directly into a bin. The bins are then changed over in need by the building manager who is only person who accesses the waste room.
The bin storage areas are inaccessible for users other than via the loading bays. This will likely prove problematic for users.	The waste chute identified above limits the residents requirements for access to the chute only and therefore only the building manager and waste collector require access to the ground floor waste rooms, which is provided from the loading bay.
The plans state that 120 residential bays are provided however, the planning report states 159 residential bays are provided. Please clarify.	120 residential car parking bays are provided for the residential dwellings. 39 of the commercial car parking bays are proposed as reciprocal bays for visitors after business hours.

No clothes drying facilities have been provided for the residential dwelling.	Each dwelling will be provided with a nominated laundry which has provision to accommodate a dryer. Further drying is expected to be carried out by residents on a mobile clothes drying rack which can be located on the balconies, within the dwellings or in the communal podium area.
All on street parking bays shown to be removed are to be retained.	The plans have been amended to retain the car parking bays other than where vehicle access is required.
All on street parking bays affected by the proposed crossover and access for the development to be provided elsewhere abutting the development, to the satisfaction of the Engineering Design.	This is not considered a reasonable request as the subject site has a right to gain access to the site via a crossover and it is not the responsibility of the owner to relocate and provide additional on-street car parking.
A 2m x 2m visual truncation to be provided at the property boundary.	The plans have been amended to provide a rebate adjacent to the entry to achieve the required truncation.
Existing and design levels to be shown at the crossover.	The levels of the crossover and access point are provided on the amended plans.

We look forward to the favourable consideration of this application and would be pleased to discuss any aspects of the proposal with you during your consideration of this submission.

Should you have any queries or require clarification on any matters please do not hesitate to contact the undersigned on 08 9289 8300.

Yours sincerely
TPG Town Planning and Urban Design



David Caddy
Managing Director

Encs

cc Ms Catherine Beamish
Department of Planning

PRECINCT 4 - INNALOO
PROPOSED MIXED USE DEVELOPMENT,

TRANSPORT ASSESSMENT - REVISED

transport planning • traffic engineering • project management

Precinct 4 – Innaloo

Proposed Mixed Use Development

Transport Assessment
Revised

Prepared for:
Fabray & Ascot Capital Joint Venture
& Whitehall Investments Pty Ltd

January 2013

Prepared by:
TRANSCORE PTY LTD
61 York Street, Subiaco WA 6008
PO Box 42, Subiaco WA 6904
Telephone (08) 9382 4199
Facsimile (08) 9382 4177

Document history and status

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Author: Vladimir Baltic

Project manager: Behnam Bordbar

Name of organisation: Fabray & Ascot Capital Joint Venture & Whitehall Investments Ltd Pty

Name of project: Proposed Mixed Use Development, Stirling Cross

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Project number: t12.195

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APPENDIX A: Future Traffic Projections (Stirling City Centre Structure Plan)
APPENDIX B: SIDRA Outputs

1.0 Summary

Transcore prepared a Transport Assessment (TA) report for the proposed mixed-use development complex within Precinct 4 in October 2012. Following comments from Department of Transport (DoT), Stirling Alliance (SA) and City of Stirling (CoS) and proposed modifications to the originally proposed land uses, parking supply and parking allocation, this revised TA is prepared to provide additional information and clarifications sought by the relevant authorities.

This revised TA is prepared with respect to the proposed mixed-use development complex (predominantly office and residential) within Precinct 4, west of Stirling railway station in Innaloo, City of Stirling. The subject site comprises Lot 211, Lot 212 (west and east parts), Lot 214 and Lot 222. The development on Lot 221 has already been approved and it is under construction.

Vehicular access for Lots 211 and 212 will be from Tassels Place, Lot 222 from Baumea Way and Lot 214 from Sunray Drive. Sunray Drive provides the primary connection to the surrounding regional road network via the Ellen Stirling Boulevard/Sunray Drive signalised intersection, which also provides the primary access for the adjacent IKEA store to the south.

The site is within walking distance of the Stirling railway station and facilities for pedestrians and cyclists as well as public transport are discussed. As a result this site is treated as a Transit Orientated Development (T.O.D.).

2.0 Introduction

This revised Transport Assessment has been prepared by Transcore on behalf of the Fabray and Ascot Capital joint venture and Whitehall Investments Pty Ltd.

The subject of this report is the proposed mixed-use (predominantly office and residential) development over Lot 211, Lot 212 (west and east parts), Lot 214 and Lot 222. The development of Lot 221 has been approved and is under construction. Precinct 4 is located west of Stirling railway station and north of the existing IKEA store in Innaloo.

The site is bounded by Ellen Stirling Boulevard to the west, Cedric Street to the north, Mitchell Freeway to the east and Sunray Drive to the south, as shown in **Figure 1** overleaf. Tassels Place and Baumea Way form an L-shaped internal road system within this precinct.

This site is part of the "Station Precinct" in the draft *Stirling City Centre Structure Plan* document prepared by the *Stirling City Centre Alliance*. The site is also part of "Precinct 4" of the Stirling Regional Centre. Accordingly, the precinct is a T.O.D.



Figure 1. Site location – aerial view

Key issues that will be addressed in this report include the capacity of the key local intersections of Ellen Stirling Boulevard with Cedric Street and Sunray Drive as gateways to the proposed development to accommodate the traffic from the proposed development.

Previous reports that are relevant to this assessment include:

- *Draft Stirling City Centre Structure Plan* (Stirling Alliance, July 2011)
- *Proposed Commercial Development, Corner of Tassels Place and Ellen Stirling Boulevard, Innaloo – Transport Assessment* (Transcore, May 2008)
- *Stirling Regional Centre Precinct 4 Outline Development Plan* (The Planning Group, 14 December 2005)

- *Proposed IKEA Warehouse – Ellen Stirling Boulevard, Innaloo, Traffic and Access Investigation* (Uloth and Associates, 8 September 2003).

3.0 Development Proposal

This site is within Precinct 4 of the Stirling Regional Centre. This precinct is located close to Stirling railway station and is anticipated to include multi-storey commercial, residential and entertainment-related land uses. The proposed developments are consistent with this objective. The six development sites within this precinct are illustrated in **Figure 2**.

Site A is 1 Tassels Place and is subject to a development proposal by Whitehall Investments Pty Ltd.

Sites B, **C** and **D** are proposed for development by a joint venture between Fabray and Ascot Capital. Sites B and C are Lot 212 (west and east, respectively) and Site D is Lot 214.

Site E (Lot 222) is proposed for an office/retail/residential development by joint venture between Fabray and Ascot Capital;

Site F (Lot 221) is currently under construction with the remaining sites currently vacant.

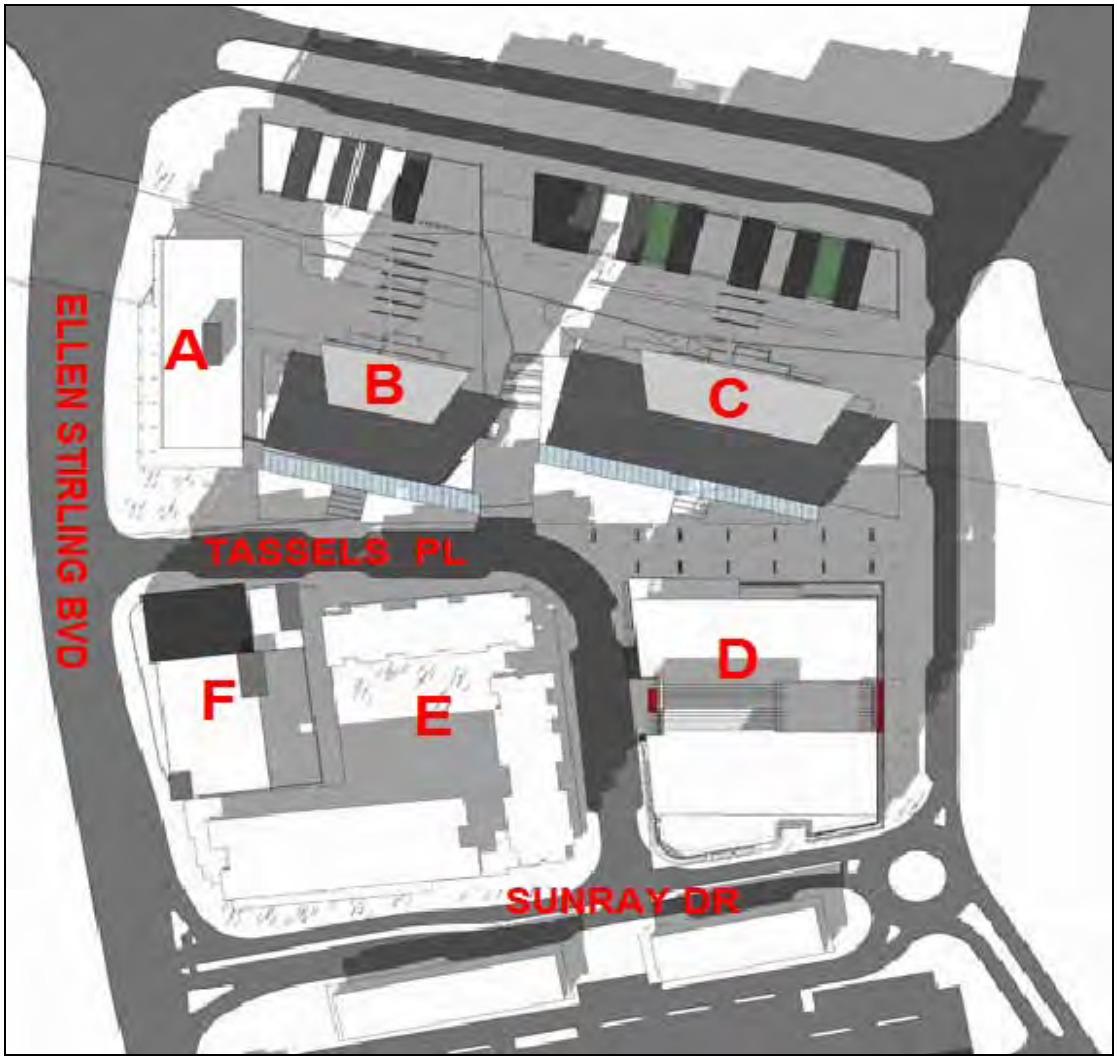


Figure 2. Site layout

Current indications of proposed development components on each site are summarised in **Table 1**. Floor areas shown in table are net floor areas.

Land Use/Lot	Office (m^2)	Retail (m^2)	Café/ tavern (m^2)	CCC (m^2)	Residential (units)	Parking Bays	
						Car	m/c
Lot 211 (A)	7,915	-	102		-	114	24
Lot 214 (D)	15,360	770			-	254	15
Lot 212 (B + C)	44,180	1,860		553	-	432	33
Lot 222 (E)	5,104	1,451	1,107		154	272	3
Total	**72,559**	**4,081**	**1,209**	**553**	**154**	**1,072**	**75**

Table 1. Land use and parking schedule for the proposed development

Vehicle access to the parking areas is proposed from Tassels Place, Baumea Way and Sunray Drive. For the purpose of this assessment it is assumed that Tassels Place will provide one driveway to Site A, two driveways to Lot 212 (sites B and C) and one driveway to Site F. Site D is proposed to have a driveway from Sunray Drive. Access to Site E would be provided from Baumea Way.

In the longer term when the road network changes envisaged in the draft *Stirling City Centre Structure Plan* have been implemented it is anticipated that there will be road frontage along the eastern boundary of Sites C and D as indicated in **Figure 2**. However, this is dependent upon the future construction of Stephenson Boulevard and its Mitchell Freeway interchange and is beyond the timeframe assessed in this report.

Within the same timeframe Cedric Street and Ellen Stirling Boulevard are expected to experience a reduction in traffic volumes.

4.0 Existing Situation

The subject sites are currently vacant although preliminary construction works have commenced on Site F. There is an existing IKEA store and associated shops south of Sunray Drive, which rely on Sunray Drive for right turn access at Ellen Stirling Boulevard. Surrounding residential development west of Ellen Stirling Boulevard and north of Cedric Street do not have direct driveway access to these two roads.

The internal road network within the precinct is shown on **Figure 1**. Sunray Drive and Tassels Place connect to Ellen Stirling Boulevard and Baumea Way provides a link between them within Precinct 4.

Tassels Place and **Baumea Way** are of single carriageway two-lane standard with parking embayments on both sides (no parking restrictions presently apply).

Sunray Drive is a two-lane boulevard (i.e. one lane each way with a raised median) although it has a two-lane approach to Ellen Stirling Boulevard.

Tassels Place has a left-in/left-out T-junction at Ellen Stirling Boulevard with a left turn pocket on the major road. Sunray Drive/Ellen Stirling Boulevard intersection is constructed as a signalised T-junction with a left-turn pocket on the north and east approaches, a right-turn pocket on the south approach and a single right-turn lane from Sunray Drive (east approach) to Ellen Stirling Boulevard north.

Ellen Stirling Boulevard is constructed to dual carriageway standard with two lanes in each direction, as is Cedric Street north of Precinct 4. The Cedric Street/ Ellen Stirling Boulevard intersection is also signalised and includes two right-turn lanes from south to east, a left-turn pocket from south to west and two left-turn lanes from east to south.

According to Main Roads WA, Ellen Stirling Boulevard carried average weekday traffic flows of 28,450 vehicles per day (vpd) south of Cedric Street in August 2012, with 2,467 vehicles per hour (vph) during the weekday PM peak hour.

Cedric Street is shown as a District Distributor A road in the Main Roads WA *Functional Road Hierarchy*. The section between Mitchell Freeway and Ellen Stirling Boulevard was formerly affected by the Mitchell Freeway Primary

Regional Roads reservation in the Metropolitan Region Scheme but this reservation has recently been removed from this section of Cedric Street. Ellen Stirling Boulevard is also a District Distributor A road.

According to Main Roads WA, Cedric Street carried average weekday traffic flows of 24,820vpd east of Odin Road in August 2012, with 2,100vph during the weekday PM peak hour.

Cedric Street and Ellen Stirling Boulevard both have 60km/h speed limits and parking is not permitted on either of these roads in this area.

Information available on the Main Roads WA website indicates that the Cedric Street/Ellen Stirling Boulevard intersection recorded a total of 86 road crashes during the five-year period ending December 2011. More than three-quarters were rear end accidents. None involved pedestrians or cyclists. This intersection ranked 359th in the state in terms of crash frequency and 359th in the state in terms of the cost (or severity) of those crashes (refer **Table 2**).

The crash history data for the other intersection relevant to this development at Tassels Place and Sunray Drive is shown in **Table 3**.

**Denotes a result higher than expected*

Intersection		State Frequency Rank	State Cost Rank	Total Crashes	Casualty
Cedric St/Ellen Stirling Blvd Intersection		187	359	86*	11*
Rear End	**Side Swipe**	**Pedestrian**	**Cycle**	**Wet**	**Night**
66*	13*	0	0	19*	17*

Table 2. Cedric Street/Ellen Stirling Boulevard intersection crash data

The crash history data for the Cedric Street/Ellen Stirling Boulevard intersection suggests that there may be an existing safety issue at this intersection. This is a matter for State and Local Authorities to investigate and address, for example, through Black Spot funding programs.

Intersection		State Frequency Rank	State Cost Rank	Total Crashes	Casualty
Ellen Stirling Blvd/Sunray Dr Intersection		1545	2363	13	1
Rear End	**Right Angle**	**Pedestrian**	**Cycle**	**Wet**	**Night**
12	0	0	0	0	2

Table 3. Ellen Stirling Boulevard/Sunray Drive intersection crash data

The State frequency and cost rankings for crashes at Ellen Stirling Boulevard/Sunray Drive intersection suggest that the crashes are typical of this

type of intersection considering the type, function and traffic volumes through the intersection.

Being located within a short walk to the west of the Stirling train station the precinct and the proposed development qualifies for a T.O.D. (Transit Orientated Development) which is reflected in the way that the precinct road network has been designed and constructed.

A comprehensive pedestrian footpath system surrounds the subject site complemented with shared paths on the western side of Ellen Stirling Boulevard and the northern side of Cedric Street. Pedestrian crossings are conveniently available at the nearby signalised Cedric Street/Ellen Stirling Boulevard, Ellen Stirling Boulevard/Sunray Drive and Cedric Street/Mitchell Freeway on & off ramps intersection, which provides pedestrian link from the site to Stirling railway station.

The existing shared path facilities at the locality also provide direct connection to the Principal Shared Path along Mitchell Freeway including several continuous signed routes in the relative vicinity of the site (NW1, NW8 and NW9). Refer **Figure 3** for more details.

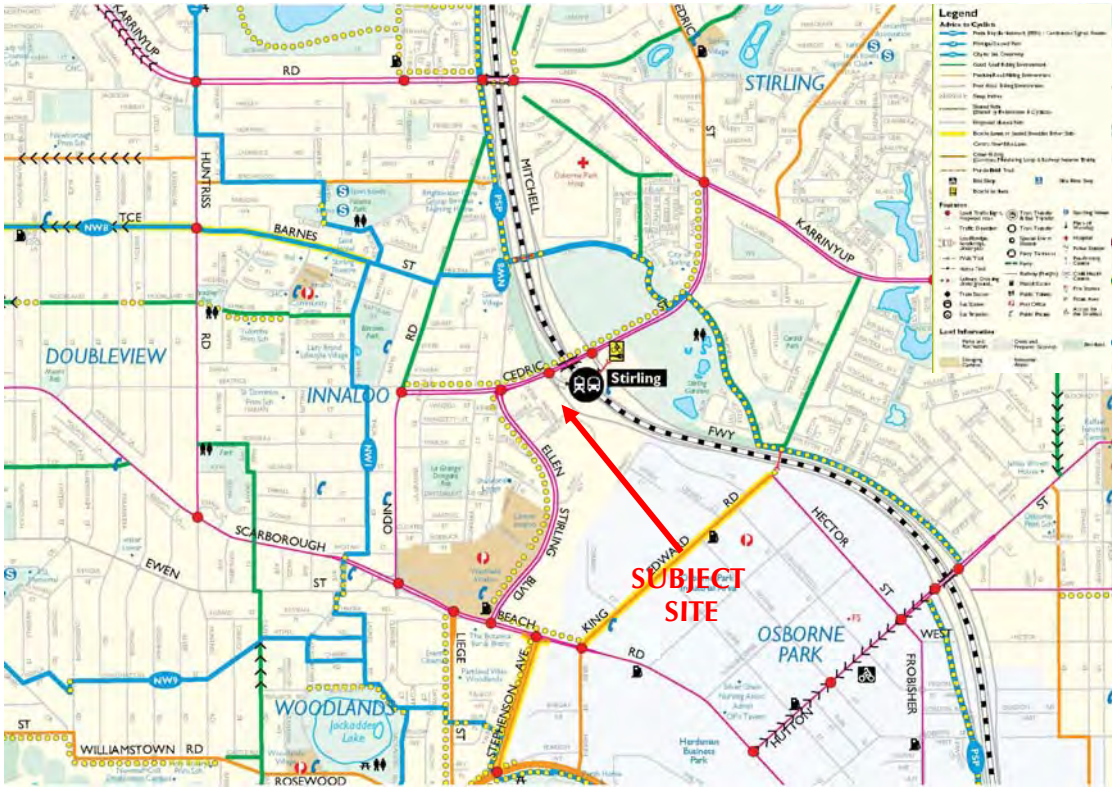


Figure 3. Perth bike map series – local area (source: Department of Transport)

5.0 Changes to Surrounding Transport Networks

In the longer term the draft strategic *Stirling City Centre Structure Plan* document proposes Stephenson Boulevard to be constructed to connect to the Mitchell Freeway and form an interchange with on and off ramps in both directions. The existing Cedric Street interchange will be downgraded (ramps to and from the city direction at Cedric Street to be removed); hence Cedric Street and Ellen Stirling Boulevard traffic flows will reduce substantially.

Long-term road network planning for this part of the Metropolitan Region includes the proposed Stephenson Avenue east of Precinct 4, which would connect from the Mitchell Freeway to the existing section of Stephenson Avenue south of Scarborough Beach Road. The Uloth traffic assessment for the IKEA store noted that these road network modifications would reduce traffic on Ellen Stirling Boulevard by about 10,000vpd but there is currently no funding or timetable for future construction of this road. The extract from *Stirling City Centre Structure Plan* document outlining future traffic projections for the key district roads is appended to this report as **Appendix A**.

The Outline Development Plan for Precinct 4 also envisaged two link roads across Stephenson Avenue to provide access between Ellen Stirling Boulevard and the Osborne Park Industrial Area. One of these links would connect Sunray Drive to Sarich Court in Osborne Park. Refer **Figure 4** for more details.

The Outline Development Plan for Precinct 4 also provides for a future pedestrian bridge to link from the eastern end of Tassels Place to the Stirling railway station bus bridge.

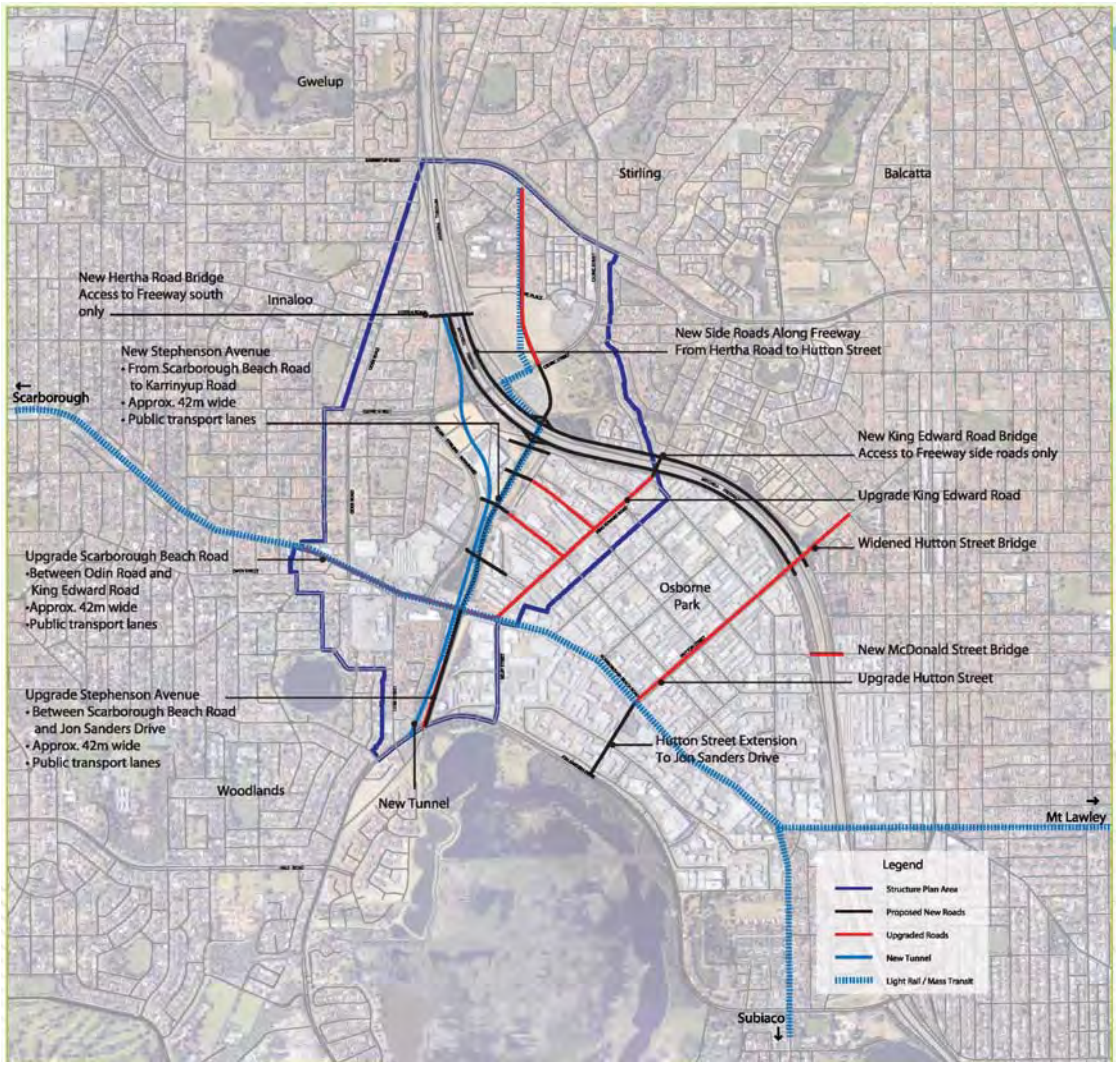


Figure 4. Future road network planning - Precinct 4 (source: Stirling City Centre Structure Plan)

These future road proposals are beyond the scope of this TA and as such shall not be analysed in this document.

6.0 Integration with Surrounding Area

The development proposal is expected to integrate well with the surrounding area as it proposes land uses which are generally in tune with the locality (i.e. commercial, residential and entertainment-related land uses).

The Stirling railway station located east of the site is expected to be the destination for significant pedestrian demand to and from the proposed development. Ultimately, the connection to the station will be improved by the provision of future pedestrian links through Precinct 4; however initially, the existing footpaths along Cedric Street and Ellen Stirling Boulevard will facilitate this connectivity adequately. A footpath is also proposed from Cedric Street

along the eastern boundary of Lot 212 to provide direct access from the station to Precinct 4.

The Westfield Innaloo shopping centre that starts about 400m to the south and residential areas north of Cedric Street and west of Ellen Stirling Boulevard would also result in some pedestrian patronage to the proposed development, depending on the type of uses that the development ultimately accommodates. The signalised Cedric Street/Ellen Stirling Boulevard and Ellen Stirling Boulevard/Sunray Drive intersections will facilitate pedestrian and cyclist movements across these roads.

The traffic generated by IKEA store is spread throughout the day with the majority of vehicle movements falling outside the road network peak hours.

7.0 Traffic Assessment

7.1 Assessment Period

The proposed development will be a mix of commercial, retail and residential uses and as such is expected to generate most traffic movements during the typical weekday morning and evening peak periods. Based on existing traffic counts for the surrounding road network and other available information, the combination of the traffic generated by the development and the peak network traffic period will result in the greatest demand on the road network during the typical weekday AM and PM peak hour. Therefore, trip generation is estimated and traffic analysis is undertaken for both AM and PM peak hour.

Accordingly, the following two scenarios have been assessed:

- **Base case scenario** which involves existing situation (both AM and PM peak hours);
- **Post-development scenario** which involves base case with addition of the development-generated traffic (both AM and PM peak hours).

The post-development scenario assumes no modifications within the present road infrastructure and simply assesses the impact of the proposed developments onto the existing transport network.

The DoT has requested that a third, 10-year horizon scenario (**future scenario**) be investigated where changes to the road network consistent with the recommendations made in the *Stirling City Centre Structure Plan* document will be implemented.

As outlined in section 5.0 of this report the implementation of the network upgrade initiatives proposed in the *Stirling City Centre Structure Plan* document will result in significant modification of the existing road system within Precinct 4. The analysis of the development proposal within that context is too complex for

desktop traffic model and would require preparation of a transport model which is well beyond the scope of this TA. Moreover, the road modifications are likely to occur well beyond the 10-year horizon given that no definite timeframes or funding schemes were provided within the document.

As a result of the proposed road network modifications and the projected future traffic volumes outlined in the *Stirling City Centre Structure Plan* document (refer extract attached in **Appendix A**) the key precinct roads relevant to the proposal all show significant reduction in traffic volumes as a consequence of the proposed extensive road infrastructure modifications. These modifications generally provide for a more permeable road network, shift the focus from Ellen Stirling Boulevard to a new high-capacity route–Stevenson Avenue and provide alternative transport options such as light rail system. Specifically, the daily traffic volumes along Cedric Street (east of Ellen Stirling Boulevard) will drop from the existing (approximately) 45,000vpd[1] to 15,000vpd while Ellen Stirling Boulevard itself is expected to drop significantly from its current level, to the extent that it may be possible to downgrade Ellen Stirling Boulevard to a two-lane road south of the IKEA site.

Accordingly, due to the proposed changes in future transport network and traffic patterns at this locality the key road links and intersections relevant to this development proposal are all expected to perform markedly better than in the short-term period.

During the time period between full construction and activation of the development proposal and the implementation of the *Stirling City Centre Structure Plan* road network modifications, no significant growth and changes in traffic pattern is expected due to the fact that the locality would be fully developed and local roads would be at or near capacity. Until major infrastructure improvements are implemented at this location road users are likely to seek alternative routes or avoid travelling through the area during peak network periods.

7.2 Trip Generation and Distribution

The proposed development is predominantly office use where typical peak periods take place in the morning when most of the employees arrive, and in the evening when most of the employees depart. These peak periods would coincide with the road network peak periods, which have been established to be between 7:45AM–8:45AM in the morning and between 4:30PM–5:30PM in the evening.

As Precinct 4 is a T.O.D., which is reflected in the constructed road network and the proposed parking supply (in accordance with the proposed *Stirling City Centre Access and Parking Strategy*), it is deemed more appropriate to calculate the traffic generation of the proposed development on the basis of parking supply rather than the traditional method of using floor areas. This approach will reflect the anticipated higher public transport and walk/cycle patronage. Also,

[1] *Estimation based on current SCATS data provided by Main Roads WA*

reference is made to the document *"Guide to Traffic Generating Developments, Roads and Traffic Authority of New South Wales" (2002)* were appropriate.

The parking supply at the site is factored in the traffic generation calculations. The land use and car park schedule for the proposed development are detailed in the **Table 1**.

The reliance on public transport services is inherent for all T.O.D. developments. This is a reflection of maximum parking numbers permitted for the precinct. Accordingly the following assumptions has been made in calculating the traffic generation of the proposed development, which is based on parking supply instead of land use floor areas.

- Four trip rates per parking bay per weekday for non-residential land uses;
- Two trip rates per parking bay per weekday for residential land uses;
- One trip rate per parking bay during the road network peak hours for office and child care land uses;
- 80% of office peak period trips occurs during the selected AM and PM road network peak hours;
- No trips during the AM peak hour for retail and tavern land uses;
- 0.5 trips per parking bay during the road network AM and PM peak hours for café;
- 0.5 trips per parking bay during the road network PM peak hour for the retail and Tavern land uses;
- 0.3 trips per parking bay during the road network AM and PM peak hours for the small residential units;
- 0.4 trips per parking bay during the road network AM and PM peak hours for the large residential units; and,
- 50% reduction of residential trips due to additional use of public transport.

Accordingly, the adopted AM and PM trip rates during the road network peak hour for various land uses proposed for the Precinct 4 development are illustrated in the **Table 4**. It should be re-iterated that the adopted trip rates are for during the road network peak hours and not the land use peak hour.

	Peak hour trip rate per bay		**AM Peak hour split**	**PM Peak hour split**
	AM	**PM**	**in/out (%)**	**in/out (%)**
Office	1 trip	1 trip	80/20	20/80
Café	0.5 trips	0.5 trips	80/20	20/80
Tavern	0 trips	0.5 trips	-	20/80
Retail	0 trips	0.5 trips	-	20/80
Day Care Centre	1 trips	1 trips	50/50	50/50
Residential (large units)	0.4 trips	0.4 trips	80/20	20/80
Residential (small units)	0.3 trips	0.3 trips	80/20	20/80

Table 4. Trip rates per parking bay for various land uses during the road network peak hours

It is therefore estimated that the proposed development would generate approximately **4,000** total daily vehicle trips with approximately **730** and **770** vehicular trips during the AM and PM peak hours, respectively.

The developments directional traffic distribution assumptions were based on historical work within the precinct and the layout of the local and regional road network including the distribution of land uses beyond the immediate area.

Accordingly, the following directional distribution of the development-generated traffic was assumed:

- 70% of all site-generated traffic to/from east (Mitchell Freeway);
- 10% of all site-generated traffic to/from west;
- 20% of all site-generated traffic to/from south;

All vehicular trips generated by the proposed development are expected to be new trips with no pass-by or diverted trips anticipated. The types of vehicles involved are expected to be predominantly cars, with a small proportion of light commercial vehicles.

7.3 Traffic Flows

The estimated morning and afternoon peak hour traffic volumes generated by the proposed developments through the key local intersections are illustrated in **Figure 5.**



Figure 5. Estimated development-generated inbound/outbound traffic distribution – AM/PM peak hour trips

7.4 Analysis of Development Accesses

As previously indicated all but Lot 214 development will take access from Tassels Place and Baumea Way.

Lot 214 will have its access point onto Sunray Drive. Sunray Drive entails a raised median and, in order to enable a full-movement driveway crossover for Lot 214 development, a median opening is required. However, the proximity of the roundabout immediately east of the proposed crossover would enable all but right-turn in movements for the crossover. Based on the layout of the local road network the demand for this movement is estimated to be minimal.

According to the development plans the driveway crossovers for the reminder of the development components are envisaged to be located as follows:

- **Lot 211**: Northern side of Tassels Place.
- **Lot 212 (west & east)**: Northern side of Tassels Place.
- **Lot 222**: Western side of Baumea Way.

With respect to the anticipated peak hour traffic volumes expected to traverse the respective crossovers and the traffic patterns along Tassels Place and Baumea Way, all driveways to individual developments are expected to operate satisfactorily with no excessive queuing or delays.

7.5 Impact on Surrounding Roads

The traffic generated by the proposed development will result in traffic increases along Tassels Place and Baumea Way of between 2,000 and 3,000vpd at various sections of these roads. Both of these roads can accommodate this traffic increase considering the function and standard.

As outlined earlier, the highest traffic associated with IKEA occurs over the weekend when the traffic from the proposed development is expected to be at its lowest. Therefore any existing congestion associated with IKEA traffic will have an insignificant impact on the proposed development.

7.6 Impact on Intersections

The two key intersections affected by the traffic from the proposed development are Ellen Stirling Boulevard/Sunray Drive and Cedric Street/Ellen Stirling Boulevard signalised intersections. These two intersections have been analysed to determine their capacity to handle the traffic flows from full development as shown in **Figure 2**.

Capacity analysis of these two intersections for existing and post-development periods has been undertaken using the SIDRA computer software package. SIDRA is an intersection modelling tool commonly used by traffic engineers for all types of intersections. SIDRA outputs are presented in the form of Degree of Saturation, Level of Service, Average Delay and 95% Queue. These characteristics are defined as follows:

- **Degree of Saturation** is the ratio of the arrival traffic flow to the capacity of the approach during the same period. The Degree of Saturation ranges from close to zero for infrequent traffic flow up to one for saturated flow or capacity.
- **Level of Service** is the qualitative measure describing operational conditions within a traffic stream and the perception by motorists and/or passengers. In general, there are 6 levels of service, designated from A to F, with Level of Service A representing the best operating condition (i.e. free flow) and Level of Service F the worst (i.e. forced or breakdown flow).
- **Average Delay** is the average of all travel time delays for vehicles through the intersection.
- **95% Queue** is the queue length below which 95% of all observed queue lengths fall**.**

The results of the existing and post development SIDRA analysis for the AM and PM peak hours for the Ellen Stirling Boulevard/Sunray Drive and Cedric Street/Ellen Stirling Boulevard intersections are detailed in **Tables 5 to 12**. Detailed SIDRA outputs including junction layouts, signal times and the proposed signal phasing, as requested by DoT, are appended in **Appendix B** of this report.

It should be noted however that all traffic associated with the major local traffic generators such as IKEA and Westfield Innaloo shopping centre is accounted for in the capacity assessment as this traffic already features in the existing traffic volumes and as such is registered in the SCATS data.

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop Queued	Effective Stop Rate per veh	Average Speed km/h
South: Ellen Stirling Bvd											
1	L	64	2.0	0.067	9.7	LOS A	0.5	3.3	0.34	0.66	47.4
3	R	378	2.0	0.279	22.4	LOS C	4.0	28.3	0.75	0.77	37.4
Approach		442	2.0	0.279	20.5	LOS C	4.0	28.3	0.69	0.75	38.5
East: Cedric St (E)											
4	L	1409	2.0	0.544	8.4	LOS A	2.1	15.2	0.11	0.64	48.9
5	T	595	2.0	0.656	23.7	LOS C	8.0	56.6	0.92	0.79	34.5
Approach		2004	2.0	0.656	13.0	LOS B	8.0	56.6	0.35	0.68	43.6
West: Cedric St (W)											
11	T	1309	2.0	0.777	18.4	LOS B	18.1	128.6	0.92	0.88	37.6
12	R	90	2.0	0.486	37.8	LOS D	2.7	19.3	0.99	0.77	29.5
Approach		1399	2.0	0.777	19.6	LOS B	18.1	128.6	0.92	0.87	37.0
All Vehicles		3845	2.0	0.777	16.3	LOS B	18.1	128.6	0.60	0.76	40.3

Level of Service (LOS) Method: Delay (HCM 2000).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop Queued	Effective Stop Rate per ped
P1	Across S approach	53	7.5	LOS A	0.0	0.0	0.50	0.50
P7	Across W approach	53	24.3	LOS C	0.1	0.1	0.90	0.90
All Pedestrians		106	15.9	LOS B			0.70	0.70

Table 5. SIDRA results for the Cedric Street/Ellen Stirling Boulevard intersection – AM peak hour existing

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop Queued	Effective Stop Rate per veh	Average Speed km/h
South: Ellen Stirling Bvd											
1	L	82	2.0	0.085	10.0	LOS A	0.6	4.5	0.36	0.66	47.1
3	R	498	2.0	0.367	23.0	LOS C	5.4	38.7	0.78	0.79	37.0
Approach		580	2.0	0.367	21.1	LOS C	5.4	38.7	0.72	0.77	38.2
East: Cedric St (E)											
4	L	1797	2.0	0.729	8.8	LOS A	4.3	30.6	0.19	0.66	48.6
5	T	595	2.0	0.765	27.5	LOS C	8.9	63.0	0.97	0.89	32.4
Approach		2392	2.0	0.765	13.4	LOS B	8.9	63.0	0.38	0.72	43.3
West: Cedric St (W)											
11	T	1309	2.0	0.777	18.4	LOS B	18.1	128.6	0.92	0.88	37.6
12	R	146	2.0	0.592	36.4	LOS D	4.3	30.9	0.99	0.81	30.1
Approach		1455	2.0	0.777	20.2	LOS C	18.1	128.6	0.92	0.87	36.7
All Vehicles		4427	2.0	0.777	16.7	LOS B	18.1	128.6	0.60	0.78	40.2

Level of Service (LOS) Method: Delay (HCM 2000).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop Queued	Effective Stop Rate per ped
P1	Across S approach	53	8.5	LOS A	0.0	0.0	0.53	0.53
P7	Across W approach	53	24.3	LOS C	0.1	0.1	0.90	0.90
All Pedestrians		106	16.4	LOS B			0.72	0.72

Table 6. SIDRA results for the Cedric Street/Ellen Stirling Boulevard intersection – AM peak hour post development

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop Queued	Effective Stop Rate per veh	Average Speed km/h
South: Ellen Stirling Bvd											
1	L	262	2.0	0.338	13.1	LOS B	3.7	26.4	0.50	0.71	44.2
3	R	1187	2.0	0.898	44.1	LOS D	25.0	178.3	1.00	1.06	27.3
Approach		1449	2.0	0.898	38.5	LOS D	25.0	178.3	0.91	1.00	29.3
East: Cedric St (E)											
4	L	862	2.0	0.314	8.3	LOS A	1.0	7.4	0.08	0.62	49.1
5	T	1037	2.0	0.889	33.7	LOS C	20.0	142.2	0.99	1.04	29.6
Approach		1899	2.0	0.889	22.2	LOS C	20.0	142.2	0.58	0.85	36.2
West: Cedric St (W)											
11	T	675	2.0	0.368	12.8	LOS B	7.4	52.6	0.68	0.59	42.3
12	R	62	2.0	0.391	43.1	LOS D	2.2	15.4	0.98	0.75	27.5
Approach		737	2.0	0.391	15.3	LOS B	7.4	52.6	0.71	0.60	40.5
All Vehicles		4085	2.0	0.898	26.7	LOS C	25.0	178.3	0.72	0.86	34.0

Level of Service (LOS) Method: Delay (HCM 2000).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop Queued	Effective Stop Rate per ped
P1	Across S approach	53	6.4	LOS A	0.0	0.0	0.43	0.43
P7	Across W approach	53	26.6	LOS C	0.1	0.1	0.87	0.87
All Pedestrians		106	16.5	LOS B			0.65	0.65

Table 7. SIDRA results for the Cedric Street/Ellen Stirling Boulevard intersection – PM peak hour existing

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop Queued	Effective Stop Rate per veh	Average Speed km/h
South: Ellen Stirling Bvd											
1	L	320	2.0	0.502	15.8	LOS B	6.8	48.5	0.46	0.74	42.1
3	R	1589	2.0	0.891	46.4	LOS D	45.4	323.3	0.98	0.98	26.6
Approach		1909	2.0	0.891	41.3	LOS D	45.4	323.3	0.90	0.94	28.3
East: Cedric St (E)											
4	L	1000	2.0	0.331	8.3	LOS A	1.9	13.6	0.08	0.63	49.0
5	T	1037	2.0	0.889	47.8	LOS D	29.4	209.7	1.00	1.01	24.9
Approach		2037	2.0	0.889	28.4	LOS C	29.4	209.7	0.55	0.82	32.9
West: Cedric St (W)											
11	T	675	2.0	0.424	24.8	LOS C	12.9	91.5	0.76	0.66	34.2
12	R	82	2.0	0.813	71.3	LOS E	4.9	34.9	1.00	0.90	20.4
Approach		757	2.0	0.813	29.9	LOS C	12.9	91.5	0.79	0.68	31.8
All Vehicles		4703	2.0	0.891	33.9	LOS C	45.4	323.3	0.73	0.85	30.7

Level of Service (LOS) Method: Delay (HCM 2000).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop Queued	Effective Stop Rate per ped
P1	Across S approach	53	4.1	LOS A	0.0	0.0	0.27	0.27
P7	Across W approach	53	24.2	LOS C	0.1	0.1	0.66	0.66
All Pedestrians		106	14.2	LOS B			0.47	0.47

Table 8. SIDRA results for the Cedric Street/Ellen Stirling Boulevard intersection – PM peak hour post development

The results of the SIDRA analysis of the Cedric Street/Ellen Stirling Boulevard intersection for the morning peak hour period indicate that the overall LoS B will be maintained in the post-development stage with moderate increase in queues and delays on intersection legs directly impacted by the inbound traffic flows associated with the proposed development.

The results also indicate that, during the evening peak hour, overall level of service for the intersection remains to be that of LoS C in the post development stage. The most pronounced impact from the development traffic is experienced on the Cedric Street western leg of the intersection where right-turns record delays of 71sec. However, the anticipated queues for this movement of 35m are still fully contained within the existing right-turn pocket.

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop Queued	Effective Stop Rate per veh	Average Speed km/h
South: Ellen Stirling Bvd (S)											
11	T	452	2.0	0.166	5.9	LOS A	4.0	28.6	0.36	0.31	50.1
12	R	5	1.0	0.025	35.3	LOS D	0.2	1.2	0.91	0.65	30.5
Approach		457	2.0	0.166	6.2	LOS A	4.0	28.6	0.37	0.31	49.8
East: Sunray Drive											
1	L	10	1.0	0.023	17.4	LOS B	0.2	1.5	0.47	0.65	40.7
3	R	12	1.0	0.034	46.8	LOS D	0.5	3.7	0.84	0.69	26.3
Approach		22	1.0	0.034	33.4	LOS C	0.5	3.7	0.67	0.67	31.4
North: Ellen Stirling Bvd (N)											
4	L	50	1.0	0.039	8.0	LOS A	0.1	1.0	0.12	0.62	49.1
5	T	1568	2.0	0.837	29.8	LOS C	38.6	275.0	0.94	0.90	31.4
Approach		1618	2.0	0.837	29.2	LOS C	38.6	275.0	0.91	0.89	31.7
All Vehicles		2097	2.0	0.837	24.2	LOS C	38.6	275.0	0.79	0.76	34.5

Level of Service (LOS) Method: Delay (HCM 2000).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop Queued	Effective Stop Rate per ped
P7	Across S approach	53	49.2	LOS E	0.2	0.2	0.95	0.95
P1	Across E approach	53	18.6	LOS B	0.1	0.1	0.58	0.58
All Pedestrians		106	33.9	LOS D			0.76	0.76

Table 9. SIDRA results for the Ellen Stirling Boulevard/Sunray Drive intersection – AM peak hour existing

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop Queued	Effective Stop Rate per veh	Average Speed km/h
South: Ellen Stirling Bvd (S)											
11	T	452	2.0	0.166	5.9	LOS A	4.0	28.6	0.36	0.31	50.1
12	R	117	1.0	0.576	38.3	LOS D	4.3	30.4	0.99	0.78	29.3
Approach		569	1.8	0.576	12.5	LOS B	4.3	30.4	0.49	0.41	43.7
East: Sunray Drive											
1	L	24	1.0	0.056	17.6	LOS B	0.5	3.8	0.48	0.67	40.5
3	R	150	1.0	0.422	50.7	LOS D	7.2	50.8	0.93	0.80	25.2
Approach		174	1.0	0.422	46.2	LOS D	7.2	50.8	0.87	0.78	26.6
North: Ellen Stirling Bvd (N)											
4	L	24	1.0	0.025	8.5	LOS A	0.1	1.0	0.17	0.62	48.7
5	T	1568	2.0	0.837	29.8	LOS C	38.6	275.0	0.94	0.90	31.4
Approach		1592	2.0	0.837	29.5	LOS C	38.6	275.0	0.93	0.89	31.6
All Vehicles		2335	1.9	0.837	26.6	LOS C	38.6	275.0	0.82	0.76	33.3

Level of Service (LOS) Method: Delay (HCM 2000).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop Queued	Effective Stop Rate per ped
P7	Across S approach	53	49.2	LOS E	0.2	0.2	0.95	0.95
P1	Across E approach	53	18.6	LOS B	0.1	0.1	0.58	0.58
All Pedestrians		106	33.9	LOS D			0.76	0.76

Table 10. SIDRA results for the Ellen Stirling Boulevard/Sunray Drive intersection – AM peak hour post development

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Ellen Stirling Bvd (S)											
11	T	1291	2.0	0.565	10.9	LOS B	15.5	110.2	0.67	0.60	44.0
12	R	16	1.0	0.057	24.7	LOS C	0.3	2.1	0.88	0.69	35.8
Approach		1307	2.0	0.565	11.1	LOS B	15.5	110.2	0.67	0.60	43.8
East: Sunray Drive											
1	L	50	1.0	0.068	10.4	LOS B	0.5	3.4	0.34	0.66	46.7
3	R	131	1.0	0.268	33.5	LOS C	4.1	29.1	0.83	0.78	31.4
Approach		181	1.0	0.268	27.1	LOS C	4.1	29.1	0.70	0.74	34.5
North: Ellen Stirling Bvd (N)											
4	L	146	1.0	0.116	8.1	LOS A	0.5	3.3	0.17	0.64	48.8
5	T	755	2.0	0.675	27.8	LOS C	13.3	95.0	0.94	0.81	32.3
Approach		901	1.8	0.675	24.6	LOS C	13.3	95.0	0.82	0.79	34.2
All Vehicles		2389	1.9	0.675	17.4	LOS B	15.5	110.2	0.73	0.68	38.9

Level of Service (LOS) Method: Delay (HCM 2000).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P7	Across S approach	53	34.2	LOS D	0.1	0.1	0.93	0.93
P1	Across E approach	53	25.6	LOS C	0.1	0.1	0.80	0.80
All Pedestrians		106	29.9	LOS C			0.86	0.86

Table 11. SIDRA results for the Ellen Stirling Boulevard/Sunray Drive intersection – PM peak hour existing

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Ellen Stirling Bvd (S)											
11	T	1291	2.0	0.679	18.9	LOS B	21.6	154.0	0.82	0.74	37.5
12	R	56	1.0	0.225	28.9	LOS C	1.4	9.9	0.93	0.74	33.5
Approach		1347	2.0	0.679	19.3	LOS B	21.6	154.0	0.83	0.74	37.3
East: Sunray Drive											
1	L	95	1.0	0.118	11.0	LOS B	1.1	7.8	0.34	0.67	46.1
3	R	591	1.0	0.840	41.5	LOS D	26.7	188.6	0.98	0.95	28.1
Approach		686	1.0	0.840	37.3	LOS D	26.7	188.6	0.89	0.91	29.7
North: Ellen Stirling Bvd (N)											
4	L	10	1.0	0.008	8.1	LOS A	0.0	0.2	0.15	0.62	49.0
5	T	755	2.0	0.873	46.2	LOS D	18.8	134.0	1.00	1.04	25.4
Approach		765	2.0	0.873	45.7	LOS D	18.8	134.0	0.99	1.03	25.5
All Vehicles		2798	1.7	0.873	30.9	LOS C	26.7	188.6	0.89	0.86	31.4

Level of Service (LOS) Method: Delay (HCM 2000).
Vehicle movement LOS values are based on average delay per movement
Intersection and Approach LOS values are based on average delay for all vehicle movements.
SIDRA Standard Delay Model used.

Movement Performance - Pedestrians

Mov ID	Description	Demand Flow ped/h	Average Delay sec	Level of Service	Average Back of Queue Pedestrian ped	Average Back of Queue Distance m	Prop. Queued	Effective Stop Rate per ped
P7	Across S approach	53	28.0	LOS C	0.1	0.1	0.79	0.79
P1	Across E approach	53	32.9	LOS D	0.1	0.1	0.86	0.86
All Pedestrians		106	30.5	LOS D			0.82	0.82

Table 12. SIDRA results for the Ellen Stirling Boulevard/Sunray Drive intersection – PM peak hour post development

The result of the SIDRA analysis for the Ellen Stirling Boulevard/Sunray Drive intersection during the AM peak period confirms that this intersection will continue to operate in a similar fashion in the post–development stage with similar capacity, level of service and average delay results.

Conversely, the impact from the development-generated traffic is higher in the PM peak period where level of service for this intersection changes from LoS B to LoS C and overall queues and delays increase accordingly. Importantly, the analysis confirms that the intersection still entails approximately 13% of spare capacity to accommodate future traffic growth.

7.7 Impact on Neighbouring Areas

There is minimal potential for traffic generated by the proposed development to adversely affect surrounding residential areas as the approach routes to the development will be on the district-level road network and not on local residential streets.

7.8 Traffic Noise and Vibration

It generally requires a doubling of traffic volumes on a road to produce a perceptible 3dB(A) increase in road noise. The proposed development will not increase traffic volumes or noise on surrounding roads to this level.

7.9 Road Safety

As noted in section 4.0 the Cedric Street/Ellen Stirling Boulevard intersection ranks 187th in the state in terms of number of road crashes and casualties. Above average results for rear end and side swipe crashes as well as night time and wet condition incidents are also recorded for this intersection. Therefore it is suggested that relevant authorities should investigate and address any potential safety issues at this intersection.

No other road safety issues have been identified for the proposed development or the road network at this locality.

8.0 Parking

According to the advice provided to Transcore the parking supply for the proposed development was developed with respect to the guidelines provided in the *Stirling City Centre Access and Parking Strategy (August 2010)* document. The provisions for parking supply in this document state that Precinct 4, with an estimated developable land area of 32.6ha, should have maximum permitted

amount of 8,150 car bays. This equates to 250 bays per hectare. This level of parking supply is in line with T.O.D nature of the precinct.

Accordingly, a total of 1,072 parking bays are proposed for the development with an additional 75 motorcycle bays. Based on the advice provided to Transcore, the proposed parking supply for the development proposal is consistent with provisions of the *Stirling City Centre Access and Parking Strategy (August 2010)* document.

9.0 Public Transport

The subject site enjoys excellent exposure to public transport facilities (refer **Figure 6**). There are a number of existing bus services operating in the immediate vicinity of the site with bus stops within walking distance. The nearest bus stops are located on Cedric Street (80m west of Ellen Stirling Boulevard intersection), Ellen Stirling Boulevard (60m south of Sunray Drive intersection) and at Stirling train station a short distance to the northeast of the subject site. **Table 13** lists all bus services operating in immediate vicinity of the subject site.

Service number	Bus route
98,99	Circular Route
402	Stirling Train Station to Wellington Bus Station
410	Stirling Train Station to The Esplanade
412	Stirling Train Station/Hastings Street
413, 414	Stirling Train Station to Glendalough Train Station (via Osborne Park and Balcatta)
415	Stirling Train Station/Mirrabooka Bus Station
421	Stirling Train Station to The Esplanade
423, 425	Stirling Train Station to Warwick Train Station (via Hillarys and Carine)
424, 426	Stirling Train Station to Karrinyup (via North Beach or Huntress Road)
427, 428	Stirling Train Station to Warwick Train Station (via Gwelup and Balcatta)

Table 13. List of bus services operating in the vicinity of the subject site

The subject site is also within the comfortable walking distance of Stirling train station (refer **Figure 6**).

The WAPC *Development Control Policy 1.6 – Planning to Support Transit Use and Transit Oriented Development (January 2006)* indicates that the use of transit facilities is dependent on the walking distance to these facilities. In particular, about 10-15 minutes walking time (800m) would be the ideal walking distance threshold for rail stations, transit interchanges or major bus transfer stations/terminals, and about 5 – 7 minutes walking time, or 400m, would be the

threshold for bus stops located on bus routes with multiple bus services that are high frequency of 15 minutes or less during peak periods.

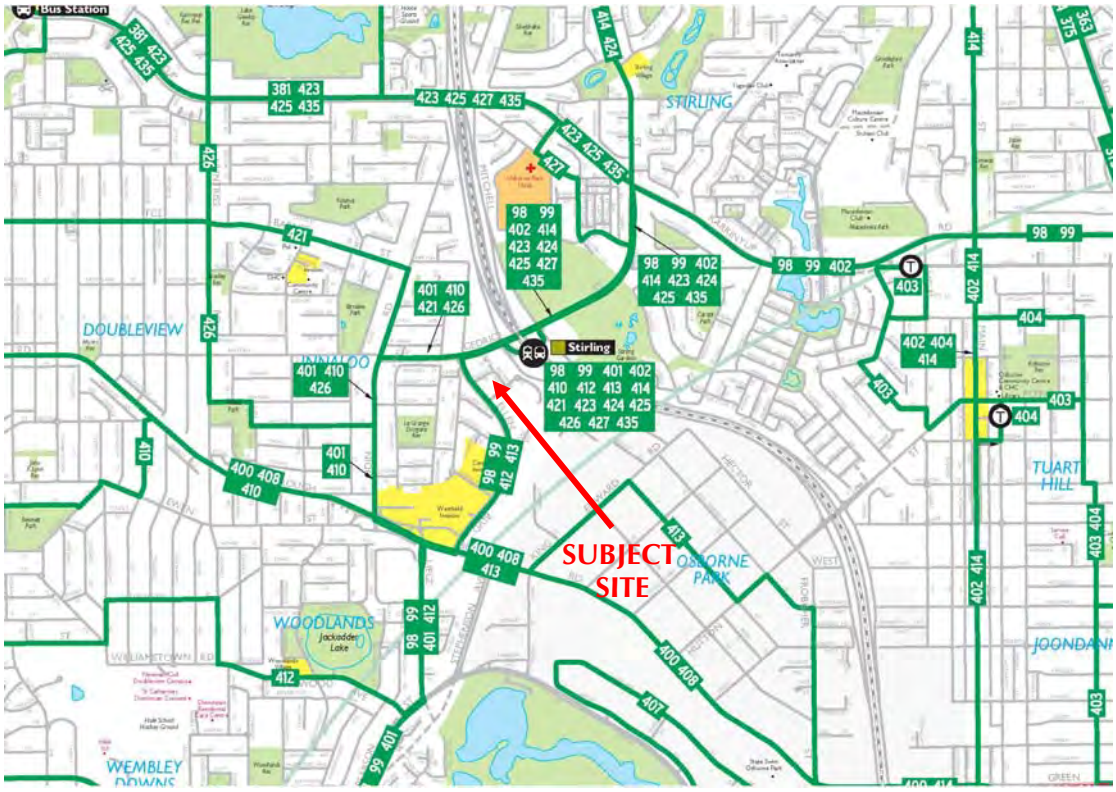


Figure 6. Local bus map (source: Transperth)

10.0 Pedestrians and Cyclists

10.1 Pedestrian Access / Amenity

The proposed development entails frontages on Ellen Stirling Boulevard, Tassels Place, Baumea Way and Sunray Drive. As such, pedestrian access is directly from the footpaths on these streets into respective developments.

All respective roads including Cedric Street have existing paths on both sides. A footpath is proposed along eastern boundary of Lot 212 from Cedric Street into Precinct 4.

10.2 Cycle Access/Amenity

The proposed development will provide for excellent cyclist facilities to take full advantage of very good cyclist path network available at the locality.

10.3 Analysis of Pedestrian/Cycle Networks

Existing footpaths on Tassels Place, Baumea Way and Sunray Drive including footpaths and shared paths on Ellen Stirling Boulevard and Cedric Street provide good pedestrian and cycle routes to major destinations in the area including Stirling railway station, Innaloo shopping centre and IKEA.

The traffic lights at Cedric Street/Ellen Stirling Boulevard and Ellen Stirling Boulevard/Sunray Drive intersections facilitate pedestrian and cyclist movements across Ellen Stirling Boulevard and Cedric Street. As these intersections are only about 250m apart no additional intermediate facilities are considered necessary.

11.0 Conclusions

This Transport Assessment has been prepared with regard to the proposed mixed-use development of Lot 211, Lot 212 (west and east parts), Lot 214 and Lot 222, which form part of Precinct 4, located west of Stirling railway station and north of the existing IKEA. The development on Lot 221has been approved and is currently under construction. A total of 1,072 parking bays for the development are provided.

The subject site is a T.O.D which is reflected in the design and construction of the local road network and the parking supply management imposed on Precinct 4. The site has good access by the existing road network, footpaths and bicycle routes in this area.

Being located within walking distance of Stirling railway station with a number of bus services operating in the immediate vicinity, the subject site enjoys excellent coverage by various public transport options.

Vehicle access to this development will be from Tassels Place, Baumea Way and Sunray Drive and the traffic from this development will primarily affect the Ellen Stirling Boulevard/Tassels Place, Ellen Stirling Boulevard/Sunray Drive and Cedric Street/Ellen Stirling Boulevard intersections.

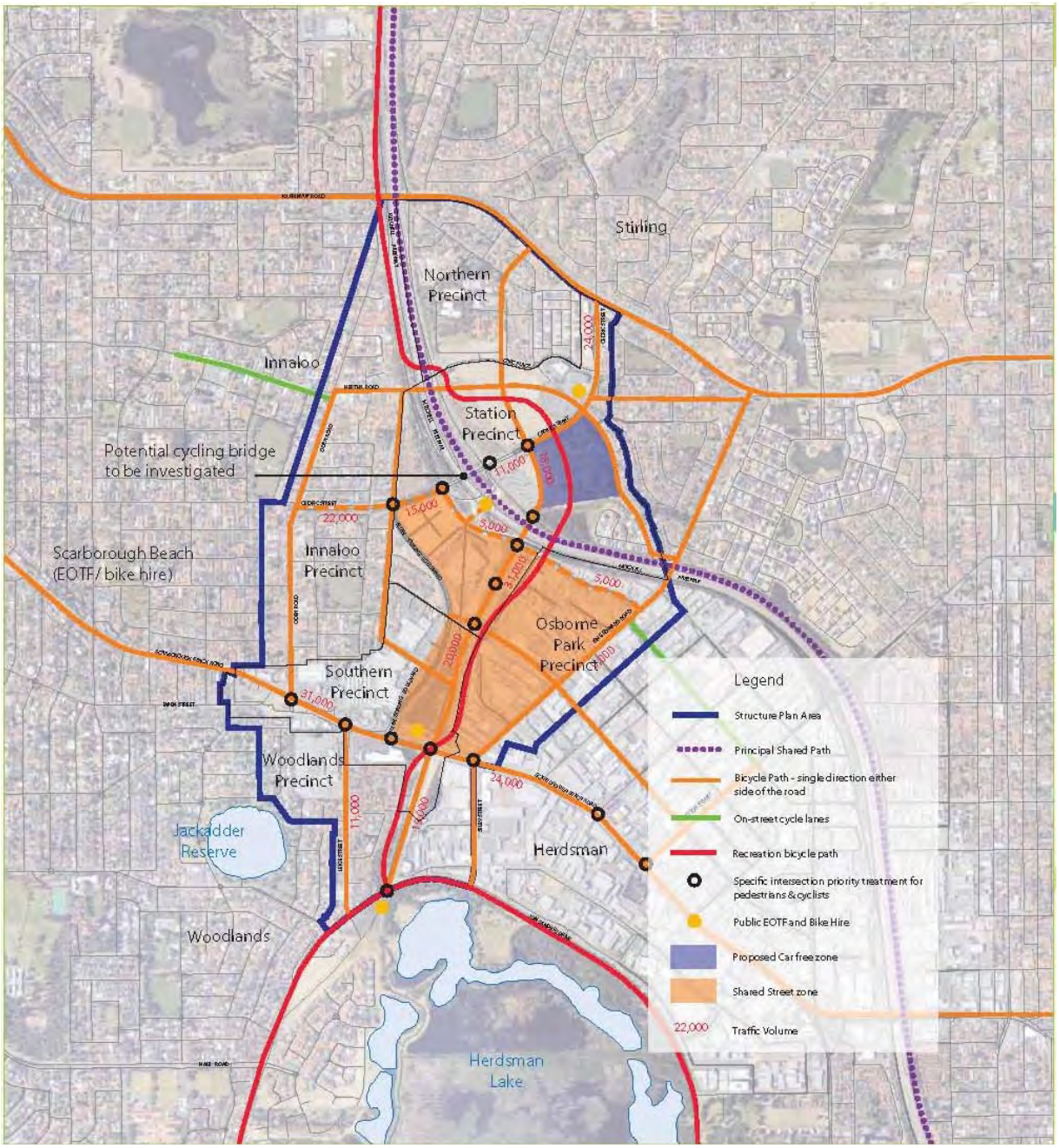
The proposed development will generate approximately 4,000 total daily vehicle trips with approximately 730 vehicle trips in the weekday AM peak hour and 770 in the PM peak hour.

Intersection capacity analysis indicates that the key local Cedric Street/Ellen Stirling Boulevard and Ellen Stirling Boulevard/Sunray Drive intersections will operate with an acceptable level of service.

The analysis undertaken as part of this assessment indicates that the traffic from the proposed development of Lots 211, 212, 214 and 222 can be accommodated within the existing road network.

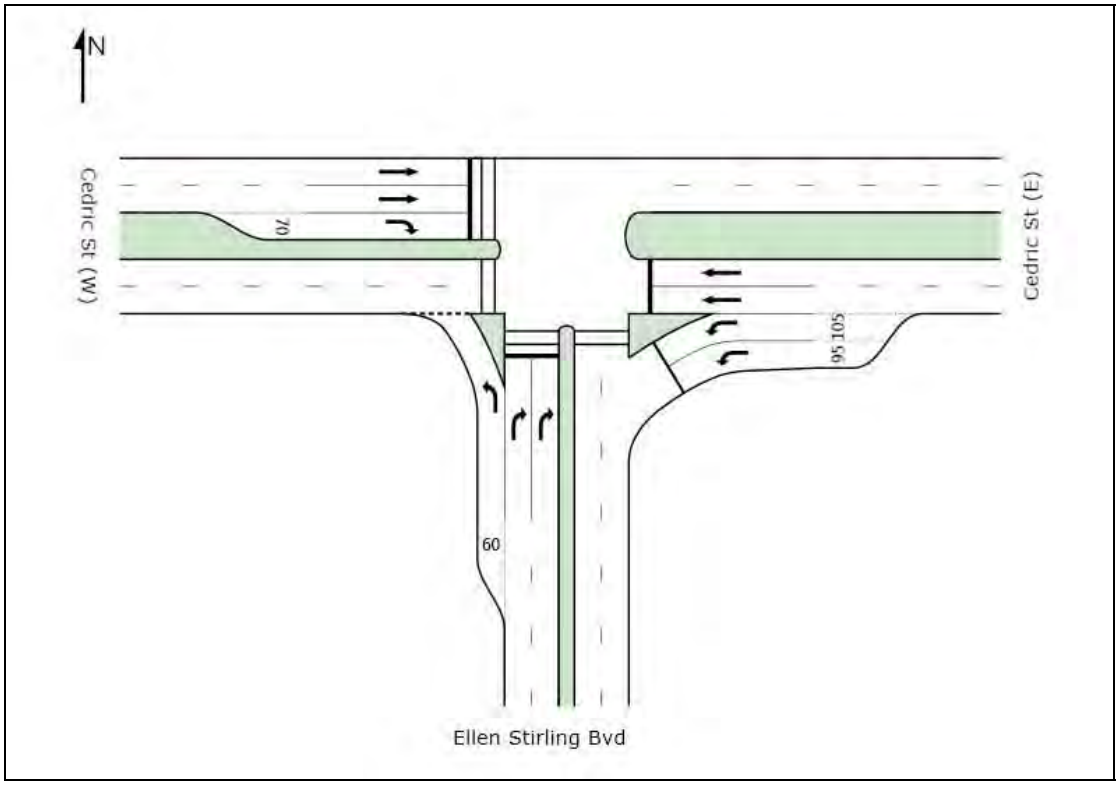
APPENDIX A

FUTURE TRAFFIC PROJECTIONS
(STIRLING CITY CENTRE STRUCTURE PLAN)


Stirling
Northern Precinct
Innaloo
Station Precinct
Potential cycling bridge to be investigated
Scarborough Beach (EOTF/ bike hire)
Innaloo Precinct
Osborne Park Precinct
Southern Precinct
Woodlands Precinct
Jackadder Reserve
Herdsman
Woodlands
Herdsman Lake
24,000
11,000
15,000
22,000
5,000
31,000
20,000
14,000
Legend
Structure Plan Area
Principal Shared Path
Bicycle Path - single direction either side of the road
On-street cycle lanes
Recreation bicycle path
Specific intersection priority treatment for pedestrians & cyclists
Public EOTF and Bike Hire
Proposed Car free zone
Shared Street zone
22,000
Traffic Volume

APPENDIX B

SIDRA OUTPUTS FOR CEDRIC STREET/ELLEN STIRLING BOULEVARD & ELLEN STIRLING BOULEVARD/SUNRAY DRIVE INTERSECTIONS



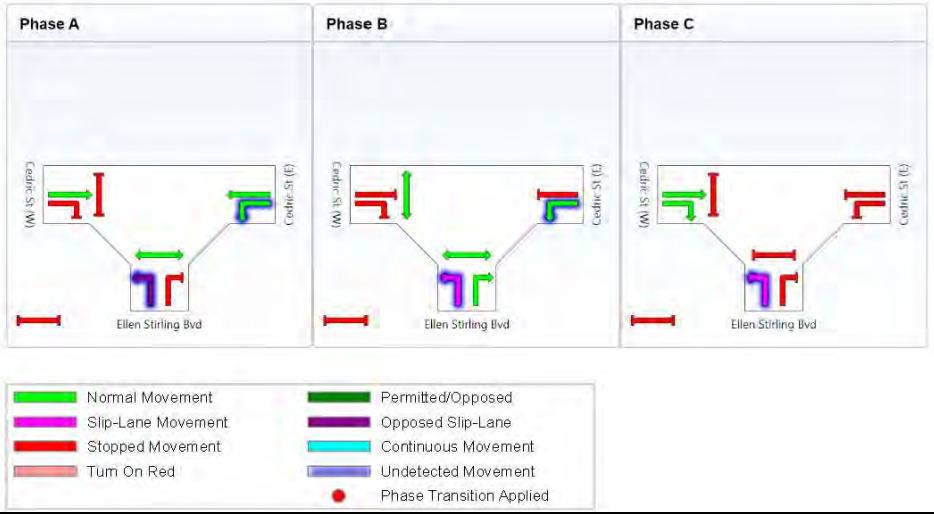
Cedric Street/Ellen Stirling Boulevard intersection – modelled layout

Ellen Stirling Boulevard / Sunray Drive
AM peak hour Post Development
Existing intersection geometry
Signals - Fixed Time Cycle Time = 60 seconds (Practical Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn
Input Sequence: A, B, C
Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	12	22	8
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	18	28	14
Phase Split	30 %	47 %	23 %



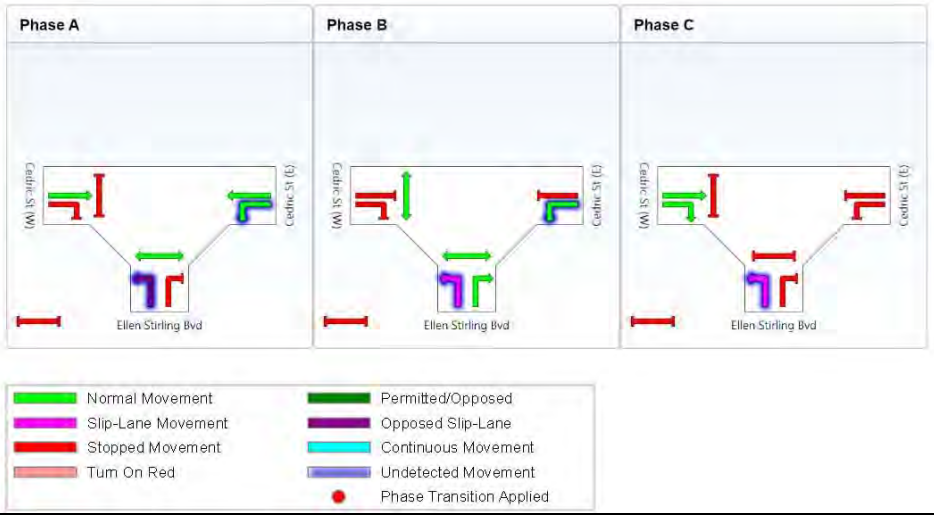
Cedric Street/Ellen Stirling Boulevard intersection – post development AM peak phasing summary

Cedric Street / Ellen Stirling Boulevard
PM peak hour Post Development
Existing intersection geometry
Signals - Fixed Time Cycle Time = 110 seconds (Practical Cycle Time)

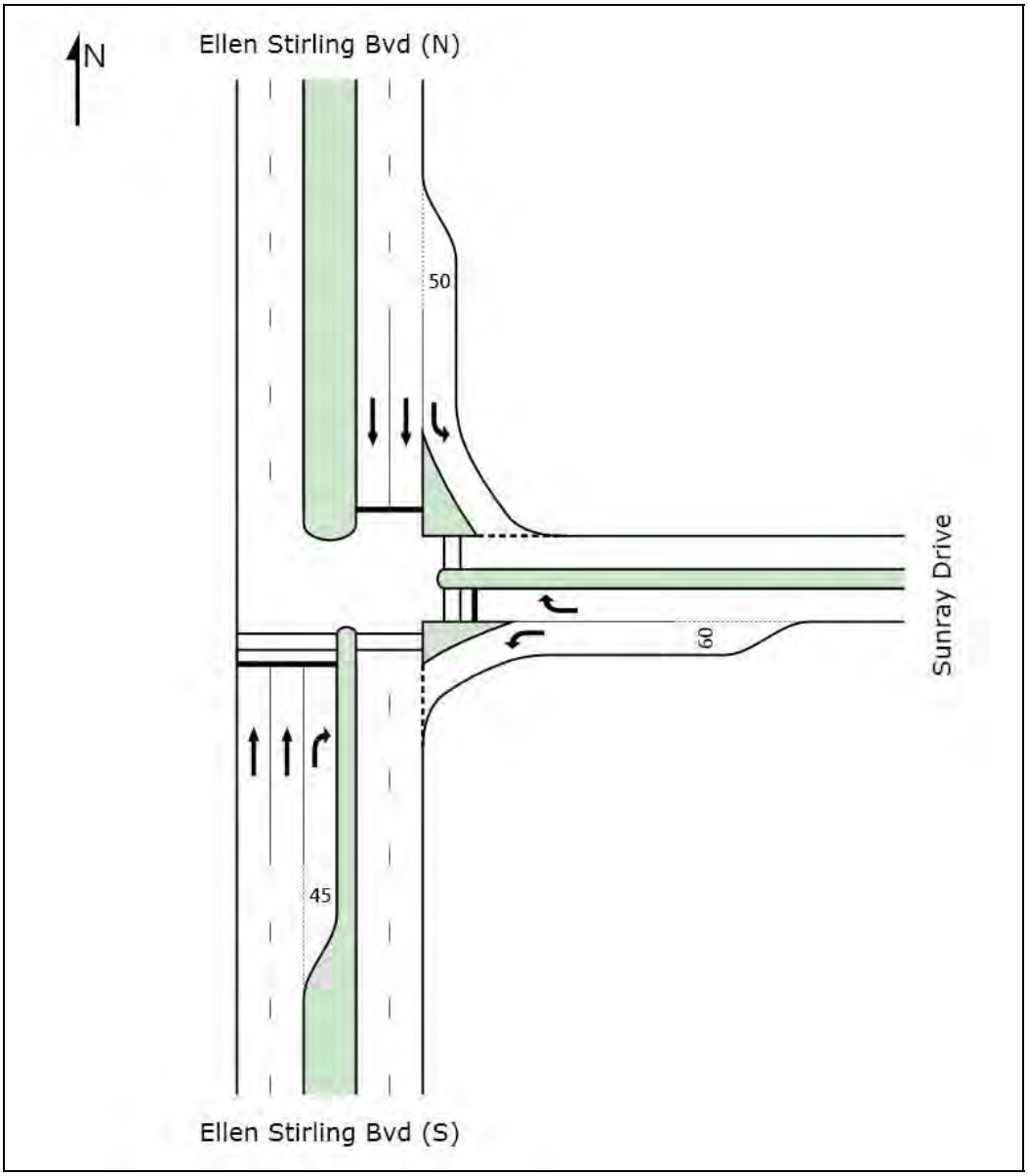
Phase times determined by the program
Sequence: Leading Right Turn
Input Sequence: A, B, C
Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Green Time (sec)	33	53	6
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	39	59	12
Phase Split	35 %	54 %	11 %



Cedric Street/Ellen Stirling Boulevard intersection – post development AM peak phasing summary



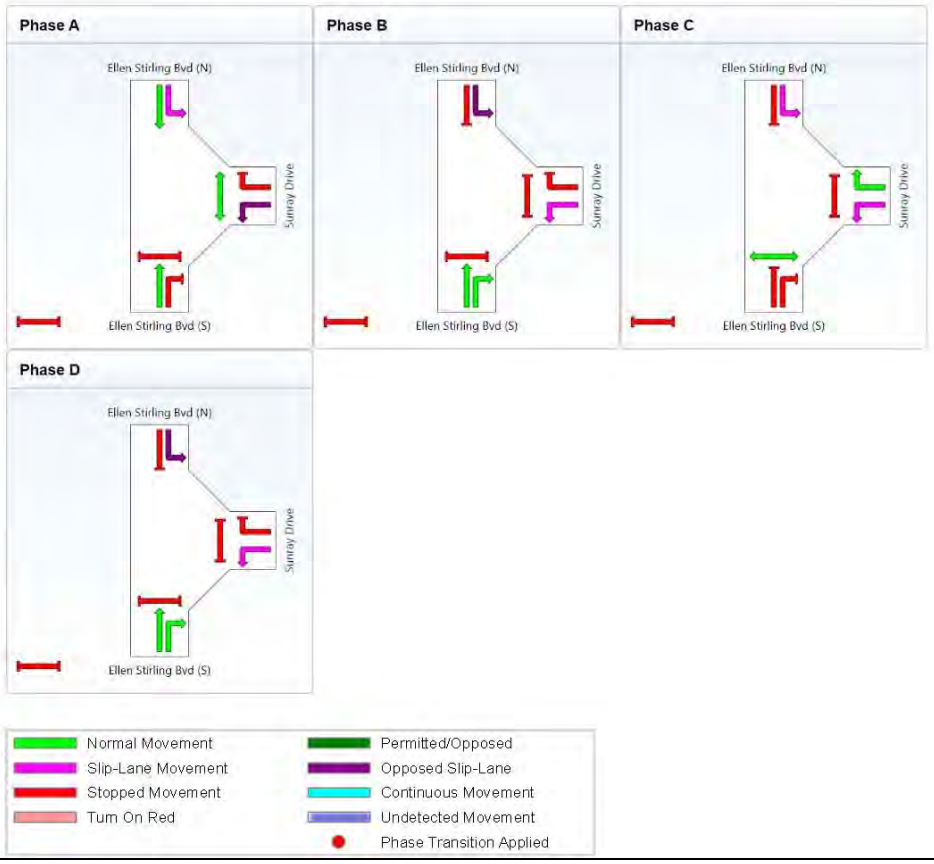
Ellen Stirling Boulevard/Sunray Drive intersection – modelled layout

Ellen Stirling Boulevard / Sunray Drive
AM peak hour Post Development
Existing intersection geometry
Signals - Fixed Time Cycle Time = 110 seconds (Practical Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn x2
Input Sequence: A, B, C, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Green Time (sec)	53	6	21	6
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	59	12	27	12
Phase Split	54 %	11 %	25 %	11 %



Ellen Stirling Boulevard/Sunray Drive intersection – post development AM peak phasing summary

Ellen Stirling Boulevard / Sunray Drive
PM peak hour Post Development
Existing intersection geometry
Signals - Fixed Time Cycle Time = 90 seconds (Practical Cycle Time)

Phase times determined by the program
Sequence: Leading Right Turn x2
Input Sequence: A, B, C, D
Output Sequence: A, B, C, D

Phase Timing Results

Phase	A	B	C	D
Green Time (sec)	20	6	34	6
Yellow Time (sec)	4	4	4	4
All-Red Time (sec)	2	2	2	2
Phase Time (sec)	26	12	40	12
Phase Split	29 %	13 %	44 %	13 %



Ellen Stirling Boulevard/Sunray Drive intersection – post development PM peak phasing summary



draft Stirling citycentre structure plan

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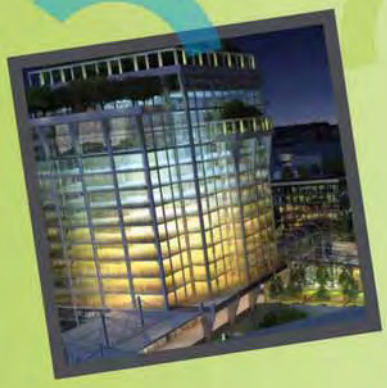
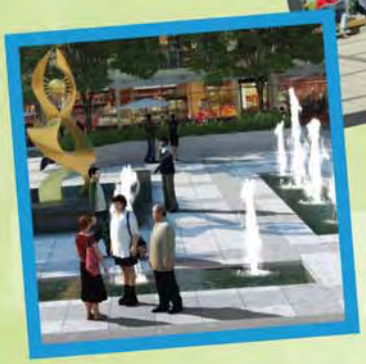




draft Stirling city centre structure plan

July 2011





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Department of Transport
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Landcorp
Main Roads Western Australia
Public Transport Authority
Sustainability Representative - Ray Wills
Western Australian Planning Commission

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SMEC Australia Pty Ltd
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website: www.stirling.wa.gov.au
email: stirlingalliance@stirling.wa.gov.au
tel: 08 9204 7612
fax: 08 9204 7677

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VI delivery led planning

Preface



The year is 2020. It is 5:30pm as Jack Watanabe steps out of his office building onto the bustling footpath of Ellen Stirling Boulevard. He hesitates, and looks around, searching. His friends Mira and Sam are late; they were supposed to be here to meet him so they could go together for a drink and an early meal before catching a movie. Suddenly, he hears his name called and Mira appears, pushing past the crowd emerging from the movie theatre further along the street, waving with one hand and clutching a large shopping bag in the other.

