Government of **Western Australia**
Development Assessment Panels

Metro Central Joint Development Assessment Panel Agenda

Meeting Date and Time: Thursday 30 August 2012, 5pm
Meeting Number: 11
Meeting Venue: Town of Bassendean
48 Old Perth Road
Bassendean

Attendance

DAP Members

Mr Charles Johnson (Presiding Member)
Mr Ian Hocking (Deputy Presiding Member)
Mr Luigi D'Alessandro (Specialist Member)
Mayor Joe Delle Donne (Local Government Member, City of Canning)
Cr Bruce Mason (Local Government Member, City of Canning)
Cr Jennie Carter (Local Government Member, Town of Bassendean)
Cr Kara Collins (Local Government Member, Town of Bassendean)

Officers in attendance

Ms Noelene Jennings (Department of Planning)
Mr Ron Couacaud (Department of Planning)
Mr Kevin Townroe (City of Canning)
Mr Michael Whitbred (Town of Bassendean)
Mr Brian Reed (Town of Bassendean)

Local Government Minute Secretary

Ms Sue Perkins (Town of Bassendean)

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

Minutes of the Metro Central JDAP meeting No.9 (SAT Confidential) and No.10 held on the 13 August 2012.

5. Disclosure of Interests

Nil

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

Nil

8. Form 1 - Responsible Authority Reports – DAP Applications/s

8.1	Application Details:	Waste Recycling Facility (upgrades involving installation of 6 humidifiers and construction of a 188.5m^2 storage shed)
	Property Location:	Lot 78 Bannister Road, Canning Vale
	Applicant:	Allerding & Associates
	Owner:	City of Canning
	Responsible authority:	City of Canning
	Report date:	16 August 2012
	DoP File No:	DP/12/00732
8.2	Application Details:	Bassendean Shopping Village Redevelopment
	Property Location:	Lot 2 West Road, Bassendean
	Applicant:	Hames Sharley (WA) Pty Ltd
	Owner:	Hawaiian Investment
	Responsible authority:	Town of Bassendean
	Report date:	20 August 2012
	DoP File No:	DP/12/00644
8.3	Application Details:	Mixed Use Multiple Residential
	Property Location:	Lot 3 (No.85) Old Perth Road, Bassendean
	Applicant:	Bevilaqua Design Development
	Owner:	Department of Housing
	Responsible authority:	Town of Bassendean
	Report date:	15 August 2012
	DoP File No:	DP/12/00644

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

Nil

10. Appeals to the State Administrative Tribunal

Nil

11. Meeting Closure

Minutes of the Metro Central Joint Development Assessment Panel

Meeting Date and Time: Monday 13 August 2012
Meeting Number: MCJDAP/10
Meeting Venue: City of South Perth
Cnr Sandgate Street and South Terrace
South Perth

Attendance

DAP Members

Mr Charles Johnson (Presiding Member)
Mr Ian Hocking (Deputy Presiding Member
Mr Luigi D'Alessandro (Specialist Member)
Cr Colin Cala (Local Government member, City of South Perth)
Cr Betty Skinner (Local Government member, City of South Perth)

Officers in attendance

Ms Noelene Jennings (Department of Planning)
Mr Ron Couacaud (Department of Planning)
Ms Vicki Lummer (City of South Perth)
Mr Rajiv Kapur (City of South Perth)
Mr Siven Naidu (City of South Perth)
Mr Cameron Howell (City of South Perth)
Mr Matthew Selby (Department of Planning – Item 8.2)
Ms Kate Gibson (Department of Planning – Item 8.2)

Local Government Minute Secretary

Mr Ricky Woodman (City of South Perth)

Applicants, Submitters and Members of the Public

Item 8.1 Submitters

Mr Peter Webb (Peter D Webb and Associates)
Mr Guy Grant (Peter D Webb and Associates)

Item 8.2 Submitters

Ms Sophie Liedig (Western Power- Item 8.2)
Mr Sam Woolard (Western Power- Item 8.2)

Member of the Public: 1

1. Declaration of Opening

Mr Charles Johnson
Presiding Member, Metro Central JDAP

1. Declaration of Opening

The Presiding Member declared the meeting open and acknowledged 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

The JDAP noted the minutes of the Metro Central JDAP meeting no. 8 held on 2 August 2012.

5. Disclosure of Interests

Nil

6. Declarations of Due Consideration

Nil

7. Deputations and Presentations

7.1 Presenter: Mr Peter Webb

Mr Peter Webb (Peter D Webb and Associates) addressed the DAP for item 8.1 with regards to height restrictions and provision of bicycle parking at the proposed extensions and modifications to the Balmoral Aged Care Facility.

7.2 Presenter: Ms Sophie Liedig

Ms Sophie Liedig and Mr Sam Woolard (Western Power) addressed the DAP for item 8.2 with regards to anti-graffiti coating, material matching and visual amenity of the proposed new switchboard building and extension of perimeter wall.

8. Form 1 - Responsible Authority Reports – DAP Applications

8.1	Application Details:	Proposed Extensions and Modifications to Existing “Balmoral Aged Care Facility”
	Property Location:	Lot 200 Labouchere Road (No. 29 Gardner Street), Como
	Applicant:	Peter D Webb & Associates
	Owner:	Balmoral Aged Care Group Pty Ltd
	Responsible authority:	City of South Perth
	Report date:	3 August 2012
	DoP File No:	DP/12/00564

REPORT RECOMMENDATION / PRIMARY MOTION

Moved by: Mr Charles Johnson **Seconded by: Cr Betty Skinner**

That the METRO CENTRAL JDAP resolves to:

Approve DAP Application reference 11.2012.239.1 and accompanying plans BACFSS & Sk1A (amended, received 29 May 2012), Sk2 & Sk3 (amended, received 11 July 2012), Sk4 (received 22 May 2012) and Sk5 (amended, received 26 June 2012) in accordance with Clause 7.9 of the City of South Perth Town Planning Scheme No. 6, subject to the following conditions and important notes as follows:

(1) Revised drawings shall be submitted, and such drawings shall incorporate the following:

(i) Amended plans to demonstrate compliance with a 7.0 building height limit to the porte-cochere structure and the architectural features to the balconies along the north & west elevations in accordance with clause 6.2 (Building Height Limits) of the TPS6.

(ii) Provision shall be made for the parking of 8 bicycles in bays, the design and location of which shall be to the satisfaction of the City, in accordance with the requirements of clause 6.4 (1) of TPS 6. (see important note 4 below)

(2) The proposed driveway gradient exceeds that which will normally be accepted by the City. The driveway gradient will be accepted by the City if:

(i) A letter is received from the property owner which acknowledges responsibility for any access difficulties that may arise, without any future recourse to the City of South Perth;

(ii) A longitudinal section (worst-case scenario) of the crossover, driveway and parking area is provided which demonstrates that adequate ground clearance has been provided for vehicular movement. The section drawings shall be prepared in accordance with "Ground Clearance Template" provided in Appendix C of Australian Standard – Parking Facilities (AS 2890.1:2004); and

(iii) The required information shall be provided prior to the issue of a building permit.

(3) Details of the proposed colours of the external materials shall be submitted for approval by the City, prior to the issuing of a building licence. The selected colours shall demonstrate compatibility with neighbouring buildings.

(4) The applicant shall construct a crossover between the road and the property boundary. The crossover shall be constructed in accordance with the approved drawings, associated conditions and the requirements contained within specification SP30, which is available at the City's website. The existing verge levels at the front property boundary shall not be altered.

Mr Charles Johnson
Presiding Member, Metro Central JDAP

(5) The existing crossover shall be removed and the verge and kerbing shall be reinstated to the satisfaction of the Director, Infrastructure Services.

(6) No street trees shall be removed, pruned or disturbed in any way.

(7) The car parking bays shall be marked on site as indicated on the approved site plan, in order to comply with the requirements of clause 6.3(10)(c) of Town Planning Scheme No. 6 and such marking shall be subsequently maintained so that the delineation of parking bays remains clearly visible at all times.

(8) The designated visitor parking bays shall be clearly identified on site by means of a sign bearing the words "Visitors' Parking Only" in accordance with the requirements of clause 6.3 (11) of Town Planning Scheme No. 6.

(9) The car parking bays located within the street setback area shall be screened by a landscaping strip at least 1.5 metres wide in order to comply with the requirements of clause 6.3(6)(c) of Town Planning Scheme No. 6.

(10) Hard standing areas approved for the purpose of car parking or vehicle access shall be maintained in good condition at all times, free of potholes and dust and shall be adequately drained in accordance with the requirements of Clause 6.3 (10) of Town Planning Scheme No. 6.

(11) Unless otherwise approved, fences of brick, timber, capped manufactured pre-coloured metal sheet, capped corrugated fibre-cement sheet or brushwood construction, 1.8 metres in height, shall be provided along the boundary of the site. Any fencing forward of the building line shall not be of fibre-cement sheet construction, and shall not exceed 1.2 metres in height unless otherwise required or approved by the City. The fence height at any point shall be measured from the level of the ground adjacent to the fence. If the ground levels on each side of the fence are not the same at any point along the lot boundary, the fence height at that point shall be measured from the higher side.

(12) Any required filling or excavation of the site shall be retained by embankments or walls, details of which are to be incorporated in the working drawings submitted in support of a building permit application.

(13) Any required retaining walls along lot boundaries shall be constructed immediately after excavation or filling has been carried out.

(14) The height of any letterbox, electricity installation, bin enclosure, or other structure, fence, wall or hedge within 1.5 metres of any vehicle driveway where it meets a street alignment shall not exceed the 0.75 metre limit imposed under the provisions of clause 6.2.6 (A6) of the Residential Design Codes.

(15) This planning approval does not permit the display of any signage on the building or on the site. A new application for planning approval will be required if signage is proposed to be displayed.

(16) All plumbing fittings on external walls shall be concealed from external view as required by Clause 7.5(k) of Town Planning Scheme No. 6.

Mr Charles Johnson
Presiding Member, Metro Central JDAP

(17) In accordance with the provisions of Clause 6.8(2) of Town Planning Scheme No. 6, all subsoil water and stormwater from the property shall be discharged into soak wells or sumps located on the site unless special arrangements can be made to the satisfaction of the Director, Infrastructure Services for discharge into the street drainage system.

(18) The validity of this approval shall cease if construction is not substantially commenced within 24 months of the date of planning approval.

AMENDING MOTION

Moved by: Cr Colin Cala **Seconded: Mr Luigi D'Alessandro**

That the METRO CENTRAL JDAP resolves to remove Condition (1)(i).

REASON: The JDAP has the discretion to approve minor projections.

The amendment was put and carried UNANIMOUSLY.

AMENDING MOTION

Moved by: Mr Luigi D'Alessandro **Seconded: Mr Ian Hocking**

That the METRO CENTRAL JDAP resolves to remove Condition (2)(ii).

REASON: The JDAP considered this condition unnecessary as the work had been done.

The motion was put and carried UNANIMOUSLY.

AMENDING MOTION

Moved by: Mr Luigi D'Alessandro **Seconded: Mr Ian Hocking**

That the METRO CENTRAL JDAP resolves to amend Condition (1) as follows:

(1) Revised drawings shall be submitted, and such drawings shall incorporate the provision for the parking of 8 bicycles in bays, the design and location of which shall be to the mutual satisfaction of the City and the applicant.

REASON: To further clarity the condition.

The motion was put and carried UNANIMOUSLY.

PRIMARY MOTION (AS AMENDED)

That the METRO CENTRAL JDAP resolves to:

Approve DAP Application reference 11.2012.239.1 and accompanying plans BACFSS & Sk1A (amended, received 29 May 2012), Sk2 & Sk3 (amended, received 11 July 2012), Sk4 (received 22 May 2012) and Sk5 (amended, received 26 June 2012) in accordance with Clause 7.9 of the City of South Perth Town Planning Scheme No. 6, subject to the following conditions and important notes as follows:

(1) Revised drawings shall be submitted, and such drawings shall incorporate the provision for the parking of 8 bicycles in bays, the design and location of which shall be to the mutual satisfaction of the City and the applicant.

(2) The proposed driveway gradient exceeds that which will normally be accepted by the City. The driveway gradient will be accepted by the City if:

(i) A letter is received from the property owner which acknowledges responsibility for any access difficulties that may arise, without any future recourse to the City of South Perth; and

(ii) The required information shall be provided prior to the issue of a building permit.

(3) Details of the proposed colours of the external materials shall be submitted for approval by the City, prior to the issuing of a building licence. The selected colours shall demonstrate compatibility with neighbouring buildings.

(4) The applicant shall construct a crossover between the road and the property boundary. The crossover shall be constructed in accordance with the approved drawings, associated conditions and the requirements contained within specification SP30, which is available at the City's website. The existing verge levels at the front property boundary shall not be altered.

(5) The existing crossover shall be removed and the verge and kerbing shall be reinstated to the satisfaction of the Director, Infrastructure Services.

(6) No street trees shall be removed, pruned or disturbed in any way.

(7) The car parking bays shall be marked on site as indicated on the approved site plan, in order to comply with the requirements of clause 6.3(10)(c) of Town Planning Scheme No. 6 and such marking shall be subsequently maintained so that the delineation of parking bays remains clearly visible at all times.

(8) The designated visitor parking bays shall be clearly identified on site by means of a sign bearing the words "Visitors' Parking Only" in accordance with the requirements of clause 6.3 (11) of Town Planning Scheme No. 6.

(9) The car parking bays located within the street setback area shall be screened by a landscaping strip at least 1.5 metres wide in order to comply with the requirements of clause 6.3(6)(c) of Town Planning Scheme No. 6.

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Presiding Member, Metro Central JDAP

(10) Hard standing areas approved for the purpose of car parking or vehicle access shall be maintained in good condition at all times, free of potholes and dust and shall be adequately drained in accordance with the requirements of Clause 6.3 (10) of Town Planning Scheme No. 6.

(11) Unless otherwise approved, fences of brick, timber, capped manufactured pre-coloured metal sheet, capped corrugated fibre-cement sheet or brushwood construction, 1.8 metres in height, shall be provided along the boundary of the site. Any fencing forward of the building line shall not be of fibre-cement sheet construction, and shall not exceed 1.2 metres in height unless otherwise required or approved by the City. The fence height at any point shall be measured from the level of the ground adjacent to the fence. If the ground levels on each side of the fence are not the same at any point along the lot boundary, the fence height at that point shall be measured from the higher side.

(12) Any required filling or excavation of the site shall be retained by embankments or walls, details of which are to be incorporated in the working drawings submitted in support of a building permit application.

(13) Any required retaining walls along lot boundaries shall be constructed immediately after excavation or filling has been carried out.

(14) The height of any letterbox, electricity installation, bin enclosure, or other structure, fence, wall or hedge within 1.5 metres of any vehicle driveway where it meets a street alignment shall not exceed the 0.75 metre limit imposed under the provisions of clause 6.2.6 (A6) of the Residential Design Codes.

(15) This planning approval does not permit the display of any signage on the building or on the site. A new application for planning approval will be required if signage is proposed to be displayed.

(16) All plumbing fittings on external walls shall be concealed from external view as required by Clause 7.5(k) of Town Planning Scheme No. 6.

(17) In accordance with the provisions of Clause 6.8(2) of Town Planning Scheme No. 6, all subsoil water and stormwater from the property shall be discharged into soak wells or sumps located on the site unless special arrangements can be made to the satisfaction of the Director, Infrastructure Services for discharge into the street drainage system.

(18) The validity of this approval shall cease if construction is not substantially commenced within 24 months of the date of planning approval.

The motion was put and carried UNANIMOUSLY.

Mr Charles Johnson
Presiding Member, Metro Central JDAP

8.2	Application Details:	Proposed Construction of New Switch-room Building and Extension of Perimeter Wall in North East Corner of Substation
	Property Location:	Lots 1787 (No. 99) Thelma Street, Como
	Applicant:	Western Power
	Owner:	Western Power
	Responsible authority:	Department of Planning
	Report date:	1 August 2012
	DoP File No:	DP/12/00646

Ms Vicki Lummer and Mr Matthew Selby answered questions relating to the application.

REPORT RECOMMENDATION

Moved by: Cr Betty Skinner **Seconded by: Cr Colin Cala**

A **Approve** DAP Application 12/00646 DoP reference 11-50088-1 and accompanying plans date stamped 31 July 2012 - (**Attachment 6 Development Plan (amended)** - SS133/10/A/1/2 for Lot 1787 (99) Thelma Street, Como for the construction of a new switchboard building and extension of perimeter wall (site plan and elevations) in accordance with the provisions of the Metropolitan Region Scheme subject to the following conditions and advice notes:

Conditions

1. The development and use subject of this approval must be substantially commenced within a period of two (2) years of the date of this approval notice. If the development is not substantially commenced within this period, this approval shall lapse and be of no further effect.

2. The external materials, colour finish and built form of the proposed buildings are to demonstrate compatibility with the existing buildings on the subject site to the satisfaction of the Western Australian Planning Commission upon advice from the City of South Perth.

3. The materials, colour finish and height of the proposed perimeter wall are to match with those of the existing wall, in order to maintain consistency when viewed from the streets or adjoining property to the satisfaction of the Western Australian Planning Commission upon advice from the City of South Perth.

4. The applicant shall prepare a landscaping plan to the satisfaction of the Western Australian Planning Commission upon advice from the City of South Perth and shall implement the plan and maintain the areas identified in the plan.

5. All existing car parking bays and vehicular hardstand areas onsite shall be marked and maintained at all times to the satisfaction of the Western Australian Planning Commission upon advice from the City of South Perth.

Advice Notes:

1. The applicant is advised that the Department of Environment and Conservation's Contaminated Sites Branch records indicate that there may be PCB impacted soils on the site. Accordingly, any intrusive works should consider the potential to intersect impacted soils and appropriate management measures should be implemented.

2. Landscaping illustrated on the proposed plans does not form part of this development approval.

B **Advise** the applicant, the City of South Perth and the Department of Planning of its decision accordingly.

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

Nil

11. Meeting Closure

There being no further business, the Presiding Member declared the meeting closed at 5:14pm.

Mr Charles Johnson
Presiding Member, Metro Central JDAP

Government of **Western Australia**
Development Assessment Panels

Responsible Authority Report Template

(Regulation 12)

Application Details:	Waste Recycling Facility (Upgrades involving installation of 6 Humidifiers and Construction of a 188.5m^2 Storage Shed)
Property Location:	Pt Lot 78 Bannister Road, Canning Vale
DAP Name:	Metro Central Joint Development Assessment Panel
Applicant:	Southern Metropolitan Regional Council via agents – Allerding and Associates, Town Planners, Advocates and Subdivision Designers, 125 Hamersley Road, Subiaco WA 6008.
Owner:	City of Canning
LG Reference:	15/14799
Responsible Authority:	City of Canning
Authorising Officer:	Kevin Jefferies, Executive Property, Assets and Economic Development
Application No and File No:	15/14799 and DP/12/00732
Report Date:	16 August 2012
Application Receipt Date:	**29 June 2012**
Application Process Days:	**50**
Attachment(s):	**1.** Location Plan. **2.** Planning Report (Allerding and Associates). **3.** Development Plans: Site Plan, Northern Elevation, Humidifier Detail 1, Humidifier Detail 2, Bin storage shed elevation. **4.** Aerial and Zoning plan. **5.** Copies of responses from Statutory and/or public authorities. **6.** Consultation Response Map. **7.** Schedule of Submissions. **8.** Noise Modelling (SVT Consultants) and Odour Modelling (Odour Unit Consultants). **9.** Previous Planning Approvals issued by WAPC and the City of Canning.

Recommendation:

That the Metro Central Joint Development Assessment Panel resolves to:

Approve the Waste Recycling Facility (upgrades involving 6 humidifiers and storage shed) on Pt Lot 78 Bannister Road, Canning Vale the subject of DAP Application reference DP 12/00732 and accompanying plans dated 27.06.2012 (as per Attachment 3) - in accordance with Clause 2.3.6.1 and Appendix 5 – '*Schedule of Additional or prohibited Uses',* City of Canning Town Planning Scheme No.40, subject to the following conditions:

1) This approval relates only to the two elements highlighted in red on the approved plans, being the installation of the 6 humidifiers and construction of the storage shed.

2) The applicant providing 3 constructed car bays on Pt Lot 78 (site) subject of this approval for the proposed storage shed.

3) The applicant providing a revised site plan prior to the occupation of the development indicating a 200 car parking bay reserve to the satisfaction of the City to ensure previous parking arrangements, as per previous development approval 16/6577, are maintained over the site as per Table 6A of Town Planning Scheme No. 40.

4) No offensive odour emissions shall be emitted from the Waste Recycling Facility interfering with the health of any person on residential premises.

5) No offensive odour emissions shall be emitted from the Waste Recycling Facility interfering with any persons' use of or enjoyment of their residential premises.

6) The noise attenuation measures identified in the Acoustic Report from SVT Engineering Consultants dated 15 August 2012 are implemented in full with written confirmation of the installation works being provided to the City's Chief Executive Officer by 15 February 2013.

7) The Southern Metropolitan Regional Council shall submit to the City's Chief Executive Officer, prior to 15 February 2013 a written report prepared by an acoustic consultant, who is a member of the Association of Australian Acoustical Consultants, which confirms that the noise emitted from the operation of the Waste Composting Facility complies in all respects with the Environmental Protection (Noise) Regulations 1997.

8) The bin storage shed is to be constructed to prevent the leakage of liquid waste and must be constructed with a hose cock, provision of mains water and hardstand impervious flooring graded to a floor waste and connected to mains sewer to the satisfaction of the City.

9) The roller doors associated with the bin storage shed are to remain closed at all times except when the loading and unloading of bins is taking place.

10) This approval is valid for a period of 24 months; if the development hereby approved has not substantially commenced within this time then a new planning application will be required.

Advice Notes:

i) This proposal will require Water Corporation Building Services approval prior to commencement of works. Headwork contributions and fees may be required to be paid prior to approval being issued (Water Corporation).

ii) The principle followed by the Water Corporation for the funding of subdivision or development is one of user pays. The developer is expected to provide all water and sewerage reticulation. A contribution for Water, Sewerage and Drainage headwork's may also be required. In addition the developer may be required to fund new works or the upgrading of existing works and protection of all works. Any temporary works needed are required to be fully funded by the developer. The Corporation may also require land being ceded free of cost for works (Water Corporation).

Background:

Insert Property Address:	Part Lot 78 Bannister Road, Canning Vale
Insert Zoning MRS:	Industrial
TPS:40	Mixed Business
Insert Use Class:	Waste Recycling Facility, listed as an additional permitted use under per TPS No.40, Appendix 5 (Code No.63).
Insert Development Scheme:	Town Planning Scheme No. 40.
Insert Lot Size:	Pt Lot 78 being 7.7253ha
Insert Existing Land Use:	Waste Recycling Facility
Value of Development:	$3 million

History

Conditional planning approval for the original Waste Recycling Facility was granted by the Western Australian Planning Commission in October 1999 (refer **Attachment 9**). As the City of Canning was the landowner, applicant and regulator, the WAPC processed the proposed development application in the first instance.

Subsequent to the approval granted by the Western Australian Planning Commission, the City of Canning granted Development Approval under the requirements of its Town Planning Scheme No. 40 for the exact same proposal on 12 October 1999 under serial number 16/6577. A copy of this approval is found under **Attachment 9**.

The Southern Metropolitan Regional Council were also issued with an operating licence under the *Environmental Protection Act 1986* to operate a waste composting facility and green waste processing operation, by the Department of Environment and Conservation (DEC).

The City of Canning has received continuing complaints from nearby residents of the composting facility relating to offensive odour and noise emissions from the site. Complaints have been ongoing since the facility was commissioned in 1999. In response to the continuing complaints the City established an odour hotline service in January 2011 whereby City officers attend the complainant's premises to ascertain the extent of the odour which is recorded, presented to Council and forwarded to the DEC. The City has detected the odours on many occasions and has reported this to DEC for action.

The City has also undertaken its own noise testing which has confirmed the existing facility is in breach of the *Environmental Protection (Noise) Regulations 1997*; again such results being reported to the DEC.

The DEC has recently issued a new licence for the facility which has included more stringent conditions relating to noise and odour recognising the performance of the facility to manage these issues has not been adequate. In relation to odour the DEC licence specifically requires the Southern Metropolitan Regional Council to achieve certain odour levels (500ou limit and 350ou is their target). It remains unclear however if achieving these levels will eliminate offensive odours being received within the residential area under normal operating conditions.

This application proposes to install additional infrastructure (humidifiers and enclosed storage shed) to meet the new conditions of the DEC Licence aimed at reducing the level of odour being released by the facility.

Site

The site is located at the western end and to the south of Bannister Road in Canning Vale. It has a total area of 7.7253ha. It is bounded by Roe Highway to the north and a railway reserve to the south with a bus depot and Water Corporation facility located to its north.

The closest residential area to the site is the suburb of Leeming which is located approximately 500 metres to the north-west. A proportion of this suburb is located within the municipal boundary of the City of Melville.

The site is zoned Industry under the MRS and Mixed Business under Town Planning Scheme No. 40 (TPS 40). Under TPS 40 the site also enjoys additional use rights under Appendix 5 of the Scheme (code No. 63), including the uses of Waste Recycling, Waste Transfer Station and General Industry.

Details: outline of development application

The proposed development application is for the installation of 6 humidifiers to be located to the north side of the existing building. Humidifiers are mechanical plant that control the amount of moisture in the bio-filtering process. In theory if the gas entering the bio-filter has more moisture it will aid the bio-filter in its destruction of odorous gas.

A storage shed is also proposed measuring 5.2m in height and 188m^2 in area (14.5m x 13m) and is located approximately 27m from the southern boundary of the property. The storage shed is to be clad in a colorbond finish to match the existing buildings on site.

The storage shed is to accommodate that waste which is not able to be recycled (composted) for short periods until it is taken from the site and disposed of elsewhere. This waste is currently being accommodated in bins outside of the existing tipping shed in an open storage yard.

Legislation & Policy:

- Metropolitan Region Scheme.
- City of Canning Town Planning Scheme No. 40.

Legislation

- Clause 2.3.6.1, City of Canning Town Planning Scheme No.40.
- Table 6A – '*Industrial Development Site Requirements',* City of Canning Town Planning Scheme No.40.
- Table 6B – *'Industrial Land Use Parking Requirements',* City of Canning Town Planning Scheme No.40.
- Appendix 5 – '*Schedule of Additional or Prohibited Uses',* City of Canning Town Planning Scheme No.40.
- Clause 2.3.8.4, of the City of Canning Town Planning Scheme No.40.
- Clause 2.3.8, of the City of Canning Town Planning Scheme No. 40.

State Government Policies

- Statement of Planning Policy No.5 – '*Environmental and Natural Resource' Policy'.*
- Statement of Planning Policy No.4.1 – '*State Industrial Buffer Policy'.*

Consultation:

Public Consultation

Whilst the proposal did not require advertising, Clause 2.3.8.4 of TPS 40 allows the City to advertise proposals where the circumstances of the case justify such advertising to be undertaken. Given the operation of the facility has caused a significant impact to the existing residents within the locality, Council at its meeting dated 10 July 2012 requested the proposal be advertised.

In accordance with the advertising procedures identified in Clause 2.3.7.1 of the Scheme the proposal was advertised for a period of 21 days (from 24 July 2012 to 14 August 2012).

A total of 766 consultation letters were sent to neighbouring properties within an area 1-1.5km in radius. Of these 160 letters were mailed out to City of Melville residents within the prescribed area.

As a result of the aforementioned advertising a total of 187 submissions were received; 54 of which were objections and 133 of which were no objections. A summary of the issues raised can be found below, with a detailed schedule of submissions identified in **Attachment 7**. **Attachment 6** represents a community response map to indicate the location and type of responses received as a result of advertising.

Points raised in the submissions received include:

- The facility has had sufficient time to reduce odour and noise levels but has never done so;

- Previous attempts to control noise and odour have failed;
- The putrid smell is causing health issues and ruining lifestyle;
- Unconvinced that proposed humidifiers will achieve improvements (these have been tried before);
- Approval of the proposal will send a clear message that the facility should stay, when moves should be undertaken to relocate the facility to a more appropriate location (the upgrade would represent a waste of money);
- The constant hum (noise) 24 hours / 7 days per week associated with the existing facility is getting worse and is untenable;
- The facility should be relocated;
- Concerned additional humidifiers will produce more noise;
- The facility has continually breached noise regulations already; and
- Elimination of all odour and noise would be the only acceptable outcome.

Consultation with other Agencies or Consultants

The Department of Environment and Conservation response dated 10 August 2012 (**Attachment 5** refers). The DEC is supportive of the proposal and that the proposed upgrades would be in accordance with the directions contained within its recent licence approval.

Water Corporation response dated 7 August 2012 (**Attachment 5** refers). The Water Corporation has not objected to the proposal, but rather has made general comments.

Planning assessment:

Town Planning Scheme No. 40

The subject site is zoned 'Mixed Business'. Under Appendix 5, code No. 63, of the Scheme, the subject site has the following additional permitted uses:

- Waste recycling;
- Landfill;
- Gas Extraction;
- Waste Transfer Station;
- Animal Pound;
- Pet Cemetery; and
- General Industry.

The proposal has been considered as ancillary works to the existing Waste Recycling facility.

Development Standards (Clause 6.4)

Clause 6.4 (Industrial Standards) identifies general standards that should be applied to development within the Mixed Business zone.

In relation to the proposed storage shed, which represents the only increase in floor area associated with the proposal, scheme standards relating to parking and setbacks are particularly relevant.

In relation to setbacks the storage shed is setback 27 metres from the southern (rear) lot boundary, whereas the Scheme allows setbacks to nil (where compliant with the Building Code of Australia).

Based on the parking requirements set out in Table 6B of TPS 40, 3 car-parking bays are required to be provided on site for the proposed storage shed; the applicant has not identified the additional parking bays on the site plan.

The proposed storage shed will encroach into the car parking reserve identified as part of the previous approvals issued by the WAPC and the City which was required as per Table 6A of TPS 40. The applicant has not demonstrated on the site plan where the required 200 bay parking reserve will be relocated to on the site; although it is noted there is a large area of cleared and undeveloped land to the south-east which could accommodate such a reserve.

To address this outstanding issue it is recommended that should the application be approved a revised location for the 200 bay parking reserve and 3 parking bays (to be constructed) are identified on a revised site plan to the satisfaction of the City.

Noise Concerns

The City has received numerous complaints from residents in relation to noise, particularly during the early hours of the morning. Many of the letters received from the community have attested to this noise nuisance, which has been further validated by the City's own testing which showed that noise levels were breaching the *EPA Noise Regulations 1997*. As part of its assessment the City had requested more details from the applicant as to whether the proposed upgrades would further exasperate the noise nuisance.

SVT engineering consultants (acoustic engineers) have provided modelling indicating that the proposed installation of the humidifiers would not result in an increase in noise levels and that separate to this application the SMRC had commissioned SVT consultants to identify modifications to the facility to reduce noise levels in compliance with the Regulations. The Noise Modelling as detailed in **Attachment 8** identifies the extent of noise that is likely to be emitted by the facility post modifications to the ducting being undertaken, and includes modelling with or without the humidifiers being installed.

It is recommended that should approval be granted that the applicant undertake a detailed noise assessment to validate the modelled noise levels and to report such findings to the City. It is critical once installation occurs that post assessment for noise takes place in the community, in the earlier hours of the morning, when the noise is creating a noise disturbance as this is the time that noise levels can be heard above the background noise created by Roe Highway.

Odour Concerns

As previously identified in this report the odour omitted from the facility has had a significant impact on the amenity of adjacent residents. The DEC through its Licence has identified a compliance level of 500ou.

The City had requested further information from the applicant in relation to the effectiveness of the proposed humidifiers. The Odour Unit (odour consultants) has undertaken modelling of the proposed humidifiers and believes that the new infrastructure will produce odour levels less than the DEC licensing requirements.

The City is concerned that whilst the odour levels may meet DEC licencing requirements once the humidifiers are installed, odour omitted from the facility may still be detected within the residential area and may still cause offense to residents. Should residents still be exposed to offensive odour levels affecting their amenity and enjoyment of their property, despite them being compliant with DEC licensing requirements, it is considered that this would still result in an unacceptable outcome. It is therefore recommended that should the application be approved additional conditions are placed on the approval to protect residents from odour nuisance.

Storage Shed

The proposed storage shed is to be used to house large waste bins (currently out in the open air) and although abutting the existing building there is no entrance to the new shed from within the existing building due to existing infrastructure restricting this option. The new shed would however be attached to the existing air extraction/filtration system.

The proposed shed will be used to store waste that cannot be composted and in order to further control odour it is recommended that the shed be constructed to prevent the leakage of liquid waste and must be constructed with a hose cock, provision of mains water and hardstand impervious flooring graded to a floor waste and connected to mains sewer to the satisfaction of the City.

The cleaning of bins regularly will further reduce odour emissions and this cleaning process must be carried out within a controlled environment. The recommended conditions of approval are aimed at ensuring the facility is designed and constructed to facilitate the appropriate cleaning of the bins and to ensure that the liquid does not contaminate the environment.

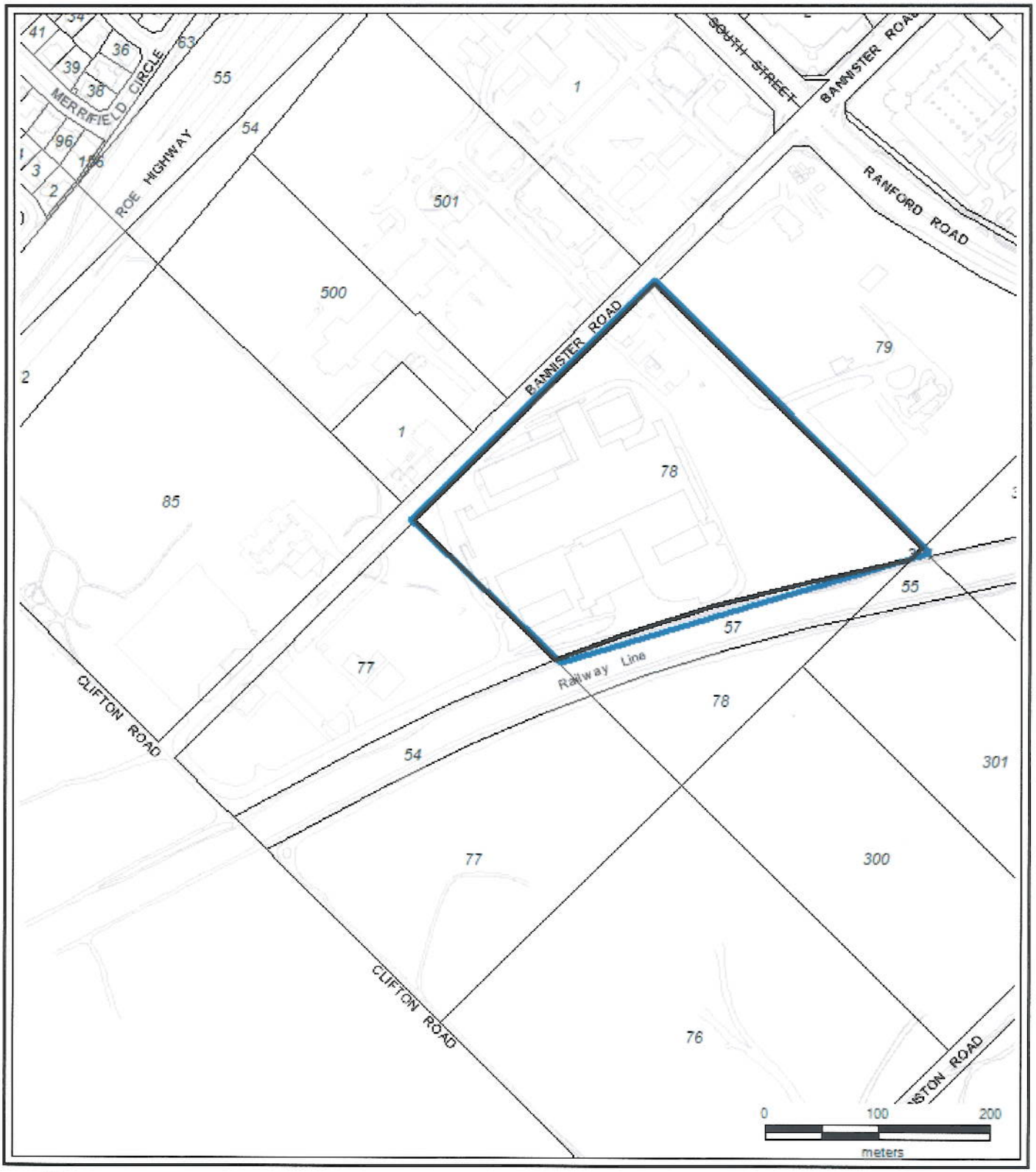
Conclusion:

It has been identified that this facility has breached set levels of odour and noise emissions and that the proposed humidifiers are an attempt to address the issue of odour and reduce the adverse effect this is having on nearby residential properties.

Although the applicant has modelled the odour and noise impacts associated with the upgraded facility the true impact will only be able to be assessed once the infrastructure has been installed and is operational. In this regard the City has recommended several conditions be placed on the approval to ensure the

upgrades will deliver the anticipated reductions in nuisance currently received by surrounding residents.

ATTACHMENT 1



LOCATION PLAN

LOT 78 BANNISTER ROAD
CANNING VALE

City *of* CANNING

SCALE 1:5000
DATE: 15/08/2012

ATTACHMENT 2

PROPOSED DEVELOPMENT WASTE COMPOSTING FACILITY UPGRADES LOT 78 BANNISTER ROAD, CANNING VALE

SOUTHERN METROPOLITAN REGIONAL COUNCIL

Prepared for: SMRC
Prepared by: Allerding and Associates

JUNE 2012

Allerding & Associates
Town Planners, Advocates and Subdivision Designers

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CONTENTS

1.0 INTRODUCTION

We act on behalf of the Southern Metropolitan Regional Council (**SMRC**). This report has been prepared as part of an application for development to the existing Waste Composting Facility (**WCF**) at Lot 78 Bannister Road, Canning Vale (**Subject Site/Site**). The proposed development includes the installation of 6 Humidifier units as well as a bin storage shed adjoining the existing facility.

The WCF forms part of the overall Resource Recovery Centre (**RRRC**) run by the SMRC. The waste management role of the RRRC is supported by the state wide strategic planning framework and policy outlined in this report.

We seek support for the proposed development of 6 humidifiers that are required to meet the RRRC's licensing obligations to control odour emissions from its WCF. This will ensure the continuation of best practice within the RRRC and respond to obligations to ensure odour emissions are minimised from the facility. The proposed development plans are included within **Annexure 1**.

The RRRC, including the WCF, are depicted in **Figure 1.**

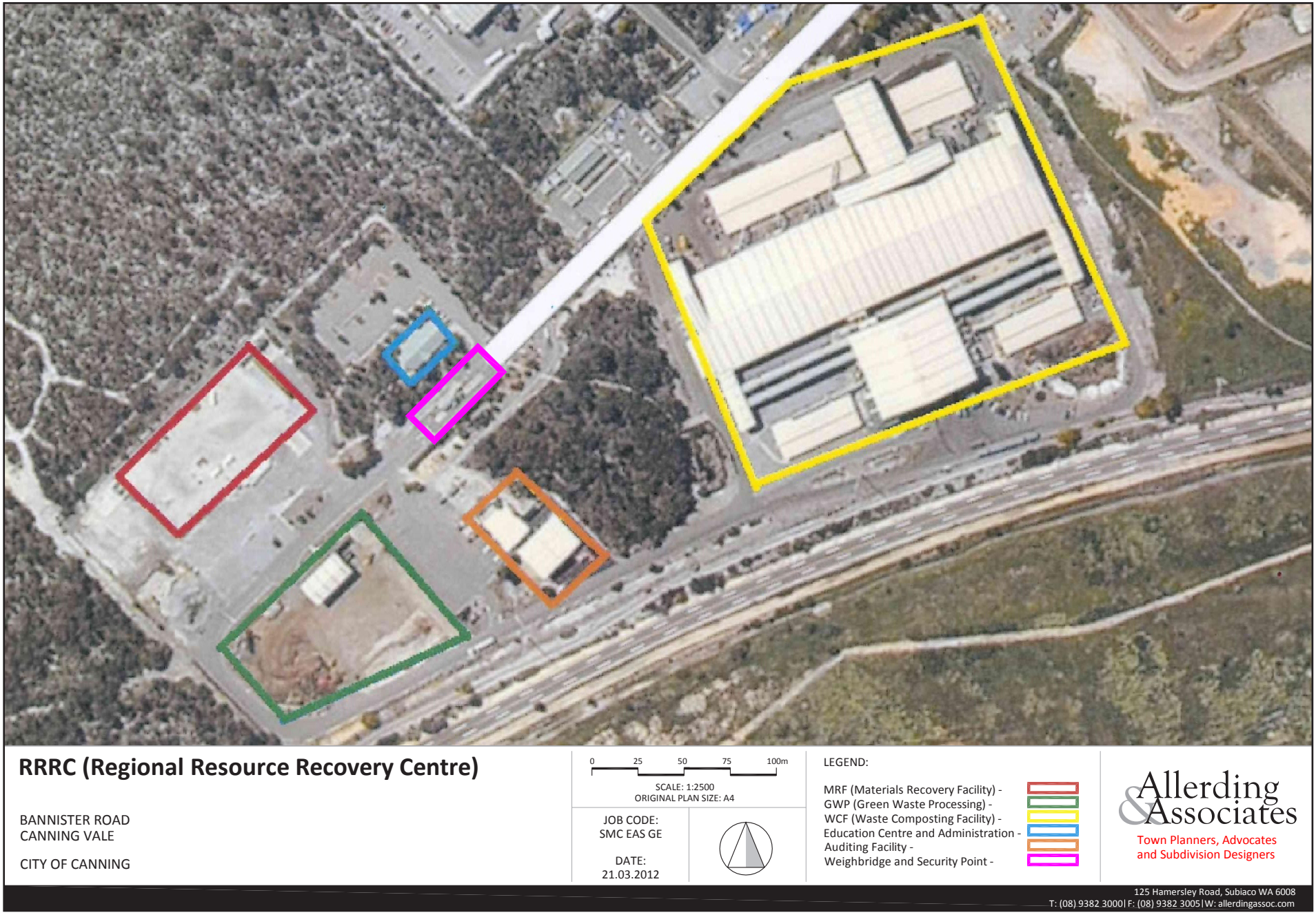

Figure 1: Regional Resource Recovery Centre

2.0 SUBJECT SITE

2.1 Site Details

The Subject Site is described as follows (refer to **Annexure 2**) :

- Lot 78 on Plan 2903;
- 7.7235 ha.

A railway line dissects the lot (refer **Figure 2**) and as such all development is contained on the northern side of the rail line.

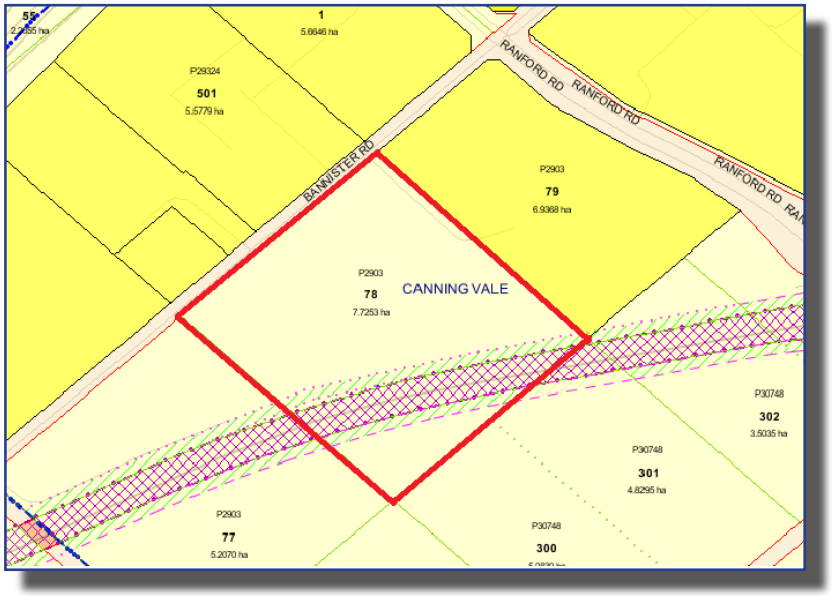

Figure 2 - Cadastral Plan

2.3 Site Context

The Site is located within the City of Canning, near the City of Melville border, and lies 15km east of the Fremantle Town Centre (refer to **Figure 3**). Roe Highway and Ranford Road are the two closest major transport roads and link to the Kwinana Freeway which is within close proximity.

Within the surrounds of the Site are Ken Hurst Park, the City of Canning Recycling and Waste Disposal Facility. Water Corporation treatment works, Swan Transit Bus Depot and the Jandakot Airport.

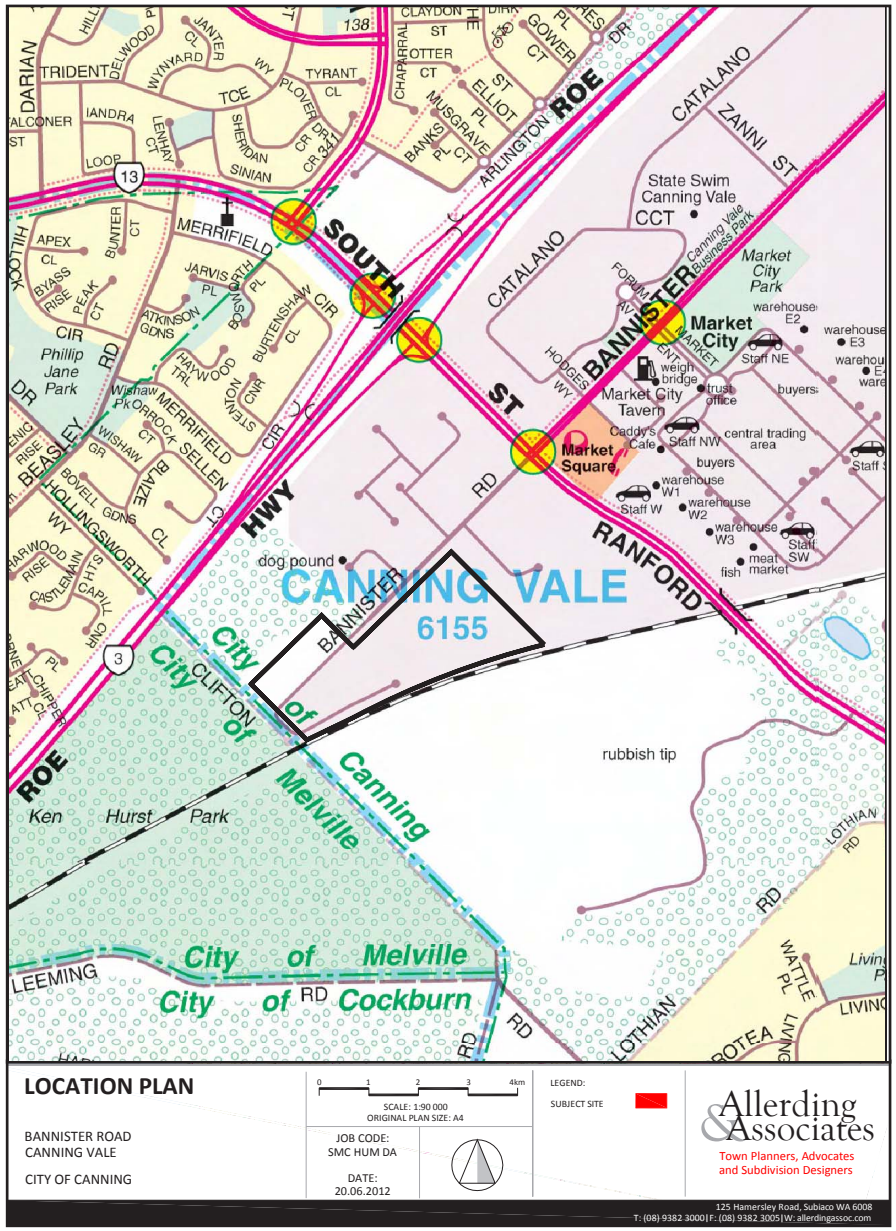

Figure3 - Location Plan

3.0 BACKGROUND

The Regional Resource Recovery Centre, requires licensing under the *Environmental Protection Act 1986.*

Requirements to amend the management and operations of the Centre were required by the Department of Environment and Conservation (**DEC**) in order to satisfy license requirements.

The SMRC is proposing the installation of new odour treatment equipment to increase humidification in the waste gas stream and reduce odour emissions as part of its licensing obligations.

This application seeks to formalise the proposed management and operational amendments in satisfying the DEC. The odour treatment facilities are required to be installed by December 15, 2012.

4.0 SOUTHERN METROPOLITAN REGIONAL COUNCIL (SMRC)

4.1 Role and function

The SMRC is a statutory local government authority currently representing six local councils and previously included the City of Canning. Those Councils forming the SMRC are shown in **Figure 4** but include:

- City of Cockburn;
- Town of East Fremantle;
- City of Fremantle;
- Town of Kwinana;
- City of Melville; and
- City of Rockingham.

The SMRC seeks to lead the community in sustainable waste management through the provision of progressive solutions to resource recovery and greenhouse gas abatement. The establishment of the SMRC provides a coordinated response from the member local governments to the treatment and recovery of household waste.

To effect its vision the SMRC adopted a Regional Waste Management Strategy in 1998 that led to the development and implementation of a coordinated regional waste and collection system that involves delivery to the Regional Resource Recovery Centre (**RRRC**) for processing and recovery. The RRRC is designed to recover 85% of all household waste generated within the SMRC's boundaries and to assist in greenhouse gas abatement.

The SMRC presently deals with waste generated in an area of 588 square kilometres with a combined population of 298,000 people, generating approximately 200,000 tonnes of household waste per year.

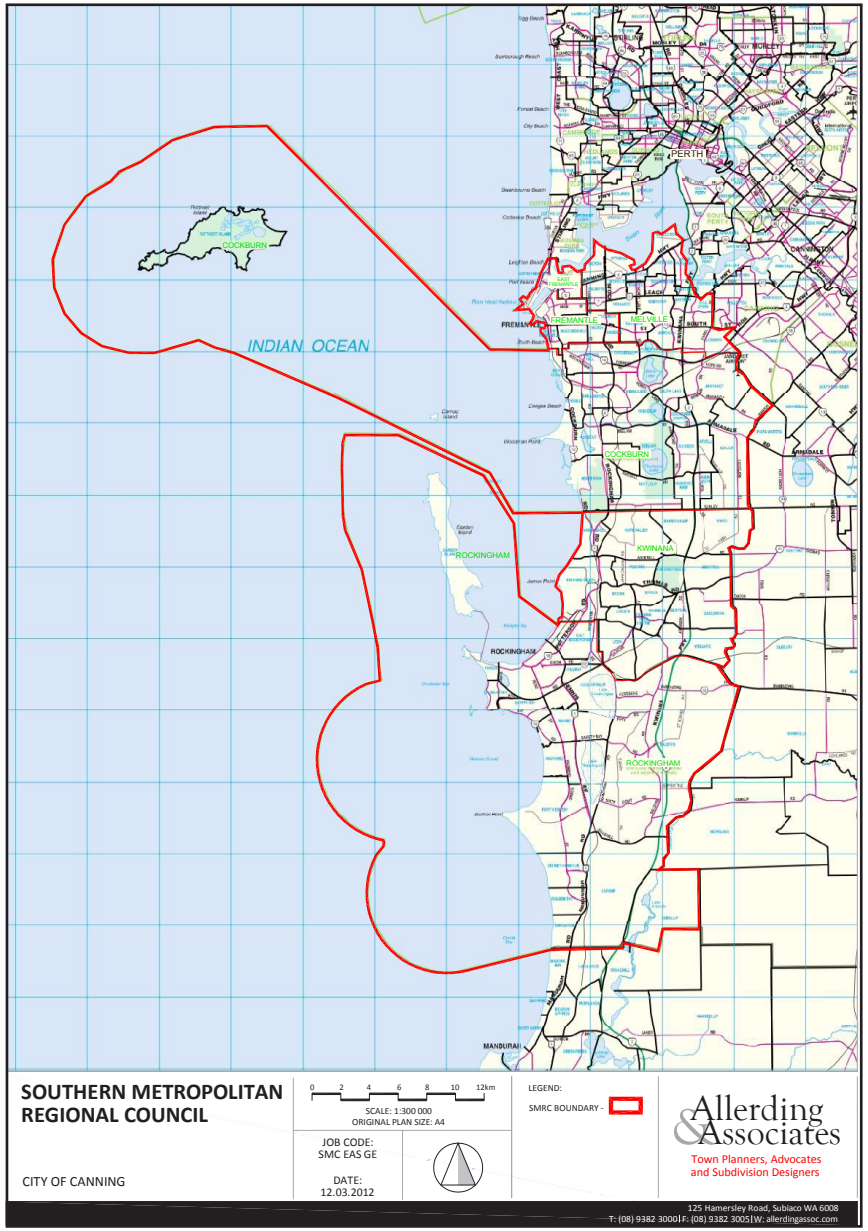

Figure 4 - SMRC Boundary

The locality of the RRRC has historically been utilised for waste disposal and/or treatment purposes. When established, the RRRC was located between two municipal rubbish tips. To the west, the City of Melville landfill, now John Connell Reserve, operated from 1972 to 1995 while to the south, the City of Canning landfill operated from 1986 to 2004.

4.2 Regional Resource Recovery Centre (RRRC) Operations

The primary effect of the RRRC is to divert waste from landfill into resource recovery as part of the SMRC's vision towards a sustainable approach to waste management and greenhouse gas abatement.

The RRRC is ine of the largest waste processing facilities of its type in Australia. According to the SMRC, the RRRC prevented approximately 148,000 tonnes of greenhouse gases from entering the atmosphere between July 2007 and May 2008, which is equivalent to the annual greenhouse gas emissions of approximately 42,000 cars.

As identified in **Figure 1,** the RRRC comprises:

- Waste Composting Facility (**WCF**)

  The WCF processes over 80,000 tonnes of household waste from the green-topped bins per annum, which is converted to compost.

- Materials Recovery Facility (**MRF**)

  The MRF uses manual and automated systems and equipment to recover recyclables from the yellow-topped household bins. All plastics, glass, paper, cardboard, aluminium and steel products are separated and baled/stored at the MRF.

- Green Waste Processing (**GWP**)

  The GWP creates mulch from the clean green waste gathered by council verge collections. Green Waste is also accepted from residents and commercial operators who bring it to the RRRC on trailers. The shredder at the facility can process up to 30,000 tonnes of green waste per year.

- Waste Auditing Facility

  The Auditing Centre undertakes research into the community's waste habits and determines the types and volumes of particular waste types and is used to assist in developing education and other programs designed to maximise community waste recycling participation.

- Community Education Centre (**CEC**)

  The CEC is available to members of the community to visit the facility to understand the nature and function of the facility and to educate on the role the RRRC has on combating climate change.

- Weighbridge and Security Gate

  The Weighbridge and Security Gate provides the entry point for all vehicles to the facility. As such Bannister road effectively functions as a private road with minimal traffic besides service vehicles.

5.0 STRATEGIC PLANNING FRAMEWORK

5.1 Directions 2031

Directions 2031 and Beyond was released in August 2010, providing a high level spatial framework and strategic plan for Metropolitan Perth and the Peel Region. Directions 2031 incorporates a number of key themes and applicable strategies which are relevant in the SMRC's role:

Theme	**Sustainable**
Objective	*We should grow within the constraints placed on us by the environment we live in.*
Strategies	▪ *Protect our natural and built environments and scarce resources; respond to social change and optimise the land use and transport conditions that create vibrant, accessible, healthy and adaptable communities.* ▪ *Reduce waste generation and encourage reuse and recycling.* - *Waste management is a fundamental issue that faces all growing regions and Perth and Peel are no different. Substantial qualities of waste are produced everyday from households, businesses and industry. The 2009 Waste Authority draft Waste Strategy for Western Australia sets out an approach for the coordinated efforts of state and local government, business, the waste industry, and community to reduce the amount of waste being generated in Western Australia by 2015. The final strategy will set out targets and goals for waste reduction to be implemented through producer responsibility, community education, behavioral change, local and regional government plans for waste management and avoidance, and responsible purchasing practices within state government departments.* - *The Department of Planning in moving forward will continue to work with the Waste Authority and the Department of Environment and Conservation to provide advice on the suitability of locations for future waste management facilities, their transport routes and any necessary buffers to sensitive land uses; and encourage waste generators and businesses that might use or recycle these wastes to co-locate where possible.*

5.2 Hope for the Future: The Western Australia State Sustainability Strategy (2003)

The Western Australia State Sustainability Strategy was released in 2003 to provide a framework to meet the needs of current and future generations through integration of environmental protection, social advancement and economic prosperity. The Strategy is based on a Sustainability Framework of eleven principles, six visions and six goals for government.

The Western Australian Government's six goals for sustainability within the strategy begin to illustrate how the principles of sustainability can start to be applied across the whole of government. Of importance is the following goal incorporated within the strategy:

> *Plan and provide settlements that reduce the ecological footprint and enhance our quality of life*

In achieving the above goal, the Strategy provides the following actions to be undertaken:

> *Develop a Strategic Framework for Waste Management, including detailed plans for each waste stream (including hazardous waste), towards zero waste by 2020.*

Section 4 of the Strategy details with sustainability and settlements; in particular it addresses waste reduction and management. The reduction and management of waste, according to the strategy, is a fundamental element to ensuring quality of life and the environment into the future**.** The strategy provides that government, through the Draft Strategic Framework for Waste Management, has set an action agenda for how we can move toward a waste-free society, embracing

the vision *'toward zero waste by 2020'* developed by the Waste 2020 Strategy.

In order to implement strategic directions for waste, the strategy developed a model to achieve zero waste including:

> *maximising the recovery and recycling of resources from waste.*

5.3 Waste Authority of Western Australia: Western Australian Waste Strategy 'Creating the Right Environment' (2012)

The Waste Avoidance and Resource Recovery Act 2007 (WARR Act) led to the establishment of the Waste Authority. One of the major early tasks of the Authority, as required under the WARR Act, was to develop a State-wide, long-term waste strategy for the continuous improvement of waste services, waste avoidance and resource recovery including the setting of targets for waste reduction and resource recovery and the diversion of waste from landfill.

The Waste Authority of Western Australia released a draft waste strategy in April 2010. The State wide Waste Strategy 'Creating the Right Environment' was released in its final form in March 2012.

The Strategy provides a strong focus on moving towards best practice in waste management, where WA has made steady improvements in recent years. The Strategy aims to achieve a 50% municipal waste recovery rate by 2015 and 65% by 2020, in the context of a 30% recovery rate in 2009/2010, implementation of the strategy is integral having regard to the short term goals.

Key drivers behind the development of the Strategy include:

- *The need to lift the effectiveness of planning for long-term waste management at a State level*
- *Access to data and information to underpin the measurement of strategies and services*
- *Significant opportunities to improve performance and construction and demolition, and commercial and industrial waste recovery*
- *Consolidation and improvement in municipal waste collection and processing performance*
- *A desire to do better on packaging waste management, litter recovery and other problematic wastes*
- *Improved landfill practise and incentives to reduce waste to landfill.*

In addition to the key drivers the Strategy has five (5) strategic objectives as follows:

> *Strategy Objective 1 – Initiate and maintain long-term planning for waste and recycling processing, and enable access to suitably located land with buffers sufficient to cater for the State's waste management needs.*
>
> *Strategy Objective 2 - Enhance regulatory services to ensure consistent performance is achieved at landfills, transfer stations and processing facilities.*
>
> *Strategy Objective 3 – Develop best practice guidelines, measures and reporting frameworks and promote their adoption.*
>
> *Strategy Objective 4 – use existing economic instruments to support the financial viability of actions*

that divert waste from landfill and recover it as a resource.

Strategy Objective 5 – Communicate messages for behaviour change and promote its adoption, and acknowledged the success of individuals and organisations that act in accordance with the aims and principles in the strategy and assist in its implementation.

Western Australia has improved in the past decade with respect to waste processing and resource recovery. However WA is still behind compared to other states, the graph adjacent (**Figure 5**) indicates WA has the greatest waste generation in comparison and as such it is significant that this strategy is implemented to resolve the issues faced. Figure 6 below demonstrates the resource recovery rates of each state for 2008-2009, WA having the lowest of any mainland state at 32%, the remaining 68% going to landfill.