"Change of plan!" she exclaims, laughing. "I've been to the grower's market and got us a pile of organic goodies to make a picnic! It's far too nice an evening to be sitting inside. Sam's bringing the wine and the picnic blanket!" As if on cue, a ringing bicycle bell announces the arrival of Sam, slightly flushed and grinning.

Shrugging good naturedly, Jack surrenders himself to the moment. He'd been looking forward to sinking his teeth into one of Perth's best steaks at The Trattoria, but that can wait for another day. He joins his friends in a pleasant five minute walk along the wide, shady footpath, around the corner into Howe Street and across Stephenson Avenue, then into the leafy oasis of the Greenway. Cyclists and joggers pass them as they look around for the perfect spot to set up. After some friendly argument, they lay out their rug under a tree with a view of Nookenburra Creek, safely distant from a group of teenagers kicking a soccer ball, and away from a family group staking a claim on the picnic shelter and barbecue a little further along.

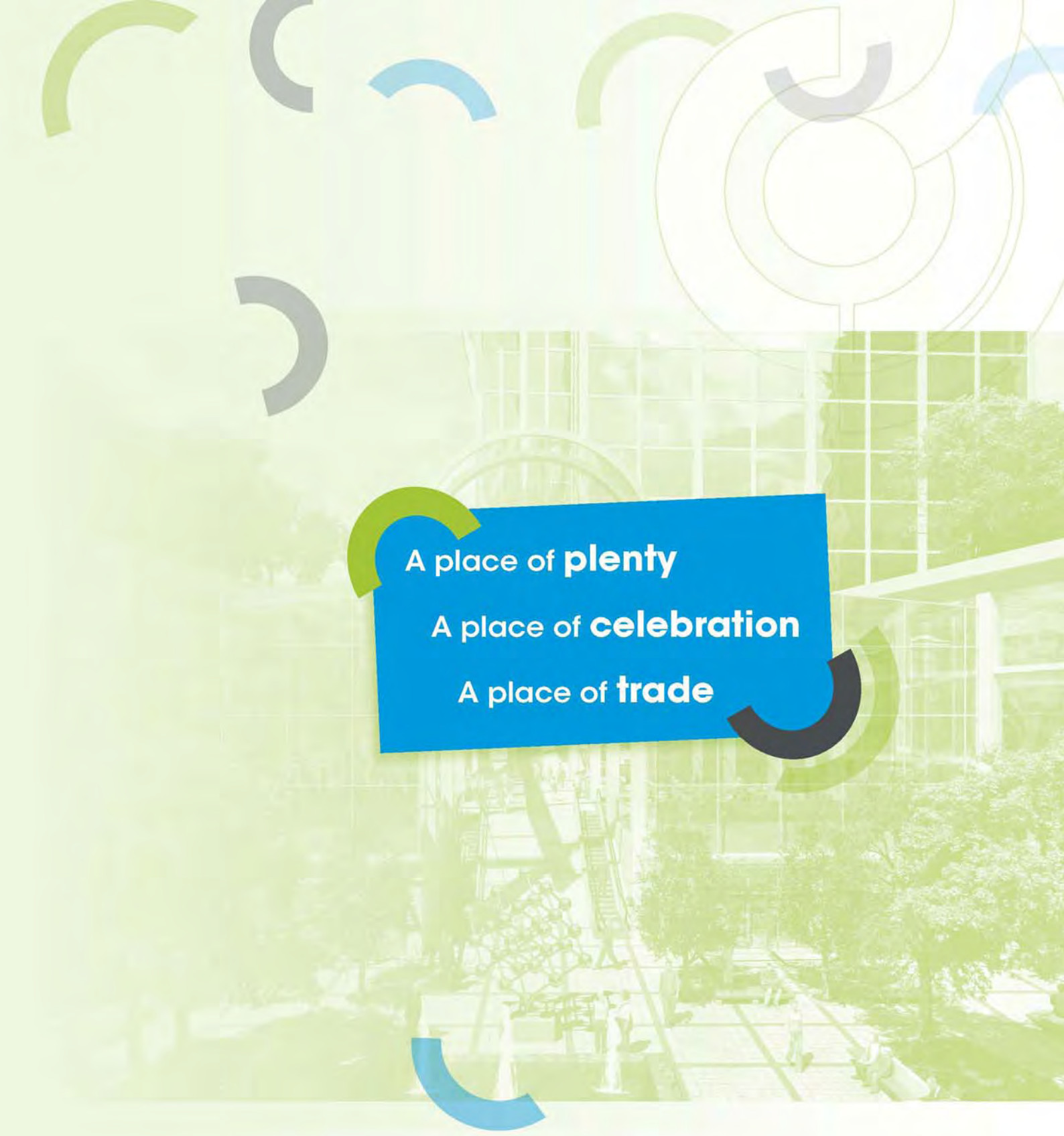
As they enjoy their picnic, the three friends exchange accounts of their day and plans for the coming weekend. Jack is tossing up between getting up early and jumping on the tram and heading down to Scarborough for a surf, before visiting his parents, or sleeping in and then setting up his balcony vegetable garden, the components of which he bought last weekend at the community market. "No contest", insists Sam. "Salt air then a free lunch Chez Mum would be my choice!" "Well, I'm going to Lou's exhibition opening at the Civic Gallery on Saturday night," says Mira. "We're meeting at mine, then we're walking to that new place on Stephenson for a champagne breakfast. After that we're heading up to the gallery for a last minute check, then off to the gym to work off the pancakes, after which we're going to Westfield to find her an outfit for her big night!" "I'd forgotten about that," says Sam. "I'll have to tell Gran. She is right into contemporary art – maybe I'll take

her with me. It's right round the corner from her unit." "Good idea – the more, the merrier," agrees Mira. "I'll try and make it along too," Jack promises. "Maybe we can all take Lou out afterwards to celebrate? We could go to Botanica." "Wow, that place has been going strong for years and years hasn't it! It was already an institution when I moved here," exclaims Mira. "Well not too big a night for me," Sam grimaces. "I've got the finals on Sunday – Stirling Warriors versus Jandakot at the Oval. And I expect to see you both there cheering us on!!" "Oh, why not," smiles Mira. "My shift doesn't start until the afternoon. I am so glad I don't have to drive to work – the hospital is only fifteen minutes' walk. Five, if I ride." "Lucky you, but at least the train to Perth takes only ten minutes, tops, so it's only twenty minutes door to door for me," Sam says. "I don't miss those fifty minute commutes from my last place!"

The group gathers up the remnants of their meal and heads back to the evening bustle of the city centre, calling into Jack's apartment to drop off the blanket and his backpack before returning to the street and arriving at the cinema with five minutes to spare. The movie is a good one and the cinema is full. They each recognise friends, neighbours and colleagues who live locally, as they take their seats.

It's the middle of the week, so they decide against a drink at the small bar next to the cinema afterwards. Walking home, Jack reflects on his decision to move to Stirling three years before. As he walks under a leafy canopy of street trees along a well lit footpath back to his apartment, he passes shop fronts, restaurants, late night bars, and apartment lobbies. To think that just a few short years ago the Greenway was a weed infested drain running alongside a busy street of speeding cars, and he'd have no sooner dreamt of walking to work as running over broken glass. The shopping centre had been a 'big box' surrounded by cars and going for a jog around Herdsman Lake would have required him to drive there as a safer option than crossing Scarborough Beach Road on foot. If he could've lived here then, that is. But of course apartments like his near the station were just a dream in those days.

But now that dream is reality. Stirling has become a contemporary version of what it once was for the local Noongar people.


A place of **plenty**
A place of **celebration**
A place of **trade**

1 Introduction

1.1 The Challenge

The potential of the largely underdeveloped area surrounding the Stirling Railway Station to become a vibrant transit oriented mixed use centre providing employment and living opportunities for a diverse community has been recognised since at least 1992, when the northern suburbs railway was first opened. There have been various attempts to realise this transformation. However due to the extremely complex nature of the area, these attempts, using traditional planning and governance arrangements, have been only partially successful.

Stirling City Centre is identified as a Strategic Metropolitan Centre in the Perth and Peel metropolitan regional planning context. Strategic Metropolitan Centres should provide a diverse range of economic and community services that are necessary to service the local community and broader catchment. In its current form the centre does not perform this function. The community has also expressed concern over a range of pressing environmental, social and economic issues. There is therefore a clear imperative to progress planning for the centre that realises the area's potential as a Strategic Metropolitan Centre and addresses the community's concerns. Previous 'business as usual' approaches have been unsuccessful in resolving the complex issues facing the Stirling City Centre. It was widely recognised that a new approach, based on innovation and collaboration, would be required to meet the challenge.

The Stirling City Centre is approximately 3.28 sq km area and located approximately 6.5 km north-west of the Perth CBD. The area is generally bound by Karrinyup Road to the north, Telford Crescent, King Edward Road and Selby Street to the east, John Sanders Drive to the south and Clematis Street and Odin Road to the west. This is illustrated in **Figure 1. Stirling City Centre Structure Plan Area and its Area of Influence**, which also identifies an 'area of influence' which both affects and is affected by activity within the defined City Centre.

1



Currently the Stirling City Centre is characterised by a range of negative elements such as:

- Movement congestion
- Poor visual amenity
- Poor pedestrian amenity
- Segregated land uses
- Environmental degradation
- Safety issues

Stirling is constrained economically by its spatial organisation. Both inter and intra centre accessibility is poor and this limits the centre's ability to provide the high level of amenity required to attract a wide user mix. The spatial organisation of the centre also impairs its ability to achieve intense agglomerations of activity. Successful places performing a strategic function benefit from intense, well-connected concentrations, rather than dispersed activity.[1]

The City of Stirling and the Western Australian Planning Commission recognised that a strong collaboration between all stakeholders offered the best approach to resolving the complex issues facing the Stirling City Centre. Collaboration between Local and State Government agencies (to streamline the effectiveness of Government decision making), the private sector (to provide strong innovation and market knowledge), and the local community (to provide community input) were seen as critical in ensuring the long term viability of the project and the achieving the vision for the Stirling City Centre. The Stirling Alliance was formed as an innovative response to this challenge and as a way to realise the vision of Stirling's residents, its leaders and its future population.

[1] Pracsys, April 2010, Stirling City Centre Economic Development Strategy: Scoping Paper, for Stirling Alliance

1

The Alliance approach to creating a new city centre incorporates the following principles:

- A move away from traditional restriction based planning to opportunity/ vision based planning
- Not being limited by legal and physical boundaries and existing land uses
- Delivery of an integrated transport and land use solution
- Designing for interdependence and provision of locally produced power, water, food, community gardens, etc
- Establishment of incentives to deliver the desired outcomes
- Developing the appropriate tools to achieve high quality outcomes
- Minimising the demand for private motorised travel for people who live, work and visit
- Seeking enhanced net social, environmental and economic outcomes
- Enhancing the natural environment, resource efficiency and adopting ecological restoration methods
- Creation of an activity centre that is more than just a retail centre by planning for a diverse employment, residential, civic, social and cultural centre
- Collaborative planning, adoption and appropriately resourcing the project to ensure successful implementation
- Resourcing and driving implementation through a robust and timely implementation plan.

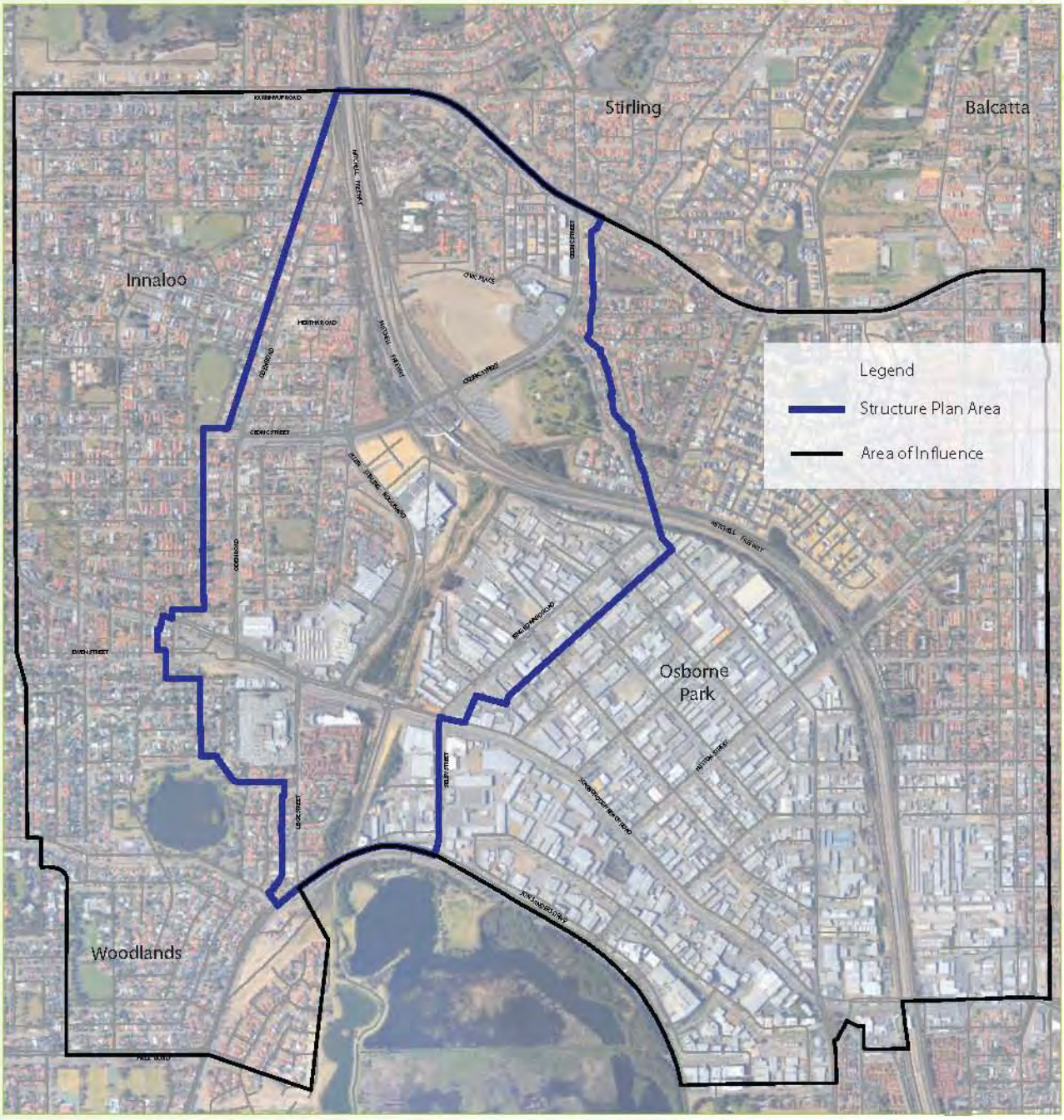


Figure 1. Stirling City Centre Structure Plan Area and its Area of Influence

1

1.2 Purpose

The Stirling City Centre Structure Plan has been prepared to guide planning and decision making in order to realise the Stirling City Centre vision. The plan will see the area transformed from a dispersed, disjointed, suburban-scaled shopping area dominated by car parks and traffic, into an intense and well connected mixed use activity centre characterised by very high amenity for pedestrians, residents and workers.

This document represents a new generation of structure plan that is both a statutory planning and guidance document. It is essentially a district level structure plan that addresses the unique issues applicable to a Strategic Metropolitan Centre, recognising the areas importance as a major population, employment and activity centre in the Perth Metropolitan Region. The structure plan will provide the certainty required to allow preparation of detailed area plans (DAP) and sufficient flexibility to accommodate changed circumstances. The structure plan allows for innovative solutions to complex problems that achieve the vision and intent for the area. The plan also deals with a range of sub-regional transport and environmental issues that have to be resolved to ensure the Stirling City Centre can realise its potential.

The plan sets out key structural elements that will be essential in realising the opportunities within and around the Stirling City Centre area. It articulates a vision and intent for the city centre and the principles that underpin these. Whilst some elements of the plan have a significant degree of resolution, others will require further detailed investigation. It is expected that as this progresses over time, the principles and vision, as outlined in this document, will remain constant.

1.3 Report Outline

The report is divided into five sections, which can be broadly outlined as follows:

1. Introduction

This section. Introduces the project, outlines the challenges and describes the purpose of the structure plan.

2. The Place

Describes the Stirling City Centre as it currently exists, and identifies the key challenges to be met.

3. The Vision

Sets out the agreed vision for Stirling City Centre.

4. The Plan

Describes the proposals for Stirling City Centre, addressing the key challenges identified in Section 2.

5. The Process

Outlines the process of implementing the proposals in Section 4.

This report provides a high level summary of issues and proposals. Detailed technical reports have informed the preparation of the structure plan and are available on line.

2 The Place

Planning Framework

This section describes the principal State level strategic and statutory considerations that affect the planning and development of the Stirling City Centre. As a general rule, State Planning Policies and strategies inform the development of local government planning instruments. No attempt is made to document every applicable policy.

2.1 State Planning

2.1.2 Directions 2031 and Activity Centres Statement of Planning Policy

The highest strategic land use planning document for Perth and Peel is *Directions 2031 and beyond: Metropolitan planning beyond the horizon*. It provides a framework for the detailed planning and delivery of housing, infrastructure and services necessary to accommodate population growth up until 2031.

An important element of the spatial framework is the identification of a network and hierarchy of activity centres that provides a more equitable distribution of jobs, services and amenity. Stirling City Centre is identified as a 'Strategic Metropolitan Centre', which is a high order centre intended to be a multi purpose centre providing a mix of retail, office, community, entertainment, residential and employment activities.

Complementing Directions 2031 is the State Planning Policy (SPP) relating to metropolitan centres. *State Planning Policy 4.2 – Activity Centres for Perth and Peel* is the overarching State policy utilised by the Western Australian Planning Commission and other decision makers to implement the recommendations of Directions 2031 as they relate to activity centres. The SPP 4.2 places a high priority on establishing a coherent and complementary urban form and design outcome for places. The aim is to create diverse mixed use centres which attract investment, employment and people.

The principles that underpin these strategic documents (relating to sustainable urban form and communities) form the basis of the proposals included in this structure plan for the Stirling City Centre.



2.1.2 Metropolitan Region Scheme

The Metropolitan Region Scheme (MRS) provides the statutory mechanism to assist strategic planning and the coordination of major infrastructure in the Perth Metropolitan Region. The MRS sets out broad land use zones and areas reserved for regional purposes (including regional open space and community purposes). The Stirling City Centre is presently covered by a number of zones and reserves, including 'Urban', 'City Centre', 'Primary Regional Road', 'Other Regional Road' and 'Public Purposes – Hospital'.

An amendment to the MRS (Amendment 1173/57) has been initiated to:

- replace the Primary Regional Roads reservation within the Stirling City Centre from just north of Jon Sanders Drive to the Mitchell Freeway with City Centre zone
- replace the Primary Regional Roads and Other Regional Roads from Cedric Street to City Centre zone in the north and to City Centre zone in the south to Ellen Stirling Boulevard with the remainder as Urban
- rationalise the Other Regional Roads reservation on Scarborough Beach Road to 42 metres from Odin Road to King Edward Road

Finalisation of this amendment is imminent and the proposed changes are a first step in allowing development of the Stirling City Centre to proceed. Diagrams showing the current and proposed designation of land under the MRS are provided in Appendix A.

2.2 Local Planning

Development in the Stirling City Centre is currently controlled by two City of Stirling town planning schemes. These are *Local Planning Scheme No. 3 (LPS No.3)* and *Town Planning Scheme No. 38 (TPS No. 38)*, and each applies to different parts of the centre.

2

The existing zoning and associated controls for the majority of the Stirling City Centre do not reflect the intent of this structure plan, particularly with respect to promoting a range and mix of land uses throughout the City Centre. It will be critical to the successful implementation the structure plan for Stirling City Centre for LPS No.3 to be amended to include the area currently covered by TPS No.38 and rezone the Stirling City Centre project area to 'Development' zone to facilitate further planning and development.

The Site

2.3 Natural and Cultural Legacy

The present and future of any place is informed by its past. The history of the area helps to understand how it has been shaped, what issues – environmental and cultural – may be relevant, and provides cues and inspiration for the further evolution of the place so that it remains socially relevant, economically viable, and environmentally healthy.

Similarly, the bio-physical characteristics of the area are important to designing an ecologically sustainable future whilst accommodating the future needs of the community.

2.4 Aboriginal Heritage

Stirling City Centre is in the traditional land of the Noongar Aboriginal people. Historically, Aboriginal people travelled along the wetland chain on the Swan Coastal Plain and used the abundant fresh water and wildlife associated with these places. The Stirling City Centre and surrounding areas encompassing Herdsman Lake were reportedly considered to be "a place of plenty, a place of celebration, and place of trade" where Aboriginal people from far and wide gathered.[2] These sentiments provide the basis of a place story that can run through the whole physical, social and economic planning for the area.

[2] These sentiments where provided by Ether-Dollan and Walter Eats, respected Noongar elders who provided a welcome to country at the Festival of Ideas workshop in July 2009.

2

Aboriginal people believe that the Waugul, a rainbow serpent from the Dreaming, created the wetlands and the water ways which form a major part of the Swan Coastal Plain. A recognised dreaming track or 'cultural complex' includes Herdsman Lake, Lake Gwelup, Lake Karrinyup, Lake Carine and all the swamps, creeks and wetlands in between.[3]

The Department of Indigenous Affairs (DIA) Site Register identifies six Aboriginal sites within the Stirling City Centre area, and one aboriginal site, Herdsmans Lake, immediately adjacent to the project area. Five of the sites located within the project area have been assessed by the DIA as being stored, and therefore the provisions of the Aboriginal Heritage Act 1972 do not apply to them.

The provisions of the Aboriginal Heritage Act 1972 apply to Herdsman Lake and one other site within the project area for which insufficient information is currently available and which must therefore be treated as an 'Aboriginal site'[4]. As such additional aboriginal heritage survey work is required prior to any development taking place in the structure plan area.

Known Aboriginal Heritage sites affecting Stirling City Centre are shown on *Figure 2 Aboriginal sites on the DIA Site Register* in the City of Stirling Structure Plan Area.



Image 1. Vision for Living Stream

[3] Australian Interaction Consultants 2004 as quoted in Dr Edward McDonald et al (2005) *Study of Groundwater-Related Aboriginal Cultural Values on the Gnangara Mound, Western Australia* for Department of Environment. Page 17

[4] Australian Cultural Heritage Management, December 2009, *Preliminary Investigation of Aboriginal Heritage – City of Stirling Structure Plan* for Department of Planning

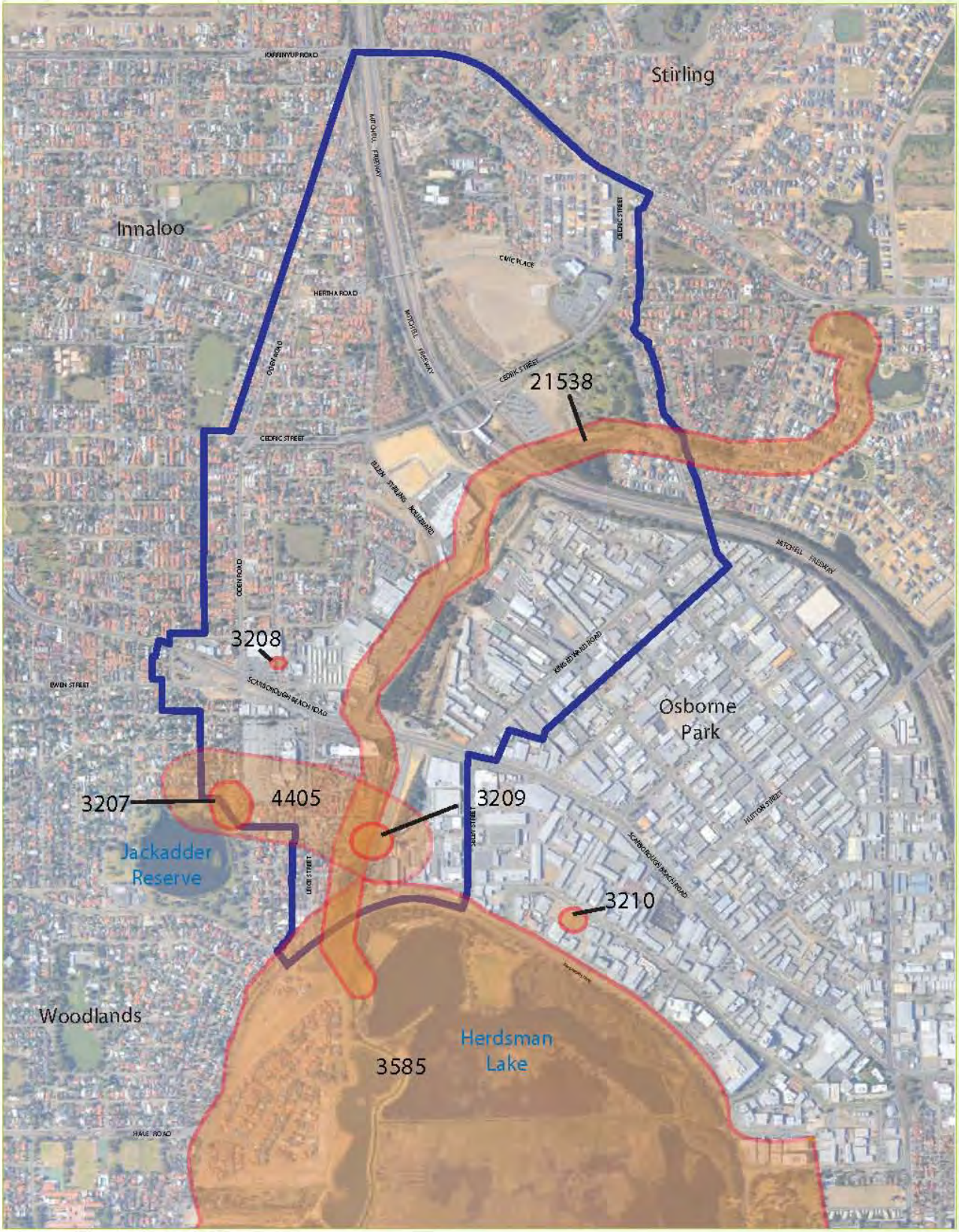


Figure 2. Aboriginal sites on the DIA Site Register in the City of Stirling Structure Plan Area

Table 1. Aboriginal sites on the DIA Site Register in the City of Stirling Structure Plan Area

ID	DIA site name	Site type	DIA site status
3207	Jackadder Lake West	Artefact Scatter	Stored
3208	Scarborough Beach	Artefact Scatter	Stored
3209	Herdsman Lake N	Artefact Scatter	Stored
3210	Herdsman Lake NE	Artefact Scatter	Stored
3585	Herdsman Lake	Burial	Permanent
4405	Jackadder Lake	Artefact Scatter	Insufficient Information
21538	Stirling Wetlands	Mythological	Stored

2.5 European Heritage

Following the establishment of the Swan River Colony, land in the Stirling area was granted to settlers. These early European settlers continued to draw on the resources provided by the wetlands, converting many of them into market gardens. One of these, located around where Oswald Street is today, was offered for sale as market gardens around 1898. Over the following years channels were dug and it was drained into Herdsman Lake, becoming a productive market gardening area.

The Nookenburra Drainage District was formalised in 1921 when a drainage system in the area now known as Osborne Park was established. The area was drained into Herdsman Lake, which was and still is drained via a pipe to the sea at Floreat Beach. From that period until the late 1940s, land uses in the area were predominately related to market gardening, with gradual development of land for residential purposes in the Osborne Park area.

Residential subdivision and development in the area began in earnest from the late 1940's. At first predominantly single residential, Innaloo has experienced redevelopment with a significant number of lots now accommodating grouped housing of two or more dwellings. After the Stephenson and Hepburn Plan for Perth and Fremantle was published in 1955, Osborne Park was gradually transformed into an industrial area.

2

From 1958 to 1980, low lying and damp land off Hertha Road was used as a landfill site. In addition to domestic and industrial waste, septic tank effluent is reported to have been disposed at the site between 1962 and 1970. Part of the landfill has been landscaped and developed as the Stirling Civic Gardens. The car park for the Stirling Station is located south of these gardens, also on former land fill.

Construction of the Mitchell Freeway commenced in 1967 and was extended through the area in the early 1980's. This was a significant intervention, severely limiting access between the north and south parts of Stirling and impacting on the flow of ground and surface water. In the early 1990s, the freeway median was widened to accommodate the railway line, and Stirling Station was built.

The present day Westfield Innaloo shopping centre started life in 1967 as Innaloo Shopping Centre and was one of the first suburban shopping centres in Perth. Over the years the centre has expanded considerably, at one stage involving the partial closure and realignment of Oswald Street. Other retail development has taken place around this major shopping centre, including a significant amount of large-format retail and showroom development along Scarborough Beach Road in particular, which has had a significant impact on traffic movement and congestion in the area.

When Oswald Street was closed at its intersection with Scarborough Beach Road, Ellen Stirling Boulevard replaced it as the major connection to the freeway. At the northern end of Ellen Stirling Boulevard, near Cedric Street, peaty former swamp land has been remediated and a subdivision created. The large format IKEA store has been constructed on the largest part of the site, and the remaining lots are awaiting development.

In 1966, the City of Stirling opened its administration centre in Hertha Road (now Civic Place). In 2005 a new civic centre was opened on the adjacent site, facing Cedric Street, and the old centre was converted to private offices.

Osborne Park Hospital is a major land use in the north-west sector of the city centre, which was opened in 1962 and has since expanded from 58 beds to over 200 beds. A master plan has been prepared to guide the future evolution of the hospital. The hospital expansion plans are to grow capacity by around 50% by 2012. Access between the hospital and major public transport located at Stirling Station is presently difficult.

South of Scarborough Beach Road on Liege Street, the large cinema and entertainment complex is built on the site of the former Metro Drive-in, which opened in 1957.

There are no identified places of European cultural heritage within the structure plan area.



Image 2. The Nookenburra Drainage District was established in 1921 and continues to drain into the ocean at Floreat Beach to the present day

Site Conditions

2.6 Topography

The Stirling City area lies within a valley east of the major ridge line of the Spearwood dune system referred to in this area as Doubleview, and west of the Nollamara ridge line. Much of the lower portion of the structure plan area was originally wetlands or seasonally wet areas. Significant modification to the landform has occurred around the centre of the area, with the freeway interchange and Stirling Train Station positioned above a filled wetland, part of which is landfill (former Hertha Road rubbish tip – refer to **Figure 3 Contaminated sites and soils**).

2

Elevations within the structure plan area range from 20m Australian Height Datum (AHD) in the northeast, adjacent to the intersection of Cedric and Karrinyup Roads and15m AHD at the landfill site, to a low of 10m AHD along Ellen Stirling Boulevard. Elevations gradually increase from 10m to 20m AHD heading west to Thor Street where they continue to increase west of the structure plan area to a high of 70m AHD at Ewen Street.

2.7 Soils

Soils comprise Bassendean sands, some limestone and significant areas of peat. Stirling is generally located within the Bassendean Dune System with portions of the structure plan area located within an interdunal depression in the Spearwood Dune System.

Swamp areas in the Spearwood Dune System are located within the Herdsman unit consisting of black organic sands, peaty loams, black clays and true peats.

Much of the site is considered to have high to moderate risk of acid sulphate soils occurring at a depth of 0 to 3m (refer to **Figure 3 Contaminated sites and soils**). This area coincides mostly with the likely areas of peat.

2.8 Contaminated Sites

A search of the Department of Environment and Conservation Contaminated Sites Register was conducted on 28 August 2009. Two registered sites were identified within the Stirling City Centre area (refer to **Figure 3 Contaminated sites and soils**)

- Hertha Road landfill site. The site is currently used for car parking, public open space, including the Stirling Civic Gardens. Previously this site was an uncontrolled landfill.
- 480 Scarborough Beach Road, Osborne Park. The site is currently used as showrooms but previously was used as a service station.
- 365 Scarborough Beach Road, Innaloo. The site is currently used as a service station.

Other sites might exist that have not yet been registered. Contaminated sites will need to be appropriately managed and remediated prior to any redevelopment.

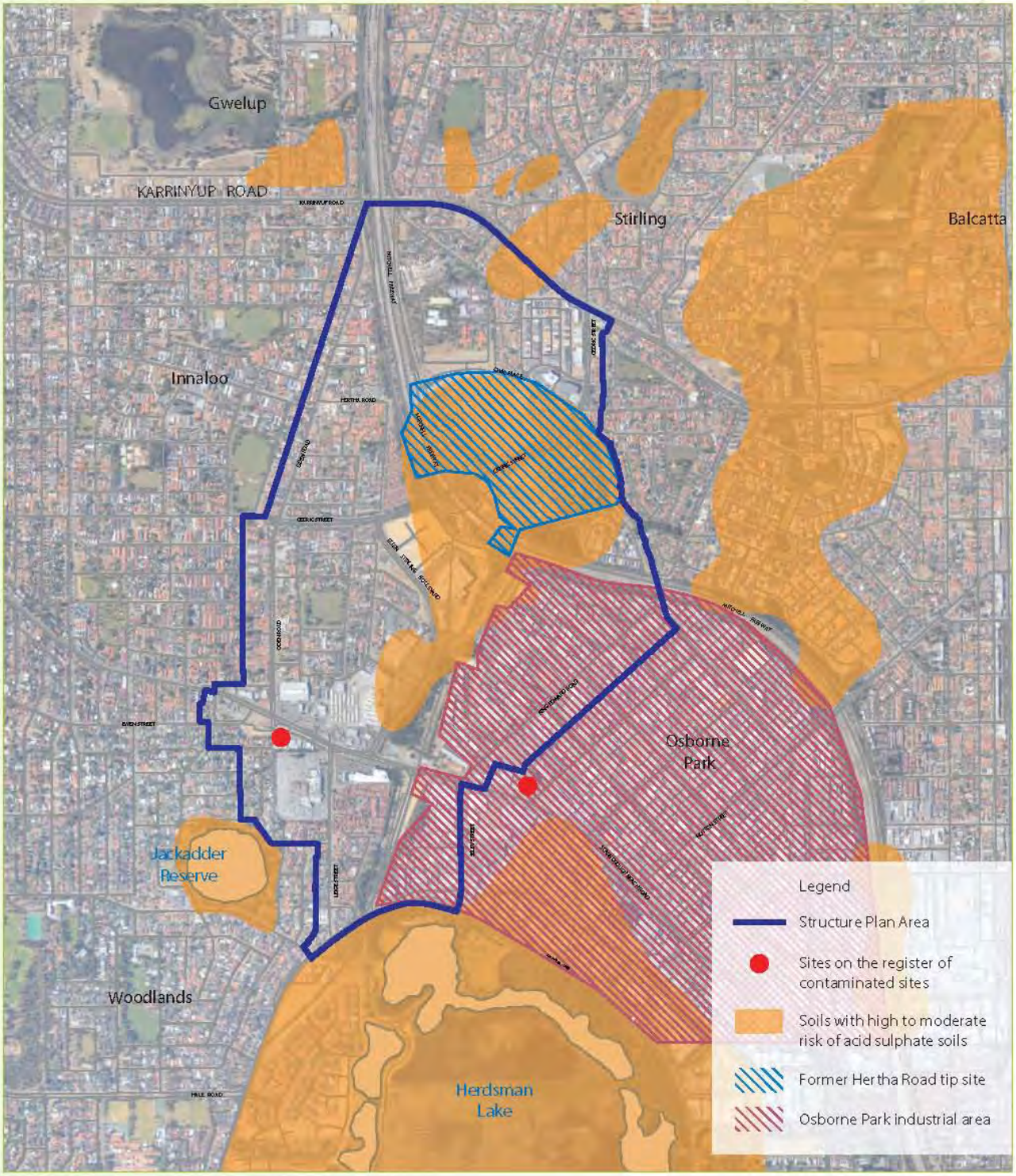


Figure 3. Contaminated sites and soils

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2.9 Hertha Road Landfill Site

The Hertha Road landfill site **Figure 3 Contaminated sites and soils** is registered as a contaminated site with DEC. The site will require remediation in the future as a result of an existing unlined landfill which has resulted in contamination of both the site and the groundwater table. Further investigations are required to establish the extent and physical location of the contamination and to identify appropriate remediation options.

It is anticipated that significant resources will be required to facilitate remediation of the site to achieve the vision of the Stirling City Centre. The remediation method chosen could showcase innovative on-site remediation methods and provide opportunities for positive spin-offs, including research and education. Given that the landfill is located on top of potential acid sulphate soils, excavation of the contaminated material may not be the preferred option.

2.10 Flora and Fauna

As the area has been urbanised since the 1940s, there are limited areas with ecological significance remaining. SMEC undertook a desktop study[5] which identified that there are four native vegetation types potentially located within the City Centre (**Figure 4 Wetlands and Native Vegetation in the Structure Plan Area**). These are:

- Medium woodland - tuart (Eucalyptus gomphocephala) and Jarrah (Eucalyptus marginata)
- Shrub lands - tea tree thicket
- Stands of flooded gums (Eucalyptus rudis) in association with drainage corridors
- Bare areas - freshwater lakes.

In October 2009[6] a qualified botanist from Cardno visited the site and conducted a Spring Flora Survey. The report identified that the subject site had been highly modified with few endemic plant species remaining and almost complete loss of the original vegetation structure. The report noted that some revegetation of native taxa (Calothamnus quadrifidus and Melaleuca cardiophylla) had occurred in the area between Scarborough Beach Road and Jon Sanders Drive. However on the whole few botanical values remain.

[5] SMEC "Phase 1 Scoping Study: Summary Report" 2009

[6] Cardno (2009) Stirling City Centre Declared Rare Flora Search, for Department of Planning

No declared rare flora or Priority Flora was found during the survey.

No fauna surveys have been undertaken, however due to the highly modified nature of the area no significant areas of habitat for fauna are likely. Nevertheless there are significant fauna listed under Commonwealth and State legislation that have the potential to occur within the area. These are:

- Baudin's Black Cockatoo
- Carnaby's Black Cockatoo
- Graceful Sun Moth
- Australian Painted Snipe
- Peregrine Falcon
- Black-striped Snake

As the redevelopment of Stirling City Centre proceeds, detailed surveys should be undertaken to identify the presence of fauna. In addition opportunities to enhance natural systems (including the reintroduction of endemic species) and increase biodiversity should be explored in the detailed design of parks, open spaces and private gardens.



Image 3. Herdsman Lake, adjacent to Stirling City Centre, is an important flora and fauna habitat and recreation area

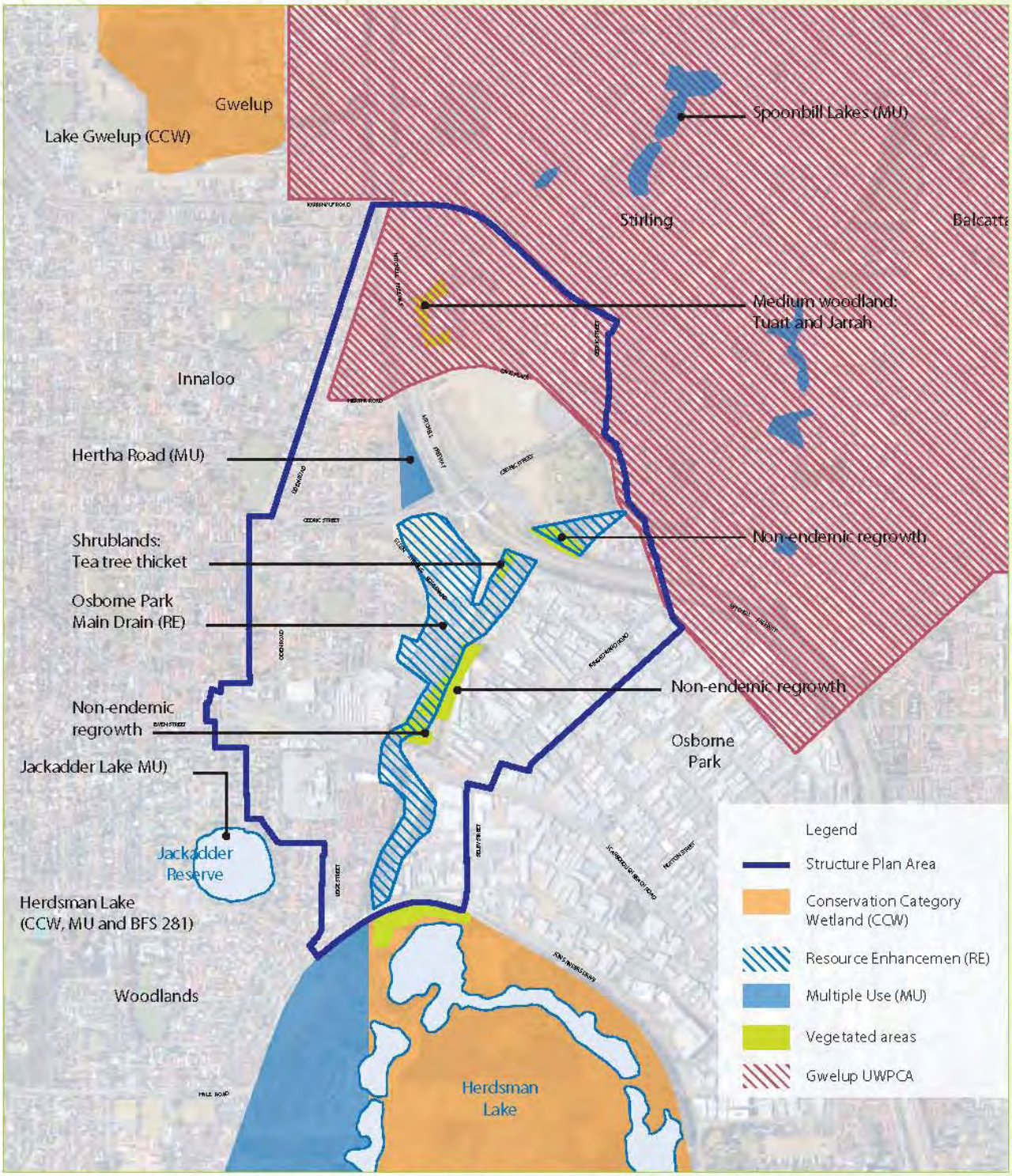

Figure 4. Wetlands and Native Vegetation in the Structure Plan Area

2.11 Water

The Stirling City Centre has a strong historical and cultural connection with water and the wetlands of the area. The Osborne Park main drain runs through the area and is one of the few perennially flowing waterways on the coastal plain. The presently poor water quality of this drain and the wider implications of the receding groundwater levels are cause for concern.

The Noongar people believe the spirit of the Waugul is still present in the flowing and ground water. The genuine concern of the Noongar people is expressed in the following quote:

> *"The health and wellbeing of the Waugal is directly connected to the vitality of the groundwater features, and both are intertwined with the health of Nyungar cultural identity. If the Waugal is killed or leaves, then the springs and other features with which it is associated will dry up and the processes of renewal with which it is associated will be brought to an end. Many Nyungars would argue that with the decline in groundwater levels, which is becoming increasingly visible, that this is in fact happening".*[7]

This insight provides a powerful reminder of the relationship between the environmental assets of the groundwater, surface water and the general health of the community as well as the special significance of the waters of this area to the Noongar people. Further, it is a reminder that without healthy ground and surface water systems, the vision for the regeneration of Stirling will be difficult to achieve.

2.11.1 Surface Water

The Stirling City Centre contains a number of wetlands, including the Osborne Park main drain and the Hertha Road wetland (**Figure 4 Wetlands and Native Vegetation in the Structure Plan Area**). Other wetlands adjacent and downstream include Jackadder and Herdsman Lakes. Herdsman Lake is the largest wetland in the metropolitan area, with high nature conservation value for bird breeding and summer refuge for waterfowl, bush birds and birds of prey.

[7] Dr Edward McDonald et al (2005) Study of Groundwater-Related Aboriginal Cultural Values on the Gnangara Mound, Western Australia for The Department of Environment. Page 2

To the north, up gradient of Stirling City Centre, wetlands include Lake Gwelup, Huntress Road dampland, Lake Karrinyup, Careniup Swamp and Spoonbill Lakes. Although highly modified, these wetlands provide important ecological reference points and are significant restoration opportunities within the Stirling region.

2.11.2 Groundwater

Underlying the whole of the coastal plain is a series of superficial and confined aquifers. The unconfined ground water resources have been utilised for domestic and open space irrigation, with the deeper aquifers utilised in certain locations for mains water supply. The shallow groundwater system is interconnected with the wetlands.

Stirling City Centre is located within the boundaries of the Gnangara underground water mound. The regional depth to groundwater varies from 9m to 11m AHD, with the flows generally to the west south west. Information from local bores suggests that groundwater levels in the unconfined aquifer are declining regionally (approximately 2m), predominately due to lower winter rainfall (reducing recharge) and utilisation.

Part of the site is proclaimed under the Metropolitan Water Supply, Sewerage and Drainage Act 1909 for the supply of public drinking water. The Gwelup Underground Water Pollution Control Area (GUWPCA) is shown on **Figure 4 Wetlands and Native Vegetation in the Structure Plan Area**. The area is classified as a Priority 3 (P3) Protection area under *SPP 2.7 – Public Drinking Water Policy*. Priority 3 Protection areas are declared where water supply needs to co-exist with other land uses such as residential, commercial and light industrial developments. Wastewater reuse is currently not supported in P3 areas; however it is understood that this policy is currently being reconsidered in light of new technologies and trials.

Existing residential, hospital and civic uses are located within the P3 Area. Management of the leachate from the Hertha Road landfill and careful management of acid sulphate soils are priority measures that need to be undertaken within the GUWPCA.

2.12 Place Context

2.12.1 Location

Stirling City Centre is located in the established urban core of the Perth Metropolitan Region. It is 6.5 km from Perth city and only 4 km from the coast. Stirling is highly accessible from the region by rail and road. The shared corridor of the Mitchell Freeway and the Northern Suburbs Railway bisects the area. Stirling Station is located almost centrally in the structure plan area; Glendalough Station lies 3 km south-east, and Warwick Station 5 km north.

The surrounding area is largely residential, with the notable exception of the Osborne Park industrial area and Herdsman Business Park, to the east. This area, including Stirling, is the second largest employment area in metropolitan Perth. Within the established surrounding area there are a number of retail-based centres apart from the Westfield Innaloo Shopping Centre that is located within Stirling City itself. The largest of these is Karrinyup Shopping Centre, approximately 2.7 km north-west. The Balcatta industrial area is about 3 km north of Stirling Station.

Figure 5 Locational Context, illustrates the location of Stirling City Centre in the context of the surrounding district, and highlights major land uses in the area.

2.13 Housing and Population

The Stirling City centre currently has a population of approximately 3,800 residents (up from 2,570 at the 2006 census[8]). The population in the City of Stirling as a whole has grown 2% annually since 2006, which is significantly faster than the metropolitan area growth over the same period. Growth has been driven in part by the prominence of the area as a major employment centre and its close proximity to the Perth CBD[9]. The majority of this growth has been accommodated through infill development and new development north of the railway line.

[8] Syme Marmion and Co, January 2010, *Scarborough Beach Road Population and Land Use Study*, for Department of Planning

[9] Macroplan Australia Pty Ltd, July 2010, *Retail Sustainability Assessment - Draft Report*, for Stirling Alliance

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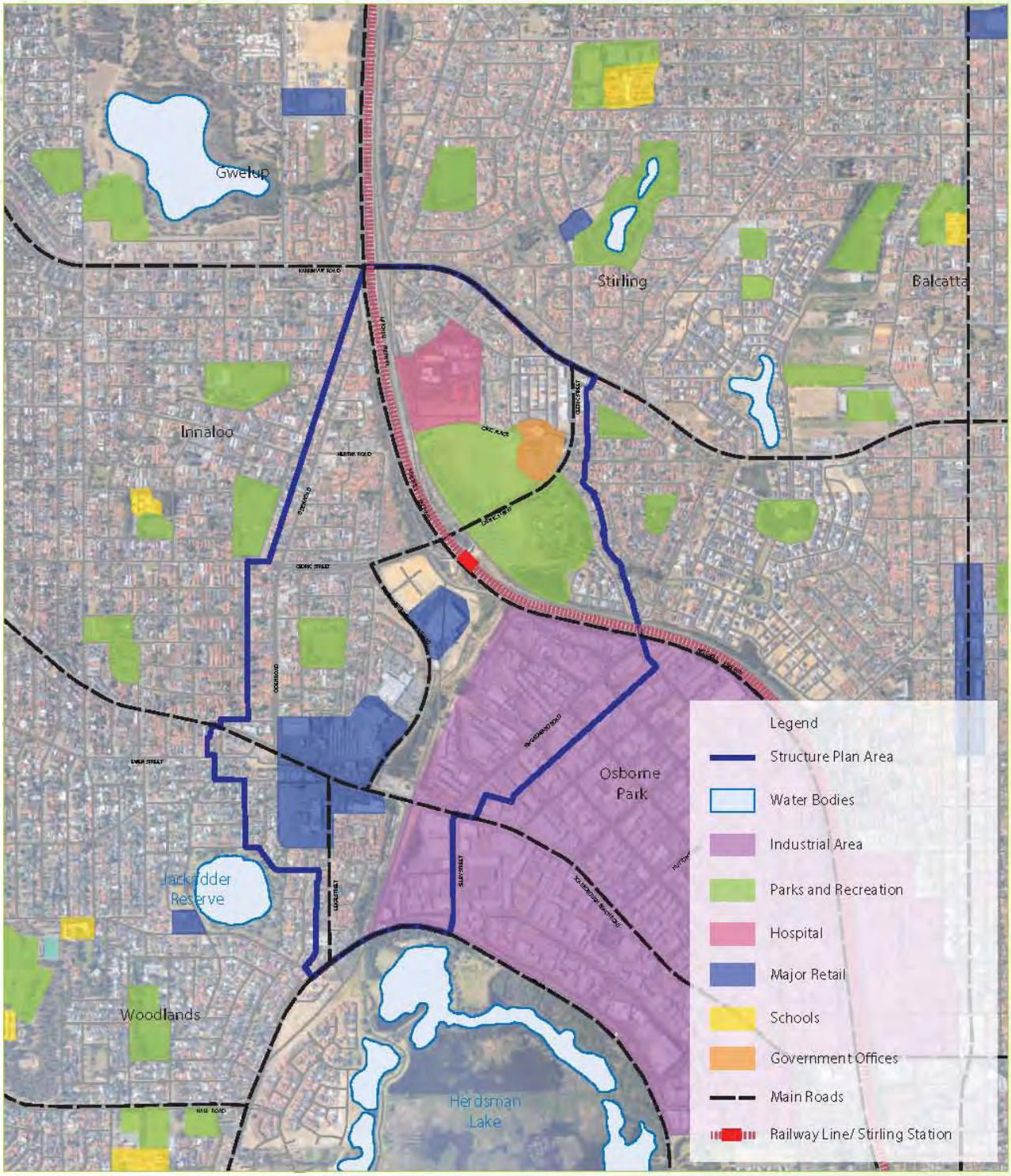

Figure 5. Locational context

There are currently 1,625 dwellings located within the Stirling City Centre area mainly comprised of large, single detached houses and grouped housing (with an average of 2.37 people per household[10]). There are also some specialist aged persons' villa and unit developments providing approximately 300 homes. In 2006, approximately 52% of the then 1,169 dwellings in Stirling City Centre were detached houses, 19% semi-detached, and 29% apartments[11]. This equates to a density of only 6 dwellings per hectare. The current supply of housing does not provide a diversity of housing choice for different demographic groups and income brackets.

Demographic profiling and forecasting by Macroplan[12] suggests that the population of the City of Stirling will increase strongly in the future, in line with the trend across metropolitan Perth. Low growth (0.7% annual growth) and high growth (2.0%) scenarios identify that there could be between 35,000 and 108,000 additional residents in the City of Stirling local government area by 2031, translating to a need of between 15,100 and 47,000 additional dwellings. The Stirling City Centre will be required to accommodate a significant proportion of this growth, and a target of 13,900 dwellings has been identified.

Overview

Current population:	3,800 residents
Current dwellings:	1,625 dwellings (comprised of large, single detached houses and grouped housing)
Current Average Occupancy:	2.37 people per household
Current density:	6 dwellings per hectare
Future population:	25,000
Future Dwellings:	13,900
Future Average Occupancy:	1.8
Future Density:	45 dwellings per hectare (approximately)

[10] Macroplan Australia Pty Ltd, July 2010, *Retail Sustainability Assessment - Draft Report*, for Stirling Alliance

[11] Syme Marmion and Co, January 2010, *Scarborough Beach Road Population and Land Use Study*, for Department of Planning

[12] Macroplan Australia Pty Ltd, July 2010, *Retail Sustainability Assessment - Draft Report*, for Stirling Alliance

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Providing 13,900 dwellings will require a very different approach to housing from that taken in the past. The makeup of households in Australia is undergoing rapid change. Research undertaken by the ABS shows that lone person households are the fastest growing household type in Australia, increasing from 25% of the total in 2001 to 34% of all households in 2026[13]. In 2006, 32.4% of all households in the City of Stirling were all ready lone person households, and this is expected to increase significantly overtime. To accommodate this demographic shift, a more diverse range of housing options will be required.

The City of Stirling has adopted a Local Housing Strategy as a response to the changing demand for housing. The main themes of the strategy relate to the importance of fostering housing diversity and affordability. A City Housing Policy will be developed in future that amongst other things will identify targets for the provision of affordable housing, universal access requirements, ecological design of dwellings, and dwelling typologies that will minimise the loss of tree cover and the consequential detrimental impacts on microclimate and urban temperatures. Increased dwelling densities and more apartments and mixed use developments will be a key requirement under the new policy.



Image 4. Existing Aged Persons' housing in Stirling City Centre



Image 5. Single residential in high amenity locations in Stirling

[13] Australian Bureau of Statistics accessed athttp://www.abs.gov.au/ausstats/abs@.nsf/0/6C0F2180158809B9CA2573D20011048E?opendocument on the 9.8.2010

2.14 Economy and Employment

To perform its designated role as a Strategic Metropolitan Centre, Stirling must diversify its economic base and mature into a major employment centre for the Central sub-region of the Perth Metropolitan Region[14].

Employment that involves the local delivery of goods, services and amenities to the population of an area is known as 'population driven' employment. As the population of Stirling City Centre increases, this type of employment is also expected to increase. Pracsys[15] estimates that the number of population driven jobs in the Stirling City Centre in 2006 (2006 Census) was 4,724, or 91% of total jobs.

In contrast, the estimated number of 'strategic' jobs in the Stirling City Centre in 2006 was only 475, or 9%.[16] Strategic employment is not linked to population growth but to economic development. This type of employment is important



Image 6. Retail development in Stirling



Image 7. Commercial Development in Stirling

[14] Pracsys, April 2010, *Stirling City Centre Economic Development Strategy: Scoping Paper*, for Stirling Alliance

[16] Pracsys, April 2010, *Stirling City Centre Economic Development Strategy: Scoping Paper*, for Stirling Alliance

[16] Pracsys, April 2010, *Stirling City Centre Economic Development Strategy: Scoping Paper*, for Stirling Alliance

because it generates net new income for the economy by establishing markets outside the sub-regional and regional catchments. For Stirling to provide its share of required employment to meet the needs of forecast population growth in Perth and Peel, a massive increase in the proportion of this type of employment to 22% (4,124 jobs) will be required by 2031.

Analysis by Pracsys indicates that the area in and around Stirling City Centre has evolved from general retail and light industry to become a major convenience and comparison retail centre, with bulky goods and specialised construction and home making retail in Osborne Park having a metropolitan wide catchment.

Areas around the Centre (in particular Herdsman Business Park) have begun to develop a significant commercial office function, catering for larger format commercial office buildings that play a vital metropolitan role but, for a number of reasons such as cost and lack of available space, would not locate in the CBD.

2.15 Movement

Over fifty years ago, a road reservation was set aside for Stephenson Highway in the first statutory plan for Perth, (1956 Interim Development Order) which has carried through to the current day. To date, the highway has only been partially constructed. It was widely recognised that if the construction of Stephenson Highway through the Stirling City Centre project area proceeded as originally intended, it would impact significantly on the ability to deliver a city centre that is integrated with the commercial and light industrial precinct in Osborne Park to the east, and would encourage the continuation of 'big box' development in the city centre. The initiation of MRS amendment 1173/57 represents a first step in addressing the movement issues within the area, and will ultimately assist in achieving the project vision.

A key issue that has plagued the area's development is the conflict between the regional and local transport needs. A substantial proportion of traffic congestion is created by regional flow travelling through the centre to other destinations. Approximately 90% of work related trips are undertaken by the private motor vehicle in Stirling City Centre. The high level of private car use coupled with the limited capacity of the existing road network results in severe congestion within the Stirling City Centre area. Congestion not only impacts on travel time but serves as a limiting factor for future development within the area. Reliance on the private car (over other modes of travel) is unsustainable for numerous reasons including the contribution of carbon emissions from vehicles to climate change and the social and economic

impacts of rising oil prices. Less than one third of the traffic predicted to use Stephenson Avenue in this location would be regional (travelling through, rather than to the centre), and 5% or less of that traffic would be freight traffic.

The road network at the Mitchell Freeway and Scarborough Beach Road is close to capacity in peak periods, however the northern suburbs railway has significant spare capacity. The railway currently has 57,000 passengers per day, which can grow to 150,000 passengers per day with current stations and rail infrastructure (with 6 car sets and 3 minute frequency).

Stirling Station is the fifth busiest station on the system in relation to patronage and is growing in importance. The bus feeder patronage grew by 20% to 40% between 2007 and 2009. Bus access to Stirling Station is 55% of the mode share. Walk-on access is very low and the walking catchment will need further development.

In 2009, the City of Stirling adopted an Integrated Transport Strategy that seeks to tie land use with transport. In respect to Stirling City Centre, the Strategy identified the following transport elements.

Heavy Rail from:

- Stirling to Airport via Reid and Tonkin Hwy
- Stirling to Fremantle

Light rail lines running from Stirling to:

- Scarborough Beach
- Glendalough Station

High frequency buses from Stirling to:

- Morley
- Claremont
- Subiaco
- Edith Cowan University – Mt Lawley
- Freight routes along Pearson Street, Jon Sanders Drive, Hutton Street and the Mitchell Freeway

The structure plan will include or allow for future provision of all of these elements.

The existing movement network is illustrated in **Figure 6 Existing Movement Network**.

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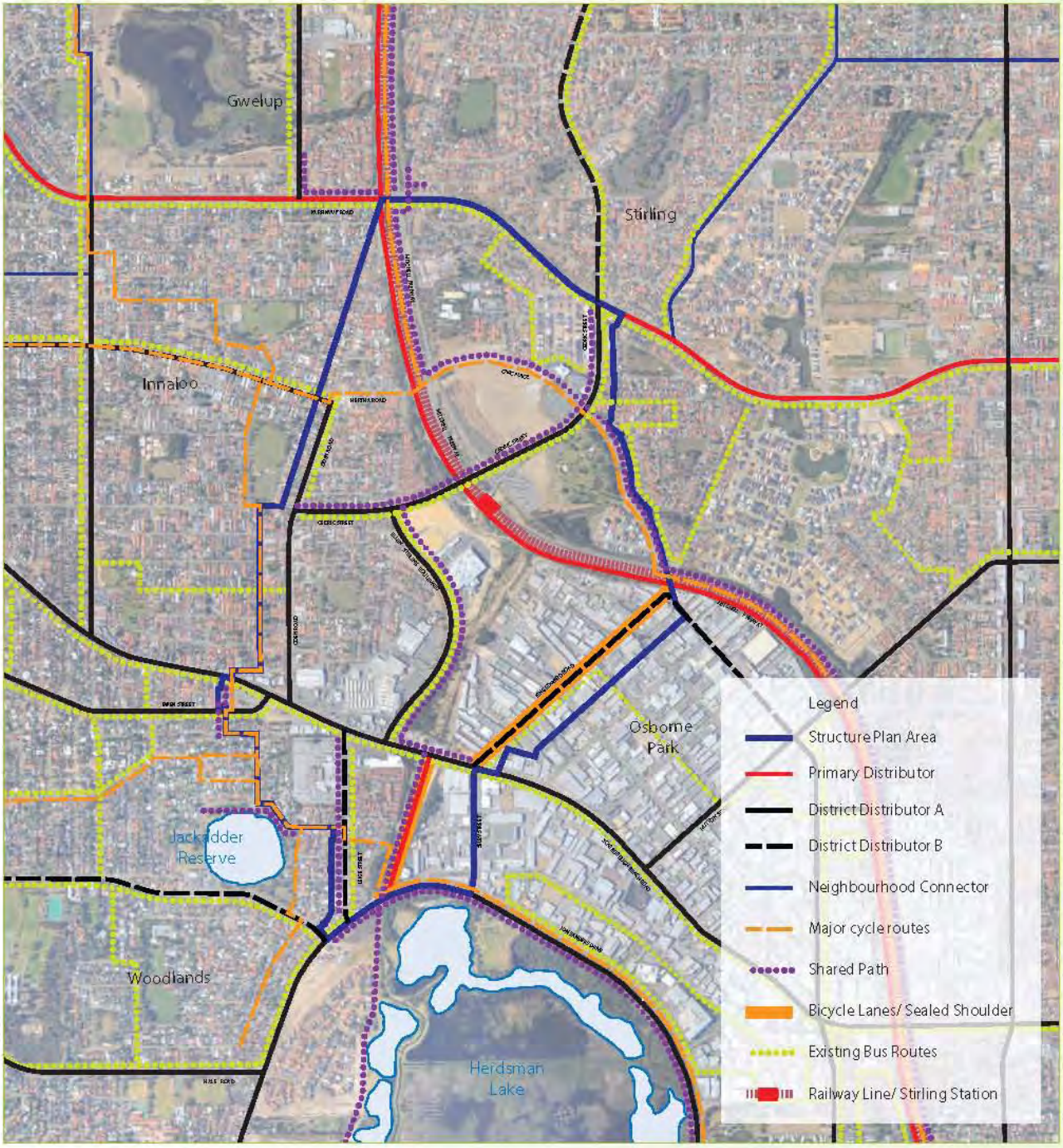


Figure 6. Existing movement network

2.16 Public Utilities

Consultation with the appropriate utilities (in particular the Water Corporation and Western Power) reveals that the average Perth house uses around 276 kL of water, 6,500 kWh of power and generates around 1 tonne of municipal solid waste (MSW) each year. At these rates it is anticipated that the Stirling City Centre district will require an additional 4 GL of water and 97.5 GWh of power to enable the residential population growth targets set within the growth strategy to 2031. The projected increases in commercial office and retail space will require an additional:

- 90 GWh of power for the projected increase in retail floor space (300,000 sqm)
- 40 GWh of power for the projected increase in office floor space (400,000 sqm)

This challenge is further compounded by known infrastructure capacity constraints, including:

- a local 'black hole' of distribution and reticulation infrastructure for electricity, gas, water and sewer due to the area's history as a landfill site and the Stephenson Highway reservation
- upstream electrical infrastructure upgrades required (predominantly substation upgrades and/or delivery)
- a downstream sewerage system and treatment plant nearing capacity
- a relatively weak telecommunications network

These challenges present significant funding, planning and construction challenges for sustainable provision of energy, water and wastewater services. The consideration of non 'business as usual' infrastructure provision is required, with an opportunity for the implementation of 'green infrastructure' initiatives.

2.17 Public Open Space

Public open space makes a major contribution to local character, amenity and community vibrancy. At present, open space within Stirling City comprises:

- Herdsman Regional Park (regional open space)
- Stirling Civic Gardens (district open space).
- La Grange Dongara Reserve (community open space)

2

The City of Stirling Public Open Space Strategy seeks to create a network of resource efficient, quality public open spaces that will satisfy current and future recreational needs in an equitable and sustainable manner.

The strategy classifies open space into a number of categories as follows:

- Local Open Space - small parklands that service the regular small-scale recreation needs of the immediate residential population within five to ten minutes walking distance.
- Community Open Space – areas large enough to provide for both passive and informal active uses to occur simultaneously, while managing potential conflict.
- District Open Space - principally provides for organised sport and passive and informal active recreation for surrounding neighbourhoods, large enough to accommodate a variety of concurrent activities.
- Regional Open Space - These spaces serve broad-based sport and recreational needs providing numerous quality facilities for residents and visitors. Regional open spaces may also serve conservation and environmental management goals and include sizeable areas of undeveloped land with natural/native vegetation and water bodies.
- Natural Conservation Areas – these are intact or rehabilitated examples of the Western Australian natural environment.
- Special Purpose Open Space - unique or single purpose spaces provided in addition to the local, community, district and regional open space hierarchy. These spaces include urban spaces such as plazas and squares, landfill sites, historical and cultural spaces.
- Residual Land – this is existing public open space that does not provide a useful function to a significant portion of the community, due to poor location, incompatible adjacent land uses, poor access, and limited size, lack of infrastructure or oversupply.

The Stirling City centre will require open space in each of these categories.

2.18 Social Infrastructure

The Stirling City Alliance[17] commissioned an audit of existing infrastructure within the Stirling City project area. The audit investigated education, health, cultural and civic, police and emergency facilities.

[17] Estill and Associates 2008 "Community needs assessment"

2.19 Education

There are currently no schools situated within the Stirling City Centre area. The existing residential population is adequately catered for by public and private schools within the catchment area however it has been flagged that population growth within the Stirling City Centre will require additional primary and secondary schools. Since the relocation of Edith Cowan University Churchlands Campus in 2007 there are no universities located within or close to the City Centre.

2.20 Health

The Osborne Park Hospital is situated within the Stirling City Centre. Osborne Park Hospital provides 209 general hospital beds, 50 mental health beds and eight (8) rehabilitation beds. There are no emergency facilities located at the hospital.

2.21 Cultural Facilities

The City of Stirling Council chambers and civic reception centre is located within the area north of the freeway. This area has been identified as a possible location for future cultural and civic purposes. There is presently no library within the city centre area.



Image 8. Stirling Civic Gardens are a well used and highly valued community asset

2.22 Police, Fire and Emergency Services

There are currently no police, fire or emergency service facilities within the designated Stirling City Centre area. Consultation with service providers suggests that additional facilities will not be required, however a shared hub could accommodate shop front services and support city centre policing by foot or bicycle as required.

3 The Vision

3.1 Vision Statement

While much growth and development of the Stirling City Centre has occurred over the years, guided in part by previous structure plans, planning schemes and policies, the outcome on the ground leaves much to be desired. It is widely recognised that Stirling does not have a 'centre' or 'heart'. It is an amalgam of uses developed incrementally and with little regard to the public realm and the civic qualities needed if this place is to become a significant city centre within the greater Perth metropolitan area.

It is within this context that an overarching vision has been prepared to guide the future redevelopment of the Stirling City Centre. This Vision is:

Stirling City Centre strives to become a sustainable 21st century city - a place for everyone. It will be a hub for a diverse and prosperous community, offering well being for all.

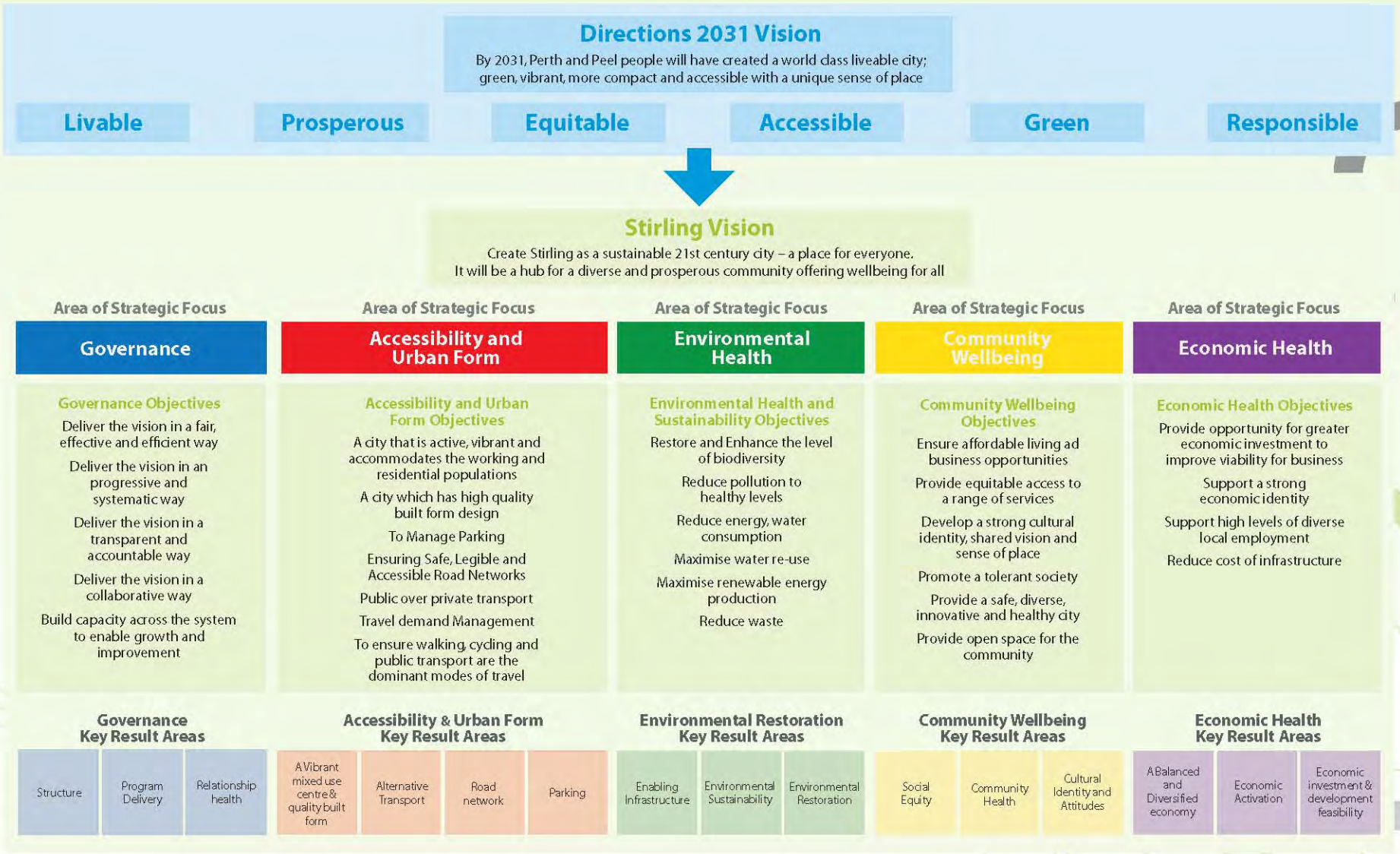
This relatively simple but powerful statement provides the basis for much of what follows in the way of presenting an approach that seeks to move significantly beyond a 'business as usual' approach.

3.2 Performance Framework

The Stirling Alliance has developed a 'performance framework' to clarify the key elements of the vision and to guide decision making. The performance framework identifies five areas of strategic focus including Governance, Accessibility and Built Form, Environmental Restoration, Community Wellbeing Forever, and Economic Health. Each area of strategic focus consists of a number of key result areas. These key result areas are informed by a range of key performance indicators.

The performance framework will be reviewed annually and will guide the preparation of policies and plans as well as physical development within the project area. The performance framework is a tool to ensure that the objectives and vision of the Stirling Alliance are adhered to when a range of tasks (e.g.: preparation of detailed area plans, road design, etc) are undertaken. Different key performance indicators will be used depending on the nature of the project.

Figure 7. Summary of key result area



4 The Plan

4.1 Elements of the Plan

Three key structural elements will shape the future of the Stirling City Centre. These are:

- The Green, or open space system
- The Blue, or waterway system
- The Red, or transport linkages

All of the elements operate at regional, district and local levels within and beyond the centre.

The core structure of the Stirling City Centre is to be defined by a green corridor that will run from the northern end of the centre travelling south through the centre of the study area and arriving at Herdsman Lake. This corridor will contain both 'green' and 'blue' structural elements.

The green corridor will provide a high level of amenity to those dwellings that will interface with it. This corridor will incorporate a reconfigured waterway (the visible part of the 'blue' system), and be designed to cleanse the water before it enters Herdsman Lake.



Image 9. Open space amenity



Image 10. Natual environment

4

A third structural element is the 'red' or regional transport network. The existing regional road network includes the Mitchell Freeway as the primary north south distributor and Scarborough Beach Road, Karrinyup Road and Pearson Street as the primary east-west distributor roads. Regional transport will be dispersed in the future across the existing network and proposed transport corridors.

The structure plan diagram is shown in **Figure 8 Structure Plan**. The elements are described in the following sections.

The structure plan is not a zoning plan. As its name implies, it describes the key structuring elements of the Stirling City Centre. The detailed spatial elements will be further explored and developed in subsequent levels of planning and over time. Non-spatial elements such as community and economic development, provision of services and place management will be just as important to the successful realisation of the vision for Stirling as the physical manifestation of roads, parks and buildings.



Image 11. Community utilising open space



Image 12. Transport connections

4

4.2 Land Use and Activity

4.2.1 Precincts

Although conceived of as a single, cohesive mixed use centre, Stirling City will nevertheless be defined by a variety of 'neighbourhoods' or precincts, each having qualities or emphasis that differentiate it from the others. No city centre is completely homogenous – the different characteristics of the precincts combine to make the city centre an interesting, dynamic, and legible whole.

Six precincts have been identified, as illustrated in **Figure 9 Precincts.** Identifying precincts make it possible to describe in more detail the qualities and characteristics that will give them their distinctiveness within the whole centre, and allows for staged implementation and design development.

Planning of the precincts will evolve and be updated as issues are resolved over time. The design detail of the precincts will be 'locked down' gradually, in the most appropriate manner at the time, whilst staying true to the key structural elements and vision for Stirling City Centre. In some cases, the boundaries of precincts may alter slightly in response to detailed planning and design.