The primary goal of such Strategy is to reduce environmental impact and maximise conservation of resources through reduced use as well as increased material recovery. Three key goals of '*Creating the Right Environment'* include the change in behaviour and to:

- *reduce the generation of waste*
- *increase the proportion of resources recovered from wastes that can't be avoided*
- *reduce the proportion of waste disposed to landfill.*

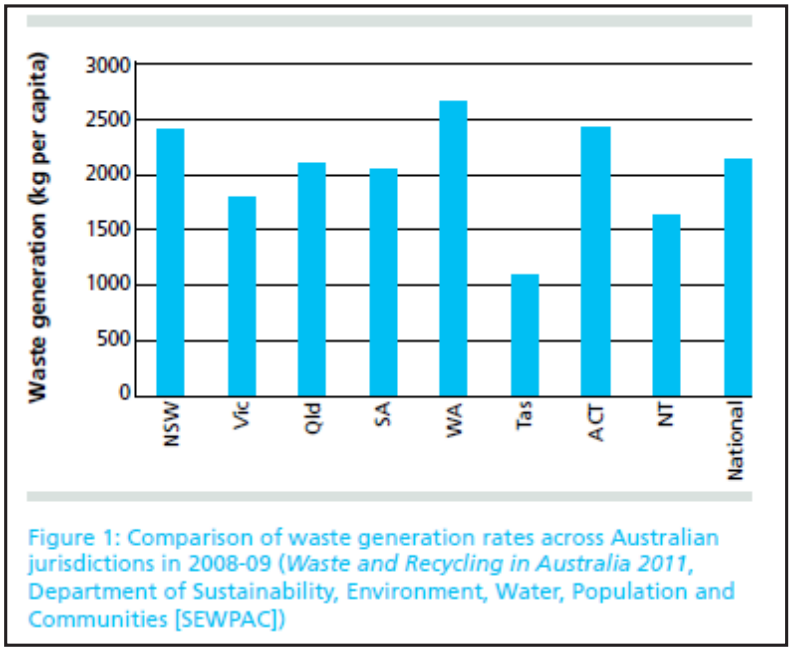

Figure 1: Comparison of waste generation rates across Australian jurisdictions in 2008-09 (*Waste and Recycling in Australia 2011*, Department of Sustainability, Environment, Water, Population and Communities [SEWPAC])

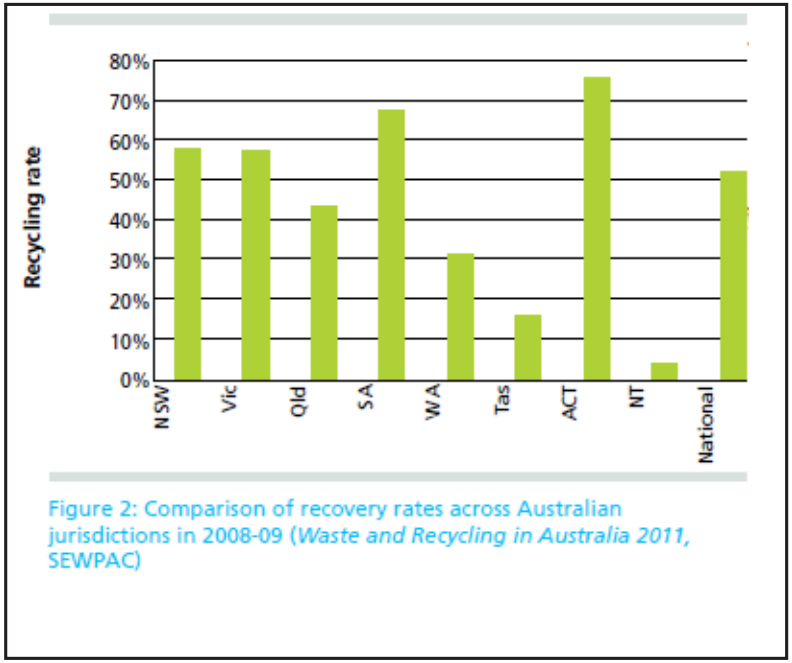

Figure 2: Comparison of recovery rates across Australian jurisdictions in 2008-09 (*Waste and Recycling in Australia 2011*, SEWPAC)

Figure 5

5.4 State Planning Framework Policy (State Planning Policy No.1)

The State Planning Framework is in part a consequence of the State Planning Strategy (DOP 1997) in bringing together, in a statutory planning framework, existing State and Regional Policies for land use planning and development. It sets the key principles relating to the environment, community, economy, infrastructure and regional development which guide the way in which planning decision are made.

Of relevance to this matter under Part A (General Principles for Land Use Planning and Development) of that Policy, paragraphs 1 and 2 states:

> *The primary aim of planning is to provide for the sustainable use and development of land.*

Further the State Planning Strategy identifies a number of principles which further define this primary aim and describes the considerations which influence good decision making in land use planning and development. Planning should take account of and give effect to, these principles and related policies to ensure integrated decision making throughout government. These elements include the following:

> ***A1 Environment***
> *The protection of environmental assets and the wise use and management of resources are essential to encourage more ecologically sustainable land use and development.*
>
> ***A3 Economy***
> *Planning should contribute to the economic wellbeing of the State through the provision of land, facilitating decisions and resolving land use conflicts. Planning should provide for economic development by:*
>
> - *Providing land for industry.*
> - *Avoiding land use conflicts.*
>
> ***A4 Infrastructure***
> *Planning should ensure that physical and community infrastructure by both public and private agencies is coordinated in a way that is efficient, equitable, accessible and timely. This means:*
>
> - *Planning for land use and development in a manner that allows for the logical and efficient provision and maintenance of infrastructure.*
> - *Protecting key infrastructure, including ports, airports, roads, railways and service corridors from inappropriate land use and development.*

5.5 Summary of Strategic Planning Framework

The SMRC and RRRC form an integral part of meeting the governments stated aim and objectives through the provision of a technologically advanced form of waste management. The RRRC occurs over separate but co-located land parcels divided physically by Bannister Road. The WCF being one of the larger facilities, is a significant portion of the RRRC and its sustainability advantages are clearly supported by the framework outlined above.

6.0 STATUTORY PLANNING FRAMEWORK

6.1 Metropolitan Region Scheme (MRS)

The SMRC facilities are located within the 'industry' zone under the MRS as outlined in **Figure 6** below.

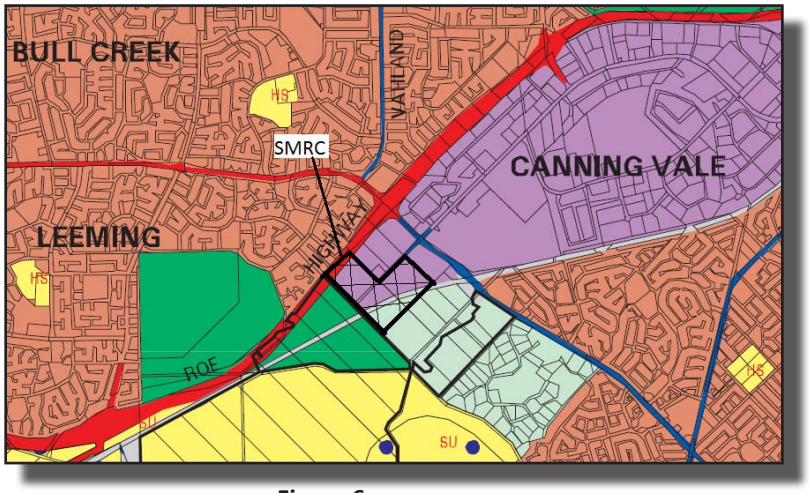

Figure 6

6.2 City of Canning Town Planning Scheme No. 40

6.2.1 Zoning

The Subject Site is zoned 'Mixed Business', which is listed as an industrial zone under the scheme. The purpose and intent of the Mixed Business zone is as follows:

> *The purpose intent of the Mixed Business zone is to provide a suitable planned environment to accommodate a wide range of light industrial and service commercial uses together with small-scale enterprises which are not readily accommodated in existing Commercial Centres.*

An Additional Use (A63) applies over the Site, in accordance with Appendix 5 of the Scheme, under which the following uses may be permitted:

- Waste recycling;
- Landfill;
- Gas extraction;
- Waste Transfer Station;
- Animal Pound;
- Pet Cemetery; and
- General Industry.

6.2.2 Development Standards

Clause 6.4 of the Scheme addresses industrial development standards applicable to the proposed development.

The Scheme refers to Table 6A which details Site requirements as follows:

ZONE	MINIMUM FRONTAGE IN METRES	MINIMUM SETBACK FROM BOUNDARIES IN METRES		OTHER REQUIREMENTS
		Front	Rear/Side	
General Industry	20	15	As per BCA	Provision of a parking reserve on site estimated at 8 parking spaces per 1000m^2 of land area. Refer Clause 6.4 for requirements relating to: - Setbacks - Landscaping - Refuse and Storage Areas - Facades - Service Access - Factory Tenement Buildings and Factory Units - Vehicle Wrecking - Storage of Goods and Materials
Light Industry		15	As per BCA	
Mixed Business		15	As per BCA	

7.0 PROPOSAL

The current Waste Composting Facility (WCF) processes over 80,000 tonnes of household waste from the green-topped bins per annum, which is converted to compost.

The steps in the current process are as follows:

1. Tipping Floor

Household waste is spread out onto the tipping floor for sorting, where large or dangerous items are removed. Front-end loaders push the waste onto apron feeders, which carry the material to one of the four digesters.

There are four bio-filters which filter out odours from the facility using a mixture of wood chips, organic material and natural micro organisms.

2. Digesters

The WCF's four digesters are the largest in the southern hemisphere and the hydraulic drive system turning the digesters is the first of its kind in the world. The digesters are positioned on an angle and rotate. Inside the digesters are natural bacteria that start the composting process and generate heat to around 60°C, which destroys any harmful substances and sterilises the material.

3. Screens

After three days in the digesters, the household waste has turned into immature compost. This is unloaded onto a conveyor belt and carefully screened in a trommel to remove all inorganic waste, such as plastic. Magnets remove metal, which is collected for recycling.

4. Aeration Building

The immature compost is spread out in the aeration building, in which the conditions are kept humid so the composting bacteria are at their most active and effective. The compost is regularly aerated, turned and watered, to speed up the compositing process.

5. Final Screens

A complex range of screens to removes any remaining inorganic material to ensure high quality compost is produced.

6. Outload Building

The rich, mature compost is now ready for use and is stored in the load-out building.

By product -

This compost is used to put nutrients back into the soil for improving crops, pastures, parks, verges and gardens.

Environmental outcome

Each year the WCF prevents over 70,000 tonnes of carbon dioxide equivalents (TCO2-e) from entering the atmosphere.

The proposed development includes the following elements explained below:

- Six (6) humidifier units; and
- An outbuilding adjoining the existing structure.

7.1 Humidifier Units

A total of 6 humidifier vessels are proposed on Site as outlined in the development application plans included as **Annexure 1**. Humidifier vessels will receive odorous air from the composting building and wet the air with humidity by an internal water spray system before delivering ducted humid air to biofilters. The humidifier vessels will be constructed out of either stainless steel, or fibreglass or plastic depending on final tender results received.

Existing air ducting will be modified to direct air from extraction fans through the vessels and then into biofilters. There will also be associated access ladders and platforms in galvanised steel framing.

Currently there are 4 of these types of vessels already on the Site located on the opposite side of the plant.

The Odour Unit, appointed by the SMRC to assess odour levels, provides the following explanation of the function of humidifiers in **Figure 7**.

7.2 Proposed Bin Storage Shed

The proposed outbuilding is to be located to the rear of the WCF away from Bannister Road adjoining the main structure. The outbuilding is to be 188.5m^2 (14.5mx13m) with a wall height of 5.2m, it will be of the same colour and materials as the main WCF tipping building (colourbond cladding).

The function of the proposed outbuilding is for storage of bins containing waste material. This is a practical measure to further reduce odour impacts.

THE ODOUR UNIT

HUMIDIFICATION NOTES – SMRC CANNING VALE

The Humidifier units to be installed at the SMRC Canning Vale biofilter system will moisten the inlet airstreams to the Aeration Building biofilters. Biofilters require the air to be pre-humidified before treatment in order to maintain optimum environmental conditions in the biofilter beds for biological activity. An inlet airstream with relative humidity greater than 85% will result in a fully-moistened biofilter where air distribution across the beds is uniform and odour removal efficiency highest. Failure to achieve consistent humidification typically results in dry areas within a biofilter bed, uneven air distribution, short-circuiting and incomplete removal of incoming odour. This condition has prevailed on occasions in the past at the SMRC facility.

The humidifier units proposed for Biofilter 1 and 2 will replace the existing spray system which injects water into the inlet ducts to each biofilter cell, as the main means of humidification. The existing system will be retained as a back-up system. These two biofilters treat all air from the Aeration Building (432,000 m^3/hr) and six humidifier units will be installed, one on each of the six fan/cell systems. The units will be designed to achieve the required level of performance under all climatic conditions, including hot, dry summer conditions, and should rectify the problematic conditions that caused odour complaints in February/March 2012.

Each humidifier system will comprise a two-stage vessel and delivery ducting to the biofilter cell. The first stage is a transition duct between the fan and vertical humidifier vessel. It will be fitted with two water sprays. The main vessels will each be 3.5 metres in diameter and 8.45 metres high. A re-circulating water spray pump will sit beneath each vessel. The outlet from each vessel will be directed to a raised biofilter duct, sitting at approximately the same level at the building gutter level. This duct will enter the existing biofilter inlet duct which feeds each biofilter cell. The attached drawing shows the plan view and elevation view (from Bannister Road) of the proposed installation. The units will be installed in the area between the building and the biofilters. Only the tops of the vessels and the existing inlet ducting will be visible from the road.

Figure 7

8.0 CONCLUSION

The proposed development has been presented to the City in the interests of best practice, management and operations of the existing RRRC and its facilities, and in order to meet DEC's licensing obligations.

The efficient operations of the SMRC facility is integral to the wider strategic planning framework and policy, as outlined in this report which supports the treatment of waste and recycling and emphasises their sustainability importance.

Having regard to the local planning framework, the current land use benefits from existing approvals, the proposed development is consistent with those uses permitted under Appendix 5 of the Scheme. In relation to development requirements the proposed humidifiers and outbuilding meet the setback requirements and have no further planning implications as they do not give rise to the need for additional parking or other requirements.

Having regard to the practical reasons for the development, the SMRC'S licensing obligations under the EPA Act 1986, as well as wider strategic planning framework concerning sustainability, we consider the proposed development is both capable and appropriate for approval. The JDAP is also requested to assist in expediting approval to the application which requires the facilities to be installed and operational by 15 December 2012.

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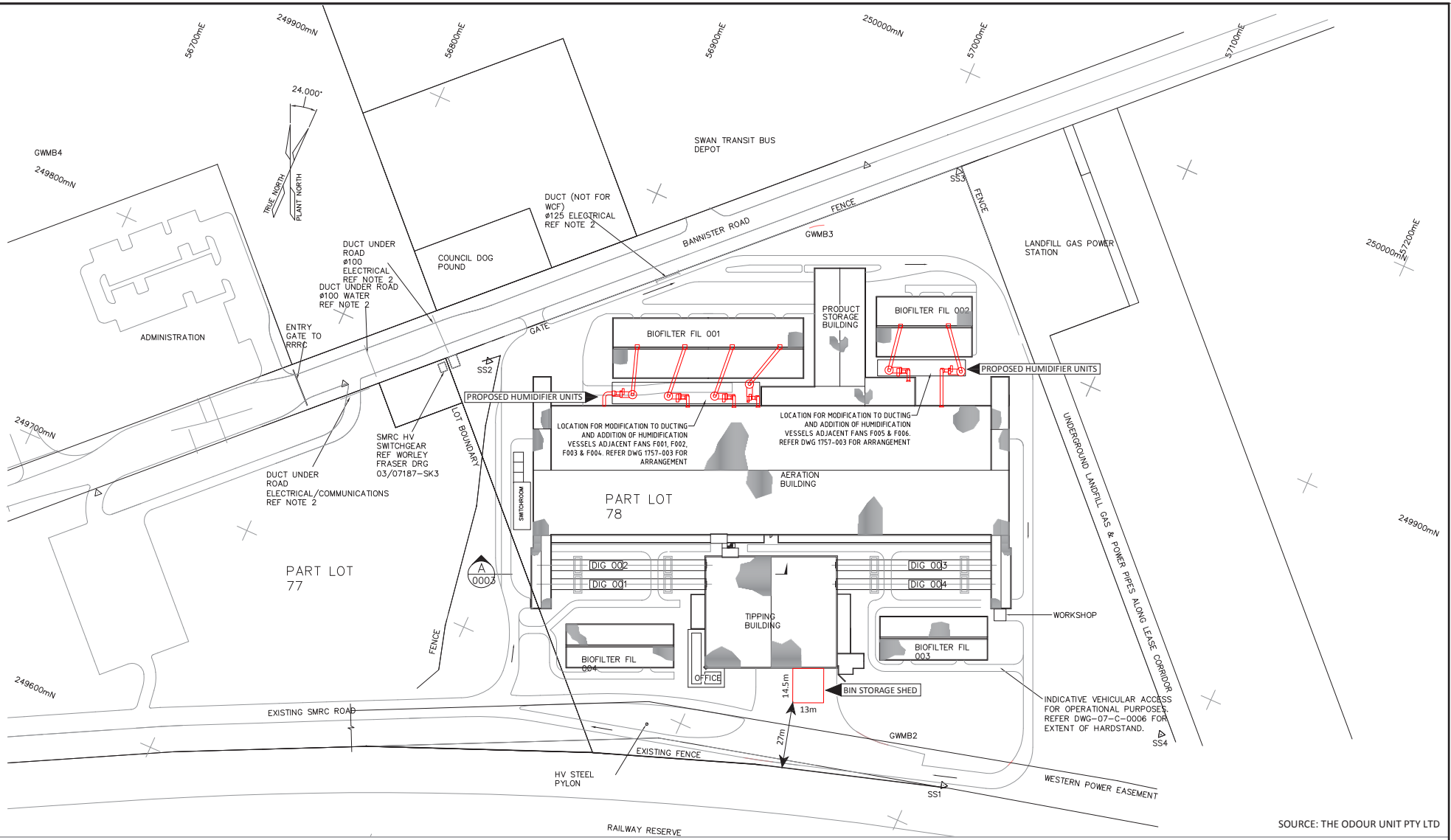
ANNEXURE 1
DEVELOPMENT APPLICATION PLANS



SOURCE: THE ODOUR UNIT PTY LTD

SMRC WASTE COMPOSTING FACILITY PROPOSED UPGRADE SITE PLAN

BANNISTER ROAD
CANNING VALE

CITY OF CANNING

0 20 40 60 80m

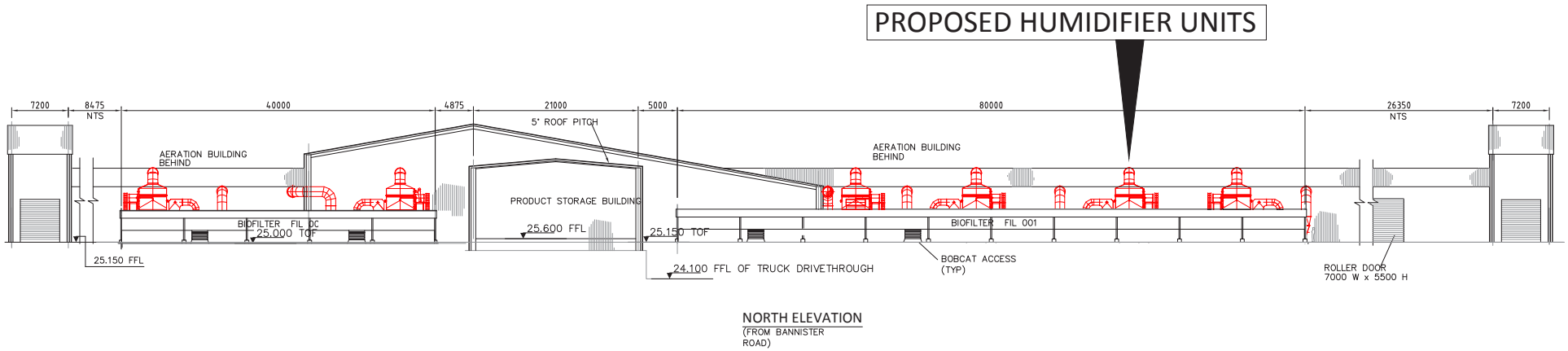
SCALE: 1:1500
ORIGINAL PLAN SIZE: A3

JOB CODE:
SMC HUM DA

DATE:
27.06.2012

Allerding & Associates
Town Planners, Advocates and Subdivision Designers

125 Hamersley Road, Subiaco WA 6008
T: (08) 9382 3000 | F: (08) 9382 3005 | W: allerdingassoc.com



NORTH ELEVATION
(FROM BANNISTER ROAD)

SOURCE: THE ODOUR UNIT PTY LTD

SMRC WASTE COMPOSTING FACILITY PROPOSED UPGRADE NORTHERN ELEVATION

BANNISTER ROAD
CANNING VALE

CITY OF CANNING

0 5 10 15 20 25m
SCALE: 1:500
ORIGINAL PLAN SIZE: A3

JOB CODE:
SMC HUM DA

DATE:
27.06.2012

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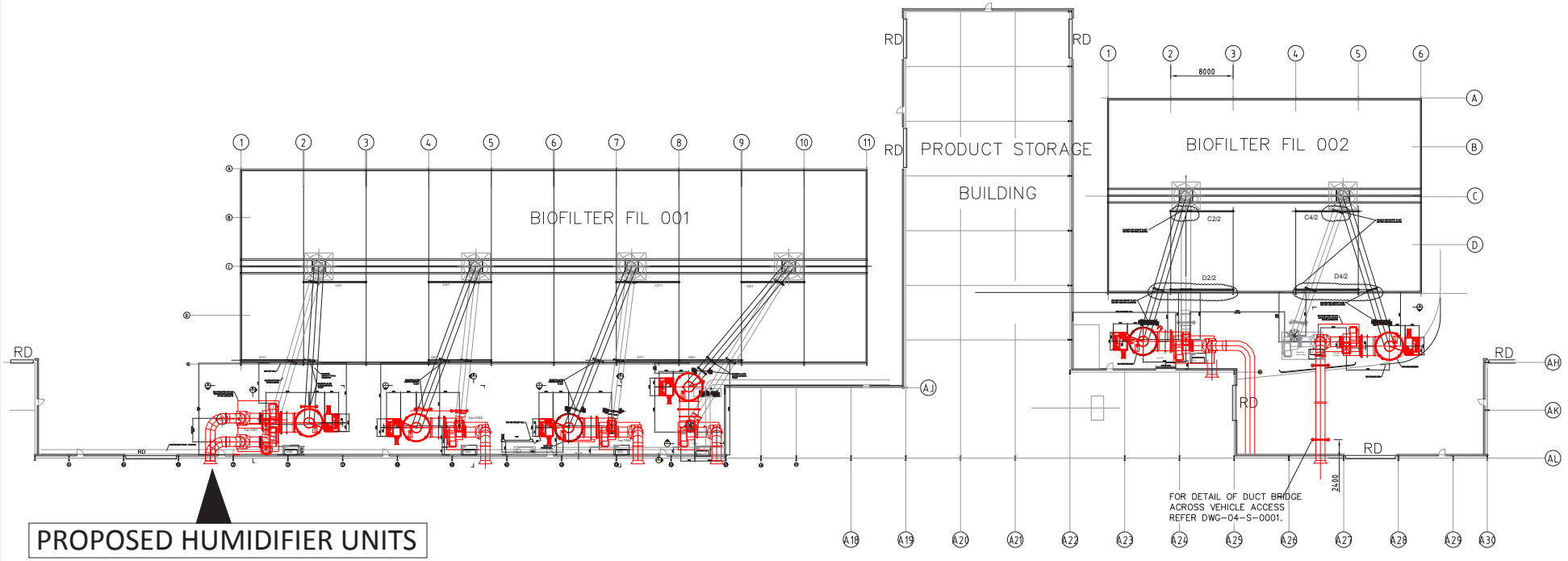

SMRC WASTE COMPOSTING FACILITY PROPOSED UPGRADE
HUMIDIFIER DETAIL 1

BANNISTER ROAD
CANNING VALE

CITY OF CANNING

0 5 10 15 20 30m

SCALE: 1:500
ORIGINAL PLAN SIZE: A3

JOB CODE:
SMC EAS GE

DATE:
27.06.2012

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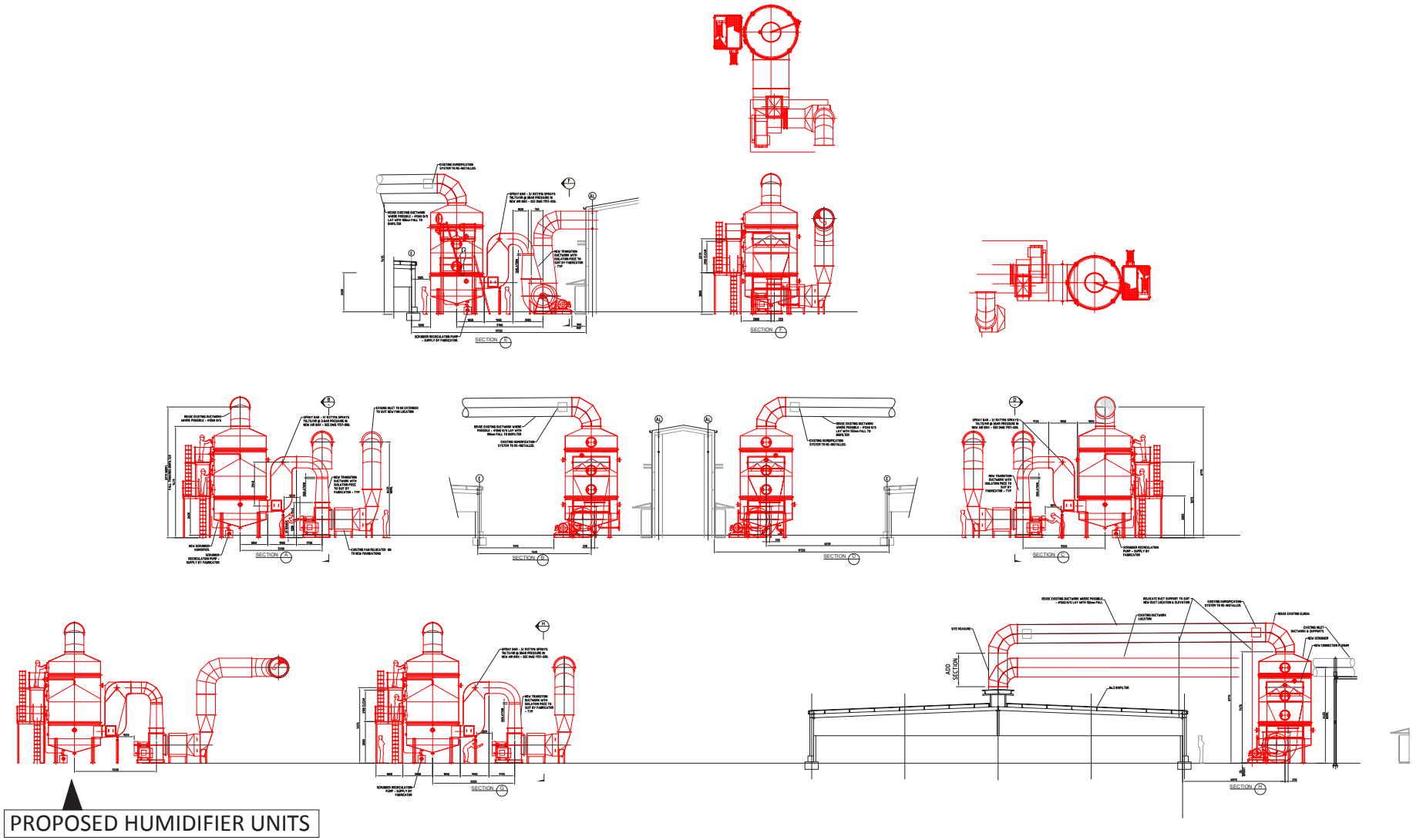

SMRC WASTE COMPOSTING FACILITY PROPOSED UPGRADE
HUMIDIFIER DETAIL 2

BANNISTER ROAD
CANNING VALE

CITY OF CANNING

0 2 4 6 8 10 12m

SCALE: 1:250
ORIGINAL PLAN SIZE: A3

JOB CODE:
SMC EAS GE

DATE:
27.06.2012

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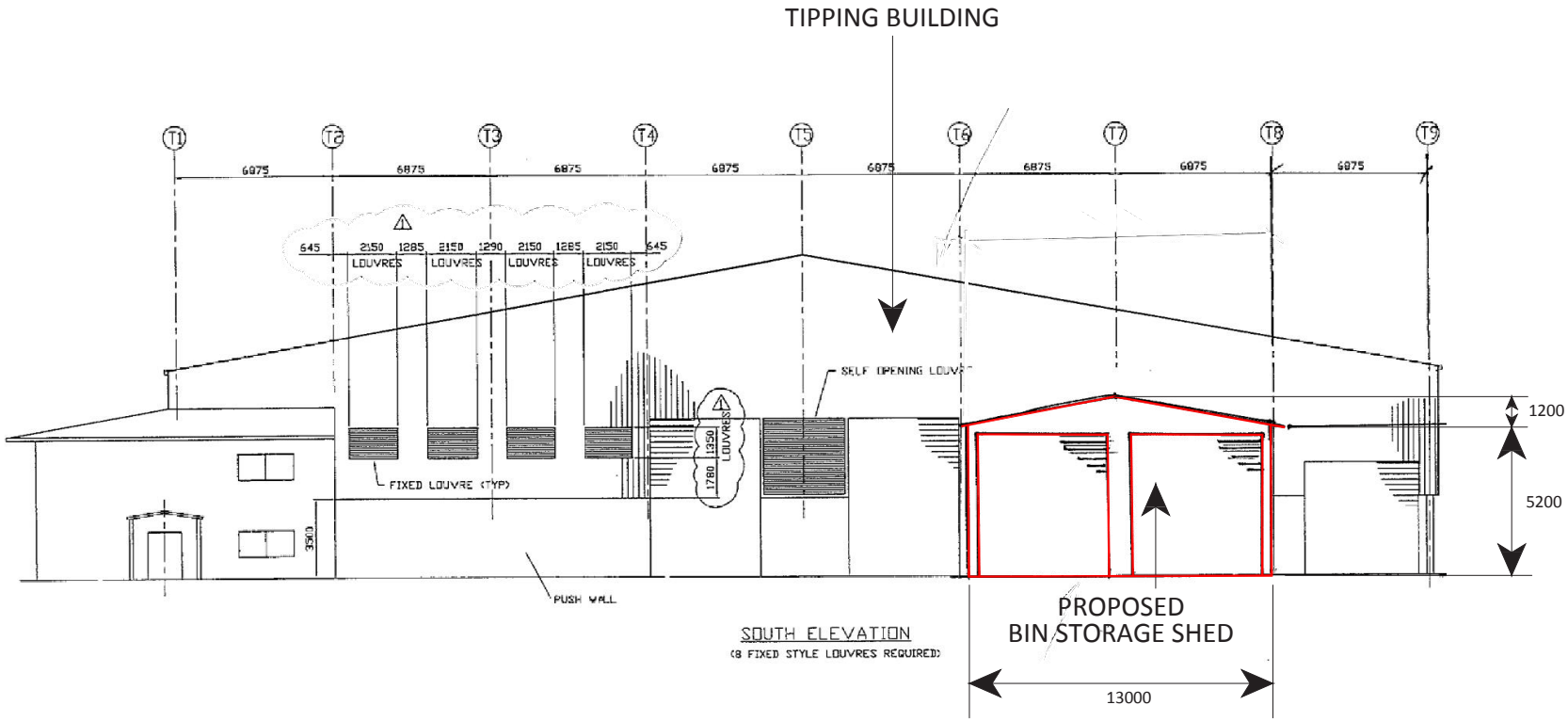

SOURCE: CLOUGH

SMRC WASTE COMPOSTING FACILITY PROPOSED UPGRADE BIN STORAGE SHED ELEVATION

BANNISTER ROAD
CANNING VALE

CITY OF CANNING

0 2 4 6 8 10m

SCALE: 1:200
ORIGINAL PLAN SIZE: A3

JOB CODE:
SMC HUM DA

DATE:
27.06.2012

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ANNEXURE 2
CERTIFICATE OF TITLE

WESTERN AUSTRALIA

REGISTER NUMBER	
78/P2903	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
N/A	N/A

RECORD OF CERTIFICATE OF TITLE

VOLUME 1521 FOLIO 517

UNDER THE TRANSFER OF LAND ACT 1893

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 78 ON PLAN 2903

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

CITY OF CANNING OF 1317 ALBANY HIGHWAY, CANNINGTON
(T C247919) REGISTERED 5 NOVEMBER 1981

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. THE LAND THE SUBJECT OF THIS CERTIFICATE OF TITLE EXCLUDES ALL PORTIONS OF THE LOT DESCRIBED ABOVE EXCEPT THAT PORTION SHOWN IN THE SKETCH OF THE SUPERSEDED PAPER VERSION OF THIS TITLE. SEE VOLUME 1521 FOLIO 517
2. A372674 EASEMENT TO AMPOL EXPLORATION LIMITED, SHELL DEVELOPMENT (AUSTRALIA) PTY LIMITED, TEXACO OVERSEAS PETROLEUM COMPANY AND CALIFORNIA ASIATIC OIL COMPANY FOR THE PURPOSE OF LAYING, CONSTRUCTING AND MAINTAINING PIPELINES AND OTHER APPARATUS - SEE INSTRUMENT A372674 AND SKETCH ON VOLUME 1521 FOLIO 517 REGISTERED 16.2.1971.
   *K395712 NOTIFICATION. THE GRANTEES OF EASEMENT A372674 ARE NOW APT PARMELIA PTY LTD REGISTERED 31.10.2007.
3. *I227308 CAVEAT BY SOUTHERN METROPOLITAN REGIONAL COUNCIL LODGED 5.9.2002.
4. I623469 EASEMENT TO WESTERN POWER CORPORATION - SEE SKETCH ON DEPOSITED PLAN 34949 REGISTERED 11.9.2003.
5. *I623470 CAVEAT BY LANDFILL GAS & POWER PTY LTD AS TO PORTION ONLY LODGED 11.9.2003.
6. *L085784 CAVEAT BY TELSTRA CORPORATION LTD AS TO PORTION ONLY LODGED 25.9.2009.
7. *L145462 MEMORIAL. CONTAMINATED SITES ACT 2003 REGISTERED 19.11.2009.
8. *L529000 MEMORIAL. CONTAMINATED SITES ACT 2003 REGISTERED 13.1.2011.

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.

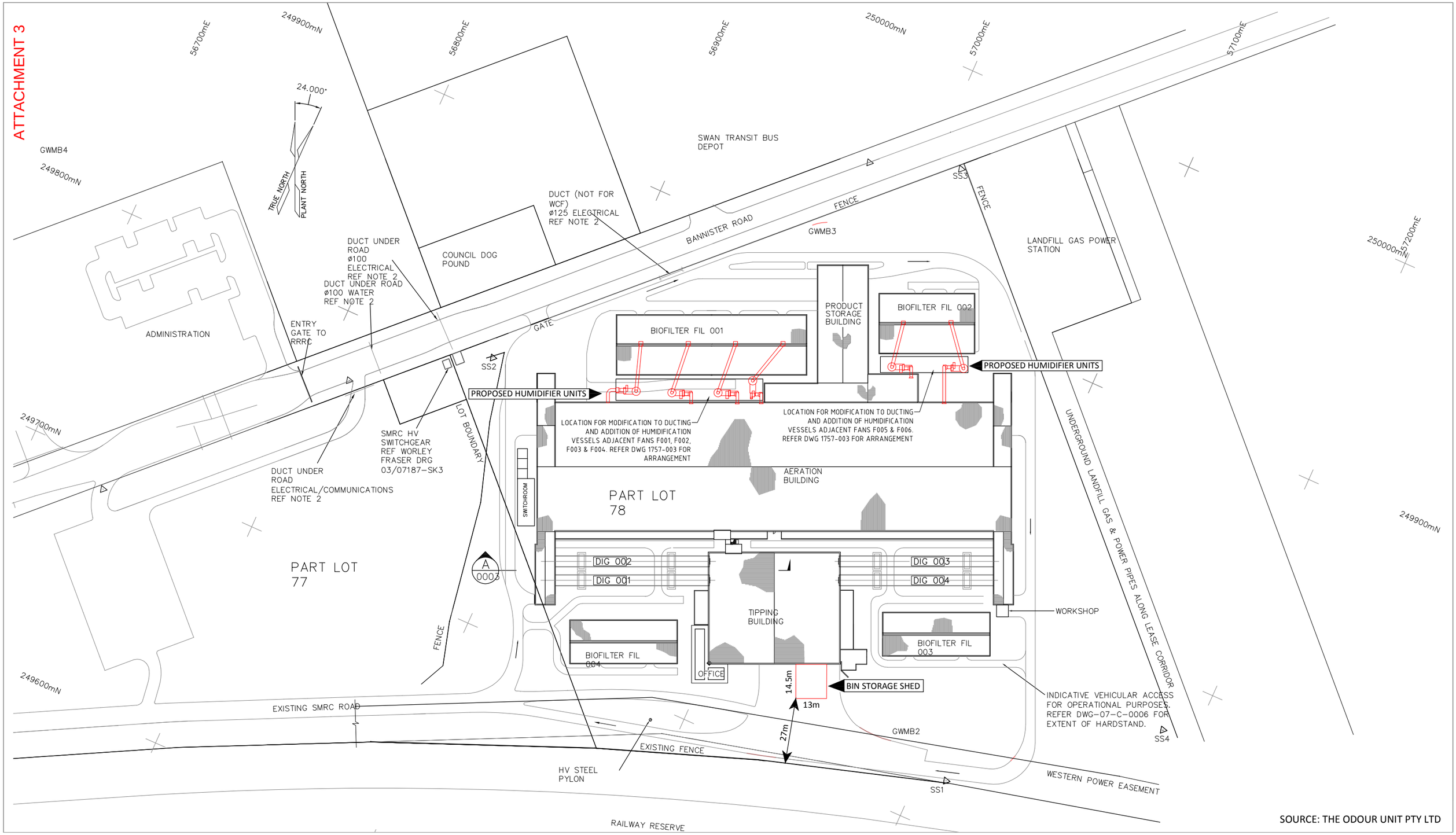
END OF PAGE 1 - CONTINUED OVER

SKETCH OF LAND: P2903 [SHEET 1].
PREVIOUS TITLE: 1513-46.
PROPERTY STREET ADDRESS: NO STREET ADDRESS INFORMATION AVAILABLE.
LOCAL GOVERNMENT AREA: CITY OF CANNING.

NOTE 1: K432475 DUP CT NO PRODUCED FOR DOCUMENT K395712

LANDGATE COPY OF ORIGINAL NOT TO SCALE Tue Jun 12 16:03:47 2012 JOB 39359620

ATTACHMENT 3



SOURCE: THE ODOUR UNIT PTY LTD

SMRC WASTE COMPOSTING FACILITY PROPOSED UPGRADE SITE PLAN

BANNISTER ROAD
CANNING VALE

CITY OF CANNING

0 20 40 60 80m

SCALE: 1:1500
ORIGINAL PLAN SIZE: A3

JOB CODE:
SMC HUM DA

DATE:
27.06.2012

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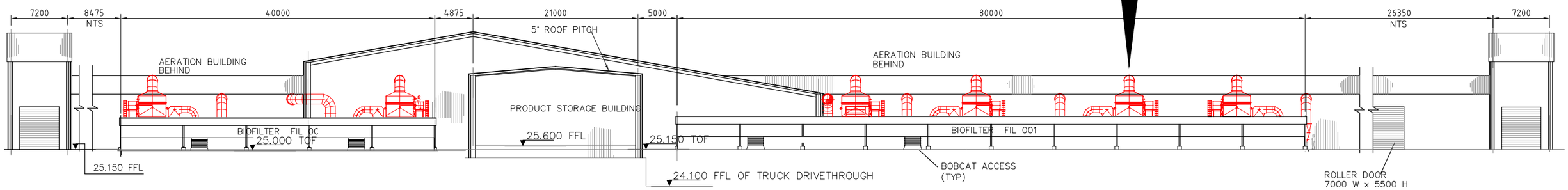

NORTH ELEVATION
(FROM BANNISTER ROAD)

SOURCE: THE ODOUR UNIT PTY LTD

SMRC WASTE COMPOSTING FACILITY PROPOSED UPGRADE NORTHERN ELEVATION

BANNISTER ROAD
CANNING VALE

CITY OF CANNING

0 5 10 15 20 25m

SCALE: 1:500
ORIGINAL PLAN SIZE: A3

JOB CODE:
SMC HUM DA

DATE:
27.06.2012

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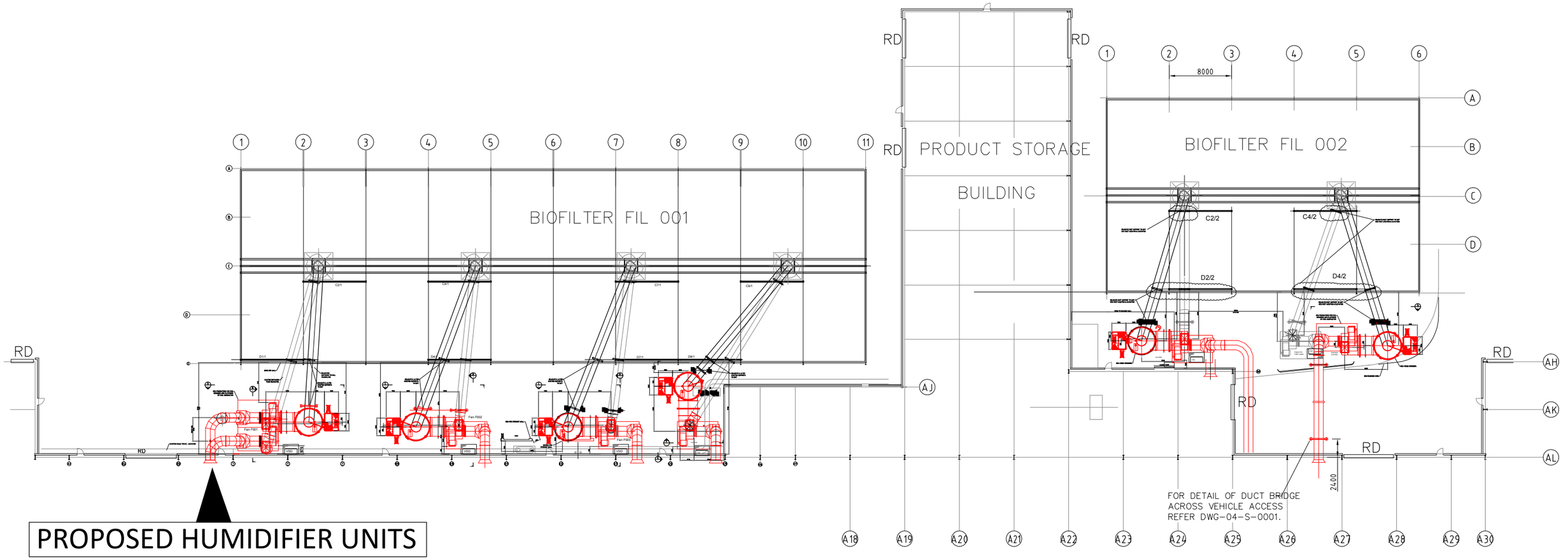

SMRC WASTE COMPOSTING FACILITY PROPOSED UPGRADE
HUMIDIFIER DETAIL 1

BANNISTER ROAD
CANNING VALE

CITY OF CANNING

0 5 10 15 20 30m

SCALE: 1:500
ORIGINAL PLAN SIZE: A3

JOB CODE:
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DATE:
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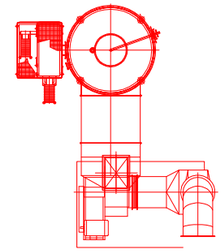
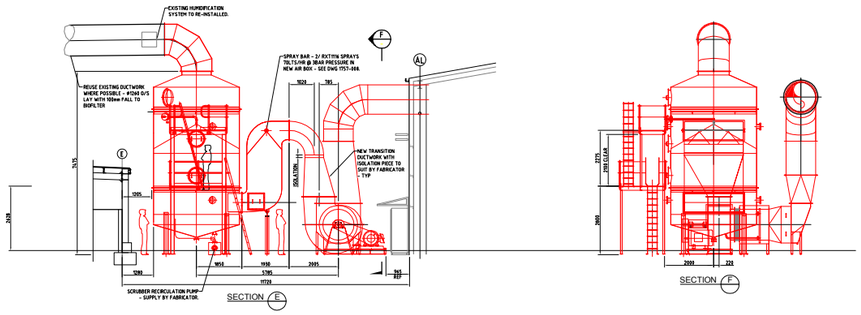
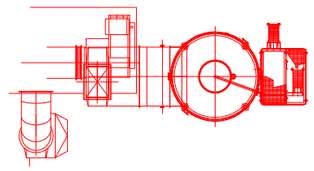
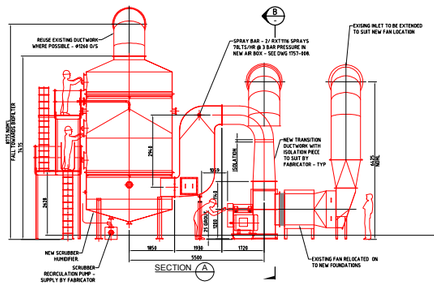
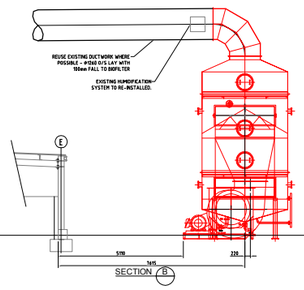
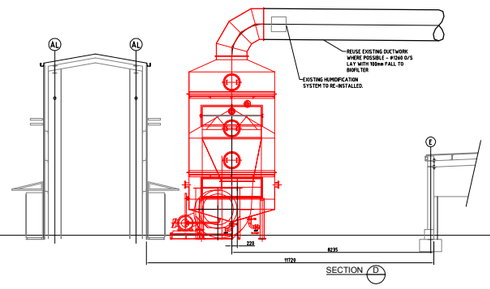


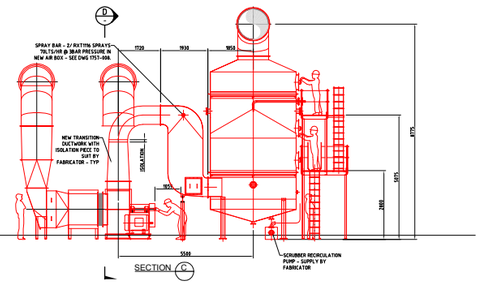


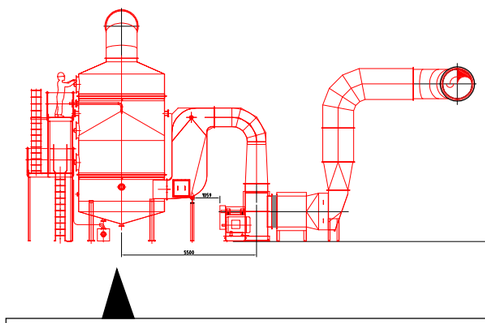




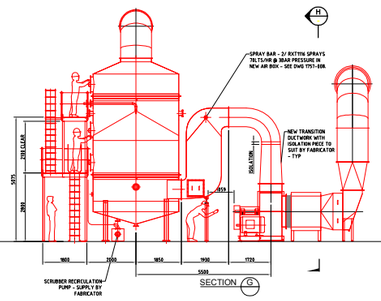


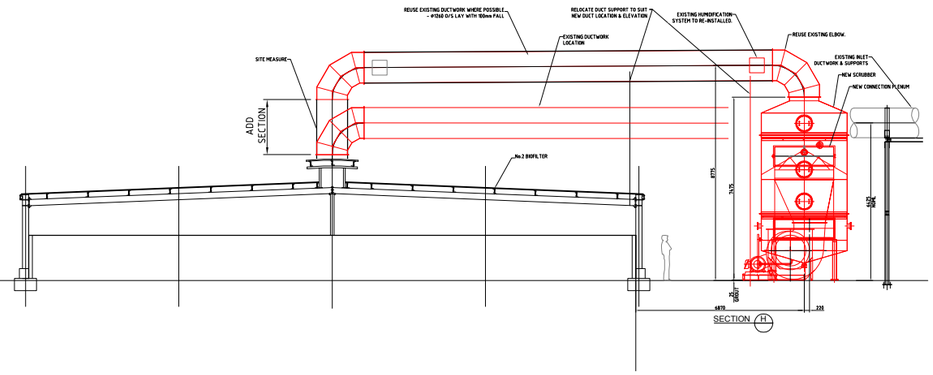






PROPOSED HUMIDIFIER UNITS





SMRC WASTE COMPOSTING FACILITY PROPOSED UPGRADE
HUMIDIFIER DETAIL 2

BANNISTER ROAD
CANNING VALE

CITY OF CANNING

0 2 4 6 8 10 12m

SCALE: 1:250
ORIGINAL PLAN SIZE: A3

JOB CODE:
SMC EAS GE

DATE:
27.06.2012

Allerding & Associates
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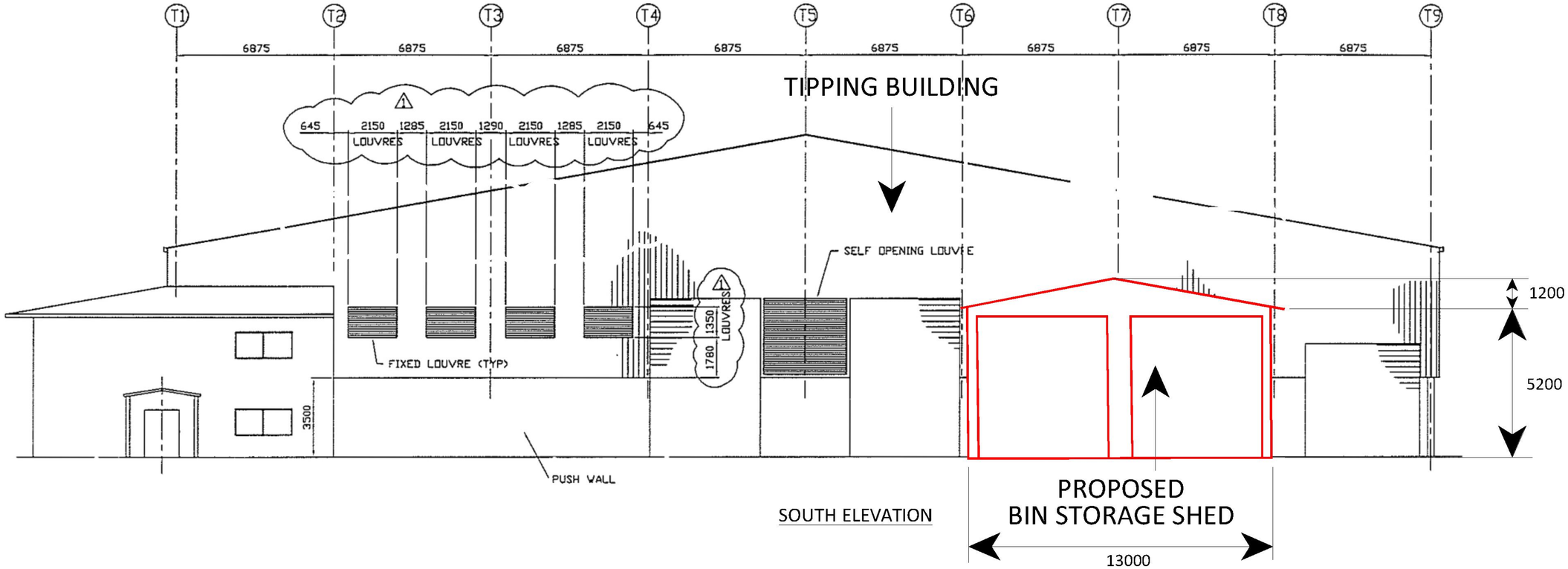
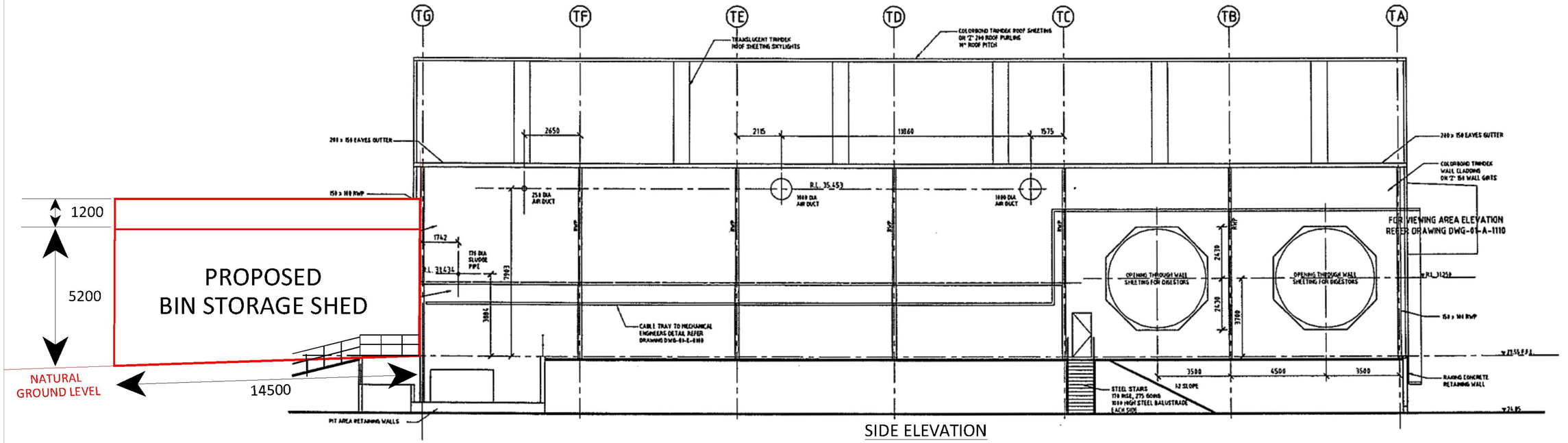


SOUTH ELEVATION



SIDE ELEVATION

SOURCE: CLOUGH

SMRC WASTE COMPOSTING FACILITY PROPOSED UPGRADE
BIN STORAGE SHED ELEVATION

BANNISTER ROAD
CANNING VALE

CITY OF CANNING

0 2 4 6 8 10m

SCALE: 1:200
ORIGINAL PLAN SIZE: A3

JOB CODE:
SMC HUM DA

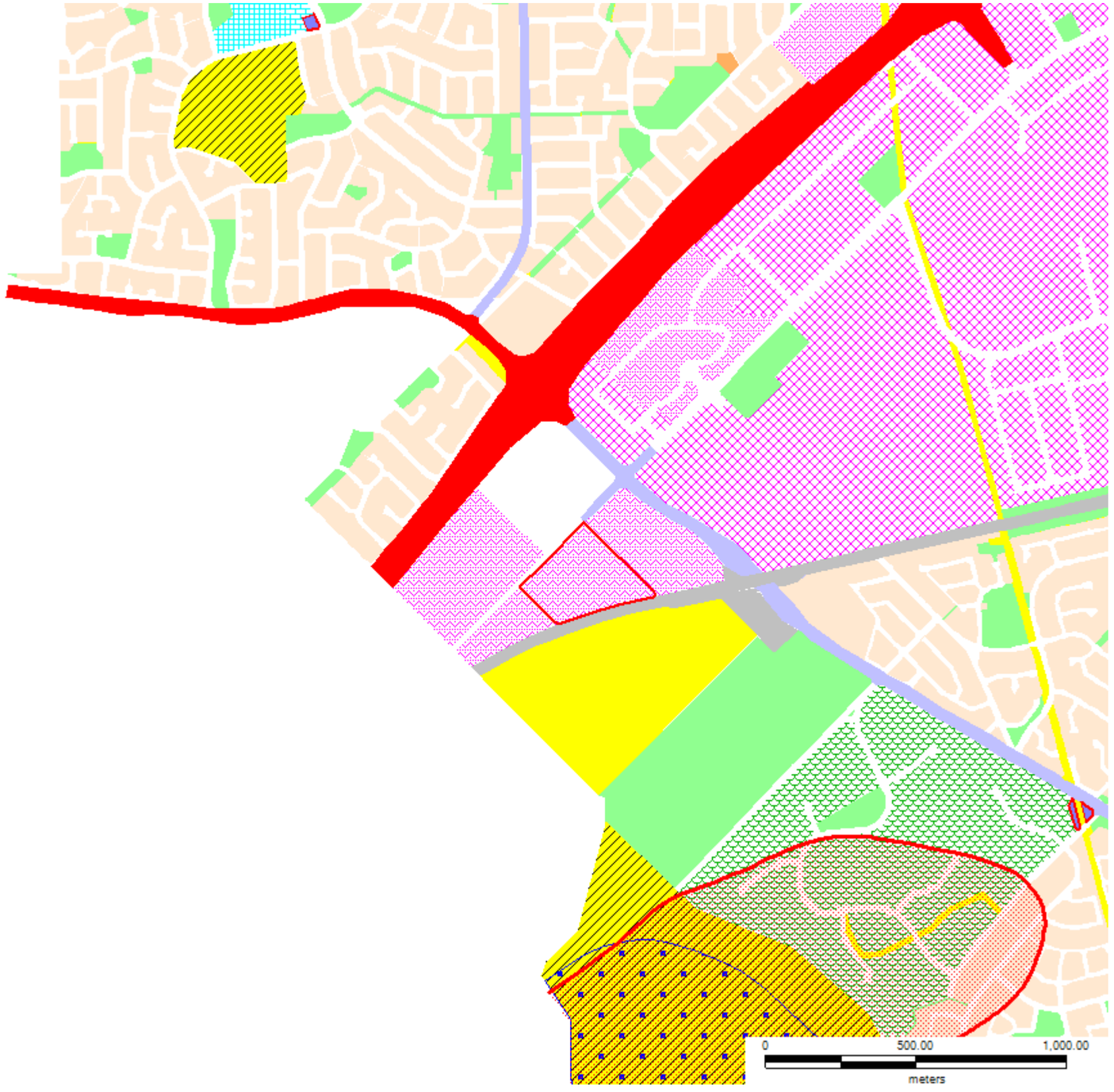
DATE:
07.08.2012

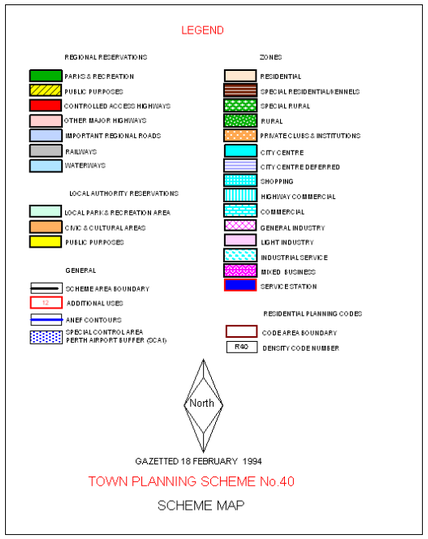
Allerding & Associates
Town Planners, Advocates and Subdivision Designers

125 Hamersley Road, Subiaco WA 6008
T: (08) 9382 3000 F: (08) 9382 3005 W: allerdingassoc.com

ATTACHMENT 4

City *of* CANNING	The City of Canning does not warrant the accuracy of information in this publication and any person using or relying upon such information does so on the basis that the City of Canning shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in the information.	DAP application ref: 15/14799, Lot 78 Pt Bannister Road Canning Vale	16/08/2012 1:12500	N





Details

Pin	301863
Piparcel	P002903 78
Lot number	78
Area	7.7253ha
Zoning:	MIXED BUSINESS
Rcode:	None
Addtional Use:	Waste Recycling, Landfill Gas Extraction, Waste Transfer Station, Animal Pound, Pet Cemetery, and General Industry

Property

Parcel Number	16822
Title	
Assessment	168229
Tax Map Number	29.21
Address	BANNISTER RD CANNING VALE
Enquiry Link	Click Here
Street View	Click Here (Requires Internet Access)

City of CANNING

Lot 78 (Part) Bannister Road Canning Vale

Thursday, 16 August 2012

1:16153

ATTACHMENT 5

Your Ref: 15/14799
Our Ref: JT1 2012 00683 V01
Enquiries: Kevin Purcher
Telephone: 9420 2385

07 August 2012

WATER CORPORATION
ABN 28 003 434 917

Planning Services
City Of Canning
Locked Bag 80
WELSHPOOL WA 6986

629 Newcastle Street
Leederville 6007
Western Australia
PO Box 100
Leederville 6902
Western Australia
Tel (+61 8) 9420 2099
www.watercorporation.com.a

Attention of: Kevin Townroe

Re: Proposed Development – Additions / Alterations to Existing Waste Recycling Facility at Bannister Road Canning Vale, Lot 78 Loc: 21 P/D: 2903

Thank you for your letter dated 24 July 2012. The Corporation offers the following comments in regard to this proposal.