This structure plan establishes the general intent and vision for the precincts. DAPs for each precinct will be prepared progressively, and will detail:

- Targets for housing and employment
- How the DAP fits within the structure plan
- Existing land uses and environmental and other values
- Pattern of surrounding development, existing and future land use, existing transport network
- Proposed land use
- Proposed road layout and subdivision pattern
- Proposed residential density
- Building heights
- Proposed movement network
- Public open space
- Drainage
- Implementation staging

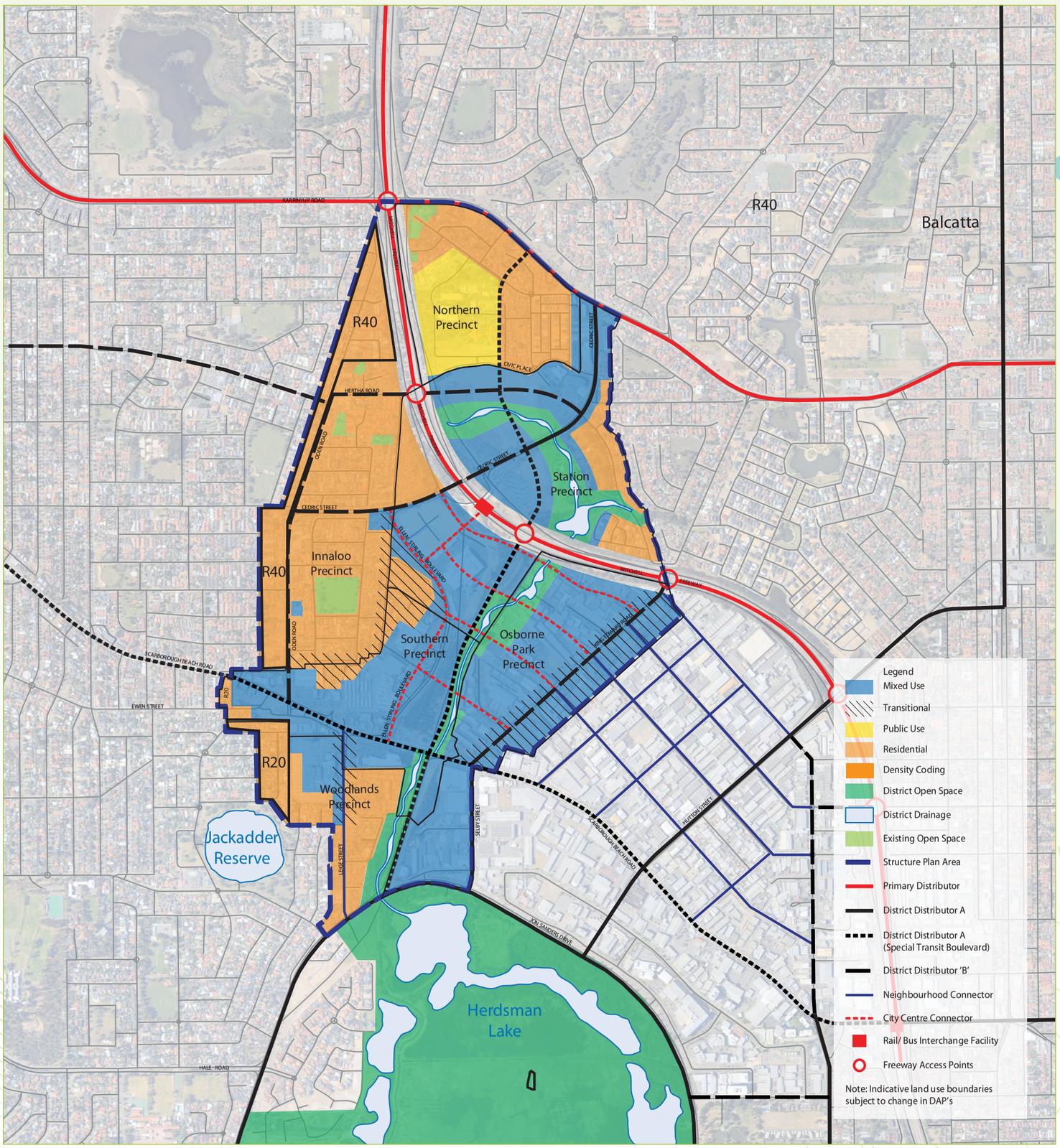


Figure 8. Structure plan

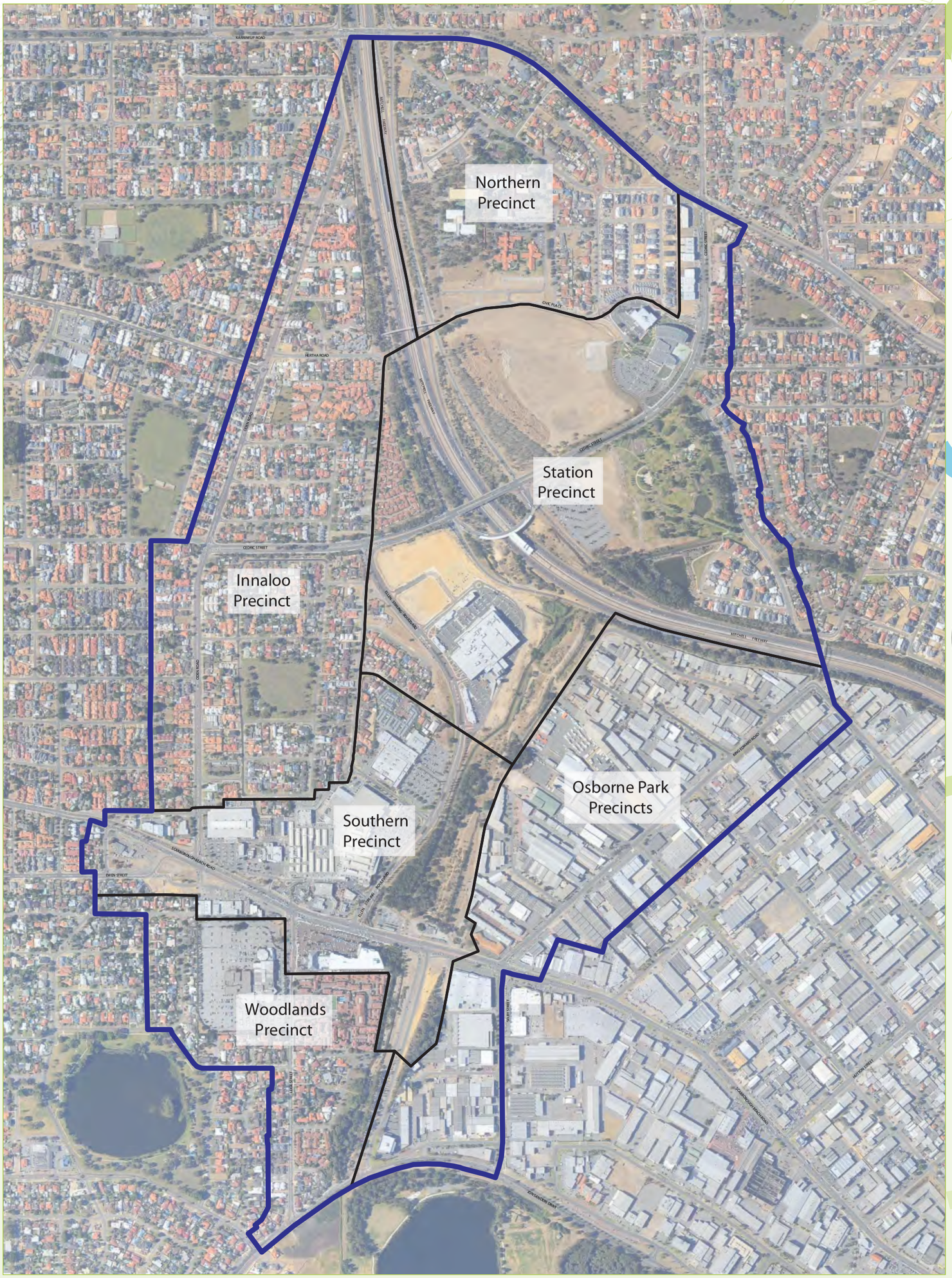


Figure 9. Precincts

- Servicing requirements
- Statutory mechanisms
- Developer contributions

Detailed Area Plans will be adopted as policy under the Planning Scheme. In addition, Form Based Codes will be prepared for each of the precincts to provide place-specific design requirements for the built form and public realm. These codes will engender the principles contained within this structure plan and will provide additional detailed requirements and design rigour to guide the development of each precinct.

The precincts are:

- Southern Precinct
- Station Precinct
- Northern Precinct
- Osborne Park Precinct
- Innaloo Precinct
- Woodlands Precinct

4

The precincts can be briefly described as follows.

Southern Precinct

This precinct comprises the existing Innaloo Shopping Centre site, both sides of Scarborough Beach Road from Stephenson Avenue to Odin Road, and the Stephenson Avenue reserve extending south to Herdsman Lake.

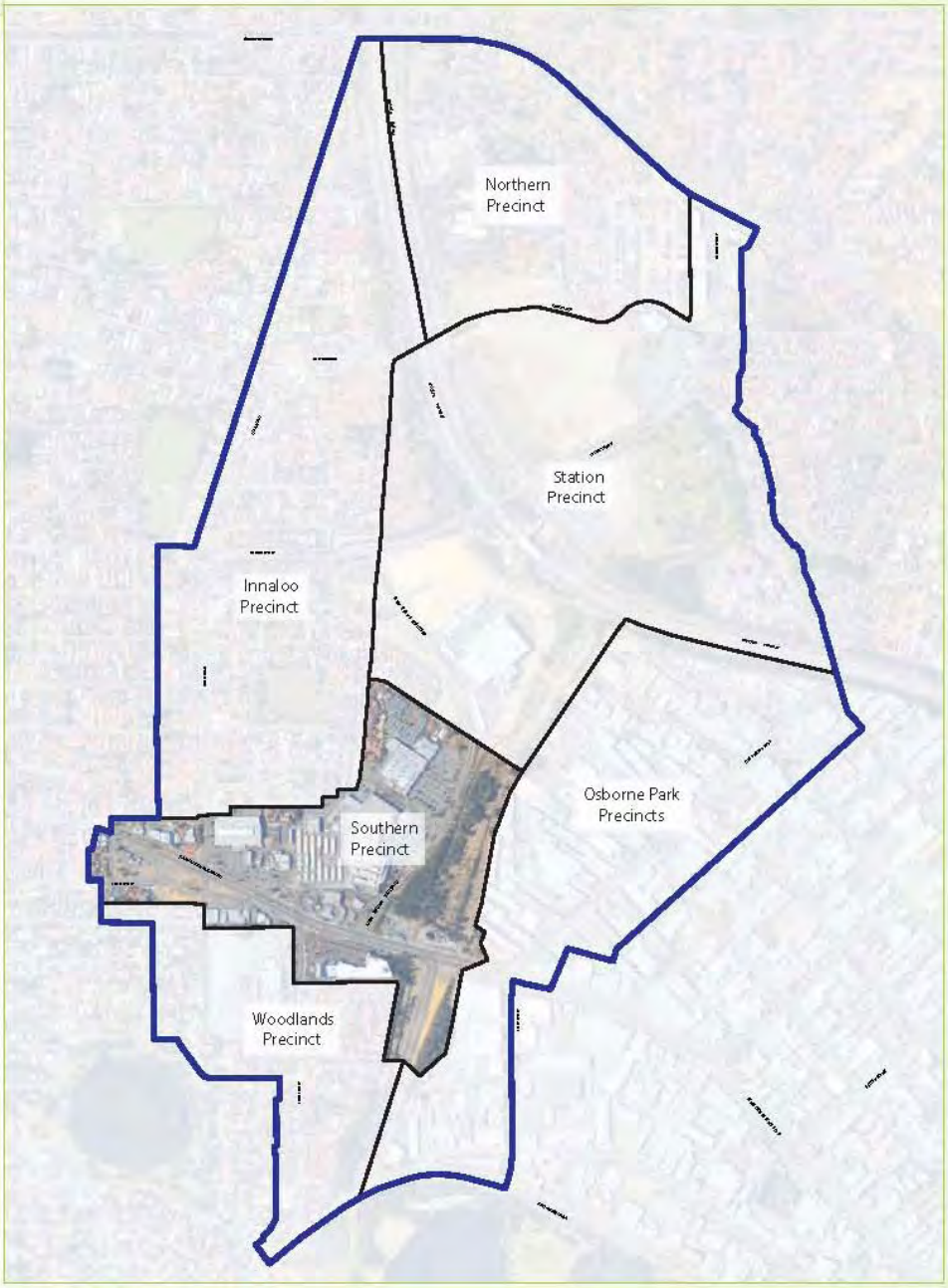


Figure 10. Southern precinct

4

Character Statement

- Mixed use development including residential with an emphasis on shopping which serves the local population and the surrounding region.
- Existing shopping centre will be redeveloped over time to provide a street-based (rather than internal, mall-based) shopping environment.
- New housing in this precinct will take the form of high density apartments.
- Ellen Stirling Boulevard will become a pleasant street dominated by pedestrian traffic.
- Both Stephenson Avenue and Scarborough Beach Road will be regional connectors revamped for light rail with a high quality pedestrian environment lined with active ground floor uses within mid-rise, mixed use developments.

Dwelling Targets

- Desired Target - 2,100
- Minimum Target – 1,360



Image 13. Westfield Shopping Centre entrance off Ellen Stirling Boulevard

Key Issues

- Timing and commercial viability of development aspirations for shopping centre developer (short term) versus time required to negotiate necessary land assembly for possible realignment of Ellen Stirling Boulevard
- Improvements required to the main drain to address environmental quality, flow and landscape quality
- Extension of Guthrie, Oswald and Howe Streets to Stephenson and Ellen Stirling Boulevard
- Existing sub-station on Scarborough Beach Road
- Acid Sulphate Soils
- Access from Stephenson Avenue to shopping centre
- Light rail depot
- Provision of sufficient access points to ensure ongoing viability of existing uses
- Oswald to remain as a non-enclosed public street
- Need to identify sites appropriates for short stay accommodation

4

Station Precinct

This precinct comprises all the land within a 400 metre radius from the existing Stirling Station, the former Hertha Road tip site, and Cedric Street north to Karrinyup Road. Ultimately, the precinct is likely to be divided into two distinct character areas; however the need to comprehensively plan and implement the remediation of the former landfill makes the delineation of an exact boundary north of the railway problematic at present.

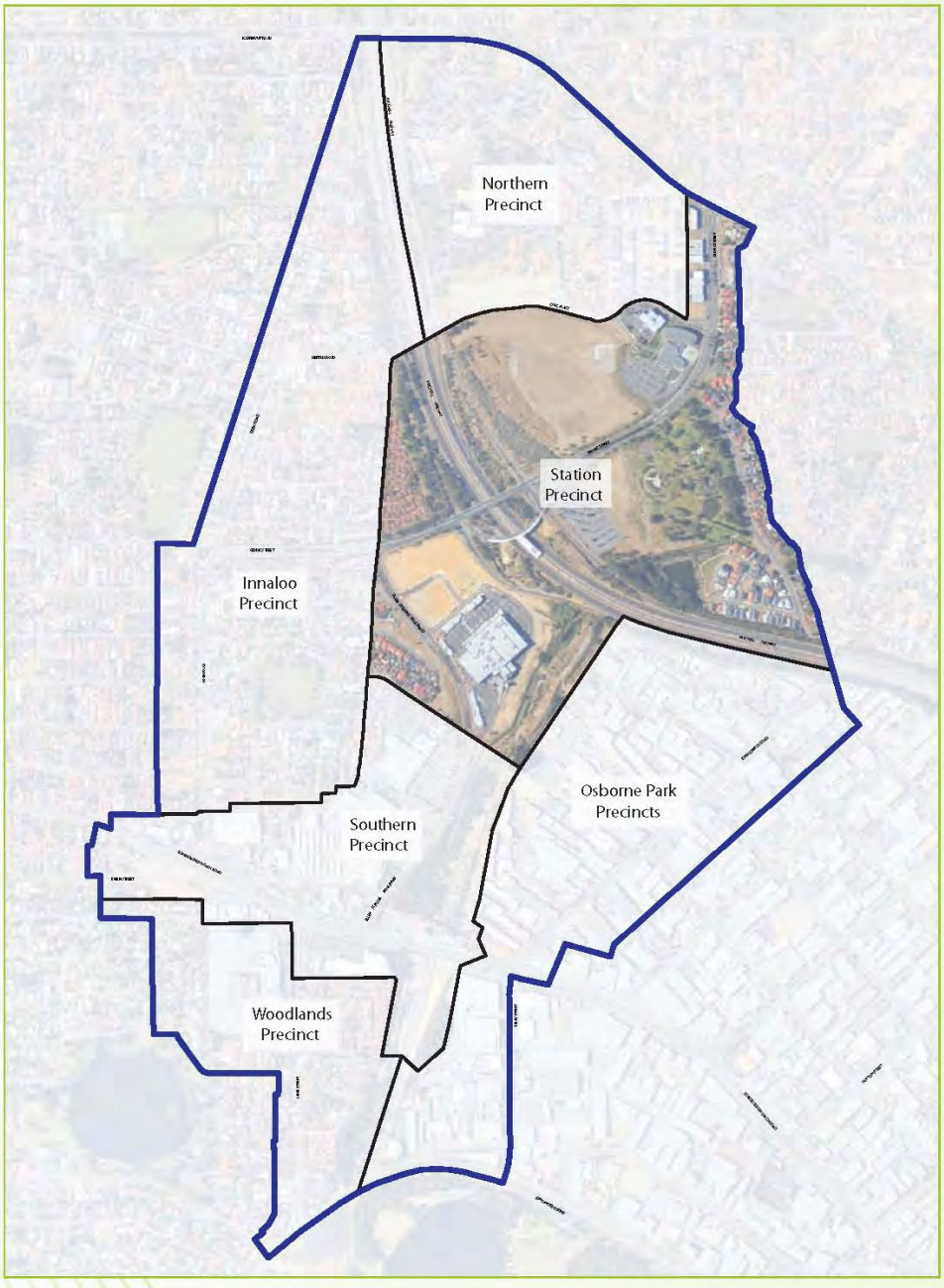


Figure 11. Station precinct

4

Character Statement

- Mixed use development including residential with an emphasis on office uses which serve as a major regional business centre around the train station.
- Mixed use Civic, cultural and community buildings with residential providing civic hub of Stirling.
- Be the focal point and interchange for local and regional public transport (buses, trains and light rail system).
- Seamless connection and integration of land uses across the freeway on 'land bridges' will provide a safe and appealing pedestrian environment.
- Built form will reduce in height as development moves away from the train station to existing areas.
- Opportunity to incorporate a shopping district within the precinct.
- Shaped by a linear park/stream that is an important element of the overall city green corridor
- Current amount of developed active open space will be maintained although reconfigured.

Dwelling Targets

- Desired Target – 4,500
- Minimum target – 2,914



Image 14. Stirling Station interchange

Key Issues

- Remediation of former land fill and main drain
- Access across railway/ freeway trough
- Safe and direct pedestrian access to the station
- Transition to existing residential areas
- Location of school site
- Location of environmental remediation infrastructure
- Provision of sufficient access points to ensure ongoing viability of existing uses
- Need to identify sites appropriates for short stay accommodation

4

Northern Precinct

This precinct comprises the existing Osborne Park Hospital and a low density residential area. It is bounded by Karrinyup Road in the north, the Freeway in the west, the landfill site in the south and the back of Cedric Street in the east.

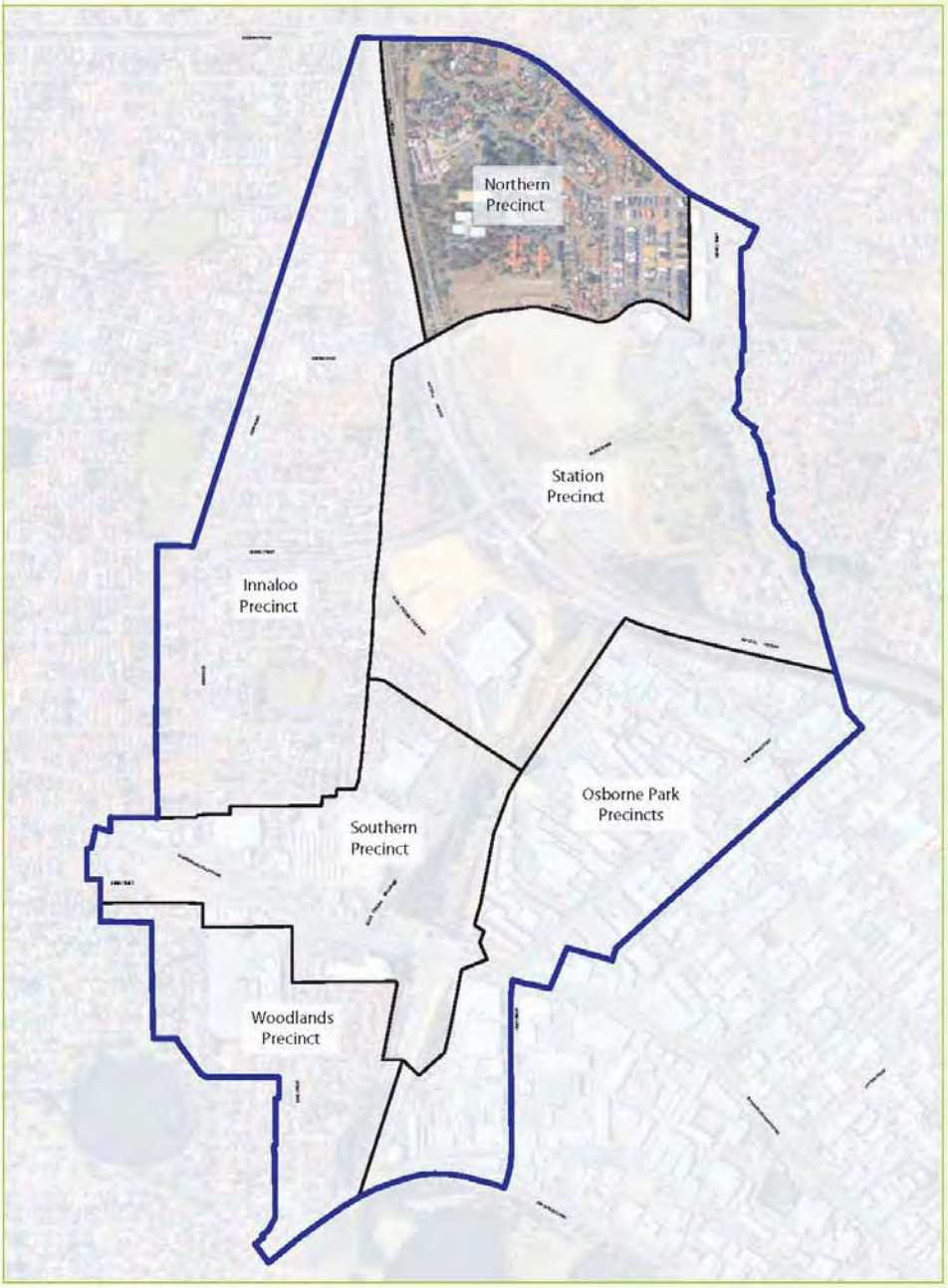


Figure 12. Northern precinct

4

Character Statement

- Redeveloped Osborne Park Hospital addressing the new Stephenson Boulevard extension.
- Inner City residential development that is more intense than the current residential development.
- Stephenson Avenue, with light rail, will continue through the precinct to Karrinyup Road, providing much improved access to the city core and station for the hospital and local residents.

Dwelling Targets

- Desired Target – 1,100
- Minimum target – 712

Key Issues

- Land swap and resumption to achieve Stephenson connection to Karrinyup Rd
- Re-orientation of hospital entry to new road



Image 15. Osborne Park Hospital

4

Innaloo Precinct

This precinct comprises an existing medium density residential area focused around the La Grange Dongara Reserve. It is generally bounded by Odin Road in the west, rear of the commercial development in the south and Freeway in the east.

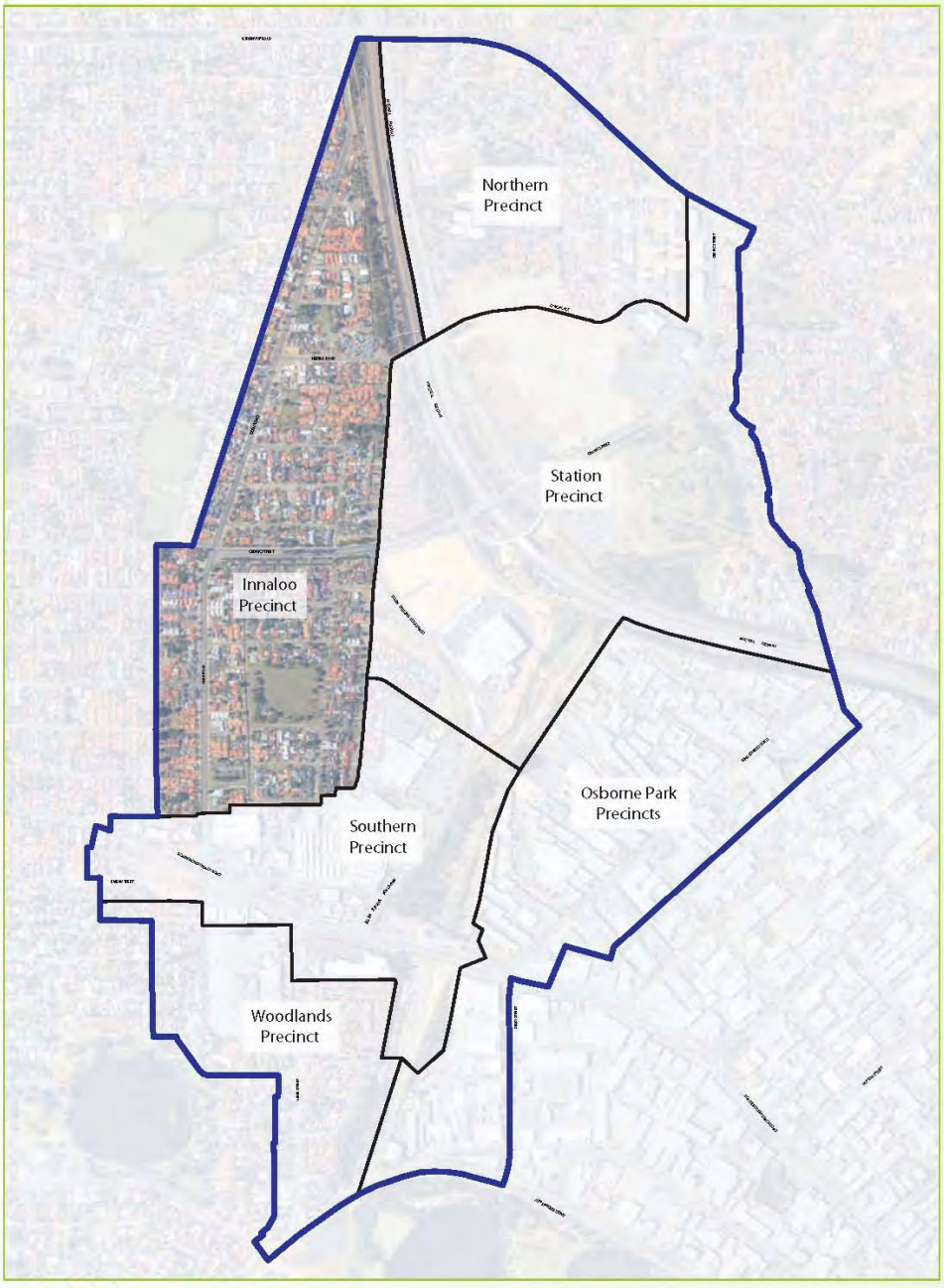


Figure 13. Innaloo precinct

4

Character Statement

- Inner city predominantly residential neighbourhood - a medium to high density residential area that takes advantage of the excellent amenity offered by the existing La Grange Dongara Reserve.
- Excellent accessibility to the city core, retail and associated activities via high quality, pedestrian friendly streets designed to discourage through traffic.

Dwelling Targets

- Desired Target – 2,500
- Minimum target – 1,619

Key Issues

- Need to ensure no adverse impacts on adjoining established housing
- Manage through traffic from shopping centre on local residential streets
- Manage interface between mixed use areas and residential areas



Image 16. La Grange Reserve

4

Osborne Park Precinct

This precinct is the area of Osborne Park north and south of Scarborough Beach Road and east of the existing Stephenson Avenue alignment. The area south of Scarborough Beach Road relates strongly to the Herdsman Business Park, and its future planning and development will be coordinated with that for Herdsman. The northern part of this precinct will become the transition between the industrial activities of Osborne Park to the east and the intense 'city centre' activity of the western precincts.

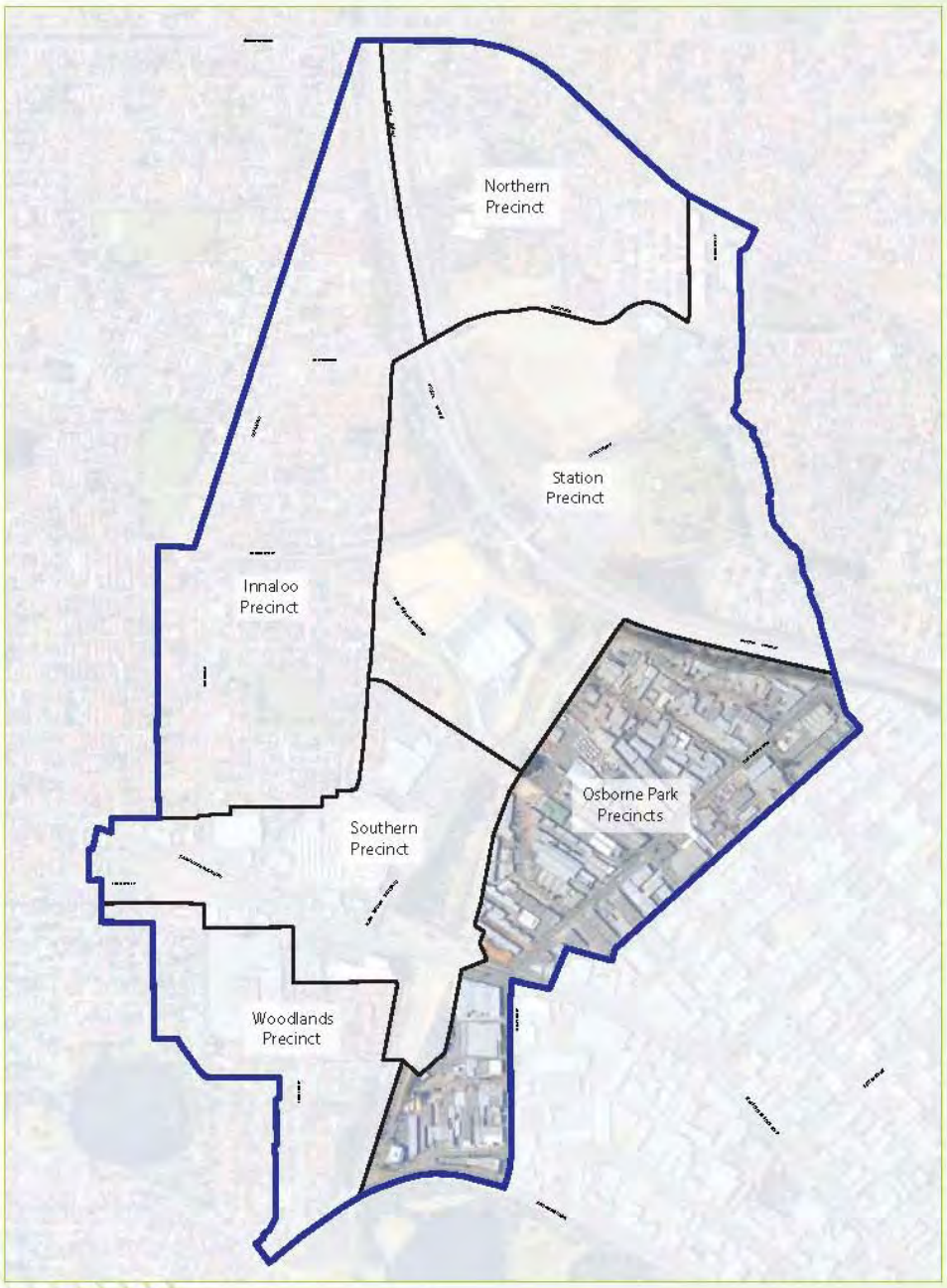


Figure 14. Osborne Park precinct

4

Character Statement

- Redevelopment of the existing industrial sites into high density residential/ mixed use development focussed around high quality local parks.
- Eastern portion of the precinct will transition to primarily commercial development.
- High quality architecture will overlook and capitalise on the amenity provided by the Stephenson Avenue, and the green corridor link.
- Mixed use primary school, which would share public open space.
- Resolving possible site contamination and potential interim non-compatibility of uses will mean redevelopment to commercial and residential will take some time. A new fine grained road structure will be required to facilitate development. The connection of existing streets across Stephenson Avenue will make these areas highly accessible to the amenity and services of the city centre.

Dwelling Targets

- Desired Target – 2,500
- Minimum target – 1,619

Key Issues

- Existing industrial land use
- Assembly of private land necessary to achieve connections between this precinct and the city centre, across Nookenburra Creek and Stephenson Avenue
- Where to locate future public open space in order to create amenity
- Where to locate school site



Image 17. King Edward Road

4

Woodlands Precinct

This precinct comprises the existing cinema site on Liege Street, south of Scarborough Beach Road, and adjacent, largely residential land.

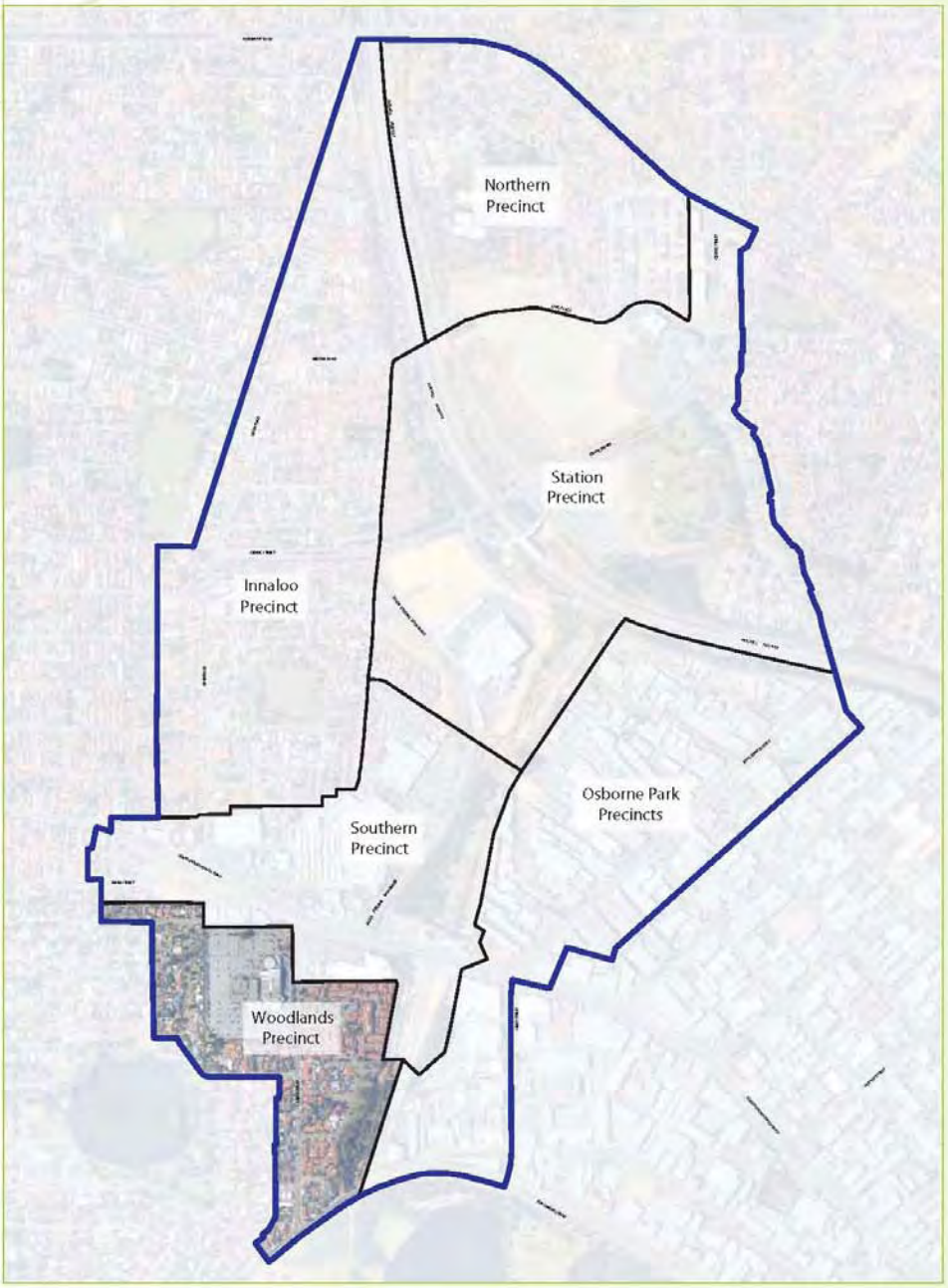


Figure 15. Woodlands precinct

4

Character Statement

- New development will be scaled to integrate with the exiting low density, low scale residential neighbourhoods to the west and south
- Quality mixed use development would front the Northern part of Liege Street.
- Cinema site could be redeveloped for a new medium to high density residential neighbourhood with mixed use development facing Liege Street, with possible new local main street.
- New development would be well connected to the surrounding urban fabric and benefit from adjacency with the southern parts of the green corridor/urban stream and Herdsman Regional Park.

Dwelling Targets

- Desired Target – 1,200
- Minimum target – 777

Key Issues

- Need to ensure no adverse impacts on adjoining established housing
- Manage through traffic on Liege Street



Image 18. Liege Street

4.2.2 Housing

An integral part of achieving the vision for Stirling is ensuring that a variety of housing types are provided to suit a range of household types and income. Provision of diverse housing types will assist in ensuring the vitality and sustainability of the Stirling City Centre. It is envisaged that Stirling City Centre will accommodate an agreed population of 25,000 people and approximately 13,900 dwellings. In order to achieve this, each precinct will need to provide a significant residential component.

The housing strategy for the Stirling City Centre[18] identified the following targets.

Table 2. Stirling City Centre Housing Targets

Precinct	Current Dwellings 2009	Aspirational Dwellings	Estimated Population	Affordable Housing	Minimum Dwellings	Estimated Population Minimum	% total dwellings
Southern	49	2,100	3,780	630	1360	2,447	15.1
Station	169	4,500	8,100	1,350	2914	5,245	32.4
Northern	280	1,100	1,980	165	712	1,282	7.9
Osborne Park	0	2,500	4,500	375	1619	2,914	18.0
Innaloo	727	2,500	4,500	375	1619	2,914	18.0
Woodlands	400	1,200	2,160	180	777	1,399	8.6
Total	1,625	13,900	25,020	3,075	9000	16,200	100

[18] HASSELL, August 2010, Draft Stirling City Centre Housing Strategy, for City of Stirling



Image 19. Walk up apartments



Image 20. Apartments with ground floor retail



Image 21. Terrace mews housing



Image 22. Apartments

4

Affordable Housing

Rising housing prices in Australia have led to significant problems of housing affordability, particularly for those on low or moderate incomes. Housing that costs more than 30% of a household's income is generally considered to be 'unaffordable', but because housing costs vary between different geographic areas (and from site to site), what constitutes 'affordable' will vary both by income and location.

The issue of location is important, for although there may be a relatively high supply of 'affordable' housing in fringe areas, workers may not be able to afford (time and price wise) to get to work if that housing is too far away. As a consequence, employers may have difficulty attracting staff to fill jobs, and this has potentially wider impacts on the economy and on social outcomes. For example, if teachers, police or health-care workers can't afford to live near their work place, standards of community service and security can suffer. This problem has seen the issue of 'key worker housing' emerge, alongside discussions of social and public housing. Hence income alone is not a good measure of 'affordability'. 'Affordable housing' is required that covers all dwelling types to suit the needs of the population, that is – single bedroom dwellings, family housing and aged and dependent persons accommodation.

In terms of location, the distribution of affordable housing will have to meet the requirements of its intended residents and hence is likely to be broadly distributed. However locations highly accessible to public transport and employment will be particularly suitable due to the lower levels of vehicle ownership of low income households. This can be interpreted as being within a five minute walk of high frequency public transport routes (approximately 400 metres). On this basis almost all of the Stirling City Centre is highly desirable for affordable housing.

The aspirational target set for the Stirling City Centre is to provide 30% of all housing stock as affordable housing. For the Stirling City Centre this would equate to 3,075 homes of the 13,900 new homes built. Minimum affordable housing targets will be developed through an Economic Impact assessment process which will be included in a statutory planning mechanism. In addition a mechanism will be developed to enable transfer of minimum housing targets from one lot to another to allow flexibility.

Short Stay Accommodation

The Perth region is currently served by range of accommodation options including hotels, serviced apartments and backpackers, most of which centre around the CBD and Northbridge areas. Despite a range of accommodation stock, there is seen to be a chronic under supply of accommodation in the region. This under supply in accommodation has been driven mainly by significant increases in demand, particularly amongst business travellers. These increases in demand have resulted in Perth having some of the highest occupancy rates of any city in the world which has both reduced the availability and affordability of accommodation for leisure travellers to the region.[19]

The Stirling City Centre project area is ideally located to accommodate short stay accommodation (along with a full range of supporting tourism attractions and accommodation). Priority sites within the station and southern precincts for short stay accommodation will need to be identified as part of the DAP process.

[19] Experience Perth – Tourism Development Priorities 2010-2015 (Dept of Tourism) 2010 accessed from http://www.tourism.wa.gov.au/Policies_Plans_Strategies/tourism_policy_planning/Documents/TDP_Experience_Perth.pdf on the 12 April 2010

4

4.2.3 Commercial

The provision of a range of commercial uses within the project is essential in ensuring the vision is achieved. Provision of diverse commercial uses will assist in ensuring the vitality and sustainability of the Stirling City Centre. It is envisaged that Stirling City Centre will accommodate:

1,235,000m2 residential floorspace

968,978m2 commercial floorspace

In order to achieve these targets, each precinct will need to provide a significant commercial land use component. The following precinct targets for commercial land uses have been identified for the Stirling City Centre.[20]

Table 3. Commercial land use targets

Precinct	Office Floorspace (NLAm²)	Health/ Welfare/ Community Floorspace (NLAm²)	Shop/ Retail & Other Retail Floorspace (NLAm²)	Entertainment/ Recreation/ Culture Floorspace (NLAm²)	Min Commercial Floorpsace (NLAm²)	Total Commercial Floorspace (NLAm²)
Southern	40,896	6,956	196,901	16,762	173,497	262,875
Station	290,994	4,091	67,814	4,051	244,110	369,864
Northern	16,351	27,516	500	0	29,752	45,079
Osborne Park	77,231	5,455	182,775	2,559	177,961	269,639
Innaloo	0	2,660	369	0	3,067	4,648
Woodlands	12,652	2,012	13,065	0	18,813	28,506
Total	438,124	48,690	461,451	23,372	639,525	968,978

Mechanisms to achieve the minimum commercial targets will be developed through the detailed area plan process.

[20] Yield analysis HASSELL 2010

4.2.4 Employment

The Stirling City Centre Alliance has set an aspirational target of 30,000 jobs. The structure plan proposes a spatial plan that will facilitate excellent accessibility and high amenity in an intensive, mixed-use activity centre. As a result the area will become a highly desirable location for businesses, including knowledge intensive export oriented businesses and their employees. The intent of the structure plan is to encourage and support existing business agglomerations located within the area as well as encouraging and creating new opportunities. A key tool in achieving the employment targets will be a well considered economic development strategy that focuses upon on-the-ground implementation of initiatives that deliver tangible results.

Economic development within the Stirling City Centre will be a key driver of employment growth. Employment will expand along two trajectories:

- Increases in retail and consumer services employment generated by growth in the Stirling City Centre catchment
- Increases in strategic employment generated by growth in existing and future industry agglomerations (such as the existing information/media/communication and construction agglomerations already located in the area)

Pracsys[21] have developed a matrix (**Table 4 Stirling City Centre employment compositions**) indicating the estimated generation of employment (including employment type) in 5 year intervals up to 2031. Beyond 2031 employment numbers have not been modelled, however the structure plan is flexible to enable the aspirational goal of 30,000 jobs to be met. Achieving these targets (in particular the strategic job category) will require significant strategic planning and intervention.

[21] Pracsys, April 2010, *Stirling City Centre Economic Development Strategy: Scoping Paper*, for Stirling Alliance

Table 4. Stirling City Centre Employment Composition

Precinct	2006		2011		2016		2021		2026		2031	
Employment Types	Jobs	%	Jobs	%	Jobs	%	Jobs	%	Jobs	%	Jobs	%
Export	147	3%	283	4%	465	4%	691	5%	960	6%	1,273	7%
Consumer Services	2,519	48%	3,639	46%	4,633	44%	5,506	41%	6,263	39%	6,910	37%
Producer Services	1,568	30%	2,338	30%	3,061	29%	3,743	28%	4,383	27%	4,982	27%
KICS*	637	12%	1,014	13%	1,417	13%	1,840	14%	2,280	14%	2,732	15%
KIPS**	328	6%	634	8%	1,043	10%	1,548	12%	2,151	13%	2,852	15%
Total	5,199	100%	7,909	100%	10,618	100%	13,328	100%	16,038	100%	18,748	100%
Population driven	4,724	91%	6,991	88%	9,111	86%	11,089	83%	12,927	81%	14,623	78%
Strategic***	475	9%	917	12%	1,508	14%	2,239	17%	3,111	19%	4,124	22%

Source: ABS Census of Population and Housing, Directions 2031 Spatial Framework for Perth and Peel and Pracsys modelling 2009.

* KICS – Knowledge Intensive Consumer Services

** KIPS – Knowledge Intensive Producer Services (strategic employment)

*** Export plus KIPS

4.2.5 Social Infrastructure

The provision of social infrastructure that meets the needs of the future population is critical to achieving the Stirling City Centre vision.

Education

The Western Australian Department of Education has identified that a secondary school and 1 or 2 primary schools will be needed within the area to accommodate children from the city centre and surrounding catchments. A location in the northern part of the Station Precinct has been identified for

a combined primary and secondary school site. A second primary school will be required within the Osborne Park precinct.

Traditional style free-standing schools on large sites will not be appropriate in the Stirling of the future. Alternative models will have to be explored during the detailed area planning of the precincts, so that school facilities integrate well spatially and functionally with the surrounding area. Shared use of playing fields and facilities, and the provision of learning areas within mixed use residential developments are essential. A regional library has also been identified as a valuable community asset. The library could be a shared resource with the secondary school and could be linked with other facilities and services such as visual arts, writers or poetry centre.



Image 23. The Urban School in San Francisco is an example of a school that is seamlessly integrated into an urban environment[22]

[22] Image sourced 26 August 2010 from http://edcommunity.apple.com/ali/story.php?itemID=14250

4

Health

The Osborne Park Hospital is currently preparing a master plan to guide future development of the site. The expansion includes provision of an additional 50 mental health beds. A 24 hour super-clinic with day surgery, consulting rooms and allied health would be appropriate within the city centre. The super clinic would complement services provided by the existing Osborne Park Hospital.

Cultural Facilities

A key to developing a heart to the centre is to provide activity that goes beyond daily working life. These facilities act to activate the city centre and would be ideally located close to public transport and safe walking and cycling routes.

A market has been identified by the community and other stakeholders as a key requirement in the structure plan. Markets (artisans and fresh produce) would support and complement local economic development and offer a social meeting point for residents and visitors. Market sites have been identified in the southern and station precincts.

A multi-service government facility has been proposed, potentially located adjacent to the existing City of Stirling administration centre (in the northern part of the Station Precinct). Activities that could be located in this area include:

- Cultural centre incorporating a performing arts theatre, conference rooms and activity rooms for education in dance, music, acting
- Family and Children's Services Centrelink, Disability Services, Seniors etc
- Business incubator and business support centre

The provision of a cultural interpretation and heritage centre that could promote and support indigenous cultural heritage and reconciliation is also desirable. The centre could encourage activity after normal hours and provide opportunities to celebrate the unique nature of the area.

Police, Fire and Emergency Services

Agencies responsible for Police, Fire and Emergency Services have indicated that additional facilities may be required within the city centre. Additional facilities (if required) would be best located in the Osborne Park precinct with good access and egress to the freeway.

4.2.6 Built Form

Built form within the Stirling City Centre will promote diversity through architectural expression, use of materials and innovative design responses. A specific urban design framework will be developed to guide preparation of individual detailed area plans. This framework will embody the following characteristics:

- A human scale at street/podium levels through the incorporation of design elements such as windows, terraces, balconies, awnings or colonnades
- Variation in building articulation, texture and materials to reduce building bulk
- Diversity in residential built form
- Adaptable ground floor and commercial structural capacity to allow for a change in use over time
- Building design to promote 'equity of access'
- Design for sustainability and reduced consumption of energy, water and materials
- Use of masonry materials on the lower levels of buildings
- Buildings have a vertical emphasis

These requirements will be implemented through Detailed Area Plans and development policies. The built form should generally incorporate the following design elements in order to encourage activation and interaction with the public realm:

- Provide entries, visually transparent shop and cafe frontages, windows and balconies fronting the street
- Podium levels should incorporate human scale design elements such as balconies, windows and terraces
- Provide awnings or colonnades adjacent to high trafficable public realm areas
- Building frontages to the public realm must avoid the use of blank wall and service areas
- Lobbies and entrances are to be clearly visible and legible as viewed from the street

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- Building facades adjacent to the public realm should be finished with fine grain architectural elements
- Fencing adjacent to primary streets should be visually permeable
- Inactive uses at ground floor are to be avoided

Building Heights

Building heights will be distributed throughout the City Centre in a way that provides definition to the city, supports way finding and provides an appropriate interface to the existing adjacent urban fabric.

As a general rule, taller buildings will be encouraged around the train station and along Stephenson Avenue to assist with way finding and support a higher intensity of uses. Building heights will generally reduce in height from the centre to provide an appropriate interface with the existing residential suburbs located adjacent the centre.

Podium structures will be incorporated within taller development in order to provide a human scale address to the street and public realm. The built form interface with the public realm is an important design element and will assist in promoting a safe and activated public realm environment.

4.3 Movement

4.3.1 Dispersed Transport Network

In order to enable the population and employment targets to be achieved a significant increase in the use of alternative transport modes is required. Failure to do so will require the significant reduction in yields to below those outlined in this structure plan. The aspiration is to achieve approximately 60% of all trips in and around Stirling City Centre by means other than the private motor vehicle. There is a need to facilitate access within and to the centre by pedestrians, cyclists, public transport and private vehicles. In order for this to occur, the centre must be legible, permeable and well connected.

To achieve this aspiration, six key strategies are proposed that together will achieve a dispersed transport network, illustrated in **Figure 16 Dispersed Movement Network**

- Provide a light rail system from Stirling Station to Glendalough Station and beyond.
- Manage the demand of parking, by encouraging short term parking and minimising long term parking.

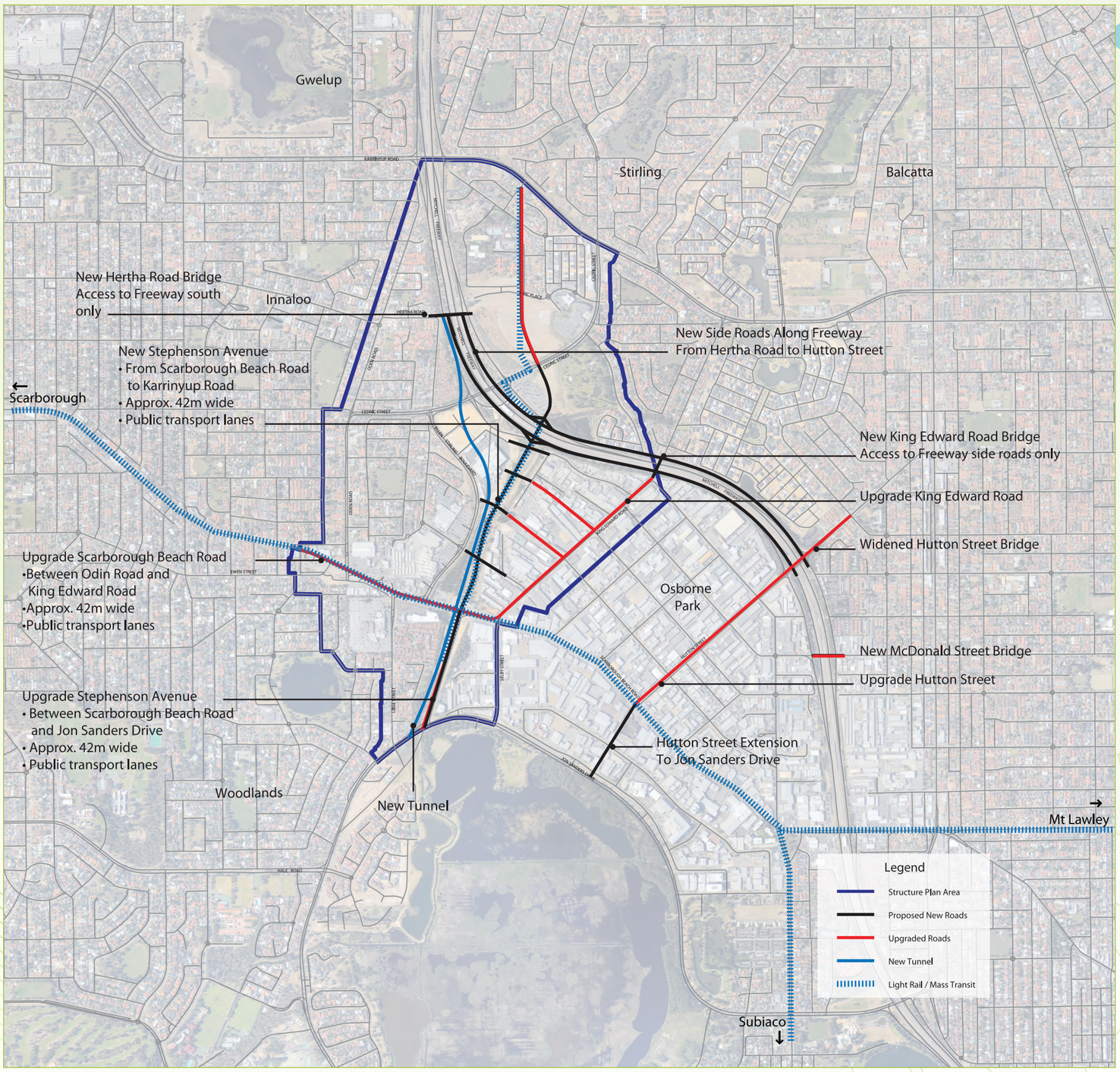

Figure 16. Dispersed movement network

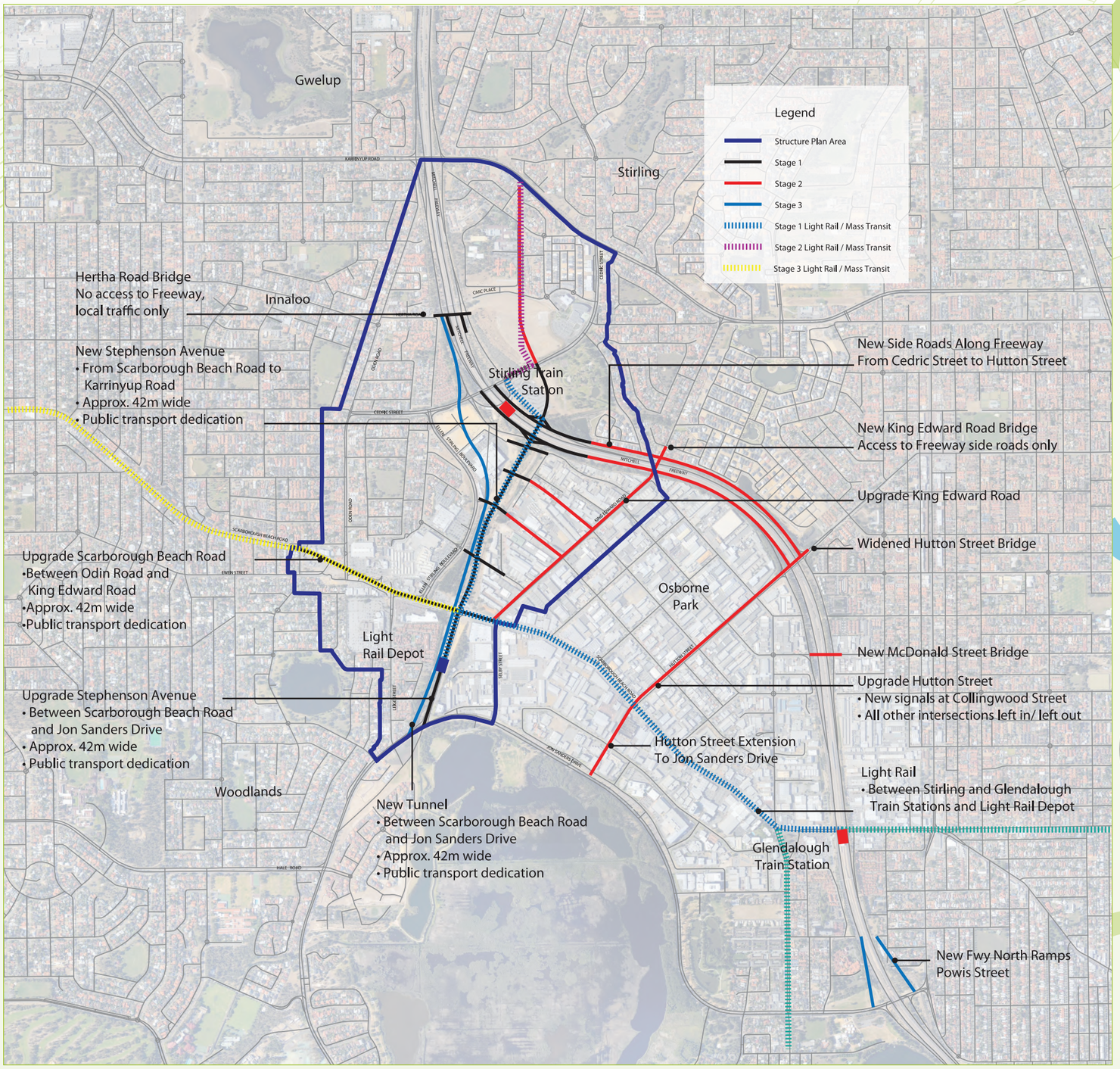

Figure 17. Possible staging of dispersed movement network

- Provide high quality and safe walking and cycling infrastructure and facilities for short journeys.
- Provide improved access to, from and across the Mitchell Freeway.
- Provide new local roads to improve accessibility.
- Provide a bypass route for freight between the Mitchell Freeway and the Herdsman business area and beyond, via Hutton Street initially, and via a bypass tunnel under the centre if required in the longer term.

The full dispersed model will be developed in stages. The staging is outlined in **Figure 17 Possible staging of dispersed movement network**. Further stages to the dispersed model which may be subject to future MRS amendment/s may include:

- Modifications to Hutton Street to provide increased traffic capacity and extension through to Jon Sanders Drive
- Provision of collector distributor roads alongside the Mitchell Freeway between Hutton and Cedric Streets
- New bridges over Mitchell Freeway at McDonald, King Edward and Hertha Road
- Preservation of a long term option for a tunnel between Jon Sanders Drive and Mitchell Freeway
- Extension of light rail to Scarborough Beach
- Extension of light rail to Subiaco
- Extension of light rail to ECO and Mt Lawley

The plan for Stirling City Centre is for a high density mixed use city centre with similar numbers of workers and residents and is highly dependent on the implementation of a balanced movement network underpinned by mass public transport. In order to realise the worker and resident population targets it is critical that the following occur:

- Car usage is significantly reduced to match road capacity
- Alternative mass transport is provided up front
- Parking rates are significantly reduced
- A funding mechanism is established to provide a funding source for a portion of public transport operations and infrastructure
- Cycling and walking infrastructure is provided up front

The improvements to the transport network identified clearly highlight the initiatives required to realise the vision of the city.

4.3.2 Public Transport

Light Rail

The greater Osborne Park and Stirling City Centre areas stretch nearly 3 km north to south and 3 km east to west. As a result large parts of the greater Stirling City Centre are beyond walking distance from the Stirling Station, this area has the second largest number of employees in the Metropolitan Area and would benefit immensely from greater access to mass transit. A high frequency light rail link through the centre of these areas linking Stirling Station to Glendalough Station will provide the backbone of the public transport distribution system within and around the City Centre.

The proposed system aligns with the proposed Public Transport Master Plan for Perth. There is a potential to expand this system in the future to connect with other possible light rail routes within the Metropolitan Area.

Light Rail Services

It is proposed to run light rail services that coordinate with the frequency of heavy rail services. At present this would involve services running at 5 minute intervals in peak periods. In the longer term, the light rail route could link to Scarborough Beach, Mount Lawley, Subiaco and the University of Western Australia.



Image 24. Proposed light rail stop

Light Rail Infrastructure

As Perth currently does not have any operating commercial light rail services a comprehensive range of facilities needs to be provided at the outset. These include:

- Light rail depot with storage for up to six vehicles and maintenance facilities (a suitable location in Stephenson Avenue, south of Scarborough Beach Road has been identified for this purpose)
- Light rail vehicles
- Dedicated public transport lanes to provide priority access and to ensure user safety by separating light rail vehicles from traffic

Stephenson Boulevard and Scarborough Beach Road are designed as public transport boulevards with dedicated lanes for light rail and buses. Light rail may have alternative routes, subject to further investigations.

Heavy Rail

Major increased use of public transport for residents, business and visitors to the Stirling City Centre will partly be achieved through high density development within walking distance of Stirling Station.

Heavy Rail Services

The majority of trips by residents, workers and visitors from outside the Stirling City Centre will be undertaken by the heavy rail network. Unlike the freeway, the railway has significant spare capacity and efficient access to Stirling Station can be provided by rail into the future. There will be a need to increase heavy rail services along the Northern Suburbs line to 6 car sets and with a headway of approximately 3 minutes.

Heavy Rail Infrastructure

The Stirling Station will require access improvement to allow for a significantly greater number of patrons to use the system. The following improvements are proposed:

- New pedestrian ramp at the southern end of platform linking to Stephenson Avenue
- New pedestrian bridges linking directly to Station concourse level from new developments on the east and west
- Re-design of entry gates at the Station concourse level
- Possible long term rail tunnel under the city (may also be road tunnel).

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Bus Services

Scarborough Beach Road supports Perth's second busiest bus route and this section of the road is the slowest part of the bus network in the metropolitan area. Dedicated public transport lanes with priority will be provided on major transport routes at all signalised intersections.

Bus Infrastructure

The capacity of the Stirling bus station interchange needs to be increased to allow expansion of services.

A bus turn around is also required between Ellen Stirling Boulevard and Stephenson Avenue, north of the existing western power substation.



Image 25. Public transport

4.3.3 Pedestrian Movement and Amenity

An excellent pedestrian network is critical to reverse the current car-dominated environment and encourage walking within the centre. All streets within Stirling City Centre will have a high level of pedestrian amenity, with footpath widths to suit projected volumes of pedestrians, weather protection on key routes, good lighting and street trees.

Figure 18 Proposed pedestrian infrastructure identifies key aspects of the proposed pedestrian environment.



Image 26. Pedestrian movement

Car Free Zone

The plan includes the provision of a car free zone located in the station precinct. (**Figure 18 Proposed pedestrian infrastructure**). The area will contain high density residential development abutting very high amenity public open space. Car parks to service the development will be located in car parks accessible from the surrounding road network adjacent to the pedestrianised zone

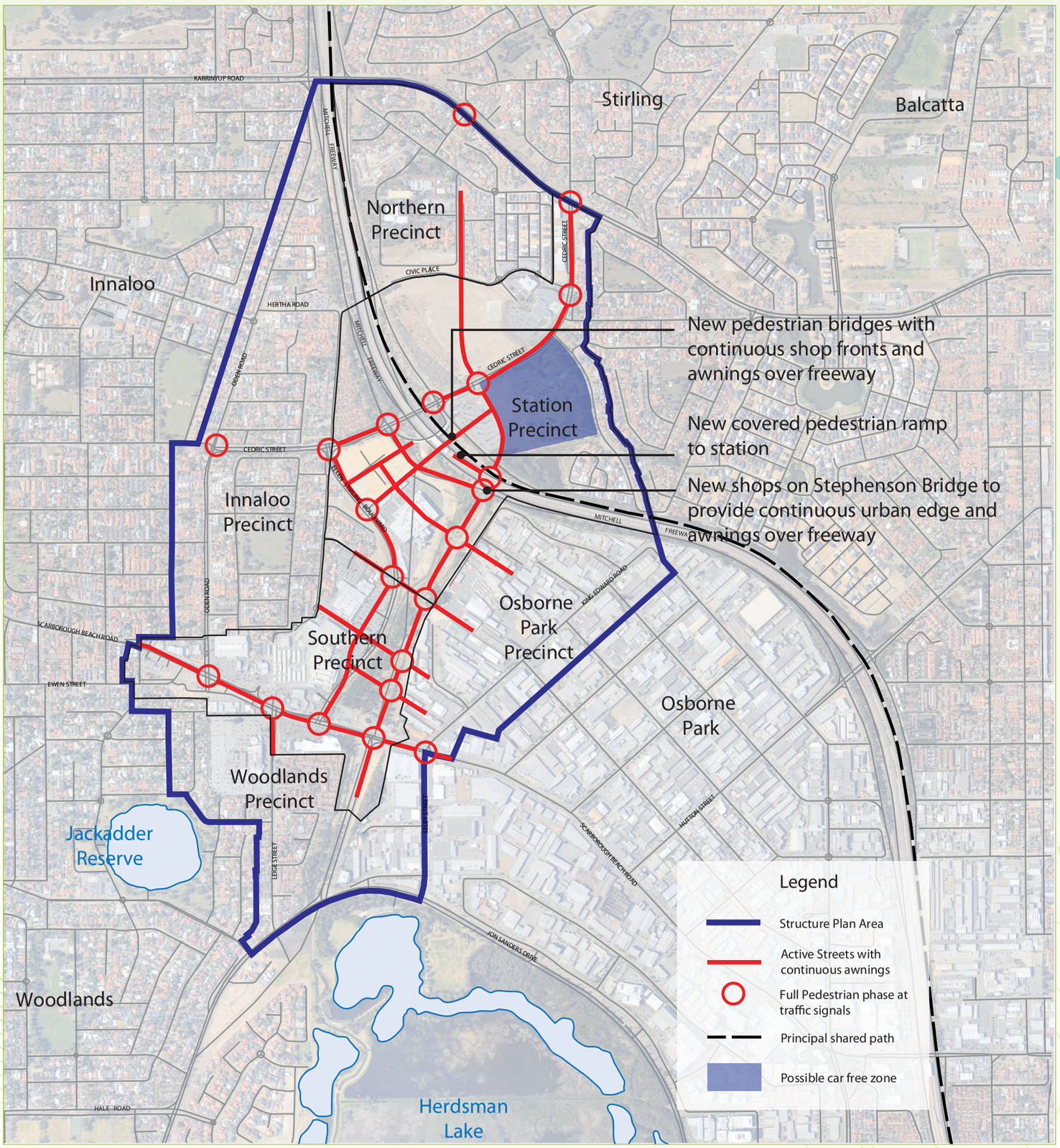

Figure 18. Proposed pedestrian infrastructure

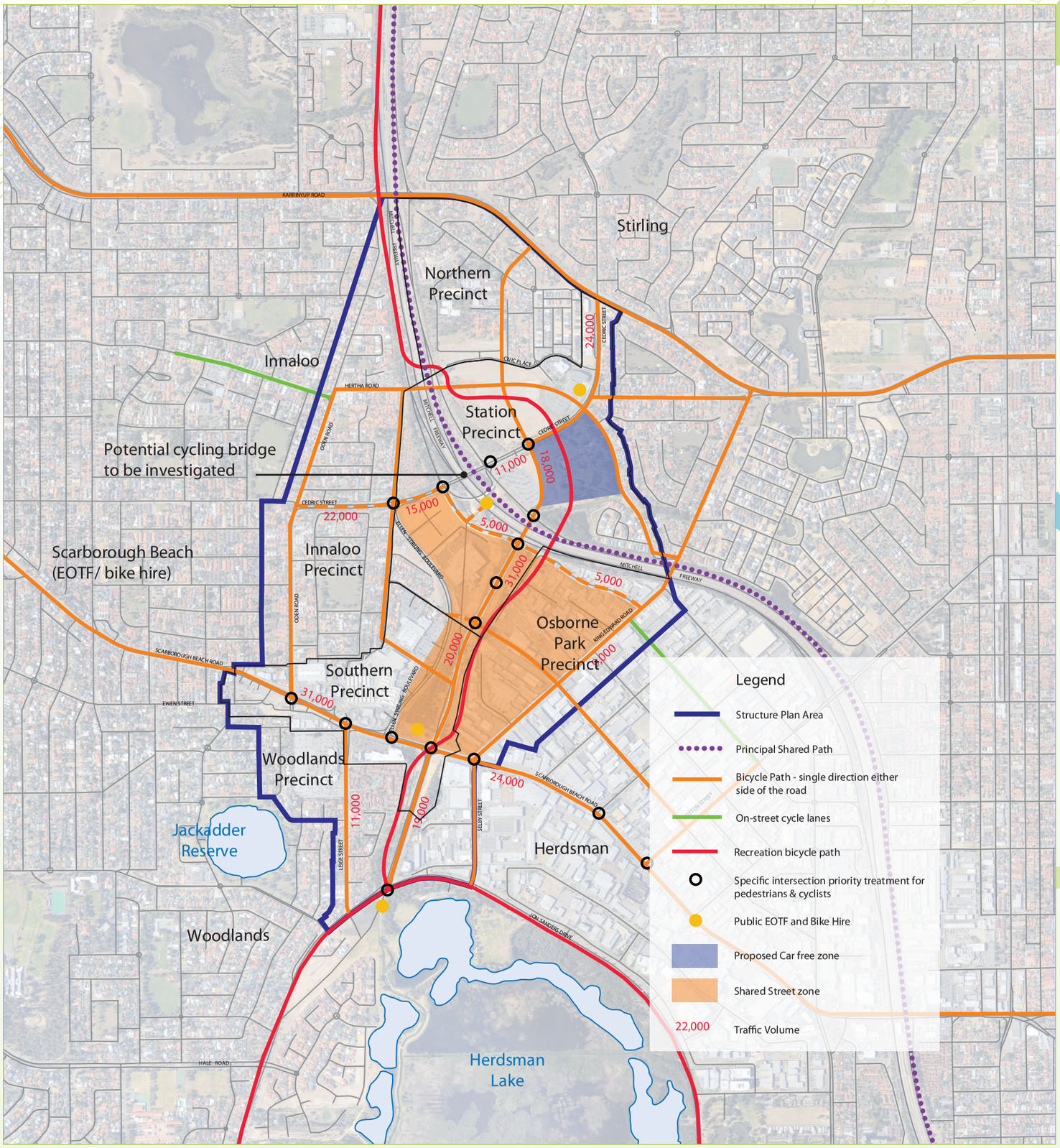

Figure 19. Proposed cycle network

The main benefits of the proposed car free zone include:

- high rates of walking and cycling
- more independent movement and active play amongst children
- less land taken is required for parking and roads therefore making more land available for open space

4.3.4 Cycling

The cycle network plan that has been developed is shown in **Figure 19 Proposed cycle network**. It incorporates elements including:

- A permeable and legible infrastructure network providing cyclists with a choice of safe routes
- Intersection treatments responding to context/ user needs
- External links including links to transit and provision of entry statements to signal transition into the Stirling City Centre
- End of trip facilities (EOTF) and cycle hire facilities at key trip attractors and on key routes
- Delineation of shared and car-free precincts



Image 27. Bike facilities at key trip attractors

4.3.5 Roads

The structure plan (**Figure 8 Structure Plan**) indicates the location of key road connections that will be necessary to achieve the distributed movement network, providing for regional traffic and local circulation. Detailed investigation will be required to determine the final alignment of these roads and identify if any land is required to accommodate them.

The dispersed transport network provides for a greater number of people to access Stirling City Centre by public transport, as well as accommodating regional traffic needs across several lower order routes rather than concentrating it into a single major highway or freeway. The dispersed movement model also provides a better outcome for the City Centre

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development as it negates the need for a grade separated road within the city centre, which would have a detrimental impact on the amenity, accessibility and the aesthetics of the place.

There are particular issues in the Station and southern precincts relating to major car generating retail uses that require specific measures to ensure equitable access for all.

The first step in providing for regional transport across a dispersed network through the Stirling City Centre and Osborne Park industrial area has already been taken through initiation of Amendment 1173/57 to the Metropolitan Region Scheme. This amendment includes replacing the Stephenson Highway Primary Regional Road reservation within the Stirling City Centre to City Centre zone. The rezoning will also help facilitate the development of the Stirling City Centre.

The street network concept makes provision for a mix of land uses at relatively high density, designed around a well connected fine grained street network and a living stream. Where they are required, new local roads will be identified in detailed planning for each precinct. As a general principle, road cross sections will provide for footpaths and landscaping suitable to the scale of development and type of traffic.

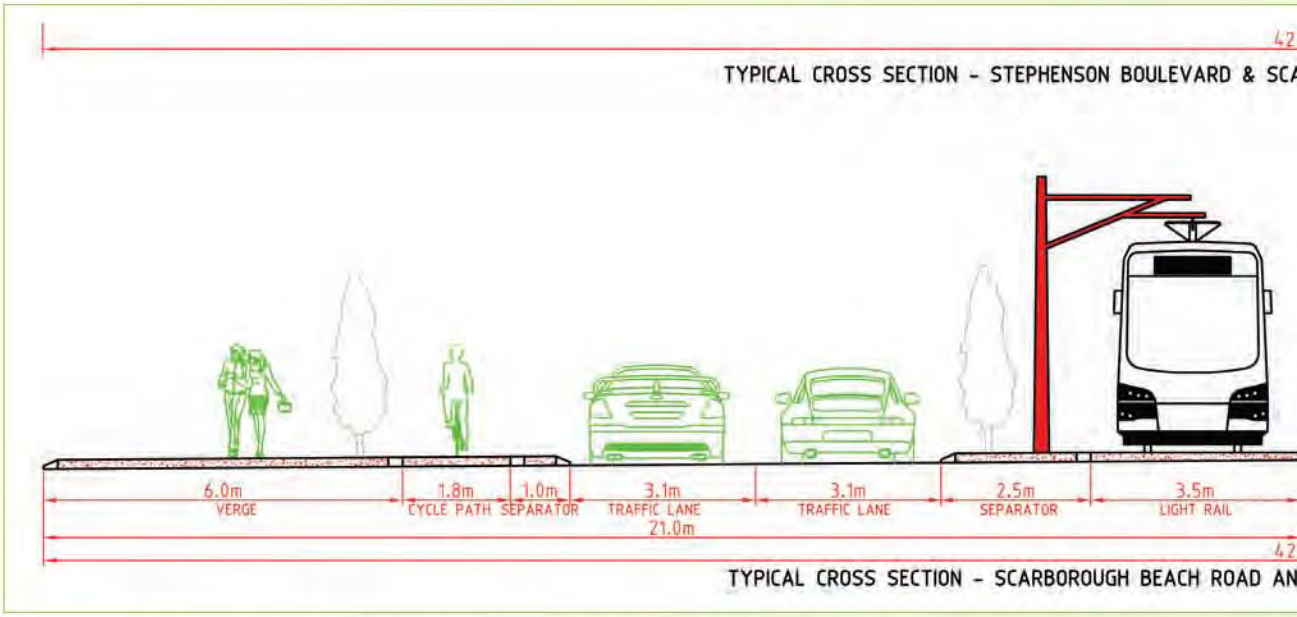

Figure 20. Stephenson Ave and Scarborough Beach Road cross section

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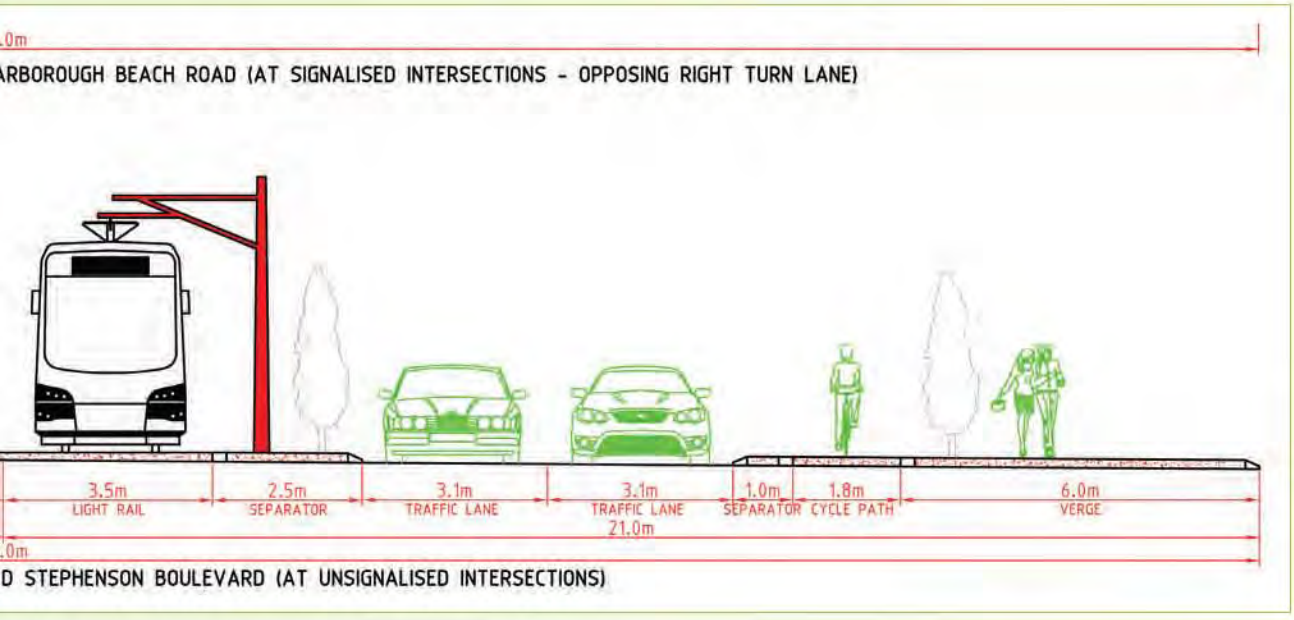
Indicative cross sections for Stephenson Avenue and Scarborough Beach Road are illustrated in **Figure 20. Stephenson Ave and Scarborough Beach Road cross section**. Cross sections for other roads will be determined in detailed area planning. The road reservation along Scarborough Beach Road within the City Centre from Odin Road to King Edward Road is proposed to be rationalised to 42 metres to accommodate two lanes of traffic each way and dedicated lanes for public transport and bicycles. The reservation in this location currently ranges in width from approximately 35 - 45 metres.

Stephenson Avenue will be constructed as a four-lane boulevard, with dedicated public transport lanes, within a 42 metre wide road reserve, having local and district access and with freeway connectivity. It will connect to Karrinyup Road and give improved access to Osborne Park Hospital.

Once Stephenson Avenue is constructed with on-off ramps to the Freeway, the Cedric Street ramps will be removed.

Howe Street, Oswald Street and Guthrie Street will be extended to connect with Stephenson Avenue.



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Service Access

Ensuring that existing and future developments are able to service their development is critical in ensuring the commercial viability and overall sustainability of the city centre. Service access to development will be addressed as part of the detailed area plan process.