Water
The subject area can be served from the Gosnells - Riverton water scheme. Reticulated water is currently available to the subject area. All water main extensions, if required for the development site, must be laid within the existing and proposed road reserves, on the correct alignment and in accordance with the Utility Providers Code of Practice.

Wastewater
The subject area can be served from the Canning Vale North sewerage scheme. Reticulated sewerage is currently available to the subject area by extension. All sewer main extensions if required for the development site should be laid within the existing and proposed road reserves, on the correct alignment and in accordance with the Utility Providers Code of Practice.

Drainage
The subject area falls within the Bannister Creek Drainage Catchment.

General Comments
This proposal will require Water Corporation Building Services approval prior to commencement of works. Headwork contributions and fees may be required to be paid prior to approval being issued.

The principle followed by the Water Corporation for the funding of subdivision or development is one of user pays. The developer is expected to provide all water and sewerage reticulation. A contribution for Water, Sewerage and Drainage headworks may also be required. In addition the developer may be required to fund new works or the upgrading of existing works and protection of all works. Any temporary works needed are required to be fully funded by the developer. The Corporation may also require land being ceded free of cost for works.

The information provided above is subject to review and may change. If the proposal has not proceeded within the next 6 months, the Corporation should be contacted to confirm if the information is still valid.

Should you have any queries or require further clarification on any of the above issues, please do not hesitate to contact the Enquiries Officer.

Kevin Purcher
Senior Development Planner
Development Services

Government of **Western Australia**
Department of **Environment and Conservation**

Your ref:
Our ref: 2010/9948
Enquiries: Peter Johns
Phone: (08) 9333 7522
Fax: (08) 9333 7550
Email: peter.johns@dec.wa.gov.au

15/14799

Mr Kevin Townroe
Senior Planning Officer
City of Canning
Locked Bag 80
Welshpool WA 6986

Dear Mr Townroe,

DEVELOPMENT APPLICATION – PROPOSED ADDITIONS/ALTERATIONS TO EXISTING WASTE RECYCLING FACILITY at BANNISTER ROAD CANNING VALE LOT: 78 LOC: 21 P/D: 2903

I refer to your advice 12 July 2012 regarding the abovementioned development approval.

The Department of Environment and Conservation (DEC) issued an amended licence to the Southern Metropolitan Regional Council (SMRC) on 7 May 2012 (copy attached) which required that new humidifiers/scrubbers are to be installed prior to the biofilters on the waste composting facility on Lot 78 Bannister Road, Canning Vale prior to 15 December 2012 or cease receiving waste.

SMRC submitted a proposal for the scrubbers on 28 June 2012 and subsequently provided additional information on 20 July 2012. DEC confirmed to SMRC in a letter dated 8 August 2012 that the proposal meets the requirements of the licence and that SMRC can proceed with the installation of the scrubbers.

The installation of a shed for the storage of bins is not a requirement of the licence and DEC has no advice or comment on this matter.

If you have any queries about any of the matters raised in this letter please contact Peter Johns at the Swan Region on 933 7522.

Yours sincerely

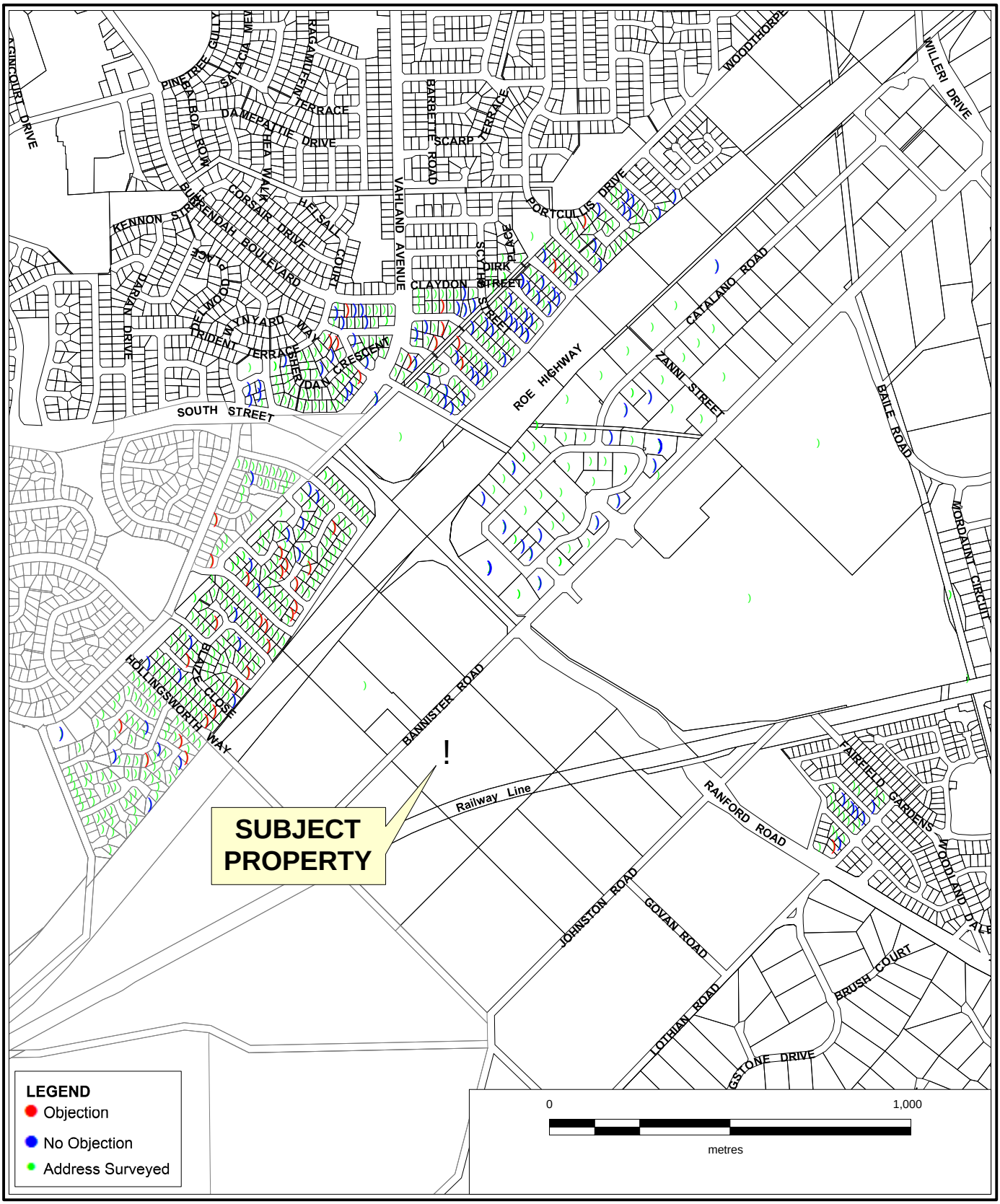
P.D. Johns

for Marko Pasalich
Team Leader
Swan Region Booragoon

10 August 2012
enc

Swan Region Industry Regulation Booragoon
181-205 Davy St Booragoon, WA 6154
Phone: 9333 7510; Fax: 9333 7550
Locked Bag 104, Bentley Delivery Centre WA 6983
www.dec.wa.gov.au

ATTACHMENT 6



N

SCALE 1:15000
DATE 15/8/2012
REF: SMRC.WOR

LOCATION PLAN

SMRC

City of CANNING
STRATEGIC AND REGULARITY SERVICES

ATTACHMENT 7

Schedule of submissions - DAP application REF 15/14799 Lot 78 Pt Bannister Road Canning Vale - SMRC Recycling Plant

Name	Contact Address	Owners address	Comments
	24 HOLLINGSWORTH WY LEEMING		We object to this proposal most strongly, besides having the most putred smell that we have to live with, it sends toxins that are causing health issues. Enclosed are copies of letters confirming this, we live 400 metres from this plant & we are were here first. **2 doctors letters attached.**
	46 MERRIFIELD CIRCLE LEEMING		The waste recycling facility has never achieved reducing the odour emitted in 9 years and what would be the noise levels emitted once 6 humidifiers vessels are installed? I live close to the facility and object to this facility continuing to impact on my life
	19 BLAIZE CLOSE LEEMING		Since it has been in operation, there have been repeat issues, of which none have been resolved, despite much time & money invested. There is no evidence to say that this will work either.
	129 Burrendah Boulevard Willetton		Even if the humidifier vessels reduce levels of odour, they would have to be incredible at doing the job - as last Summer we could not sit outside some nights as we were overcome by stench. Let alone having doors or windows open.
	8 Otter Court Willetton		Fear of noise & visual pollution, previous waste facility odour a disaster.
	11 Plover Dr Willetton		I am not convinced that the proposed installation of equipment will address the odour issues. The only way in which the odours will be eliminated will be through closing the facility.
	27 Carnarvon Cre Coolbinia	96 CATALANO CCT CANNING VALE	*Qualified no objection -* The installation of any plant & equipment to reduce odours would be welcomed, however, the continued long term use of the entire facility in its present location with the extensiveresidential areasother future development in close proximity to this plant/facility must surely be questioned & plans put in place for its future re-location
	69 Merrifield Circle Leeming		The SMRC has for years not responded to the complaints of ratepayers about the 'maladorious', toxic stench emitted by their facility. The facility should be dismantled and set up in an area that will not impact on residents. And if it is not a viable operation' (as it seems not to be) it should be discarded.

7 Torres Place Willetton WA 6155		I do not want the recycling plant working/operating at all due to the smell. It impacts our lifes especially on strong easterly wind days.
	1 Atkinson Gdn Leeming WA 6149	The noise issues should be addressed as a priority before any further upgrade work is permitted! The constant pitch, vibration & level of noise coming from the SMRC site is having a negative impact on the family on getting to sleep & having a good nights sleep!
14 Stenton Corner Leeming WA 6149		I object to the development and installation of 6 humidifier vessels at the waste facility on Lot 78 Bannister Rd Canning Vale as I feel this will add further to the noise being emitted from this facility. As it is, I hear the noise from this facility day and night and its so distressing.
33 Chaparral Crescent Willetton WA 6155		The 24/7 noise from the existing fans at the facility. Would prefer a complete shutdown - would like to get a full nights sleep.
34B Chaparral Crescent Willetton WA 6155		I don't feel that the installation of 6 humidifier vessels will do the job. I am sick of having to deal with the smell emitted by this facility - it is time to move it elsewhere + not have it so close to residential land!
1 Blaize Close Leeming WA 6149		We object to any improvements to the above mentioned property on the ground of excessive, continuous noise which is really noticeable in the early hours of morning (=pollution) Any additions would have to add more noise. We consider it a 'noxious industry' which has been wrongly allowed to operate in a 'light industrial area'.
18 Sellen Court Leeming WA 6149		I have a problem that you have stated that you will try to reduce the levels of odour. I don't think that's good enough. We as a family that were here before the plant was built (& not consulted) don't want ANY odours. Thankyou.
5 Atkinson Gdn Leeming WA 6149		I have formily lodged a noise complaint with the DEC. This noise complaint should be fixed before any further work be carried out + an impact study should be commissioned on any further noise impact from this work.
5 Stenton Corner Leeming WA 6149		There is enough noise in this area without adding to it.

3 Atkinson Gdn Leeming WA 6149		We do object to the development of SMRC composting facility. Reason Lot of humming noise especially night time can't sleep nights. So health reason plant should be moved to somewhere else
4 Otter Court Willeton WA 6155		We are concerned about what noise the humidifiers units will make when they are being used.
2 Orrock Court Leeming		I believe outstanding issues relating to noise should be resolved before further approvals are granted. Does more vessels mean more fanes & subsequently more noise??? If so, I adamently object.
12 Bovell Gardens Leeming WA 6149		Tired of the noise & smell from the plant. Should be moved to another area. How many times do you have to complain about this plant & still nothing is done about closing it down.
10 sellen Court Leeming WA 6149		Noise issues should be resolved fully before any other work/development is permitted.
69 Potcullis Drive Willetton WA 6155		The installation of humidifiers has been tried before, it did not work. Reducing of the odour is not good enough for us. We had to put up with the stink for about 10 years and our health has suffered and we are not prepared to be exposed to this any longer, only eleimination of odour is acceptable for us.
6 Orrock Court Leeming WA 6149		Just another delaying tactic to continue operating. All the previous attempts to stop odour have failed - rather than close the place down they reinvent another proposal that never works - been there before. Have completely lost confidence in the authorities that are supposed to protect us from squalid enterprise
11 Stenton Corner Leeming WA 6149		There is insufficient information about the benefits and objectives of these works. History has shown that all works have failed to stop the odour emissions from the plant. We have no assurances the proposed humidifier vessels will solve the problem.
7 Burtenshaw Close Leeming WA 6149		Not only have we been dealing with the foul smell over the years, we are now dealing with loud noises coming from the site all night long (had to buy ear plugs to try and get sleep).

9 Stenton Corner Leeming WA 6149		Lengthly response summurised as follows: constant source of odour problems, previous upgrades failed to address issues, unclear that odour will be reduced and that noise will not increase as a result, height of proposed humidifiers will be visable from our my property and no visual screening proposed, noise emiited from these machines of concern, sleep disturbed by constant humming,
17 Marginata Parkway Canning Vale WA 6155		This facility should not be in such close proximity to residential areas. There have been years of on-going problems with odours and adding more infrastructure just means there is less chance of having this facility moved to a more appropriate site. I don;t want reduced odour levels, I want no odour!
2 Stenton Corner Leeming WA 6149		No matter what is done the plant should be moved out of residential area completely.
17 Haywood Trail Leeming WA 6149		Haven't been able to fix for 9 years can't believe you can waste so much tax payers money flogging a dead horse. Why not incinneration?
16 Stenton Cnr Leeming WA 6149		Currently the continuous 'humming' of the machine fromn the site is very distressing, especially at night. Additional of 6 extra humidifiers may reduce some odour but will certainly produce much more noise. This is unaaceptable.
9 Musgrave Court Willetton WA 6155		I object to the proposal
4 Burtenshaw Close Leeming WA 6149		Enough is enough. Look after Canning Residents PLEASE. After 9 years of lies-discussions on how the problem will be fixed and it wasn't I no longer trust the Council or RRRC. We have had years of foul odours - now we have odour and constant humming noise. How much more must we endure before the Council who should represent us - who we pay for actually look after our needs for clean air and a quiet environment.
19 Sellen Court Leeming WA 6149		After many years of vile stink & promises the world by DEC to reduce is not acceptable. Nothing but eliminate is the final answer, before people start dying.
24 Sellen Court Leeming WA 6149		It will increase the noise levels, which are above the legal levels now!! No one seems to care about the welfare of the house owners who live in the area.

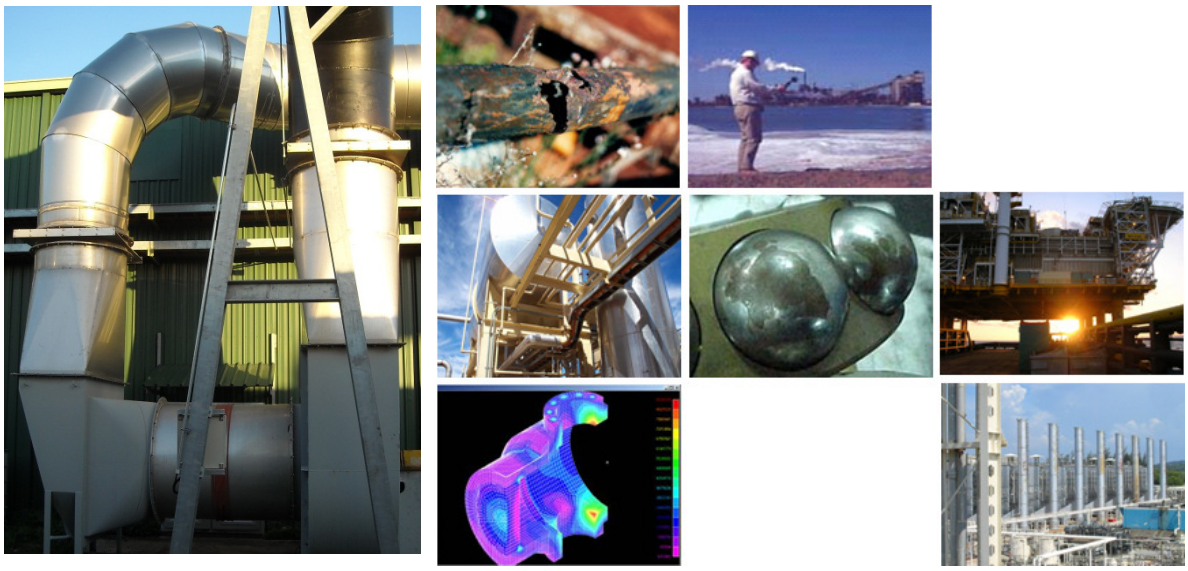
5 Capill Cnr Leeming WA 6149		It needs to be shut down and relocated elsewhere. The residents have suffered for years the stench omitted from the plant. Get rid of it as promised.
11 Castlemain Hts Leeming WA 6149		How much more money is this consultation + planning application + design going to cost us? Akready too much has been spent when are you going to stop throwing money away?
2 Haywood Trl Leeming WA 6149		It is clear where the noise impact will be, we can already hear the noise when running, can we be assured they will be quite? / not affect the areas amenity already more than they are? What guarantee will we be given this will solve the disgusting odour year round.
1 Bovell Gardens Leeming WA 6149		The recycling plant is well intentioned but ill-conceived & its location is inappropriate. It is too noisy and the odour is unacceptable. We regularly hear the plant & it is intrusive. The plant should be relocated to another area.
77 Riverton Drive Rossmoyne WA 6148	24 Nuytsia Cr Canning Vale	The smell really does disappear - it has been pleasant to have it non operational & therefore clean air. Also hopefully there will be no noise pollution if machinery is used.
3 Plover Drive Willetton WA 6155		The possibility that the addition will add to the excessive noise at night already coming from the existing plant fans.
48 Merrifield Circle Leeming WA 6149		1. The plant should be closed down because of the smell coming from it. It will still smell. Close it down and this will save the ratepayers money like the unit in the USA it was taken from. 2. The noise problems is now here, don't create more noise by installing more humifiers
14 Elliott Place Willetton WA 6155		Community health is at risk, it is situated too close to both residential & commercial areas as well as to the drivers who drive past to & from work.
53 Merrifield Circle Leeming WA		The Southern MRC has had many chances to fix odour issues and failed every time and spent too much of their budget to manage debt levels that are still rising. This new installation will only add to SMRC debt which will be passed on to rate payers from local councils involved.
26 Scythe Street Willetton WA 6155		We have no objection to the proposal on the condition that it will not create any noise levels added to what we have now from that direction.
1 Pallas Place Willetton WA 6155		No Objection provided that the odour smell is reduced

5 Plover Drive Willetton WA 6155		The current odour problems in Summer is bad enough without it being made …?
7 Otter Court Willetton WA 6155		Possibility of odorous nsmells as per Leeming.
24 Merrifield Circle Leeming WA		I do object to this proposal. Since it started up again we now have a permanent humming noise, all through the night and in to small hours which wakens one up. This recycling plant should never have been built in the first instance. I was one of the 1st in this street and feel so angry about it all. Weare now pensioners and I would move because of it. But now that is financialyy difficult, unless we see lawyers. I would appreciate a response to this letter.
9 Capill Cnr Leeming WA 6149		Because the odour emitted won't be fixed after 9 years of mountinous and unsucessful attempts the SMRC have failed to fix the odour. The SMRC & DEC have confirmed there will always be odour & that it's impossible to stop it - so why is more money being wasted on it, and why are residents continually forced to have to tolerate more years of failed maintenance - allowing this to continue is abuse. Abuse of residents and their pets health & quality of life.

ATTACHMENT 8

SVT ENGINEERING CONSULTANTS

RRRC CANNING VALE NOISE MODELLING



SOUTHERN METROPOLITAN REGIONAL COUNCIL

1253830-3-100-Rev0-15 AUG 2012

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Acoustics • Corrosion
Performance Monitoring • Vibration
Advanced Engineering Services • R&D • Training
Machine Condition Monitoring • Structural Dynamics

DOCUMENT CONTROL & REVIEW INFORMATION

Client: **Southern Metropolitan Regional Council**

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SVT Job No: **1253830.3**

SVT Document No: **1253830-3-100-Rev0-15 AUG 2012**

Rev	Description	Prepared	Reviewed	Date
0	Final draft issued to client	Maeli Cherel	Tyson Burkett	15 AUG 2012
A	Draft circulated for comments	Maeli Cherel	Wayne Seeto	15 AUG 2012

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TABLE OF CONTENTS

1. INTRODUCTION

The Southern Metropolitan Regional Council (SMRC) is proposing to upgrade the Regional Resource Recovery Centre (RRRC) facility located in Canning Vale. The upgrade includes the installation of six scrubber/ humidifiers and associated transition ducting North of the Aeration Building.

A noise assessment undertaken in July 2012 indicated that current noise emissions from the facility do not comply with environmental noise limits at nominated noise sensitive receivers. Following recommendations from the assessment, SMRC intend to install acoustic lagging on aeration fan discharge ducting to reduce plant noise emissions and achieve compliance with environmental noise limits as specified in the *Environmental Protection (Noise) Regulations 1997 (EPR).*

SVT Engineering Consultants (SVT) was commissioned by the SMRC to undertake noise modelling of the existing facility and proposed upgrade. The main objectives of the modelling are to:

- Verify whether acoustically lagging the aeration fan discharge ducting will offer sufficient noise reduction to achieve compliance at nominated residential and industrial premises; and
- Assess the potential environmental noise impact from the proposed installation of the humidifier/ scrubbers and associated transition ducting.

The following document is referenced in this report:

- RRRC Noise Control Assessment : (Doc Ref: 1253830-1-100 Rev0)

1.1 Description of Facility

The Canning Vale RRRC is an organic waste processing facility consisting of three separate facilities including: waste composting, materials recovery, and green waste processing. The plant is located directly south of Roe Highway in Canning Vale's industrial area. The closest noise sensitive receivers are located approximately 500m North West of the facility. Figure 1-1 shows the facility and locations assessed.

Figure 1-1 Satellite image showing the RRRC facility, and receivers assessed

2. NOISE MODELLING METHODOLOGY

A noise model of the facility was developed using the SoundPlan v7.0 noise modelling software. The software calculates sound pressure levels at nominated receiver locations and produces noise contours over a defined area of interest. The inputs required are: noise source data, ground topographical and meteorological data, and receiver locations.

Noise levels at nominated noise sensitive receivers were predicted using the CONCAWE[1] algorithm under worst-case meteorological conditions as specified in the EPA Draft Guidance No.8. Noise contours are presented in Appendix A.

The model includes buildings and noise sources within the RRRC waste processing and materials compositing facility. Noise emissions from mobile equipment, the green waste processing facility, or external sources such as air, traffic, and other industrial noise are not included in this assessment.

2.1 Modelling Scenarios

The environmental noise impact of the facility was modelled under the following three scenarios:

- **Scenario 1:** the facility with existing noise sources operating under current operating conditions- no noise control;
- **Scenario 2**: the existing facility operating under current operating conditions with acoustic lagging applied over the entire straight section of each aeration fan discharge ducting;
- **Scenario 3:** as per Scenario 2 but including the proposed humidifier/ scrubbers and transition ducting and modifications to the existing discharge ducting.

2.2 Topography

Topographical data for the models was provided by Allerding & Associates as ground contours in electronic format. These were imported directly into the noise model. The ground absorption was assumed as 0.60 (moderately hard ground).

2.3 Meteorological Conditions

The predicted noise levels were calculated using worst case night time meteorological conditions as outlined in *EPA Draft Guidance Note No.8*. The conditions applied are listed in Table 2-1.

Table 2-1: Worst-case meteorological conditions used to model noise levels

Time of day	Pasquill Stability	Wind speed (m/s)	Temperature (˚C)	Humidity
1900-0700 (night time)	Class 'F"	3m/s	15˚C	50%

[1] *The propagation of noise from petroleum and petrochemical complexes to neighbouring communities*, CONCAWE (Conservation of Clean Air and Water in Europe) Report 4/81,1981.

Night-time meteorological conditions include refraction effects. When refraction occurs, sound waves that would normally propagate directly outwards from a source can be bent downwards, leading to an increase in noise levels at sensitive receivers. These conditions usually occur at night-time, when temperature inversions and wind gradients cause the sound waves to refract and bend towards the ground.

2.4 Receptors

Noise levels were predicted at the four locations discussed in the RRRC Noise Assessment Report. These included:

- Sellen Court & Merrifield Circle (classed as 'noise sensitive premises'): located approximately 600m North West of the facility; and
- Water Corporation & Swan Transit Depot (classed as 'industrial premises'): located across Bannister Road from the facility.

2.5 Noise Source Emission Data

2.5.1 Existing Facility - Scenario 1

The model was simplified so that the cumulative noise emissions from subcomponents were modelled as single sources (i.e the fans and associated motors were modelled as one source). Noise emission data for existing noise sources was obtained during detailed measurements taken on site in July and August 2012.

The overall sound power levels for existing noise sources included in the model are listed in Table 2-2. Octave band data is presented in Appendix B-1.

Table 2-2 Noise source overall sound power level- existing sources

Noise Source	Sound Power Level dB(A)
Aeration Fan Discharge #1	93
Aeration Fan Discharge #2	93
Aeration Fan Discharge #3	93
Aeration Fan Discharge #4	90
Aeration Fan Discharge #5	90
Aeration Fan Discharge #6	98
Aeration Fan #1	95
Aeration Fan #2	96
Aeration Fan #3	96
Aeration Fan #4	97
Aeration Fan #5	99
Aeration Fan #6	98

Noise Source	Sound Power Level dB(A)
Tipping building extraction fan #109	89
Tipping building extraction fan #110	88
Tipping building extraction fan #111	87
Tipping building extraction fan #112	88
Gas scrubber #1	82
Gas scrubber #2	79
Gas scrubber #3	79
Gas scrubber #4	83
Digester #1	84
Digester #2	87
Digester #3	87
Digester #4	79
Hydraulic Power Pack #1	94
Hydraulic Power Pack #2	93
Hydraulic Power Pack #3	93
Hydraulic Power Pack #4	93
Compost Aeration Fans	81
Air compressor	90
Aeration/discharge building wall primary screening area	81

2.5.2 Existing Facility with Noise Control - Scenario 2

The second scenario was developed with noise reductions applied to the aeration fan discharge ducting identified as the main contributor to noise levels received at nominated residential and industrial premises. The reductions were applied based on the minimum attenuation for Class C3 duct lagging as specified in *ISO 15665: 2003 Acoustics-Acoustic insulation for pipes, valves and flanges.* It is assumed that lagging is to be applied over the straight sections of all six aeration fan discharge ducts. Table 2-3 presents sound power levels assumed for the model.

Table 2-3 Noise source overall sound power level- attenuated ducting noise

Noise Source	Sound Power Level dB(A)	Overall Noise Reduction (dB)
Attenuated Aeration Fan Discharge #1	79	14
Attenuated Aeration Fan Discharge #2	79	14
Attenuated Aeration Fan Discharge #3	81	12

Noise Source	Sound Power Level dB(A)	Overall Noise Reduction (dB)
Attenuated Aeration Fan Discharge #4	75	15
Attenuated Aeration Fan Discharge #5	73	17
Attenuated Aeration Fan Discharge #6	86	12

2.5.3 Proposed Upgrade - Scenario 3

Noise levels from the proposed upgrade were based on the installation outlined in the general arrangement drawings provided by the client (titled "WCF Humidifier & Ducting Upgrade"). For each aeration fan the upgrade comprises of:

- Introducing a scrubber (and transition duct) as intermediary between the aeration fan and discharge duct;
- Increasing the elevation of the discharge ducting by 2 metres.

Noise emissions from the modified installation were calculated based on a combination of empirical data and generic acoustic absorption data. The following was assumed:

- Upgrade involves reusing the existing discharge ductwork; and
- Scrubber walls and transition ducting are constructed of thin steel sheet with no internal lining.

Sound power levels of the modified components are listed in the table below.

Table 2-4 Noise source overall sound power level- proposed upgrade

Noise Source	Sound Power Level dB(A)
Proposed transition duct #1	70
Proposed transition duct #2	70
Proposed transition duct #3	71
Proposed transition duct #4	66
Proposed transition duct #5	65
Proposed transition duct #6	76
Proposed scrubber #1	69
Proposed scrubber #2	69
Proposed scrubber #3	70
Proposed scrubber #4	65
Proposed scrubber #5	64
Proposed scrubber #6	75
Modified Attenuated Aeration Fan Discharge #1	78

Noise Source	Sound Power Level dB(A)
Modified Attenuated Aeration Fan Discharge #2	78
Modified Attenuated Aeration Fan Discharge #3	79
Modified Attenuated Aeration Fan Discharge #4	74
Modified Attenuated Aeration Fan Discharge #5	71
Modified Attenuated Aeration Fan Discharge #6	85

2.6 Model Verification

The noise model for the existing facility was verified in the near-field by comparing predicted noise levels with measured noise levels at a number of locations around the plant boundary. Far-field noise levels for the existing plant were verified against noise levels monitored during the noise assessment (see Doc Ref: 1253830-1-100). Predicted far field results were generally within± 0.4 dB of those measured except for at Water Corporation where predicted noise levels were 2.7 dB below those measured (see Table 3-1). Near-field results were within ± 3.6 dB.

3. NOISE MODELLING RESULTS

Table 3-1 presents a summary of the estimated night-time noise levels at the nominated receivers under worst-case meteorological conditions for each scenario modelled. The predicted noise levels shown account for modelling error tolerances based on the far-field model verification. Noise levels measured at those locations during the noise assessment stage are also included. Octave band noise levels are presented in Appendix B-2.

Table 3-1 Estimated received noise levels

	Measured noise levels dB(A) – Equivalent to Scenario 1	Tolerance dB	Predicted noise levels dB(A)		
			Scenario 1	Scenario 2	Scenario 3
Merrifield Circle	45	+ 0.1	45	32	32
Sellen Court	Not measured	-	36	28	27
Water Corporation	64	-2.7	59 - 62	52 - 55	49 - 52
Swan Transit Depot	66	-0.4	66	56	55 - 56

The results indicate that the main contribution to received noise levels under all three scenarios is the cumulative noise emissions from the six aeration fan discharge ducts. Table 3-2 shows that this contribution decreases significantly when the ducting is acoustically treated.

Table 3-2 Predicted cumulative contribution to received levels from all six aeration fan discharge ducts

	Predicted cumulative noise contribution to received noise levels from six aeration fan ducts dB(A)		
Noise Source	Scenario 1	Scenario 2	Scenario 3
Merrifield Circle	44.5	30.7	30.6
Sellen Court	35.8	22.3	22.2
Water Corporation	61.4	52.0	50.6

4. NOISE CRITERIA

Predicted noise levels were compared with assigned noise levels as stipulated in the *Environmental Protection (Noise) Regulations 1997 (EPR).* The EPR prescribes standards for noise emissions and require that noise from any premises comply with assigned noise levels when received at any other premises. The levels are specified according to the time of day and type of premises.

Table 4-1 presents a summary of assigned noise levels for noise-sensitive premises.

Table 4-1 Assigned Noise Levels

Type of premises receiving noise	Time of Day	Assigned Noise Level dB (A)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises at locations within 15 metres of a building directly associated with a noise sensitive use	0700 to 1900 hours Monday to Saturday	45 + Influencing factor	55 + Influencing factor	65 + Influencing factor
	0900 to 1900 hours Sunday and public holidays	40 + Influencing factor	50 + Influencing factor	65 + Influencing factor
	1900 to 2200 hours all days	40 + Influencing factor	50 + Influencing factor	55 + Influencing factor
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays	35 + Influencing factor	45 + Influencing factor	55 + Influencing factor
Noise sensitive premises at locations further than 15 metres from a building directly associated with a noise sensitive use	All hours	60	75	80
Commercial premises	All hours	60	75	80
Industrial premises	All hours	65	80	90

Influencing Factor

The influencing factor (IF) depends on:

- the proportion of commercial and industrial premises within a 100m and 450m radius circle from the receiver; and
- the presence of any major or secondary roads.

The influencing factor for each noise sensitive premises was calculated as described in Schedule 3 of the Regulations:

- Merrifield Circle-locations 1&2: IF = 2.6dB (a portion of industrial land within 450m, and Roe Highway and South Street major roads within 450m)
- Sellen Court (DEC monitoring location): IF = 6.7dB (a portion of industrial land within 450m, and Roe Highway major road within 100m, and South Street a major road within 450m)

- Water Corporation & Swan Transit Depot: IF= Not applicable as both are classed as industrial premises.

A summary of the applicable noise limits at each receiver, including the influencing factor, is shown in the table below.

Table 4-2 Relevant assigned noise levels including influencing factor

Time of Day	Premises Receiving Noise	Assigned Noise Level dB (A)		
		L_{A10}	L_{A1}	L_{Amax}
0700 to 1900 hours Monday to Saturday	Merrifield Circle	48	58	68
	Sellen Court	52	62	72
0900 to 1900 hours Sunday and public holidays	Merrifield Circle	43	53	68
	Sellen Court	47	57	72
1900 to 2200 hours all days	Merrifield Circle	43	53	58
	Sellen Court	47	57	62
2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays	Merrifield Circle	38	48	58
	Sellen Court	42	52	62
All hours	Water Corporation & Swan Transit Depot	65	80	90

Adjustments for Intrusive Characteristics

Noise levels at the receiver are subject to penalty corrections when the noise exhibits intrusive or dominant characteristics. If the noise is assessed as having tonal, modulating or impulsive characteristics, the measured or predicted noise levels are adjusted by the amounts shown in Table 4-3.

Table 4-3 Adjustments for intrusive noise characteristics

Adjustment where noise emission is not music these adjustments are cumulative to a maximum of 15 dB		
Where tonality is present	Where modulation is present	Where impulsiveness is present
+5 dB	+5 dB	+10 dB

5. IMPACT ASSESSMENT

5.1 Plant Noise Emissions

Table 5-1 shows the predicted cumulative sound power level of the facility under the three scenarios modelled.

Table 5-1 Total plant sound power level

Predicted sound power level dB(A)		
Scenario 1	Scenario 2	Scenario 3
115	109	108

The results indicate that the discharge ducting will reduce the plant's overall sound power levels by 6dB. The modelling also shows that the proposed upgrade does not significantly contribute to plant noise emissions.

5.2 Received Noise Levels

The noise assessment undertaken in July 2012 indicated that noise levels received at the noise sensitive premises has tonal characteristics in the 315Hz frequency band. Predicted noise levels from the modelling show the same tonal characteristic under all three scenarios.

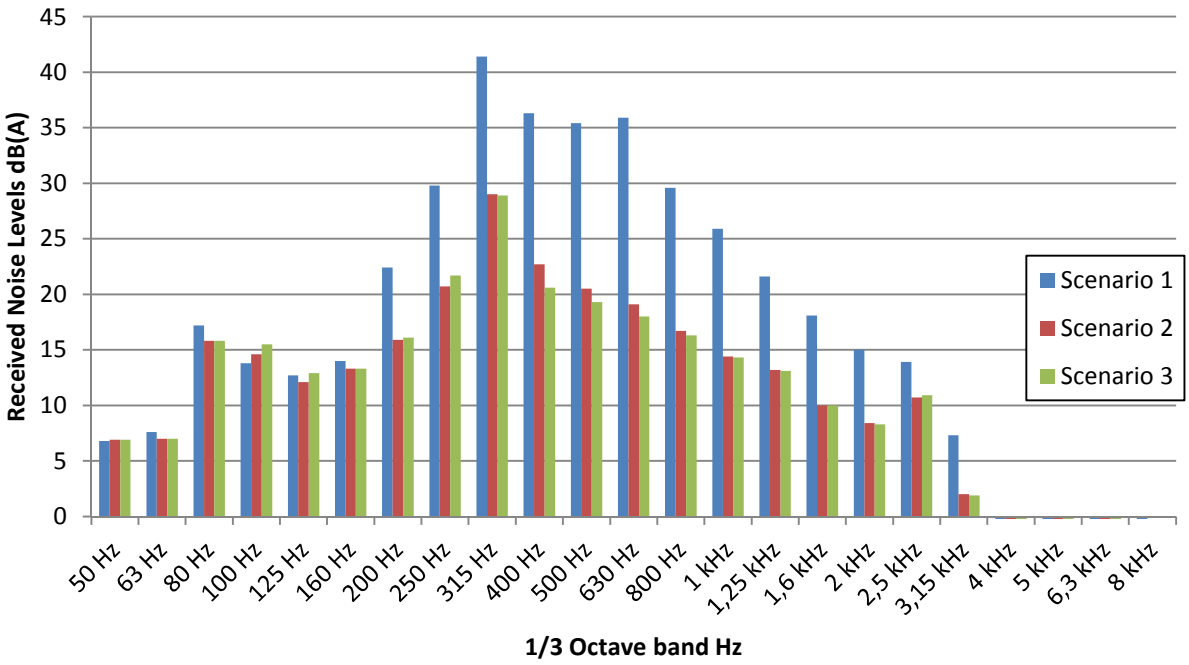


Figure 5-1 Predicted 1/3 octave band noise levels at Merrifield Circle

In assessing compliance a tonality adjustment of 5 dB has therefore been applied to predicted noise levels under all three scenarios. The adjusted levels are shown below along (including modelling error tolerances) with the relevant night-time criteria.

Table 5-2 Adjusted predicted received noise levels

	Predicted received noise level dB(A) including 5dB adjustment for tonality			
	Night-time criteria	Scenario 1	Scenario 2	Scenario 3
Merrifield Circle	38	50	37	37
Sellen Court	42	41	33	32
Water Corporation	65	64 - 67	57 - 60	54 - 57
Swan Transit Depot	65	71	61	60 - 61

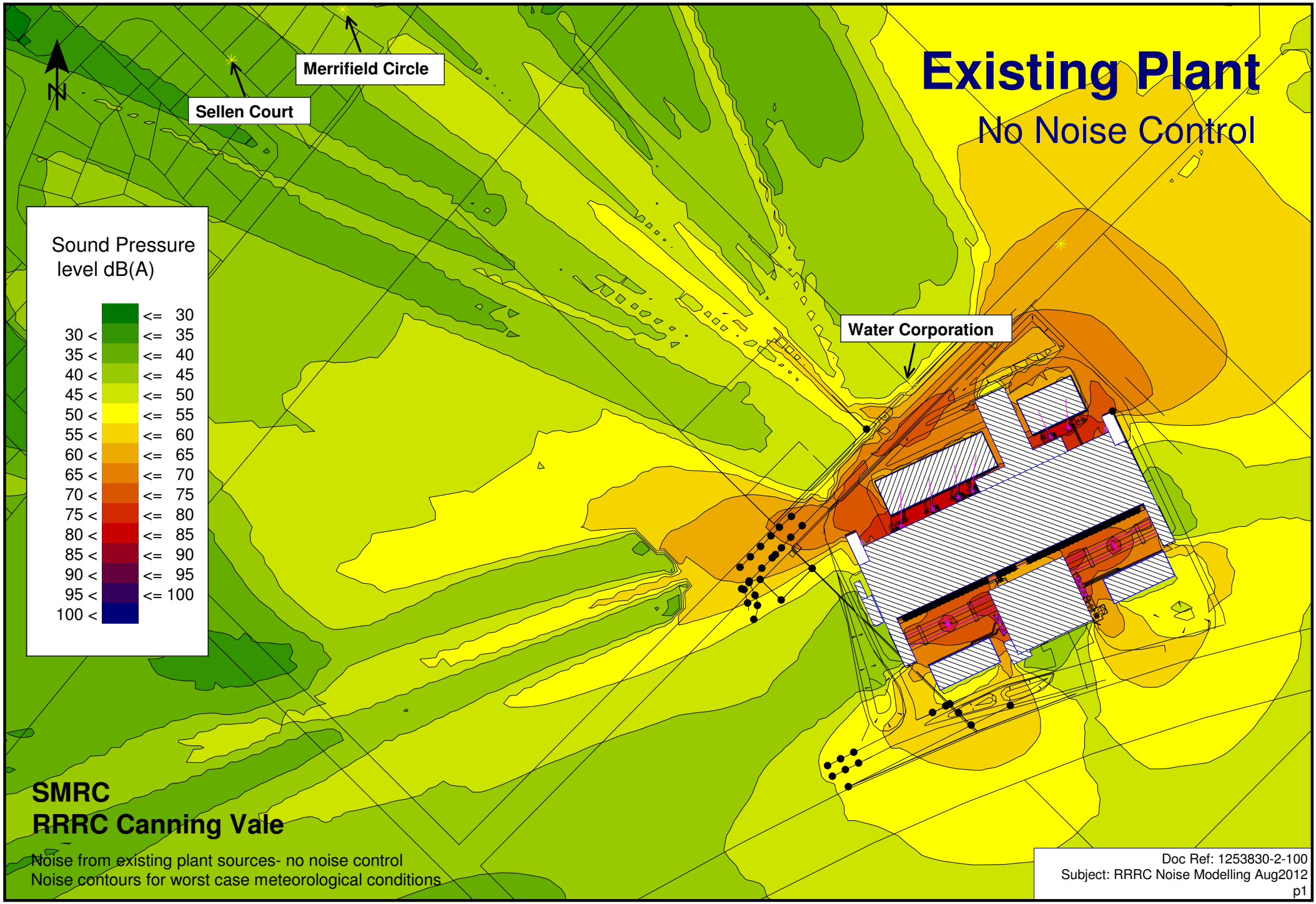
Table 5-2 shows that after noise mitigation measures have been applied to the discharge ducting, noise levels from the facility are within assigned levels at the nominated receivers. In addition to this, the results indicate that the proposed upgrade will not cause any additional impact to noise levels at the receivers.

6. CONCLUSIONS

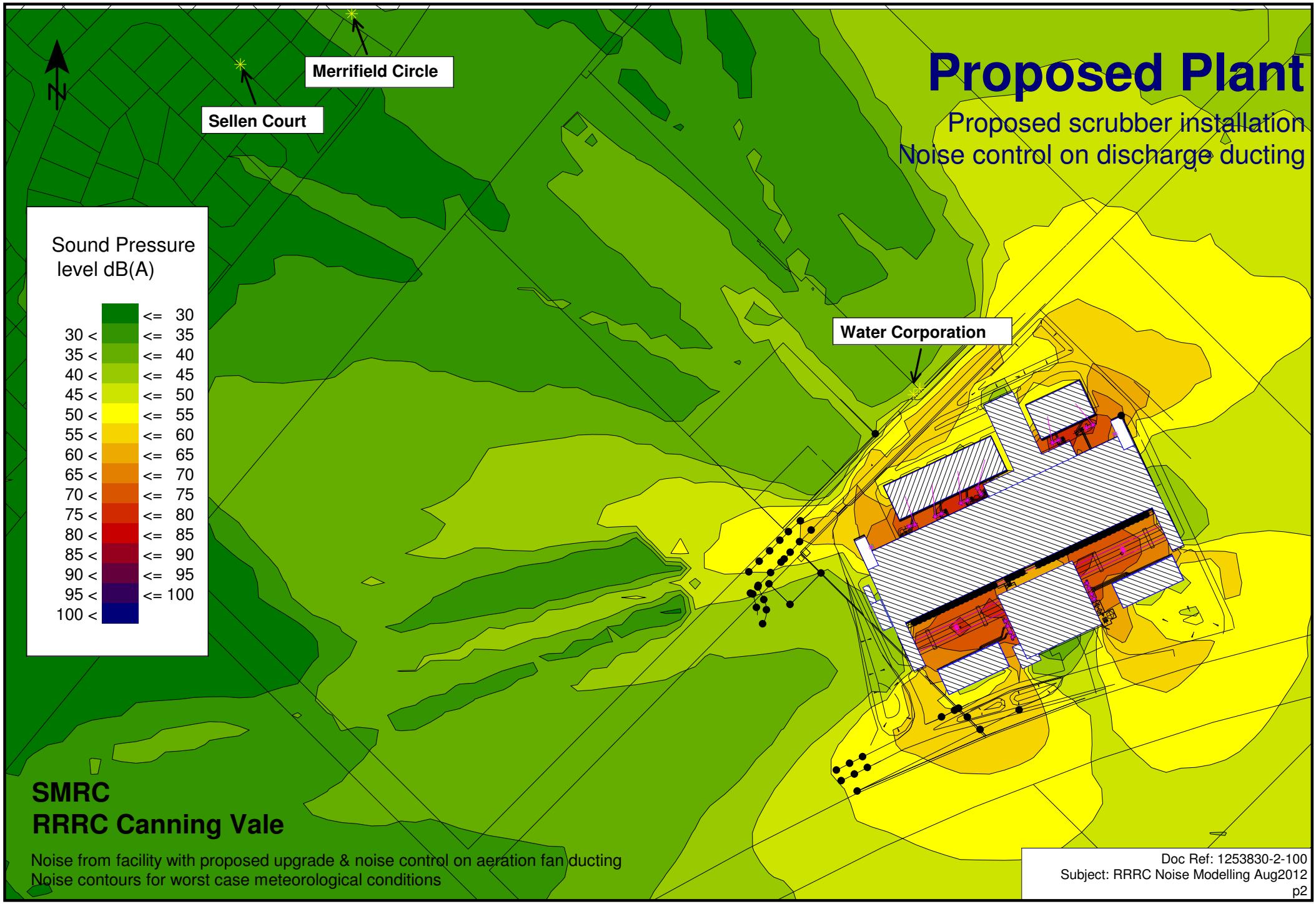
Based on this assessment, SVT concludes that:

- Acoustically lagging all six aeration fan discharge ducts should reduce noise levels at the receivers by 7 dB to 13 dB;
- This reduction is sufficient for the RRRC facility to achieve compliance with assigned noise levels;
- The proposed upgrade to install six humidifier/ scrubbers should not cause any significant impact at any of the receivers assessed; and
- Noise emissions from the proposed new installation, with noise control applied to the discharge ducting are predicted to be within the relevant assigned noise levels at noise sensitive receivers.

APPENDIX A : NOISE CONTOURS


Existing Plant
No Noise Control
N
Merrifield Circle
Sellen Court
Water Corporation
Sound Pressure level dB(A)
<= 30
30 < <= 35
35 < <= 40
40 < <= 45
45 < <= 50
50 < <= 55
55 < <= 60
60 < <= 65
65 < <= 70
70 < <= 75
75 < <= 80
80 < <= 85
85 < <= 90
90 < <= 95
95 < <= 100
100 <
SMRC
RRRC Canning Vale
Noise from existing plant sources- no noise control
Noise contours for worst case meteorological conditions
Doc Ref: 1253830-2-100
Subject: RRRC Noise Modelling Aug2012
p1


Existing Plant
Noise control on ducting
Merrifield Circle
Sellen Court
Water Corporation
N
Sound Pressure level dB(A)
<= 30
30 < <= 35
35 < <= 40
40 < <= 45
45 < <= 50
50 < <= 55
55 < <= 60
60 < <= 65
65 < <= 70
70 < <= 75
75 < <= 80
80 < <= 85
85 < <= 90
90 < <= 95
95 < <= 100
100 <
SMRC
RRRC Canning Vale
Noise from existing plant sources with noise control on aeration fan ducting
Noise contours for worst case meteorological conditions
Doc Ref: 1253830-2-100
Subject: RRRC Noise Modelling Aug2012
p2


Merrifield Circle
Sellen Court
Water Corporation
Proposed Plant
Proposed scrubber installation
Noise control on discharge ducting
Sound Pressure level dB(A)
<= 30
30 < <= 35
35 < <= 40
40 < <= 45
45 < <= 50
50 < <= 55
55 < <= 60
60 < <= 65
65 < <= 70
70 < <= 75
75 < <= 80
80 < <= 85
85 < <= 90
90 < <= 95
95 < <= 100
100 <
SMRC
RRRC Canning Vale
Noise from facility with proposed upgrade & noise control on aeration fan ducting
Noise contours for worst case meteorological conditions
Doc Ref: 1253830-2-100
Subject: RRRC Noise Modelling Aug2012
p2

APPENDIX B : 1/3 OCTAVE BAND NOISE LEVELS

Appendix B-1 : Equipment Sound Power Levels

Table B-1 Equipment Sound Power Levels

Source	1/3 Octave band sound power levels dB(A)																				
	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz
Aeration Discharge Fan #1		46.7		52.8		54.2	71.4	76.1	89.7	86.7	83.8	82.0	77.9	74.8	69.0	67.0	64.9		57.7	60.5	57.6	49.7
Aeration Discharge Fan #2		52.5	63.9	57.9	58.5	0.0	71.8	79.5	91.2	84.5	83.6	82.0	76.8	73.4	69.7	66.7	65.0	64.9	59.9	57.7	52.4	
Aeration Discharge Fan #3		52.5	63.9	57.9	58.5	0.0	71.8	79.5	91.2	84.5	83.6	82.0	76.8	73.4	69.7	66.7	65.0	64.9	59.9	57.7	52.4	
Aeration Discharge Fan #4	56.4	47.2	48.8	63.0	56.7	65.0	70.2	76.2	82.8	79.1	80.2	86.2	75.1	71.6	67.5	64.6	62.7	61.9	58.5	58.3	57.1	50.1
Aeration Discharge Fan #5							72.4	64.0	76.9	82.2	84.5	86.0	76.6	70.2	62.4	61.1	59.8		50.8	53.9	53.0	38.0
Aeration Discharge Fan #6				73.5	68.0	71.8	76.8	86.3	96.1	88.7	85.4	86.9	82.9	82.9	78.3	74.9	71.4	68.6	66.8	65.4	65.2	57.9
Aeration Fan #1	57.0	55.7	61.8	60.0	66.7	74.8	72.9	79.5	84.0	83.3	82.5	84.8	85.0	84.4	85.2	80.6	80.4	88.0	80.9	75.7	77.1	75.1
Aeration Fan #2	62.0	64.9	79.4	73.5	71.8	76.0	76.2	78.7	90.4	81.4	82.7	85.1	84.3	83.9	85.0	80.8	81.1	88.1	80.3	76.8	75.7	72.5
Aeration Fan #3	69.5	62.2	73.7	68.0	67.4	79.1	75.7	77.5	85.7	82.0	83.6	85.6	84.7	84.7	85.3	81.6	82.0	88.1	82.1	78.8	78.6	77.8
Aeration Fan #4	70.4	60.8	77.5	79.4	78.1	79.1	80.5	79.7	89.6	82.0	83.5	87.0	84.8	85.0	84.2	83.1	84.6	91.9	81.4	77.7	79.4	73.3
Aeration Fan #5	69.7	67.5	77.6	71.3	80.4	76.6	81.6	80.6	91.1	84.5	85.7	91.4	87.8	87.6	88.2	83.1	82.8	89.0	82.3	80.6	78.9	72.5
Aeration Fan #6	58.1	66.9	70.2	75.9	67.8	75.1	78.5	87.4	91.5	79.8	86.4	89.2	84.1	83.3	83.5	80.2	82.0	88.4	81.8	86.2	80.4	79.4
Tipping building extraction fan #109	46.0	55.5	69.9	77.8	75.0	67.6	71.4	74.1	71.6	72.4	73.2	72.1	72.5	71.4	71.2	69.9	76.9	85.7	73.8	71.5	73.8	69.0
Tipping building extraction fan #110	50.6	72.5	70.2	74.9	70.7	68.0	67.0	78.1	75.5	71.1	69.1	71.1	71.5	69.8	70.8	70.6	77.4	84.1	71.3	66.7	73.3	62.2
Tipping building extraction fan #111	58.1	54.9	65.8	65.4	65.5	66.2	60.5	65.9	75.5	66.8	68.0	70.3	71.9	70.1	71.1	70.3	75.8	84.6	77.6	68.7	72.5	70.6
Tipping building extraction fan #112	50.6	72.4	70.2	74.9	70.7	68.0	67.0	78.2	75.5	71.1	69.1	71.1	71.5	69.9	70.8	70.6	77.4	84.1	71.3	66.7	73.2	62.2
Gas scrubber #1			53.3	62.1	62.3	68.9	68.6	72.5	73.3	74.3	74.8	70.7	68.0	58.2	0.0	61.4	62.6	66.3	60.9	64.8	61.9	58.0
Gas scrubber #2	54.8	53.3	59.1	62.1	57.2	65.0	59.3	68.4	66.9	68.2	67.5	67.1	66.4	66.6	68.6	69.3	68.5	68.1	66.9	65.5	60.3	56.6
Gas scrubber #3	54.8	53.3	59.1	62.1	57.2	65.0	59.3	68.4	66.9	68.2	67.5	67.1	66.4	66.6	68.6	69.3	68.5	68.1	66.9	65.5	60.3	56.6
Gas scrubber #4	55.4	52.0	57.6	64.7	62.6	66.8	66.8	78.5	73.9	74.8	68.5	65.6	67.4	66.9	68.5	69.2	69.4	0.0	65.5	62.8	60.7	54.3
Digester Discharge end #1	48.3	45.6	50.0	52.0	54.2	55.9	53.4	62.1	65.3	68.1	69.0	66.0	63.9	62.4	0.0	0.0	56.4	57.5	53.7	53.2	50.7	46.7
Digester Discharge end #2	43.9		49.8	49.2	52.2	56.4	70.6	74.4	67.3	69.9	69.9	70.8	71.7	66.5	64.3	60.8	58.3	56.7	53.4	51.6	50.6	45.1
Digester Discharge end #3	43.9		49.8	49.2	52.2	56.4	70.6	74.4	67.3	69.9	69.9	70.8	71.7	66.5	64.3	60.8	58.3	56.7	53.4	51.6	50.6	45.1
Digester Discharge end #4	0.0	47.0	51.4	50.0	53.5		59.5	68.2	0.0				59.6	56.5								
Digester Feed end #1	45.5	44.2	49.1	47.6	50.3	58.3	64.9	69.6	72.1	77.0	68.1	72.4	74.5	71.4	68.7	65.3	63.7	63.1	57.9	56.6	56.1	52.5
Digester Feed end #2			49.4	54.0	59.1	63.0	67.3	70.5	75.2	78.7	80.2	79.5	75.4	74.3	73.4	71.3	71.2	69.8	65.4	65.6	64.1	60.9
Digester Feed end #3			49.4	54.0	59.1	63.0	67.3	70.5	75.2	78.7	80.2	79.5	75.4	74.3	73.4	71.3	71.2	69.8	65.4	65.6	64.1	60.9
Digester Feed end #4	44.0				59.3	61.7	67.3	67.9	66.6	67.0	65.8	69.5	70.0	66.0	60.5		55.2					
Hydraulic Power Pack #1	24.6	63.5	66.0	71.6	74.8	76.4	81.3	82.8	86.2	83.0	84.7	83.8	82.3	86.2	80.7	78.9	77.3	77.3	74.8	72.4	68.7	65.3
Hydraulic Power Pack #2	52.8	65.5	56.6	73.4	76.0	77.9	79.8	81.2	81.2	82.5	83.5	83.9	83.5	83.4	81.1	79.7	78.2	78.5	75.7	73.0	69.6	65.8
Hydraulic Power Pack #3	52.8	65.5	56.6	73.4	76.0	77.9	79.8	81.2	81.2	82.5	83.5	83.9	83.5	83.4	81.1	79.7	78.2	78.5	75.7	73.0	69.6	65.8
Hydraulic Power Pack #4	43.9	64.8	46.7	69.1	77.2	75.5	80.1	79.3	84.2	81.5	84.7	85.4	83.1	83.6	80.9	79.7	78.4	76.7	75.7	73.5	79.6	66.4
Compost aeration fans	55.6	51.5	54.0	58.6	58.8	62.3			66.3	66.8	66.3	71.4	72.1	70.4	72.5	68.8	72.1	70.9	68.7	65.4	64.1	60.7
small air compressor (east)	37.7	49.2			56.3	54.2		74.0		71.7	80.7	77.0	82.8	81.9	80.8	79.8	79.0	78.3	77.1	75.8	72.5	69.7
small air compressor (west)		43.2	47.6	56.0	53.2	55.6	66.6	71.4	67.7	71.6	77.8	74.5	78.5	80.1	79.8	80.0	78.4	76.6	78.0	76.3	71.9	68.8
Aeration bldg wall primary screening area (East)	58.4	58.2			72.0	72.5	70.6	69.0	70.4	71.3	68.8	68.0	66.9	68.4	68.9	68.9	63.6	63.0	60.3	58.2	56.4	56.3
Aeration bldg wall primary screening area (west)	50.5			59.5	65.8	67.7	65.8	68.4	68.2	69.8	76.4	69.0	63.5	62.9	67.5	67.3	66.1	63.5	60.9	62.0	57.4	57.3
Attenuated Aeration Fan Discharge #1		46.7		52.8		51.2	63.4	67.1	77.7	70.7	66.8	62.0	55.9	48.8	43.0	36.0	30.9		20.7	22.5	19.6	10.7
Attenuated Aeration Fan Discharge #2		46.7		52.8		51.2	63.4	67.1	77.7	70.7	66.8	62.0	55.9	48.8	43.0	36.0	30.9		20.7	22.5	19.6	10.7
Attenuated Aeration Fan Discharge #3		52.5	63.9	57.9	57.5		63.8	70.5	79.2	68.5	66.6	62.0	54.8	47.4	43.7	35.7	31.0	29.9	22.9	19.7	14.4	
Attenuated Aeration Fan Discharge #4	56.4	47.2	48.8	63.0	55.7	62.0	62.2	67.2	70.8	63.1	63.2	66.2	53.1	45.6	41.5	33.6	28.7	26.9	21.5	20.3	19.1	11.1
Attenuated Aeration Fan Discharge #5							64.4	55.0	64.9	66.2	67.5	66.0	54.6	44.2	36.4	30.1	25.8		13.8	15.9	15.0	
Attenuated Aeration Fan Discharge #6				73.5	67.0	68.8	68.8	77.3	84.1	72.7	68.4	66.9	60.9	56.9	52.3	43.9	37.4	33.6	29.8	27.4	27.2	18.9
Proposed transition duct #1		39.7		41.8		40.1	55.2	56.9	68.3	63.1	57.9	53.8	48.1	42.2	33.8	28.7	23.5		10.1	7.9	3.6	
Proposed transition duct #2		39.7		41.8		40.1	55.2	56.9	68.3	63.1	57.9	53.8	48.1	42.2	33.8	28.7	23.5		10.1	7.9	3.6	
Proposed transition duct #3		45.5	54.9	46.8	46.4	-14.1	55.7	60.3	69.8	60.9	57.8	53.8	47.0	40.8	34.5	28.4	23.6	20.8	12.3	5.1	-1.6	
Proposed transition duct #4	50.4	40.2	39.8	52.0	44.6	50.9	54.1	56.9	61.4	55.5	54.4	58.0	45.3	39.0	32.3	26.3	21.3	17.8	10.9	5.7	3.1	
Proposed transition duct #5							56.2	44.8	55.5	58.6	58.7	57.8	46.8	37.5	27.2	22.8	18.4		3.2	1.3	-1.0	
Proposed transition duct #6				62.4	56.0	57.7	60.6	67.1	74.7	65.1	59.5	58.7	53.1	50.3	43.1	36.6	33.3	24.5	19.2	12.8	11.2	1.9
Proposed scrubber #1		38.6		40.7		39.0	54.1	55.8	67.2	62.0	56.8	52.7	46.9	41.1	32.7	27.6	22.4		9.0	6.8	2.5	
Proposed scrubber #2		38.6		40.7		39.0	54.1	55.8	67.2	62.0	56.8	52.7	46.9	41.1	32.7	27.6	22.4		9.0	6.8	2.5	
Proposed scrubber #3		44.4	53.8	45.7	45.3		54.6	59.2	68.7	59.8	56.7	52.7	45.9	39.7	33.4	27.3	22.5	19.7	11.2	4.0	-2.7	
Proposed scrubber #4	49.3	39.1	38.7	50.9	43.5	49.8	53.0	55.8	60.3	54.4	53.3	56.9	44.2	37.9	31.2	25.2	20.2	16.6	9.8	4.6	2.0	
Proposed scrubber #5							55.1	43.7	54.4	57.5	57.6	56.7	45.7	36.4	26.1	21.7	17.3		2.1	0.2	-2.1	
Proposed scrubber #6				61.3	54.9	56.6	59.5	65.9	73.6	64.0	58.4	57.6	51.9	49.2	42.0	35.5	28.9	23.4	18.1	11.7	18.5	
Modified Attenuated Aeration Fan Discharge #1		46.1		52.1		50.4	62.4	66.1	76.3	68.9	64.5	59.0	51.7	42.9	36.0	25.8	17.5		2.9			
Modified Attenuated Aeration Fan Discharge #2		46.1		52.1		50.4	62.4	66.1	76.3	68.9	64.5	59.0	51.7	42.9	36.0	25.8	17.5		2.9			
Modified Attenuated Aeration Fan Discharge #3		51.9	63.3	57.2	56.8		62.9	69.4	77.8	66.7	64.4	59.0	50.6	41.5	36.7	25.5	17.6	15.1	5.1			
Modified Attenuated Aeration Fan Discharge #4	55.8	46.6	48.2	62.4	55.0	61.3	61.3	66.1	69.4	61.3	61.0	63.2	48.9	39.8	34.5	23.4	15.4	12.1	3.7			
Modified Attenuated Aeration Fan Discharge #5							63.5	54.0	63.5	64.4	65.3	63.0	50.4	38.3	29.4	19.9	12.4					
Modified Attenuated Aeration Fan Discharge #6				72.8	66.3	68.0	67.8	76.2	82.7	70.9	66.1	63.9	56.7	51.1	45.3	33.7	24.0	18.8	12.0	3.6	0.6	