4.3.6 Parking

It is critical that car usage be limited in the Stirling City Centre to ensure that the road capacity of the city is not exceeded. In order to achieve this, a significant reduction in parking rates is proposed. The proposed reduction in parking rates will assist in reducing car trips within the Stirling City Centre and result in decreased construction cost to developers, as construction of car parking infrastructure is expensive. It is essential that parking rates within the Stirling City Centre contribute to the reduction of congestion whilst ensuring the economic viability of development.

A number of factors impact on an individual's decision to drive, including:

- The cost of parking;
- The available supply of parking;
- The availability and efficiency of alternative transport modes such as walking, cycling and public transport.

A parking and access strategy has been developed for Stirling City in consultation with a small number of key stakeholders representing government, community and business.[23] Supporting the strategy are the following high level access principles:

- High proportion of access to city centre by public transport, walking and cycling
- Convenient safe cycle parking throughout the city centre
- Convenient, safe and secure cycling, pedestrian and access routes to the city centre
- Fine-grained street network for access by walking, cycling and cars
- Direct and legible walking routes to Stirling Train Station

[23] Sinclair Knight Merz, 20 July 2010, Stirling City Centre Access and Parking Strategy, for Stirling Alliance

- Multiple access options for motorists to car parking
- Good pedestrian, cycling and vehicle way finding signage system
- Legible system of public transport routes to, from and between Stirling Train Station and the city centre

The role of parking in the Stirling City Centre can be summarised as follows:

- Provide prioritised parking for short term
- Ensure the commercial viability of the centre
- Manage congestion and travel demand, especially by commuters
- Encourage modal shift to public transport, walking and cycling
- Provide a potential source of funding for transport infrastructure, facilities and services, particularly public transport

A significant reduction in parking in the Stirling City Centre will be possible once a light rail system is committed to for the following reasons:

- The quality of the public transport will be significantly better than for metropolitan Perth
- The location provides a significant opportunity for walking or cycling
- Affordable housing could comprise up to 30% of total housing as part of a diverse housing strategy and this will require very low or zero levels of parking
- Significant construction cost savings for developers, particularly for residential and office uses

Table 5. Number of Parking Bays (Range) and Estimated Daily Traffic, identifies the number of parking bays (range) that should be permitted within the Stirling City Centre to limit congestion to acceptable levels. The range has been based on the Stirling Alliance target population and employment numbers.

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Table 5. Number of Parking Bays (range) and Estimated Daily Traffic

Land Use	Number of Parking Bays (Range)	Estimated Daily Traffic Trips
Office	3,800 – 5,600	27,000
Retail	5,000 – 7,000	48,000
Total Non-Residential	8,800 - 12,600	75,000
Residential	12,500 - 17,000	35,000
Total	21,300 - 29,600	110,000

In addition to the daily traffic trips identified in Table 5 there is likely to be approximately 30,000 to 35,000 vehicles per day travelling through the city centre. As a result there will be approximately 140,000 traffic trips per day going to, from or through the city centre. This will result in about 12,000 to 13,000 trips per hour during peak periods, which is considered to be close to the capacity of the city centre street network.

To avoid excessive congestion it will be necessary to restrict parking to within the range shown in **Table 5. Number of Parking Bays (range) and Estimated Daily Range** Commercial land use targets. Alternatively if parking cannot be reduced, it will be necessary to significantly limit the growth of the city centre to below that currently envisaged.

There are two regulatory mechanisms proposed to ensure the level of parking provided remains below specified threshold levels. The threshold levels are based on the capacity of the city centre street network to accommodate traffic flows that could be expected with different levels of parking.

1. It is proposed that the maximum level of parking be based on ratios of parking bays per residential unit and parking bays per 100 sqm of non-residential land. This is the primary basis proposed to provide maximum levels of parking for the major land uses in the centre.
2. A further regulatory control is required to ensure the total level of parking on an area of developable land does not exceed a threshold level. This is required to ensure very high density office or retail development does not result in excessive levels of parking and traffic, even through parking ratios.

It is proposed that the maximum amount of parking on all land within the city centre be regulated on a hectare of land basis, in a similar manner to the Perth Parking Policy regulations for the maximum level of parking in Central Perth. The proposed maximum parking bays/hectare allowance is summarised in **Table 6. Maximum Permitted Parking**. Further detailed analysis of these rates needs to be undertaken to ensure development feasibility within the city centre. Zone A covers the area within a 400 metre radius of Stirling Station and Zone B covers the remainder of the Stirling City Centre as shown in **Figure 21. Proposed parking zones**.

Table 6. Maximum Permitted Parking

	Maximum Parking Allowance (bays per hectare)
Zone A	200 bays per hectare
Zone B	250 bays per hectare

In addition to controlling the number of bays permitted, it has been identified that parking can also be an important mechanism in providing funding for both capital and operating expanses of alternative transport as well as public parking.

A number of parking financing models have been identified. The appropriateness of using these funding models (including cash in lieu and parking levy) will be considered by stakeholders.

Cash in Lieu of Parking

In accordance with section 5.3.2 of State Planning Policy 4.2 *Activity Centres for Perth and Peel* the potential to implement a cash-in-lieu mechanism should be fully explored as part of planning for the Stirling City Centre. In general cash-in-lieu allows for a reduction in parking in exchange for a cash payment to the planning authority. The following principles could apply to a future cash-in-lieu system for the Stirling City Centre:

- The benefit of the cash-in-lieu payment shall increase as the level of on-site parking is decreased in a manner that ensures the overall cost to the developer is reduced.

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- All cash-in-lieu revenue shall be hypothecated for improvements to transport infrastructure for public transport walking or cycling, or for the provision of public parking within the city centre.
- The cash-in-lieu payment shall be based on a proportion of the cost of provision of a parking bay, including the cost of land.
- Would only apply to new development.
- An economic impact assessment will be required to determine optimum cash in lieu levels.

Parking Levy

The Western Australian Planning Commission is currently preparing Draft State Planning Policy *Metropolitan Centres Parking Policy Framework*. The intent of the Draft SPP is to provide guidance on parking supply and management at Strategic and Specialised Activity Centres identified in SPP4.2. The draft policy outlines the potential role of a parking levy mechanism to assist in parking management. The parking levy mechanism should be fully explored as part of planning for the Stirling City Centre.

A parking levy is an annual levy or charge on all non-residential parking bays (with some exceptions). The parking levy could provide a potential funding source (as opposed to funding public transport infrastructure from general revenue) for the operation of a high quality and high frequency mass transit system in the area. This will:

- Enable reduction in car usage
- Reduce the need for parking
- Enable achievement of employment and housing targets
- Enable a significant increase in yields on private and government land.

The Parking Strategy identifies that if parking cannot be reduced and a high frequency transit system is not provided then development yields will have to be reduced to ensure that serious congestion is avoided.

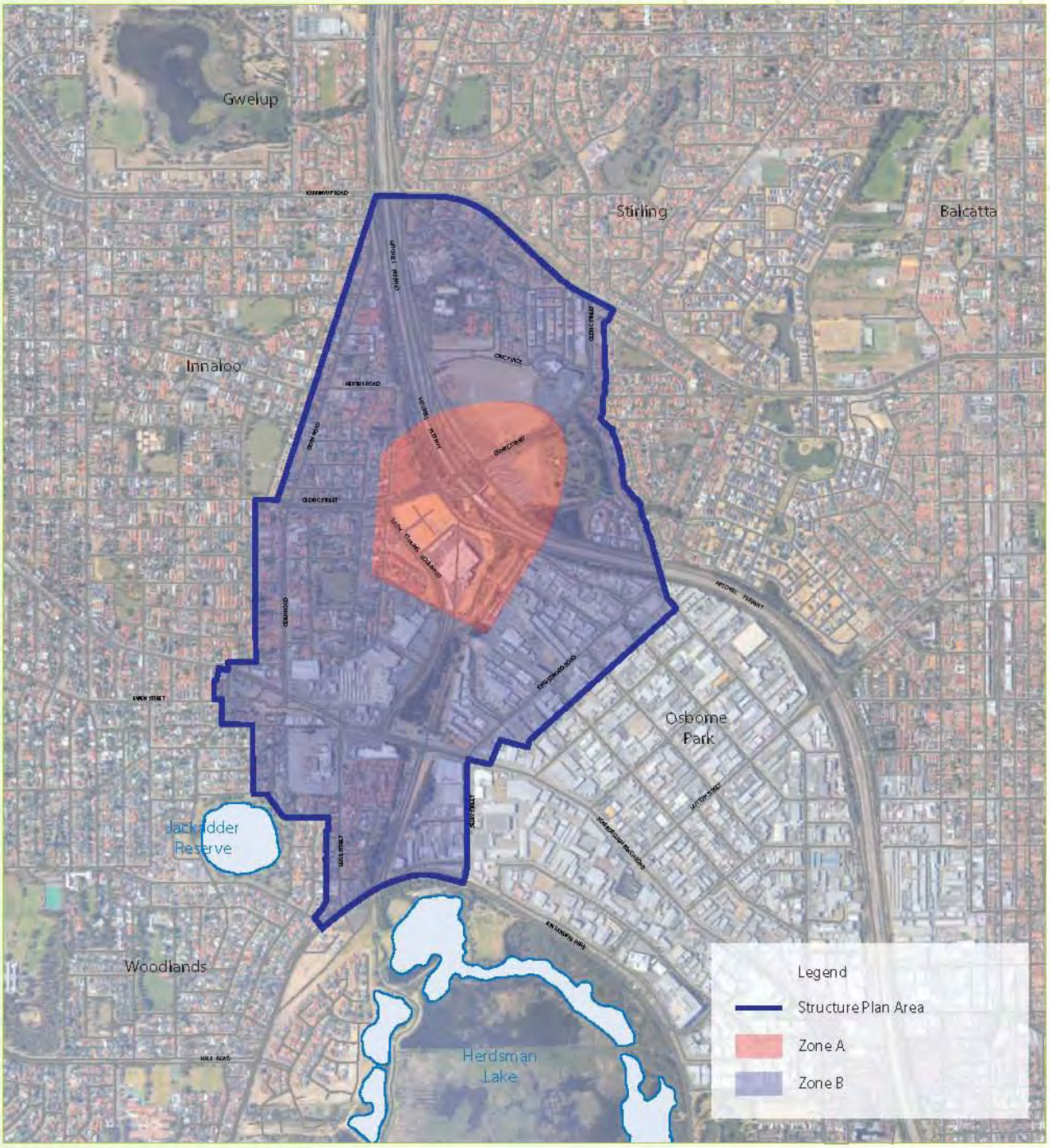

Figure 21. Proposed parking zones

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4.4 Open Space Network

The open space network in the Stirling City Centre will be well connected and provide a variety of experiences and recreational opportunities for residents, workers and visitors.

The key defining public open space feature for the centre will be a new greenway or linear open space relating to the present main drain. The drain will be redesigned and remediated to create a healthy stream within a landscaped setting. The nature of the linear open space will vary in character according to the nature of the precinct through which it traverses – from parkland to urban. This will offer a diverse range of experiences for residents, workers and visitors alike. This linear park will accommodate walk trails and cycleways and become a highly valued community asset. It will be an important landscape feature that will provide a high level of amenity for properties that overlook it. In addition, it has potential to provide habitat and a movement corridor for native fauna, particularly birds.

In addition to the linear park, a full range of public open spaces will be required. Some of these already exist and others will be required to be identified as detailed planning for each precinct progresses.

Consultation with the City of Stirling has determined that the Stirling City Centre area will need at least three or four community open space reserves and one or two district open space reserves, one of which that may be associated with educational facilities. The existing Stirling Civic Gardens has high value to the community and is used for civic gatherings such as ANZAC Day and other events. These functions and amenity will need to be accommodated in any reconfiguration or relocation of this park as some development of this space is anticipated.

Different types of public open space will be required in the following locations.

Local Open Space

- New Parks within Osborne Park Precinct
- New Parks within Woodlands Precinct
- New Park within Station Precinct

Community Open Space

- Existing La Grange Dongara Reserve (Western Precinct)
- New park within Station Precinct

District Open Space

- New Park within Station Precinct
- New Park within Osborne Park Precinct

Regional Open Space

- Herdsman Regional Park (existing – adjacent to Stirling City Centre)

Natural Conservation Areas

- New remediation wetland within Station Precinct

Special Purpose Open Space

- New park in Station Precinct to replace existing Civic Park – civic purposes, concerts, ANZAC Day etc
- New linear park traversing the Station and Southern Precincts, which will provide for environmental remediation and passive recreation.

New Urban Spaces

- Station Precinct (two Station Squares, Cultural Square and Civic Square)
- Southern Precinct (Market square and Town square)
- Woodlands Precinct (public plaza)

The future public open space network is represented diagrammatically in **Figure 22. Proposed open space network**. Exact locations and sizes for new open spaces will be determined as part of detailed precinct planning.



Image 28. Children's playground

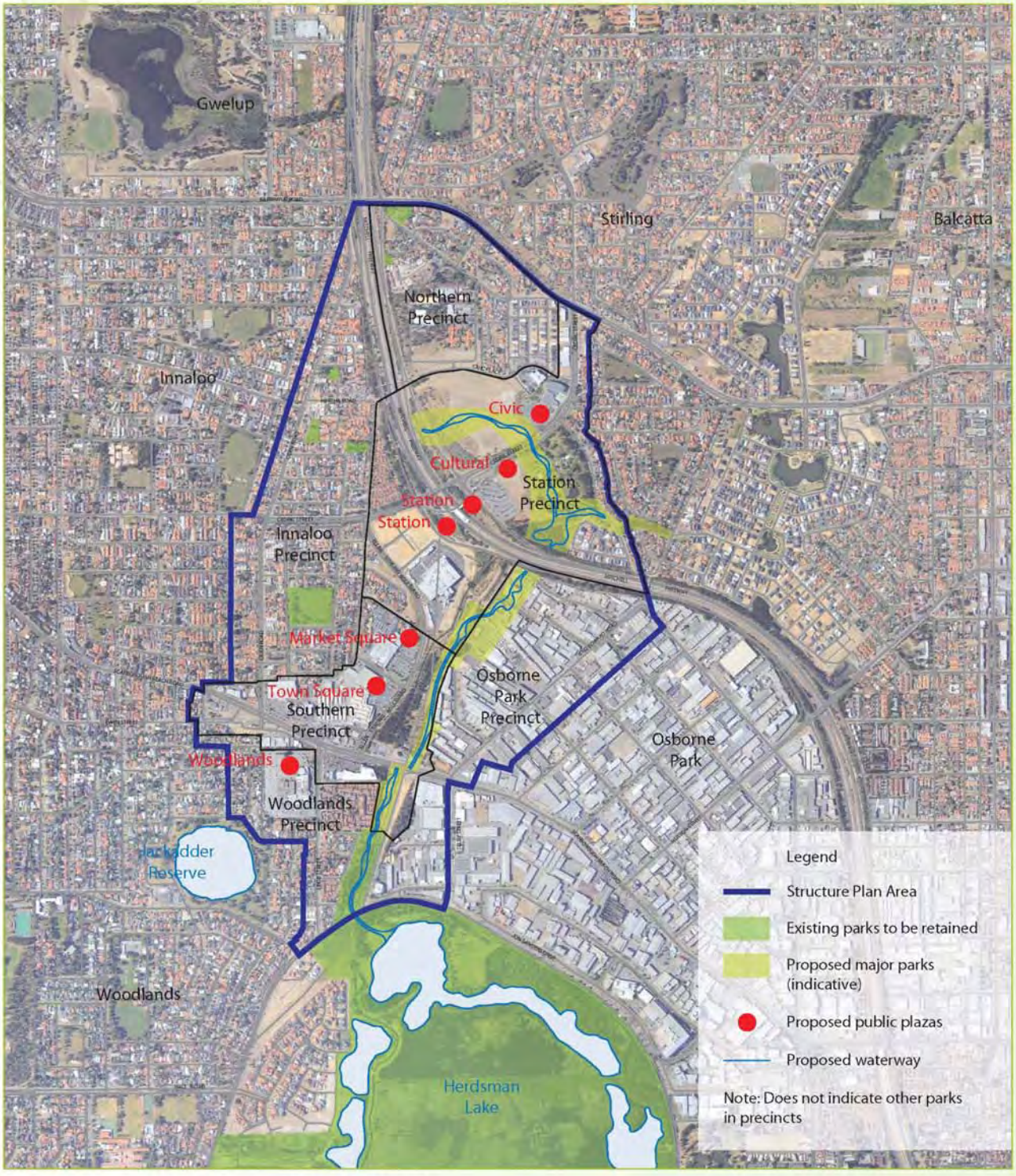

Figure 22. Proposed open space network

4.5 Environmental Management

4.5.1 District Water Management Strategy

The District Water Management Strategy[24] (DWMS) aims to establish a new relationship between water users and the states precious water resources by developing an enduring, natural water management system. The DWMS (prepared in conjunction with this structure plan) aims to achieve better water management through innovative urban design and development, thereby ensuring well being for all.

The Stirling City Centre District Water Management Strategy proposes that the renewal and revitalisation of the area will:

- Restore and enhance ecosystems in an urban context
- Maximise water harvesting, capture and reuse to provide fit-for-purpose water for all uses within the Stirling City Centre area
- Conserve all forms of water through improved water demand management and gains in efficiency of use
- Deliver an urban stream environment which provides aquatic habitat and biodiversity that is valued by the community and provides water quality benefits to the catchment and provides protection to life and property from flooding
- Achieve water sensitive landscapes (both public and private realm) which reflect the Western Australian climate.

The key water management issues to be considered and addressed through the progressive redevelopment of the Stirling City Centre are:

- Potential for groundwater contamination from numerous sources including the Hertha Road landfill and the unsewered industrial area. Local-scale investigations are required to define the nature and extent of any contamination and to inform development of appropriate strategies at the local level. It is noted that the landfill area may act as a stabiliser for the potentially acidic soils and as a 'sink' for groundwater stores (although they are likely to be contaminated).
- Management of the peat and acid sulphate soils. Detailed investigations are required to determine the relationship between the groundwater and surface waters including the influence of the local geology and

[24] Essential Environmental, June 2010 *Stirling City Centre District Water Management Strategy*, for Department of Planning

the need to manage potentially acidic discharges to groundwater. Although the development of buildings on areas of peat poses some construction challenges, the benefits of retaining the peat, including its role as a potential carbon store and the ability of the peat to moderate heat and groundwater, should not be underestimated.

- Management of the drain. Upgrades are required to the drain to address the current risk of flooding and to manage contamination. The opportunity also exists to improve the quality of water flowing into Herdsman Lake and better utilise the stormwater which flows to the ocean.
- Service capacity. Due to the substantial projected increase in resident population and workforce, significant upgrades will be required to both water and sewer infrastructure. These upgrades are currently unplanned and this provides substantial impetus to the identification and use of alternative sources of water.
- Water and decentralised management of wastewater. A detailed water balance for the area will provide a key planning tool to optimise the provision of wastewater and water services.
- Increased groundwater recharge. Beyond the study area a key strategy is to modify the stormwater systems in the upper parts of the catchment to encourage more onsite infiltration with the aim of enhancing ground water recharge.
- Water quality. It is important to identify areas within the upper parts of the catchment to treat surface water flows to protect Herdsman Lake and review how Herdsman Lake could form part of the treatment system to enhance the water quality entering the ocean.

These water management issues are to be addressed through implementation of the strategies and design criteria contained in the DWMS during preparation of detailed area plans and infrastructure planning.

As this is an existing urban area, implementation of the District Water Management Strategy will occur largely on an ad-hoc basis, as development and redevelopment proposals are approved and constructed. Key opportunities for improvements in water management outcomes in the Stirling City Centre include:

- Westfield and surrounding commercial area redevelopment
- Rezoning and development of part of the Osborne Park industrial area to medium density mixed use
- Upgrade of the Osborne Park branch drain to create a living stream and public open space network (green corridor)

- Creation of new medium and high density mixed use within the area surrounding the living stream
- Infill development in existing residential areas
- Upgrades to water and wastewater supply infrastructure
- Remediation of the former Hertha Road landfill site.

Implementing new approaches and technology is often more challenging than delivering 'business as usual' development. It is therefore vitally important that the Stirling Alliance (and participants) support the implementation of new approaches and methodologies to achieve the agreed outcomes and vision. In addition the development of a strong supporting policy framework for sustainable development will be required. The strength of the Stirling Alliance will be a key potential success factor in delivering the objectives of this District Water Management Strategy. The opportunities for improved urban water management outcomes presented by this project are substantial and if achieved, will deliver a 'Water Sensitive City'.

4.5.2 Local Water Management Strategy

Local Water Management Strategies (LWMS) need to be prepared (where necessary) prior to any new subdivision or development in conjunction with Detailed Area Plans. These local water management strategies will be consistent with and implement the objectives outlined in the District Water Management Strategy. The following objectives will guide the preparation of the Local Water Management strategies:

- Innovative urban design and development that ensures an enduring, natural water management system and environment, and encourages a new relationship with water that achieves well being for all
- Restore and enhance ecosystems in an urban context
- Maximise water harvesting, capture and reuse to provide fit-for-purpose water for all uses within the Stirling structure plan area
- Conserve all forms of water through improved water demand management and gains in efficiency of use
- Deliver an urban stream environment which provides aquatic habitat and biodiversity that is valued by the community and provides water quality benefits to the catchment and protection to life and property from flooding
- Recognise and learn from natural processes and systems to optimise design solutions and resultant outcome
- Achieve water sensitive landscapes (both public and private realm) which reflect the Western Australian climate

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4.6 Environmental Remediation

SMEC[25] undertook a preliminary assessment of remediation options for the old Hertha land fill site. The report identified a number of options for the site, including the use of phytotechnologies. This approach differs from conventional remediation options (where contaminated soil is removed, treated and returned to site) as it treats the contamination in situ.

Detailed investigations are required to identify a feasible method of remediating this site. It is essential that sustainable and innovative techniques and technologies are used, in line with the best practice aspirations of the project.

4.7 Public Utilities

4.7.1 Green Infrastructure

The Stirling City Centre Green Infrastructure Study[26] is a high level report that is the first step in understanding how the Stirling City Centre can reduce its resource footprint by using green infrastructure. Green infrastructure is a broad term given to alternative models of power generation, water supply, wastewater and waste treatment. These alternative models are often based around the principles of decentralised infrastructure.

Alternative models include using rainwater harvesting to supplement scheme water supplies and generating power locally using renewable energy sources such as wind or solar. Employing green infrastructure alternatives is expected to reduce the resource footprint and have a cost benefit for the wider supply networks by reducing and managing the demand on centralised services. The report aims to demonstrate at a concept level how Stirling City Centre can achieve a more sustainable utilisation of resources by using local and global best practice processes and technologies.

Three concept scenarios were developed based on the broad scopes of:

1. Business as usual
2. Best available technology, which includes technology practice as well as infrastructure
3. Global best practice methods and technologies.

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[25] SMEC "Stirling tip remediation" 2008

[25] Parsons Brinckerhoff, July 2010, *Stirling City Centre Green Infrastructure Study, Draft*, for Stirling Alliance

The report is not a feasibility study and further investigation and analysis will be required to establish their technical and commercial viability if they are to be adopted.

The scenarios consider both demand side management of resources and alternative supply and treatment options. The strategies look at the provision of infrastructure in a holistic way which can result in multiple environmental, economic and social benefits.

Scenario 1 is a business as usual approach to infrastructure. It outlines the services required from existing utilities given the targets envisioned. It is outlined in further detail below.

Scenario 2 is considered a 'mid-level change' that attempts to minimise resource usage using proven methods and technologies as appropriate. This scenario also facilitates deferring the scale of infrastructure upgrades required by ensuring demand side management techniques are employed, along with augmenting supply with locally generated alternatives. It is considered an achievable, low risk scenario, which can be employed almost immediately (following the appropriate technical due diligence investigations).

Key strategies to achieve Scenario 2 include:

- minimum 5 star GBCA rated building energy and water performance for residential and commercial buildings (including office and retail)
- reduce need for electrical energy and scheme water through demand side management
- minimise peak electrical grid power demand by switching from electricity based energy sources to alternatives such as such as gas and thermal exchange technologies for space heating and cooling
- maximise renewable energy production (wind, solar etc) to reduce carbon emissions
- maximise water harvesting (rain and storm) and re-use of grey water for non-drinking water so that zero scheme water is used for non drinking purposes (including groundwater recharge and wetlands/creek)



Image 29. Green infrastructure - solar panels

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- maximise reuse of grey water within buildings
- develop district level water treatment facility for waste water using 'living' systems, such as wetlands and reed beds
- use waste sewage for energy and nutrient recovery
- separate organic waste at the source of the waste stream and use for energy and nutrient recovery.

Scenario 3 represents an 'innovative step change' in what is possible with distributed systems at a precinct level. It is now technologically possible to go beyond just zero water, power and waste and become a net services exporter. This scenario could effectively lead to 'off-the-grid' technology, however there are economic (and potential energy security) benefits to stay connected by selling / exporting at key times. Scenario 3 requires the appropriate technical due diligence investigations to assess viability for the Stirling City Centre vision.

Key strategies to achieve Scenario 3 include:

- global best practice building energy and water performance for both residential and commercial buildings (Passivhaus – Europe's leading energy efficiency building construction standard, 9 star building energy and water efficiency rating)
- advanced demand side management for energy (and possibly water) using Smart Grid technologies
- large scale renewable technologies with storage – adaptable for emerging technologies, such as electric vehicles
- district level supply of electricity and space heating/cooling
- closed loop water system using natural systems
- advanced energy and nutrient recovery systems
- development of a technology park – a site for technology demonstration, research and community involvement
- replace truck municipal solid waste collection with district vacuum collection
- Materials recovery facility large enough to import waste.

The next stage of utility infrastructure planning for the Stirling City Centre will help determine the most effective means to achieve the sustainability scenarios articulated by the Green Infrastructure Study. Performance modelling of technology and design options will inform the development of a preferred concept for the city centre.

4.7.2 Traditional Infrastructure

Electricity

Given projected increased demand in the region, largely driven by the Stirling City Centre redevelopment, Western Power is exploring options for the existing 'Osborne Park' substation at the southern end of the Stirling City Centre (located on the corner of Ellen Stirling Boulevard and Scarborough Beach Road). These include the expansion of the existing site in land size and transformer capacity or a staged approach to using an alternative site in the future. The staged approach may release the current site of the existing Osborne Park substation which would benefit the proposed road and city centre developments. A relocation would typically incur advancement costs (in the order of $40m to $50m) to the developer alongside Western Power costs.

Distributed electricity infrastructure and/or local demand management may present an opportunity to defer capital expenditure on upstream electrical services upgrades, as load is locally augmented or reduced respectively. This is considered on a case-by-case basis and in conjunction with Western Power to ensure system planning, performance and reliability can be achieved by all parties.

Further clarification will be provided by the next stage of utility infrastructure planning for the Stirling City Centre. This will build on the work undertaken in the Green Infrastructure Study. The next phase of utility planning will help determine the most cost effective means to reduce electricity demand from the grid (such as distributed heating and cooling systems), and increase generation of low carbon and renewable sources of energy.

Water

To meet the expected demand for scheme water a significant increase in the provison of infrastructure will be required. Stirling City Centre spans three water supply zones and proposed development will increase the residential population at the fringes of these zones where water mains are generally small.

As a result distribution area reviews and/or network upgrading will be required. Actual requirements will depend on a detailed review by the Water Corporation. Whilst distribution mains (300mm diameter and above) are ultimately funded by the Water Corporation, quite often they are constructed by the developer on a 'pre-funded' basis to avoid project delays.

The Stirling Alliance is exploring a model of infrastructure delivery that is expected to achieve significant reduction in scheme water demand. The Green Infrastructure Study has identified a target of 50kL/person/year

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(scenario 1) or zero scheme water inputs (scenario 2). The more aspirational scenario would require Health Department approval for re-use of water for potable uses. However, the scenario 1 targets can be currently achieved through innovations such as a third pipe to convey either groundwater or locally treated wastewater to developments for non potable applications. Other potential uses include irrigation of parkland and achievement of perennial stream flow in the proposed urban stream. A distributed wastewater treatment plant can also be a source of low carbon renewable gas (syngas) and nutrients such as nitrogen and phosphate. The water options discussed in the study can all help achieve scheme water demand management, as well as securing additional benefits such as lower fossil energy embodied in the city centre's water supply.

Wastewater

Changes to land use leading to higher density development and population growth will increase the sewer design flows in the area by about 90L/s. The area is located partly within the Balcatta, Perth and Woodlands Sewer Districts and about 12 existing pump stations could be affected. Gravity sewers ranging from 150mm to 450mm diameter are also likely to be affected.

A very preliminary review of wastewater infrastructure has been undertaken to provide an idea of what additional works could be required to service the development. Water Corporation feedback is required to verify exact requirements.

Permanent wastewater pump stations and associated rising mains are ultimately funded by the Water Corporation. However, often they are constructed by the developer on a `pre-funded' basis to avoid project delays.

Some of the Structure Plan area is currently lacking a collection system to convey wastewater. Most of the existing developments in the Osborne Park Precinct rely on septic tanks and Anaerobic Treatment Units for on-site disposable and recharge of the superficial aquifer. In other areas, there is an absence of the required sewer pumping stations and/or sufficient sewer pipeline capacity to accommodate high density development.

As the centre will contain a mix of different land uses, combined with the need to upgrade services and infrastructure to support the Centre, it will be necessary to separate sensitive land uses (such as residential) from potentially conflicting land uses, where possible.

A number of sewer pumping stations currently exist within the Structure plan area. Under the Environmental Protection Authority's document *Guidance for the Assessment of Environmental Factors: Separation Distances between Industrial and Sensitive Land Uses*, wastewater pumping stations are generally required to be provided with a 20 metre buffer to sensitive land uses. Smaller wastewater pumping stations require a 10m buffer. The Water Corporation has advised that it applies a generic 30m buffer to wastewater pumping stations, regardless of volume or size.

The spatial implications of this on the physical environment of the City Centre and its potential for development could be considerable, and an alternative solution requiring a lesser buffer or more appropriate location of sewer pumping stations must be considered as part of detailed area planning. This principle would also apply to the design and location of the proposed distributed wastewater treatment plant. In general, all of the required infrastructure elements in the Stirling City Centre will need to incorporate designs that can be accommodated within a 'tighter' urban context.

Gas

WestNet Energy is the service authority responsible for gas supply to the area and has advised that its current network has limited capacity to support growth within the structure plan area and new headworks are required to supply gas to the area.

A preliminary review of the network to determine what augmentation works would be necessary to accommodate the anticipated demands on gas supply resulted in the following advice:

- The existing medium pressure network does not have the capacity to meet anticipated loads
- A possible option is to reticulate the requested loads via a Polyethylene High Pressure Network
- A Class 150 High Pressure Main Extension, followed by other secondary mains and regulator sets, will be required in order to achieve this

Communications

Telecommunication networks in the area include Telstra, Pipe Networks, Optus and Amcom. Telstra's network is by far the main telecommunications network servicing the area. Telstra has advised that its current network will not cater for the planned growth and new infrastructure will be needed. Telstra will await the outcomes of the structure plan before undertaking network

infrastructure planning for the proposed scheme, however, has advised that it is unlikely that it will require land for new exchange sites as most of its equipment will be located within the road reserves.

Drainage

The Water Corporation has advised that the existing culvert under Scarborough Beach Road is currently planned for upgrading during 2012/2013. The structure plan proposes to realign the main drain along Ellen Stirling Boulevard from the Mitchell Freeway to a point downstream of Scarborough Beach Road. In particular, the proposal to relocate the drain from the western side of the electricity substation located at the corner of Scarborough Beach Road and Ellen Stirling Boulevard to the eastern side of the substation will involve the relocation of the culvert crossing under Scarborough Beach Road.

As a minimum baseline requirement, peak stormwater runoff from the developed catchment would not be permitted to exceed current levels to ensure the capacity of the main drain is not affected. It is expected that the management of stormwater runoff within the structure plan area would comply with Water Sensitive Urban Design (WSUD) principles. Additionally, it is expected that rainfall would become an integral component of a total water cycle management scheme to improve the efficiency of water use within the City.

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5 The Process

5.1 Planning Process

The adoption and finalisation of the Stirling City Centre Structure Plan and associated Amendments, Policies and Detailed Area Plans will generally follow the process outlined below in **Figure 23. Structure Plan Planning Process**:

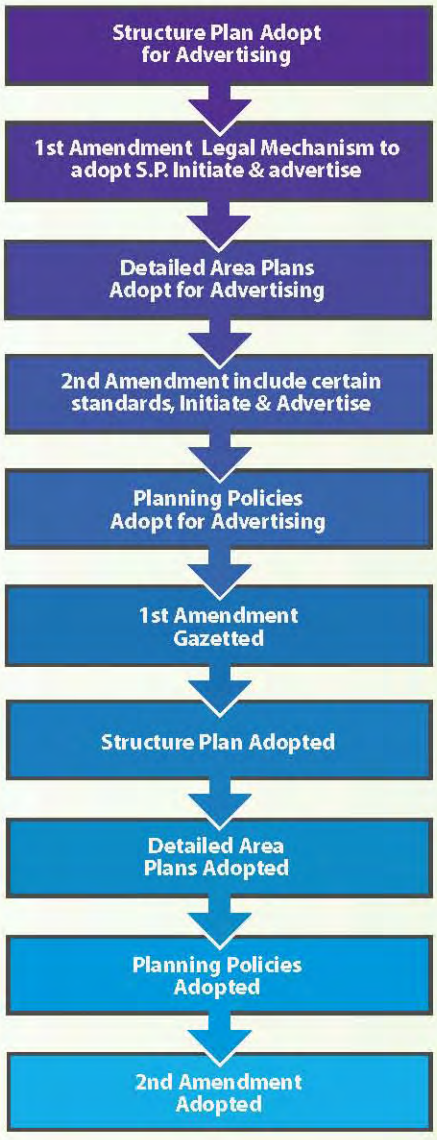

Figure 23. Structure Plan planning process

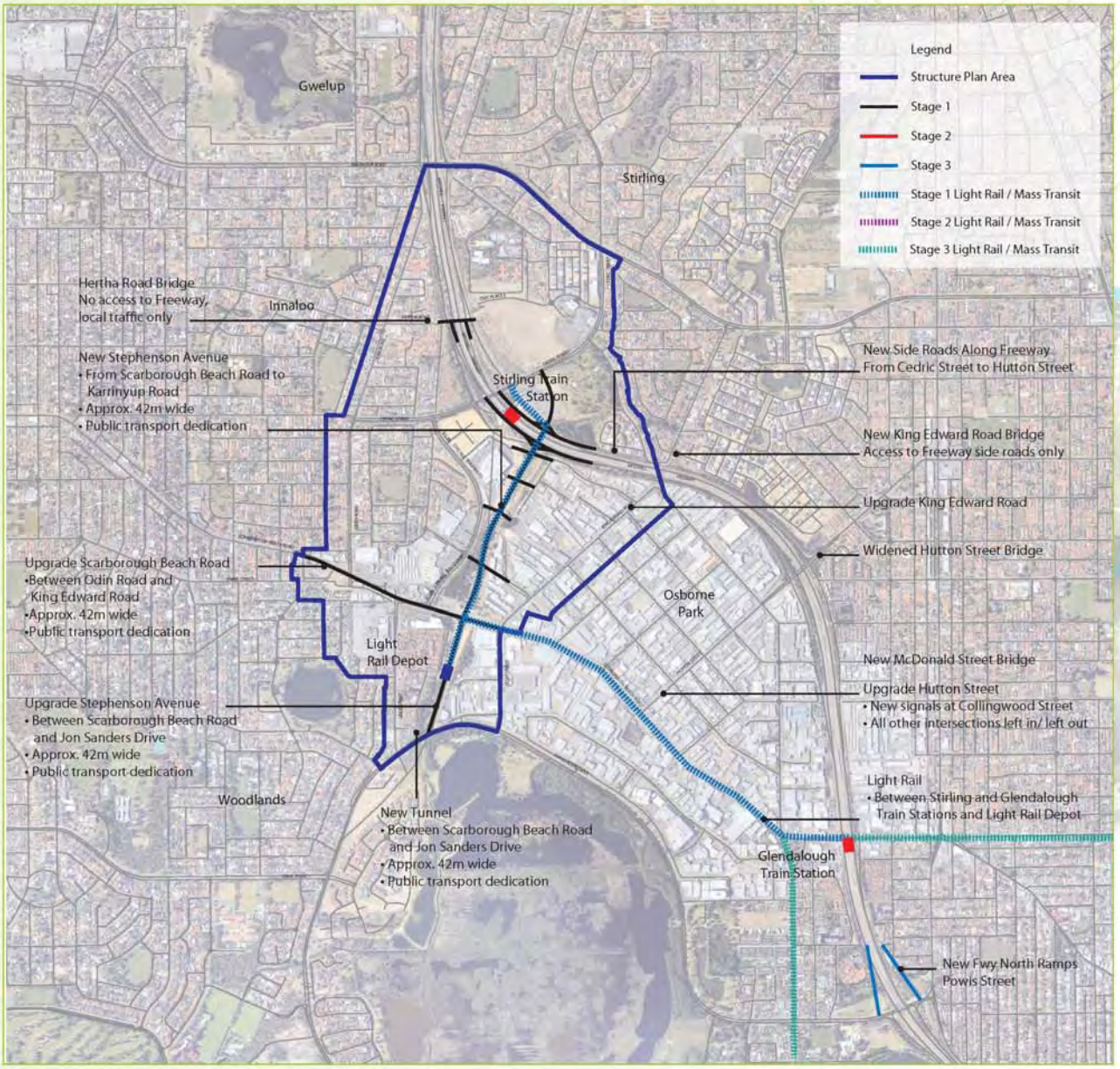

Figure 24. Proposed Stage 1

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5.2 Staging and Implementation

Development of the Stirling City Centre will occur over time (up to 2031 and beyond) and over a number of stages. Stage 1 requires significant capital expenditure due to the need to construct a number of large infrastructure elements, including Stephenson Boulevard and relocation of the Osborne Park Main Drain. In addition there is significant amount of environmental remediation required to address pre-existing contamination from the Hertha Road landfill site. The Stirling Alliance has been progressing Stage 1 for approximately two years and work to date includes the preparation of a business case.

The business case (developed by Macroplan[28]) investigates a number of scenarios for the progression of Stage 1 based on various funding options. These scenarios are detailed below:

Scenario 1 – Stirling City Centre Stage 1 and Stirling to Glendalough Light Rail Corridor

- Scenario 1 includes the construction of light rail from Stirling to Glendalough. This option has the highest up front cost of all variants, but also delivers the most economic benefits (including higher land value capture along the route of the light rail)

Scenario 2 – Stirling City Centre Stage 1 including Light Rail from Stirling Station to Scarborough Beach Road

- If funds are unavailable for the construction of the light rail in the medium term a high density Transit Oriented Development node will be developed around the Stirling train station. In this scenario the 11 hectares of government owned land would not be developed until funds for construction of then light rail became available.

Scenario 3 – Stirling City Centre excluding Light Rail

- If funds are unavailable for the construction of the light rail a medium density transit oriented development node will be developed to the south of the Stirling train station. This scenario has high costs, lower benefits and would fail to meet the vision of the Stirling City Centre.

[28] Macroplan, Stirling City Centre Stage 1 Light Rail Business Case, 2010

Until funding is confirmed for the construction of key enabling infrastructure the development identified in this structure plan can not occur. **Figure 24. Proposed Stage 1**, identifies the key infrastructure required to facilitate realisation of stage one of the structure plan. Alternative funding arrangements may alter the scope of enabling infrastructure with resultant impacts on achievable yields.

Future stages will require detailed analysis and preparation of detailed area plans, business cases and funding models.

5.3 Governance

The Stirling City Centre Alliance, which is a public, private and community partnership based on Alliance principles, was originally established in July 2008 to resolve the complex movement network issues. The Alliance has brought new and existing players, including the community and development industry, into the planning and implementation process, focusing on shared principles and outcomes, and an agreed vision and method for achieving it, and challenging the silo mentality of the various players to ensure 'best for project' decision-making and actions.

A Public, Private and Community Partnership (PPCP) Agreement has been signed by all the participants. This agreement sets out the governance structure for project delivery and includes detail on the roles and responsibilities of the participants, and the scope across three programs including planning, sustainability and community development, and delivery.

The PPCP is a 'whole of Government and community' coordination, participation and collaboration governance framework that focuses on:

- resolution of complex, multi-stakeholder problems;
- red tape reduction; and
- transparent and effective engagement across the three tiers of government, private industry and the community.

This governance model, with the creation of a project-specific non-statutory Board comprising leaders from all relevant agencies and with representation from community and industry, is unique in Western Australia and has been successful in resolving complex transport and land use planning integration issues. It has developed a strong visionary framework based on principles of sustainability, amenity, mixed use, social equity and creativity to facilitate the creation of a Strategic City Centre at Stirling.

5

In order to deliver the vision the Alliance will need to hold true to its principle and values. Adhering to the Alliance framework is critical in ensuring the project continues to be inclusive of all stakeholders and maintains transparency and openness. This a is central to achieving the vision of the Stirling Alliance.

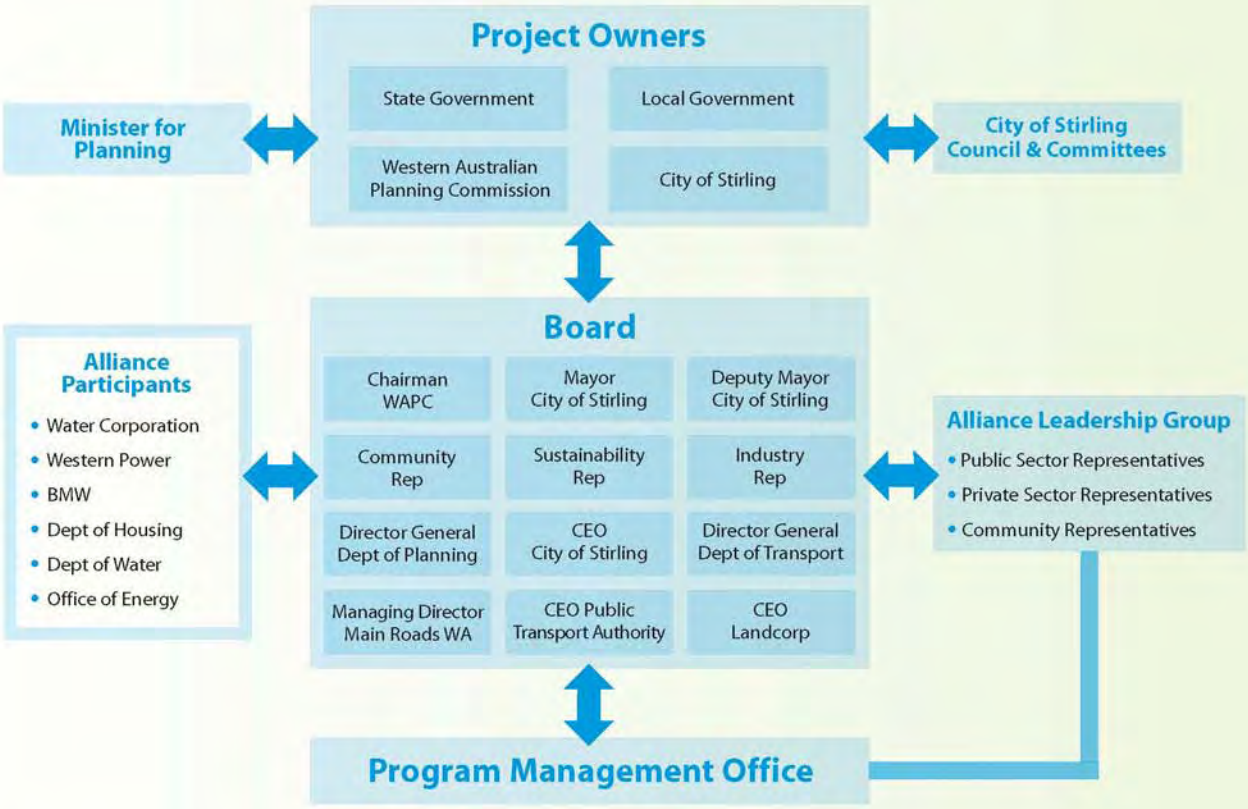

Figure 25. Stirling City Centre Alliance governance structure



List of Acronyms

Detailed Area Plan	DAP
State Planning Policy	SPP
Metropolitan Region Scheme	MRS
Local Planning Scheme No 3	LPS3
Town Planning Scheme No 38	TPS No 38
Department of Indigenous Affairs	DIA
Australian Height Datum	AHD
Gwelup Underground Water Pollution Control Area	GUWPCA
Priority 3	P3
Municipal Solid Waste	MSW
End of Trip Facilities	EOTF
District Water Management Strategy	DWMS
Local Water Management Strategy	LWMS



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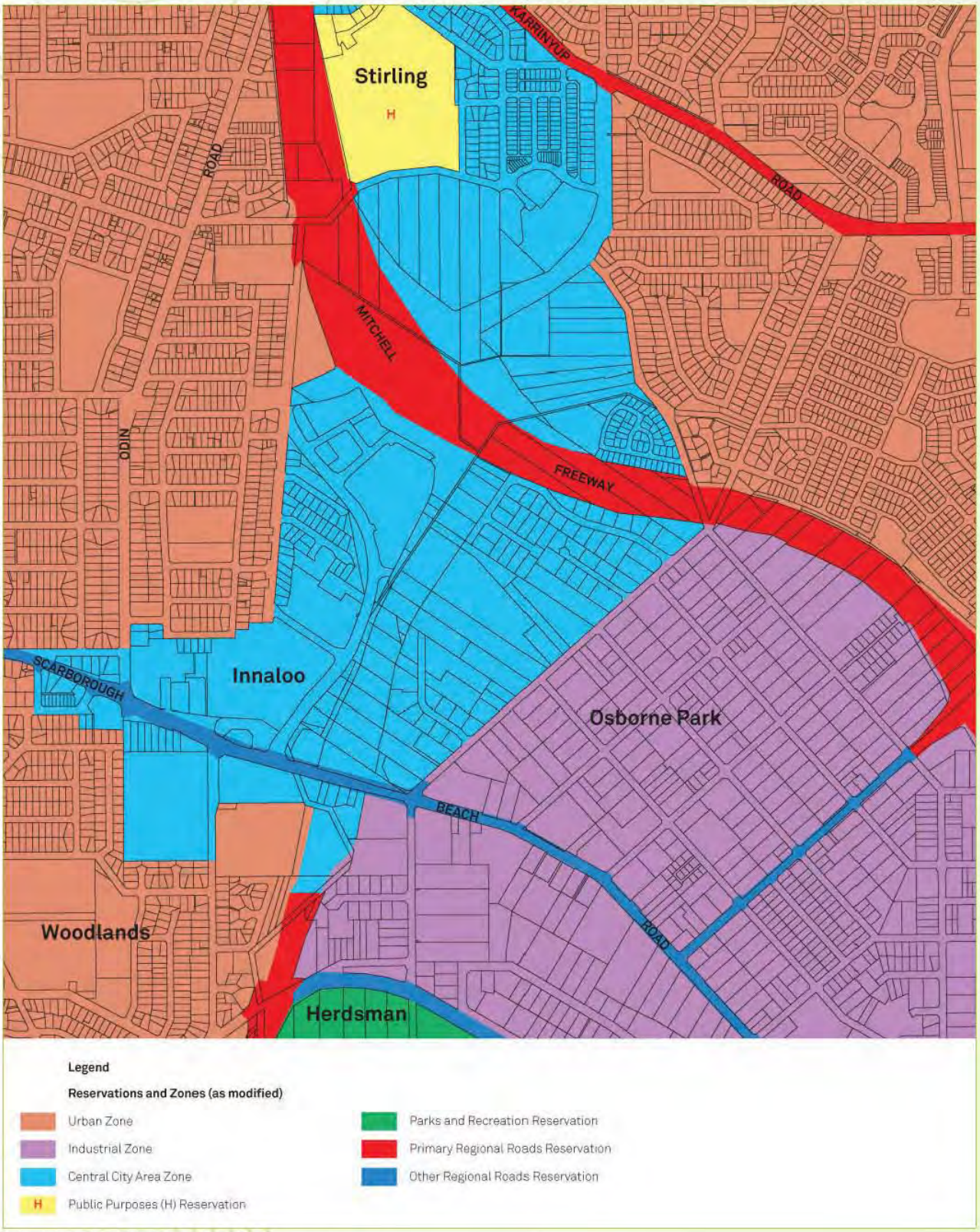
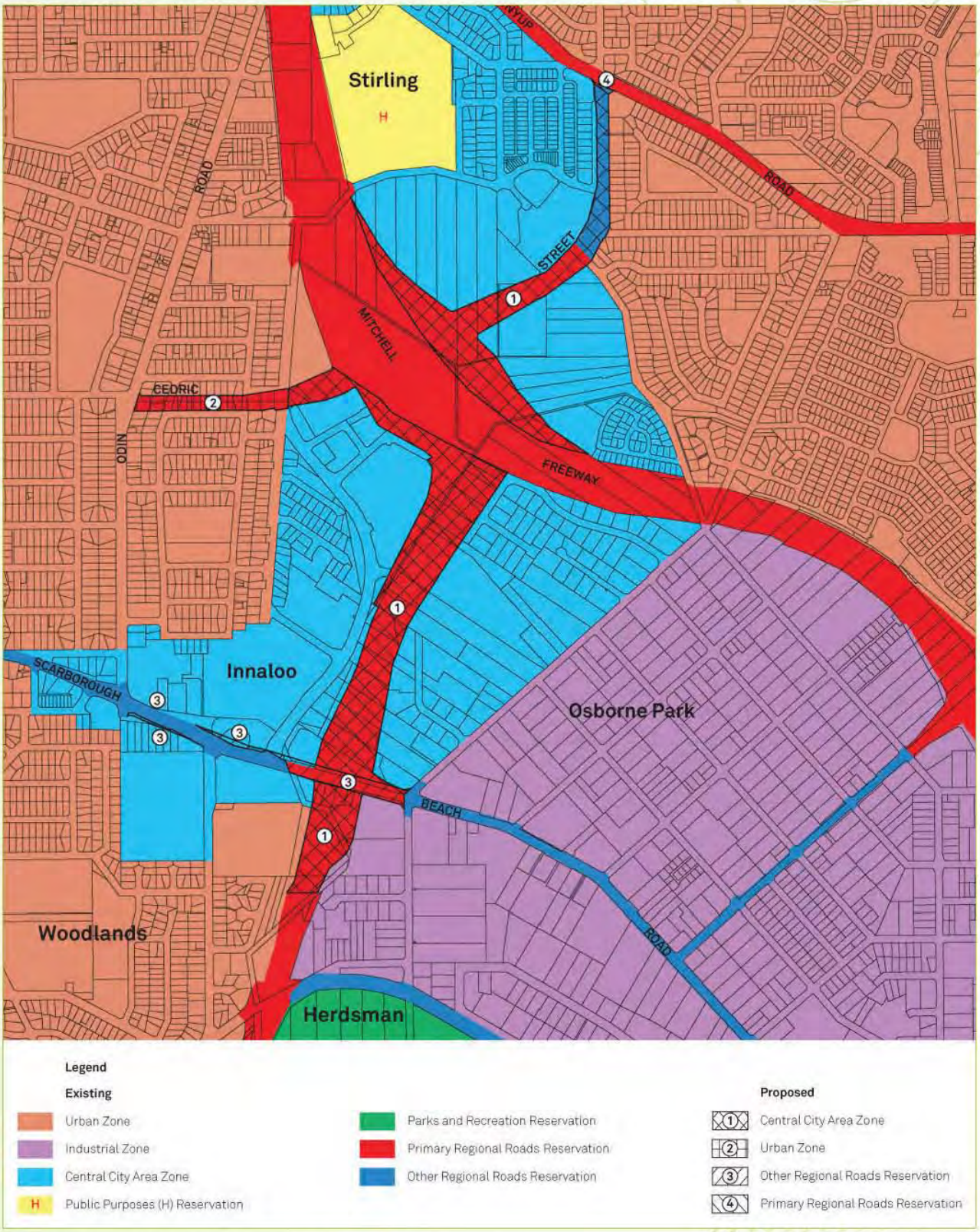
Appendix A

Metropolitan Region Scheme



Metropolitan Region Scheme - Existing



Metropolitan Region Scheme - Proposed

www.stirlingcitycentre.com.au

www.stirling.wa.gov.au

STIRLING REGIONAL CENTRE

PRECINCT 4

OUTLINE DEVELOPMENT PLAN

14 December 2005

THE PLANNING GROUP

Level 7
182 St Georges Terrace
Perth Western Australia
6000
Phone: +61 8 9289 8300

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CERTIFICATION OF AGREED OUTLINE DEVELOPMENT PLAN

IT IS HEREBY CERTIFIED THAT THE AGREED OUTLINE DEVELOPMENT PLAN FOR PRECINCT 4 OF THE STIRLING REGIONAL CENTRE WAS ADOPTED AND CERTIFIED FOR FIVE YEARS BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON

4 AUGUST 2004

.....
BEING AN OFFICER OF THE COMMISSION
DULY AUTHORISED BY THE COMMISSION
PURSUANT TO SECTION 57 OF THE
WESTERN AUSTRALIAN PLANNING
COMMISSION ACT 1985

AND BY

RESOLUTION OF THE COUNCIL OF THE CITY OF STIRLING ON 17 JUNE 2003 AND THE SEAL OF THE MUNICIPALITY WAS PURSUANT TO THE COUNCIL'S RESOLUTION HERETO AFFIXED IN THE PRESENCE OF

.....
MAYOR, CITY OF STIRLING

.....
CHIEF EXECUTIVE OFFICER, CITY OF STIRLING

OVERVIEW

This Outline Development Plan comprises two parts, being:

Part 1: Statutory Planning Section
Part 2: Explanatory Report

Clause 5.8.4(b)(i) of the City of Stirling Town Planning Scheme No. 38 (Scheme) provides that an Outline Development Plan for the whole Precinct (Precinct 4) is required prior to approval of development on any site.

SUMMARY

This Outline Development Plan relates to Precinct 4 of the Stirling Regional Centre. Precinct 4 is bounded by Ellen Stirling Boulevard to the West, Cedric Street to the north, the Stephenson Highway Reserve to the east and Precinct 5 to the south. The Precinct is zoned 'Central City Area' under the Metropolitan Region Scheme and zoned 'Stirling City Centre' under the City of Stirling Town Planning Scheme No. 38.

The Outline Development Plan has been prepared to guide the subdivision and development of the land. The land use and development standards to be applied to the Precinct is controlled by Town Planning Scheme No. 38.

The Outline Development Plan proposes a short term and long term plan. The short term plan includes the provision of an IKEA showroom which will act as a catalyst for the development of the Precinct while the long term plan is provided once IKEA relocates in 20-50 years.

The explanatory report provides a background and description of the Outline Development Plan.

PART 1

STATUTORY PLANNING SECTION

Subject Area

The Outline Development Plan area comprises Precinct 4 of the Stirling Regional Centre and is approximately 9.5285 hectares in area.

Zone

Precinct 4 is located within the 'Stirling City Centre' Zone under Town Planning Scheme No. 38.

The Scheme

Unless provided for by a specific requirement in this Outline Development Plan, all land use and development shall be in accordance with the Scheme standards and requirements.

Land Use

The permissibility of land uses shall be in accordance with Town Planning Scheme No.38.

Subdivision and Development Requirements

The subdivision and development is to be generally in accordance with the short term Outline Development Plan (Plan 1). On relocation of the IKEA store, the subdivision and development is to be generally in accordance with the long term Outline Development Plan (Plan 2).

In addition to the standard requirements of subdivision and development, the following issues will also need to be addressed at subdivision stage:

a) The preparation and implementation of a Drainage Management Plan. Should Precinct 4 landowners use the main drain, the landowners will make a 50% contribution towards the cost of relocating the main drain;

b) The preparation and implementation of an Acid Sulphate Management Plan to the requirements of the Department of Environment;

c) The construction of the link road connecting Precinct 4 across the Stephenson Avenue reservation to Sarich Court to be constructed to the Precinct 4 internal boundary;

d) Provision for the payment of the 75% contribution by landowners for the cost of construction of the Ellen Stirling Boulevard dual carriageway;

e) Provision for the payment of Scheme costs;

f) Executing a legal agreement with the Western Australian Planning Commission and the Public Transport Authority, binding on successors in title, the payment by the subdivider of a $56,000 contribution towards the cost of constructing a footbridge between the train station and Precinct 4;

g) Provision of appropriate traffic signalling and management devices within Precinct 4 and along Ellen Stirling Boulevard;

h) Executing a legal agreement with the Western Australian Planning Commission, binding on all successors in title, to secure a future 20 metre wide road reserve in an area generally as indicated on the Outline Development Plan;

i) Provision for a 20 metre wide public access easement in gross to be created pursuant to Sections 195 and 196 of the Land Administration Act 1997 in favour of the Commission at the subdivider's cost for vehicles, pedestrians and cyclists for the area as shown on the Outline Development Plan.

Public Open Space

The Outline Development Plan provides 2,631 square metres of public open space, being 1,269 square metres located in the south of the precinct and 1,362 square metres located in the north of the precinct. The amount of public open space and any associated costs is to be provided by each of the landowners based on a prorata contribution based on the total area of each land ownership.

Road Hierarchy

The outline development plan proposes a 22 metre wide main internal road reserve with all other connecting road reserves being 20 metres wide (14 metres wide for cul de sac).

With respect to the 20 metre wide road reserve this will provide for a 3.3 metre wide verge on each side, 3.8 metres for on-street car parking and a bicycle lane on each side and a carriageway of 5.8 metres. This is in accordance with a Neighbourhood Connector identified in Liveable Neighbourhoods. All footpaths are to be a minimum of 1.5 metres wide with wider footpaths along key pedestrian routes (active street frontages).

With respect to the 22 metre wide road reserve, the additional width is provided in response to the level of traffic that will be generated as a result of the connection to the Osborne Park Industrial Area and the traffic generated by the IKEA land use.

The road reserves provide footpaths for pedestrian access through the Precinct and on-street cycle paths through the Precinct as shown on Plans 1 and 2.

The City of Stirling is currently investigating road and traffic options to link the southern portion of the precinct to Howe Street (Osborne Park) and Scarborough Beach Road. In the interim, prior to the Howe Street connection, traffic exiting the southern access onto Ellen Stirling Boulevard will be restricted to a left out only (right turn out not permitted).

The Outline Development Plan shows a signalised intersection at the intersection of the southern access and Ellen Stirling Boulevard. The traffic lights are not required in the interim and upon the connection of the southern access to Howe Street, the most appropriate traffic control (traffic lights or roundabout etc) treatment will need to be determined.

Development Standards

The development standards to be applied to development within Precinct 4 of the Stirling Regional Centre shall be in accordance with Town Planning Scheme No. 38 except where variations are granted by the Council of the City of Stirling in accordance with the following design guidelines.

STIRLING REGIONAL CENTRE

PRECINCT 4

URBAN DESIGN AND BUILDING GUIDELINES

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- 5.5 Public Art
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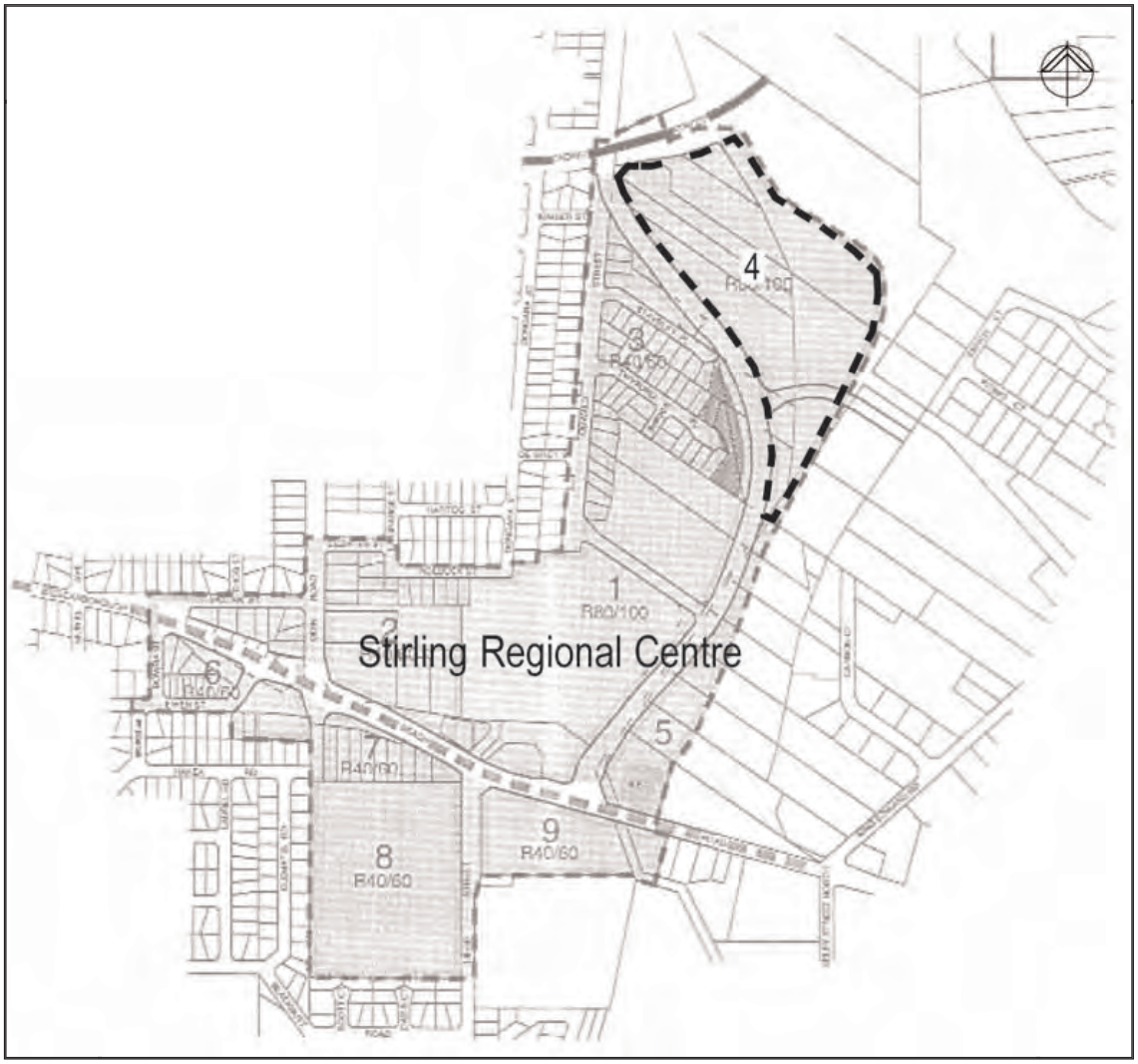
1 INTRODUCTION

These guidelines apply to development within Precinct 4 of the Stirling Regional Centre (TPS No. 38).



1.1 ABOUT THESE GUIDELINES

The Guidelines are divided into five sections.

Section One – Introduction

This section provides an overview of the Guidelines and the relationship to the City of Stirling Town Planning Scheme No. 38.

Section Two – Site Planning

This section provides initial site planning design parameters that need to be addressed when formulating development proposals. Other site planning issues are also contained in this section including solar access, energy efficiency, open space, landscaping and environmental issues.

Section Three – Building Design

Section three relates to the physical form of development. Performance standards including building appearance and streetscape, scale and mass and materials are addressed.

Section Four – Car Parking and Access

Movement issues such as vehicular and pedestrian access are covered in Section Four.

Section Five – Other Considerations

Other design aspects to be considered are contained in Section Six. These include site services, integration of public art and changes to the public domain.

1.2 DESIRED CHARACTER

Development of Precinct 4 marks a significant milestone in the expansion and integration of the Stirling Regional Centre with the Stirling Railway Station. It is anticipated that the character of the buildings will contribute to a stimulating and attractive area with strong streetscapes.

The precinct provides the opportunity to create 'landmark' developments of high quality contemporary design that are compatible with the nature and character of the site. The buildings will have visual exposure to both the station and the freeway and be accessible from these areas. Office buildings are recommended up to 12 storeys in height adjoining the Stirling Railway Station.

The precinct has the potential to accommodate a range of uses including residential and entertainment uses. The uses proposed need to attract people to the precinct due to its proximity to public transport, pedestrian links and the Mitchell Freeway. The precinct is to be developed maintaining a landscaped environment, however the scale of surrounding infrastructure provides opportunities for large scale high rise development.

1.3 GUIDELINE OBJECTIVES

The objectives of the guidelines are:

- to ensure the proposed developments are part of a cohesive, and attractive extension of the Stirling Regional Centre;
- to ensure that the design and development contributes to the overall identity;
- to promote sustainable built form;
- to minimise any adverse effect of the natural environment by utilising appropriate design solutions and applying specific impact mitigation requirements;
- to provide a context for a range of scales and forms of business;
- to ensure development is responsive to pedestrian movement and other modes of transport;
- to encourage built form to promote security and safety within the Precinct;
- to minimise any impact on areas adjacent to the Precinct.
- to encourage residential development as a stand alone development or located above commercial uses.

1.4 RELATIONSHIP TO CITY OF STIRLING TOWN PLANNING SCHEME NO. 38

In accordance with the Town Planning Scheme (TPS) No 38 the area is zoned City Centre. The Scheme provisions relating to Precinct 4 are contained in the Scheme.

These guidelines have been adopted by the City of Stirling as policy within its Scheme and should be read in conjunction with the Scheme Text and other Planning Policies. In determining any application for planning approval, the City will utilise these guidelines as the primary assessment criteria to be exercised in conjunction with the Scheme and Policies.

1.5 APPROVAL PROCEDURES

Precinct 4 is zoned City Centre under Town Planning Scheme No. 38. Precinct 4 is also located within a Clause 32 area under the Metropolitan Region Scheme. Therefore all applications will require two approvals, one approval from the Western Australian Planning Commission under the Metropolitan Region Scheme and one approval from the City of Stirling under Town Planning Scheme No. 38.

TPS No. 38 clause 2.4 states that:

"The Council's Approval to Commence Development (development approval) is required for any development on land within or partly within the Scheme Area, and no person shall commence any development unless the Council's approval has first been obtained."

Building and Health By-Laws remain in force and licenses must be obtained whenever necessary from the Local Government. Approvals to connect to services must be sought from the relevant statutory authorities.

Accordingly, applicants are encouraged to familiarise themselves with the requirements of the City of Stirling prior to proceeding with any application for development.

1.6 DEVELOPMENT APPROVAL

Applications are to be lodged with the City of Stirling and are to include the City of Stirling Application for Approval to Commence Development form and a Metropolitan Region Scheme Form 1. In dealing with an application the City of Stirling will refer the application to the Western Australian Planning Commission within 7 days of receipt of the application. In assessing the application the City of Stirling and the Western Australian Planning Commission will assess the proposals compliance with the Scheme, Policies and these Guidelines.

The City may approve an application involving departures from the performance standards outlined if, in its opinion, the application satisfies the objectives and intent of the Guidelines. However, compliance with performance standards does not guarantee approval. The City may refuse development approval for applications not considered to be in keeping with the objectives of the guidelines. Therefore, each application will be assessed on its merits.

Once the City of Stirling has determined the application under Town Planning Scheme No. 38 The City will forward its recommendation to the Western Australian Planning Commission for its determination under the Metropolitan Region Scheme.

It is strongly recommended that prospective applicants liaise with the City of Stirling at the earliest stage of design development to discuss proposals and facilitate the planning approval process. The use of a qualified Architect is strongly encouraged by the City having regard to the requirement for developments to be innovative and contemporary thereby representing the significance of the Precinct.

2 SITE PLANNING

2.1 SITE ANALYSIS

A site analysis plan is required to be submitted as part of a development application. The level of detail shown on the site analysis plan will vary according to the location and scale of development. The site analysis plan must be to scale and should identify opportunities and constraints. It should influence the design to minimise negative impacts on the amenity of adjoining developments and to compliment and add value to the precinct character. Typical considerations in the preparation of the site analysis plan include:

- Site features and topography;
- Orientation and micro climate;
- Existing services;
- Views and vistas;
- Location and use of adjacent and opposite buildings;
- Existing and proposed vehicular and pedestrian movement systems.

It is not sufficient to prepare a site analysis plan on its own and disregard it during the design phase. It is therefore recommended that a written statement be prepared to accompany the site analysis plan which explains how the design has responded to the analysis.

2.2 LAND USE

The preferred and contemplated uses appropriate to Precinct 4 of the Stirling Regional Centre are as identified in Town Planning Scheme No. 38 and include:

Preferred Uses

Shop
Office
Office Professional
Cinema/Theatre
Betting agency
Service Station
Car park
Hotel
Restaurant
Market
Motel
Research and development
Recreation facilities
Consulting room
Multiple dwelling
Grouped dwellings
Amusement area
Serviced apartments
Boarding House
Tavern
Fast food outlet
Public amusement
Entertainment Venue

Contemplated Uses

Educational establishment
Community Activities
Public open space
Club premises
Day care centre
Hostel
Public utility
Retirement village
Advertisement
Civic Use
Hall
Public Worship – place of
Garden centre

These guidelines encourage the development of high intensity uses such as high density residential development at a density of R80/100 and office uses.

The provision of residential development above commercial uses is encouraged in order to accommodate residents within the Regional Centre while also providing 'eyes on the street' after business hours. Residential development above commercial uses will need to demonstrate how potential conflicts between residential and non-residential uses both on-site and adjoining have been addressed. Land use conflict can be minimised through landuse and building design

provisions such as separate entrances, noise attenuation devices, lot location and configuration etc.

Residential development shall be an integral component of all development proposals within the Precinct unless otherwise agreed and approved by the Council.

2.3 SOLAR ACCESS AND ENERGY EFFICIENCY

In keeping with the objectives for the precinct of encouraging development that embodies technological innovation and environmental sustainability, development should be designed to be energy efficient, with particular attention paid to the principles of passive solar design.

2.3.1 Climatic Design

Use of natural light and ventilation is encouraged. New technologies and materials which help to control the internal building climate should be introduced wherever practical to reduce over reliance on mechanical cooling systems and external clutter. Developments must address climatic and microclimate principles and influences such as orientation for control of sun penetration, prevailing winds etc.

2.3.2 Energy Efficiency

All developments within Precinct 4 will be encouraged to embrace the following principles:

- Taking advantage of natural energy sources;
- Minimising greenhouse gas emissions;
- Recycling programs, car-pooling and public transport;
- Encouraging a healthy non-toxic environment;
- Protecting and maintaining external environments.

2.4 LANDSCAPING

All open areas are to be appropriately landscaped with a combination of 'hard' and 'soft' elements. Areas that relate to the public domain (ie. street frontages) should adopt a similar general landscaping style for visual consistency. Landscaping is to be provided within open air carparks, within building setbacks where applicable and generally where the Council considers it appropriate.

The proposed landscaping is to be development in accordance with the City of Stirling's Town Planning Scheme No. 38 – Landscape Guidelines

A detailed landscape plan is to be submitted with all applications for development approval.

3 BUILDING DESIGN

3.1 BUILDING APPEARANCE AND STREETSCAPE

Development will be required to have a high degree of architectural integrity and design, and shall reflect the status of the Stirling Regional Centre. Developments will be required to have appropriately designed elevations when viewed from all aspects to ensure that the building is properly integrated into the streetscape with regard to building massing, scale and materials and passive surveillance from windows.

The street or 'public face' of the building should be detailed to provide visual richness and variety, highlight rhythms and enhance its individual identity. This can be achieved through the use of colour, texture and materials, surface modelling and the integration of art.

Building materials have the potential to significantly impact on the overall character of an area. It is therefore important that the materials utilised within the Precinct reflect the desired character. Development is encouraged to employ contemporary design solutions and maximise opportunities to create 'landmark' buildings. The site has been planned to provide adequate open space and car parking within the site for the functions envisaged.

Articulation of the building façade and features such as balconies shall be incorporated in the design to break up the volume and repetitiveness of large buildings.

Ellen Stirling Boulevard, the extensions of Sarich Court and Howe Street and the primary internal roads form the major entrances to the Precinct. As such, buildings fronting these roads are to be of a high quality and reinforce the urban edge.

3.2 MASSING AND SCALE

3.2.1 Building Height

It is envisaged that a variety of building heights will be appropriate within the precinct. Office developments that form a landmark structure may be built up to 12 storeys in height with residential and entertainment uses up to eight storeys. Other uses within the Precinct will generally be between five and three storeys in height. Buildings and front entrances are to be orientated towards the street frontage with car parking and services areas to the rear. Where parking is provided as an undercroft adjacent to designated active frontages or facades of interest, it should be appropriately screened by facade treatments or active uses along the street.

3.2.2 Plot Ratio

The floor area will be determined based on the ability to provide all car parking associated with the development on site. The permitted plot ratio is 2.5:1, however, the council may increase the plot ratio to 5:1 for a comprehensively designed development which incorporates a landmark feature.

3.2.3 Site Coverage

A site coverage of 30% is identified in Town Planning Scheme No. 38, however, variations to the site coverage requirements of Town Planning Scheme No. 38 will be considered where the development is located to create active street frontages, as identified on the ODP, and promotes active street frontages and pedestrian amenity.

3.2.4 Setbacks

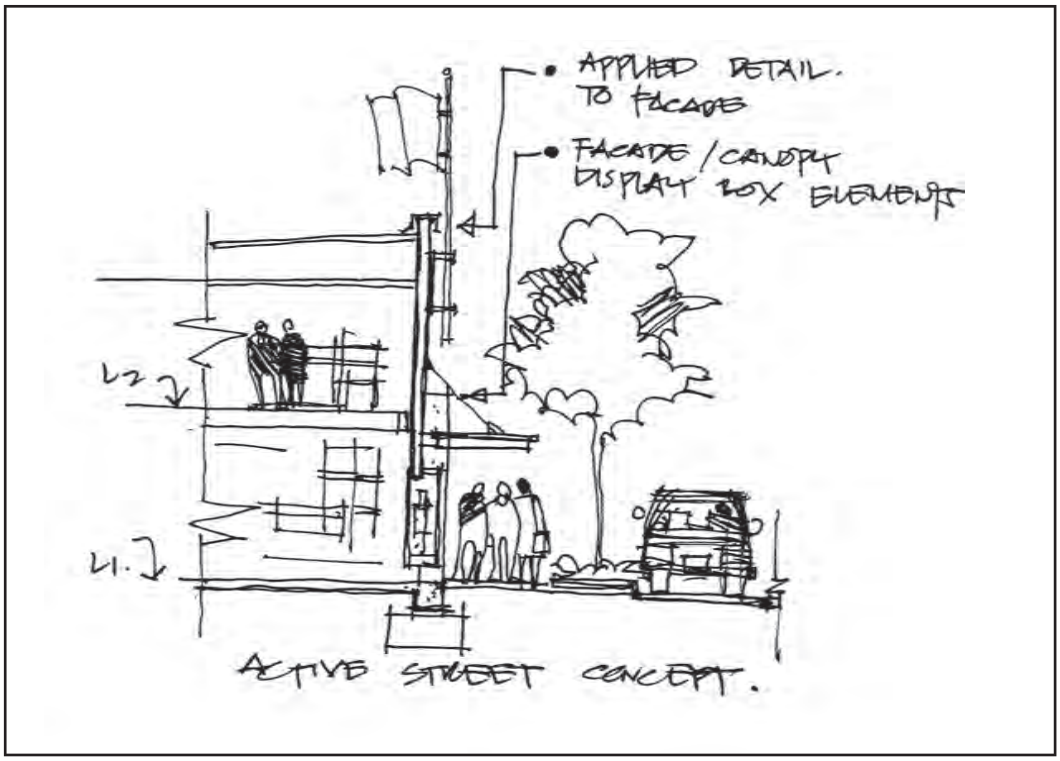
Setbacks are identified in Town Planning Scheme No. 38, however, variations to the setback requirements of Town Planning Scheme No. 38 will be considered and may be required where development, located with frontage to streets, provides an active frontage while also providing pedestrian shelter. The variations to the required setbacks should promote an urban edge to the street rather than buildings isolated in landscaped surrounds.

Development adjacent to the public open space set aside for the pedestrian bridge from the Stirling Train Station is to be setback 5 metres from the boundary. The setback is to be provided as either hard or soft open space. The setback from the public open space is to create a high quality plaza style pedestrian route. The development is to include active street frontages at ground level along the interface with the public open space and provides the opportunity for alfresco dining. Car parking is not to be located within this setback.

3.2.5 Building Elevations

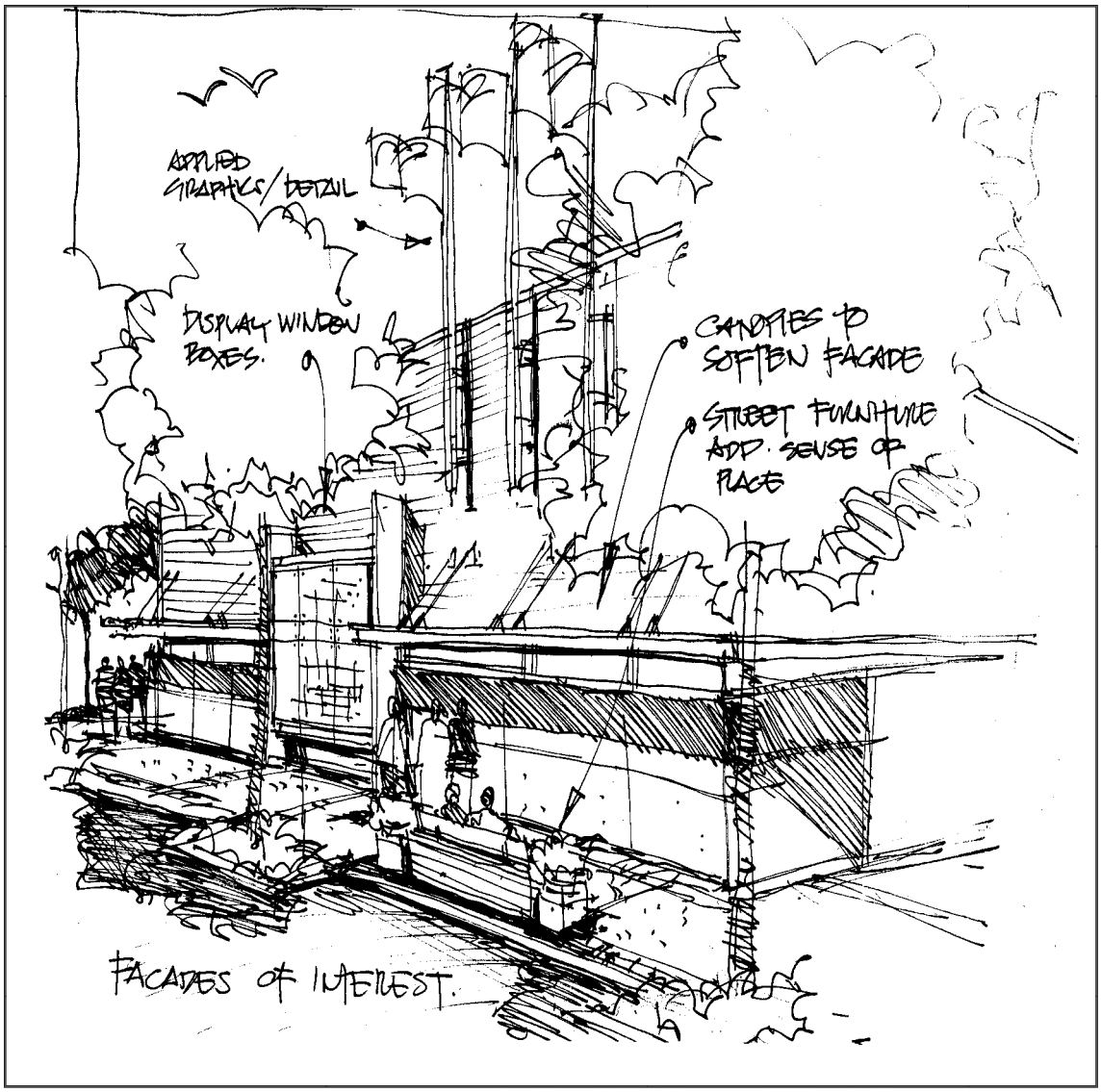
The Outline Development Plan identifies two types of street frontage: active street frontages and facades of interest.

'Active Street Frontages' are defined as buildings located along the street reserve boundary (nil setback) that provide pedestrian interest and interaction and are to incorporate building entrances and active uses (such as shops, cafes or restaurants). The building facade and footpath should also include pedestrian shelter (awnings), street furniture and street trees . Blank facades at pedestrian level should be avoided.



Facades of Interest' are defined as building elevations along streets frontages which provide interest to pedestrians at street level and from a far and should incorporate pedestrian shelter, signage, changes to colour, material and finishes, opportunities for passive surveillance and interesting architecture features. Facades of interest are to contribute to the creation of a high quality pedestrian environment.

'Facades of Interest' should provide for ultimate conversion to 'Active Frontages' either through design capable of conversion or through being setback to allow active uses to 'sleeve' in at a future date.



Where development is proposed along street frontages, buildings must be designed to enable occupants to passively watch over pedestrian areas to help reduce opportunities for crime and add vibrancy to the area thereby encouraging people to spend time in the district. Building entrances are required to address the street.

Development proposed along streets requiring Facades of Interest are not compelled to provide active uses along the street. However, these edges are still important to the character of the district and should be treated carefully. Primarily, facades of interest should strive to create visual interest by breaking up large areas and lengths of facades into smaller elements. This can be achieved through the introduction of windows, insert panels, piers, cornices, awnings, roof forms, structural members, articulation, material patterning and changes in colour.

All development adjacent to the public open space is required to enable a high level of passive surveillance and high intensity uses are encouraged. The building adjacent to the 5 metre wide pedestrian access is required to provide a facade of interest. The facade does not need to be located directly adjacent to the access, but is required to provide pedestrian interest and passive surveillance.

Active Street Frontages and Facades of Interest are to be provided in accordance with the Outline Development Plan.

3.3 ROOF FORM

The guidelines seek to discourage uniformity and encourage variety. The roofscape should include features on prominent corners and over main entrances.

3.4 WALLS

Large exposed blank walls are not permitted on Active Street Frontages or Facades of Interest. Elevations should be detailed with window openings, and recessed panels are to be articulated to provide visual interest from near and afar as appropriate (viewing distance).

3.5 WINDOWS

The location of windows should maximise natural daylight and minimise heat gain through control of exposure to intensive summer sunlight.

3.6 CORNER SITES

Corner sites tend to be the most prominent. Buildings situated at road intersections play a special role in defining the quality of adjoining public spaces and are often landmarks which assist people's understanding of the local environment.

The elevations of buildings on corner lots should reinforce the corner that is addressed by the development and provide richness of detail on both street facades.

Corner sites should provide active uses at pedestrian level, particularly at the corner. The active uses should wrap around the corner in order to provide a focus for pedestrian activity. The extent of the active uses on both street frontages is to be a minimum of 1 tenancy or 10 metres minimum whichever is the greater.

Given that corner sites tend to be prominent, corner sites may achieve a greater massing in terms of building height to provide landmark locations and the ability for pedestrian mental mapping. The additional massing may include height increases of between 1 and 3 storeys.

4 CAR PARKING AND ACCESS

4.1 CAR PARKING

Parking provisions shall be in accordance with Table 1 of TPS No. 38, however, the Council may vary the car parking provisions if it can be demonstrated that the proposed level of parking is appropriate for the use.

In accordance with the Scheme, the Council will require 50% of car parking associated with a development to be provided in an undercroft car park, or alternatively a decked car park. A parking contribution may be considered by the council in lieu of parking provided the Council is able to construct car parking in the vicinity.

Where practical, vehicle parking (other than on-street) and servicing areas shall be screened from public view by landscaping or located behind buildings. The design of open parking areas should be appropriately landscaped.

Where open car parking is provided the car park shall be extensively landscaped to break up the dominance of the bitumen. As a minimum shade trees should be planted at a rate of 1 tree for every 4 car parking spaces in accordance with the landscaping design guidelines.

4.2 VEHICULAR ACCESS

It is important that parking areas be sufficiently detailed to reduce their visual impact and add interest at ground level. Generally vehicular access to lots will be via the secondary street where such access is provided. Additional crossovers on primary street frontages should be minimised.

All vehicles must be able to enter and leave the site in a forward direction.

Vehicles using loading bays must have adequate space to manoeuvre without intruding into the public realm or access ways. Loading bay areas should also be appropriately screened from public view.

4.3 PEDESTRIAN/CYCLE ACCESS

Pedestrian access to development is encouraged to be level with adjacent footpaths or roads. Design providing for access by people with impaired mobility will be encouraged.

Development, such as office development, is required to provide bicycle parking and end of trip facilities in accordance with Austroads Standards.

5 OTHER CONSIDERATIONS

5.1 SITE SERVICES

The developer is responsible for making the necessary arrangements, at its own cost, for obtaining connections to services. It is not envisaged that any substations or other similar on site service facilities will be required. If, however, the need arises these operations must be integrated into the built fabric and style of architecture. They should be located and screened out of public view wherever possible.

5.2 LIGHTING

External building lighting for security and general use should be designed to illuminate the area through rendering of walls and other surfaces rather than through direct spot lighting. Lighting proposals must be brought to the attention of the assessing authority and, where the assessing authority is not the Local Government, the local authority will determine whether a development application is required.

5.3 TV ANTENNAE, SATELLITE DISHES AND RADIO MASTS

Communications infrastructure must relate to the development and shall not include network provider infrastructure. Communications infrastructure such as antennae, satellite dishes and radio masts should be clustered away from the public realm. Masts, aerials and satellite dishes will be subject to the approval of the assessing authority.

5.4 STORAGE AREAS

Outdoor storage requirements must be addressed at the design stage. To avoid the unnecessary proliferation of separate small structures around the site, substations, plant, refuse rooms, bin and storage areas should be located out of public view or clustered to form an entity in their own right. The structures should also match the architectural style of the main building. Any functional requirements for separate structures should be agreed at an early stage prior to the submission of preliminary proposals and all developments shall integrate in style with the many structures.

5.5 PUBLIC ART

The involvement of artists in designing a new development can enrich the design response and contribute to the creation of a sense of place in the local environment. Consequently, the guidelines encourage the use of artists as part of the design team. It is intended that art be specifically commissioned for the development rather than be purchased from an art supplier. Non development specific art works or mass produced art selected and located by an artist may also be considered. The artist should be a member of a recognised art network.

Recommended areas for public art include:

- retention and interpretation of identified environmental heritage elements from the region,
- expressive/ interpretive signage, paving details, building facade details;
- lighting structures and entry statements; and
- sculpture/art installations.

All items must meet public safety and health standards.

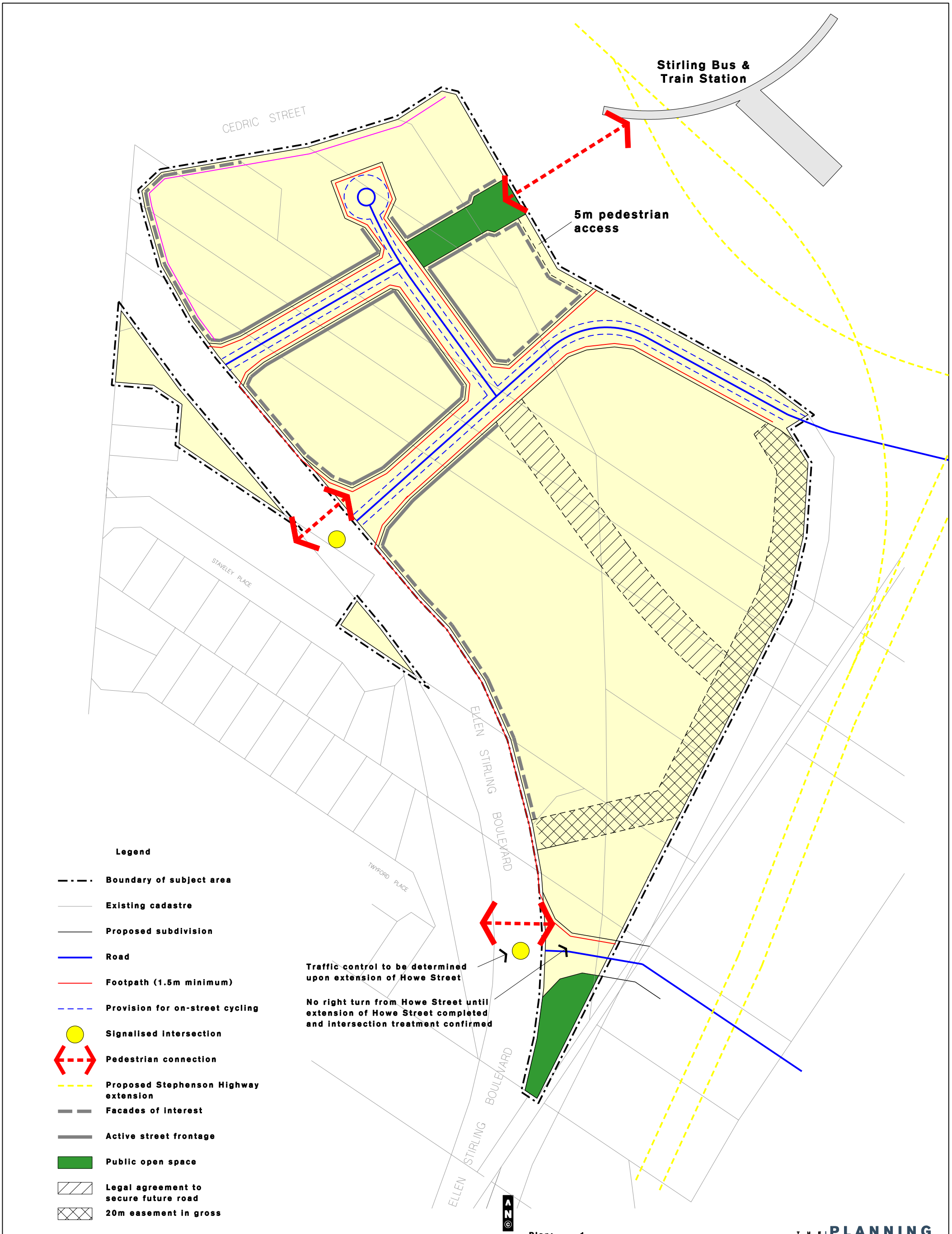
5.6 SITE OPERATIONS

For reasons of public safety and security the developer should protect the site during construction with an appropriate high fence. The developer shall ensure that minimum disruption is caused to any adjacent development or public realm works during construction. On site car parking must be provided for construction site staff and visitors wherever practical.

The developer will be responsible for making good any damage caused to the road or footpath surfaces by contractor's vehicles.

5.7 CHANGES TO PUBLIC DOMAIN

Generally alterations to the existing paving, lighting, planting and other street furniture in public spaces will not be permitted. However, if it can be demonstrated that superior design solutions for the development can only be achieved through the relocation or alteration of one or more of these elements, then the City will consider these on their merits. Any approved alteration will be at the developers expense. Any damage caused to the public domain during building works must be made good.



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Plan: 1

Title: Outline Development Plan - Short Term
Ellen Stirling Boulevard, Innaloo

Date: 31 August 2005 **Revision No:** C

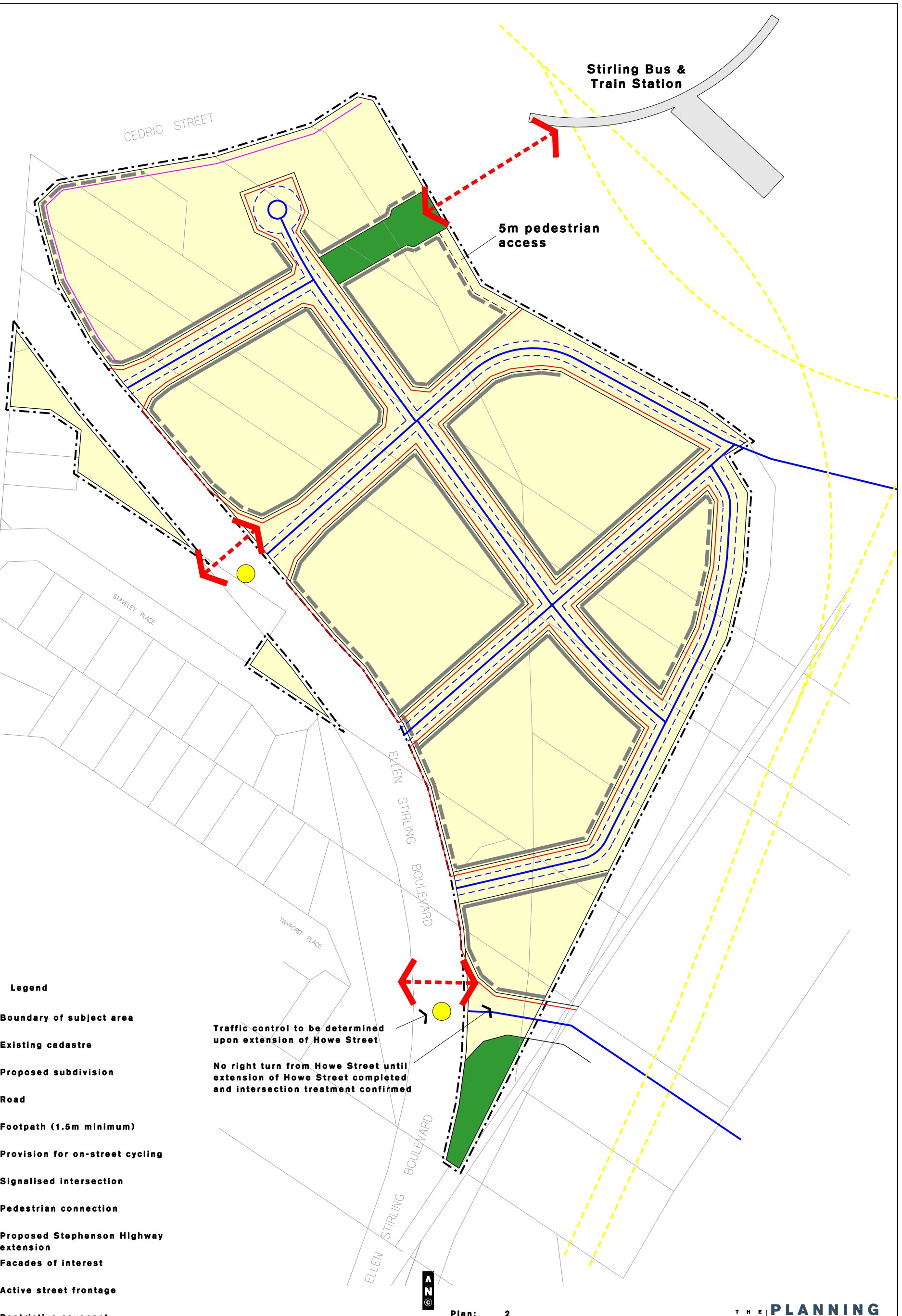
Scale: 1:2000 @ A3 **Job No:** 703.093

Designer: P.S. **Drawn:** L.C.

E Reference: 703.093.ODP-ST.1C.dgn

THE PLANNING GROUP

Perth
Level 7
182 St Georges Terrace
Perth Western Australia 6000
Telephone +61 08 9289 8300
Facsimile +61 08 9321 4786
perth@tpgwa.com.au
www.planninggroup.com.au



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Plan: 2

Title: Outline Development Plan - Long Term
Ellen Stirling Boulevard, Innaloo

Date:	31 August 2005	**Revision No:**	C
Scale:	1:2000 @ A3	**Job No:**	703.093
Designer:	P.S.	**Drawn:**	L.C.
E Reference:	703.093.ODP-LT.1C.dgn		

THE PLANNING GROUP

Perth
Level 7
182 St Georges Terrace
Perth Western Australia 6000
Telephone +61 08 9289 8300
Facsimile +61 08 9321 4786
perth@tpgwa.com.au
www.planninggroup.com.au

PART 2 - EXPLANATORY REPORT

INTRODUCTION

This Outline Development Plan has been prepared in order to facilitate the subdivision, land use and development of the land that forms Precinct 4 of the Stirling Regional Centre as defined by the City of Stirling Town Planning Scheme No. 38. This report has been prepared on behalf of the majority of the landowners of the Precinct.

This report has been prepared by a multi-disciplinary team of consultants including Mirvac Fini, HPA Architects, The Planning Group, ENV Australia and Uloth and Associates, with valuable assistance from the Department of Planning and Infrastructure and the City of Stirling.

OUTLINE DEVELOPMENT PLAN OBJECTIVES

The general objective of this Outline Development Plan is to facilitate the subdivision, land use and development of the land and to ensure the creation of an environmentally, socially and economically sustainable Precinct.

The specific objectives of the Outline Development Plan include:

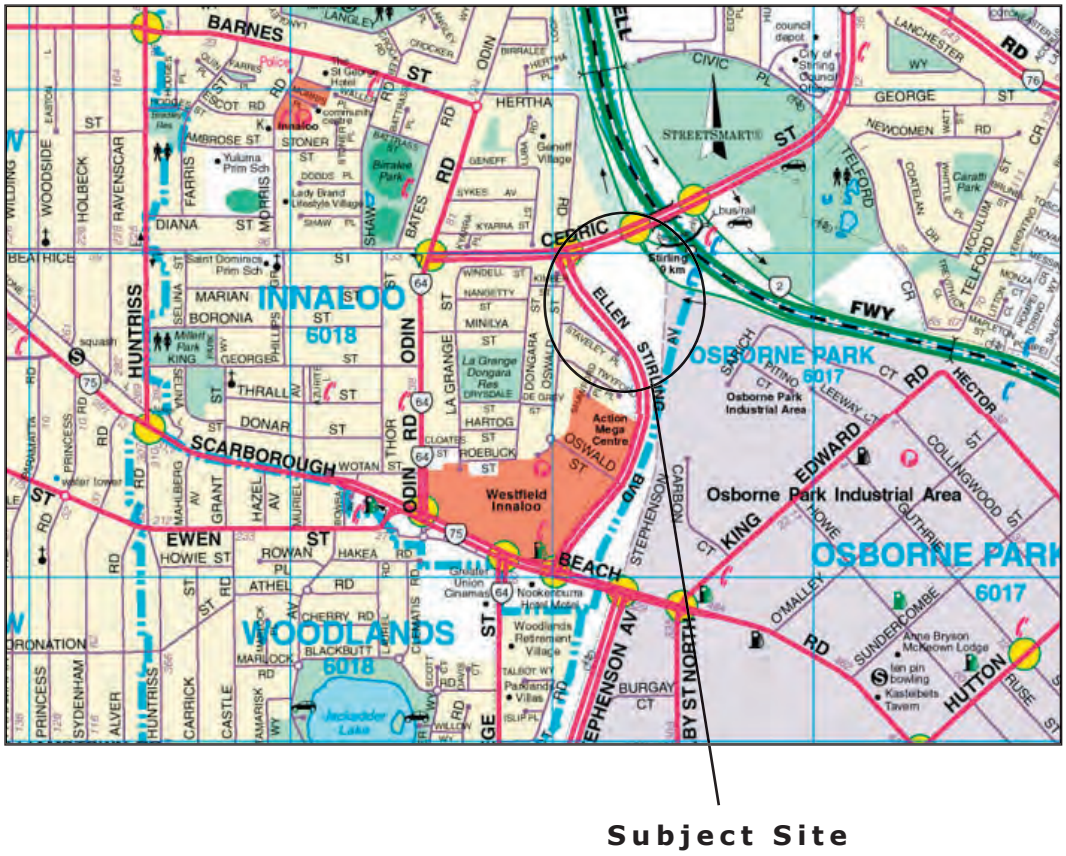
- To provide for the establishment of several key developments;
- To provide a robust and flexible design to meet the changing needs of the Stirling Regional Centre;
- To create a functional and coherent extension of the existing regional centre;
- To create an urban centre;
- To provide traffic links between the Osborne Park Industrial Area and the Regional Centre;
- To provide pedestrian links from the Stirling Train Station through the site to the remainder of the Regional Centre;
- To encourage the development of high intensity land uses including high density residential (R80/100) and office uses in accordance with the stated objectives of Town Planning Scheme No. 38.

SITE CONTEXT

THE SUBJECT LAND

The site can be described as Lots 506, 852, 303, Pt 45, Pt 201, Pt 123, 305, 304, 40 and 41 Ellen Stirling Boulevard. The site is located within the "Stirling City Centre" Zone and is situated in Precinct Four: Mixed Use, Office and Entertainment under the City of Stirling Town Planning Scheme No 38. The site has an area of approximately 9.5258 hectares and approximate frontages to Ellen Stirling Boulevard of 500m and 250m to Cedric Street.

FIGURE 1 - LOCATION PLAN



TITLE PARTICULARS

The following table and figure indicates the current landownership of the site and includes land currently under option.

Table 1 Landownership

Lot	Volume	Folio	Land Ownership
506	1734	11	Incinerator Rubbish Disposals P/L (option to Duxtelle Pty Ltd)
Pt Au	1669	271	Incinerator Rubbish Disposals P/L (option to Duxtelle Pty Ltd)
852	2148	304	Fabray Pty Ltd
Pt 45	2148	303	Fabray Pty Ltd
Pt 201	2165	289	Fabray Pty Ltd
Pt 123	2148	302	Fabray Pty Ltd
Pt Au	1774	347	Fabray Pty Ltd
Pt Au	1790	294	Fabray Pty Ltd
303	2052	2	City of Stirling
40	1705	67	Duxtelle Pty Ltd – atf Australian Land retail Trust
41	1705	68	Duxtelle Pty Ltd – atf Australian Land retail Trust
310	2188	928	Duxtelle Pty Ltd – atf Australian Land retail Trust
305	2051	847	WAPC (offer to F & M Furfaro)
304	2051	847	WAPC (offer to V Furfaro)

Refer to Figure 2 for a graphic representation of the precinct landownership.

IMPROVEMENTS

The site is a vacant plot of land, and thus there have been no constructed improvements.

Figure 2 - Precinct Land Ownership



SITE CONTEXT ANALYSIS

REGIONAL CONTEXT

The subject site is located 8 kilometres from the Perth Central Business District and 4.7km from the coast. It is adjacent to a retail shopping precinct, in close proximity to the City of Stirling Council Offices (including the office currently under construction), the Osborne Park Industrial Area and the entertainment area (Innaloo Megaplex). Located on the eastern side of Ellen Stirling Boulevard, the site is between Cedric Street and the proposed extension of Stephenson Highway, Innaloo. The site can be accessed by the Mitchell Freeway or by the northern train line. The Stirling Train Station is 300m from the western extent of the subject site.

Refer to Figure 3 – Metropolitan Context Map
Refer to Figure 4 - Regional Context Map

STIRLING REGIONAL CENTRE

The subject site forms Precinct 4 of the Stirling Regional Centre. The Stirling Regional Centre consists of 9 precincts generally located around Scarborough Beach Road and Ellen Stirling Boulevard.

The precincts can generally be characterised as follows:

- Precinct 1 consists of the main retail focus of the centre;
- Precinct 2 consists of hardware/showroom uses;
- Precinct 3 is generally residential;
- Precinct 4 is the subject site;
- Precinct 5 is a public use reserve;
- Precinct 6 has a variety of uses including a service station, convenience store, restaurants etc;
- Precinct 7 also has a variety of uses but restaurants are the predominant use;
- Precinct 8 is occupied by the Innaloo cinema complex;
- Precinct 9 is occupied by a hotel and associated uses.

Refer to Figure 5 – Stirling Regional Centre Precinct Plan.

ADJACENT LAND USES

Figure 6 indicates the land uses adjacent to the site. These have been categorised as Retail and Commercial, Industrial and Residential. The Mitchell Freeway and Train Station have also been identified. Residential land uses occupy a substantial area to the west of the site. Retail and Commercial have been identified as significant uses, in close proximity to the site. The Innaloo Westfield Shopping Centre is a regional centre and is located south west of the site. The Centre houses large department stores such as Target and Big W. There is also a Greater Union Cinema complex further west of the site. As Figure 6 indicates an Industrial area (Osborne Park Industrial Area) is located south east of the site. These elements all contribute to the broader Stirling Regional Centre.

TOPOGRAPHY

The subject site declines quickly north east from Ellen Stirling Boulevard, before forming a low lying area. This area has been identified as a swamp (AUSLIG, 2000), and is referred to as the Cedric Street Swamp (EPA, 2002). CALM (1999) identified the highest ground water levels to be about six metres below the surface. Ground water levels will fluctuate with seasonal variation. The geology of the site comprises of peat overlying sand from the Tamala Limestone Formation (EGS, 1986).

Soil and Rock Engineering (2001) reported the site as being relatively clear of vegetation with the centre of the site being occupied by the swamp. The embankments along Cedric Street and the Freeway exit are covered with dense trees and shrubs. There are also trees along Ellen Stirling Boulevard, however, they are clustered and not as dense as those along Cedric Street. Refer to Figure 7 – Site Topography.

Figure 3 - Metropolitan Context Map



Figure 4 - Regional Context Map



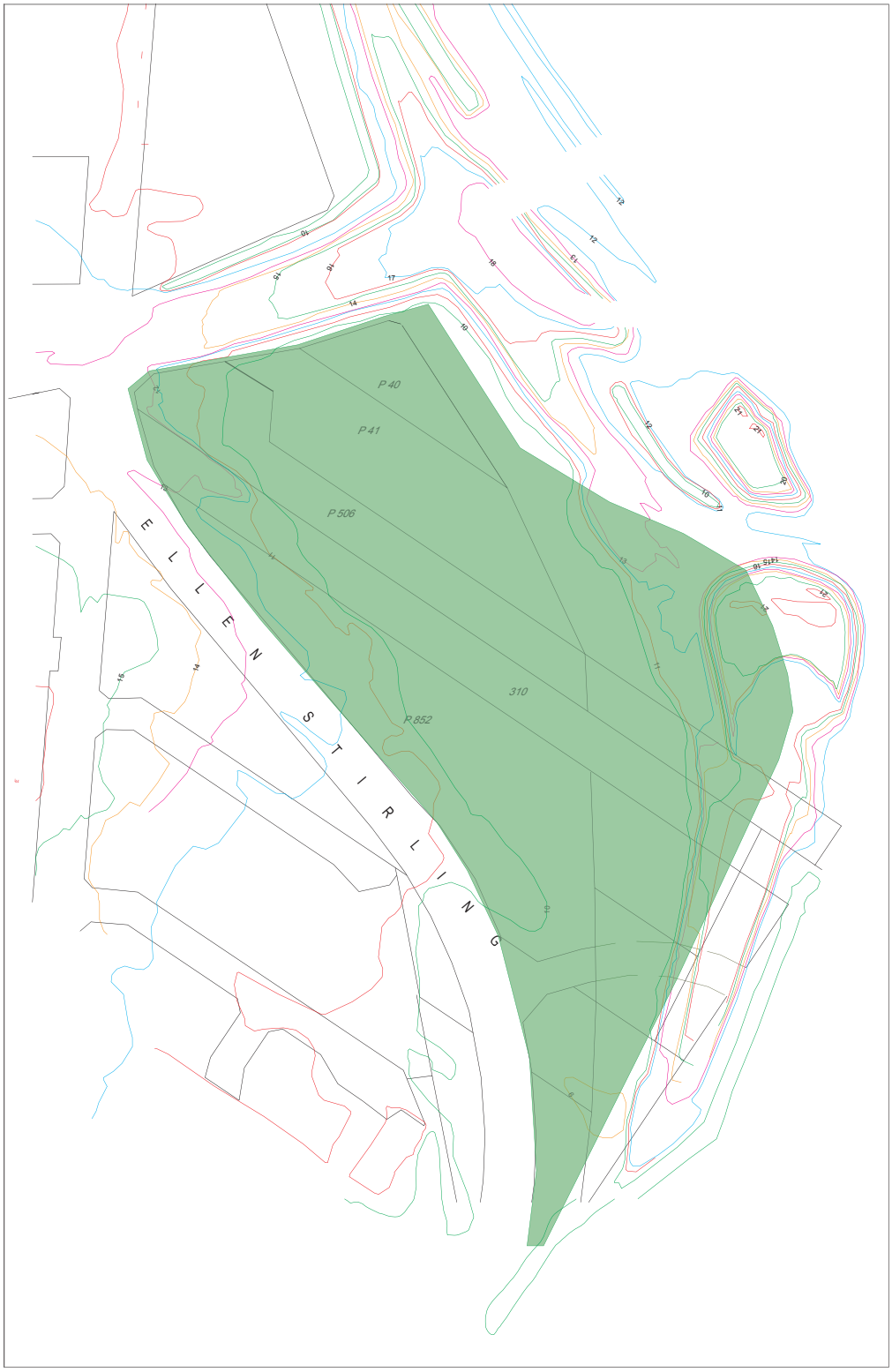
Figure 5 - Stirling Regional Centre



Figure 6 - Adjacent Land Uses



Figure 7 - Topography



PLANNING FRAMEWORK

STATE PLANNING STRATEGY

The State Planning Strategy 1997 was prepared by the Western Australian Planning Commission to provide a strategic guide for land use planning within Western Australia to the year 2029. The State Planning Strategy identifies the Stirling Regional Centre as a Strategic Regional Centre.

The key actions of the State Planning Strategy, relating to the Stirling Regional Centre include:

- Encouraging commercial development in the strategic regional centres;
- The implementation of a system of centres ranging from strategic regional centres to district and neighbourhood centres to be the focus of commercial and community activity;
- Promotion of medium and high density housing in and near regional centres and near public transport stations.

METROPOLITAN CENTRES POLICY STATEMENT FOR THE PERTH METROPOLITAN REGION

The role and function of Strategic Regional Centres has been provided in the WAPC's Statement of Planning Policy No. 9 - Metropolitan Centres Policy Statement for the Perth Metropolitan Region.

The principle purpose of this policy is to provide a broad regional planning framework to coordinate the location and development of retail and commercial activities in the metropolitan region. The hierarchy objective for strategic regional centres is to promote Strategic Regional Centres as 'cities in the suburbs' and the preferred location for major offices and retailing as well as a mix of entertainment, recreation and community facilities.

The policy identifies Stirling as a Strategic Regional Centre where shopping floorspace should be confined to 80,000 square metres.

The policy identifies several issues regarding regional centres which have specific relevance to proposal being considered under this Outline Development Plan, including

- Bulky goods retailing should be located within regional centres;
- The preferred location for major office developments is within Strategic Regional Centres.

The policy is intended to provide a guide for centre development that is flexible enough to enable commercial development to respond to market conditions and has a degree of certainty to assist in commercial investment decisions.

The Outline Development Plan seeks the flexibility outlined in the policy to provide an IKEA (lifestyle showroom) store as the key development which will act as a catalyst to facilitate the development of the precinct. The Outline Development Plan recognises the short term versus long term objectives of the precinct where the IKEA store (when IKEA relocates) can be replaced in the long term by mixed use development.

METROPOLITAN REGION SCHEME (MRS)

The subject land is zoned Central City Area under the Metropolitan Region Scheme. Adjoining the site is land reserved as a Primary Regional Road. The Primary Regional Road has been reserved for the extension of the Stephenson Highway from the south of Scarborough Beach Road to the Mitchell Freeway. The Department for Planning and Infrastructure has advised that the reserve is still required as the highway is still considered to be an integral part of the transport network within the area.

Precinct 4 is located within a Clause 32 area given its location adjacent to a metropolitan train station. As a result all development applications within Precinct 4 will be required to seek approval from the City of Stirling under Town Planing Scheme No. 38 and approval from the Western Australian Planning Commission under the Metropolitan Region Scheme.

STIRLING REGIONAL CENTRE STRUCTURE PLAN

The Stirling Regional Centre Structure Plan 1994 is the most comprehensive planning, transport and land use analysis that currently exists. The structure plan divides the entire area into six precincts with the subject site being located within the Core Precinct.

The core precinct provides the central axis of the Stirling Regional Centre. The subject site is identified for office on the northern portion of the site and service commercial land uses on the southern portion of the site. The structure plan further identifies that the office development should be high rise with good exposure to the station and freeway. The site should also incorporate an entertainment node and a business hotel.

In terms of traffic, the structure plan identifies the need for an east-west link to connect Osborne Park with the Core Precinct, review of the Stephenson Highway reserve to identify excess land and integrate bus and rail transfer stations with the pedestrian and cycle way network of the regional centre.

The Structure Plan promotes the retention and extension of the existing pedestrian cycle way system, and in particular a connection between the Stephenson Highway DUP and Stirling Transfer Station.

The Structure Plan identifies the following key planning issues in consideration of the structure plan.

- Key role of the Stirling Transfer Station;
- Movement systems and linkages;
- Environmental and landscaping opportunities;
- The need to create a diverse and vibrant regional centre.

The built form identified for the subject site includes a landmark structure identifying the regional centre, and pod type development up to four storeys (separate buildings in landscaped surrounds) in the northern portion of the site and wall type development (buildings with a strong ground connection responding to the pedestrian scale) in the southern portion of the site.

CITY OF STIRLING TOWN PLANNING SCHEME NO. 38

The City of Stirling Town Planning Scheme No. 38 was gazetted in 1997 to implement the recommendations of the Stirling Regional Centre Structure Plan in the core area. The Scheme 38 area has been revoked from the City of Stirling District Planning Scheme. The subject site is zoned Stirling City Centre under Town Planning Scheme No. 38 and is located within Precinct 4.

The Scheme, amongst other things, assigns Scheme, General and Precinct costs to landowners for the works which will benefit the land contained within the Scheme area.

The Site is located within Precinct 4 of the Scheme area which is seen as the key area in terms of the connection between the Stirling Regional Centre and the Stirling Railway Station. The Scheme identifies that major scale development within the Precinct is considered essential to ensure the success of the Regional Centre and that the design of the development should retain key elements of the existing landscape in the north-east corner of the site. The Scheme also recognises the importance of cycleway and pedestrian networks.

The major land uses proposed for the precinct will comprise a large highrise office park with exposure to both the railway station and the freeway, and an entertainment/residential node at a lower scale. South of the proposed road connection with the Osborne Park Industrial area is to be a hotel or serviced apartments.

In light of the above the preferred uses are generally office, entertainment and residential uses while educational, community and civic uses are contemplated.

The Scheme provides development criteria for the development of the site which includes height, scale and density of development, appearance and orientation, function, plot ratio, site coverage, setbacks, landscaping, car parking, pedestrian/cycle access and the relationship to other precincts and development outside of the Scheme area.

The Scheme suggests that for major development, an Outline Development Plan is required to be submitted and approved.

TOWN PLANNING SCHEME NO. 38 AMENDMENT NO. 2

The Hon Minister for Planning and Infrastructure granted final approval of Amendment No. 2 on 8 April 2003 based on the following determination.

Road link from Scheme, across Stephenson Highway extension to Osborne Park Industrial Area

The approval requires that the Outline Development Plan is to specify the need for the connecting road links to be built to the edge of the ODP area by the subdivider/developer.

Subdivision Design / Proportioning of Land to Landowners/ Scheduling of Scheme Costs

This issue is being addressed in the Scheme.

Cost of Relocation Main Drain

This issue requires that a drainage management plan be prepared for Precinct 4 on a precinct wide basis and where the approved stormwater system utilises the main drain, a contribution will be required towards its relocation and upgrade.

The proponents of Precinct 4 will undertake the preparation of a drainage management plan during the subdivision process.

Cost of Dual Carriageway for Ellen Stirling Boulevard

Scheme Landowners will be required to contribute 75% of the cost of the dual carriageway construction. This issue is to be addressed in the Scheme.

Cost of Land for extension of Odin Road

This issue is not relevant to Precinct 4.

STIRLING REGIONAL CENTRE ENQUIRY BY DESIGN WORKSHOP

An Enquiry By Design Workshop was held in October 2000 to explore issues and ideas for the development of the Stirling Regional Centre. The outcome of the workshop for Precinct 4 identified that the land uses should be predominantly office/commercial with entertainment and civic facilities located within the Precinct.

The workshop identified that Ellen Stirling Boulevard should be removed at the northern portion of Precinct 4 and a grid pattern introduced. The grid pattern includes two links between the Regional Centre and the Osborne Park Industrial area from Howe and Guthrie Streets. The workshop also considered that two pedestrian links be created from the Stirling Railway Station.

The outcomes of the workshop have not been formalised and it is understood that it is unlikely that the Council will support the removal of the northern part of Ellen Stirling Boulevard.

PRECINCT 4 – KEY STAKEHOLDERS WORKSHOP (DECEMBER 2002)

A workshop was held at the City of Stirling to discuss the issues surrounding the development of Precinct 4 and to resolve the outstanding concerns of all parties. The workshop was attended by the City of Stirling (and consultants), the Department for Planning and Infrastructure, Mirvac Fini and representatives from IKEA. The workshop identified the issues and then through groups investigated possible solutions.

The outcome of the workshop included:

- There was agreement that a link was required between the Osborne Park Industrial area and the Regional Centre in addition to the proposed link from Howe Street.
- There was agreement that the development of the precinct had to balance short-term vs long term objectives;
- There was general agreement that an IKEA store could be located within the centre given that it was likely to be a short term (20-30 year) development and that IKEA would assist in facilitating the development of the Precinct provided that the other scheme objectives were satisfactorily met and that provision for a preferred form of ultimate development was established;
- It was generally agreed that an additional link from Sarich Court through the site was appropriate and that another link from Guthrie street could be provided when IKEA relocated, and the site could be further redeveloped.

The workshop also addressed other issues such as pedestrian access, open space and building design.

The Outline Development Plan has generally been developed in accordance with the outcomes of this workshop.

HERITAGE CONSIDERATIONS

EUROPEAN HERITAGE

A search of The Heritage Council of Western Australia's database yielded no places of heritage significance. The City of Stirling has identified three Heritage Protection Areas, namely the Inglewood, Mount Lawley and Menora protection areas. The subject site is not contained within any of these areas. Similarly, the site is not registered as part of the City of Stirling Municipal Inventory.

ABORIGINAL HERITAGE

A search of the Department of Indigenous Affairs *Register of Aboriginal Sites* showed that sites of significance exist within a short distance of this site. However, nothing had been entered for the location subject to this report at the time of viewing. This information is only valid at the time of viewing the Register. Sites may exist that have not yet been entered into the register (DIA).

The landowners on 25 February 2004 lodged a Section 18 application under the Aboriginal Heritage Act 1972 to use the land as identified in the Outline Development Plan.

The Minister for Indigenous Affairs granted conditional consent to the Section 18 application on 29 April 2004.

The consent was subject to the following conditions.

- Ensuring all employees and contractors are advised of their obligations and responsibilities under the Aboriginal Heritage Act 1972;

- Provide to the Register of Aboriginal Sites at the completion of the development proposal a written report advising the Registrar whether and to what extent the development has impacted on any or all aboriginal sites or objects that may be located on the land including a detailed description of where such sites or objects have been partially or entirely impacted by the development and the level, type and effect of any such impact.

ENVIRONMENTAL CONSIDERATIONS

CLIMATE

The subject site is located within the Temperate Zone of Western Australia, with a climate characteristic of the wider Perth Metropolitan region. The mean average rainfall for the subject land is approximately 769.2 mm with the wettest months between May and August (Bureau of Meteorology, 2002). The mean number of rainfall days per year is 121.9 (Bureau of Meteorology, 2002). The mean daily maximum temperature is 22.1ºC and the mean daily minimum temperature is 13.9ºC (Bureau of Meteorology, 2002). The mean number of cloudy days per year is 117.9 and the mean number of clear days is 125.9 (Bureau of Meteorology, 2002).

Given that the subject site is located in proximity to the coast, strong sea breezes and other winds associated with the prevailing weather patterns are experienced. The prevailing winds tend to be from the north east during winter mornings and from the west during winter afternoons, while in the summer months the prevailing winds are from the east in the morning and the south west in the afternoon (Bureau of Meteorology, 2002). The dominant winds however tend to be the south west sea breezes experienced during summer afternoons.

PHYSICAL ENVIRONMENT

The site comprises peat overlying sand derived from the Tamala Limestone Formation. The physical environment has developed through a number of introduced elements such as the drain and a stockpile of sand on the southern portion of the site.

A swamp is located in the centre of the site with trees and shrubs located along Ellen Stirling Boulevard and the Cedric Street and Mitchell Freeway embankments.

Information from the Waters and Rivers Commission indicates that the highest groundwater levels are 10m AHD and fluctuate with seasonal variation.

The site contains a singificant risk of containing acid sulphate soils and therefore an Acid Sulphate Management Plan is required to be prepared and submitted to the Department of Environmental Protection for assessment prior to the development of the site.

ECOLOGY

The Outline Development Plan will not retain any vegetation within Precinct 4.

RELOCATION OF THE CEDRIC STREET WETLANDS

As part of the development of Precinct 4 of the Stirling Regional Centre the Environmental Protection Authority (EPA) requires that the Cedric Street Wetland be relocated within the site or alternatively to an area outside of the precinct. The EPA has included several conditions which will need to be met including soil investigations and the size of the wetlands.

The City of Stirling is relocating the wetland to a site in Telford Crescent which was purchased by Town Planning Scheme No. 38. The City is progressing the replacement wetlands.

Town Planning Scheme No. 38 identifies that no development shall commence until either the following has occurred or arrangements made for:

- satisfactory arrangements and environmental approvals for peat removal and development of remnant wetland areas within and outside of the precinct; and
- the replacement of the Cedric Street wetland within the Scheme area or elsewhere, should such replacement be required.

Changes to the ODP and subdivision plan as a result of discussions with the City of Stirling and the Western Australian Planning Commission makes the provision of a wetland feature difficult. As a result of the City of Stirling's decision to not progress a land swap which would have created public open space within the Precinct, the only area that could accommodate a wetland feature is the proposed public open space located in the southern portion of the precinct.

RE-ORIENTATION OF THE DRAIN

A stormwater drain runs along the eastern boundary of Precinct 4. As identified in Town Planning Scheme No 38 the drain may be required to be relocated. The Major Scheme Works map located within the Scheme states that the relocation of the southern portion of the drain (south of the underpass) will be a general cost and the relocation of the northern portion will be a government cost.

The City of Stirling has advised that the Scheme has already paid for the southern portion, however, both Main Roads and the Water Corporation have not identified any funding arrangements for the northern portion.

A drainage management plan will be prepared for Precinct 4, in accordance with the Hon Minister for Planning and Infrastructure's final approval of Amendment 2. The drainage management plan will be developed during the subdivision process.

Amendment 2 to Town Planning Scheme No.38 identifies that should Precinct 4 utilise the main drain then a contribution (50%) towards its upgrade or relocation will be required.

TRAFFIC AND TRANSPORTATION CONSIDERATIONS

REGIONAL ROAD NETWORK

The existing transport network is a major feature of the site given the important role that the surrounding transportation network plays in the regional urban framework.

The site is bound by the Mitchell Freeway to the north east, the proposed Stephenson Highway to the south east, Ellen Stirling Boulevard to the west and Cedric Street to the north. The Metropolitan Region Scheme classifies the Mitchell Freeway, Stephenson Highway and Cedric Street as Primary Regional Roads. As Primary Regional Roads these roads provide for major regional traffic movements and carry large volumes of generally fast moving traffic. Ellen Stirling Boulevard functions as a district distributor road, carrying traffic between industrial, commercial and residential areas and connecting into the Regional Road network.

The future of the Stephenson Highway is still to be determined and as such the existing road reserve is to be preserved as a part of the Outline Development Plan. A report prepared in January 2001 by the then Department for Transport concluded that the road connection between Jon Sanders Drive, Scarborough Beach Road and the Mitchell Freeway is required. To date Main Roads has not identified funding for the proposed works.

The Primary Regional Roads surrounding the site represent a substantial physical barrier for vehicle and pedestrian movements into the site and between the site and the existing Innaloo Shopping Centre. The nature of these surrounding roads as Primary Regional Roads act as a constraint on the form of development and therefore it is appropriate for a different form of land use not an extension of the existing shopping precinct.

The site has good exposure and accessibility to public transport, including the Northern Suburbs railway line that runs along the central median of the Mitchell Freeway. The Stirling Train Station is located adjacent to the subject site. The station also serves as one of the main bus service interchange points in the area.

PROPOSED ROAD NETWORK

From a local perspective, there will be two significant changes to the local road network in the short term and an additional change in the long term. The short term changes include the extension of Howe Street in a westward direction and the extension of Sarich Court from the current industrial development to the south east of the site to connect into the internal road network of the site. The long term change includes the extension of Guthrie Street. These additional connections will serve to increase the permeability and the legibility of the regional area promoting interconnectivity. It is anticipated that the through vehicular movements between the subject site and the existing industrial area will assist to increase the exposure of the industrial area and promote a transition to higher order uses.

The main vehicle access to the subject site will be from Ellen Stirling Boulevard, at two points strategically located towards the northern portion of Ellen Stirling Boulevard. These access points have been tailored to ensure that all the proposed land uses are appropriately served by sealed road access. The access points have been spaced along Ellen Stirling Boulevard to avoid conflicting movements and to provide ample opportunity to circulate between the lifestyle showroom use in the southern portion of the site and the commercial uses proposed in the northern portion of the site.

The main access to the site will be via a road which is centrally located along the Ellen Stirling Boulevard boundary. The main access will have traffic lights at the intersection. The other access points will be restricted to left in and left out traffic movements to minimise the impacts of the development on the existing traffic flows of Ellen Stirling Boulevard. There is the potential for a right hand turn from Ellen Stirling Boulevard into the northern access road when Ellen Stirling Boulevard becomes a Regional Centre road rather than a link between Scarborough Beach Road and the Mitchell Freeway. The implementation of the right hand turn will need to be further investigated in consultation with the City of Stirling.

TRAFFIC ASSESSMENT

The following is a summary of a preliminary traffic assessment of the Outline Development Plan undertaken by Uloth & Associates.

Refer to Appendix 3 for a complete copy of the preliminary Traffic Assessment.

Intersection Spacing

An important consideration in the development of the Outline Development Plan is the required intersection spacing along Ellen Stirling Boulevard to ensure safe and efficient traffic operation both for 'local' traffic accessing the site and 'through' traffic bypassing the site to reach other destinations.

It is therefore important to consider the short-term role of Ellen Stirling Boulevard as an important District Distributor road (in place of the future Stephenson Highway) as well as its long-term role as a spine road within the Regional Centre providing access to a wide range of adjacent developments.

Taking into account the various applicable standards and safety requirements, and giving due consideration for the constraints of the site and the desirability of a highly interconnected road system, the recommended intersection spacing along Ellen Stirling boulevard is as follows:

- It is recommended to provide a spacing of 150 metres between the median opening at the existing Action Mega Centre access and the proposed new road linking Ellen Stirling Boulevard with an extension of Howe Street in the Osborne Park Industrial Area.
- It is recommended to provide a spacing of 130 metres from the existing stop-line in Ellen Stirling Boulevard at the Cedric Street traffic signals to the centreline of a new northern left-in left-out access.
- It is recommended to provide a further separation of 120 metres from this left-in left-out access to the main access road serving the short-term development.
- In the long term, it is recommended to make provision for 2 additional access roads off Ellen Stirling Boulevard – permitting left turn movements only – with intersection spacings of 100 metres and 90 metres.
- Alternatively, these 2 minor access roads could be replaced by a single access road providing for all turning movements, with intersection spacings of 145 metres.

Road Layout/Road Reserve

Liveable Neighbourhoods specifies road reserve widths for 'Neighbourhood Connectors' between 17 metres and 20 metres.

However, taking into account the expected traffic flows, required pedestrian routes, and the long term city centre environment, it is recommended to adopt a minimum road reserve of 20 metres for the minor two-way streets (north of the central access from Ellen Stirling Boulevard), and a road reserve of 22 metres for the major (signalised) access road off Ellen Stirling Boulevard and the road linking to the Osborne Park Industrial Area.

Pedestrian/Cyclist Routes

In order to provide strong pedestrian links between Stirling Train Station, the Regional Centre, and the Osborne Park Industrial Area, it is recommended to provide major pedestrian links along the proposed extensions of Sarich Court, Guthrie Street and Howe Street, in the long term.

To enable direct access from the Stirling Train Station, a footbridge is proposed to be constructed from the Station to Precinct 4. To enable the bridge to land within the precinct an area has been set aside as public open space. As part of the subdivisions works, the landowner will contribute $56,000 towards the contruction of the bridge.

To complete the link along the Sarich Court Extension to Stirling Train Station, a pedestrian link is provided within the precinct immediately south of the proposed footbridge. The pedestrian link is required to be a minimum of 5 metres wide.

Plans 1 and 2 indicate the pedestrian/cyclists routes through the Precinct under both the short term and long term plans. The routes connect the train station with the Stirling Regional Centre as well as the Osborne Park Industrial area. The pedestrian/cyclists routes are along the main roads within the precinct via footpaths and cycle lanes within the road reserve.

SERVICE AND INFRASTRUCTURE CONSIDERATIONS

INTRODUCTION

As Figure 8 illustrates, gas and telecommunication services are already located on the site. Sewer, water and power are located in the Ellen Stirling Boulevard road reserve and can be linked to the site.

The following provides an indication of the likely service provisions, however, detailed investigations will need to be undertaken with each service provider.

BULK EARTHWORKS/SITE WORKS

The site contains peat soil of a thickness which varies between 0.5 metres and 3.5 metres. The peat will be required to be removed and therefore bulk earthworks will be required. A comprehensive Geotechnical Assessment and Management Plan will be undertaken as part of the subdivision process.

ROADWORKS

All roads within the development will be designed and constructed to the City of Stirling and Austroad Standards. All underground services will be accommodated within the proposed road verges. The road links between Precinct 4 and the Osborne Park Industrial area will be constructed to the Precinct 4 boundary in accordance with the Minister's approval of Amendment 2 to Town Planning Scheme No.38.

STORMWATER DRAINAGE

A drainage management plan will be prepared, in consultation with the City of Stirling, during the subdivision process.

SEWER RETICULATION

Sewer reticulation to Precinct 4 will come from a connection to the existing service along Ellen Stirling Boulevard. The internal sewer layout will be designed and constructed to the relevant Water Corporation standards. The issue of connection to sewer will be further discussed with the Water Corporation during the subdivision process.

WATER RETICULATION

Water supply to Precinct 4 will come from a connection to the existing mains along Ellen Stirling Boulevard. All internal water reticulation will be designed and constructed to the relevant Water Corporation standards.

POWER, TELECOMMUNICATION & GAS

Western Power

Underground power to the site will most likely come from the services which are located along Ellen Stirling Boulevard. It does not appear that any existing infrastructure will need to be removed as part of this development, however, further discussion will be conducted with Western Power during subdivision.

Street Lighting

Street lighting will be installed in accordance with the City of Stirling standards. It is recognised that street lighting is an important component of this precinct as it will provide a level of security to pedestrians from the Stirling Railway Station.

Telecommunications

Telstra has optic fibre cables within the area and more specifically along Ellen Stirling Boulevard.

Gas Supply

Alinta Gas has advised that supply to the site will come from the existing infrastructure in the area. It is noted that part of the Alinta Gas infrastructure runs through the site and further discussions will be required regarding its relocation or removal.

Figure 8 - Services Plan



References: Water Corporation Digital Data (2002)
Testra: Dial Before you Dig Service (20

OUTLINE DEVELOPMENT PLAN - DESIGN PHILOSOPHY

The philosophy behind the Outline Development Plan is based on several broad design principles, as outlined below.

ROBUST DESIGN

The design of the Precinct has been formulated to provide a robust design which will achieve the short term objectives of the City of Stirling, by establishing the precinct and providing uses which will act as a catalyst to attract other mixed use developments, and the long term objectives as a mixed use commercial precinct which includes flexibility in road design.

ACCESSIBILITY

The development area will feature an efficient movement network of vehicles and pedestrians. The plan will provide links with the Osborne Park Industrial area, the Stephenson Highway (Mitchell Freeway) and the Regional Centre. Pedestrian links will be provided between the Stirling Railway station and the other precincts within the Regional Centre. The movement system is based on the existing road network and introduces the legibility of the grid pattern system.

Access to the site has been carefully considered given the status of Ellen Stirling Boulevard and the Stephenson Highway. The development of the road pattern will create interesting streetscapes in line with the high quality building development.

SURROUNDING CONTEXT

The development is required to have strong relationships with its surrounding context. The Outline Development Plan shows the relevance of linkages and the interface with surrounding areas and uses, including:

- Road and pedestrian links;
- Links with the Osborne Park Industrial Area;
- Links with the existing Precincts of the Regional Centre; and
- Links with the Stirling Railway Station.

SUSTAINABILITY

The Precinct will be developed featuring elements of energy-efficient design principles and water efficient design. Design Guidelines have been developed to identify building design and development standards that will ensure the area's sustainability.

LAND USE

The Outline Development Plan encourages high intensity land uses such a high density residential development at a density of R80/100 and office uses. The development of Precinct 4 and the connections to the Osborne Park Industrial area will assist in encouraging the development of high intensity uses in the Osborne Park Industrial area.

OUTLINE DEVELOPMENT PLAN – KEY DESIGN ELEMENTS

ROAD LAYOUT

The road layout is a key consideration in the development of the Outline Development Plan for Precinct 4 of the Stirling Regional Centre. The road layout has been designed as:

- a street network which is safe with direct routes to key destinations that are lined with active uses;
- a network of smaller streets to provide for a more even distribution of traffic with slower traffic speeds which enables easier pedestrian crossing and multiple means of access and egress.

The layout is constrained by several factors including the location and orientation of Ellen Stirling Boulevard and the proposed extension of the Stephenson Freeway.

The proposed layout seeks to create a grid type road design to link the Osborne Park Industrial Area with the Regional Centre while being careful not to create traffic conflict with the existing land uses on the western side of Ellen Stirling Boulevard.

The roads have been designed in accordance with Liveable Neighbourhoods with the main two way streets having a road reserve of 22 metres with on street parking on both sides and the secondary two way streets having a road reserve of 20 metres.

The road layout has been designed to link the Osborne Park Industrial Area with the Stirling Regional Centre to promote permeability. In the short term, link roads will be created by the extension of Sarich Court on the northern side of the site. The extension of Sarich Court will link with the main east-west access into the site. In the southern portion of the site, Howe Street will link the industrial area directly with Ellen Stirling Boulevard. The northern access point provides for left in and left out access from Ellen Stirling Boulevard.

In the long term, once IKEA has relocated out of the regional centre (approximately 20-50 years), there is the opportunity to extend Guthrie Street to the main east-west access road or alternatively provide an additional access from Ellen Stirling Boulevard.

An easement and associated legal agreements relating to the timing, access and road reserve construction in favour of the City of Stirling and the Western Australian Planning Commission is to be located on the main connections within Precinct 4 so that when the redevelopment and or subdivision of the IKEA site is undertaken the easements will be dedicated and constructed as public roads.

The main east-west access into the site will be provided with a traffic light intersection with Ellen Stirling Boulevard with the remaining accesses being restricted to left in and left out.

PEDESTRIAN ACCESS AND PERMEABILITY

The subject site is located in a key area of the regional centre as it is between the Stirling Railway Station and the shopping and entertainment areas of the Stirling Regional Centre. The proposed design needs to ensure that pedestrian access and permeability is created in order to truly create an integrated regional centre.

In response to the pedestrian access requirements an overpass is to be constructed which will link the Stirling Railway Station with Precinct 4. The pedestrians, from the overpass, will be deposited within the landscaped open space areas of the precinct. From the overpass pedestrians will have the option to walk directly to Ellen Stirling Boulevard along the street or alternatively traverse south along the road network. Pedestrians will also have the ability to access the Osborne Park Industrial Area by the extension of Sarich Court via a 5 metre wide pedestrian access.

It is proposed that the landowners will contribute $56,000 to the construction of the footbridge. The amount has been determined based on advice from the WAPC of other examples of pedestrian bridge construction where costs were funded through a contribution of one third of the total cost by state government, local government and landowners.

Precinct 4 represents 22.42% of the total regional centre (as identified in the Scheme costs within Town Planning Scheme No. 38).

The total cost of the bridge is likely to be $750,000 and therefore the Stirling Regional Centre landowners would be required to contribute $250,000. Precinct 4 represents 22.42% of the Stirling Regional Centre and therefore the contribution would be $56,000.

Pedestrian safety and security is a key consideration with respect to the design of the development. Safety and security will be ensured through appropriate lighting and building design. The design guidelines will promote well lit building facades with active frontages which will provide passive security for pedestrians.

PROPOSED LAND USES

The land uses applicable to the site are controlled through Town Planning Scheme No. 38 and includes the following preferred and contemplated uses. The Outline Development Plan encourages the development of higher intensity uses such as high density residential development at a density of R80/100 and office uses.

Preferred uses

Shop
Office
Office professional
Cinema/Theatre
Betting agency
Service Station
Car park
Hotel
Restaurant
Market
Motel
Research and development
Recreation facilities
Consulting room
Multiple dwelling
Grouped dwellings
Amusement area
Serviced apartments
Boarding House
Tavern
Fast food outlet
Public amusement
Entertainment Venue

Contemplated uses

Educational establishment
Community Activities
Public open space
Club premises
Day care centre
Hostel
Public utility
Retirement village
Advertisement
Civic Use
Hall
Public Worship – place of
Garden centre

Precinct 4 will provide for a mixture of land uses that are generally defined under Town Planning Scheme No. 38 as either preferred or contemplated uses. The key development which will provide the catalyst for development include a showroom which is a use not listed.

Under Clause 5.4.5 the Council can consider approval of the showroom subject to:

- advertising the application in accordance with clause 2.7;
- due consideration being given to the matters set out in Clause 2.8.

As previously discussed the proposed IKEA showroom is seen as a short term catalyst for development. The store will have a limited life of approximately 30 years and will attract other mixed use developments to the area, based on its size and consumer attraction.

Under the provisions of Town Planning Scheme No. 38 residential development is to be an integral component of all development proposals within the Precinct unless otherwise agreed and approved by the Council.

It is currently not intended that a decked public parking station be developed within the Precinct and therefore all development will be required to provide on-site parking in accordance with the requirements of the Scheme or as otherwise approved by the Council. This, however, does not limit the ability to provide a decked public parking station within the Precinct in the future.

LOTS/SUBDIVISION

The existing landholdings within Precinct 4 of the Stirling Regional Centre currently have an unusual configuration which would make development of the precinct difficult if not impossible. Amendment No 2 to Town Planning Scheme No. 38 has amended the Scheme by removing the plan in Schedule 7 and replacing the plan with a Scheme text clause which will provide for flexibility in subdivision design. The amendment has been approved by the Hon Minister for Planning and Infrastructure.

PUBLIC OPEN SPACE

The design of the Outline Development Plan includes the provision of public open space in the north-eastern portion of the site to enable the construction of the pedestrian overpass from the Stirling Train Station to Precinct 4. Additionally, an area south of the Howe Street extension has been identified as public open space. The land set aside for public open space will be provided by the landowners on a pro-rata basis.

In addition to the formal public open space, the development has been designed with generous pedestrian pathways creating a comfortable safe pedestrian environment. Appropriate landscaping which includes street trees, street furniture, public art and decorative paving, will also assist in creating a vibrant public realm.

BUILT FORM

The Outline Development Plan identifies two types of street frontage: active street frontages and facades of interest.

'Active Street Frontages' are defined as buildings located along the street reserve boundary (nil setback) that provide pedestrian interest and interaction and are to incorporate building entrances and active uses (such as shops, cafes or restaurants). The building facade and footpath should also include pedestrian shelter (awnings), street furniture and street trees. Blank facades at pedestrian level should be avoided.

'Facades of Interest' are defined as building elevations along streets frontages which provide interest to pedestrians at street level and from afar and should incorporate pedestrian shelter, signage, changes to colour, material and finishes, opportunities to provide passive surveillance and interesting architecture features.

'Facades of Interest' should provide for ultimate conversion to 'Active Street Frontages' either through design capable of conversion or being setback to allow active uses to 'sleeve' in at a future date.

All development adjacent to the public open space is required to enable a high level of passive surveillance and high intensity uses are encouraged.

Active Street Frontages and Facades of Interest are to be provided in accordance with the Outline Development Plan.

INDICATIVE DEVELOPMENT

Appendices 1 and 2 provide an indication of the possible development of Precinct 4. Appendix 1 provides the short term scenario which includes office/commercial developments and the IKEA showroom. Appendix 2 indicates the long term scenario whereby the IKEA showroom has been relocated and the opportunity exists for further mixed use development to locate within the precinct.

It is important to note that the development plans are only indicative of what could eventuate on site under both the short term and long term options.

DESIGN GUIDELINES

Design Guidelines have been developed to assist in achieving the intent of the precinct. The guidelines incorporate Town Planning No 38 provisions, relevant policies such as the Landscape Guidelines and site specific guidelines for buildings such as the IKEA store.

PERFORMANCE OF THE OUTLINE DEVELOPMENT PLAN

The Outline Development Plan incorporates the latest policy directions from the City of Stirling and the Department for Planning and Infrastructure and in doing so provides a land product that will compliment the existing Regional Centre by achieving the short term and long term aims of the City of Stirling. The Outline Development Plan provides the flexibility to enable the Precinct to grow to meet the changing nature of the Stirling Regional Centre.

STAGING AND IMPLEMENTATION

STAGING

It is proposed that the development of Precinct 4 will be undertaken as one stage in terms of road construction, the provision of public open space and the provision of lots for development. The Precinct, however, may be developed in two stages being the land on which the IKEA store is to be located including the main internal road, with the second stage being all that land to the north.

The occupation of the precinct will generally be determined based on market forces, however, the construction of the IKEA store will be the first stage of development. The first stage is seen as the catalyst to the development of the Precinct.

The further stages will depend on which uses are attracted to the Precinct.

IMPLEMENTATION

To enable the development of Precinct 4, various planning and environmental approvals will be required. Listed below are the required approvals:

- Endorse Outline Development Plan;
- Subdivision Approval;
- Preparation of Acid Sulphate Management Plan;
- Preparation of Drainage Management Plan;
- Clearances of conditions;
- Development Approval;
- Building License Issued;
- Commence Construction.

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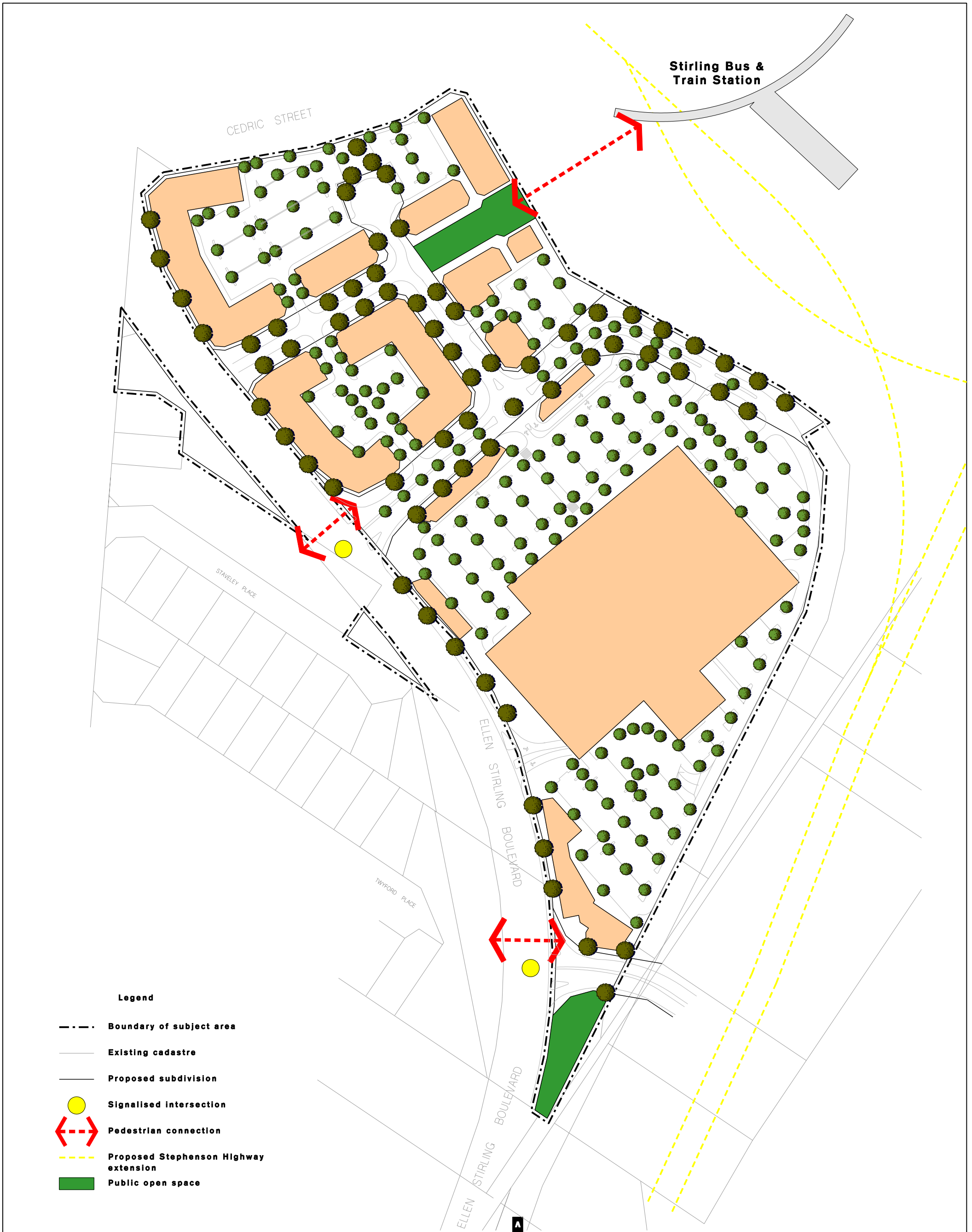
APPENDIX 1

INDICATIVE DEVELOPMENT (SHORT TERM)



Legend

- Boundary of subject area
- Existing cadastre
- Proposed subdivision
- Signalised intersection
- Pedestrian connection
- Proposed Stephenson Highway extension
- Public open space

AN ©

Plan: 1

Title: Indicative Development Plan - Short Term
Ellen Stirling Boulevard, Innaloo

Date: 27 July 2005 **Revision No:** B

Scale: 1:2000 @ A3 **Job No:** 703.093

Designer: P.S. **Drawn:** L.C.

E Reference: 703.093.IDP-ST.1B.dgn

THE PLANNING GROUP

Perth
Level 7
182 St Georges Terrace
Perth Western Australia 6000
Telephone +61 08 9289 8300
Facsimile +61 08 9321 4786
perth@tpgwa.com.au
www.planninggroup.com.au

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APPENDIX 2

INDICATIVE DEVELOPMENT (LONG TERM)



Legend

- Boundary of subject area
- Existing cadastre
- Proposed subdivision
- Signalised intersection
- Pedestrian connection
- Proposed Stephenson Highway extension
- Public open space

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Plan: 2

Title: Indicative Development Plan - Long Term
Ellen Stirling Boulevard, Innaloo

Date:	27 July 2005	**Revision No:**	B
Scale:	1:2000 @ A3	**Job No:**	703.093
Designer:	P.S.	**Drawn:**	L.C.
E Reference:	703.093.IDP-LT.1B.dgn		

THE PLANNING GROUP

Perth
Level 7
182 St Georges Terrace
Perth Western Australia 6000
Telephone +61 08 9289 8300
Facsimile +61 08 9321 4786
perth@tpgwa.com.au
www.planninggroup.com.au

APPENDIX 3

TRAFFIC ASSESSMENT REPORT

ULOTH & ASSOCIATES
CONSULTANTS IN TRAFFIC ENGINEERING AND TRANSPORT PLANNING
D.J. LEVEY & ASSOCIATES PTY LTD ABN 85 543 395 278
Managing Director: Darren Levey
Email: uloth@bigpond.net.au
Level 15, 207 Murray Street, Perth WA 6000
PO Box 7258 Cloisters Square WA 6850
Ph: (08) 9321 4841 Fax: (08) 9481 7202

3 February 2005

Mr Peter Simpson,
The Planning Group,
PO Box 7375,
CLOISTERS SQUARE WA 6850

Dear Peter,

RE: INNALOO OUTLINE DEVELOPMENT PLAN – TRAFFIC ASSESSMENT

As requested, we have updated our previous review of the proposed Outline Development Plan for Precinct 4 of the Stirling Regional Centre, in order to confirm the appropriateness of the proposed road layout.

The review includes an assessment of intersection spacing along Ellen Stirling Boulevard, together with recommendations for the major pedestrian/cyclist network, likely traffic volumes, and the resulting required road reserves.

1. PROPOSED DEVELOPMENT

The proposed Outline Development Plan shows a grid system of roads accessed off Ellen Stirling Boulevard, with 3 long-term road connections across the future Stephenson Highway road reserve, linking to the existing Osborne Park Industrial Area.

In the short term, it is proposed to construct a large IKEA store within the southern part of the site, together with office and other commercial development in the northern part of the site.

As part of this short-term development, it is planned to construct all of the roads in the northern part of the precinct, together with 2 of the 3 roads that will ultimately link to the Industrial Area.

The remainder of the road network can be constructed in the long term, when the IKEA store is relocated.

2. OVERALL ROAD NETWORK

The attached Figure 1 shows the overall road network in the vicinity of the Stirling Regional Centre, incorporating the proposed Outline Development Plan.

It can be seen that the 3 proposed road connections across the Stephenson's Highway road reserve will create a well-interconnected street system with good permeability and accessibility across the future Highway.

Traffic signals are anticipated at 2 locations along Ellen Stirling Boulevard, as shown in Figure 1, while other connections to this important Regional Centre road will provide for left turn movements only in the long term.

3. INTERSECTION SPACING ALONG ELLEN STIRLING BOULEVARD

Acceptable intersection spacing is dependent upon travel speeds, traffic volumes, road environment, and required sight distances.

In order to assess these criteria along Ellen Stirling Boulevard, it is important to consider both the short term and long term roles that this important road will fulfil.

Ellen Stirling Boulevard is currently classified as District Distributor (A), and it is expected that it will continue to operate as such for many years to come – until Stephenson Highway is constructed between Mitchell Freeway and Scarborough Beach Road. It is a 4 lane divided road, with a speed limit of 60 kilometres per hour, carrying an estimated 20,000 to 25,000 vehicles per day.

As part of the development of the Stirling Regional Centre Structure Plan, it was estimated that Ellen Stirling Boulevard will carry approximately 20,000 vehicles per average weekday in the long term. However, prior to the construction of Stephenson Highway, traffic flows on Ellen Stirling Boulevard can be expected to rise considerably higher.

Intersection spacing for the short-term plan should therefore be based on a high standard District Distributor road, with a design speed of 60 to 70 kilometres per hour.

In the long term, when Stephenson Highway has been constructed, it may be possible to incorporate slightly reduced intersection spacing based on a Regional Centre street environment, consistent with the District Distributor Integrators presented in the Western Australian Planning Commission's *Liveable Neighbourhoods* document.

In *Guide to Traffic Engineering Practice - Part 5: Intersections At Grade*, Austroads specifies Safe Intersection Sight Distance (SISD) as the minimum standard that should be provided on a major road at any intersection, in order to provide sufficient distance for the driver of a vehicle on the major road to observe a vehicle from the minor road moving into a collision situation, and to stop before reaching the collision point.

On the basis of this definition, it is recommended that the SISD is a suitable measure to adopt for the minimum acceptable separation between intersections.

The SISD for a speed of 70 kilometres per hour is 130 metres, while the SISD for a speed of 60 kilometres per hour is 105 metres.

Liveable Neighbourhoods, on the other hand, recommends a minimum spacing of staggered junctions along a 'District Distributor Integrator A' as 150 metres, while the typical average junction spacing for a 'District Distributor Integrator B' is specified as 100 metres, with a minimum spacing of 60 metres for left/right staggered junctions.

Taking into account the above information, and giving due consideration for the constraints of the site and the desirability of a highly interconnected road system, the recommended intersection spacing along Ellen Stirling Boulevard is shown in the attached Figure 2, as follows:

- It is recommended to provide a spacing of 150 metres between the median opening at the existing Action Mega Centre access and the proposed new road linking Ellen Stirling Boulevard with an extension of Howe Street in the Osborne Park Industrial Area.

- It is recommended to provide a spacing of 130 metres from the existing stop-line in Ellen Stirling Boulevard at the Cedric Street traffic signals to the centreline of a new left-in left-out access to the northern part of Precinct 4, as shown in Figure 2.

- It is recommended to provide a further separation of 120 metres from this left-in left-out access to the main access road serving the short-term development, as shown in Figure 2, resulting in a spacing of 250 metres between signalised intersections.

- In the long term, it is recommended to make provision for 2 additional access roads off Ellen Stirling Boulevard – permitting left turn movements only – with intersection spacings of 100 metres and 90 metres, as indicated in Figure 2.

- Alternatively, these 2 minor access roads could be replaced by a single access road providing for all turning movements in the long term, with intersection spacings of 145 metres, as also indicated in Figure 2.

- The resulting recommended road network for the Outline Development Plan is shown in Figure 3. The possible alternative long-term road connection to Ellen Stirling Boulevard (which could provide for all turning movements) is also indicated.

4. PEDESTRIAN/CYCLIST ROUTES

- Figure 4 shows the recommended major pedestrian/cyclist routes within the Outline Development Plan area. Only the major routes are shown. However, all roads within the regional centre should have footpaths on both sides, and hence will also form an important part of the overall pedestrian network.

The proposed footbridge to and from Stirling Train Station is endorsed, together with a direct link from the footbridge to Ellen Stirling Boulevard along the northern access road. However, an alternate route should also be provided via the other Stage 1 roads, linking to the future traffic signals, as shown in Figure 4.

In order to provide strong pedestrian links between Stirling Train Station, the Regional Centre, and the Osborne Park Industrial Area, it is also recommended to provide major pedestrian links along the proposed extensions of Sarich Court, Guthrie Street and Howe Street, as shown in Figure 4.

However, to complete the link along Sarich Court Extension to Stirling Train Station, a pedestrian link should also be provided within the Freeway reserve immediately south of the footbridge, as also indicated in Figure 4. This pedestrian link from the Industrial Area to Stirling Train Station along Sarich Court Extension should be provided in Stage 1, if possible.

5. RECOMMENDED ROAD RESERVES

The recommended road reserves must take into account the likely future traffic flows, the need for on street parking, and the provision of major pedestrian/cyclist facilities.

Liveable Neighbourhoods suggests that a two lane Neighbourhood Connector should be within a 20 metre road reserve – allowing for a 5.8 metre carriageway, 3.8 metre shared parking/bike lanes, and 3.3 metres of footpath/verge.

Liveable Neighbourhoods also notes that if traffic flows are expected to the below 3,000 vehicles per day, then a road reserve of 17 metres may be acceptable, with the shared parking/bike lanes reduced to 2.3 metres. However, because of the City Centre nature of the proposed development, it is recommended that roads with less than 3,000 vehicles per day should provide a standard road reserve of 18 metres, allowing for a 6.0 metre carriageway, 2.5 metre parking lanes and 3.5 metres of footpath/verge.

On the basis of previous traffic forecasts for the Stirling Regional Centre, it is expected that any one of the proposed road links to the Industrial Area could carry in excess of 3,000 vehicles per day. It is therefore recommended that each of these 3 road links should provide for a 20 metre road reserve, together with the proposed major connection to Ellen Stirling Boulevard at the northern end.

However, additional approach lanes to the proposed signalised intersections at the main access roads off Ellen Stirling Boulevard will require a slightly wider road reserve of 22 metres.

- The recommended road reserves are shown in the attached Figure 5.