Appendix B-2 : Received Sound Pressure Levels

Table B-2 Received Sound Pressure Levels

Receiver	Scenario #	A	1/3 Octave Band Noise Levels dB(A)																				
			50 Hz	63 Hz	80 Hz	100 Hz	125 Hz	160 Hz	200 Hz	250 Hz	315 Hz	400 Hz	500 Hz	630 Hz	800 Hz	1 kHz	1.25 kHz	1.6 kHz	2 kHz	2.5 kHz	3.15 kHz	4 kHz	5 kHz	6.3 kHz
Merrifield Circle	Scenario 1	45	6.8	7.6	17.2	13.8	12.7	14.0	22.4	29.8	41.4	36.3	35.4	35.9	29.6	25.9	21.6	18.1	15.0	13.9	7.3	-0.4	-7.1	-21.9
	Scenario 2	32	6.9	7.0	15.8	14.6	12.1	13.3	15.9	20.7	29.0	22.7	20.5	19.1	16.7	14.4	13.2	10.0	8.4	10.7	2.0	-7.6	-18.5	-36.7
	Scenario 3	32	6.9	7.0	15.8	15.5	12.9	13.3	16.1	21.7	28.9	20.6	19.3	18.0	16.3	14.3	13.1	10.0	8.3	10.9	1.9	-7.7	-18.6	-36.7
Sellen Court	Scenario 1	36	7.0	6.6	13.8	11.3	10.5	12.5	17.5	22.9	33.2	28.0	26.7	26.3	21.7	18.7	15.2	11.5	8.9	10.0	1.6	-7.0	-12.6	-25.9
	Scenario 2	28	7.1	6.4	13.0	12.8	10.6	12.4	13.6	16.6	22.6	18.7	17.8	17.1	16.4	14.3	12.8	9.3	7.6	9.8	0.4	-9.8	-21.4	-40.7
	Scenario 3	27	7.6	6.2	12.9	12.6	10.7	12.8	13.1	16.6	21.5	18.0	17.3	16.7	15.9	13.8	12.4	8.8	6.9	9.1	0.1	-10.0	-21.7	-40.8
Water Corportati on	Scenario 1	61	21.6	20.9	28.6	26.8	28.8	30.1	40.3	45.3	56.9	52.8	52.7	54.3	49.0	48.7	44.5	42.6	39.2	36.8	34.3	31.3	29.3	20.2
	Scenario 2	53	21.6	20.5	27.1	37.6	33.3	35.6	36.4	43.5	50.4	40.0	37.7	37.0	32.6	30.5	31.7	31.0	30.0	32.0	27.3	23.6	18.8	12.1
	Scenario 3	52	21.4	20.5	27.7	38.2	34.0	35.5	36.2	43.1	49.6	39.0	36.8	36.8	33.4	32.0	33.1	32.4	32.2	36.3	30.4	26.9	23.5	17.8
Swan Transit Depot	Scenario 1	66	31.4	27.0	35.1	36.3	36.2	42.4	52.3	55.4	61.2	55.7	55.9	58.5	54.4	53.2	47.7	44.7	42.2	45.3	38.7	36.9	36.0	
	Scenario 2	56	31.4	26.3	33.7	40.6	37.7	43.2	46.2	48.7	50.8	41.5	40.4	40.8	41.7	41.3	39.7	37.7	37.0	44.1	36.1	32.6	31.4	
	Scenario 3	56	30.9	25.7	33.0	41.0	37.9	43.2	45.8	48.4	50.2	40.3	39.0	39.3	41.2	40.8	39.2	37.3	36.5	43.4	35.5	32.0	30.5	

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30 July 2012

Regional Resource Recovery Centre
350 Bannister Road,
Canningvale WA 6155

Proposed Application for Six Humidifier/Scrubbers – Regional Resource Recovery Facility, Canningvale.

We refer to our engagement to review noise source emissions to sensitive premises arising from the Regional Resource Recovery Facility (**RRRC**) as a result of concerns highlighted that noise generated does not comply with assigned levels. More recently we refer to SMRC's further instructions to consider the impact of noise arising from the installation of six (6) proposed humidifiers/scrubbers at the existing RRRC facility that is subject of a current development application.

In relation to our review of existing noise emissions, our measurements taken around the noise facility confirm that the main sources of plant noise were the six aeration fans, and associated discharge ducting located on the northern side of the RRRC facility.

The noise impacts were unrelated to fans associated with existing humidifiers which are located on the south side of the facility. We have separately prepared recommendations to SMRC in relation to noise generated by the existing aeration fans and ducting, which will attenuate existing plant noise emissions.

It is our opinion that the proposed scrubbers will provide some further attenuation to fan discharge noise emissions. The attenuation and predicted noise levels associated with the installation of the humidifiers/scrubbers can be subject of a separate assessment which we can provide to SMRC for consideration by officers at the City of Canning.

Yours sincerely,

Maeli Cherel

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Thursday, 26 July 2012

Mr Brendan Doherty
Director Assets & Operations
Southern Metropolitan Regional Council
Site: Regional Resource Recovery Centre (RRRC)
350 Bannister Road Canning Vale WA 6155
PO Box 1501 BOORAGOON
Western Australia 6954

WCF DEVELOPMENT APPLICATION – ADDITIONAL ODOUR INFORMATION

Dear Brendan,

Further to our meeting on Tuesday 24 July concerning the need for additional supporting information for the Development Application to the City of Canning, we now submit the following material detailing the expected benefits from the proposed biofilter humidification system.

As explained in the DA report prepared by Allerding & Associates, the failure to provide adequate humidification of the incoming air stream is the single largest reason for sub-optimal odour removal performance of biofilters. The six-vessel humidification system proposed for Biofilters 1 and 2 at the WCF plant has been designed to achieve a minimum of 85% relative humidity in the airstreams under the most difficult Perth summer weather conditions, and in doing so will greatly reduce the likelihood of biofilter performance problems across the entire year. It is now known that the adverse odour impact events that occurred in March this year were a direct result of inadequate moisture in the biofilter beds, caused by low relative humidity in the untreated airstreams, and that the previous in-duct spray system was not effective at that time. It is likely that the bulk of previous odour incidents were also a result of a similar condition.

In examining quantitative means of assessing the beneficial effects of the new humidifier units we have looked at the biofilter emission limits set by EPA in the recent licence for the WCF. These are expressed in terms of a maximum permissible odour concentration of 500 odour units (ou) from each biofilter, and as a target concentration of 350 ou. The objective of this approach is clearly to operate the biofilters to achieve as close to the target level as possible, at all times.

In accordance with standard odour impact assessment practices, we have carried out an odour dispersion modelling projection of WCF emissions at these levels, using the DEC value of 2.5 ou at the nearest sensitive receptor as the 'pass/fail' criterion. This modelling was done at the

maximum airflow rates for the biofilter systems. In practice the airflows may be lower than these levels. The results of the modelling are depicted in the odour contour plot attached to this letter.

It can be seen from the odour contours that the 350 ou contour (yellow line) lies well short of any existing residential areas and that the 500 ou contour (white line) is also generally outside the residential areas. We assume that the EPA has based these limits on similar modelling projections. We believe that previous odour nuisance events experienced in these residential areas would have coincided with exceedances of the 500 ou value and therefore projected impacts well outside the area contained within the white contour. For the purposes of the Development Application to the City of Canning we expect that the proposed humidifier units will result in treated odour levels of 350 ou or better, and certainly within the maximum permissible level of 500 ou.

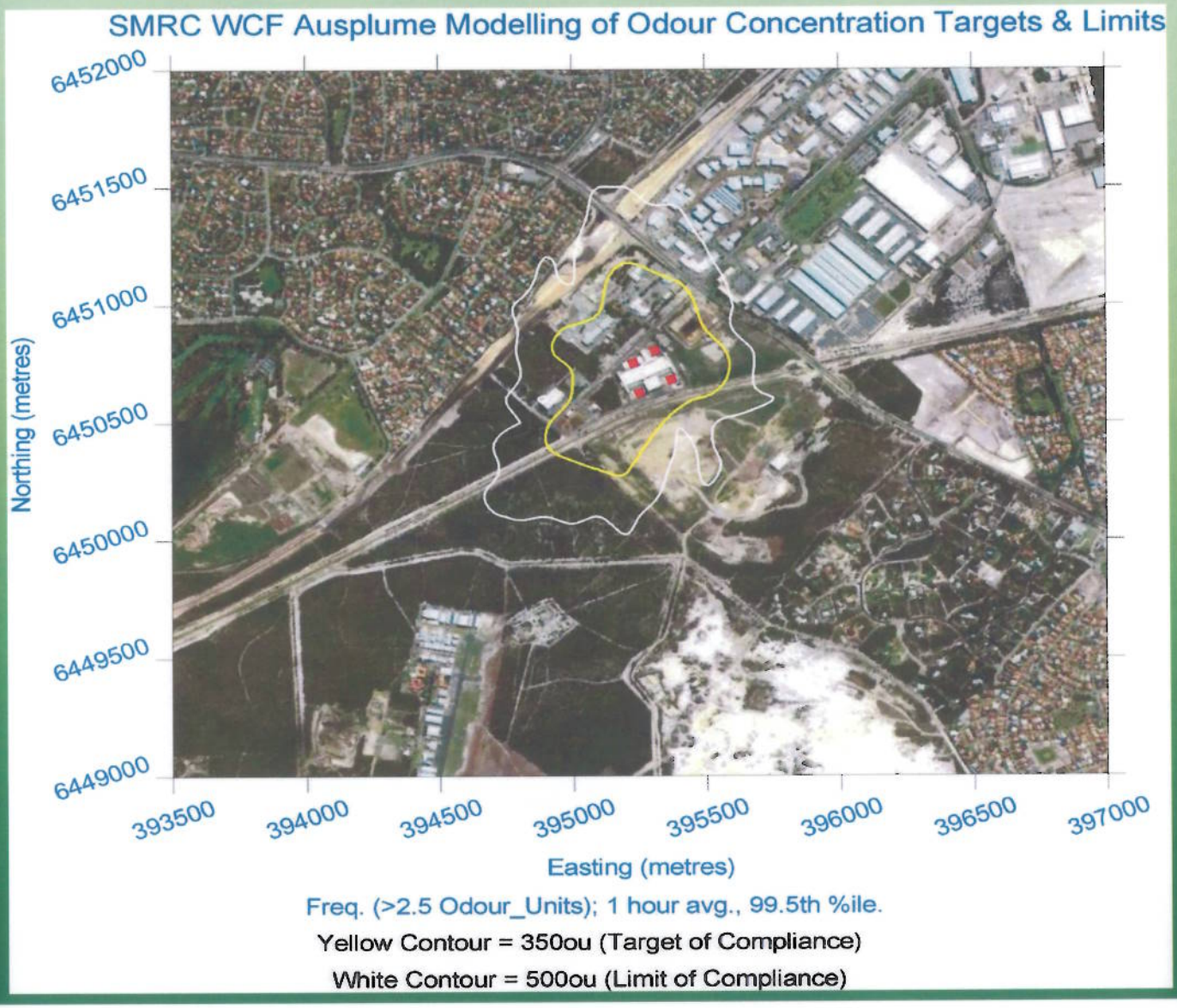
On an operational level the new units are also expected to result in improved operability and stability of the biofilter processes, further reducing the potential for short-term departures from optimal operation and performance.

I trust that this information will assist Council in appreciating the benefits of the proposed installation. Please let me know if further information is required.

Yours sincerely
The Odour Unit Pty Ltd

Terry Schulz
Managing Director.

Odour Modelling as per letter to SMRC from Terry Schulz, Managing Director of 'The Odour Unit Pty Ltd' dated 26 July 2012



ATTACHMENT 9

WESTERN AUSTRALIAN
PLANNING COMMISSION

Our Ref : 16-6577-1
Your Ref :
Enquiries : Tony Pantano (Ph 9264 7655)

CITY OF CANNING
REC'D 1 OCT 1999
DOC. I.D 716794
FILE
STREET BANNISTER RD
HOUSE No. 9
LOT No. 85 PTS 77 & 78
CM
F & CS
CS
S & RS
E & TS

07 October 1999

Chief Executive Officer
City of Canning
Locked Bag 80
WELSHPOOL WA 6106

Dear Sir/Madam

Application for Approval to Commence Development dated 23 September 1999 received 23 September 1999 .

LOT	:	85 & Pts 77 & 78
LOCATION	:	-
PLAN/DIAGRAM	:	-
VOLUME/FOLIO	:	-
LOCALITY	:	Bannister Road, Canning Vale
OWNER	:	City Of Canning 1317 Albany Highway CANNINGTON WA 6107

Under the provisions of the Metropolitan Region Scheme this application has been referred for determination by the Western Australian Planning Commission.

The application has now been considered by the Commission and the formal notice setting out the terms of the decision is attached.

A copy of this decision has been forwarded to the Local Government for information.

You are advised of the need to consult with the local government with regard to the gaining of all necessary approvals and the issuing of the requisite building licence.

This decision is issued pursuant to the provisions of the Metropolitan Region Scheme, and has been made by the Commission after due consideration of the regional planning implications of the proposal. The development must also comply with the requirements of Council's Town Planning Scheme(s) and any determination in this regard must be made by the local government. The Commission's decision, therefore, is made without prejudice to any others that may be separately required from Council.

Should you be aggrieved by this decision there is a right of appeal pursuant to the provisions of Clause 33 of the Metropolitan Region Scheme. The appeal must be submitted in accordance with Part V of the Town Planning and Development Act (as amended).

Albert Facey House, 469 Wellington Street, Perth, Western Australia 6000
Tel: (08) 9264 7777 Fax: (08) 9264 7566 TTY: (08) 9264 7535 Infoline: 1800 626 477
E-mail: corporate@planning.wa.gov.au Internet: http://www.wa.gov.au/planning

Yours faithfully

CLAIRE KRUMMENACHER
FOR SECRETARY
WESTERN AUSTRALIAN PLANNING COMMISSION

WESTERN AUSTRALIAN
PLANNING COMMISSION

Our Ref : 16-6577-1
Your Ref :
Enquiries : Tony Pantano (Ph 9264 7655)

07 October 1999

METROPOLITAN REGION SCHEME

Form 2

City of Canning

APPROVAL TO COMMENCE DEVELOPMENT

Name and Address of Owner and Land on which Development Proposed:

OWNER	:	City Of Canning 1317 Albany Highway CANNINGTON WA 6107
LOT	:	85 & Pts 77 & 78
LOCATION	:	-
PLAN/DIAGRAM	:	-
VOLUME/FOLIO	:	-
LOCALITY	:	Bannister Road, Canning Vale
APPLICATION DATE	:	23 September 1999
APPLICATION REC'D	:	23 September 1999
Development Description	:	Waste Recycling & Processing Facility

The application for approval to commence development in accordance with the plans submitted thereto is granted subject to the following condition(s):

CONDITION(S):

1. The development to be constructed, operated and managed consistent with the conditions and proponents commitments referred in and the subject of the Minister for the Environment Statement No. 000517 (Assessment No. 1221) issued on the 30 July 1999.

2. The development complying with the relevant provisions of the City of Canning Town Planning Scheme No. 40.

3. The amalgamation of Lots Pt 77 and Pt 78 and the affected portion of Lot 85 Bannister Road onto one Certificate of Title prior to the completion of the building works.

Albert Facey House, 469 Wellington Street, Perth, Western Australia 6000
Tel: (08) 9264 7777 Fax: (08) 9264 7566 TTY: (08) 9264 7535 Infoline: 1800 626 477
E-mail: corporate@planning.wa.gov.au Internet: http://www.wa.gov.au/planning

If the development of the subject of this approval is not substantially commenced within a period of two years from the date of this letter, the approval shall lapse and be of no further effect. Where an approval has so lapsed, no development shall be carried out without the further approval of the responsible authority having first been sought and obtained.

CLAIRE KRUMMENACHER
FOR SECRETARY
WESTERN AUSTRALIAN PLANNING COMMISSION

Copy 4/7/2012 10AS

Triplicate

CITY OF CANNING

Office Use Only

TOWN PLANNING SCHEME NO. 40
CITY ZONING SCHEME

Serial No:	16/6577
Date Lodged:	14 Jul 1999
House No:	
Lot No:	85,77,78
Strata Lot:	
Street:	BANNISTER ROAD

DECISION ON APPLICATION FOR COUNCIL'S DEVELOPMENT APPROVAL

Name of owner of land on which development is proposed

Surname : CITY OF CANNING

Given Names :

Address : 1317 ALBANY HIGHWAY CANNINGTON WA 6107

Council's Development Approval to the proposed development described on the application dated 14.07.99 and the accompanying plans is **GRANTED** subject to the following conditions:

DEVELOPMENT : PROJECT 2000 REGIONAL RESOURCE RECOVERY CENTRE - WASTE RECYCLING AND PROCESSING FACILITY

SITE : LOTS 85, 77, 78 BANNISTER ROAD, CANNING VALE

1. Proposed development complying with approved plans including building location and design, and any fencing, parking, driveways, landscaping and other details and amendments as shown on the site plan approved on 12.10.99.

2. Prior to the completion of building works, Lots Pt 77 and Pt 78 and the affected portion of Lot 85 Bannister Road are to be amalgamated onto one Certificate of Title.

3. An area of the site to be reserved for car parking on which can be provided to City Zoning Scheme standards 960 parking spaces and their access aisles and before the subject development is first occupied or commences operation, sufficient of the parking reserve to be paved, sealed, marked and drained and thereafter maintained to the satisfaction of the Executive Strategic and Regulatory Services to accommodate and be available at all times for all workforce, company and visitor vehicles.

4. Building setback areas from any street having no use other than car parking and access ways and landscaping treatment, unless otherwise approved by the Executive Strategic and Regulatory Services.

5. All external walls less than 21m to any street boundary to have a minimum 2m high masonry or glass facade, unless otherwise approved by the Executive Strategic and Regulatory Services.

6. Landscaping, as outlined on approved plan, and a minimum of one shade tree per 6 parking bays, to be established within 90 days of the subject development first becoming occupied or commencing operations, and thereafter maintained. Landscaping to be protected by kerbing or similar barrier.

7. Development to be connected to the Minister's sewer.

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

9. Compliance with all City Health and Building Department requirements, including the Building Code of Australia.

10. The submission of plans incorporating all conditions of this Approval, specifications and structural drawings, and the obtaining of a Building Licence before work commences.

11. The development is to be constructed, operated and managed consistent with the conditions and proponents commitments referred in and the subject of the Minister for the Environment Statement No 000517 (Assessment No 1221) issued on the 30.07.99.

Further enquiries to Nicole Crook by telephoning 9231 0742.

Note:

a) Should the applicant be aggrieved by this decision a right of review and/or appeal may exist under the City Zoning Scheme.

b) Where the determination of the application involves the exercise of a discretionary power under the Scheme, the applicant or the owner may, within 60 days of the determination, appeal in accordance with the relevant Rules and Regulations made pursuant to the Town Planning and Development Act.

c) This application has been determined under delegated authority by an officer of the Council, and the applicant may therefore within 28 days of being notified of the decision, request in writing, reconsideration of the decision by full Council.

d) The proposed development must comply with the conditions imposed on the Western Australian Planning Commission's approval to commence development issued on 7.10.99.

e) In regard to Condition No 1, the proponent is to ensure that clearing of the site is minimised and efforts are made to protect vegetation wherever possible.

f) In regard to Condition No 3, those areas of car parking reserve, as shown on the submitted plans, are to be retained as remnant vegetation until such time as these areas are required for parking needs.

g) In regard to Condition No 9, the City's Building Services advise that a full assessment of various fire safety issued will have to be made and finalised prior to the issue of a building license. It is recommended that the proponent organise liaison between the design team, the Fire and Emergency Services Authority and Council" Building Services to ensure all requirements in respect to fire safety are fulfilled.

h) This development must comply with the access and facilities for people with disabilities provisions of the Building Code of Australia (BCA96). Please note however, that compliance with the Code may not discharge an owner's or developer's liability under the Commonwealth Disability Discrimination Act (DDA). The Human Rights and Equal Opportunities Commission has developed guidelines to assist owners and developers in designing developments which may satisfy the requirements of the DDA. Copies of the guidelines may be obtained from the Disability Services Commission, 53 Ord Street, West Perth, telephone 9426 9200.

i) The City's Engineering Department advises that the maximum width of Industrial crossovers is eleven (11) metres. Crossovers to be designed and constructed in accordance with the City's Standards and Specification, refer plan C1633-1. Construction materials include concrete or asphalt.

j) The proponent is requested to advise the Department of Transport of the program of commencement

of operations for the proposed development and the phasing out of the old land fill site, to enable this Department to have regard to the proposed development in any transport planning for the region.

This Development Approval is valid for a period of 24 months only. If the development the subject of this approval is not substantially commenced within this period, a fresh approval must be obtained before commencing or continuing with development.

Date : 12 October 99

Signed : _____

Executive Strategic and Regulatory Services/
City Planner

Government of **Western Australia**
Development Assessment Panels

Form 1 - Responsible Authority Report

(Regulation 12)

Application Details:	Refurbishment and Expansion of Bassendean Village Shopping Centre from 7,688m^2 to 9,845m^2 GFA Plus new tavern and gymnasium land uses
Property Location:	Lot 2 West Road, Bassendean
DAP Name:	Metro Central JDAP
Applicant:	Hames Sharley
Owner:	Hawaiian Investments
LG Reference:	DABC/BDVAPPS/2012-076
Responsible Authority:	Town of Bassendean
Authorising Officer:	Michael Whitbread; Senior Planning Officer
Application No and File No:	DP/12/00535 (DA 2012-076)
Report Date:	20 August 2012
Application Receipt Date:	23 April 2012
Application Process Days:	65 working days.
Attachment(s):	42307 (SD 001, SD 002 SD 100, SD 110, SD 111, SD 201 `B', SD 202, SD 220, & SD 400), dated 23 April 2012.

Recommendation:

That the Metro Central JDAP resolves to:

1. **Approve** DAP Application reference DP/12/00535 and accompanying plans 42307 (SD 001, SD 002 SD 100, SD 110, SD 111, SD 201 `B', SD 202, SD 220, & SD 400), dated 23 April 2012 in accordance with Clause 10.3 of the Town of Bassendean Local Planning Scheme No.10, subject to the following conditions:

    a) In the event the traffic volumes exceed those stated within the Traffic Report submitted by Jonathon Riley Consulting dated the 30 July 2012 causing traffic safety and /or efficiency issues with Guildford Road-West Road -Lord Street traffic signals, the developers shall at their expense carry out suitable counter measures to the satisfaction of main Roads WA and the Town of Bassendean within 12 months of written notification to the landowner.

    b) Prior to the issue of a section 40 certificate under the Liquor Licensing Act, the applicant shall submit to the satisfaction of the Council a Tavern Management Plan which will address the following;

        i) Hours of operation
        ii) Security
        iii) Noise attenuation and mitigation
        iv) Complaint handling procedure

c) Prior to the issue of a building permit the applicant shall lodge a Construction Management Plan to the satisfaction of the Town of Bassendean, which provides details of the following;

   i) Estimated timeline and phasing of construction,
   ii) Dust control measures.
   iii) Noise control measures
   iv) Access points for heavy vehicles during demolition and construction.
   v) 24 hours contact details of staff available to deal with either an emergency situation or to respond to complaints.

d) Prior to the issue of a building permit the applicant shall submit plans for the pedestrian treatment adjacent to the Old Perth Road to improve pedestrian access to the adjacent commercial area.

e) The Old Perth Road modifications to improve pedestrian access shall be completed to the satisfaction of the Town of Bassendean prior to the occupation of the Bassendean Village Shopping Centre additions.

f) The intersection of Whitfield Street north and Old Perth Road, and the associated central traffic island, be modified to permit articulated trucks to exit eastwards on to Old Perth Road whilst remaining in the east bound lane and without damaging the traffic island(s).

g) The traffic island and filter lanes on West Road made redundant by the closing of the crossover to the site indicated on the revised and approved plans shall be modified to the satisfaction of the Town of Bassendean.

h) The provision of bicycles parking facilities for the shopping centre clients plus and change rooms/showers and storage facilities for members of staff of the shopping centre and tavern details of which are to be provided prior to the issue of a building permit to the satisfaction of the Town of Bassendean.

i) The submission of a landscaping plan which details the extant vegetation to be retained and/or removed, together with details of new and/or replacement planting to the satisfaction of the Town of Bassendean prior to the issue of a building permit.

j) The approved landscaping plan shall be implemented to the satisfaction of the Town of Bassendean prior to the occupation of the proposed Bassendean Shopping Centre additions.

k) Prior to the issue of a building permit the applicant shall pay to the Town of Bassendean the 2% contribution of the building construction costs as prescribed under LPP NO. 1 Town Centre Area Strategy and Guidelines for Bassendean.

l) The provision of 453 constructed drained and line marked on-site car parking bays to the satisfaction of the Town of Bassendean prior to the occupation of the shopping centre additions.

m) Any signage to the site in addition to that indicated in the plans shall be the subject of a separate planning application.

2. Advice Notes;

a) The applicant is advised in relation to condition K above that the Town can consider on site art works subject to Council approval and demonstration of equivalent value and public access.

Background:

Insert Property Address:	Lot 2 (No.2) West Road, Bassendean
Insert Zoning MRS:	Urban
LPS:	Town Centre
Insert Use Class:	'P 'D' & 'A'
Insert Strategy/Policy:	Town Centre Area Strategy
Insert Development Scheme:	N/A
Insert Lot Size:	24,166m^2
Insert Existing Land Uses:	Shop & Take Away Food (Red Rooster)
Value of Development:	19.4 million dollars

The subject site was developed in the 1976 as a 'big box' local shopping centre. Apart from the demolition of the former petrol station and the addition of detached fast food outlets. With the exception of internal shop fit outs and routine maintenance very little has changed since that time.

Council resolved at its Ordinary meeting held in May 2011 to require that all development assessment panel applications be subject to a report to Council in order that Council can make an alternative recommendation to the Metropolitan Centre Joint Assessment Panel.

Council at its meeting of the 26 June 2012 endorsed the Senior Planning Officer's report and recommendation to the Metropolitan Central Joint Development Assessment Panel for the proposed extensions to Bassendean Village Shopping Centre including a New Tavern at Lot 2 West Road, Bassendean.

Details: Outline of Development Application

The application proposes an increase in the floor area of the Bassendean Village Shopping Centre from 7,688m^2 to 9,845m^2, comprising the following increased floor areas and additional land-uses;

1. Extant Coles supermarket being increased in floor area from 2973m^2 to 4035m^2 (1062m^2).

2. Additional retail floor area (761m^2)

3. New Tavern with a floor area of 554m^2. (net 224mm^2 bar and seating area).

4. New Gymnasium of 400m^2

5. New Kiosk of 125m^2

The application proposes a significant relaxation in on-site car parking provision from the number per 100m^2 required under the Local Planning Scheme No.10 to that recommended under State Planning Policy 4.2 (Activity Centres). At the same time, the application not only proposes to increase the retail floor area of the Bassendean Village Shopping Centre, but also provides two additional land-uses in the form of a Tavern and Gymnasium.

It is proposed to assess the retail element of the application separately from the Tavern and Gymnasium land uses, in order to gain a better understanding of the planning issues involved.

Legislation

Local Planning Scheme No. 10

Clause 4.2.3 - Town Centre Zone
Clause 5.7.6 - Bicycle Facilities
Clause 5.7.2.4 - Car parking
Clause 5.5 - Variations to Site and Development Standards and Requirements.

State Government Policies

Directions 2031 (Bassendean Town Centre recognised as District Centre).

State Planning Policy 4.2 Activity Centres for Perth and Peel (Bassendean in the Central sub region). Section 7.4 is particularly relevant.

Local Policies

Local Planning Policy No 1 - Town Centre Area Strategy and Guidelines (2008)
Local Planning Policy No 2 - Percent for Art Policy

Consultation:

Public Consultation

The proposed Tavern is classified as an `A' land use under the Zoning Table (Table 1) of the Local Planning Scheme No.10. Under Clause 4.3 `Zoning Table" an `A " land-use is not permitted unless the Local Government has exercised its discretion by granting planning approval after giving special notice in accordance with clause 9.4 of the Scheme. This clause in the Local Planning Scheme requires the Town to advertise an 'A' land use for 14 days by either letters to affected residents, on-site signs and a notification on the local newspaper. Due to the relative significance of a Tavern land-use in the Town, all three means of advertising were used in this instance.

The proposed Tavern was advertised by way of two signs on site, (West Road and Old Perth Road) in accordance with Council specifications, letters to 101 landowners considered to be directly affected by the proposed tavern and a notice published in the local newspaper (Eastern Reporter).