6. OTHER CONSIDERATIONS

It is important to note that in the short term, the simplest connection to achieve to/from the Osborne Park Industrial Area is the one via an extension of Sarich Court.

However, if only a single link road is constructed in the initial stage, then traffic flows on Sarich Court could increase to levels that require the implementation of various traffic management measures in order to maintain an acceptable level of safety.

The extent of works required will depend upon the level of traffic flows expected, which can only be determined through a more detailed traffic impact assessment.

Yours sincerely,

Darren Levey

SOURCE: VARIOUS SOURCES

0 150 300
METRES
SCALE 1 : 10,000

N

Currently Proposed Overall Road Network

IN THE VICINITY OF STIRLING REGIONAL CENTRE

FIG. 1

SCALE 1 : 2,000

Possible alternative long term access.

Signalised Main Access Road to Precinct 4.

Proposed Connection to Howe Street extension.

Left-in Left-out Only.

145m

90m

145m

100m

120m

100m

130m

150m

250m between Traffic Signals

Additional Left-in Left-out access road, in long term.

PERTHSHIRE AVE

STIRLING

ELLEN

CEDRIC

OSWALD

STAVELEY

TWYFORD

LANCASHAWFORD

Existing Access to Action MegaCentre

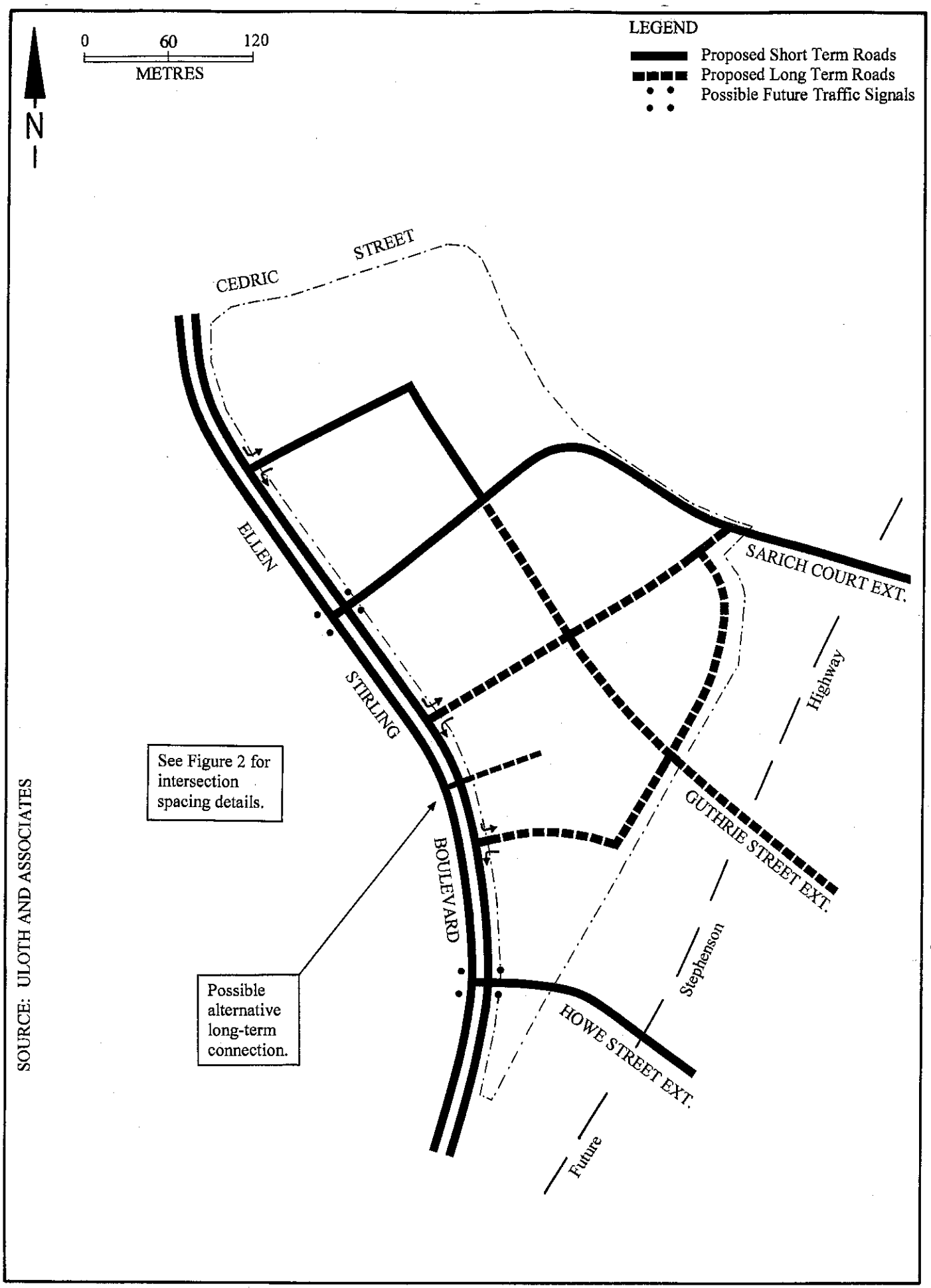
BLVD

Recommended Intersection Spacing

ELLEN STIRLING BOULEVARD

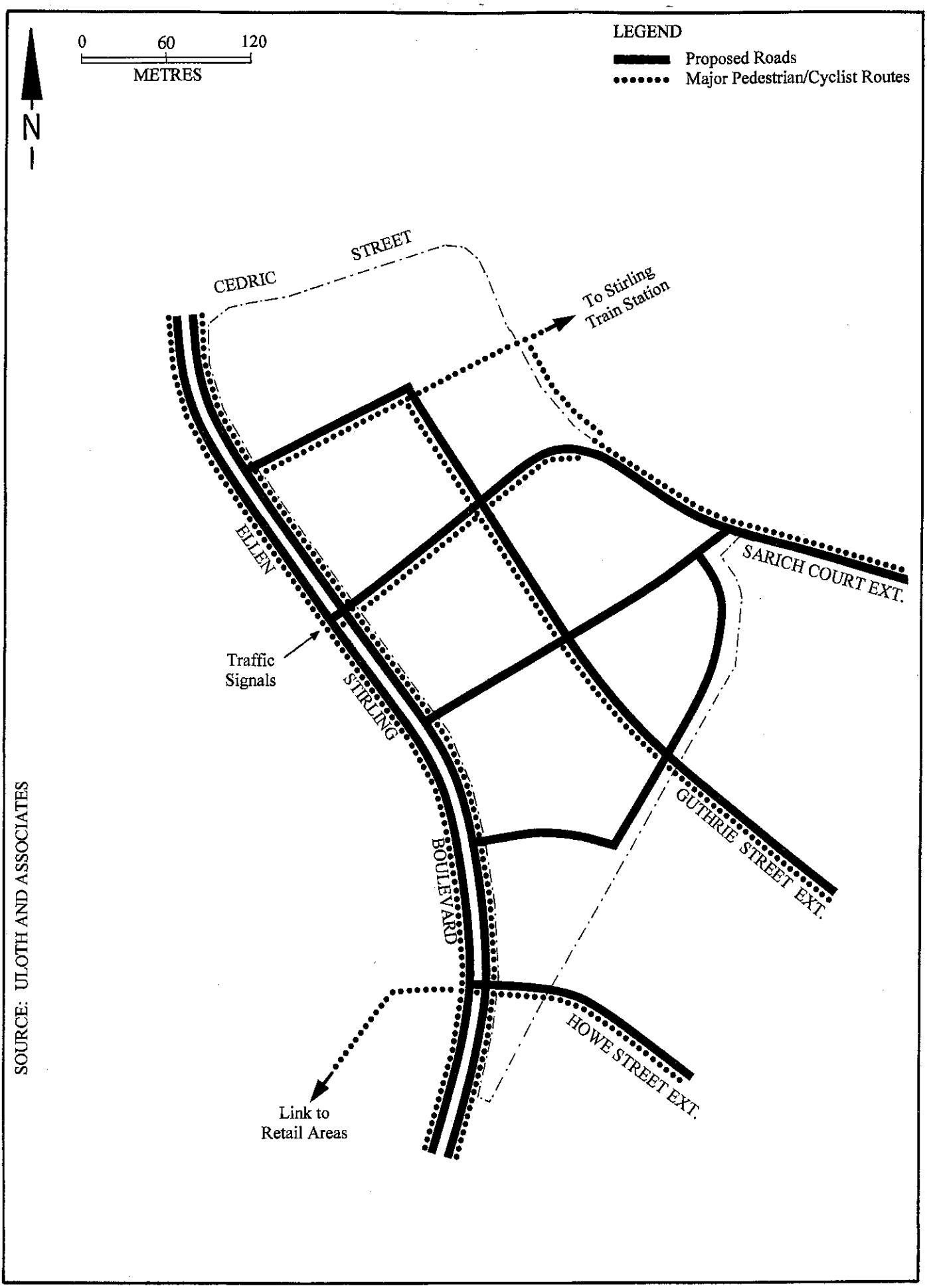
FIG. 2

SOURCE: ULOTH AND ASSOCIATES



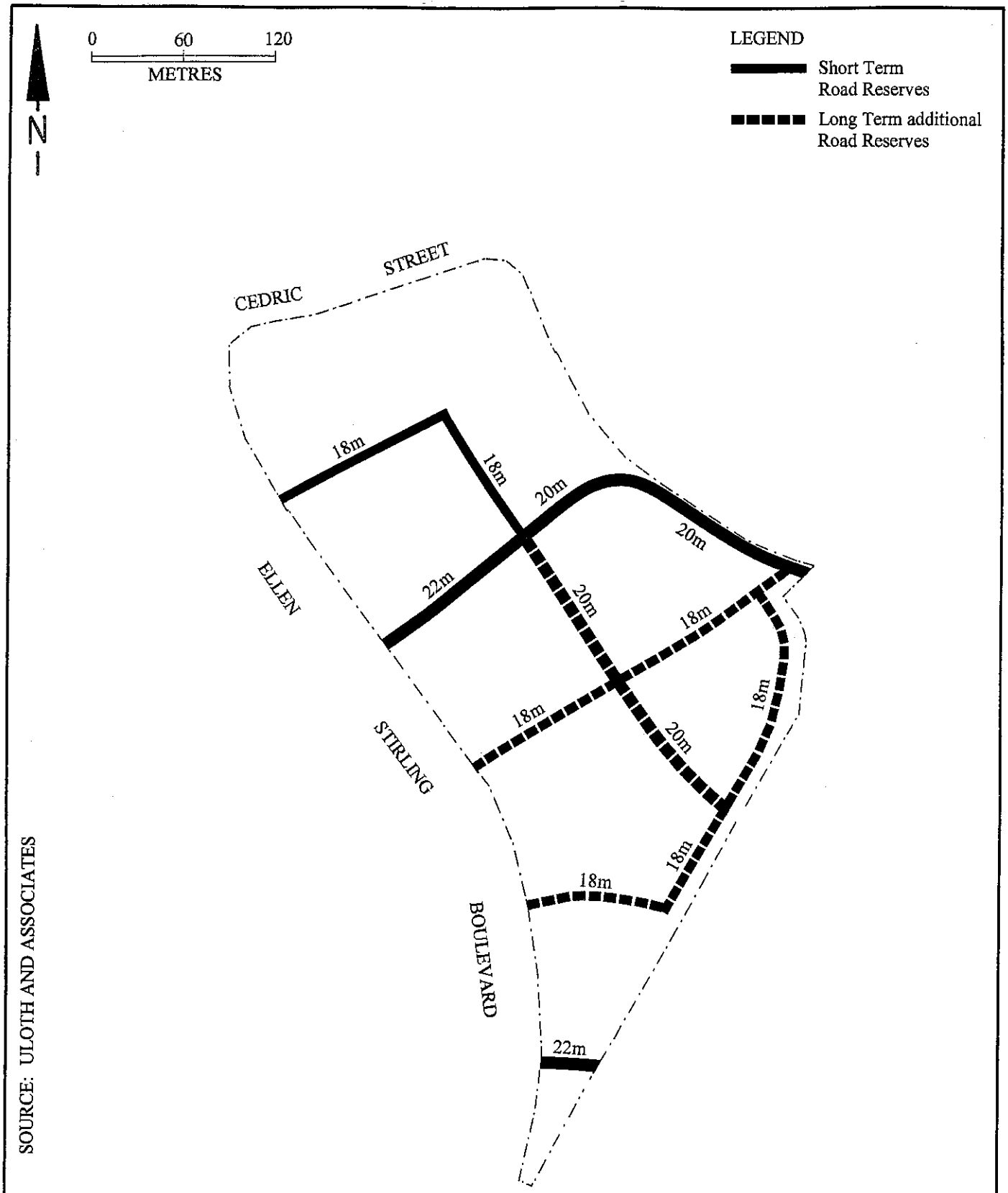
Recommended Road Network

FIG. 3



Recommended Pedestrian/Cyclist Routes

FIG. 4



SOURCE: ULOTH AND ASSOCIATES

Recommended Road Reserves

FIG. 5

City of Stirling

STIRLING CITY CENTRE ACCESS AND PARKING STRATEGY

- PB50196
- 13 August 2010

STIRLING CITY CENTRE ACCESS AND PARKING STRATEGY

- PB50196
- 13 August 2010

Sinclair Knight Merz
ABN 37 001 024 095
11th Floor, Durack Centre
263 Adelaide Terrace
PO Box H615
Perth WA 6001 Australia
Tel: +61 8 9469 4400
Fax: +61 8 9469 4488
Web: www.skmconsulting.com

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SINCLAIR KNIGHT MERZ

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Executive Summary

The Stirling City Centre Alliance is planning the development of a City Centre in the area around the Stirling Train Station. The Alliance's vision is **"A sustainable 21st century city – a place for everyone".**

The Stirling City Centre Alliance has requested Sinclair Knight Merz (SKM), in association with Luxmoore Parking Consulting a division of ARRB Group Ltd (ARRB), to develop an access and parking strategy for the City Centre. A key objective is to limit the amount of traffic accessing the City Centre (whilst achieving the desired resident and worker population) to a level that can be accommodated on the proposed street network without unacceptable levels of congestion.

High Level Access Principles

The health and vibrancy of the Stirling City Centre will be dependent on good accessibility by walking, cycling, public transport and car. It will also be dependent on providing high amenity, particularly for those people walking around or participating in outdoor activity at street level. Amenity will be enhanced by a safe, convenient walking environment with low levels of congestion, noise and pollution, and few barriers to movement.

Accessibility to the centre must be underpinned by high frequency, high quality public transport and a network of safe, convenient and comfortable routes for walking and cycling. There will also be a need for car parking to supplement access by these other modes for people who, for whatever reason, find walking, cycling or public transport inappropriate or inconvenient for some trips.

The following high level principles have been developed to support the Stirling City Centre Access and Parking Strategy:

- High proportion of access to city centre by public transport, walking and cycling;
- Convenient safe cycle parking throughout the city centre;
- Convenient safe, secure cycling, pedestrian and access routes to the city centre;
- Fine-grained street network for access by walking, cycling and cars;
- Direct and legible walking routes to Stirling train station;
- Multiple access options for motorists to car parking;
- Good pedestrian, cycling and vehicle wayfinding signage system
- A legible, easy to comprehend system of public transport routes to, from and between the Stirling and Glendalough train stations and the city centre.

City Centre Road Network Capacity

The strategic road network within the City Centre and the access to/ from the Freeway has been planned and agreed by the Stirling City Centre Alliance (Refer **Figure 2.2**). This road network has a finite capacity that has been estimated to be about 12,000 vehicle movements per hour within the City Centre. This translates to up to 140,000 vehicle movements per day, including about 30,000 to 35,000 through vehicle movements and 105,000 to 110,000 vehicles accessing the City Centre each day.

Maximum Levels of Parking

A key finding of the study is that it will be necessary to limit parking supply for office, retail and residential uses as outlined in the following table:

- **Range of Parking and Estimated Daily Traffic**

Land Use	Range of Parking	Estimated Daily Traffic Trips
Office	3800-5600	28,000
Retail	5000-7000	48,000
Sub-Total Non-Residential	8800-12,600	76,000
Residential	12,500-17,000	37,000
Other (including residential visitors)	700-1,400	5,000
Total	**22,000-31,000**	**118,000**

If this restraint on parking is not applied it will be necessary to significantly limit the floor space and dwelling units within the City Centre to below that currently envisaged by the City of Stirling and the Stirling City Centre Alliance.

The strategy contains the following recommendation on the maximum permitted level of parking:

- Residential-1.0 bays per unit on average for each dwelling.
- Office-1.0 bays/100 m^2 GFA
- Supermarket and Large Retail-4.0 bays/100 m^2 GFA
- Small Main Street Retail-2.0 bays/100 m^2 GFA

The strategy also recommends that the sale, lease or rental of parking bays should be unbundled from the sale or rental of residential properties.

The strategy notes that a further level of regulation is required to ensure the total level of parking on an area of developable land does not exceed a threshold level. This is required to ensure very high density office or retail development does not result in excessive levels of parking and traffic, even though parking ratios meet the criteria specified above.

It is proposed that the maximum amount of parking on all land within the city centre be regulated on a hectare of land basis, in a similar manner to the Perth Parking Policy regulations. The strategy recommends a maximum of 250 bays/Ha for all land within the City Centre, except within the proposed high density precinct around the Stirling Train Station where a lower level of 200 bays/Ha is recommended (Refer **Figure 5.1**).

Parking Fees and Charges

Pay Parking is one of the most effective ways to ration parking and constrain travel demand. It can influence parking location, destination, mode, travel time and, in particular, parking duration. This strategy recommends that pay parking be introduced within the City Centre (both on-street and off-street) as soon as possible and that the fees set be high enough to some car drivers to switch to public transport or non-motorised travel at a different less busy time of the day. This will assist in ensuring there is a reasonable level of parking availability at convenient locations as most times.

Cash-in-Lieu and Parking Levy

A Cash-in-Lieu and a parking levy are proposed with a primary purpose to support a demand management framework that reinforces regulations designed to limit supply. A secondary, but nonetheless important purpose, is to provide a source of funds for alternative transport infrastructure and services that will assist in reducing the level of car travel to, from and within the centre to sustainable levels. It is important that the purpose as a funding source is explicitly recognised and that the revenue obtained is hypothecated to specific measures that improve access to and within the City Centre, including by public transport, walking or cycling or in some instances for provision of public parking.

It is clear that the cost for provision of the quality public transport system that will be needed to meet the access needs of business, residents and visitors to the City Centre will be large. It is also apparent that funding of this public transport infrastructure (and meeting a portion of operating costs) is unlikely to be met solely through State Government budget processes within a timeframe likely to influence the scale and form of development at Stirling.

The cash-in-lieu proposal recommended in this report will significantly reduce the overall cost to development, whilst at the same time providing funds for alternative transport including public transport.

Management of Parking

In an environment where the role of parking is to limit the demand for travel and to encourage the use of public transport, walking and cycling, it can be expected that the demand for parking will on occasion be close to the amount of parking provided. Under these circumstances the management of parking assumes a higher level of importance than when there is a plentiful supply of parking at most times of the day.

In addition to pricing and supply issues the following parking management strategies have been proposed:

- Ensure that the majority of the parking provided in the city centre is public parking available for a mix of users. Mandate shared parking as part of the development approval process:
- Ensure that the supply of City Centre parking meets the needs of short term business and shopping visitors by provision of a mixture of 1, 2 and 4 hour parking;
- Locate long stay parking on the periphery of the City Centre.
- Distribute car parks around the City Centre so as not to create points of congestion.
- Maximise the availability of on-street parking in the City Centre and use pay parking to ensure it is used efficiently by short term visitors to the centre.
- Provide a level of priority for residents in precincts surrounding the City Centre but not for on-street parking in the business core of the centre.
- Develop a wayfinding and guidance system to improve visitors access experience and provide more efficient utilisation of resources.
- Ensure there is a generous supply of parking for cyclists and motorcyclists;
- Ensure there is a high level of compliance with agreed policies and regulations.

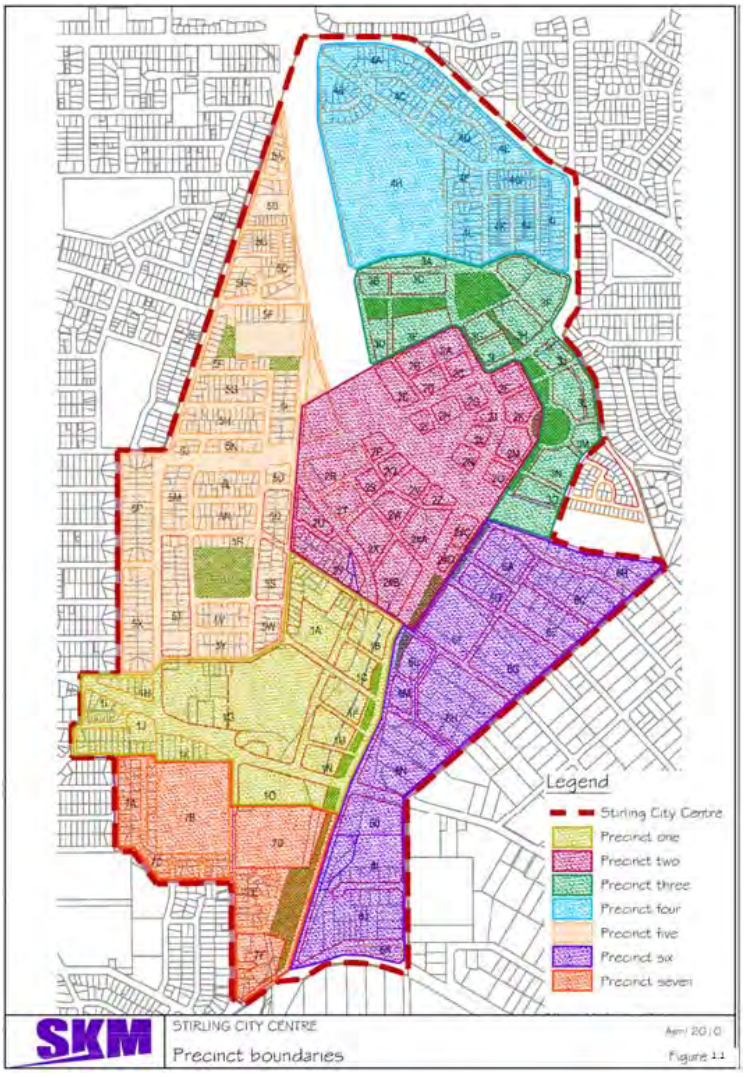
1. Introduction

The Stirling City Centre Alliance is planning the development of a City Centre in the area around the Stirling Train Station. The Alliance's vision is **"A sustainable 21st century city – a place for everyone".**

Because of its location close to the Perth CBD and iconic world class beaches, the Alliance considers Stirling City Centre "*will be a hub for a diverse and prosperous community, offering wellbeing for all*".

The Stirling City Centre area is shown in **Figure 1.1**. Seven different precincts have been established within the City Centre for planning purposes and these are also shown in **Figure 1.1**.

- **Figure 1.1– Stirling City Centre Precinct Boundaries**



The Stirling City Centre Alliance has requested Sinclair Knight Merz (SKM), in association with Luxmoore Parking Consulting a division of ARRB Group Ltd (ARRB), to develop an access and parking strategy for the City Centre.SKM acknowledges the contribution made by ARRB in the development of this access and parking strategy for the Stirling City Centre.

A key objective is to limit the amount of traffic accessing the City Centre to a level that can be accommodated on the proposed street network without unacceptable levels of congestion.

1.1. Consultation with Key Stakeholders

Planning for the Stirling City Centre is the responsibility of the Stirling City Centre Alliance. The alliance approach is to ensure a wide range of stakeholders are involved in planning the city centre by giving them opportunities to participate in those aspects of city development that are of interest and concern to them. Stakeholders are encouraged to put forward plans and ideas that best accommodate their needs and these are assessed in a transparent and collegiate way by the Alliance in consultation with business and community representatives.

Two workshops were held (in early 2010) at an early stage of development of the planning and access strategy for the Stirling City Centre. The following groups and agencies participated in the workshops that were facilitated by SKM and ARRB:

- City of Stirling
- Department of Planning
- Department of Transport
- Public Transport Authority
- Stirling City Centre Alliance
- Community Representatives
- Business representatives

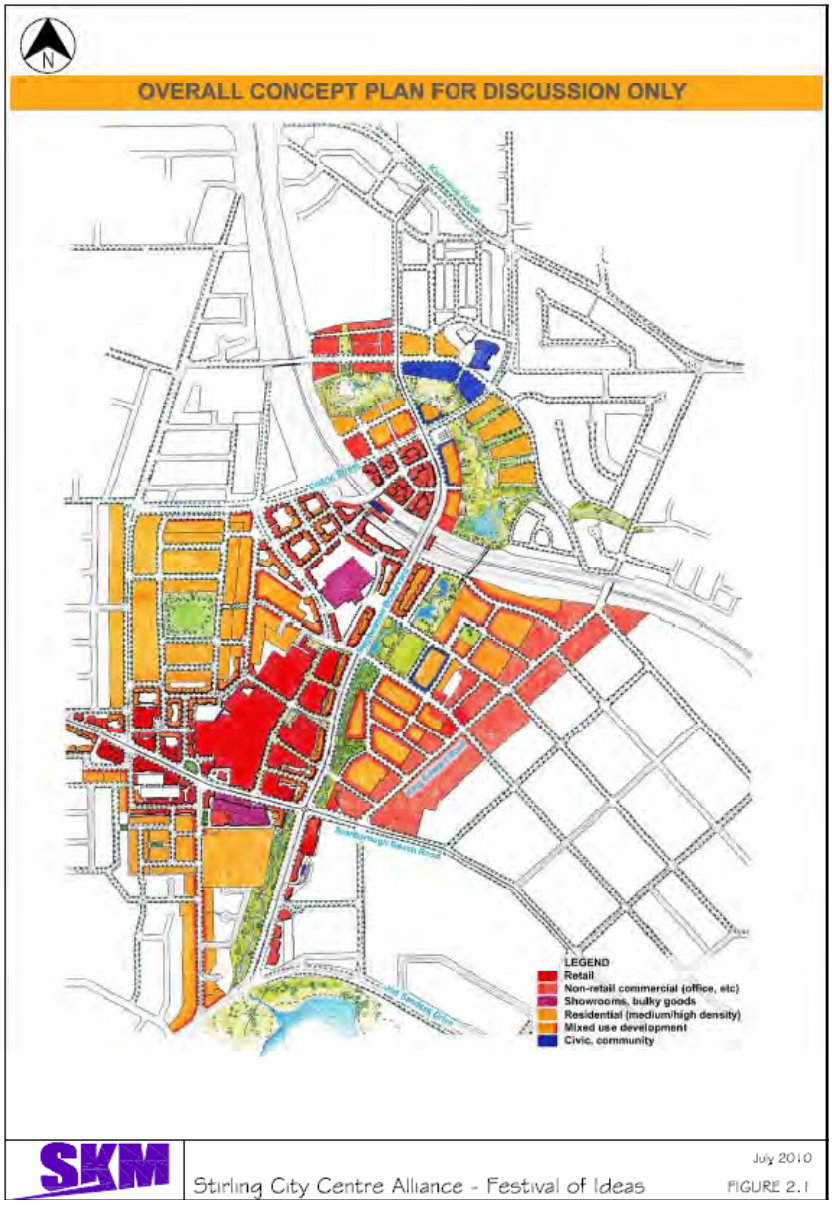
The workshop attendees participated in the development of high level principles on access to the city centre, the role of parking and how parking could best be managed to meet a variety of objectives.

There was general agreement on the need to limit parking to a sustainable level compatible with a level of car movement that could reasonably be accommodated on the proposed City Centre street network. The stakeholder group accepted the premise that more parking results in more traffic and it supported means of reducing traffic through parking pricing and regulations to limit the amount of parking.

2. Access to the City Centre

Planning a city centre is a complex process that involves consideration of a wide range of social, environmental and economic issues, including development of the street network and an access and parking strategy. In the case of the Stirling City Centre numerous value management workshops and enquiry-by-design workshops were held to establish a conceptual framework of streets for access to and within the city centre. The concept shown in **Figure 2.1** was developed at the Festival of Ideas workshop held in July 2009.

- **Figure 2.1 Stirling City Centre Alliance-Festival of Ideas**



The street network concept plan shown in **Figure 2.1** made provision for a mix of land uses at relatively high density designed around a well connected fine grained street network and a living stream. A city centre structure plan is currently being developed by the Alliance.

2.1. Long Term Transport Plan

The long term transport plan was developed in 2009 in response to a number of transport issues that were impacting on the development of a vibrant city centre plan. A major impediment to city centre planning was the existence of the Stephenson Highway road reservation that reserved a large amount of valuable land for major road construction that would have created a significant barrier to movement in the heart of the proposed city. It became obvious that the future Stephenson Highway was incompatible with the development of the Stirling City Centre. As a result, an alternate long term transport plan was developed and adopted by the Stirling City Centre Alliance. The key features of this plan are:

- A dispersed road network providing a variety of routes linking the Mitchell Freeway to Jon Sanders Drive.
- Stephenson Boulevard constructed as a relatively low speed city street through the heart of the city centre between Cedric Street and south of Scarborough Beach Road.
- A series of east-west city streets linking across Stephenson Boulevard linking Ellen Stirling Boulevard with the Osborne Park area.
- Development of Hutton Street as a bypass route for freight traffic between the Mitchell Freeway and Jon Sanders Drive, with provision for a bypass tunnel under the city centre if required in the longer term.
- Development of a network of high quality public transport routes serving the city centre and adjacent areas, including dedicated priority routes, capable of use by light rail, along Stephenson Boulevard and Scarborough Beach Road.
- A comprehensive network of dedicated cycle paths linking to and through the city centre.
- A fine grained network of streets with a safe, comfortable, well connected network of footpaths.

The long term transport plan for the Stirling City Centre is shown conceptually in **Figure 2.2**.

- **Figure 2.2 Long Term Transport Plan**



SINCLAIR KNIGHT MERZ

2.2. High Level Access Principles

The health and vibrancy of the Stirling City Centre will be dependent on good accessibility by walking, cycling, public transport and car. It will also be dependent on providing high amenity, particularly for those people walking around or participating in outdoor activity at street level. Amenity will be enhanced by a safe, convenient walking environment with low levels of congestion, noise and pollution, and few barriers to movement.

Accessibility to the centre must be underpinned by high frequency, high quality public transport and a network of safe, convenient and comfortable routes for walking and cycling. There will also be a need for car parking to supplement access by these other modes for people who, for whatever reason, find walking, cycling or public transport inappropriate or inconvenient for some trips.

The following high level principles have been developed to support the Stirling City Centre Access and Parking Strategy:

- High proportion of access to city centre by public transport, walking and cycling;
- Convenient safe cycle parking throughout the city centre;
- Convenient safe, secure cycling, pedestrian and access routes to the city centre;
- Fine-grained street network for access by walking, cycling and cars;
- Direct and legible walking routes to Stirling train station;
- Multiple access options for motorists to car parking;
- Good pedestrian, cycling and vehicle wayfinding signage system
- A legible, easy to comprehend system of public transport routes to, from and between the Stirling and Glendalough train stations and the city centre.

2.3. Projected Future Travel Patterns

As the Stirling City Centre develops into a large mixed use centre that is home to up to 30, 000 residents and a similar number of employees, the proportion of travel by public transport, walking and cycling will increase whilst the proportion of people travelling by car will decrease. There are a number of reasons that make this inevitable:

- The Mitchell Freeway is close to capacity now with only marginal opportunity to cater for more car travel, especially during peak periods
- There is spare capacity (with increased rolling stock) to move two to three times current passenger loading on the northern suburbs railway
- A mixed use high density centre will provide opportunities for many more people to walk for a variety of trips, including home to work, social and business trips and for trips to/from the train station

- Cycling will become more attractive for many as a result of provision of a network of safe cycling routes and adequate cycle parking
- The street network serving the City Centre has limited capacity for car travel
- Car driving will become increasingly expensive and will become unattractive or unaffordable for increasing numbers of people, as supply of cheap oil peaks (peak oil)

Currently in metropolitan Perth, an average of 80% of trips are by car with 58% as car drivers. The percentage of trips as car drivers has decreased in recent years from an estimated 63% to 65% in the early 1990's. This trend to lower levels of car driving, as a proportion of all travel, in Perth and other cities has been driven by a number of factors, including increasing congestion and an increase in the price of petrol. A combination of this general trend to lower levels of car driving and improved options for alternative means of travel to and around the Stirling City Centre is likely to see the proportion of travel by car drivers reduce to about 35% in and around the Stirling City Centre by the time the centre is fully developed in 30 to 40 years time.

Current strategic modelling undertaken by the Department of Planning for the Public Transport Authority is projecting public transport mode share will more than double across Perth by 2031 and car driver mode share will reduce to about 50%. However, studies of travel within city centres and transit orientated developments (TODs) shows that car travel in these centres is about 30% to 50% less than the metropolitan average. Current and projected mode share is shown in **Table 2.1**.

- **Table 2.1 Current and Potential Future Mode Share for Travel to and Around Stirling City Centre**

	Average Mode Share (%) Metropolitan Perth (2010)	Average Mode Share (%) Metropolitan Perth (2040/50)	Estimated Mode Share Stirling City Centre (2040/50)
Car Driver	58%	48%	35%
Car Passenger	22%	20%	15%
Public Transport	6%	12%	18%
Walking & Cycling	14%	20%	32%

A city centre of the size proposed is likely to generate about 300, 000 trips each day. If 35% of these were to be car drivers the total number of car driver trips to/from the centre each day would be 105, 000 trips/day. There would also be around 30% of through traffic in City Centre (30% of traffic in Perth City is through traffic). This means that there would be about 140, 000 vehicle trips per day and around 12, 000 to 13, 000 trips per hour during peak periods. Given the street network proposed for the City Centre, this is likely to be close to practical capacity of the street network. As a point of comparison there are currently about 20,000 vehicles trips / hour on Perth city streets during peak hours.

It is clear that it will be necessary to restrict the car driver mode share of trips to, from and within the Stirling City Centre to about 35% of travel by all modes, to limit peak period car movements to that which can be accommodated on the street network. This reduced level of car driving, as a proportion of all trips, will require less car parking than is required under current standards. Also provision of reduced levels of parking will assist in reducing future traffic to a level that can be accommodated on the proposed street network.

3. Role of Parking in Stirling City Centre

A city centre is a place where people visit for work, leisure, business, recreational and other purposes. Those people who walk and / or travel by public transport will not require parking. However, those people who drive or ride a bike will require somewhere to park their vehicle.

In Stirling City, it is estimated there will be up to 30,000 people living in the city centre. For those residents who choose to own a car, parking will also be required. An important role for parking therefore is to cater for the needs of future residents and visitors.

It has been established in section 2 that there will be lower levels of driving to / from the City Centre in the future than exists at present, as the street network will not have sufficient capacity to cater for existing levels of car driving with a major increase in residents and employees. There is a clear nexus between the amount of parking provided, the price of parking and the amount of driving that takes place. Research undertaken at transit orientated developments around train stations shows that mixed use development with reduced levels of parking can reduce vehicle trips by up to 50%. Parking therefore has a role in managing the demand for car travel to / from the centre and in so doing managing congestion.

Price and convenience, in addition to parking supply, can impact on the decision to drive, as can the attractiveness and efficiency of other transport modes such as walking, cycling and public transport. It is reasonable therefore that a charge or tax could apply to parking to discourage the provision of too much parking. This tax would be imposed on the basis that the revenue collected in this way is used to fund improvements to alternative transport infrastructure, facilities and services within the city centre. Parking can therefore have a role as a source of funding for targeted transport infrastructure, facilities and services to support walking, cycling and public transport.

The role of parking in the Stirling City Centre can be summarised as follows:

- Provide prioritised parking for city centre users, including residents;
- Ensure the commercial viability of the centre;
- Manage congestion and travel demand, especially by commuters;
- Encourage modal shift to public transport, walking and cycling.
- Source of funding for alternative transport infrastructure, facilities and services, particularly public transport.

4. What is the Right Level of Car Parking to Provide?

There is a need to plan for and deliver the right amount of parking to meet the needs of the Stirling City Centre in the future. Too much parking will result in too much traffic, which will damage the amenity of the centre and make it a less attractive place to visit or to live in. Too much traffic will also result in excessive congestion that will limit accessibility and impact negatively on business. On the other hand, too little parking can have a negative impact on the economic viability of the centre, particularly in the early years when the negative impacts of too much parking may not be immediately obvious to developers or business proprietors.

In this section of the report we examine:

- The amount of parking that will be required at full development of the centre to accommodate car driver access by 35% of all travel to, from and within the centre – estimated at between 100, 000 and 120, 000 trips/day

In sections 5 and 6 of the report we consider:

- Appropriate regulations on both the maximum and minimum levels of parking required as part of the approval process
- Incentives to encourage provision of lower levels of parking that will assist in reducing car travel and consequent congestion

4.1. Target Range of Parking Required for Full Development at Stirling

Residential Parking Target Range

Across Metropolitan Perth, the average car ownership is 0.7 cars per person. In suburban residential developments, the average occupancy per dwelling is around 2.7 persons per dwelling. This means that the average car ownership per dwelling in suburban areas is 1.89 (0.7 x 2.7). To date, planning authorities have generally responded by requiring two car bays per dwelling for suburban single unit developments.

In a city centre, a number of different circumstances apply:

- reduced average occupancy per unit (1.6 to 1.8 estimated)
- significantly improved public transport and reduced dependency on cars

If the 1.6 to 1.8 persons per unit were to be applied to the current 0.7 cars per person, the number of cars per unit would be in the range 1.1 to 1.25 cars per unit. However, at the Stirling City Centre:

- the quality of the public transport system is significantly better than for metropolitan Perth and it will be improved further in the future
- the location provides a significant opportunity for some people to walk to the city or to cycle
- a mixed use city centre is proposed that will have up to 30,000 residents and 30,000 jobs within a relatively small area, that will encourage walking for many trips within the centre
- affordable housing could comprise between 10% and 15% of total housing as part of a diversity of housing strategy and this will require very low or zero levels of parking

Given these circumstances it is reasonable to expect there will be less car driving and that the demand for parking could be around 25% to 30% less on a per person basis. Given the need to limit parking, the targeted range of parking should be 0.75 to 1.0 per housing unit.

The notional yield for residential dwellings within the city centre provided by the City of Stirling is 16, 885. Thus the target rate for residential parking is 12, 500 to 17, 000 in the entire city centre. The estimated daily car driver trips generated by the residential component of the city centre is 37,000 trips/day – based on 35% car driver mode share and 3.5 total trips / day by 30,000 residents. This is considered to be compatible with the targeted level of parking and results in 2.5 trips for the medium level of car parking within the target range.

Office Parking Target Range

Currently in central Perth, the level of office parking provided for major developments ranges from 0.4 to 0.6 bays / 100 m^2 of GFA. In West Perth the office parking provided ranges from 1.0 to 1.5 bays / 100m^2 of GFA. At Stirling the density of the centre is likely to be higher than West Perth and the public transport better. Thus a range of parking somewhere between Perth CBD and West Perth is considered acceptable. The target range for office parking at Stirling should be between 0.6 and 0.9 bays / 100 m^2. Thus between 3800 and 5600 office parking bays would be required for the estimated potential yield of 627,000 m^2 of GFA office at full development at Stirling. With a utilisation factor about 3 for each parking bay (equivalent to 6 trips to/from each parking bay),and the median level parking of 4,700 bays, around 28,000 trips each day could be expected to, from and within Stirling City Centre.

Retail Parking Target Range

The City of Stirling has advised the potential retail yield could be 192,000 m^2 of GFA made up of 141,000 m^2 within a major retail centre and 51,000 m^2 spread around other precincts.

The range of parking required in the major retail centre is 3 to 4 bays / 100m^2 with a range of 1.5 to 2.0 bays / 100m^2 in the other precincts. On this basis the range of parking required for total retail in the centre would be between 5000 and 7000 bays. Assuming a utilisation factor of 4 for each parking bay (equivalent to 8 trips to/from each parking bay) about 48, 000 trips per day could be generated by the retail car parking bays, assuming the median level of parking of 6,000 bays.

4.2. Summary of Parking and Daily Traffic

Table 4.1 summarises the range of parking that should be permitted for residential, office and retail uses within the Stirling City Centre to limit daily traffic to and from the centre to less than 120,000 trips per day.

The estimated daily trips of 118,000 in the below table is likely to be an over estimate as some residential trips are also likely to be retail or office trips. A more realistic estimate of total trips is between 105.000 and 110,000 trips/day.

- **Table 4.1 Range of Parking and Estimated Daily Traffic**

Land Use	Range of Parking	Estimated Daily Traffic Trips
Office	3800-5600	28,000
Retail	5000-7000	48,000
Sub-Total Non-Residential	8800-12,600	76,000
Residential	12,500-17,000	37,000
Other (including residential visitors)	700-1,400	5,000
Total	**22,000-31,000**	**118,000**

In addition to this generated traffic there is likely to be about 30,000 to 35,000 vehicles per day travelling through the city centre. A total of about 140,000 trips/day travelling to, from or through the city centre will result in about 12,000 to 13,000 trips per hour during peak periods, which is considered to be close to the capacity of the city centre street network.

It is clear from this analysis that it will be necessary to restrict parking to within the range shown in Table 4.1. Alternatively it will be necessary to significantly limit the floor space and dwelling units within the City Centre to below that currently envisaged by the City of Stirling and the Stirling City Centre Alliance.

5. Regulations to Control Supply

There can be no guarantee that the market will produce an optimum outcome with regards to parking. Regulations mandating certain levels of parking (maximums and minimums), will be necessary to achieve an appropriate parking supply. Similarly, regulations will be required to guide parking operations, such as pricing, hours of stay and measures to encourage shared parking.

5.1. Key Issues and Principles

More parking will result in more traffic, which can have undesirable impacts above certain levels including congestion, pollution and loss of amenity. However, a minimum level of parking is also necessary to provide acceptable levels of accessibility and make sure development is commercially viable. Key principles relating to the provision of parking include:

- Most non-resident parking should be public parking that is shared by a variety of users: i.e. retail customers, commercial business visitors and resident visitors
- Use of on-street parking should be maximised and included in the overall pool of parking supply
- Parking should be time limited to minimise long stay parking and encourage turnover of bays
- Parking should be priced to encourage turnover and maintain a surplus of bays to avoid vehicles cruising looking for spaces

5.2. Maximum Level of Supply

There are two regulatory mechanisms proposed to ensure the level of parking provided remains below specified threshold levels. The maximum levels of parking have been determined based on the capacity of the city centre street network to accommodate traffic flows that could be expected with different levels of parking. The link between traffic generation and the level of parking supplied is discussed in **Section 4**.

It is proposed that the maximum level of parking be based on ratios of parking bays per residential unit and parking bays per 100m^2 of non-residential land. This is the primary basis proposed to provide both maximum and minimum levels of parking for the major land uses in the centre. Details of proposed maximum and minimum parking ratios are provided in **Section 5.3**.

A further regulatory control is required to ensure the total level of parking on an area of developable land does not exceed a threshold level. This is required to ensure very high density office or retail development does not result in excessive levels of parking and traffic, even though parking ratios meet the criteria specified in **Section 5.3**.

It is proposed that the maximum amount of parking on all land within the city centre be regulated on a hectare of land basis, in a similar manner to the Perth Parking Policy regulations for the

maximum level of parking permitted in Central Perth. The proposed maximum parking bays/hectare allowance is summarised in **Table 5.1**.

Table 5.1 Maximum Permitted Parking

	Maximum Parking Allowance (Bays per Hectare)
Zone A	200 bays per hectare
Zone B	250 bays per hectare

Zone A covers precinct 2 and Zone B covers the remainder of the Stirling City Centre (refer to **Figure 5.1**).

These allowances have been selected based on the experience with the Perth Parking Policy. The per hectare maximum allowances are necessary to limit the amount of parking that may otherwise be permitted from a range of very high density buildings. The following two case studies from central Perth highlight the point (Review of Perth Parking Policy, SKM, 2007).

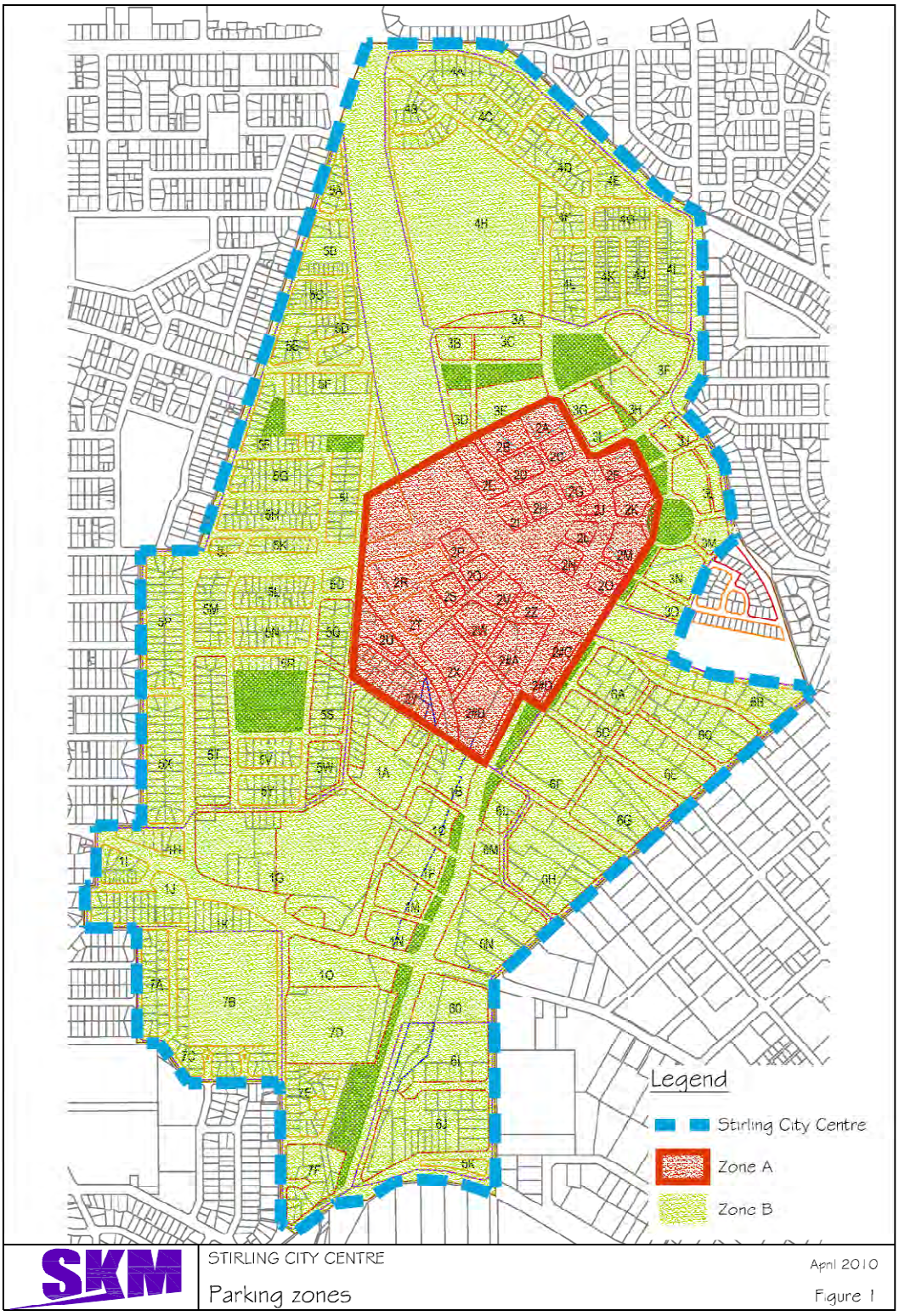
Case Study 1
140 William Street

- 0.84ha site would permit a maximum of 168 tenant bays.
- 20 storey building on top of train station.
- Approximately 40,000m^2 of GFA = 0.42 bays/100m^2.
- A suburban scale parking requirement (2.5 bays/100m2) would allow around 1,000 parking bays.

Case Study 2
240 St Georges Terrace (Woodside)

- 0.9ha site would permit 207 tenant bays.
- 267 bays provided (Ministerial exemption).
- 197 bays currently licenced for use (Jan 07).
- 47,200 m^2 of development
- Policy maximum 0.44 bays/100 m^2
- Bays approved 0.57 bays/100 m^2.
- Bays licenced 0.42 bays/100 m^2.

- **Figure 5.1 Parking Zones A and B within the Stirling City Centre**



The maximum parking bays permitted per hectare applies to the sum of parking provided for all uses. If the formula was to be applied for the indicative maximum yield for the Stirling City Centre, the maximum theoretical parking permitted would be shown in **Table 5.2**.

Table 5.2 Maximum Parking Allowances

	Estimate of Developable Land	Maximum Parking Permitted
Precinct 1	30.1 ha	7,525 bays
Precinct 2	23.3 ha	4,660 bays
Precinct 3	14.7 ha	3,675 bays
Precinct 4	32.6 ha	8,150 bays
Precinct 5	40.6 ha	10,150 bays
Precinct 6	31.7 ha	7,925 bays
Precinct 7	20.6 ha	5,150 bays
Total	**193.6 ha**	**47,235 bays**

The maximum levels of parking bays permitted of 47, 235 in all seven precincts would never be achieved, as this assumes the maximum level of parking for each parcel of developable land. In practice some parcels of developable land may result in maximum levels of parking, but there will be others with lower yields where the parking provided is limited more by the parking ratios for different land uses (refer section 5.3).There are also some land parcels where no parkings is required (e.g. inner city parks)

5.3. Maximum and Minimum Parking Ratios

While the maximum level of parking supply will be regulated based on the area of land being developed (refer section 5.2), there is also a need for regulations on both the maximum and minimum levels of parking to be provided based on the size of the development (i.e. number of residential units or square metres of non residential development)

The following proposed ratios for maximum levels of parking have been developed after taking account of the analysis summarised in section 4. Typically the maximums proposed for each development are 25% to 30% higher than the average target ranges proposed for the different land uses in Section 4. The rationale is that not all developers will provide parking to the maximum allowed after taking account of cost and other matters. However, the actual amount of parking that is being permitted will need to be kept under review. If after, say 10 years of development of the city centre, too much parking overall is being provided, the permitted parking ratios may need to be lowered to avoid excessive congestion resulting from too much traffic generation. If, on the other

hand, the level of parking provided is well below the maximum permitted overall, the maximum ratios could be raised to provide greater flexibility for developers.

5.3.1. Residential Apartment Parking in the City Centre

Policy

A maximum number of residential parking bays per apartment should be mandated. The total number of bays should be determined based on the average number of bays per residential unit, but the sale, lease or rental of parking bays should be unbundled from the sale or rental of residential properties. This increases flexibility on the number of parking bays that are available to residential units at any point in time. Over time, the value of parking spaces, like residences, will normalise to a market price. Residential parking bays like residential units could be bought, sold or rented for residential use, but should not be made available for use by workers commuting to the City Centre.

Recommended Maximum and Minimum Levels of Parking for City Centre Apartments

- Maximum level of parking - 1.0 bays/unit on average for development
- Minimum level of parking – zero
- Visitor parking - up to 0.06 bays/unit can be provided (where possible on-street)

The minimum level of parking of zero has been specified to ensure very low or zero levels of parking can be approved for certain demographics (student housing or affordable housing for example). It is unlikely that developers would propose low levels of parking for commercial apartment development as it would potentially affect saleability. The proposed unbundling of parking outlined in the policy above will mean developers will propose a realistic pool of parking from which buyers can choose whether to purchase a parking bay or not. Some unit owners will be able to purchase multiple parking bays.

5.3.2. Non-Residential Parking

Policy

The majority of parking for office, community, retail and other commercial uses should be public, short term parking targeted at visitors and customers. Shared use of public parking allows for a more efficient and balanced use of parking over different times of the day and week. On-street parking will supplement off-street short term visitor parking (residential and commercial visitors and retail). While a maximum level of overall parking should apply to non-residential uses, a minimum should also apply to the level of public parking.

Recommended Maximum and Minimum Levels of Parking for Office Developments in the City Centre

- Maximum level of parking – 1.0 bays/ 100m² GFA
- Minimum level of parking – 0.4 bays/ 100m² GFA

Recommended Maximum and Minimum Levels of Parking for Supermarket and Large Retail in the City Centre

- Maximum level of parking – 4.0 bays/ 100m^2 GFA
- Minimum level of parking – 2.0 bays/ 100m^2 GFA

Recommended Maximum and Minimum Levels of Parking for Small Main Street Retail in the City Centre

- Maximum level of parking – 2.0 bays/ 100m^2 GFA
- Minimum level of parking – 1.0 bays/ 100m^2 GFA

5.4. General Discussion and Conclusions

The proposed development of Stirling City Centre will result in a busy, bustling urban space with large numbers of people working in, living in and visiting the City each day. This analysis has assessed the following potential ultimate yield for the city centre area provided by the City of Stirling.

- 16,885 residential dwellings (up to 30,000 residents)
- 627,000m² GFA of office development
- 192,000m² GFA of retail development

In accordance with the policy recommendations for maximum levels of parking the amount of parking permitted in each of the precincts is summarised **Table 5.3**.

- **Table 5.3 Maximum Parking Permitted in each Precinct in Accordance with Land Use Allowances**

Precinct	Residential	Office	Retail (estimated)	Total
1	1,443	670	5,217[1]	7,330
2	4,600	2,810	560	7,970[2]
3	3,300	380	80	3,760[2]
4	948	-	-	948
5	3,528	-	-	3,528
6	2,050	2,200	180	4,430
7	1,016	210	200	1,416
All precincts	**16,885**	**6,270**	**6,237**	**29,392**

A number of points are evident from this table:

- Residential parking could comprise up to 57% of all parking in the greater City Centre area. However, this level of parking is unlikely to be achieved, as some developers will choose to limit parking to meet demand for diverse housing needs and demographics and to reduce costs as a result of the park-in-lieu policy
- The total parking for precincts 2 and 3 is more than the gross maximum parking allowances and will not be permitted. For example, in precinct two, developers will need to balance provision of residential and non-residential parking to meet the maximum allowance under the spatial provisions outlined in **Table 5.2**. In precinct two, the maximum level of parking permitted is 4,660 based on 200 bays/ ha of developable land. The allocation of parking in precinct two could be:
  - 2,990 residential bays (0.65 bays/ residential unit)
  - 1,670 bays for office and retail (based on 0.5 bays/ 100m² GFA of office and one bay/ 100m² GFA of retail and a small allowance for shared parking)

The maximum and most likely level of parking for each precinct is estimated to be as shown in **Table 5.4**.

[1] Assumes a parking rate of 3.7 bays/100m^2 for a mixture of small and large retail.

2.These allowances are higher than permitted on a maximum of bays/hectare basis. Therefore the maximum stipulated in Table 5.2 will apply.

- **Table 5.4 Maximum and Most Likely Level of Parking Provided in each Precinct**

Precinct	Residential	Non-Residential	Maximum allowable	Preferred/ Likely Total Parking
1	1,443	5,887	7,330	7,300
2	2,990	1,670	4,660	4,660
3	3,225	450	3,675	3,000
4	948	-	948	900
5	3,528	-	3,528	3,300
6	2,050	2,380	4,430	3,800
7	1,016	210	1,226	1,200
Total	**15,200**	**10,597**	**25,797**	**24,160**

5.5. Provision of Public Parking

Public parking is to be encouraged in preference to private tenant parking to encourage shared use and more efficient use of resources. Public parking can be provided either by the Council or by private owners.

The cash-in-lieu policy discussed in section 6 will enable the Council to receive funds for the variable portion of the cash-in-lieu payment that is associated with a reduced level of private parking. This will enable the Council to construct public car parks using a portion of the variable cash-in-lieu funds. It is recommended that the Council construct these car parks on the periphery of the centre on streets that can accommodate efficient access to the car parks. The construction of public car parks by the Council using variable cash-in-lieu funds will ensure that these car parks do not result in overall limits on car parking being exceeded.

5.6. Discretionary Higher Allowances in Short Term

For a period of 5 years from the time of gazettal it is recommended that the Council of the City of Stirling retain discretionary powers to permit higher levels of parking. Some developers may be reluctant to commit to develop with low levels of parking in the short term because they are accustomed to lower parking ratios and because they do not perceive Stirling as a high density mixed use centre at this time. The use of discretionary power to permit some higher level of parking may encourage some developers to bring forward development that will assist in a faster rate of development in the early years than may otherwise occur. This is a generally beneficial outcome, but is important that these discretionary powers do not have an overall detriment impact of permitting too much parking.

Should discretionary higher parking allowances be permitted, it is recommended they be considered within the following framework:

- Discretionary powers to provide more parking apply to residential and office development only.
- The maximum discretionary increase be 20% above the recommended level
- In the case of office development, all of the additional parking permitted must be public paid parking provided either in a separate parking structure as part of the proposed permanent supply of public parking for the centre or on an adjacent at-grade site as temporary public paid parking.
- All cash-in-lieu payments required under the policy (refer to section 6) must be paid, including the fixed cash-in-lieu component, regardless of the fact that the developer has chosen to provide more parking.

5.7. On-Street Parking Provides and Early Pool of Parkings Supply

Most of the street network will be provided early in the development of the centre. This policy promotes the construction of a generous amount of on-street parallel paid parking. The provision of this parking early in the development of the centre means that the ratio of parking development will be highest in the early years and reduce as more development occurs. This is desirable as the higher parking ratios will be welcomed by developers in the early years without contributing to higher levels of parking at full development.

6. Parking Fees and charges

The development of a city centre at Stirling will be reliant on the development of an excellent public transport system and the development of infrastructure that will support high levels of walking and cycling to and within the city centre. This high level of walking, cycling and public transport will be necessary to ensure the street network on approach to and within the city centre does not become overly congested and to ensure that a high level of amenity can be achieved for residents, businesses and visitors to the city centre, particularly those walking around at street level.

The primary purpose of both a cash-in-lieu system and a parking levy is to support a demand management framework that reinforces regulations designed to limit parking supply. A cash-in-lieu system, as proposed, also significant reduces to overall cost to development by reducing the cost of parking provision. A secondary, but nonetheless important purpose is to provide a source of funds for alternative transport infrastructure and services that will assist in reducing the level of car travel to, from and within the centre to sustainable levels. It is important that the purpose as a funding source is explicitly recognised and that the revenue obtained is hypothecated to specific measures that improve access to and within the city centre, including:

- Public transport system infrastructure such as light rail, provision for priority access, or provision of quality on-street stations.
- Provision of high quality walking routes between Stirling Station and key centres of activity within the city centre.
- Provision of bicycle infrastructure that will provide for the safe movement of cyclists, to, from and within the city centre.
- Provision of public parking that can be supplied and operated by the City of Stirling or a private operator. This parking would supplement the public parking provided on private property and the limited amount of private tenant parking and would fit within the parking policy cap adopted for the city centre.

It is clear that the cost for provision of the quality public transport system that will be needed to meet the access needs of business, residents and visitors to the city centre will be large. It is also apparent that funding of this public transport infrastructure (and meeting a portion of operating costs) is unlikely to be met solely through State Government budget processes within an acceptable timeframe.

6.1. Pay Parking

6.1.1. General Principles

Pay Parking is one of the most effective ways to ration parking and constrain travel demand. It can influence parking location, destination, mode, travel time and in particular parking duration. The impacts vary depending on the price structure and the relative convenience of alternative parking facilities and modes.

As pay parking generally results in reductions in car use and traffic congestion among other environmental benefits, it is one of the essential transport measures necessary to ensure the viability of the Stirling City Centre.

Pay parking tends to increase equity by charging (user pay) for their parking costs and by reducing the parking costs imposed on non-drivers. Paying directly rather than indirectly benefits consumers because it reduces parking and traffic problems and allows individuals to decide how much parking to purchase giving them an opportunity to save money. Drivers may use a space as long as they want, as long as they are prepared to pay for it.

6.1.2. Pay Parking Objectives

The following objectives are provided to assist in the determination of the fee structure:

- For Traffic Management-peak period fees should be high enough to encourage a shift in travel modes or times.
- For Parking Management-fees during peak demand periods and at the most convenient locations should be high enough to generate a maximum 85%-90% occupancy rate. If prices are too low, parking becomes saturated causing motorists to cruise around in search of a space.

6.1.3. Guidelines to efficient pay parking pricing

- Charge drivers directly rather than indirectly
- Offer convenient locations and several options for payment including acceptance of coin, credit card, eftpos and notes
- Use small time units so drivers can avoid paying for more time than they need, e.g. for short term parking charge in 5 minutes blocks, for long term charge by the hour rather than the day
- Charge higher fees and provide shorter time periods at the most convenient spaces (on-street) to encourage high churn
- Use incremental price structures to favour short term users, e.g. $1 for first hour then $1.50 for second hour etc
- Daily rates should be set at >6x hourly rate, and monthly rates at >20x daily rate

- Eliminate weekly and monthly parking passes and earlybird parking which encourage commuting
- Minimise discounts for long term parking
- Ensure that fee structures are flexible and can be amended up or down in order to manage demand. It is inefficient to review fees only once a year in accordance with budget timetables
- Set parking fees with some reference to popular public transport fares, e.g. all day parking should be higher than a two-zone return train fare
- Encourage businesses to price parking and offer alternative discounts or refunds to their bona fide clients
- Provide discount parking to multi passenger vehicles
- Ensure a high level of compliance with regular and unpredictable enforcement
- Expand operating times to include evening and weekend parking
- Minimise the exceptions to pay parking, e.g. all residents, ratepayers, loading vehicles, couriers and Acrod parkers using public parking spaces should pay.

6.1.4. Recommended Fee Structure for the Stirling City Centre

It is essential that Stirling City Council implement paid parking including on-street parking in the Stirling City Centre as soon as possible. Private owners and operators of parking will be reluctant to charge for parking while the City is offering spaces for free.

Based on the maximum fee currently being charged for premium location parking in other town centres, it is recommended that Stirling introduce the fee structure shown in **Table 6.11**.

- **Table 6.1 Recommended Fee Structure for 2011**

Current Fees $ (for premium parking)	Maximum Fee Charged				Recommended Fee Stirling July 2011
	Perth	Vincent	Fremantle	Joonalup	
On-street					
Per hour	3.20	1.90	1.50	1.00	1.50
Off-Street					
1St hour	3.00	1.90	1.30	0.80	1.30
Daily Rate	25.20	11.00	20.00	3.00	10.00

These fees would be payable in smaller blocks, thus 50c will purchase 20 minutes on-street. They will also be reduced for parking further away from the city centre. It is recommended that long term remote commuter car parks offer parking at $7.00 per day.

These parking fees would need to be reviewed on a yearly basis to ensure the objectives outlined in section 6.1.2 are achieved.

6.2. Cash in Lieu

Cash-in-Lieu is a mechanism that has been employed by councils in Perth and elsewhere in Australia for many years to provide for the access needs in a particular area. Cash-in-Lieu is particularly beneficial where parking needs to be limited and funds are required for alternative forms of access, such as public transport. It can also be beneficial to small commercial developments or retail outlets, where physically it is both impractical and expensive to provide off – street private parking. In these instances, the cash-in-lieu can be used for provision of public transport, walking or cycling provision or for a combination of public parking and public transport.

There are a wide variety of ways in which cash-in-lieu can be applied. This proposal has been developed specifically to meet the needs of the Stirling City Centre and is based on the following principles;

Principles for Cash – In – Lieu

- All cash-in-lieu revenue shall be hypothecated for improvements to transport infrastructure for public transport walking or cycling, or for the provision of public parking within the city centre.
- The cash-in-lieu payment shall be based on a proportion of the cost of provision of a parking bay, including the cost of land.
- The benefit of the cash-in-lieu payment shall increase as the level of on-site parking is decreased in a manner that ensures the overall cost to the developer is reduced.

Cost of Parking Bay

In the Stirling City Centre all parking will be provided in deck or underground parking structures. The construction cost of parking in deck structures of more than 2 storeys is estimated to be $33,000 per bay. The cost of land is estimated at $1,000 to $1,500 per square metre. Assuming 30 m^2 per parking bay in a deck structure, the cost of a parking bay could vary as outlined in **Table 6.2**.

- **Table 6.2 Estimated Cost to Provide 1 Parking Bay**

Type of Parking	Land Cost		Construction Cost	Estimated Total Cost Per Bay
	At $1000 per m2	At $1500 per m2		
At Grade	$30,000	$45,000	$6,000	$36,000 to $51,000
2 Deck	$15,000	$22,500	$25,000	$40,000 to $47,500
4 Deck	$7,500	$11,250	$33,000	$40,500 to $44,250

For the purpose of apportioning cost for cash-in-lieu it is recommended a discounted total cost of $35,000 in 2010 dollar costs be applied. This price would be increased annually based on Rawlinson's Australia Construction Handbook building index or as re-set from time to time by the City of Stirling.

6.2.1. Residential Cash-in-Lieu

Cash-in lieu for each residential dwelling to be based on a fixed cost and a variable cost. The costs will be taken as a proportion of the discounted cost of a parking bay ($35,000 in 2010 dollars) and indexed.

- **Recommend** - Fixed cash-in-lieu charge of 10% of the discounted cost of a parking bay ($3,500 per residential unit in 2010 dollars)
- **Recommend** - Variable cash-in-lieu, which increases as the amount of parking provided decreases below 1 bay/unit. The cash in lieu payment to be set at 30% of the cost saving from the reduced level of parking provided. (For example, if 0.6 parking bays/unit is provided on site, the variable cash-in-lieu of 0.4 bays of the discounted cost of parking bay - $4,200)

Examples of Cash-in-Lieu Payments and Cost to Developer of Provision of Parking Plus Cash-in-Lieu Payments

The following examples are based on a discounted cost of parking of $35,000 per bay. The real cost of parking for different options is shown in **Table 6.2.**

Example 1 – 100 residential units with parking provided in a 2 Deck Structure

Scenario	Scenario 1 – Parking Provided on Site at 1.0 bays/unit	Scenario 2 – Parking Provided on Site at 0.7 bays/unit
Construction Cost	$2.5 million	$1.75 million
Land Cost	$1.5 to $2. 25 million	$1.05 to $1.575 million
Total Cost of Parking Provision	$4.0 to $4.75 million	$2.8 to $3.325 million
Fixed Cash-in-Lieu Payment	$0.35 million	$0.35 million
Variable Cash-in-Lieu Payment	$0.00 million	$0.315 million
Total Cost to Developer	$4.35 to $5.1 million	$3.465 to $3.99 million
Revenue Available to Fund Alternate Transport	$0.35 million	$0.665 million

A developer opting to reduce the level of parking from 100 bays to 70 bays would reduce their overall cost by between $0.885 million and $1.1million. The revenue made available to fund alternative transport options would increase from $0.35 million to $0.665 million.

Example 2 – 16 Residential Units with Parking Provided At Grade

Scenario	Scenario 1 – Parking Provided on Site at 1.0 bays/unit	Scenario 2 – Parking Provided on Site at 0.875 bays/unit
Construction Cost	$0.096 million	$0.084 million
Land Cost	$0.48 to $0.72 million	$0.42 to $0.63 million
Total Cost of Parking Provision	$0.576 to $0.816 million	$0.504 to $0.714 million
Fixed Cash-in-Lieu Payment	$0.056 million	$0.056 million
Variable Cash-in-Lieu Payment	$0.00 million	$0.021 million
Total Cost to Developer	$0.632 to $0.872 million	$0.581 to $0.791 million
Revenue Available to Fund Alternate Transport	$56,000	$77,000

A developer opting to reduce the level of parking from 16 to 14 bays would reduce their overall cost by between $51,000 and $81,000. The revenue made available to fund alternate transport options would increase from $56,000 to $77,000.

6.2.2. Non Residential Cash-in-Lieu

Cash-in-Lieu for non-residential development would contain a fixed and a variable component.

- **Recommend** – Fixed cash-in-lieu payment to be set at 50% of the discounted cost of a parking bay per 100m^2 of land ($17,500 in 2010 dollars)
- **Recommend** – Variable cash-in-lieu increase as the amount of parking is reduced below the maximum level of parking permitted. The variable cash-in-lieu payment to be set at 50%of the saving from the reduced level of parking at the discount rate (i.e. $17,500 for each parking bay provided less than the maximum permitted level of parking).

Examples of Cash-in-Lieu Payments and Cost to Developer of Provision of Parking Plus Cash-in-Lieu Payments

The following examples are based on a discounted cost of parking of $35,000 per bay. The real cost of parking for different options is as shown in **Table 6.2**.

Example 3 – 10,000m^2 of GFA of office with Parking Provided in a 2 Deck Structure

Scenario	Scenario 1 – Parking Provided on Site at 1.0 bays/100m2 GFA	Scenario 2 – Parking Provided on Site at 0.6 bays/100m2 GFA
Construction Cost	$2.5 million	$1.5 million
Land Cost	$1.5 to $2. 25 million	$0.9 to $1.35 million
Total Cost of Parking Provision	$4.0 to $4.75 million	$2.4 to $2.85 million
Fixed Cash-in-Lieu Payment	$1.75 million	$1.75 million
Variable Cash-in-Lieu Payment	$0.00 million	$0.7 million
Total Cost to Developer	$5.75 to $6.5 million	$4.85 to $5.3 million
Revenue Available to Fund Alternate Transport	$1.75 million	$2.45 million

A developer opting to reduce the level of parking from100 bays to 60 bays would reduce their overall cost by between $0.9 and $1.2 million. The revenue made available to fund alternative transport would increase from $1.75 million to $2.45 million.

Example 4 – 10,000m^2 of GFA of large centre retail with Parking Provided in a 2 Deck Structure

Scenario	Scenario 1 – Parking Provided on Site at 4.0 bays/100m2 GFA	Scenario 2 – Parking Provided on Site at 3 bays/100m2 GFA
Construction Cost	$10.0 million	$7.5 million
Land Cost	$6.0 to $9.0 million	$4.5 to $6.75 million
Total Cost of Parking Provision	$16.0 to $19.0 million	$12.0 to $14.25 million
Fixed Cash-in-Lieu Payment	$1.75 million	$1.75 million
Variable Cash-in-Lieu Payment	$0.00 million	$1.75 million
Total Cost to Developer	$17.75 to $20.75 million	$15.5 to $17.75 million
Revenue Available to Fund Alternate Transport	$1.75 million	$3.5 million

A developer opting to reduce their level of parking from 400 to 300 bays would reduce their overall cost by between $2.25 million and 3.0 million. The revenue made available to fund alternative transport options would increase from $1.75 million to $3.5 million.

6.2.3. Potential Revenue from Cash-in-Lieu by 2050

- The potential revenue from cash-in-lieu for residential, office and retail development in the Stirling City Centre is estimated in **Table 6.3.** It is based on the potential ultimate yields for the different uses.
- **Table 6.3 Potential Cash-in-Lieu Revenue**

Land Use	Ultimate Development Yield	Potential Revenue		
		Base Cost Maximum Parking	15% Parking Reduction	30% Parking Reduction
Residential	16,885 units	$59.0 million	$85.7 million	$112.3 million
Office	627,000m^2 of GFA	$109.7 million	$126.2 million	$142.6 million
Retail	192,000m^2 of GFA	$33.6 million	$53.8 million	$73.9 million
Total		**$202.3 million**	**$265.7 million**	**$328.8 million**

Over a period of 40 years total revenue of between $202 million and $329 million could be made available to fund alternative transport, depending on the extent to which parking is reduced on site. This amounts to about $5 to $8.25 million per annum. This can be balanced against an estimated cost of $1,378 million (or $34.5 million per annum) to provide the estimated 29,392 parking bays permitted on site (**Table 5.3**). A reduction of 30% of this parking would save an estimated $413 million, which would be offset by an estimated payment of $162 million in additional variable cash-in-lieu payment from the base level (fixed) cash-in-lieu payment of $202 million.

6.3. Levy on Car Parking

6.3.1. Perth Parking Policy Experience

The Perth Parking Policy introduced in 1999 by the City of Perth and the State Government included an annual levy or charge on all non-residential parking bays (with some exceptions) within the City of Perth. The then Minister for Local Government, Mr Omodei, in the second reading speech on the Perth Parking Management Bill (Hansard 26 November 1998) stated:

"The principal objectives of the Perth Parking Management Bill and Perth Parking Policy are to promote a balanced transport system to gain access to central Perth, and to limit the growth of traffic congestion and deterioration of air quality in the central area."

An important aspect of the enabling legislation for the Perth Parking Policy and Licensing Scheme was that:

"The revenue raised though licensing of parking spaces will be spent in the Perth Parking Management Area to give effect to this policy, as determined by the Minister for Transport following consultation with the City of Perth. Matters to be funded by the revenue include the Central Area Transit (CAT) System and improvements to that system, improving public transport access, enhancing the pedestrian environment, supporting bicycle access and other initiative which support a balanced transport system for the City".

Western Australian Government Gazette, No 137, 16th July 1999

In summary the major objectives of the Perth Parking Policy are to assist in the management of congestion and to improve overall accessibility and the physical environment by utilising revenue collected to improve public transport to and within the city.

A review of the Perth Parking Policy was undertaken by Sinclair Knight Merz in 2007. It found that the Perth Parking Policy has been found to positively contribute to state government land use policies to improve the economic, environmental and social health of central Perth.

The finding of the SKM review included:

- *"The Perth Parking Policy has contributed to lower traffic volumes on city streets with lower levels of congestion than would have been the case without this influence;*
- *restraint on the growth of car parking has not limited the potential of the city centre to grow economically;*
- *along with improvements to the public transport system, the Perth Parking Policy has contributed to an improvement in accessibility to the city centre during the last 6 years".*

6.3.2. Levy Proposal for Stirling City Centre

Analysis undertaken as part of this study shows that vehicular demand will need to be constrained if serious congestion in the Stirling City Centre is to be avoided. The study team considers that the introduction of a parking levy will have overall beneficial effects on improving accessibility to the centre by reducing demand for car travel and providing a source of funds to improve public transport.

Principles Relating to Parking Levy

The following principles have been developed by the study team based on the experience in implementing the Perth Parking Policy and it's applicability to the Stirling City Centre:

- The levy shall apply to existing as well as future parking in the prescribed area to ensure future development and existing development make an equitable contribution to transport improvements.
- All revenue from a parking levy shall be hypothecated for expenditure on public transport annual operating costs or for infrastructure improvements for public transport, walking or cycling.
- The levy cost shall be set at a dollar cost per parking bay and adjusted annually in accordance with annual Perth CPI, or as adjusted from time to time by the Minister for Transport following consultation with the City of Stirling.
- The levy shall apply to all non-residential parking bays (on-street and off-street) within the prescribed parking area, with the following exceptions:
  - Loading bays, bays used for public transport purposes, by emergency services, or set aside for parking of vehicles used by disabled persons.
  - A parking facility that has 5 parking bays or fewer.
  - A parking bay used solely for servicing, inspecting, repairing, fuelling or maintaining vehicles or used solely for a vehicle that forms part of a stock of a business of a motor vehicle dealer.

It is proposed that the parking levy not apply to residential parking when the levy is introduced. However, consideration could be given to applying the levy to residential parking in the future for these residential unit owners with more than one bay per unit.

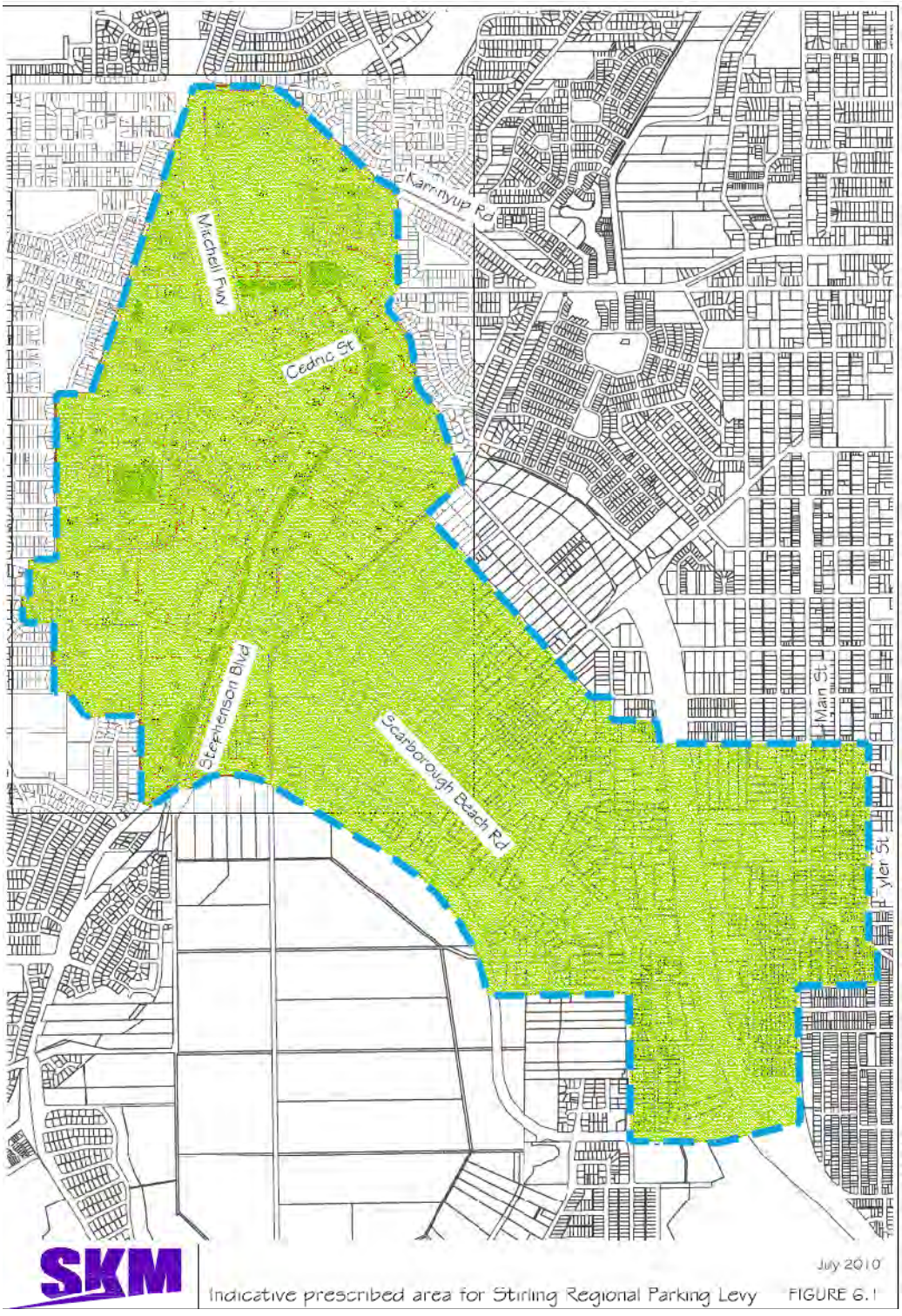
Prescribed Area for Parking Levy

The prescribed area for a parking levy should apply to the Stirling City Centre area, but there is merit in extending it to include the Herdsman Business Park, the Osborne Park light industrial area and the area around the Glendalough Train Station. As a general principle the prescribed area for a parking levy should include the area that will be well served by quality, frequent public transport. This should include:

- The area within 1km walking distance of Stirling Station
- The area within 1km walking distance of Glendalough Station
- The area within 600 metres walking distance of the high quality public transport service linking Stirling and Glendalough stations (Note: this area should only be included in the prescribed parking area for a levy, when the high quality public transport system has been introduced).

The prescribed area for the parking levy is shown indicatively in **Figure 6.1**. Further more detailed analysis may be requested before a precise prescribed area can be agreed.

- **Figure 6.1 Indicative prescribed area for Stirling Regional Parking Levy**



Preferred Mechanism for the Introduction of a Levy

The Perth Parking Policy was introduced by an Act of Parliament (The Perth Parking Management Act and Regulations). This act applied specifically to the City of Perth.

If this mechanism were to be used to introduce a parking levy in and around the Stirling City Centre, new legislation would be required to be introduced into State Parliament. The City of Stirling has received advice that other mechanisms could be used to introduce a parking levy. They include:

- Adaption of a local law;
- Introduction though a local planning scheme;
- Use of a specified area rate;
- Use of a differential general rate.

Each of these mechanisms would require further work to ensure it could be legally defended should it be challenged. It is not possible to determine if any of these alternatives offer a practical alternative until prior to the development of a detailed implementation plan for each alternative and further legal scrutiny.

On the other hand, the parliamentary legislative model is well tested and could be introduced with confidence subject to the approval by State Parliament. It is known that State Government planning agencies have shown an interest in expanding the Perth Parking Policy to areas outside of Central Perth where congestion is forecast to become a significant problem unless parking and future traffic growth is constrained. There is merit in expanding the legislative model for implementation in a variety of centres subject to management regulations (similar to the Perth Parking Management Regulations) being developed for each centre.

The legislative model (based on the Perth Parking Policy) is considered to be the preferred mechanism for introduction of a parking levy at Stirling, although alternative mechanisms cannot be discounted at this stage.

Levy Rate

The initial levy rate would be determined by the City of Stirling and the State Government (assuming a legislation model is used for implementation). The information in **Table 6.4** is provided to assist in determining an appropriate rate:

- **Table 6.4 Parking Levy Rates in Australia**

Location	Type of Bays	Annual Levy per Bay (2010)
Perth	Long Stay	$598
Perth	Short Stay	$567
Melbourne (Central Area)	Long Stay	$860
Sydney (CBD, North Sydney, Milsons Point)	Excludes, on-street and retail customers	$2000
Sydney (Bondi Junction, Parramatta, Chatswood, St Leonards)	Excludes, on-street and retail customers	$710

It is the purpose of a parking levy to assist in the management of demand for travel. Therefore the levy in Stirling should be of sufficient magnitude to encourage and support paid parking in the Stirling City Centre and make a contribution to managing the demand for car travel.

Taking account of the above, a car parking levy charge at Stirling, should be set at between $200 and $250 per bay if introduced between 2010 and 2012. However the rate of any proposed levy would need to relate to the benefit derived from the public transport improvements implemented.

Potential Annual Revenue from a Parking Bay Levy

ARRB (2009) has estimated there are currently about 30, 000 non-residential parking bays in the Stirling, Herdsman, Osborne Park area. However it is not known how many of these bays could be subject to exception from a levy (principally because an owner has 5 bays or fewer).

On the assumption that there are 20,000 non-residential bays in the prescribed area that could be subject to a levy, a levy of $200 per bay could raise gross revenue of $4 million per annum. Assuming 10% of this revenue is consumed in administration and compliance, about $3.6 million per annum could be raised to improve public transport in the region. Over time, the revenue would increase as the Stirling City Centre grows and the number of parking bays in the prescribed area increases.

Staged Introduction of Parking Levy

It is likely that the necessary legislative changes and set up the system would take up to 2 years. This time should be used to advise owners of car parking in the area that it is proposed to introduce a parking levy in the area from 1st September 2012. This will provide owners with time to negotiate agreements with their tenants to pass on the cost of the parking levy and to ensure businesses have ample opportunity to plan for parking levy payments by including provision in budgets. Also by introducing part way through the year, the opportunity could be taken to provide an annual discount through reducing the annual levy charge to 50% for the year 2012/13. In the following 2013/14 the

full cost of the levy would apply. In following years the levy could be increased in accordance with the CPI or in accordance with fee changes approved by the Minister for Transport.

7. Parking Management

In an environment where the role of parking is to limit the demand for travel and to encourage the use of public transport, walking and cycling, it can be expected that the demand for parking will on occasion be close to the amount of parking provided. Under these circumstances the management of parking assumes a higher level of importance than when there is a plentiful supply of parking at most times of the day.

7.1. High Level Principles and Goals

The following parking management principles and goals have been developed to support the high level access principles discussed in section 2 and the role of parking outlined in section 3 of this report:

- Establish and implement a uniform policy for the provision and management of parking;
- Reduce (when compared to existing standards) the amount of parking provided in the city centre;
- Ensure that the majority of the parking provided in the city centre is public parking available for a mix of users. Mandate shared parking as part of the development approval process:
- Ensure that the supply of city centre parking meets the needs of short term business and shopping visitors by provision of a mixture of 1, 2 and 4 hour parking;
- Use price as means of regulating demand and maintaining an adequate supply of available bays;
- Use convenient payment systems with flexible rates to encourage short term public parking;
- Ensure there is a generous supply of parking for cyclists and motorcyclists;
- Ensure there is a high level of compliance with agreed policies and regulations.

7.2. Creation and Management of a Pool of Public Parking

The various roles of parking in the Stirling City Centre are discussed in section 3 of this report. As well as limiting the supply of parking to assist in managing congestion, it is important to ensure there is sufficient parking to ensure the commercial viability of the centre. These apparently opposing needs can be addressed by ensuring that the majority of parking in the centre is public, shared parking that is managed in a way that gives priority to short term users.

Private, commercial tenant parking is, in the main, used by communities who generally travel during peak periods and contribute to congestion more than short term parkers. On the other hand, short term parkers are often business travellers or shoppers that play an important role in ensuring the commercial viability of the centre.

The main users of public parking are people who travel to the city, sometimes infrequently, or for short duration for business, recreation, entertainment, shopping or other purposes, or as visitors to residents in the city centre. These users do not always require parking at the same time and thus a lower level of parking can achieve a higher level of turnover and a greater spread of usage over time, resulting in more efficient usage of a scarce resource. Importantly, it also means that a much higher proportion of visitors to and from the car parks occur outside of peak hours and hence the users of the car parks make a lesser contribution to peak hour congestion.

Public car parks are likely to be constructed either by private operators or by the Stirling City Council using cash-in-lieu contributions. As is the case in the City of Perth a short stay zone for parking will need to be created where a high proportion of the car parking must be operated as short stay parking. It is likely that pricing would be used to discourage long stay parking. It would be achieved by increasing the hourly rate of parking for stays of longer than 4 hours.

7.3. Location of Multi-Level Car Parks

It is proposed that the City Council develop a policy on the provision and location of public car parking. As part of this policy, the majority of the city centre would be declared a short stay zone. Long term parking would only be permitted outside of the short stay zone on the periphery of the core of the City Centre.

Under the Council's policy, a transport assessment and management plan would need to be prepared for all public car parks based on the following principles:

- Car parks be distributed around the city so as not to create points of congestion.
- The larger car parks be on the periphery of the city centre but within convenient walking distance to major activities to enable park and walk along active commercial streets.
- Car parks be sleeved with active uses and driveway access be designed and located so as not to compromise street level activity, including pedestrian and cyclist movement networks.
- Car parks to be an optimal size for integrated mixed use development taking account of efficient commercial operation and capacity of car park entry/exits and the local street system.

7.4. Train Station Car Parking

The Stirling train station is currently located close to a freeway interchange away from any commercial or retail development. As a result, a significant level of park and ride has been developed around the station to provide access to public transport for more people and encourage greater use of public transport. At Glendalough station there are many more business premises in close proximity to the station and a much lower level of park and ride parking has been provided.

As a city centre is developed around the Stirling train station, it is appropriate that the level of parking provided specifically for train users be decreased. It is not good policy to encourage people to drive to a busy crowded city centre to park their car to drive to another city centre.

As the Stirling City Centre develops over time there will need to be a transition, as the at grade car parks are developed and replaced with multi-storey car parks that are used for a variety of purposes. In the short to medium term some of the multi-story parking will be used by train travellers, but this will decline over time as the price becomes less attractive for commuters and as access to Stirling City Centre by bus and/or light rail becomes more attractive.

In the short to medium term, car parks in the vicinity of the railway station should be developed in accordance with the policy on car park location (section 7.3) and managed to include a level of usage by commuters and other train users. The following principles should be applied to these car parks:

- They should be located on the periphery of the city centre within reasonable walking distance of the train station and sleeved with other developments;
- They should be located to channel pedestrian access along retail/commercial streets and provide a legible, secure, convenient and comfortable walk to the station.
- The charge for use for those bays allocated for public transport use should be in accordance with public transport policy, but a commercial charge should apply at other times when not needed for public transport patrons.
- The amount of space dedicated at certain times for public transport users be reduced as the city centre grows in accordance with an agreed transition policy.

7.5. Management of Residential Parking

Residential parking will need to be managed both within the mixed use city centre and in the predominantly residential precincts surrounding the city centre.

In the currently undeveloped area that will comprise the future mixed use city centre, it will be important not to create expectations that future residents of apartments will be entitled to free or convenient use of on street parking. Future owners of residential apartments need to be made aware that all on street parking will be paid short term parking all day with no special allowances for residents. In the evenings, the on street parking could be free initially, but in the longer term there may also be a charge applied, depending on demand.

In the residential precincts surrounding the city centre, the on street parking will need to be managed to create some level of priority for residents. During the day and as necessary in the evenings short stay parking should be provided to ensure the streets are not used by commuters to

the city centre. In addition, a residents parking scheme should be introduced to provide some limited guarantee of kerbside parking space for residents.

7.6. Car Clubs and Bicycle Rental

Car clubs have become increasingly popular in large cities in Europe, North America and more recently in Australia. For a nominal membership fee, people gain electronic access to a vehicle paid for by a credit card. Space to park car club vehicles is made available either on street or off street in an easily accessible location in the city centre.

Experience has shown that car club cars are used by inner city residents, city business people and visitors. The price regime favours use for relatively short hire periods. It is recommended that space be allocated for the parking or car club vehicles within the city centre and that the City of Stirling and the Stirling Alliance use its best endeavours to promote a car club at Stirling.

Bicycle hire, (sometimes free hire) has been introduced in a number of city centres to promote the use of cycling. As with car clubs, this is likely to be a commercial venture supported by Government subsidy. To meet the mode share targets for active transport and to improve accessibility to and within the Stirling City Centre, the promotion of cycling will be important to its increasing popularity and use. It is recommended that the City of Stilling and the Stirling Alliance support bicycle rental in the Stirling City Centre, to be introduced at an appropriate time, and make available convenient, safe, secure space for bicycle hire vehicles in the public space and street design of the city centre.

7.7. Wayfinding and Guidance

Wayfinding is best defined as consisting largely of breaking vital information down into discrete packets so that choices can be made at ‘decision points’. A successful wayfinding system gives users a sense of order through effective organisation of the environment by identifying relevant zones, creating traffic paths and presenting a logical progression of information.

The primary objectives of parking wayfinding signage are:

- reduced traffic circulating within the city centre searching for spaces
- consequent reduced travel time, congestion and pollution
- enhanced perception of available parking
- more efficient use of available parking spaces, reducing the need for additional supply
- redistribution of demand between car parks and the alleviation of queues at peak times
- increased occupancy of car parks, therefore improved income and amortisation of costs.

There are a number of different methods of providing information. These include:

- pre-trip information
- static signs
- variable message signs (VMS)
- information dissemination on request e.g. SMS, in-vehicle navigation systems, radio
- parking guidance systems (PGS).

Parking guidance systems may combine several traveller information methods to provide drivers with dynamic information on parking.

The perception of parking availability is important to commuter and casual parkers. Drivers want to know where to look for wayfinding information when they need it, understand the way the information is communicated and obtain the information quickly and without complexity. Parking wayfinding must also be integrated with pedestrian wayfinding, indicating direction and walking times. A clear pedestrian wayfinding system in the Stirling City Centre will assist in reducing the focus on parking spaces close to a drivers' destination.

Stirling must ensure that parking wayfinding is customer-led and not provider-led and avoid each major provider only advertising its own car parking. Published pre-trip information must provide current parking availability. The information should not merely indicate the total capacity of each car park. It should provide detail of alternative options if car parks are full.

Zone-based signage appears to be the most effective. Separating the Stirling city centre into convenient zones will need to be compatible with various planning precinct definitions. There are currently 2 parking zones (**Figure 5.1**) and seven precincts (**Figure1.1**). A practical parking precinct map could initially incorporate at least a short term parking and a long term parking zone and then as the city grows, the zones could be expanded to more easily identify:

- A Retail zone
- A Commercial zone
- An Office zone.

For a practical and integrated parking and pedestrian wayfinding system to be implemented for the Stirling City Centre, the following is required:

- Traveller information needs to be provided consistently and comprehensively. Relevant, timely data must be obtained and disseminated. Drivers need real-time and predictive information about available vacancy in different parking zones. This data cannot be provided on a static map, but needs to be made available via various outlets such as SMS, radio, in-vehicle navigation systems and VMS on freeways and major arterials leading to the city centre.

- As all parkers become pedestrians, clear pedestrian wayfinding is required showing distances and routes to major icons and destinations. This will encourage more walking and the use of the internal public transport within the city centre
- Pre-trip travel information and other wayfinding should be provided (and marketed) by an independent group to ensure consistency and independence. This will be a small group comprising representatives from Council, the local Chamber of Commerce and MRWA. It must be seen to be providing an independent service and to be maintaining the confidentiality of data provided by all parking suppliers. It must be at arms length from any Council parking authority.
- Pre-trip traveller information and static, VMS and other parking guidance systems must primarily be customer led and focussed on the needs of the traveller to the city centre including pedestrians within the city.
- Some form of zone identification needs to be introduced and eventually expanded.
- Ongoing education of travellers needs to be recognised as an important part of the wayfinding process. An ongoing education program is necessary to ensure that all users of Stirling City Centre become aware of the options to get to a destination. This will reduce the demand for parking and encourage walking cycling and public transportuse.

Once parking and pedestrian wayfinding is available, the implementation and management of technologically advanced wayfinding systems for all users will require several actions:

- An independent group to implement and manage the system.
- A commitment by all private parking providers and stakeholders to embrace the parking wayfinding system and to provide the system with relevant, accurate, up-to-the-minute data, and possibly a commitment to funding. This will need to be incorporated into planning approvals.
- Identification and promotion of zones and boundaries.
- Production of driver-friendly, user-focused, interactive maps of parking availability capacity and other transport options in the city centre for short, medium, after-hour and event parking.
- Development of parking and pedestrian wayfinding signage design standards with the input of several authorities and different forms of media for the delivery of the information.
- Development of a staged implementation program.
- Examination of alternative methods of funding to establish the system and to manage it.

The early implementation of parking and pedestrian wayfinding for the Stirling City Centre and the integration of parking, pedestrian and public transport is necessary as it will:

- create visitor-friendly route guidance and improved accessibility for shoppers and tourists

- encourage drivers to park off-street thereby freeing up road space for public transport, cyclists and other users
- reduce cruising for vacant spaces
- create a perception of more parking supply by clearly indicating available capacity at all times
- provide a healthier environment and improved safety for all road users.

The initial capital expense for the establishment of parking and pedestrian wayfinding requires funding by State or Federal government as it is an essential part of ensuring the success of the sustainable transport approach to this project. It is envisaged that funding for the ongoing monitoring of the system and the collation and dissemination of relevant data by the independent group, will be funded from the Stirling City Centre's parking levy, as it encourages more efficient use of the available parking supply.

8. City Centre Access and Parking Strategy

Most of the world's great cities were formed many years ago in the era when walking or public transport provided the predominant means of access. As a result, they had and still have low levels of parking. This has not restrained the growth and development of cities like Rome or London or made them less interesting or desirable places to live in or to visit.

8.1. Perth City Access and Parking Strategy

In Australia, the city centres of all of our capital cities were established during the era when the ratio of parking bays per square metre of developed land was low. Perth was no exception and in the 1960s the majority of people walked, cycled or used public transport when travelling into the city for work, shopping or leisure. Between 1970 and 1990 planners required high levels of parking to be provided to permit growing numbers of people to drive to the city of Perth. During this period the number of parking bays increased from 30,000 to over 60000. By the mid 1990s over 100,000 vehicles per day entered the city via the Causeway and over 140,000 vehicles each day crossed the Narrows Bridge and there was growing concern with the level of congestion and the amenity on city streets.

By the mid 1990s the State Government, most local governments and the population at large recognised that the relentless growth of car travel was not sustainable, particularly in city centres. The Metropolitan Transport Strategy released in 1995 set targets which estimated that the mode share of car drivers would reduce from 63% at the time to less than 50% by the year 2029 and that the mode share of public transport would double.

A new parking policy for the City of Perth was introduced in 1999 with the agreement of the City of Perth and the State Government. It:

- Introduced strict maximum limits on tenant parking based on the area of developable land;
- Introduced regulations prohibiting any increase in long term public parking within the central area of the city (short term parking zone);
- Imposed a levy on all non-residential parking in the city centre with limited exceptions.

Two years after the introduction of this policy, the number of licensed parking bays in use in the city has reduced by 10% from 63,000 to 57,000 bays. Ten years later there is still less than 60,000 parking bays in use within Perth City, indicating that the unsustainable growth of city parking has been halted.

Ten years after the introduction of the Perth Parking Policy in 1999 car driving into the city has reduced and public transport use has nearly doubled during a time when there has been growth in commercial, retail and residential uses in the city. Traffic levels across the Causeway are now 20% below that recorded immediately after the opening of the Graham Farmer Freeway and traffic flows

along Barrack Street and William Street in the city are now less than half what they were in the mid 1990s. Australian Bureu of Statistics figures show that car driver trips for work in Perth CBD has reduced from 50% fifteen years ago to 35% at present, whilst public transport use has increased from 35% to over 50%.

The Perth Parking policy has been hailed a success and it is now recognised that sustainable growth of the Perth City Centre can only be achieved by improving priority for and use of public transport and by gradually increasing the level of cycling to the city. Access within the city is predominantly on foot and the Perth City Council is developing plans to improve pedestrian amenity.

8.2. Access and Parking Strategy for Stirling

There are a number of similarities between Perth City Centre and the future Stirling City Centre. For example, car access to both centres is constrained - in the case of Perth by the Swan River to the South and east and in the case of Stirling by the Mitchell Freeway to the North East and existing development to the West. In both Stirling and Perth there are limited access roads to serve the centre and there is a finite capacity for car based travel. This means that the experience with access and parking constraint in Perth is relevant to Stirling and much can be learned from the implementation of the Perth Parking Policy.

In Stirling the limited capacity of the street system means there is a limit to the amount of traffic that can access the Stirling City Centre in peak periods. The two way capacity of the street system in and around the Stirling City Centre has been estimated to be about 12000 vehicles per hour. This being the case, the access strategy to the city centre must ensure that at least half of all travel to, from and within the city must be by public transport, walking or cycling. The estimated long term access mode share for travel to, from and within Stirling City Centre is:

- Car driver – 35%
- Car passenger – 15%
- Public transport – 15%
- Walking, cycling – 35%

Failure to ensure the car driving mode share is restricted to 35% of all travel by full potential development of the City Centre, would result in the City Centre being developed to less than it’s full potential of 30,000 jobs and 30,000 residents.

The access strategy for the Stirling City Centre is therefore based on the development of a high quality, high capacity public transport system and excellent network of bicycle paths and foot paths to encourage a high level of walking and cycling. In parallel with this strategy to achieve high levels of walking, cycling and public transport is the strategy to restrict car driving to a level that

can be accommodated on the proposed street network. The strategy of limiting car driving to a sustainable level is based on the development of a parking policy designed to:

- Limit the supply of parking;
- Manage parking in a way that discourages long stay parking in favour of short stay parking

There is a clear nexus between the amount of parking provided and the amount of car driver trips to the centre. Property developers and others have argued that insufficient parking can limit the development potential of a city and have an adverse impact on its commercial viability. However, the experience with the Perth Parking Policy in central Perth has shown that limitations on parking and a vibrant growing city can co-exist. Indeed many of the worlds richest and most vibrant cities have been developed on very limited levels of parking. The parking strategy for the Stirling City Centre proposes:

- Regulations to limit the supply of parking based on maximum levels of parking per residential unit and parking bays per 100m2 of non-residential land;
- Regulations to ensure that the total level of parking on an area of developable land does not exceed a threshold level;
- A cash-in-lieu policy to encourage developers to reduce the supply of parking below the maximum permitted and to provide funds to assist in developing a quality public transport system;
- Implementation of a levy on non-residential car parking in the Stirling City Centre and adjacent areas to assist in managing travel demand and provide funds for alternative transport options, particularly public transport;
- Parking fees and charges designed to discourage long term parking in favour of short term parking;
- A range of parking management initiatives designed to maximise the proportion of public parking available for short stay users;
- Development of a wayfinding and guidance system to improve visitors access experience and provide more efficient utilisation of resources.

For a period of 5 years following the gazettal of the parking strategy, it is recommended the Council of the City of Stirling retain discretionary powers to permit higher levels of parking. Some developers may be reluctant to commit to develop with low levels of parking in the short term because they are accustomed to lower parking ratios and because they do not perceive Stirling as a high density mixed use centre at this time.

Should discretionary higher parking allowances be permitted, it is recommended they be considered within the following framework:

- Discretionary powers to provide more parking apply to residential and office development only.
- The maximum discretionary increase be 20% above the recommended level
- In the case of office development, all of the additional parking permitted must be public paid parking provided either in a separate parking structure as part of the proposed permanent supply of public parking for the centre or on an adjacent at-grade site as temporary public paid parking.
- All cash-in-lieu payments required under the policy (refer to section 6) must be paid, including the fixed cash-in-lieu component, regardless of the fact that the developer has chosen to provide more parking.

61 York Street
Subiaco WA 6008
P.O.BOX 42 Subiaco WA 6904
Phone: +61 (08) 9382 4199
Fax: +61 (08) 9382 4177
Email: admin@transcore.net.au

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17 January 2013

TPG
Level 7, 182 St George's Terrace
PERTH WA 6000

Attention: Peter Simpson

Dear Peter,

RE: PROPOSED MIXED USE DEVELOPMENT - PRECINCT 4, INNALOO

Further to the City of Stirling's query we offer the following information with respect to trip generation assumptions documented on page 14 of Transcore's Revised Transport Assessment Report of January 2013 and the parking supply and allocation to each land use.

TRIP GENERATION

- For non-residential land uses a weekday trip generation rate of four vehicular trips per parking bay per day was assumed. Since the vast majority of non-residential land uses is office it is assumed that one trip during the morning peak hour, one trip during the evening peak hour and two trips during the hours in-between represents an adequate average daily trip generation for these land uses;

- For residential land uses a weekday trip generation trip rate of two vehicular trips per parking bay per day was assumed. This assumption is based on occupancy of the apartments by young professional people. If these people use their car to travel to work then the daily trip entails one trip during the morning peak hour and one trip during the evening peak hour. Any additional trips by residents who use their cars during weekdays are assumed to be offset by residents who will not use their car during weekdays and rely on public other means of transport;

- For office and child care components one vehicular trip per parking bay during the road network peak hours has been assumed. As outlined earlier, one vehicular trip per bay during peak hours allows for one arrival and one departure trip for office during the peak hours. With respect to the child care our experience indicates that child cares typically do not entail pronounced peak hours but instead the peak periods are usually spread over a 3-hour period in the morning and 3-hour period in the afternoon. As such, the assumption of one

vehicular trip per bay during the peak hour is a reasonable assumption considering specific traffic pattern of this land use;

- It was assumed that 80% of the office peak period trips occur during the selected AM and PM road network peak hours. This assumption is based on the fact that some employees arrive early and/or leave late;

- No vehicular trips were assumed for retail and tavern land uses during the AM peak hour because it is anticipated that these uses will not be operating during the road network AM peak hour;

- For the café a road network peak hour vehicular trip rate of 0.5 trips per bay was assumed due to the fact that during the road network peak hours the café vehicular patronage is not expected to be high;

- Similarly, for the retail and tavern land uses a PM road network peak hour vehicular trip rate of 0.5 trips per bay was assumed due to the fact that during the PM road network peak hour the retail and tavern vehicular patronage is not expected to be high;

- The road network peak hour trip rates assumed for the residential units are in line with RTA NSW trip generation rates;

- The residential vehicular trip rates were further reduced by 50% due to the proximity to rail station and bus services and the fact that people choose to live in these apartments due to the location and proximity to public transport;

- The in and out directional split assumptions for vehicular movements during the peak hours documented in Table 4 of Transcore's Revised Transport Assessment Report are in line with RTA NSW and ITE USA guidelines trip generation details;

PARKING SUPPLY & ALLOCATION

- The overall car parking for the Precinct 4 has been based on the recommended maximum car parking levels set out in the SKM report *'Stirling City Centre Access and Parking Strategy' (August 2010)* for the subject locality as requested by Department of Transport and Stirling Alliance. The SKM's report provides maximum desirable car parking supply within Precinct 4, which forms part of the Stirling City Centre, as part of an overall parking reduction strategy. This strategy proposes significantly less car park supply than that set out in the City of Stirling Town Planning Scheme No. 38 (TPS38). Accordingly, the development proposal complies with the provisions of the *'Stirling City Centre Access and Parking Strategy'* document providing 8 parking bays less for the than the maximum recommended level.

- The car parking allocation for each development component has been based on the pro-rata allocation of the total car park provision using the TPS38 car parking requirements as a guideline. The minimum level of car parking for each land use

under TPS38 has then been identified as a percentage and generally applied to the proposed car parking for the precinct. Refer **Appendix A** for more details on parking allocation.

I trust the information documented in this letter will assist the current deliberations.

Yours truly,

FOR Behnam Bordbar
Managing Director

APPENDIX A

The development proposal totals 1,072 parking bays (952 bays when 120 residential bays are excluded). The residential parking component is based on parking rate of 0.75 bays per dwelling (as per R-codes small dwellings) with reciprocal parking for visitors using the commercial bays. The following table shows how total parking supply (less the residential component) is allocated.

Land use	Total Area 211, 212, 214 and 222 combined	TPS38 parking requirements	(%)	SKM max parking limit	Proposed parking bays	(%)
Office	85,520 m^2	1710	82.3%	855	784	82%
Shop	4,183 m^2	209	10%	83	96	10%
Cafe	787 m^2	79	3.8%	15	30	3.3%
Tavern	320 m^2	64	3.1%	7	30	3.3%
Child Care	100 children	15	0.8%	-	12	1.4%
Total		***2,077***	***100%***	***960***	***952***	***100%***

02.2_ARCHITECTURAL TREATMENTS: GROUND FLOOR RETAIL

RECEIVED
12 DEC 2012



02.2_ARCHITECTURAL TREATMENTS:
GROUND FLOOR PERGOLA

RECEIVED
12 DEC 2012



RECEIVED
12 DEC 2012

02.2_ARCHITECTURAL TREATMENTS:
EXTERIOR TOWER SHELL



RECEIVED
12 DEC 2012

02.2_ARCHITECTURAL TREATMENTS:
INTERNAL TOWER TREATMENT



RECEIVED
12 DEC 2012

02.2_ARCHITECTURAL TREATMENTS: EXTERIOR TOWER SHELL



RECEIVED
12 DEC 2012



RECEIVED
12 DEC 2012



Government of **Western Australia**
Development Assessment Panels

Form 1 - Responsible Authority Report

(Regulation 12)

Application Details:	Mixed use development comprising 154 multiple dwellings, office floorspace, shop and cafe / restaurant / tavern at ground level and three levels of car parking
Property Location:	Lot 222 (No. 1) Sunray Drive, Innaloo
DAP Name:	Metro North-West Joint Development Assessment Panel
Applicant:	TPG Town Planning, Urban Design and Heritage
Owner:	Fabray Pty Ltd
LG Reference:	City of Stirling DA12/3095
Responsible Authority:	Western Australian Planning Commission
Authorising Officer:	Executive Director Perth and Peel Planning Division
Application No and File No:	DP13/00033 and 20-50449-1
Report Date:	8 March 2013
Application Receipt Date:	9 January 2013
Application Process Days:	40 business days (57 total days)
Attachment(s):	1 - Location and Zoning Plan 2 - Draft Stirling City Centre Structure Plan 3 - Development Plans and Elevations and Perspectives

Recommendation:

That the Metro North-West Joint Development Assessment Panel resolves to:

Approve DAP Application reference DP12/01189 and accompanying plans:

- A300 C, A305 C, A310 C, L_CP_001 Roof Garden, L_CP_001 Streetscape, L_CP_001 Trees and Planting, L_CP_001 Landscape Approach date stamped 12 December 2012; and
- A001 F, A002 E, A003 D, A100 F, A203 E, A206 D, A208 D, A210 D, A250 F, date stamped 4 February 2013; and
- A200 L, A201 G, A202 H, A400 C, A401 C, A500 F, A501 C, A502 C, date stamped 6 March 2013;

by the Department of Planning on behalf of the Western Australian Planning Commission in accordance with Clause 30 (1) of the Metropolitan Region Scheme, subject to the following conditions:

A) Conditions

1. A pedestrian traffic generation and movement plan for the precinct is to be prepared and implemented to the satisfaction of the Western Australian Planning Commission on the advice of the Department of Transport and the City of Stirling prior to initial occupation of the development.

Transport and the City of Stirling prior to initial occupation of the development.

2. No earthworks shall encroach onto the Primary Regional Road reservation.

3. No stormwater drainage shall be discharged onto the Primary Regional Road reservation.

4. The applicant shall make good any damage to the existing verge vegetation within the Primary Regional Road Reservation.

5. A Parking Management Plan to be prepared and implemented to the satisfaction of the Western Australian Planning Commission, on the advice of the City of Stirling.

6. The applicant to undertake a transport noise assessment in accordance with State Planning Policy 5.4 - 'Road and Rail Transport Noise and Freight Considerations in Land Use Planning', and noise mitigation measures identified are to be implemented, to the satisfaction of the Western Australian Planning Commission on the advice of the Department of Transport.

This decision constitutes planning approval only and is valid for a period of 2 years from the date of approval. If the subject development is not substantially commenced within the 2 year period, the approval shall lapse and be of no further effect.

B) Advice notes

1. The Stirling Alliance Performance Framework 2010 has a minimum target of 20% renewable energy production. The Stirling Alliance requests that consideration be given to installation of renewable energy on the building roof space.

2. An acid sulphate soils self-assessment form and, if required as a result of the self-assessment, an acid sulphate soils report and an acid sulphate soils management plan shall be submitted to and approved by the Department of Environment and Conservation before any development is commenced. Where an acid sulphate soils management plan is required to be submitted, all subdivision works shall be carried out in accordance with the approved management plan. This form can be downloaded from the Western Australian Planning Commission's website at: www.planning.wa.gov.au. The "acid sulphate soils self-assessment form" makes reference to the Department of Environment and Conservation's "Identification and Investigation of Acid Sulphate Soils" guideline. This guideline can be obtained from the Department of Environment and Conservation's website at: www.dec.wa.gov.au.

3. With regard to Condition 5, the Parking Management Plan is to address, but not be limited to:

- Who is responsible for the plan's implementation, ongoing operation and review;
- The management strategies that will be used to ensure the requirements of the planning approval are met;
- What data and performance measures are going to be used to measure performance and adherence to the planning approvals; and
- How the landowner/manager will demonstrate to the responsible planning authority that they are in conformity with the elements of the planning approval that relate to site access and parking.

The applicant is advised to liaise direct with the Infrastructure Planning and Coordination Policy Unit of the Department of Planning (ph: 6551 9210) in respect of the above requirements.

Background:

Property Address:		Lot 222 (No. 1) Sunray Drive, Innaloo
Zoning	MRS:	Central City Area
	TPS:	City Centre
Development Scheme:		Metropolitan Region Scheme, City of Stirling Town Planning Scheme 38
Lot Size:		6,543m^2
Existing Land Use:		Vacant
Value of Development:		$55 million

The subject site is located in the suburb of Innaloo, approximately 7km north of Perth CBD and within the City of Stirling. The site is zoned 'Central City Area' under the MRS and 'City Centre' under the City's Town Planning Scheme No. 38 (**Attachment 1** - Location and Zoning Plan).

The proposed development requires determination under the Metropolitan Region Scheme (MRS) as the subject land is affected by a Clause 32 Resolution (No. 59 - Stirling Station Precinct). The purpose of the Clause 32 area is to promote residential and employment opportunities within close proximity of the train station. The Department of Planning is required to assess the proposal from a regional perspective and recommend conditions relevant to regional considerations.

Clause 30 (1) of the MRS requires due regard be given to the following factors when determining a development application:

1. *the purpose for which the land is zoned or reserved under the Scheme;*
2. *the orderly and proper planning of the locality; and*
3. *the preservation of amenities of the locality.*

All other issues relating to the proposal's compliance with the local planning scheme are to be addressed by the City of Stirling (City) in its responsible authority report to the DAP.

Stirling City Centre is identified as a Strategic Metropolitan Centre under the WAPC State Planning Policy 4.2 Activity Centres for Perth and Peel (SPP4.2). The Stirling Alliance (comprising local and state government agencies, the private sector and local community) was formed in 2008 to progress planning for the City Centre and incorporates:

- Development of a long term transport solution to address the congestion currently impacting the project area (and surrounding area);
- Preparation of detailed road designs for Scarborough Beach Road, the future Stephenson Boulevard and the Mitchell Freeway interchange; and
- Preparation of a structure plan to guide future development.

The Draft Stirling City Centre Structure Plan ('Draft Structure Plan') includes six precincts, one of which is the Station Precinct within which the subject site falls (**Attachment 2** - Draft Stirling City Centre Structure Plan).

There are no previous WAPC determined development applications for the site, however, in 2009 the WAPC granted conditional development approval for a 6 storey commercial development with retail at Lot 221 Tassels Place. This is the lot adjacent to, and the east of, the subject site and within the precinct. The development is currently under construction.

Most recently, the DAP considered three other applications in the Station Precinct on 31 January 2013, and resolved to conditionally approve all applications. These included:

- Lot 211 Tassels Place (8 storey office with cafe at ground level);
- Lot 212 Tassels Place (two buildings of 16 storeys with ground level retail); and
- Lot 214 Sunray Drive (two buildings of 16 storeys with ground level retail).

Details: outline of development application

The application proposes the development of three buildings designed to wrap around the street frontages of the site and incorporate:

- a 6 storey office building (oriented to Ellen Stirling Boulevard); and
- a 10 storey and an 8 storey residential apartment building (oriented respectively to Tassels Place and Baumea Way).

The development involves the following key elements:

- 154 multiple dwellings;
- 5,959m^2 office space;
- 1,451m^2 retail at ground level fronting the streets (Tassels Place, Baumea Way and Sunray Drive);
- 1,107m^2 tavern at ground level including a bar, cafe, kitchen and conference rooms; and
- 3 levels of car parking that incorporate 272 car bays, 3 motorcycle bays, 128 bicycle bays and end of trip facilities.

Attachment 3 - Development Application Plans illustrate details of the proposed development.

The following table summarises the number of proposed car bays in comparison to the number required under the City's Town Planning Scheme No.38.

Land Use	**Area**	**TPS 38 Requirement**		**Car bays Required**
		Minimum	Maximum	
Office	5,959m^2 GFA	1:50m^2 GFA	1:30m^2 GFA	119
Shop	1,451m^2 NLA	1:20m^2 GFA	1:14.5m^2 GFA	73
Restaurant	787m^2 GFA	1:10m^2	1:7m2 GFA	79
Tavern	320m2 public floorspace	1:5m2 public floorspace + 1: bedroom	1:3m2 public floorspace + 1: bedroom	64
Residential	154 multiple dwelling	At discretion of the Council	R-Codes specify two per dwelling + visitor bays 1 per 4 dwellings	120+39 visitor
		Total Required (min)		494
		Total Provided		272
		Shortfall		222

The shortfall in parking will be considered in terms of broader regional transport impacts later in this report.

Pedestrian access to the buildings will be via three lobbies that open onto the street that it faces including Tassels Place, Baumea Way and Sunray Drive. A cyclist entry is provided to the east off Baumea Way.

Legislation & policy:

Legislation

Planning and Development Act 2005

Metropolitan Region Scheme (MRS)

City of Stirling Town Planning Scheme No. 38 - Stirling City Centre Scheme (TPS38):

- subject site falls into Precinct 4: mixed use, office and entertainment.

State Government Strategic Planning Documents

Directions 2031 and Beyond (Directions 2031):

- Stirling City Centre is identified as a 'Strategic Metropolitan Centre'.

Draft Directions 2031 and Beyond Central Metropolitan Perth Sub-Regional Strategy (Draft Sub-Regional Strategy)

State Government Planning Policies

State Planning Policy 4.2 - Activity Centres for Perth and Peel (SPP4.2)

Development Control Policy 1.6 - Planning to Support Transit Use and Transit Oriented Development (DC 1.6)

Local Policies

Stirling Regional Centre Precinct 4 Outline Development Plan (ODP) which includes the Urban Design and Building Guidelines (ODP Design Guidelines)

Draft Stirling City Centre Structure Plan (Draft Structure Plan)

Consultation:

Consultation with Other Agencies or Consultants

Transport Portfolio Agencies (TPA): The Department of Transport (DoT), Main Roads Western Australia (MRWA) and the Public Transport Authority (PTA) object to the proposal.

The main reasons for the objection are:

- the Transport Assessment does not adequately address the travel patterns to the development and the robustness of the adjacent network to accommodate the proposed resultant increase in traffic;
- the traffic generation assessment does not have sufficient technical rigour; and
- parking allocation has not been confirmed as agreed between the proponent, Stirling Alliance and the City of Stirling.

In response, Stirling Alliance and the City of Stirling have advised that they support the proposed parking allocation.

Stirling Alliance has provided a detailed response in relation to the building height, land uses, parking, landscaping and lighting, design issues, environmental issues and transport issues, and overall supports the proposal.

Planning assessment:

Site Context

The subject site is located west of the Mitchell Freeway and has frontage to Ellen Stirling Boulevard, Tassels Place, Sunray Drive and Baumea Way. The surrounding area is characterised by commercial development to the south east, and single storey residential development to the north, south and west (excluding the development under construction on adjacent Lot 221). The site is located adjacent to

major commercial development, which includes the IKEA furniture and homewares store, a pharmacy, shoe store, camping store and commercial offices. To the south-west further commercial development exists including a supermarket and the Westfield Innaloo shopping centre.

The site is located approximately 400m from the Mitchell Freeway entry / exit (Cedric Street) and Stirling Railway Station and bus interchange. It also is located in close proximity to the Perth Metropolitan cycle network which has a main feeder along the Mitchell Freeway and from the west via the coastal cycle network.

MRS

The site is zoned 'Central City Area' under the MRS. The proposed development is considered to be consistent with the MRS zoning.

Whether the proposal is in accordance with the orderly and proper planning of the locality and preservation of amenities of the locality is discussed below and summarised in the Conclusion that follows.

Directions 2031

The highest strategic land use planning document for Perth and Peel is *Directions 2031: Spatial Policy for Perth and Peel*, which provides a framework for the detailed planning and delivery of housing, infrastructure and services necessary to accommodate population growth to 2031. Stirling City Centre is identified as a 'Strategic Metropolitan Centre' which is a high order centre intended to be a multi-purpose centre providing a mix of retail, office, community, entertainment and employment activities.

SPP 4.2

State Planning Policy SPP 4.2 - Activity Centres for Perth and Peel is the overarching State policy utilised by the WAPC to implement the recommendations of *Directions 2031* as they relate to activity centres. SPP 4.2 places a high priority on establishing a coherent and complementary urban form and design outcome for places. The aim is to create diverse mixed use centres which attract investment, employment and people. SPP 4.2 includes the following clauses:

- 5.2.1.2: encourages strategic metropolitan centres to develop in a manner that does not result in a predominantly single purpose centre;
- 5.2.1.5: encourages the inclusion of a mix of land uses in activity centre structure plans and, where appropriate, major developments;
- 5.2.4.1: locating major offices in strategic metropolitan centres where appropriate; and
- 5.3.1.3: planning activity centres in line with transit-oriented development principles as elaborated by DC 1.6 (that is, locating moderate to high-density retail, commercial, mixed use, community and residential development close to train stations to encourage public transport use over private vehicles), to make it convenient and practicable for residents, employees and visitor to travel by public transport instead of by private car.

DC 1.6

Development Control Policy 1.6 - Planning to Support Transit Use and Transit Oriented Development is relevant as the subject land falls within a 'transit oriented precinct' under the policy because it is within 800m of Stirling railway station. The objectives of DC 1.6 include:

- to promote and facilitate the use of public transport as a more sustainable alternative to private cars, to enhance community accessibility to services and facilities, including employment opportunities, community services and recreational facilities, and to improve equity in accessibility for those who do not own or have access to a car;
- to encourage balanced public transport along transit corridors by creating places that are destinations as well as points of departure;
- to ensure the optimal use of land within transit oriented precincts by encouraging the development of uses and activities that will benefit from their proximity and accessibility to public transport, and which will in turn generate a demand for the use of transit infrastructure and services; and
- to promote and facilitate walking and cycling within transit oriented precincts by establishing and maintaining high levels of amenity, safety and permeability in the urban form, and to promote and facilitate opportunities for integrating transport modes by creating opportunities for convenient, safe and secure mode interchange.

Compliance with Directions 2031, SPP 4.2 and DC 1.6

The proposed development is consistent with regional planning policies as it will:

- promote Stirling City Centre as an employment hub;
- locate major offices in Stirling;
- provide residential apartments in the Station Precinct;
- provide employment and residential opportunities which reduce reliance on the Perth CBD and potentially reduce the number of commuter trips;
- provide an entertainment node comprising a tavern, cafe and retail to support the office and residential uses and provide for a mix of uses in the precinct; and
- improve the efficiency of existing public infrastructure, better integrate Stirling City Centre with the public transport system and contribute to the intensity required to support high-frequency public transport by generating additional patronage of the Stirling train station.

Stirling City Centre Structure Plan and Amendment No. 1 to TPS3

Draft Structure Plan

The *Draft Stirling City Centre Structure Plan* has been formulated on the principles that underpin the abovementioned strategic documents.

The Draft Structure Plan was advertised for public comment from 19 June to 30 July 2011 but has not yet received final approval from the City of Stirling or been presented to the WAPC for its assessment and consideration. This is due to Amendment No. 1 to Local Planning Scheme No.3 (LPS3) first requiring approval before the City or WAPC can give final approval to the Draft Structure Plan. Amendment No. 1 will facilitate the adoption of the structure plan by deleting TPS38 and creating a development area under LPS3. Until the proposed Development Area and zone is in place, it is not possible to adopt the Stirling City Centre Structure Plan.

However, given the advertising, and additional work that underpins the Draft Structure Plan (such as the yield analysis, access and parking strategy and preparation and advertising of Amendment No. 1 to LPS3), the Draft Structure Plan is considered a 'seriously entertained planning proposal'.

The Draft Structure Plan is intended to replace TPS38 and will therefore become the main planning document for this area. The subject site falls within the Station Precinct of the Draft Structure Plan. The Character Statement for this precinct proposes the following:

- Mixed use development including residential with an emphasis on office uses which serves as a major regional business centre around the train station;
- Mixed use civic, cultural and community buildings with residential components creating a civic hub for Stirling;
- Being the focal point and interchange for local and regional public transport (buses, trains and light rail system);
- Seamless connection and integration of land uses across the freeway on land bridges that will provide a safe and appealing pedestrian environment;
- Built form to reduce in height as development moves away from the train station closer to existing residential areas;
- Shaped by a linear park / stream that is an important element of the overall city green corridor; and
- Current amount of developed active open space will be maintained and reconfigured.

Amendment No. 1

Amendment No. 1 to LPS3 (Amendment 1) has been submitted to the WAPC for final approval and is likely to be presented to the Minister for Planning for determination in April 2013. The amendment was advertised for public comment from 26 March 2012 to 8 May 2012.

The purpose of the amendment is to:

- rescind Town Planning Scheme No. 38;
- incorporate the scheme area of TPS 38 into LPS 3;
- introduce Stirling Special Control Area provisions, Development Area, Development Zone and Development Contribution Area into LPS 3; and
- require a Detailed Area Plan for each precinct.

The amendment inserts objectives into the scheme text for the Stirling City Centre Special Control Area including the following:

- to facilitate the development of the Stirling City Centre in a coordinated manner, recognising its significance as a Strategic Metropolitan Centre;
- to ensure provision of an effective, efficient, integrated and safe transport network which is accessible to pedestrians, cyclists and public transport users and motorists;
- to ensure the development of a diverse range of housing types (including affordable housing) in unique precincts that have high levels of amenity;
- to ensure the development of a range of commercial uses that will contribute towards economic development, local employment and the viability of the

area as a commercial centre servicing residents, visitors and the local workforce.

For the Station Precinct, the Detailed Area Plan is required to include the following specific criteria:

- a minimum of two land use bridges (with land uses on both sides of bridge) across the Mitchell Freeway;
- Stephenson Avenue north of Cedric Street to become a 2 lane street with on street parking, separated cycling lanes and provision of priority public transport lanes;
- identification of an appropriate light rail route;
- Cedric Street to become a 4 lane street with on street parking, separated cycling lanes and provision of priority public transport lanes;
- building heights surrounding the station to be mid-rise to high rise (5-20 storeys. Building heights away from the station are to generally be mid-rise (5-10 storeys) transitioning to low rise (3-5 storeys) closer to adjacent residential areas.

The proposed development is consistent with the Draft Structure Plan and provisions contained within Amendment No. 1 as it will provide office and residential buildings with entertainment and retail facilities at ground level which will contribute to the commercial and economic development of the Station Precinct, as well as providing a much sought after residential and entertainment component within the precinct.

Transport Assessment Carried Out by Applicant

The subject locality contains four lots know as Lots 211, 212, 214 and 222. These lots have been treated as Transit Oriented Development (TOD) sites and an assessment has been conducted taking all four lots into account. The assessment has estimated trip generation based on parking provision rather than the usual method of floor space for different land use types, due to the sites being developed as TODs with close proximity to Stirling train station.

The Stirling City Centre Access and Parking Strategy (2010) prepared by SKM (Access and Parking Strategy) is one of the accompanying documents to the Draft Structure Plan. While the Draft Structure Plan for the Stirling City Centre has not yet been given final approval (pending Amendment No. 1), the Access and Parking Strategy has been prepared and endorsed by Council is appropriate to use as a guiding document for the applications.

The Department of Planning has provided the following comments with regard to the Transport Assessment (TA) prepared by Transcore a submitted with the application.

Trip Generation and Distribution

It is estimated that the proposed development will generate approximately 4000 vehicle trips per weekday, with approximately 730 vehicle trips in the weekday AM peak period and 770 vehicle trips in the PM weekday peak period.

Access and Intersection Analysis

Access to the site will be via Tassels Place and Sunray Drive, which both intersect Ellen Stirling Boulevard, a District Distributor A Road. No direct access is proposed from Cedric Street (also a District Distributor A road) or Ellen Stirling Boulevard. This accords with WAPC Policy DC 5.1, which recommends minimising the number of new crossovers onto regional roads.

No changes to existing intersection arrangements are proposed. An analysis of the Cedric Street / Ellen Stirling Boulevard, Ellen Stirling Boulevard / Tassels Place and Ellen Stirling Boulevard / Sunray Drive intersections indicate that these intersections will continue to operate within capacity post development, with no reduction in overall level of service in either the AM or PM peak hours.

Parking Provision

The parking provision for the site is supported as it meets the objectives of SPP 4.2, particularly Clause 5.3.2 Traffic and Parking. SPP 4.2 allows flexibility rather than strict adherence to a 'standard' and section 4.3.2(4) states there should be flexibility for developers to provide less or no parking on-site and contribute cash-in-lieu towards facilities and services for common-use parking, public transport and alternative modes.

Active ongoing management of all parking within the City Centre's boundary by landowner(s), their agents/property managers and tenants is essential to achieving the desired outcome of a centre readily accessible to the general community by a range of transport modes across the day/week. Additionally, it will be necessary to ensure parking bays are not dominated by a particular group to the loss of other user groups. Accordingly, a parking management plan should be prepared for the site and a condition imposed to ensure issues relating to, but not limited to, prioritisation of parking, percentage allocation of short stay and longer stay visitor parking bays, bicycle parking, as well as responsibility for the management of parking allocation and compliance are appropriately managed. A parking management plan has been a requirement for other developments in the Stirling City Centre area previously, and also the 3 applications recently considered by the DAP.

Given the parking saving that the development is achieving if it proceeds with its reduced parking supply, it may be an option to require some contribution toward:

- the cost of public transport services to the area as occurs at Herdsman and in Midland; or
- an improved pedestrian or cycle environment such as a link to Stirling train station or across/under Ellen Stirling Boulevard.

However, it is not considered that there is an appropriate statutory mechanism to impose a condition requiring this contribution until the adoption of the Draft Structure Plan.

Outside the Perth CBD, this site is considered to be one of the best located relative to public transport in the Perth metro region, for the following reasons:

- it is within 200 to 300 metres of Stirling train station;
- it is close to a number of bus services that bring people in from the immediate catchment area of Stirling;

- it is close to the Circle Route bus route along Ellen Stirling Boulevard and which provides a high frequency regional link; and
- it is a short distance from Scarborough Beach Road, which has one of the highest levels of bus service in the metro region throughout the week and on the weekend.

Given the level of public transport service to this area, combined with active management of the parking supply on site and on adjacent sites, it is reasonable to expect a significant mode shift to public transport, walking and cycling for commuting to the site.

In light of the above, there is no objection to the proposal on regional transport planning grounds.

Transport Portfolio Agencies Comments

As detailed above, the Transport Portfolio Agencies (DoT, MRWA and PTA) object to the proposal for a number of reasons.

A major concern of the Transport Portfolio Agencies is that a robust Transport Assessment (TA) for the Stirling City Centre has not been provided. It is DoT's view that a more comprehensive TA for the Stirling City Centre is key to assessing traffic implications in a broader context and until this is available, transport impacts for these developments or any future developments will be problematic.

Inadequacies in the Transport Assessment

The Transport Portfolio Agencies believe that the Transport Assessment (TA) does not adequately address travel patterns to the development and has questioned the robustness of the adjacent road network to accommodate the resultant increase in traffic.

Traffic Generation Assessment

The Transport Portfolio Agencies consider the traffic generation assessment does not have sufficient technical rigour and raise a number of issues with regard to this. Aerial photographs are provided that show gridlock on the road network to support this view.

Parking Allocation

The Transport Portfolio Agencies have stated that parking allocation has not been confirmed as agreed between the proponent, Stirling Alliance and the City of Stirling. In response, the Stirling Alliance has confirmed they support the parking provision proposed.

Whilst the application provides a shortfall in the number of car parking bays required by the City's Town Planning Scheme No. 38, clause 4.4.2 of the Scheme provides the local government with discretion to reduce the car parking requirements of any development provided that it is in the interests of proper and orderly planning and will not detract from the amenity of the area. The City of Stirling have confirmed that they support the proposed parking provision and that a variation to the standard requirement is justified in this instance.

In December 2012 the Department of Transport provided verbal advice that they would be willing to accept a level of parking provision that was in keeping with the minimum and maximum rates described in the Access and Parking Strategy. The proposed parking numbers for the precinct as a whole (shared across Lots 211, 212, 214 and 222) fall within this range.

Transport Issues Conclusion

Stirling, being a Strategic Metropolitan Centre, is intended to be a multi-purpose centre that provides a mix of retail, office, community, entertainment and employment activities that are well serviced by high frequency public transport, thereby reducing the requirement for travel outside the catchment. To achieve the desired diversity and liveability, a robust integrated transport movement network, with particular emphasis on promoting public transport, walking and cycling and reducing the length and number of private car trips is essential.

It is acknowledged that the proposed development, in conjunction with the other proposed developments in the Station Precinct, previously approved by the DAP, will add to the existing traffic problems in this area. However, the lots have been created and the planning framework at all levels envisages dense development at this location. Additionally, a number of changes to the road network are proposed as part of the Draft Structure Plan and these will assist in reducing traffic problems.

The Transport Assessment states that *"As a result of the proposed network modifications and the projected future traffic volumes outlined in the Stirling City Centre Structure Plan document…the key precinct roads relevant to the proposal all show significant reduction in traffic volumes as a consequence of the extensive road infrastructure modifications…"* and "*Accordingly, due to the proposed changes in future transport network and travel patterns at this locality the key road links and intersections relevant to this development proposal are all expected to perform markedly better than in the short-term period."*

The responses from the Transport Portfolio Agencies have been discussed with the Department of Planning's Infrastructure and Land Use Coordination team who have reinforced their position that they have no objection to the proposal on regional planning grounds. Any issues that do exist are considered to be minor and can be addressed via conditions of approval. As such, they are not considered to be so significant as to warrant refusal of the application.

<u>Long Term Tunnel Option</u>

The Draft Structure Plan identifies that a bypass route for freight between the Mitchell Freeway and the Herdsman business area is necessary and represents one of 6 key strategies to achieve a dispersed transport / movement network. Initially, this route is to be provided via Hutton Street (proposed to be extended to Jon Sanders Drive and modified to increase traffic capacity) and in the longer term via a bypass tunnel if required.

The staging of the movement network is outlined in the Draft Structure Plan and the tunnel between Jon Sanders Drive and Mitchell Freeway, past Cedric Street, is identified as Stage 3.

The Stirling Alliance commissioned SKM to carry out the 'Stirling City Centre, Perth Tunnel Study' in February 2009. The study investigated two alternative construction methodologies for a proposed tunnel structure.

In September 2010 a report was prepared for Main Roads Western Australia titled 'Preliminary Assessment of Building Foundations Over Stirling Link Tunnel Study Report'. This report documents the preliminary assessment of the future tunnel link alignment and the building foundation requirements of the 3 development lots south of Cedric Street, that would be affected by the future tunnel. This includes the subject Lot 222.

Lots 212 and 214 are also affected by the proposed future tunnel. Applications for development on these lots were considered by the DAP on 31 January 2013. The outcome of this meeting was the DAP concluded that, given the uncertainty surrounding the proposed future tunnel, that it was unreasonable to impose a condition that required the type and depth of footings to be limited to preserve a long term option for the tunnel. Given this recent outcome, it is not proposed to impose a condition relating to the tunnel for the currently proposed development on Lot 222.

Residential Development

Residential development is identified as desirable and in some cases a requirement by various planning documents.

The Draft Structure Plan identifies the subject precinct for *'mixed use development including residential with an emphasis on office uses'*. Amendment No. 1 identifies a minimum residential target that is to be achieved through Detailed Area Plans and Local Planning Policies. TPS38 states that the Council shall take all reasonable steps to encourage the incorporation of a residential component in those precincts where a residential component is a preferred use. The ODP states that '*residential development shall be an integral component of all development proposals within the Precinct unless otherwise agreed and approved by the Council*.' Regional planning documents such as Directions 2031, SPP 4.2 and the Draft Stirling City Centre Structure Plan also attach importance to residential development.

In July 2011 a yield analysis was carried out for the Stirling City Centre Station Precinct. This is intended to guide future development within the Precinct, with proposed Amendment No. 1 confirming that future development is to have due regard to the yield analysis. The yield analysis identifies the minimum residential target on the subject site to be 39 dwellings whilst the preferred residential target is 60 dwellings.

The subject application for Lot 222 proposes 154 residential dwellings. The applicant has previously advised that the residential dwellings proposed as part of the subject application are intended to meet the residential requirement under the Draft Structure Plan for Lots 214 and 212, as the development applications for these lots did not propose a residential component. The Department of Planning has accepted this approach.

In respect of meeting the required residential component for Lots 214 and 212, the landowner has agreed that a legal agreement can be entered into with the City of Stirling to guarantee the residential component on Lot 222. This DAP included a condition on the City's approvals for these developments (31 January 2013) to ensure this is carried out.

Noise Study

State Planning Policy 5.4 *'Road and Rail Transport Noise and Freight Considerations in Land Use Planning*' is relevant as the proposed development is within the vicinity of existing major road and rail infrastructure, being the Mitchell Freeway and Joondalup train line. The proposed residential and entertainment uses are considered to be noise sensitive land uses and therefore the policy requirement is that a transport noise assessment is undertaken and that any noise mitigation measures identified are implemented. Therefore it is proposed to imposed a condition requiring this.

Acid Sulfate Soils

The subject site is identified as having a high risk of acid sulfate soils occurring within three metres of natural soil surface. The site and its environs has been the subject of previous remediation work as part of the subdivision of land in this precinct (WAPC Reference 124072, 5 August 2004). As part of the clearance of this subdivision the DEC endorsed an Acid Sulfate Management Plan for the precinct.

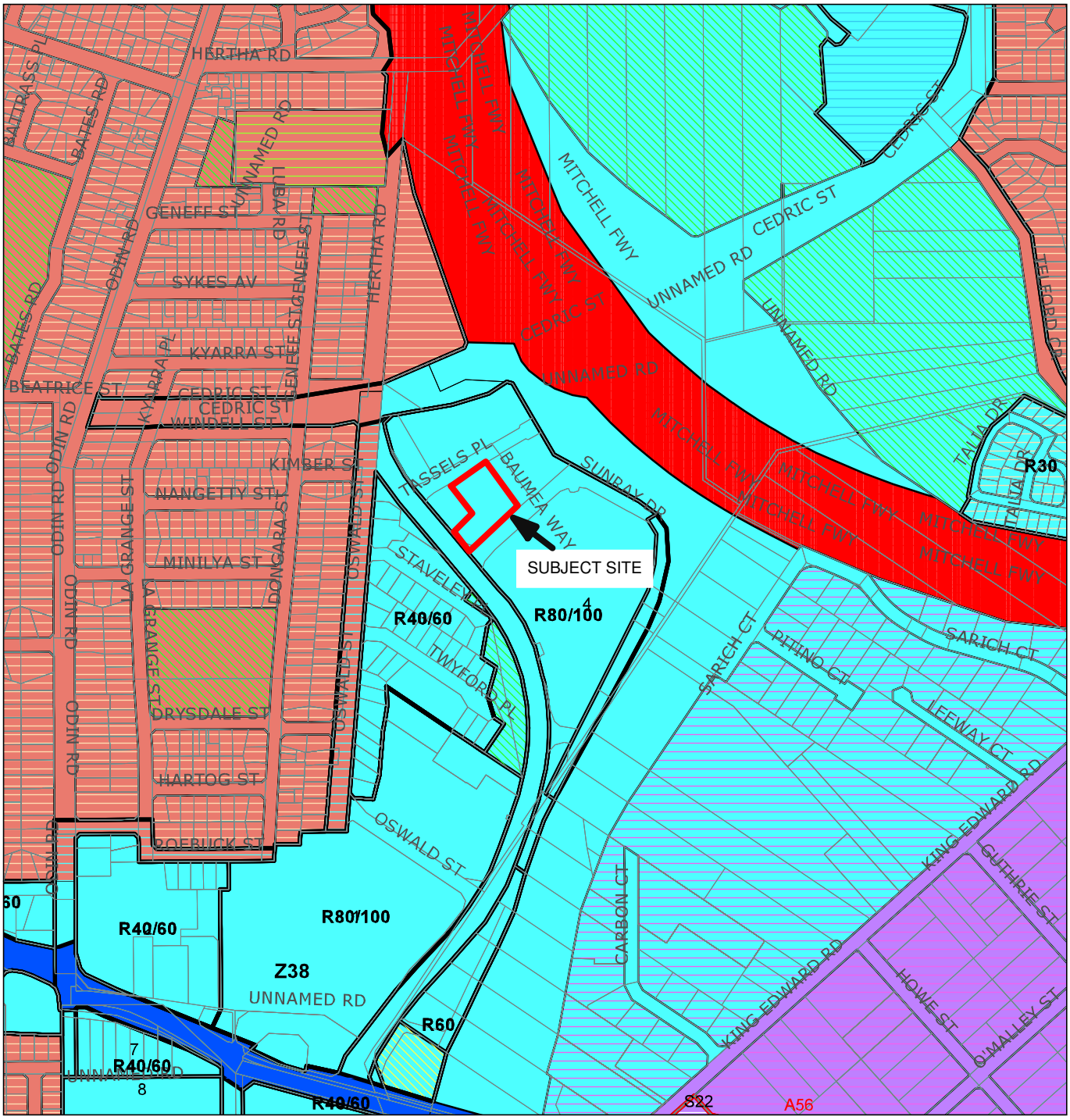
As the proposed development may pose a risk of disturbing the acid sulfate soils at this location, it is recommended that an appropriate condition be imposed requiring an Acid Sulfate Soils self-assessment form is completed.

Conclusion:

The proposed development will increase employment opportunities and residential density within close proximity of the Stirling train station and other forms of public transport. The proposal is consistent with SPP 4.2 and the Draft Structure Plan for the Stirling City Centre and is considered to be in accordance with orderly and proper planning.

The proposal will preserve and contribute to the amenity of the locality and is consistent with the overall intent and objectives for development and land use in this area.

Accordingly, conditional approval is recommended.



Cadastre
Cadastre with Lot Numbers Blue - Overlay Images
TPS - R Code Boundaries
SPECIAL 10
PRECINCT BOUNDARY
SPECIAL USE AREA
TPS - Scheme Boundaries
TPS - R Code Boundaries

PRIMARY REGIONAL ROADS
OTHER REGIONAL ROADS
CITY CENTRE
INDUSTRY
MIXED USE
P.O.S. AND LOCAL AUTHORITY PURPOSES
PRIVATE INSTITUTION
PUBLIC OPEN SPACE

PUBLIC USE RESERVES
RESIDENTIAL
SPECIAL USE
URBAN
CENTRAL CITY AREA
INDUSTRIAL
PRIMARY REGIONAL ROADS
OTHER REGIONAL ROADS

Scale 1:8,455
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Prepared by: cbeamish
Prepared for:
Date: Wednesday, February 13, 2013 14:31
Plot identifier: P20130213_1431

DP INTERNAL USE ONLY

N

Government of Western Australia
Department of Planning

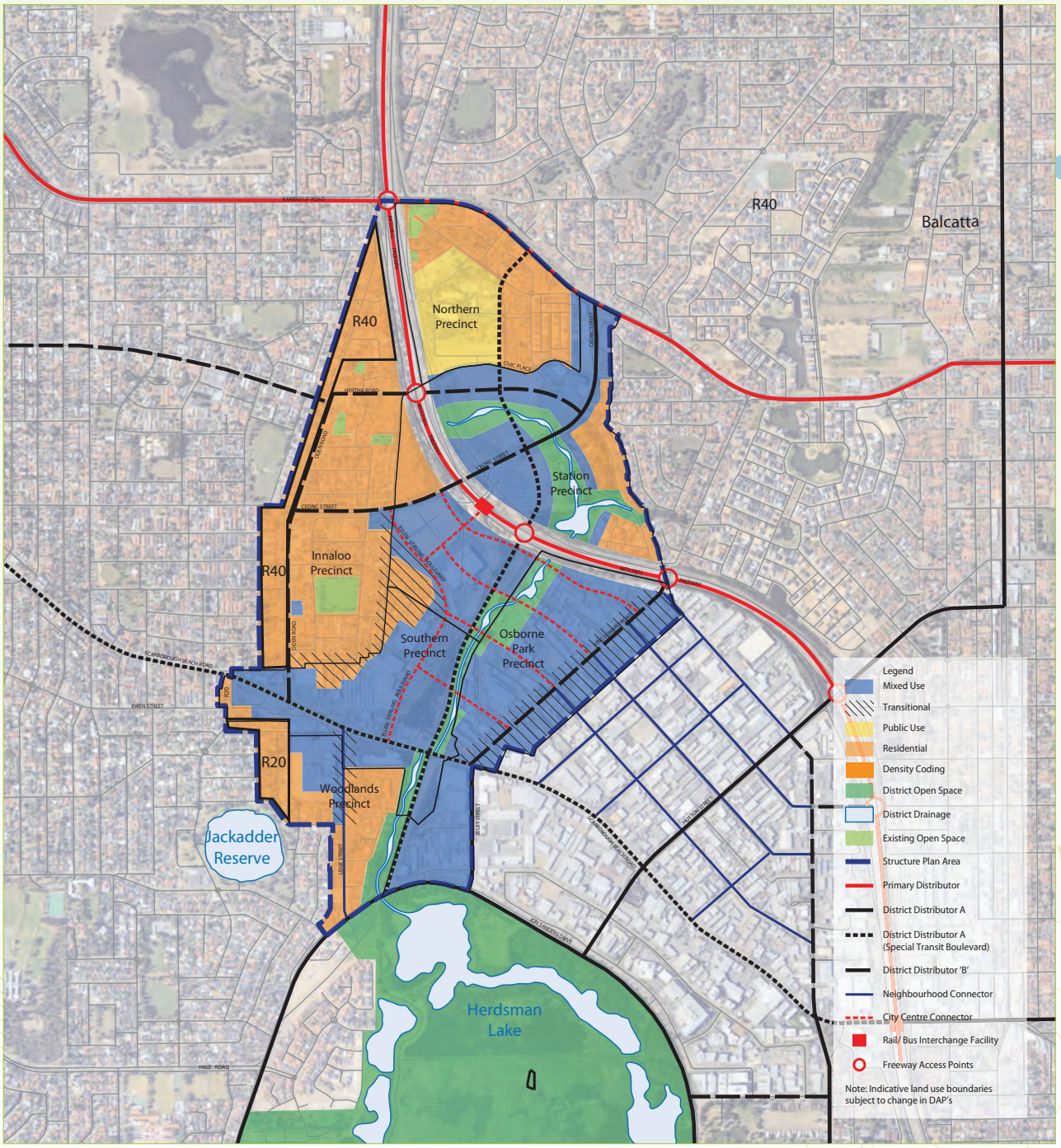
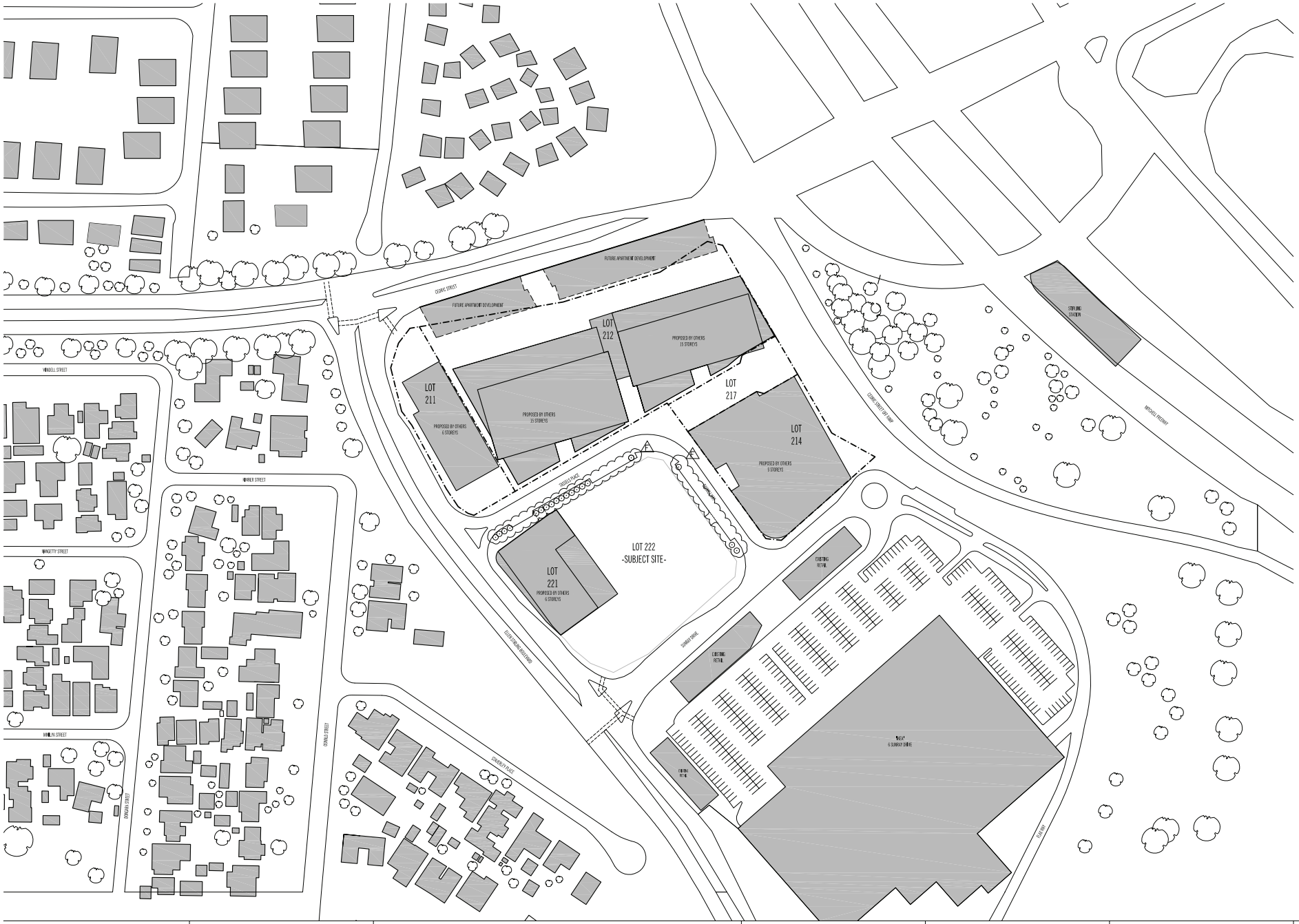


Figure 8. Structure plan



LOT 222
STIRLING CROSS
INNALOO, WA

SITE INFORMATION (000-004)

A000	LOCATION PLAN / DRAWING LIST
A002	SITE PLAN
A003	TITLE PLAN & SITE SURVEY

GENERAL ARRANGEMENT FLOOR PLANS (100-249)

A100	LOWER GROUND FLOOR PLAN
A200	GROUND FLOOR PLAN
A201	LEVEL 01 FLOOR PLAN
A202	LEVEL 02 FLOOR PLAN
A203	LEVELS 03-05 FLOOR PLAN
A206	LEVELS 06-07 FLOOR PLAN
A208	LEVELS 08-09 FLOOR PLAN
A210	ROOF PLAN

ELEMENTAL FLOOR PLANS (250-349)

A250	GROUND FLOOR CAFE FLOOR PLAN
A300	BUILDING 01 TYPICAL FLOOR PLAN
A301	BUILDING 02 TYPICAL FLOOR PLAN
A302	BUILDING 03 TYPICAL FLOOR PLAN

ELEVATIONS (400-449)

A400	NORTH EAST & SOUTH EAST ELEVATIONS
A401	NORTH WEST & SOUTH WEST ELEVATIONS

SECTIONS (500-549)

A500	SECTION AA
A501	SECTION BB
A502	SECTION CC

Rev	Date	Reason for Issue	DRAWN BY
A	05.11.22	ISSUED FOR INFORMATION	RAD
B	15.11.22	ISSUED FOR INFORMATION	RAD
C	16.11.22	ISSUED FOR PRE-APPLICATION MEETING	RAD
D	21.11.22	ISSUED FOR INFORMATION	TWD
E	05.12.22	ISSUED FOR DEVELOPMENT APPLICATION	RAD
F	30.01.23	ISSUED FOR INFORMATION & RFI RESUBMISSION	TWD

SCALE@A1 1:1000 SCALE@A3 1:2000

PRELIMINARY
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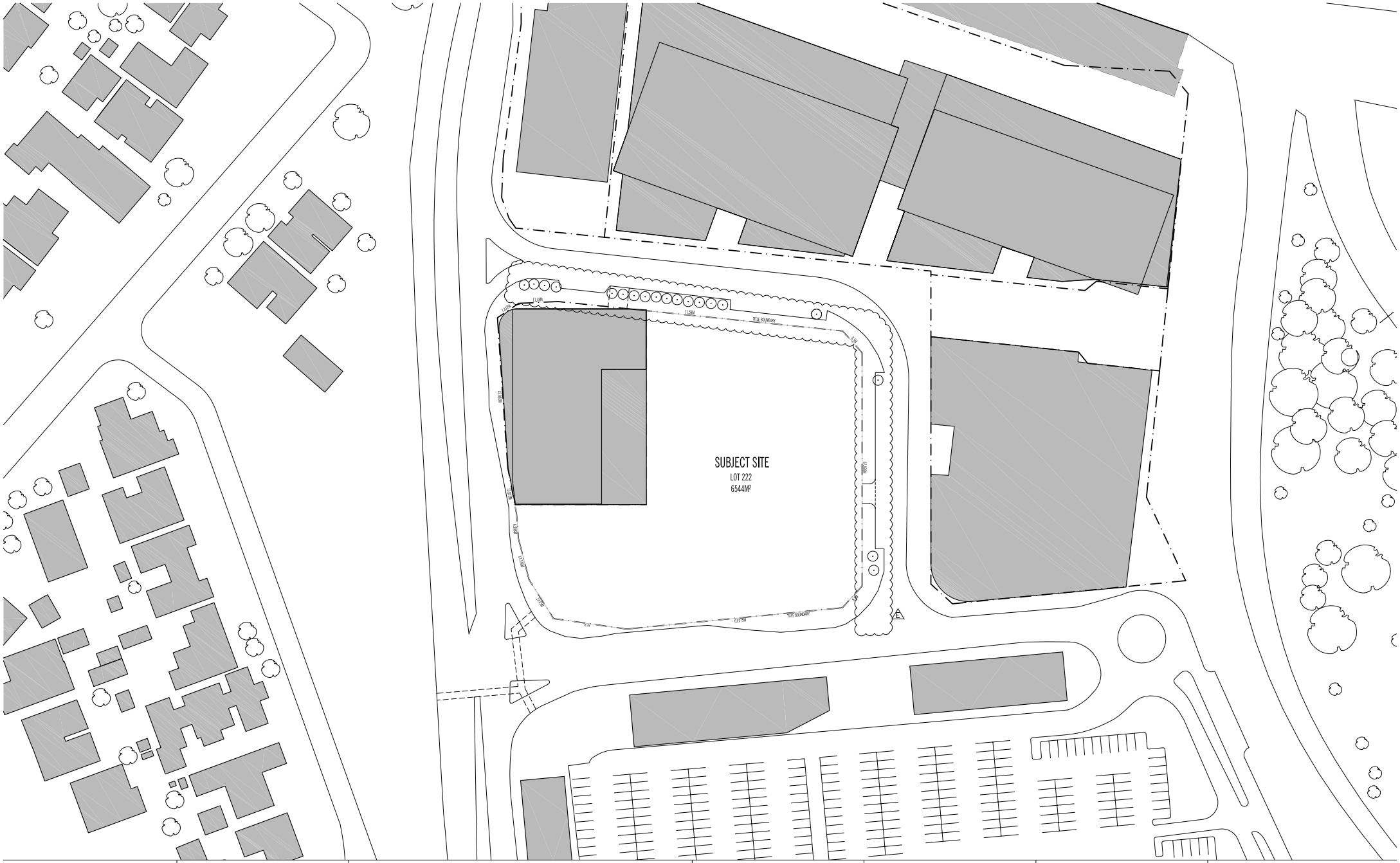
ELENBERG FRASER
LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2250 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 166 186 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA
Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
SITE CONTEXT PLAN

Project Number **12072**
Drawing Number **A001**
Drawing Status **TP**
Revision **F**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LOT 222
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TITLE BOUNDARY
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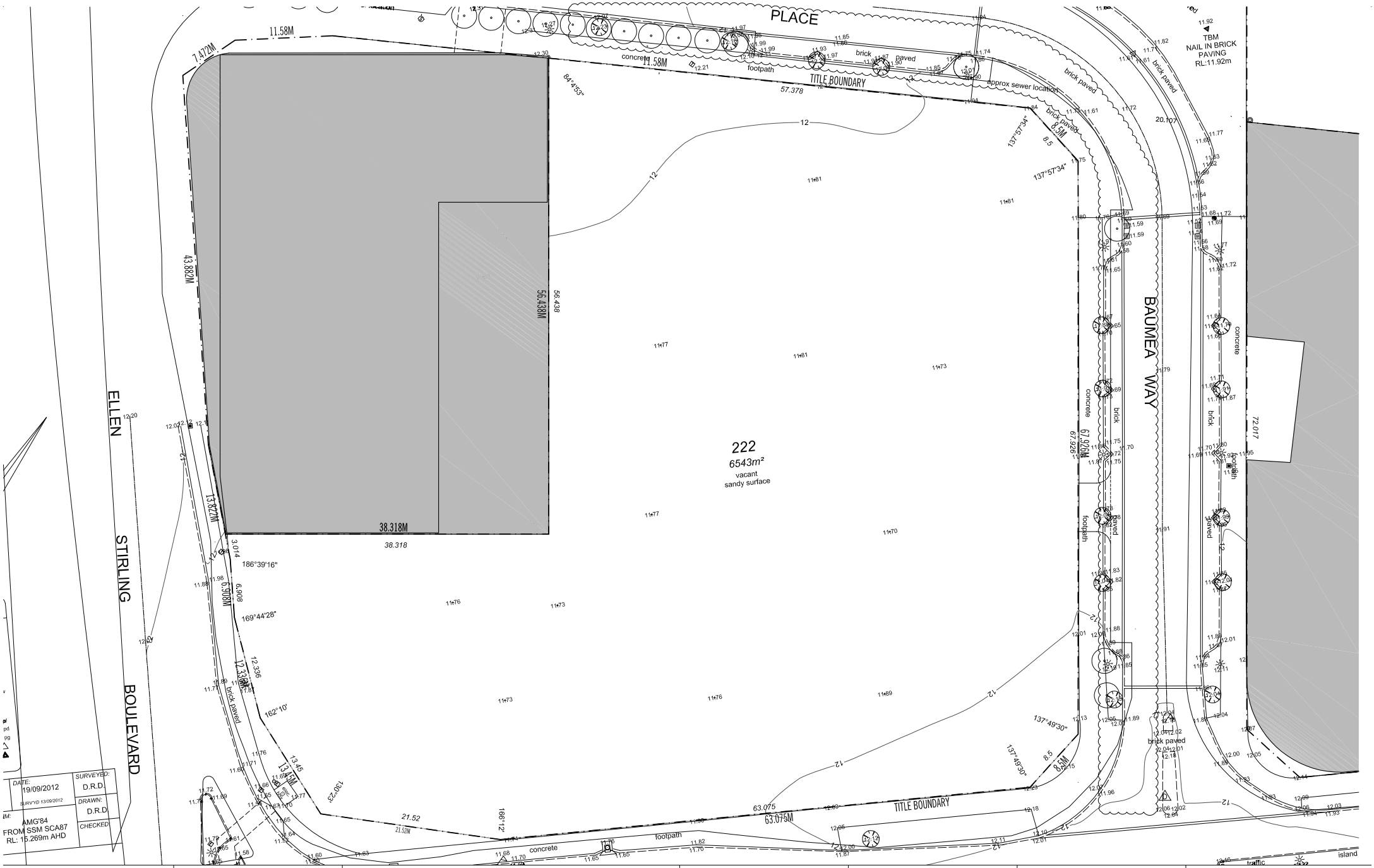

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B	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAO
C	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAO
D	30.01.13	ISSUED FOR INFORMATION& DA RFI SUBMISSION	TWD

Revisions	Date	Reason for Issue	DRAWN BY

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ELENBERG FRASER
LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2200 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 57 056 186 276

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

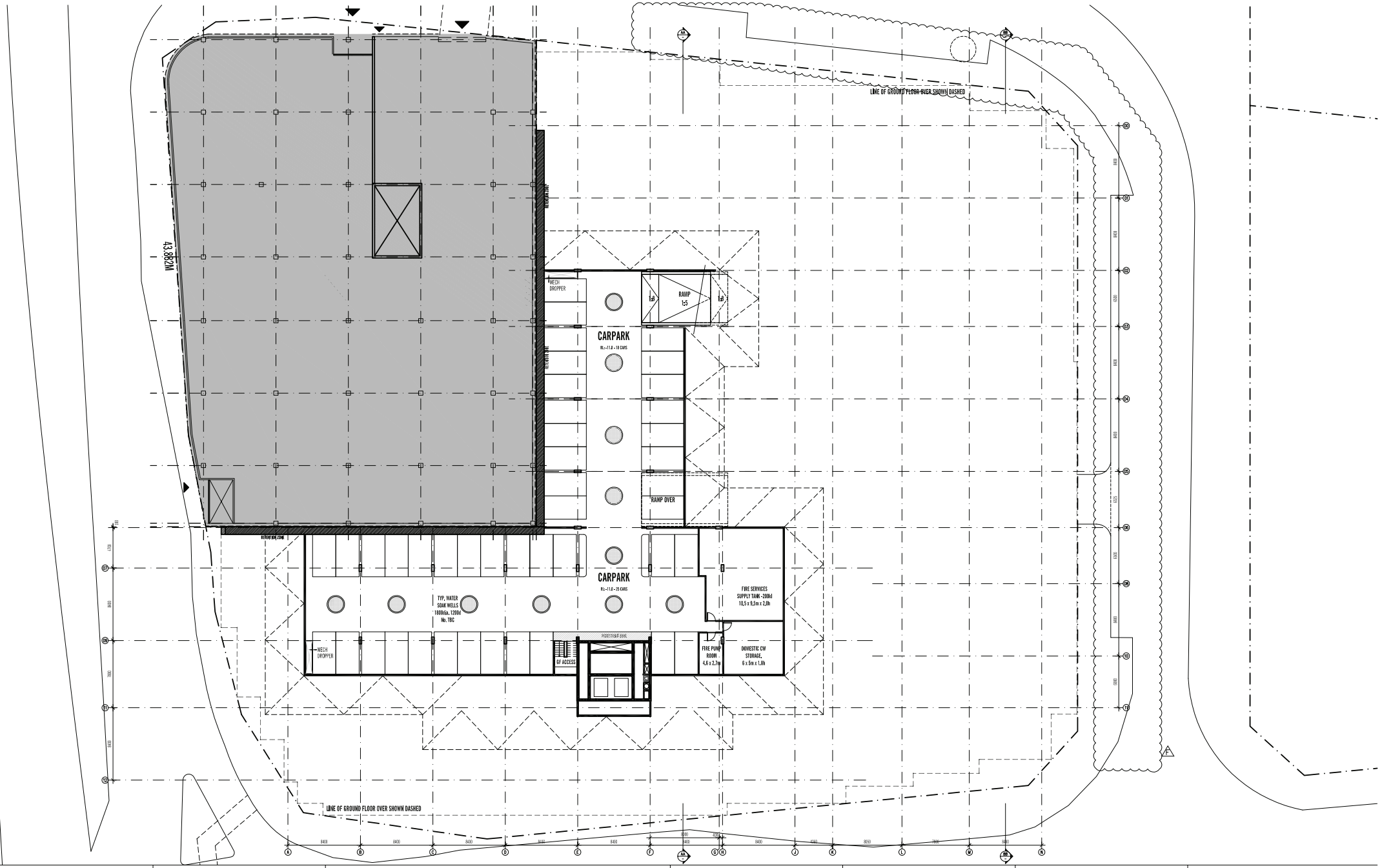
Drawing Title
TITLE PLAN & SITE SURVEY

Project Number
12072

Drawing Number
A003

Drawing Status
TP

Revision
D



Revisions	Date	Reason for Issue	DRAWN BY
A	05.11.22	ISSUED FOR INFORMATION	RAO
B	15.11.22	ISSUED FOR INFORMATION	RAO
C	16.11.22	ISSUED FOR PRE-APPLICATION MEETING	RAO
D	25.11.22	ISSUED FOR INFORMATION	RAO
E	05.12.22	ISSUED FOR DEVELOPMENT APPLICATION	RAO
F	10.01.23	ISSUED FOR INFORMATION-BA RFI/SUBMISSION	TMD

Revisions	Date	Reason for Issue	DRAWN BY

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ELENBERG FRASER

LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 006 180 276

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

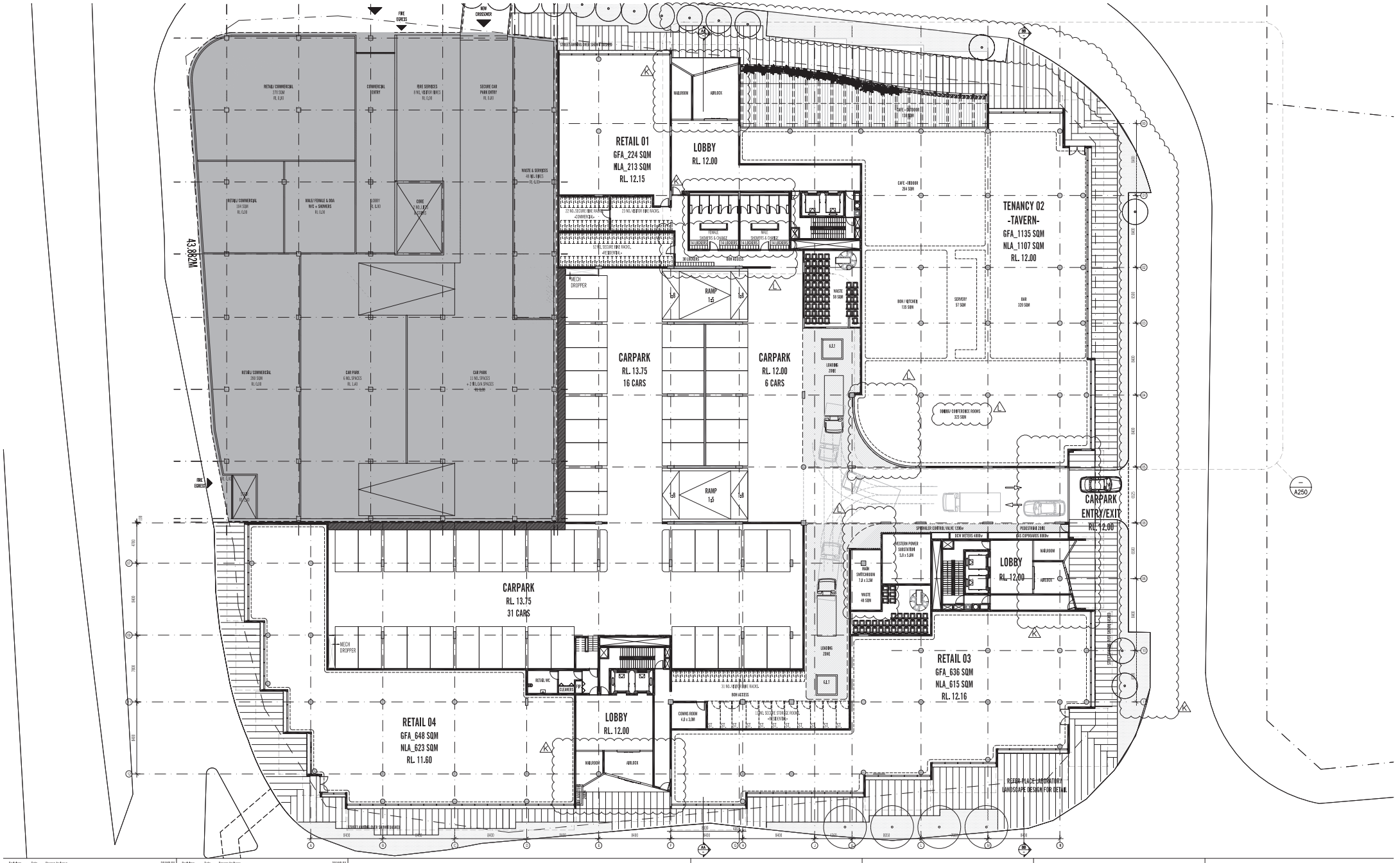
Drawing Title
LOWER GROUND FLOOR PLAN

Project Number
12072

Drawing Number
A100

Drawing Status
TP

Revision
F



Revisions	Date	Reason for Issue	DRAWN BY
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B	05.11.12	ISSUED FOR INFORMATION	RAD
C	15.11.12	ISSUED FOR INFORMATION	RAD
D	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAD
E	23.11.12	ISSUED FOR INFORMATION	RAD
F	05.12.12	ISSUED FOR INFORMATION-CITY WASTE REVIEW	RAD
G	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION_DRAFT	RAD
H	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD
I		NOT TO USE	RAD
J	21.01.13	ISSUED FOR INFORMATION-SA RITSUBMISSION REVIEW	RAD
K	30.01.13	ISSUED FOR INFORMATION-SA RITSUBMISSION	TMD
L	01.03.13	ISSUED FOR INFORMATION-SA RITSUBMISSION	CGM

Revisions	Date	Reason for Issue	DRAWN BY

SCALE@A1 1:200 SCALE@A3 1:400

PRELIMINARY
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ELENBERG FRASER

LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 57 566 308 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

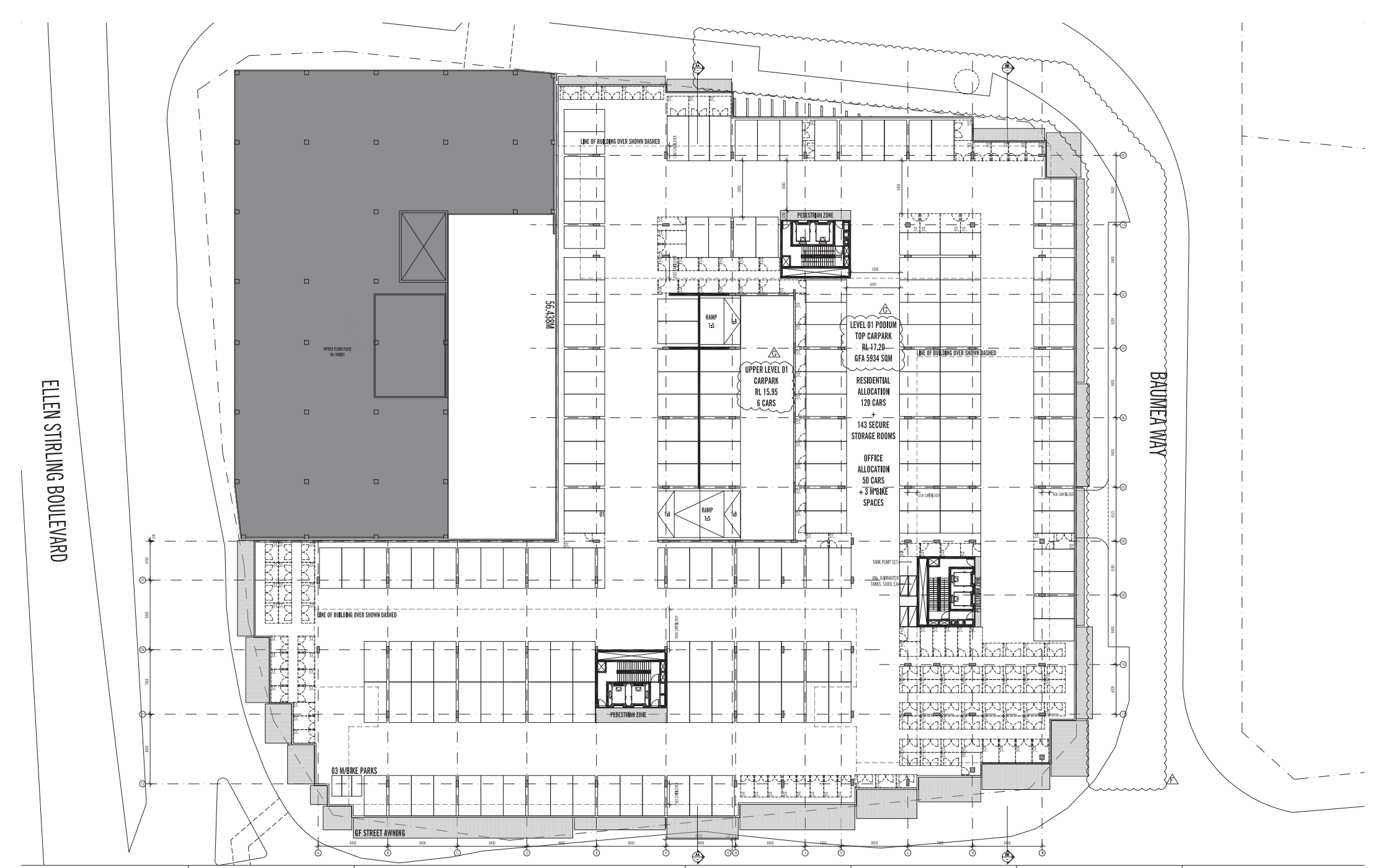
Drawing Title
GROUND LEVEL FLOOR PLAN

Project Number
12072

Drawing Number
A200

Drawing Status
TP

Revision
L



Revisions	Date	Reason for Issue	DRAWN BY	Revisions	Date	Reason for Issue	DRAWN BY
A	09.10.22	ISSUED FOR INFORMATION	RAD				
B	15.11.22	ISSUED FOR INFORMATION	RAD				
C	16.11.22	ISSUED FOR PRE-APPLICATION MEETING	RAD				
D	23.11.22	ISSUED FOR INFORMATION	RAD				
E	05.12.22	ISSUED FOR DEVELOPMENT APPLICATION	RAD				
F	30.01.23	ISSUED FOR INFORMATION: DA RESUBMISSION	TWO				
G	01.03.23	ISSUED FOR INFORMATION: DA RESUBMISSION	CGM				

SCALE@A1 1:200 SCALE@A3 1:400

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ELENBERG FRASER
LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 566 308 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

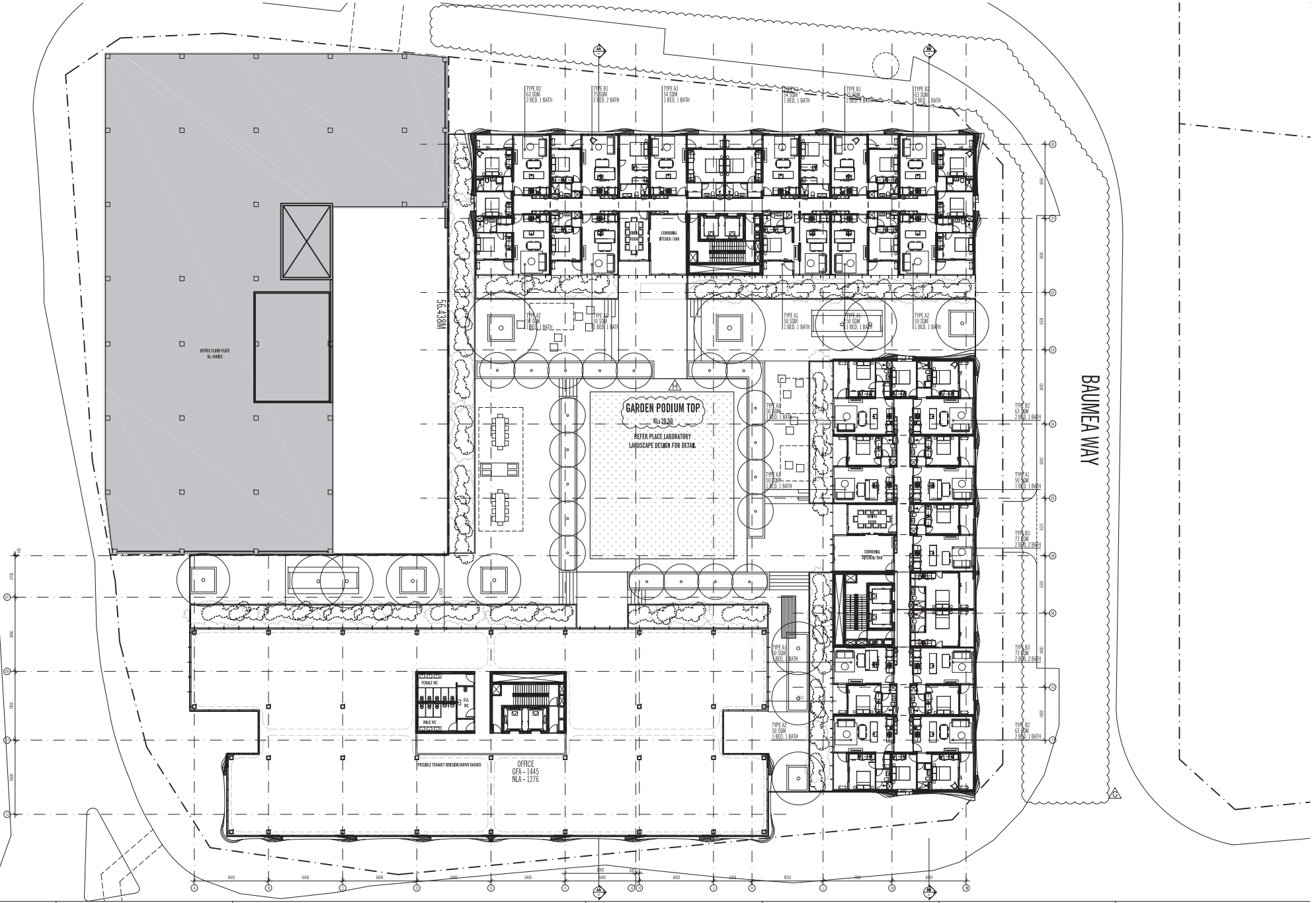
Drawing Title
LEVEL 01_PODIUM TOP CARPARK
FLOOR PLAN

Project Number
12072

Drawing Number
A201

Drawing Status
TP

Revision
G



Revision	Date	Reason for Issue	DRAWN BY
A	09.10.12	ISSUED FOR INFORMATION	RAD
B	05.11.12	ISSUED FOR INFORMATION	RAD
C	15.11.12	ISSUED FOR INFORMATION	RAD
D	19.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAD
E	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION_DRAFT	RAD
F	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD
G	31.01.13	ISSUED FOR INFORMATION_DA RESUBMISSION	TMO
H	01.02.13	ISSUED FOR INFORMATION_DA RESUBMISSION	SOM

Revision	Date	Reason for Issue	DRAWN BY

SCALE@A1 1:200 SCALE@A3 1:400

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LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2266 FAX +61 3 9600 2246
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 87 156 388 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
LEVEL 02
FLOOR PLAN

Project Number
12072

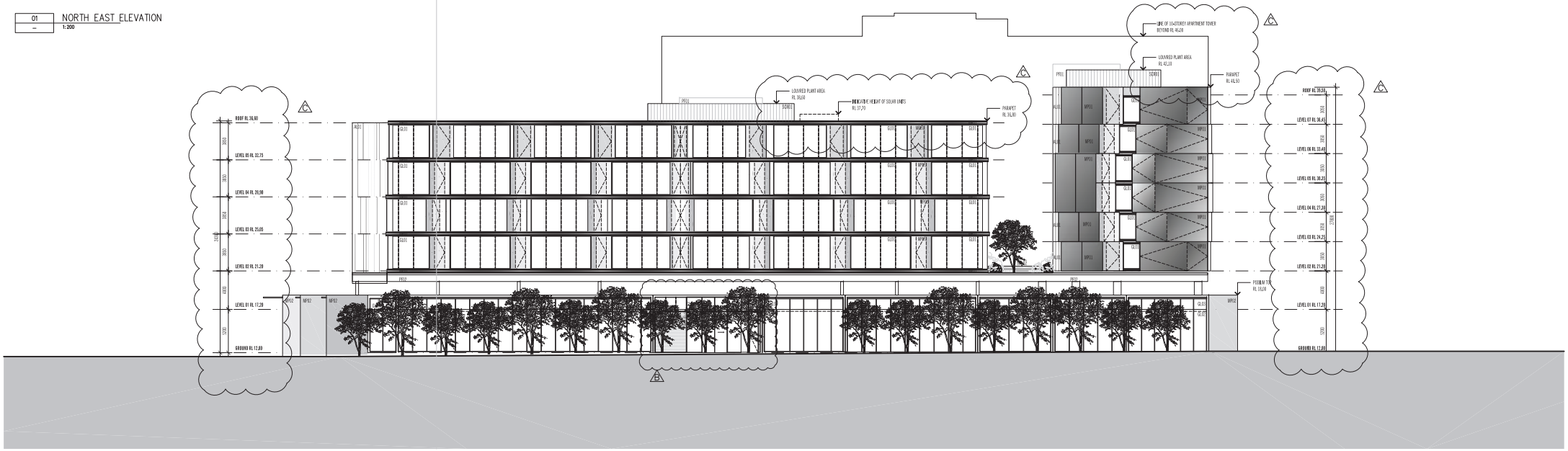
Drawing Number
A202

Drawing Status
TP

Revision
H



01 NORTH EAST ELEVATION
1:200



02 SOUTH EAST ELEVATION
1:200

FINISHES LEGEND

AL01	ANODISED ALUMINIUM FINS, COLOUR VARIES
BAL01	CHARTREUSE COLOURED GLASS BALUSTRADES TO BALCONIES.
BAL02	TIMBER BATTEN BALUSTRADE, DARK STAIN FINISH
GL01	CHARTREUSE COLOURED GLASS WITH BLIND MULLIONS
GL02	CLEAR COLOURED GLASS WITH BLIND MULLIONS
GL03	RETAIL SIGNAGE BOX
GL04	COLOURBACK GLASS CLADDING
MP01	ALUMINIUM PANEL, SILVER ANODISED FINISH
MP02	ALUMINIUM PANEL, MATTE GUN METAL GREY FINISH
PF01	TEXTURED PAINT FINISH, GUN METAL GREY
PF02	TEXTURED PAINT FINISH, BLACK
SCR01	LOUVRED PLANT SCREEN
TIM01	TIMBER, DARK STAIN FINISH
TPD	TILT PANEL DOOR, PERFORATED GUN METAL GREY FINISH

Rev	Date	Reason for Issue	DRAWN BY
A	25.01.23	ISSUED FOR PLANNING SUBMISSION	CAM
B	21.02.23	ISSUED FOR INFORMATION & SA PRESUBMISSION REVIEW	THO
C	31.03.23	ISSUED FOR INFORMATION & SA PRESUBMISSION REVIEW	CAM

SCALE@A1 1:200 SCALE@A3 1:400

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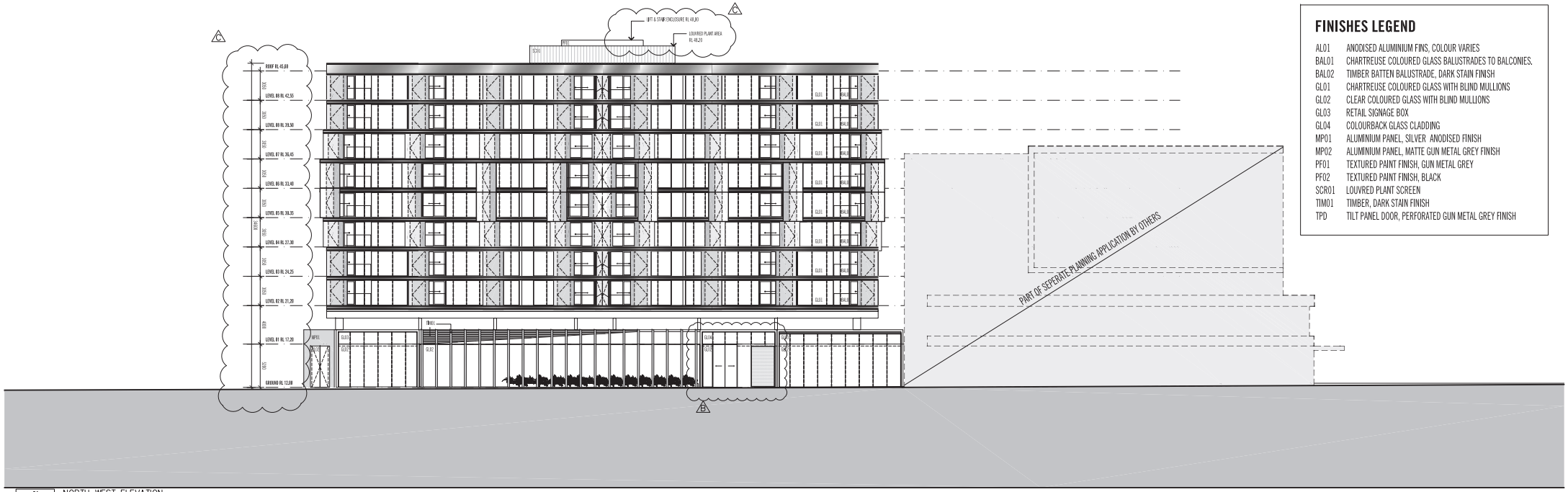
ELENBERG FRASER
LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2266 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 556 188 726

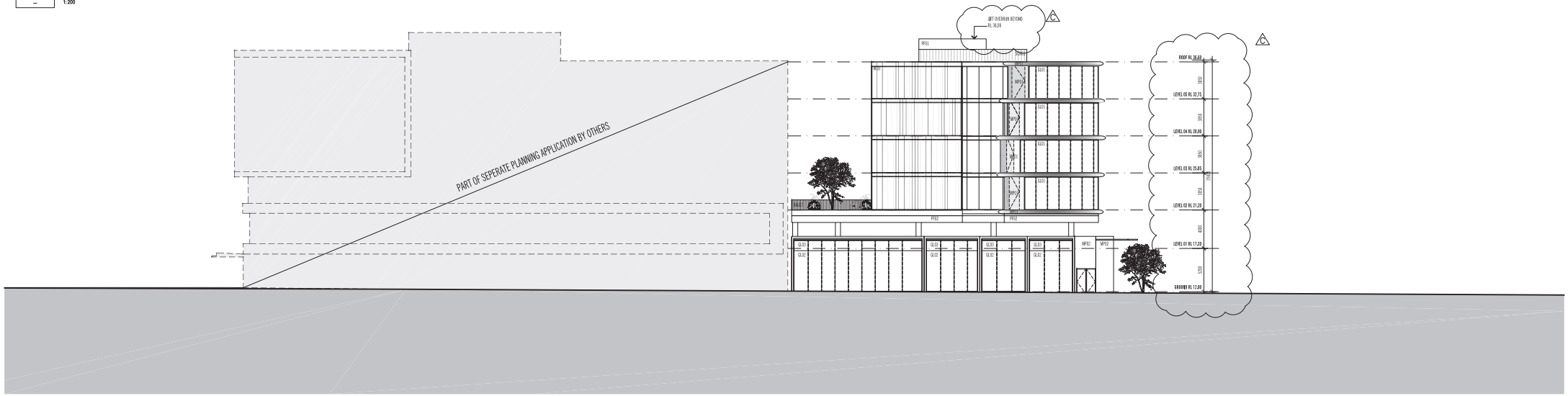
Project Title
LOT 222, STIRLING CROSS
INNALOO, WA
Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
NORTH EAST ELEVATION
SOUTH EAST ELEVATION

Project Number **12072**
Drawing Number **A400**
Drawing Status **TP**
Revision **C**



01 NORTH WEST ELEVATION
1:200



02 SOUTH WEST ELEVATION
1:200

FINISHES LEGEND

AL01	ANODISED ALUMINIUM FINS, COLOUR VARIES
BAL01	CHARTREUSE COLOURED GLASS BALUSTRADES TO BALCONIES.
BAL02	TIMBER BATTEN BALUSTRADE, DARK STAIN FINISH
GL01	CHARTREUSE COLOURED GLASS WITH BLIND MULLIONS
GL02	CLEAR COLOURED GLASS WITH BLIND MULLIONS
GL03	RETAIL SIGNAGE BOX
GL04	COLOURBACK GLASS CLADDING
MP01	ALUMINIUM PANEL, SILVER ANODISED FINISH
MP02	ALUMINIUM PANEL, MATTE GUN METAL GREY FINISH
PF01	TEXTURED PAINT FINISH, GUN METAL GREY
PF02	TEXTURED PAINT FINISH, BLACK
SCR01	LOUVRED PLANT SCREEN
TIM01	TIMBER, DARK STAIN FINISH
TPD	TILT PANEL DOOR, PERFORATED GUN METAL GREY FINISH

Rev	Date	Reason for Issue	DRAWN BY
A	25.01.23	ISSUED FOR PLANNING SUBMISSION	CAM
B	31.01.23	ISSUED FOR INFORMATION & DA RESUBMISSION REVIEW	TWD
C	01.02.23	ISSUED FOR INFORMATION & DA RESUBMISSION REVIEW	CAM

SCALE@A1 1:200 SCALE@A3 1:400

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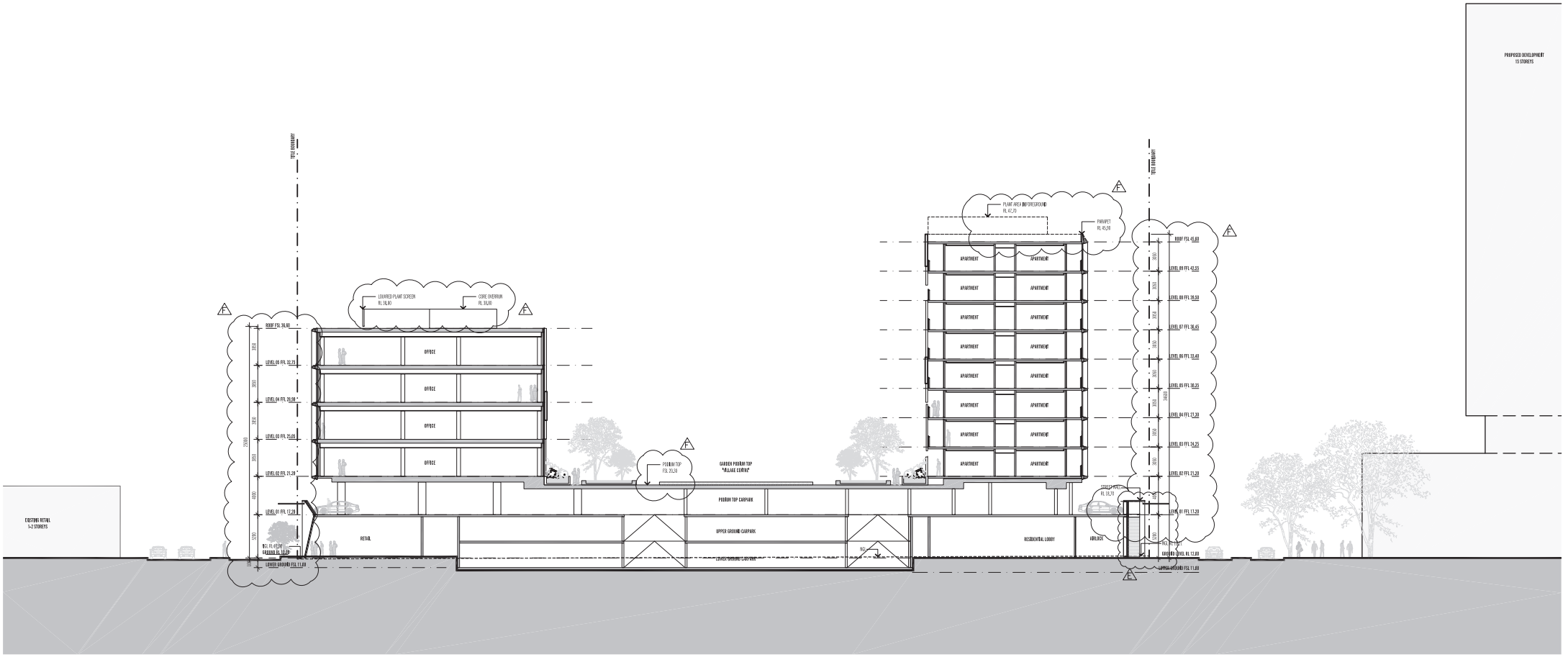
ELENBERG FRASER
LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2266 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 156 188 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA
Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
NORTH WEST ELEVATION
SOUTH WEST ELEVATION

Project Number **12072**
Drawing Number **A401**
Drawing Status **TP**
Revision **C**



Projections	Date	Reasons for Issue	DRAWN BY
A	16.11.22	ISSUED FOR INFORMATION	RAD
B	15.12.22	ISSUED FOR PRE-APPLICATION MEETING	RAD
C	23.11.22	ISSUED FOR INFORMATION	TWD
D	06.12.22	ISSUED FOR DEVELOPMENT APPLICATION	IA
E	21.01.23	ISSUED FOR INFORMATION & DA RESUBMISSION REVIEW	TWD
F	01.03.23	ISSUED FOR INFORMATION & DA RESUBMISSION REVIEW	CSM

Projections	Date	Reasons for Issue	DRAWN BY

SCALE@A1 1:200 SCALE@A3 1:400

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LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2266 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 156 188 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

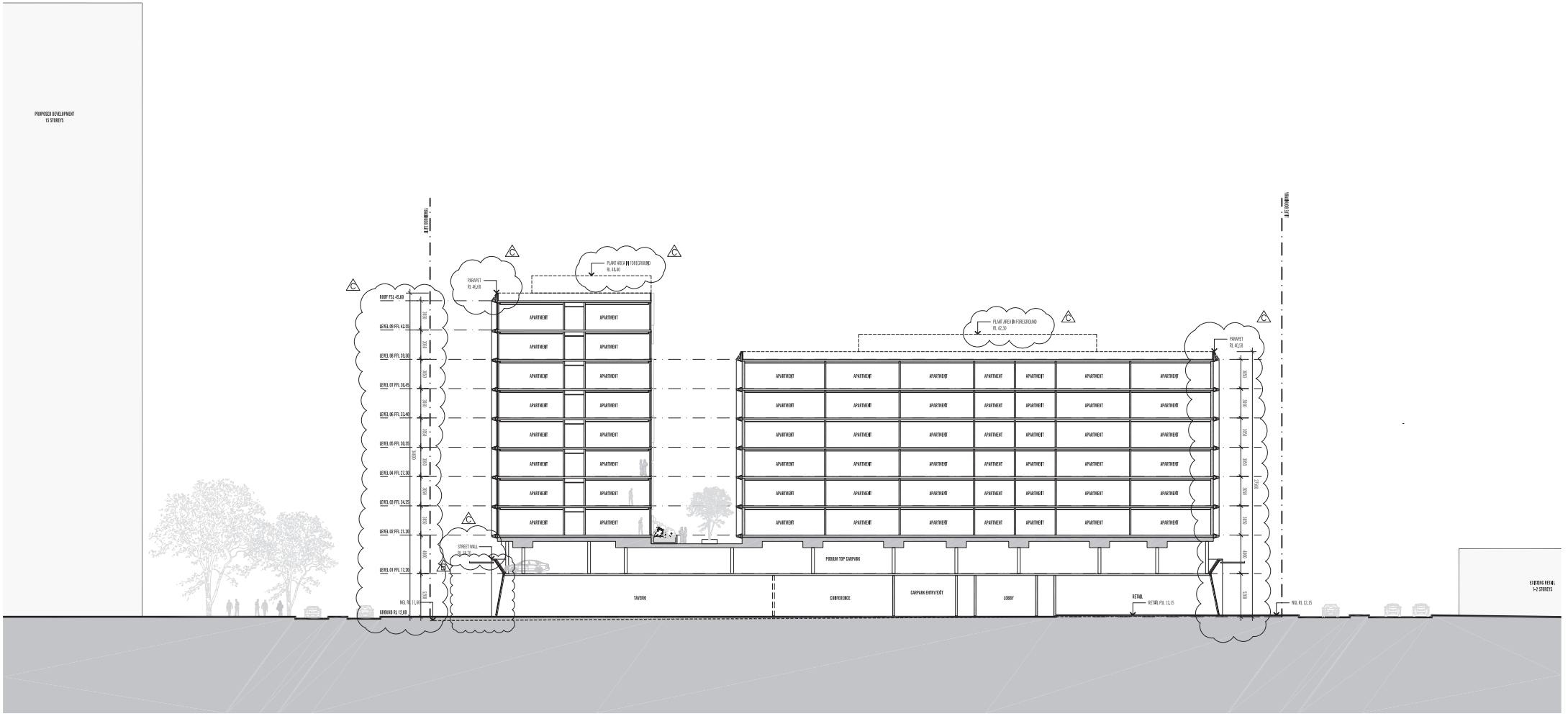
Drawing Title
SECTION A-A

Project Number
12072

Drawing Number
A500

Drawing Status
TP

Revision
F



Rev	Date	Reason for Issue	DRAWN BY
A	06.12.22	ISSUED FOR DEVELOPMENT APPLICATION	JK
B	21.07.23	ISSUED FOR INFORMATION & DA RESUBMISSION REVIEW	THO
C	01.09.23	ISSUED FOR INFORMATION & DA RESUBMISSION REVIEW	CGM

Rev	Date	Reason for Issue	DRAWN BY

SCALE@A1 1:200 SCALE@A3 1:400

PRELIMINARY

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VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2266 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 556 088 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

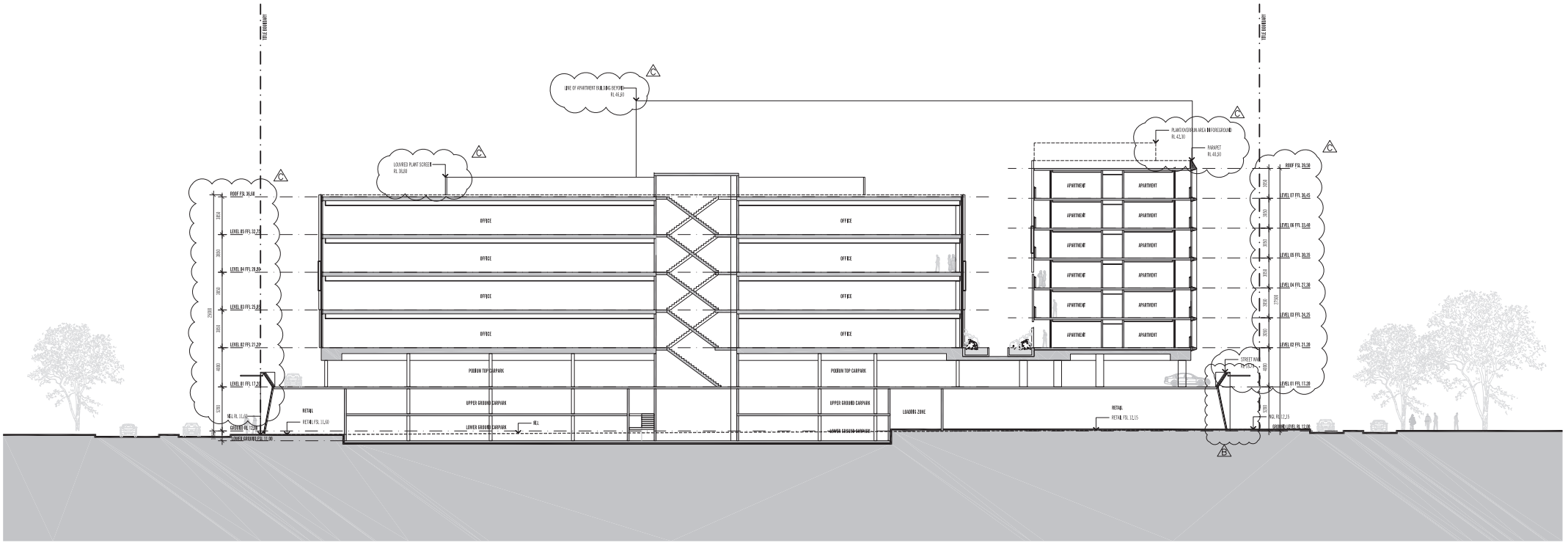
Drawing Title
SITE SECTION B-B

Project Number
12072

Drawing Number
A501

Drawing Status
TP

Revision
C


TITLE BOUNDARY
TITLE BOUNDARY
LINE OF APARTMENT BUILDING BEYOND
RL 48.80
LOUVRED PLANT SCREEN
RL 39.80
PLANTED EDGE IN AREA BEYOND
RL 42.30
PARAPET
RL 40.30
ROOF FSL 39.50
LEVEL 07 FFL 36.45
LEVEL 06 FFL 33.40
LEVEL 05 FFL 30.35
LEVEL 04 FFL 27.30
LEVEL 03 FFL 24.25
LEVEL 02 FFL 21.20
LEVEL 01 FFL 17.20
ROOF FSL 36.60
LEVEL 05 FFL 32.35
LEVEL 04 FFL 29.30
LEVEL 03 FFL 26.25
LEVEL 02 FFL 23.20
LEVEL 01 FFL 17.20
NGL RL 17.15
GROUND RL 17.00
LOWER GROUND FSL 11.90
NGL RL 11.60
RETAIL
RETAIL FSL 11.60
OFFICE
PODIUM TOP CARPARK
UPPER GROUND CARPARK
LOWER GROUND CARPARK
LOADING ZONE
APARTMENT
STREET WALL
RETAIL FSL 12.15
NGL RL 12.15
3150
3050
3050
3050



Rev	Date	Reason for Issue	DRAWN BY
A	05.11.22	ISSUED FOR INFORMATION	RAD
B	15.11.22	ISSUED FOR INFORMATION	RAD
C	16.11.22	ISSUED FOR PRE-APPLICATION MEETING	RAD
D	25.11.22	ISSUED FOR DEVELOPMENT APPLICATION	RAD
E	30.01.23	ISSUED FOR INFORMATION & REVIEW/DISCUSSION	TWD

SCALE@A1 1:200 SCALE@A3 1:400

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ELENBERG FRASER
LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2250 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 166 186 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA
Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
LEVELS 03-05 FLOOR PLAN

Project Number
12072

Drawing Number
A203

Drawing Status
TP

Revision
E



Revisions	Date	Reason for Issue	DRAWN BY
A	15.11.12	ISSUED FOR INFORMATION	RAO
B	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	RAO
C	05.12.22	ISSUED FOR DEVELOPMENT APPLICATION	RAO
D	30.03.23	ISSUED FOR INFORMATION; BA RFI SUBMISSION	TMD

Revisions	Date	Reason for Issue	DRAWN BY

SCALE@A1 1:200 SCALE@A3 1:400

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LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 106 186 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

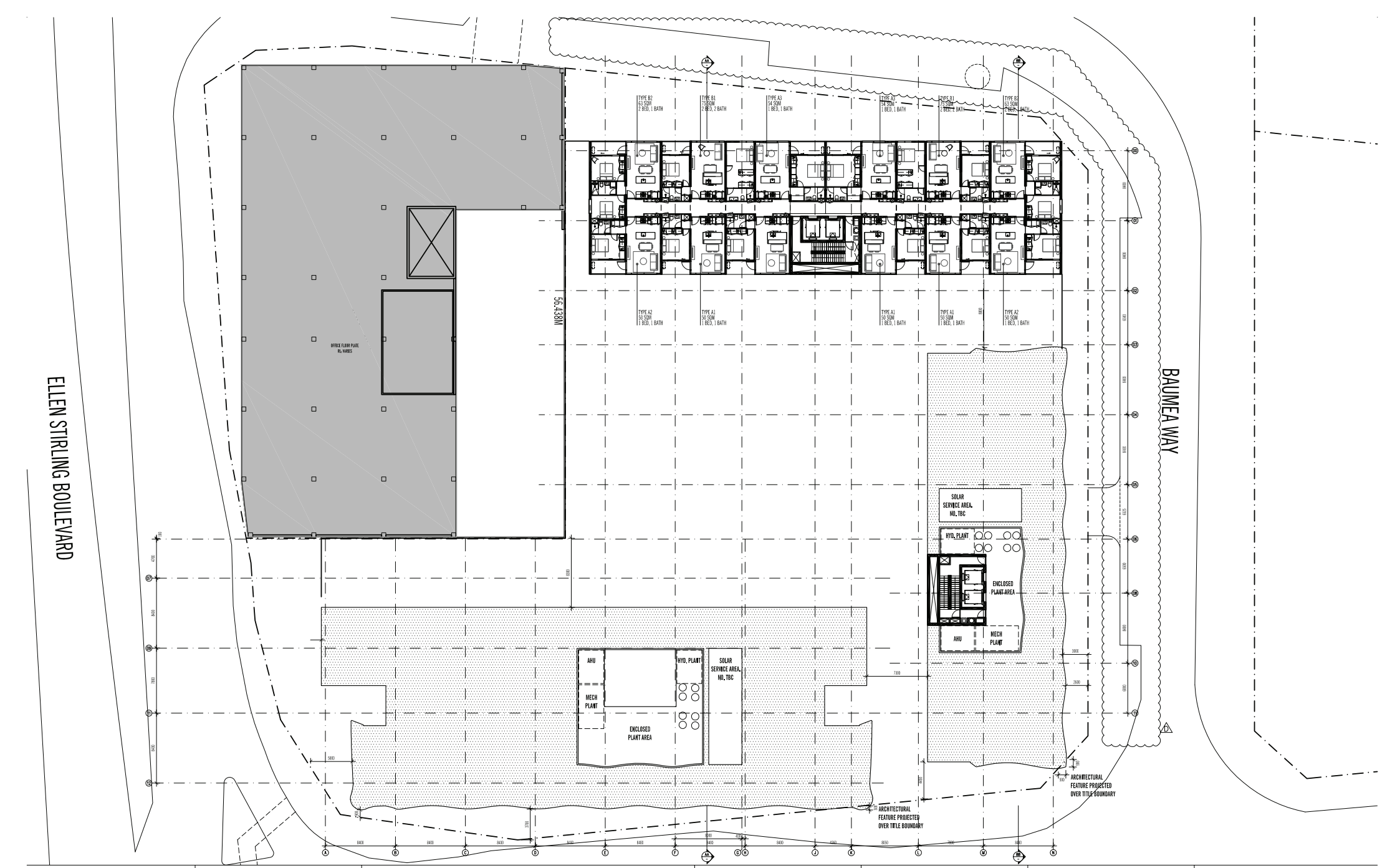
Drawing Title
LEVELS 06-07
FLOOR PLAN

Project Number
12072

Drawing Number
A206

Drawing Status
TP

Revision
D



Rev	Date	Reason for Issue	DRAWN BY
A	15.11.22	ISSUED FOR INFORMATION	RAD
B	14.12.22	ISSUED FOR PRE-APPLICATION MEETING	RAD
C	05.12.23	ISSUED FOR DEVELOPMENT APPLICATION	RAD
D	30.01.23	ISSUED FOR INFORMATION & RFI RESUBMISSION	TWD

SCALE@A1 1:200 SCALE@A3 1:400

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LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2250 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 166 186 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA
Client
FINI GROUP & ASCOT CAPITAL

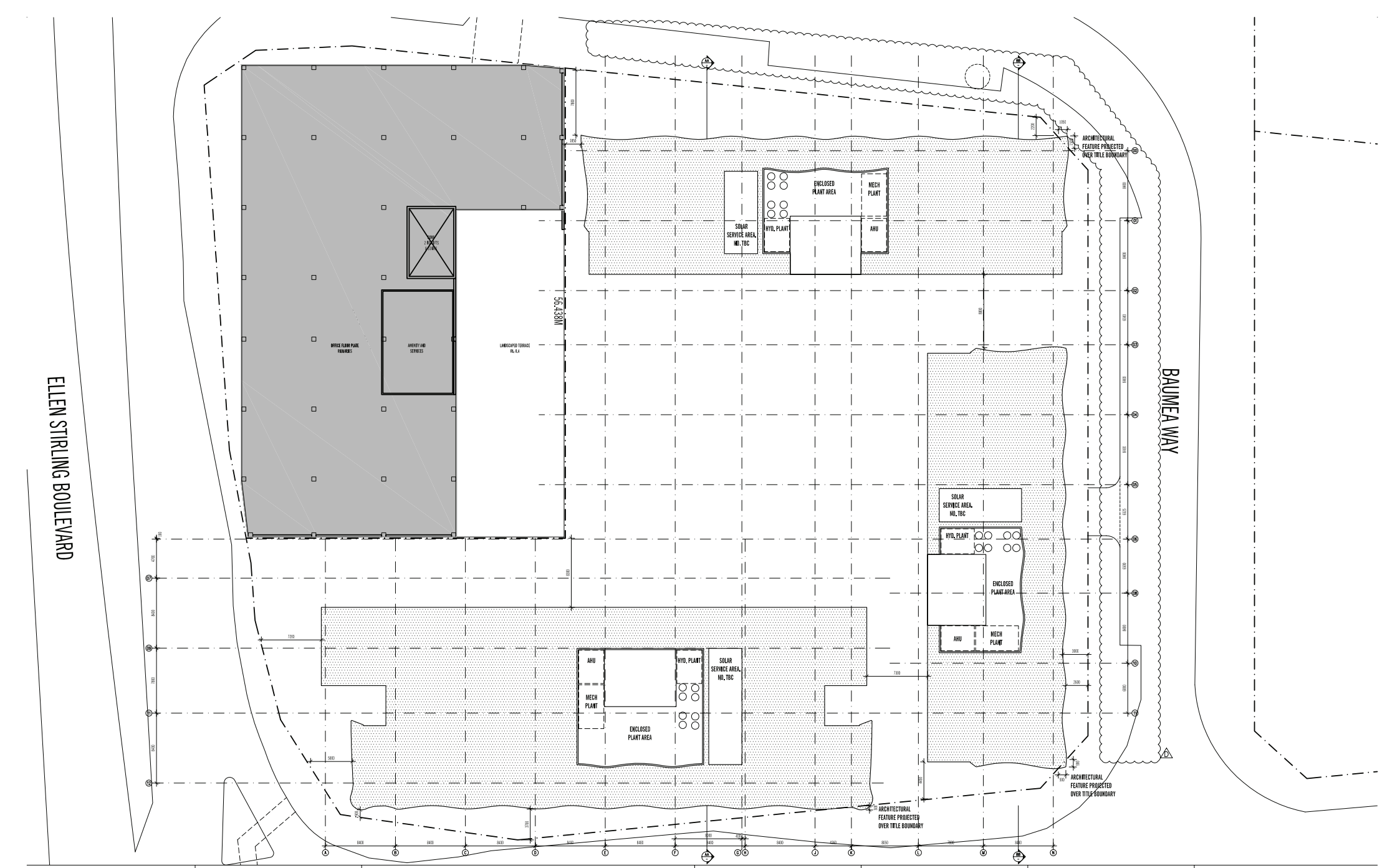
Drawing Title
LEVELS 08-09
FLOOR PLAN

Project Number
12072

Drawing Number
A208

Drawing Status
TP

Revision
D



Rev	Date	Reason for Issue	DRAWN BY
A	15.11.22	ISSUED FOR INFORMATION	RAD
B	14.12.22	ISSUED FOR PRE-APPLICATION MEETING	RAD
C	09.02.23	ISSUED FOR DEVELOPMENT APPLICATION	RAD
D	30.03.23	ISSUED FOR RESPONDING RFI INFORMATION	TWD

SCALE@A1 1:200 SCALE@A3 1:400

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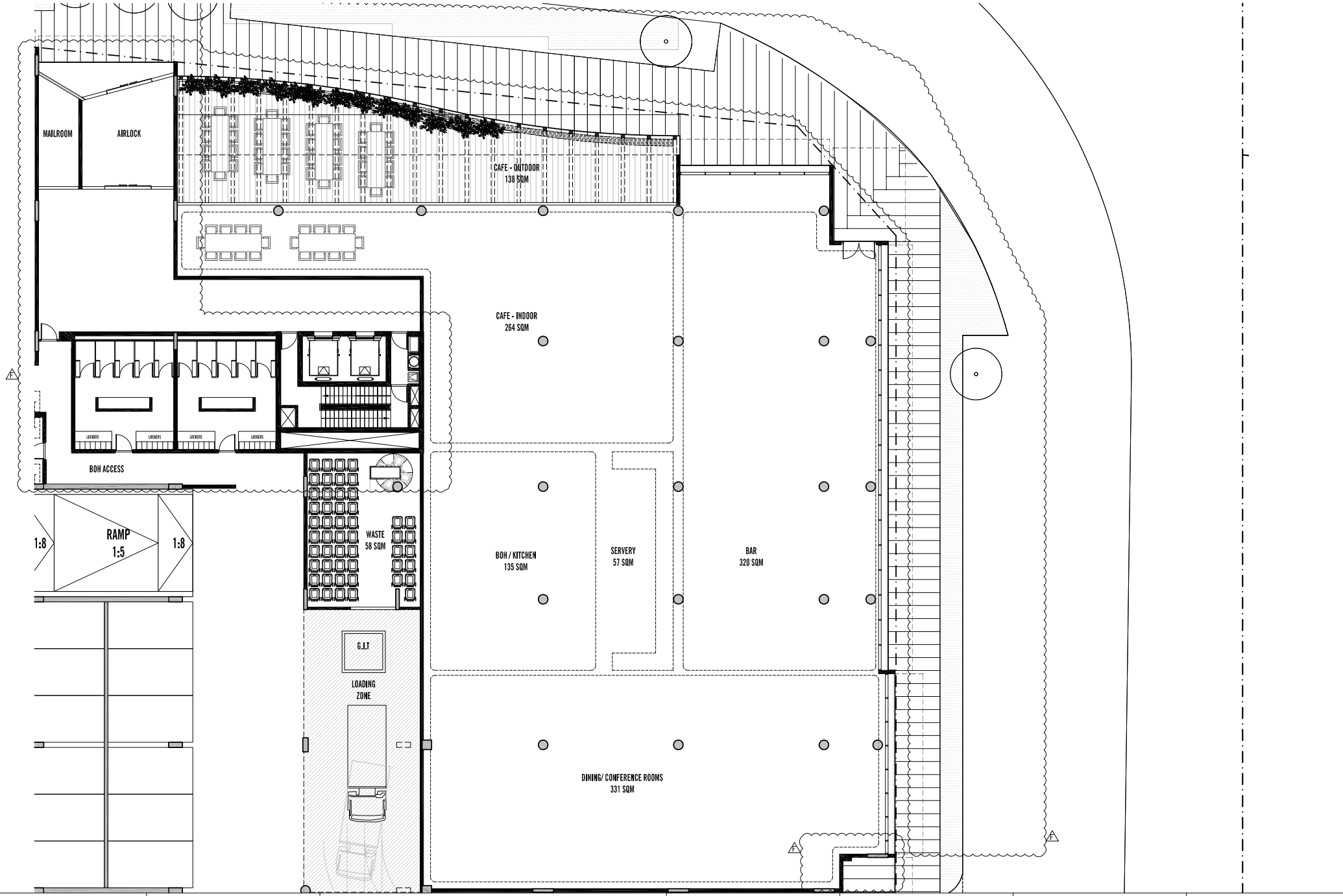
LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2250 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 056 186 726

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA
Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
ROOF PLAN

Project Number
12072
Drawing Number
A210
Drawing Status
TP
Revision
D



Revisions	Date	Reason for Issue	DRAWN BY
A	15.11.12	ISSUED FOR INFORMATION	RAD
B	16.11.12	ISSUED FOR PRE-APPLICATION MEETING	JK
C	23.11.12	ISSUED FOR INFORMATION	RAD
D	05.12.12	ISSUED FOR DEVELOPMENT APPLICATION	RAD
E	27.04.13	ISSUED FOR INFORMATION: DA RI ISUBMISSION REVIEW	TMO
F	30.05.13	ISSUED FOR INFORMATION: DA RI ISUBMISSION	TMO

Revisions	Date	Reason for Issue	DRAWN BY

SCALE@A1 1:100 SCALE@A3 1:200

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LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 57 556 188 276

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA

Client
FINI GROUP & ASCOT CAPITAL

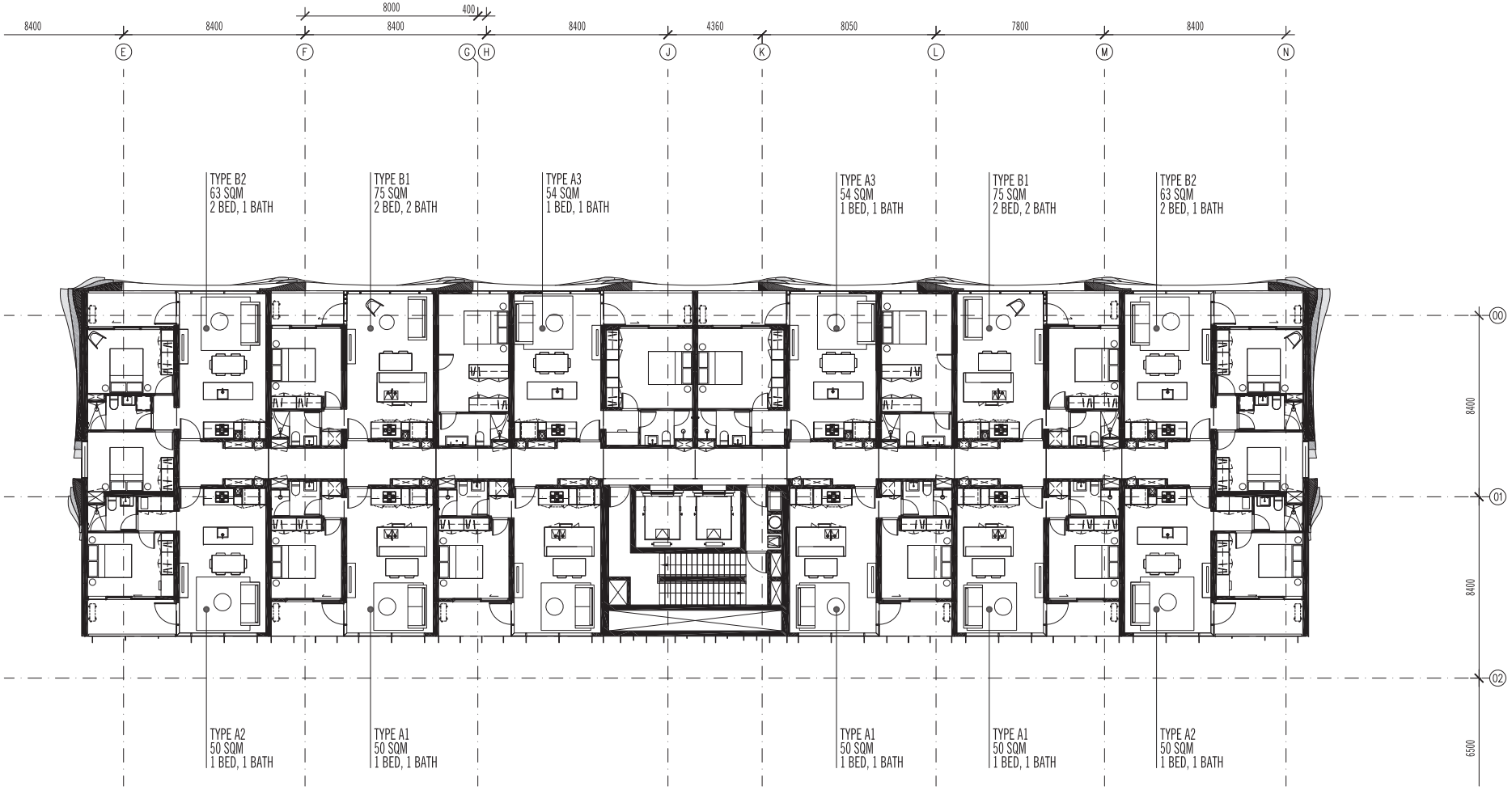
Drawing Title
CAFE, BAR, RESTAURANT
FLOOR PLAN

Project Number
12072

Drawing Number
A250

Drawing Status
TP

Revision
F



Revisions	Date	Reason for Issue	DRAWN BY
A	06.11.22	ISSUED FOR INFORMATION	RKD
B	25.11.22	ISSUED FOR PRE-APPLICATION MEETING	RKD
C	05.12.22	ISSUED FOR DEVELOPMENT APPLICATION	RKD

Revisions	Date	Reason for Issue	DRAWN BY

SCALE@A1 1:100 SCALE@A3 1:200

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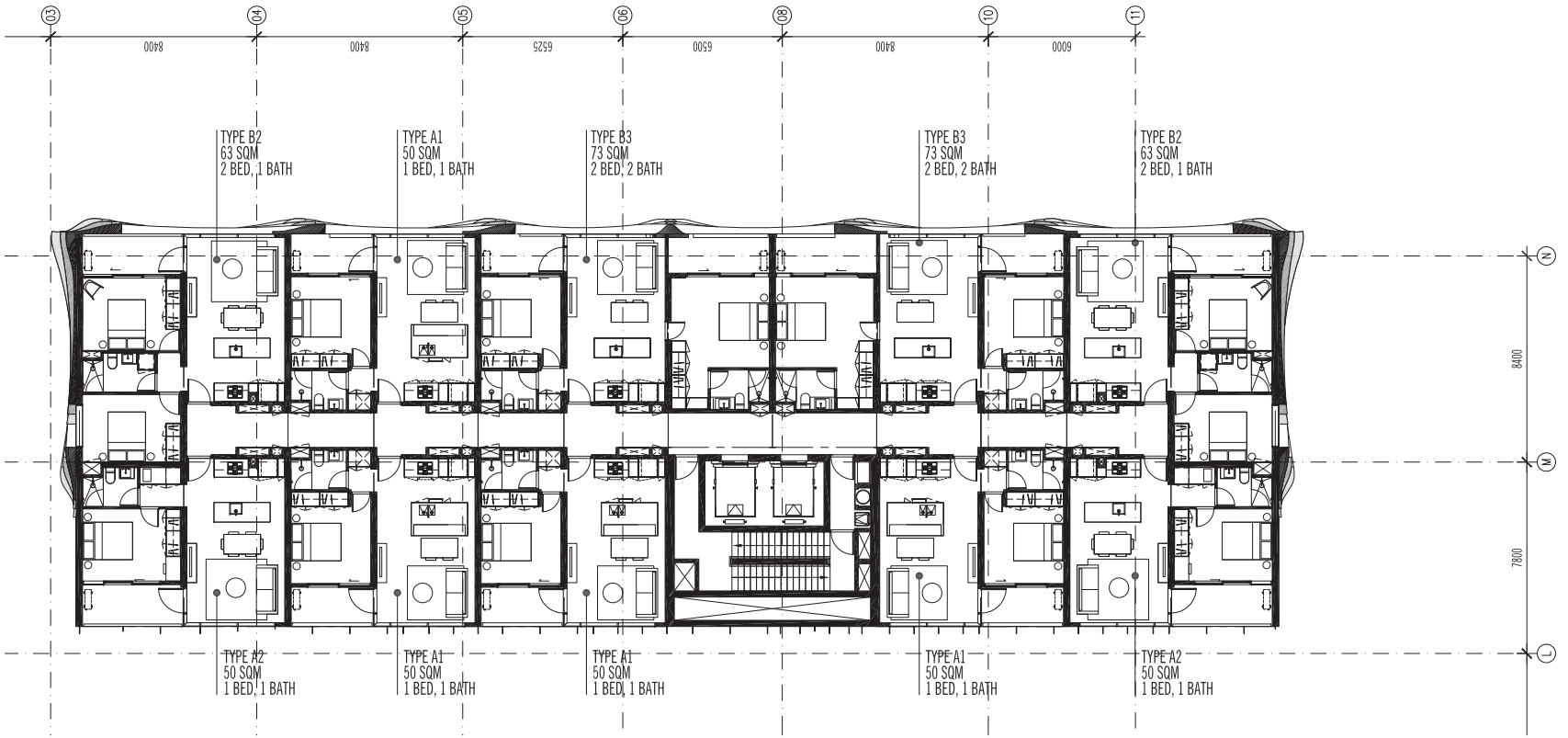
LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 166 188 705

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA
Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
BUILDING 01
FLOOR PLAN

Project Number
12072
Drawing Number
A300
Drawing Status
TP
Revision
C



Revisions	Date	Reason for Issue	DRAWN BY
A	04.11.22	ISSUED FOR INFORMATION	RKD
B	04.11.22	ISSUED FOR INFORMATION	RKD
C	01.12.22	ISSUED FOR DEVELOPMENT APPLICATION	RKD

Revisions	Date	Reason for Issue	DRAWN BY

SCALE@A1 1:100 SCALE@A3 1:200

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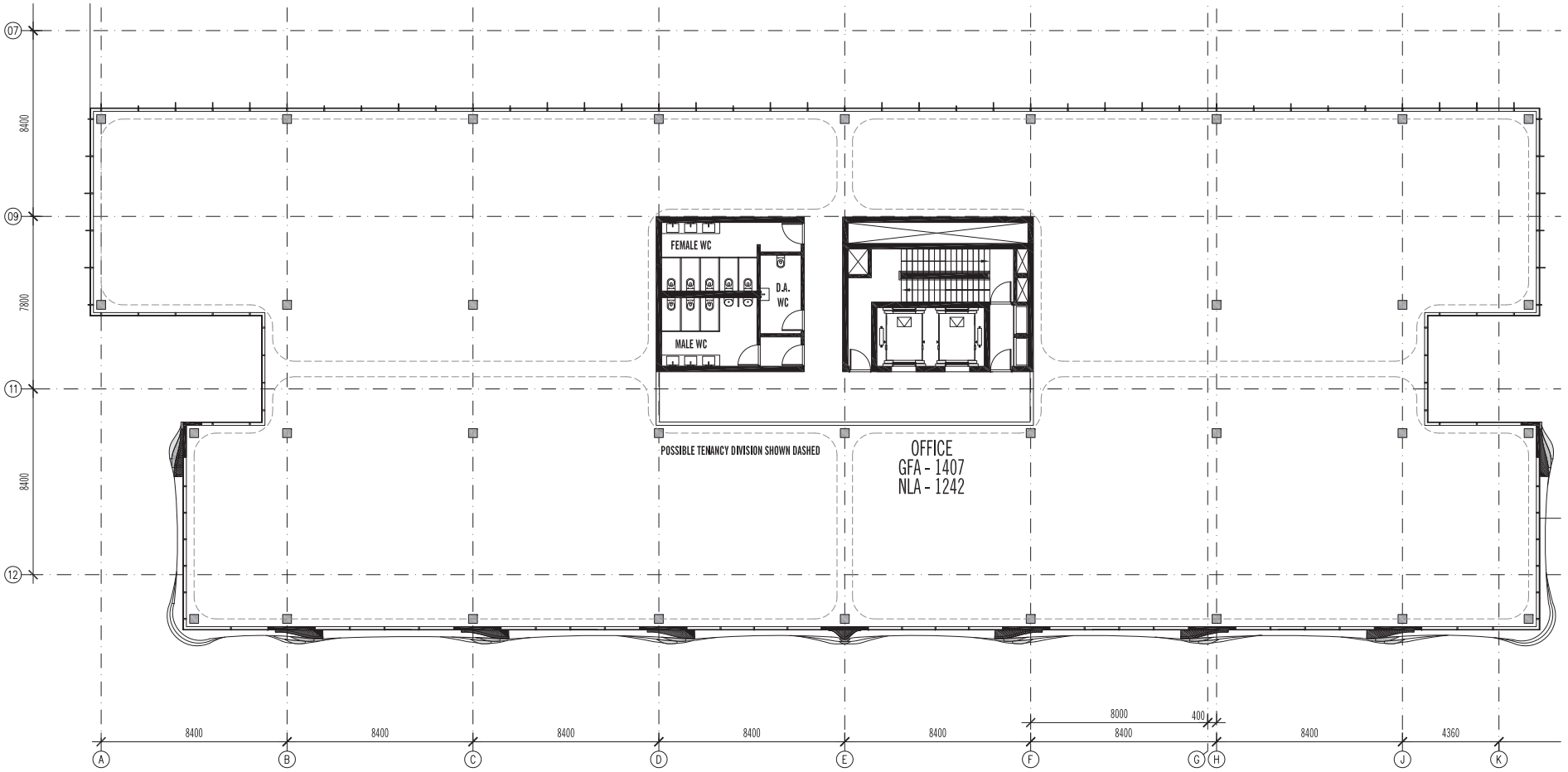
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 164 198 705

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA
Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
BUILDING 02
FLOOR PLAN

Project Number
12072
Drawing Number
A305
Drawing Status
TP
Revision
C



Rev	Date	Reason for Issue	DRAWN BY
A	16.11.22	ISSUED FOR INFORMATION	RKB
B	05.12.22	ISSUED FOR PRE-APPLICATION MEETING	RKB
C	09.12.22	ISSUED FOR DEVELOPMENT APPLICATION	RKB

Rev	Date	Reason for Issue	DRAWN BY

SCALE@A1 1:100 SCALE@A3 1:200

PRELIMINARY
NOT FOR CONSTRUCTION

Figured dimensions take precedence to scale readings. Verify all dimensions on site. Report any discrepancies to the Architect for decision before proceeding with the work.

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ELENBERG FRASER
LEVEL 3, 160 QUEEN STREET MELBOURNE
VICTORIA 3000 AUSTRALIA
TEL +61 3 9600 2260 FAX +61 3 9600 2266
EMAIL MAIL@ELENBERGFRASER.COM
WWW.ELENBERGFRASER.COM
ABN 97 164 198 705

Project Title
LOT 222, STIRLING CROSS
INNALOO, WA
Client
FINI GROUP & ASCOT CAPITAL

Drawing Title
BUILDING 03_OFFICE
FLOOR PLAN

Project Number	Drawing Number
12072	A310
Drawing Status	Revision
TP	C





Roof Garden



1 **Communal interior dining** with green outlook (private)

2 **Exterior communal spaces** as extension of interior dining (private)

3 **Central recreational lawn**

4 **Pavilion over bbq and communal tables**

5 **Bamboo** selected species to create tall "green walls" for screening, privacy and green outlook

6 **Small shelter/pavilions** with loose lounging furniture around

7 **Intimate pocket spaces** - decked with timber bench seating set within garden environment

8 **Feature shade trees** in raised planters with accent planting

9 **Timber seating steps** down to decked area (semi private)

STIRLING CROSS - LOT 222
DEVELOPMENT APPLICATION - LANDSCAPE

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PLACE LABORATORY

Date	Scale	Client	Project	Drawing
DECEMBER 2012	1:400 @A3	_	Stirling Cross Lot 222	L_CP_001

Streetscape



1 **Paving bands -** insitu concrete exposed aggregate with saw cut joints

2 **Raingardens -** with native wetland grasses and groundcovers

3 **Street trees**

4 **Office Lobby entry**

5 **Parking entry**

STIRLING CROSS - LOT 222

DEVELOPMENT APPLICATION - LANDSCAPE

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PLACE LABORATORY

Date	Scale	Client	Project	Drawing
DECEMBER 2012	1:400 @A3	_	Stirling Cross Lot 222	L_CP_001

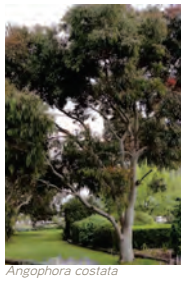
Trees and Planting

A ROOF GARDEN
(lightweight soil preparation)

1. **Ulmus parvifolia**
   Chinese Elm
2. **Lagerstroemia indica**
   Crepe Myrtle
3. **Dendrocalumus Minor 'Amoenus'**
   Ghost Bamboo
4. **Planting**
   Dianella revoluta, Syzygium australe, trachelospernum jasminoides
   (to raised palnters)
5. **Climbers** - Wisteria floribunda 'Alba'
   (to shade pavilions)

B STREETSCAPE

6. **Angophora costata**
   Smooth Barked Apple
7. **Brachychiton populneus**
   Kurrajong
8. **Verge planting**
   Baumea juncea
   Kennedia prostrata
   Carex appressa
   Kennedia prostrata
   Dianella revoluta



Angophora costata
Smooth Barked Apple



TREES



Ulmus parvifolia
Chinese Elm



Lagerstroemia indica
Crepe Myrtle



Brachychiton populneus
Kurrajong

PLANTING - WSUD verges



Baumea juncea
Bare twig rush



Carex appressa
Tall Sedge



Kennedia prostrata
Red Runner



Dianella revoluta
Flax lilly

PLANTING - Roof Garden



Bamboo species
Bamboo



Trachelospernum jasminoides
Star Jasmine



Syzygium australe
Lilly Pilly



Wisteria floribunda 'Alba'
White Wisteria

STIRLING CROSS - LOT 222
DEVELOPMENT APPLICATION - LANDSCAPE

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Landscape Approach

LANDSCAPE APPROACH

The landscape spaces for Lot 222 includes the Roof Garden (podium level) and the Streetscape / Verge treatment at ground level.

The landscape has been designed to compliment the architecture of the development and create coherent, functional spaces that provide attractive amenity to the community. The design addresses the urban, mixed use nature of the area by integrating and unifying public spaces with private spaces through a consistent selection of plants and appropriate surface treatments.

The Roof Garden, situated on the podium of the Lot 222 Development has been designed as a communal green area for residents as a place to use and enjoy as well as serving as a primary outlook from the surrounding apartments and offices.

The outer edges of the space is lined with planters of tall bamboo to assist in screening / privacy where required and also to create an overall green atmosphere and outlook. Additional raised planters comprised of high quality materials and planting help define a series of spaces - large and small to facilitate a range of uses from communal gathering and dining to smaller intimate spaces for seclusion and relaxation,

Shade is provided during summer months with the planting of deciduous trees and the inclusion of shade pavilions. A large open area of lawn centrally within the garden provides a comfortable and cooling surface for residents to use for resting or recreation.

The roof garden also includes bbq facilities, fixed and flexible seating and decked areas for socialising.

Building Entries and Streetscape. High quality feature paving bands radiate out perpendicular to the ground level facade providing a seamless relationship and comfortable access to the building and its entries at ground level. The paving bands also define the edge to the rain gardens and verge planting which capture runoff from the paved areas and adjacent streets.

The soft landscape treatment to the rain gardens and verge planting represents the local wetland character of the area (precinct 4 - identified in the City of Stirling Town Planning Scheme No. 38), with the planting palette selected to reinforce this relationship.

PLANTING AND MATERIALS

- Plant species have been selected for their low maintenance / **low water requirement** and are predominantly indigenous to reinforce the local natural character and provide food/habitat for native fauna.
- Trees selected relate to the scale and proportion of the architecture, compliment facades and provide shade and comfort to the public.
- High quality **stone paving** at building entries and roof garden to compliment building aesthetic and emphasise as key entry and gathering areas.
- **In situ concrete** footpath, exposed aggfregate with saw cut feature jointing
- Timber **seating elements and decks** to the roof garden , designed and detailed to complement the architectural/landscape aesthetic and functionality of the spaces in which they are located.



Seating nodes



small pavilions



Native planting and WSUD



Green outlook



Bamboo and “green rooms”



Seating decks with integrated lighting



Pavilion with communal seating



lighting / materials and planting



Materials and texture

STIRLING CROSS - LOT 222
DEVELOPMENT APPLICATION - LANDSCAPE

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