Written Submissions

Below is a table of the written submissions received (this included two late submissions received several weeks after advertising closed).

Submissions Received	Objection	Support	Qualified Comments
20	16	2	2

As the above table indicates, of the 18 objections received, two were 'qualified' as they indicated they would have no objection to the Tavern subject to the following:

- The Tavern could demonstrate to be family friendly.

- A Tavern in this location would not prevent the Swan Districts Football Club from moving its liquor licence to a different location within Bassendean Oval when this facility is redeveloped.

In regard to the letters supporting the Tavern, both agreed that there should be a choice of licensed venues in the Town. Those submissions supporting the application were from two households located within 200-metres of the proposed Tavern site.

Of the 14 objections received, 7 were from residents located within a 200 metre radius of the proposed Tavern, with the remainder from residents residing 2 or more kilometres away from the site. Interestingly, one of the submissions included an objection from the owner of another licensed premises located several kilometres from the site. The distance of the residents from the site was estimated using the addresses provided and the Town's GIS system.

The concerns raised in all of the letters received objecting to the proposal were:

- There being sufficient liquor outlets in the form of a hotel and liquor stores existing in the Town

- There are other licensed premises in the general area, such as the Ambassador Tavern and Woodbridge Hotel in Guildford, as well as several bottle shops.

- A tavern land use in the area would reduce land values.

- A tavern would encourage anti-social behaviour in the locality.

<u>Petition</u>

Two petitions were received in response to advertising of the proposed Tavern land-use.

The first petition calls for the Council to reject the proposal on the grounds that it would:

'*…negatively impact upon the amenity of the local area'*.

An addendum to the petition also requested that traffic and parking issues also be considered as a matter of urgency.

This petition is signed by 98 persons, 71 of which are residents of Bassendean, Ashfield and Eden Hill. In terms of proximity, only 14 persons who signed the petition lived within a 1.5 kilometres radius of the proposed tavern site.

The second petition used identical phrasing to the first petition, and claimed that the tavern would have a negative impact upon the amenity of the local area as well as create traffic issues. Further this petition added that:

*"The impact of the 550m^2 tavern should be sought from the Commissioner of Police as increased police presence may be required in the Town should a **tavern of this size** be approved by Council." (*bolding by petitioners)

This second petition was signed by 47 persons, 22 of which are residents of Bassendean. In terms of proximity, only 9 persons who signed the petition lived within 1.5 kilometres of the proposed tavern site.

The concerns raised by residents and a number of visitors to the Town in the petitions submitted, however, are not without foundation. Anti-social behaviour particularly associated with Northbridge night clubs, receive media scrutiny and should be of concern to Council and the community generally.

However, there are licensed premises within the metropolitan area that operate successfully and without noteworthy incidents, which can and have provided a net community benefit. The applicant has been made aware of the issues raised and their written response is provided below under the tavern land-use section of this report.

Consultation with other Agencies or Consultants

The increase in the size of the shopping centre and the introduction of a tavern will inevitably result in increase in traffic numbers overall and in frequency to the subject site.

The traffic study undertaken by the applicant confirmed this assumption in a detailed report submitted with the application and which recommended changes to the signal timing at Guildford Road and West Road/Lord Street intersection.

Bassendean Village Shopping Centre adjoins this Regional Road, and Main Roads WA was consulted in relation to the likely impacts of increased traffic on this major intersection adjoining the shopping centre. Main Roads WA engineers did not agree with the data used in the study and some of the assumptions made in the modelling. Following further consultation between Main Roads WA staff and the applicant's traffic engineer it was concluded that subject to the floor space currently occupied by Woolworths not being taken up by another supermarket, and that two of the three extant crossovers to West Road are retained (originally only one of the three was to be retained) the additional traffic generated should not create un-acceptable issues at Guildford Road/West Road and Lord Street intersection.

Main Roads WA also placed a caveat on their endorsement of the revised traffic study in requesting that a condition be placed on the development approval requiring in the event of the development causing traffic safety and /or efficiency issues with

Guildford Road-West Road -Lord Street traffic signals, the developers shall at their expense carry out suitable counter measures. This recommendation has been included as a condition of approval in the recommendation section of the report.

Department of Environment and Conservation: Contaminated Site;

The south east corner of Lot 2 was previously developed as a Caltex Service Station between 1979 and 1996. The petrol station was decommissioned in 1996. This site was classified under the Contaminated Sites Act 2003 as `*Possibly Contaminated-Further Investigation Required'* as there was evidence of some minor leakage. This contamination was predicted under modelling conditions to naturally degrade and disperse. Recent monitoring wells replaced in 2011 demonstrated that in fact the site had become free of contaminates. In a letter to Hawaiian Investments Pty Ltd, dated 27 April 2012, the Department of Environment and Conservation have reclassified the site to '*Decontaminated*'.

This revised classification of the site by the DEC has resulted in the withdrawal of the caveat on the title restricting development.

Planning assessment:

Tavern Land-Use

The proposed addition of a tavern to the Bassendean Village Shopping Centre solicited considerable response during the public consultation phase. The grounds of objection to the Tavern are primarily in regard to anti-social behaviour which commonly associated with licensed premises.

The majority of the grounds of objection to the tavern are based upon experience of licensed premises, both in Bassendean and at or near other licensed premises. It is also stated that the Town has sufficient licensed premises in the form of the Bassendean Hotel and several liquor stores in the locality and on that basis; there is no need for the provision of additional liquor outlets in the Town.

On an entirely different note, 2 submissions commented that it is not necessarily the presence of the Tavern itself is an issue, but rather how it is managed. On this critical point, submitters noted hours of operation and noise levels (through limits to amplified music or its prohibition), as important aspects in the assessment of the proposal, as well as security and responsible management practices.

The applicant was advised of the issues raised in submissions received during the advertising period and the following points were made in a written response to the Town.

It is noteworthy that the landowner is a property management specialist and will be leasing out the tavern (to a licensee under the Liquor Act,) as with any other tenancy in the Bassendean Village Shopping Centre. Therefore, the comments in italics immediately below are understandably general in nature. However, under the Local Planning Scheme, it is possible to restrict the hours of operation of any business and to expect that Council be able to participate in, and have influence in any management plans for the Tavern land use given its potential to affect the general amenity of the area.

Nature of Use

Our clients, Hawaiian, are the operators of the Bassendean Village Shopping Centre and therefore have a lot at stake in terms of the amenity and safety of the subject land and surrounds. As a result, a family friendly, bistro type of use is definitely the preferred use for the Tavern' site. We would like to promote a venue that is a point of difference from the existing Hotel, has a family friendly feel and environment, pitched at the local community and includes a strong focus on food that is much more than somewhere to drink. We envisage the site being a comfortable and inviting space that all ages can enjoy. We feel that the description of "Tavern", necessitated by the use class within the scheme does conjure up images of the old 'beer barn', whereas in reality our proposal is more akin to a bistro type use with a focus on food and families and not just consumption of alcohol.

The new redevelopment is aimed at creating and encouraging community involvement. As described in the submission the introduction of Community herb gardens, meeting room space, activity sheds and a new children's internal play area, all aim to engage the local community with the Bassendean Shopping Centre. It would be counterproductive and commercially risky for Hawaiian to not ensure that the operator of the tavern produced an establishment that was complimentary to this ethos.

Operations

We do not see the tavern as being a late night venue. At the end of the project, our client will have invested a significant amount of time and money in creating the new centre and do not want to see it impacted by anti-social behaviour and discouraging of Local clientele.

As of writing, without an operator we are unable to state categorically the hours of operation however we are confident that the desire to have a family friendly, community feel will be aligned with that of any future operator.

In terms of strategies to assist with antisocial behaviour, the design and layout of the centre includes a great deal of lighting, landscaping and viewpoints in accordance with CPTED (Crime Prevention Through Environmental Design*) principles in order to deter this type of activity. The area will be well serviced by CCTV and as required by Liquor Licensing, security at the tavern will be required from time to time. We are also likely to have a security presence at the centre in the evenings.*

In terms of who will own and operate the tavern, our client has advised that as they are unable to lease the premises until a Development Approval has been obtained, we currently do not have these details. Any licensee will be required to comply with the State Government regulations for the responsible service of alcohol

Finally, in terms of a management strategy, we can advise that Hawaiian will have a management plan in place for all tenancies that trade beyond core trading hours. The management strategy can be required as a condition in the event of a development approval and will cover issues such as rubbish disposal, furniture and noise mitigation methods. Furthermore, noise management will be required to be addressed at the building licence stage.

What will be the effects on day care and schools in the area?

Detailed consideration of these perceived impacts would be addressed the Liquor Licensing Application to the Department of Racing, Gaming and Liquor, which is a statutory process that can only be applied for in the event of a Development Approval from the local authority.

Will the proposed Tavern compete with other uses?

Although competition and need for uses are not valid planning considerations, we strongly contend that the proposed use will be providing an offer that the area does not currently have. The liquor licensing application will also examine catchment areas in detail.

Will the proposed Tavern devalue the housing in the area?

Although the effect on property values is not a relevant planning consideration, we would contend that introducing a commercial use onto an existing commercial site will not have an adverse impact. Instead it will provide a further range of uses for the local residents to experience and enjoy as part of a family friendly village hub.

The proposed development will provide an overall positive impact to the amenity of the area and it should be noted that the tavern should not be considered in isolation. The proposed tavern is being developed as part of an overall strategy for the centre with a focus on creating and expanding the evening offer at Bassendean. Currently there is a Fish n' Chip shop. Red Rooster. Subway and Gloria Jeans Cafe and our clients wish to add a tavern, cafe, pizza shop and restaurant in support of this vibrancy.

The tavern is part of the overall mix, representing simply another venue at the centre, not the only venue at the centre. This mix of uses and choices, along with the upgrades to the centre itself and expansion of Coles, fits in strongly with that strategy and gives the residents of Bassendean more choice and improved amenity.

While some comparisons with other licensed premises in the Town is to a degree reasonable, it also noteworthy that the existing Bassendean Hotel, designed in 1929, has a traditional layout more suited to after work drinks and does not necessarily cater for sit down food service such as a bistro due to the buildings limitations.

On the criteria of design alone, the layout of the proposed tavern would provide a form of licensed facility that is not being catered for in the Town at the moment and providing there are no parking or amenity issues; there is no objection to the Tavern on planning grounds. This would provide additional economic activity within the Town and assist in making this retail east end of the Town a place of higher intensity mixed uses, which is the preferred development option outlined under Element 7.4 ‘Guidelines’ of Council’s Town Centre Area Strategy.

The applicant is correct in the assertion that commercial competition and the need for land uses in a locality are not valid planning considerations.

Old Perth Road/West Road Traffic Treatments

Main Roads have commented on this aspect of the proposal, and based on revised traffic report provided by Jonathon Riley on the 30 July 2012

The re-development and additions to the Bassendean Village Shopping Centre and the introduction of a tavern facility creates an opportunity for planning gain in terms of upgrading works to two road intersections adjoining the shopping centre site.

Opposite the shopping centre on the Old Perth Road and West Road intersection are two banks and two-real estate agencies as well as offices. The extant road treatment consists of a central traffic island, without a dedicated pedestrian island. Given the proximity of the West Road/Old Perth Road roundabout, the interface of traffic and pedestrians in the current arrangement is less than ideal due to the often-continuous flow of traffic from the roundabout, and the fact that sightline distances are restricted due to the trees in the centre island.

The proposed redevelopment of the Bassendean Village Shopping Centre would increase traffic in and around this area, and on this basis it is recommended in accordance with Clause of the Local Planning Scheme No. 10, a condition be imposed on any approval granted requiring the design and installation of a pedestrian friendly crossing between the redeveloped Bassendean Village Shopping Centre and the small commercial offices on the opposite corner of Old Perth Road and West Road.

The plan originally submitted indicates that two of the existing three crossovers on West Road will be closed, with the exception of the main entrance nearest to Guildford Road remaining to direct cars to the upper deck and to at-grade car parking bays.

A reassessment of the number of access points (crossovers) to West road was requested by Main Road WA as some of the assumptions made in the initial traffic and parking report where based signal timing information that was inaccurate. As a result of this re-assessment it has been recommended that rather close two out of the three access and egress points along West Road that only one now be closed. While this would result in a loss of potentially four car-parking bays on site, it is a minimal trade off for improved access and egress from the site as well as improved internal circulation within the car parking areas.

Whitfield Street and Old Perth Road Junction

The Bassendean Village Shopping Centre has its delivery and loading bays located on its western edge with access from Whitfield Street. Delivery trucks can enter from Guildford Road but must exist onto Old Perth Road to pass through the Town.

The angle of Whitfield Street is obtuse in relation to Old Perth Road and articulated trucks find it difficult to exist east along Old Perth Road to re enter Guildford Road via West Road.

Due to the current design of the intersection of Old Perth Road (north) and Whitfield Street, as well as the presence of central traffic islands in Old Perth Road, it is difficult for large trucks to manoeuvre successfully to exit Whitfield Street eastbound and therefore large articulated trucks are forced to navigate through the Town Centre to re-enter Guildford Road. It is recommended that this intersection be modified at the applicants cost to remedy this situation.

<u>Car parking</u>

This aspect of the proposal is perhaps the most critical in terms of the planning assessment of the development and therefore the likely impacts to adjoining residential streets, traffic and amenity generally in the locality. Where variations to development standards are being sought, there is always the risk that the site will become over-developed and create issues off-site. In other words, cost shifting the impacts of poorly planned development to the community generally, and to neighbours in particular. The overriding question here is will this be the case with the proposed relaxation to car parking sought by the applicant in this instance.

From the proponents viewpoint, the success of the redevelopment of the Bassendean Village Shopping Centre will depend upon a number of factors, but most importantly achieving a balance between utilising the site for retail floor space, in order to attract additional customers, and to provide sufficient on site parking to cater for the hoped for increase in client visits.

Under the Local Planning Scheme, retail land uses requires 8 bays per 100m^2. Together with the gymnasium and tavern component of the application, the overall development would require a total of 815 bays in order to comply fully with Local Planning Scheme requirements.

The following table outlines in an abbreviated form the car parking figures supplied by the applicant and verified by planning staff.

Land use	LPS 10 bays req.	Activity Centre Recommendation bays req.	Provided	Shortfall
Tavern	93	-	Nil	-93
Shops (all retail)	693	433	453	-240
Gymnasium	20	-		-20
Fast Food	10	-	10	
Totals	816		453	-353*

The current proposal will significantly increase in both the retail floor area and the range of land uses in the Centre. However, this is in part compensated in a revised parking layout that would result in 95 more on site car bays than the existing 358 at Bassendean Village Shopping Centre to a total of 453 bays.

However, with the additional parking requirements generated by the additional retail floor space, tavern and gymnasium, the shortfall under the Local Planning Scheme would appear as significant at 353 bays. However, the 8 bays per 100m^2 of retail floor space is a formula based on traditional shopping hours of 9-5 weekdays and 9-12 on Saturdays. Such concentrated hours during that era necessitated much greater parking requirements.

The applicant's submission utilises the parking requirements of the Activity Centres for Perth and Peel (SPP 4.2) which recommend 4-5 bays per 100m^2 for shop is based on a range of parking studies by the Western Australian Planning of Commission and reflects in part the spread of shopping hours into evenings and weekends.

Currently, the shopping centre provides 358 bays (or 6 bays per 100m^2) but would require 433 under standard parking requirements of the Local Planning Scheme. The applicant claims the extant shortfall in parking is not detrimental to the operation of the centre, and has in fact been able to demonstrate in a comprehensive traffic study that the car parking area at the Bassendean Village Shopping Centre is currently under utilised during recognised peak shopping periods.

Planning staff have verified these claims, as being correct as well as viewing the site during a home game to Swan Districts WAFL Club at the adjacent Bassendean Oval during the football season at 12:00pm and 2:00pm.

Although the applicant is not responsible for providing parking for patrons of Bassendean Oval, it is fair to assume that this sporting event would attract additional people to the area who may well take advantage of the opportunity to either shop or simply use the parking area. It was found that there were approximately 70 on-site bays vacant at these times, together with at least 13 road bays on Whitfield Street and Old Perth Road available. It was also revealed that at least 28 bays within the shopping centre where utilised by football patrons. This figure was arrived at by the number of parking infringements issued by the Town's Rangers for vehicle staying over two hours in the time restricted bays. This is a regular occurrence which always coincides with the weekends of Swan Districts' home games at Bassendean Oval.

It is assessed on this basis and the data provided (and by observation) that a reduction in parking to 5 bays per 100m^2 is considered reasonable, as this accords with the Activity Centres Policy SPP4.2 in place of the 8 per 100m^2 required under the Local Planning Scheme No. 10. (If this variation is supported it would be considered prudent in term of equity to amended the Local Planning Scheme No. 10 to reflect the changing parking demands in retail due to extended trading hours.)

For the retail component of the proposed redevelopment the relaxation proposed from 693 bays to 453 bays (a reduction of 240 bays) is supported.

The likely impact of the proposed tavern and gymnasium on parking demand is predicated on the assumption that the peak period when these land-uses are most in demand are different from the peak periods of the retail portion of the Bassendean Village Shopping Centre. So what then would be the effect on car parking on the complex as a whole?

The reduction from the Scheme provision by 240 (from the 815 required overall) for the retail component to 453 bays equates to a shortfall for the Tavern and Gymnasium is a total of 104 bays. The applicant's proposal that on-site parking provision be based on a composite parking arrangement is considered sensible. Given that the peak periods of each land use would be at different times during the day, such an approach is good use of land.

Under Clause 5.7.2.4 of Local Planning Scheme No. 10, it is possible, subject to the submission of sufficient evidence, that no conflict would occur and that the land uses that would share the parking facilities would have demonstrably different principle hours of business.

It also requires that the shared bays be easily accessible. The proposal therefore appears to satisfy the criteria under the Scheme for the joint use of parking facilities and this aspect of the application is supported on planning grounds.

From a planning perspective, there are two key factors affecting the extant shopping centre. One is obviously the amount of land available for redevelopment that is limited and the other almost equally as obvious, is the constraint created by the existing and somewhat dated building which is to form the core of the additions proposed. As opposed to other large regional shopping centres, such as Karrinyup and Booragoon, where large seasonal fluctuation occurs in the parking demand due to Christmas shopping at the major department stores, Bassendean Village Shopping Centre is only ever going to be a district centre in a regional context dominated by the Morley Galleria and Midland Gate Shopping Centre.

It is assessed on the basis of the traffic study submitted and comparison with other mixed use sites with composite parking arrangements, (Floreat Forum and Kardinya) that the parking relaxation requested in considered acceptable and would not be detrimental to the amenity of the area.

SPP4.2 Activity Centres Perth & Peel

State Planning Policy 4.2 (Activity Centres for Perth and Peel section 5.6) O*ut of centre development* encourages entertainment and recreational facilities which are like to generate numerous vehicles trips and attract large numbers of people to be located in mixed business zones. Furthermore under section 5.2.1(4) *'Diversity and intensity of Activity'* supports hospitality and recreational land-uses (such a gymnasiums and taverns) that generate out of hours activities and takes advantage of shared parking arrangements. The proposal submitted is assessed as meeting the criteria and the development proposed would make a significant contribution towards the east end of the Town Centre moving towards being a mixed use activity centre.

Townscape & Urban Design

The Activity Centres Policy 4.2 considers the impact of development in activity centres in relation the public realm and under the Section 5.4 'Urban Form' recommends that building should address streets to '*…promote vitality and encourage natural surveillance'.*

The application proposes alterations to an existing 1970's style suburban shopping centre and the options for a main street interface are in this context limited. However, the new land uses proposed, and a portion of the additional retail floor space have been separated out from the shopping centre and will address both West Road and Old Perth Road, where currently there are either blank walls or the shop fronts are setback a 50-metres from the street alignments. The proposed tavern, gymnasium, and retail areas will be substantially closer to the street and have active frontages to these public roads.

The proposal represents a significant improvement to the townscape of the east end of the Bassendean Town Centre as far as practicable meets the urban form guidelines of the SPP 4.2 - Activity Centres Perth & Peel.

Conclusion:

The application has been assessed in respect to the Local Planning Scheme No. 10 and its policies as well as SPP 4.2 Activity Centres for Perth and Peel.

The reduction proposed in car parking, based on the different land uses and their different hours of peak use is a sensible use of land, and one that is far more intense that any other development within Bassendean. The Local Planning Scheme requirements are based on retail land uses having short but intense shopping hours, and does not account for both current shopping hours and the proposal for further relaxation to trading hours. The extant shopping centre is internally focused in a sea of car-bays and the upgrading proposed will lead to an activation of the site to the public realm, and therefore result in an improved urban form.

The additional land-uses proposed (tavern and gymnasium) have direct local benefits to residents as well as the Townscape of Bassendean.

It is important however, that the tavern is managed in a responsible manner and given the landowner's history with other metropolitan shopping sites incorporating licensed premises it would be difficult to see the tavern becoming a source of anti-social behaviour or being detrimental to the amenity of the area. However, conditions have been recommended to provide some input from Council in regard to approving a management plan for the tavern.

The increase in parking demand and traffic frequency associated with the proposed redevelopment will be in part off set by increased on-site parking along with extended shopping hours. Main Roads WA, have from a traffic perspective, given tacit approval to the redevelopment of the site with the proviso that any issues arising from sites increase in floor area remain the responsibility of the landowner in the event the major intersection of West Road, Guildford Road and Lord Street are adversely affected. A condition of approval dealing with such an eventuality has been recommended for inclusion in any approval granted.

The proposed re-development is a well considered set of land uses and physical upgrades and additions to the Bassendean Shopping Centre that would fit the definition of an activity centre. The application was assessed on this basis and a conditional approval recommended.

PLANS RECEIVED 23 APRIL 2012

AERIAL VIEW OF PROPOSED DEVELOPMENT FROM CNR GUILDFORD ROAD AND WEST ROAD

AERIAL VIEW OF NEW EDGE OF LEVEL CAR PARKING DECK SHOWING NEW ALFRESCO DINING ZONE WITH 2-LEVEL STREET ADDRESS TO WEST ROAD (OPPOSITE BASSENDEAN OVAL)

VIEW OF REDEVELOPED LEVEL CAR PARK AND SHOPFRONT INTERFACE ON EXISTING EASTERN WALKWAY LOOKING SOUTH

VIEW OF REDEVELOPED LEVEL CAR PARK AREA FROM NEW ALFRESCO DINING AREA ADJACENT WEST ROAD

Proposed 3D Perspectives

BASSENDEAN SHOPPING VILLAGE REDEVELOPMENT

0 10 20 50 100mm

Scale: @ A1

Date: 04/18/12

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walkway trellis concept over beer garden / alfresco


walkway framing concept - Orion QLD

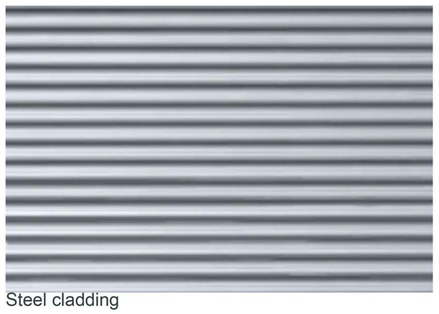

Steel framed creeper structure concept


treatment of existing eastern covered awning

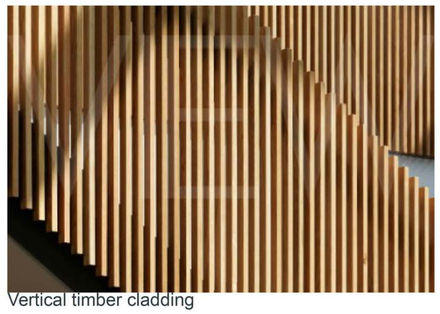

Star Jasmine - Trachelospermum jasminoides

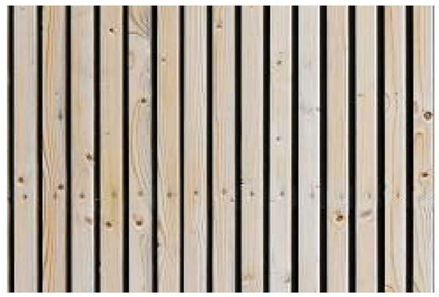

Boston ivy - Parthenocissus tricuspidata


Community garden


Steel cladding

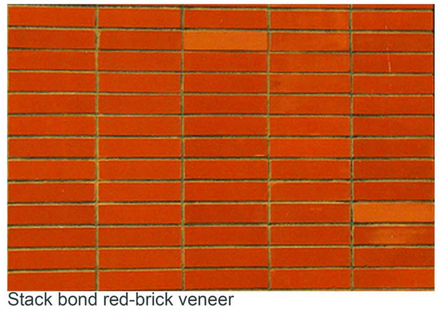

Horizontal weatherboard cladding


Vertical timber cladding

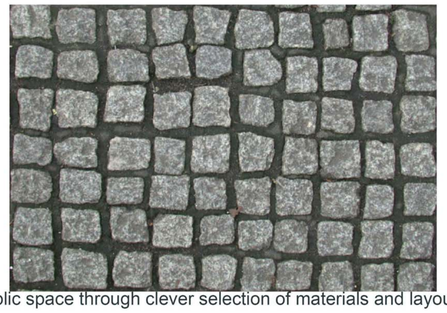



Granite floor finish - dark


Granite floor finish - light


Stack bond red-brick veneer


landscape planter detail




paving design to create interest and add vibrancy to public space through clever selection of materials and layout design

42307 BASSENDEAN SHOPPING CENTRE REDEVELOPMENENT

CONCEPT MATERIALS PALETTE

Proposed Materials Palette

BASSENDEAN SHOPPING VILLAGE REDEVELOPMENT

0 10 20 50 100mm

Scale: @ A1

Date: 04/18/12

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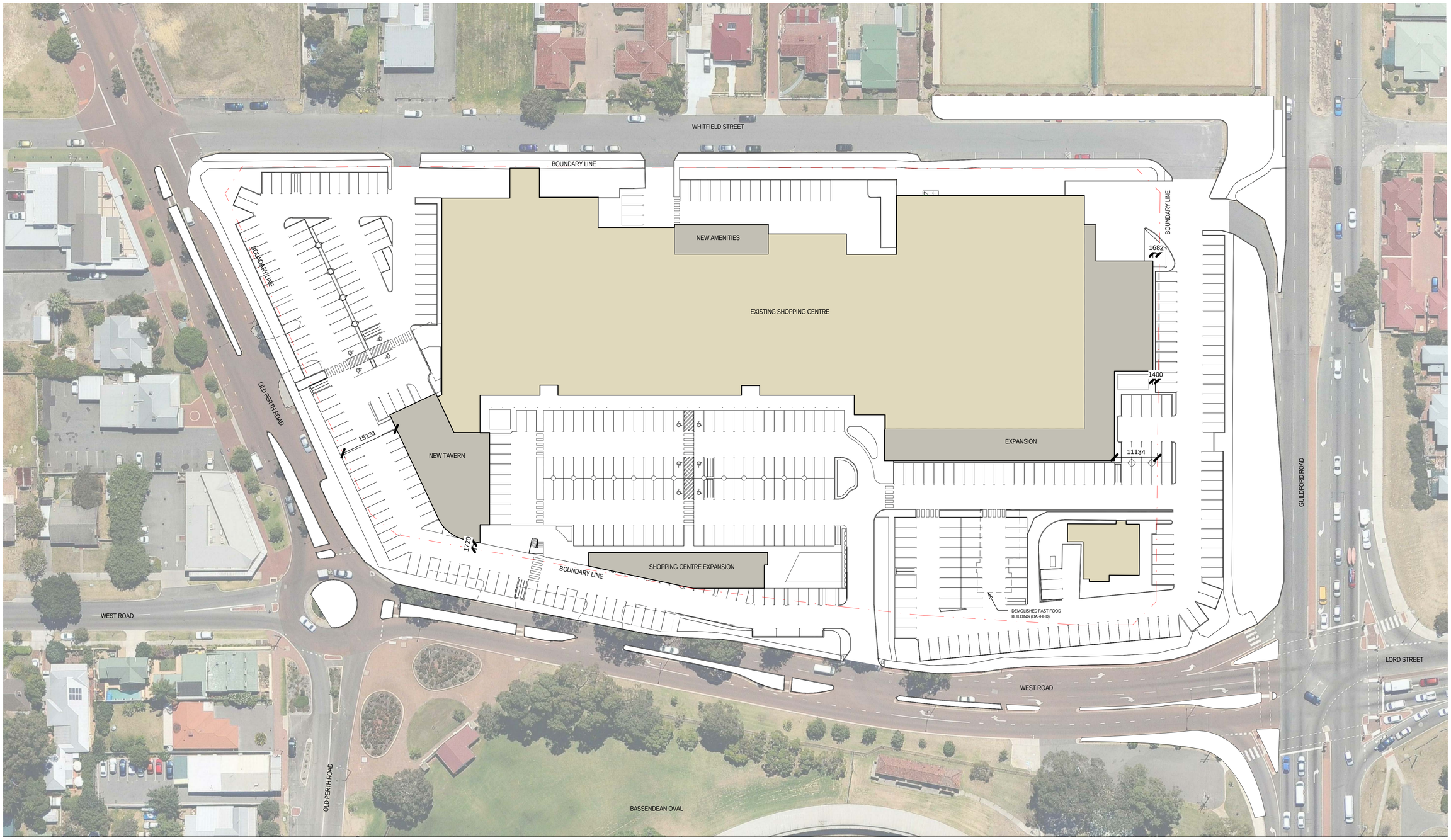

EXISTING BUILDING

NEW BUILDING

Location Plan

BASSENDEAN SHOPPING VILLAGE REDEVELOPMENT

0 5 10 25 50m

Scale: As indicated @ A1

Date: 04/18/12

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PLANS RECEIVED 23 APRIL 2012

LANDSCAPE EXTENTS LEGEND

- EXISTING PLANTING TO BE REMOVED
- EXISTING PLANTING TO REMAIN
- PROPOSED NEW PLANTING AREAS
- EXISTING TREE TO BE REMOVED
- EXISTING TREE TO REMAIN
- PROPOSED NEW DECIDUOUS TREE
- PROPOSED NEW EVERGREEN TREE

TREE KEY

AF	*Agonis flexuosa*
CV	*Callistemon viminalis*
CP	Cocos palm
CA	*Casuarina sp.*
EU	*Eucalyptus sp*
MQ	*Melaleuca quinquenervia*
MA	*Melia azedarach*
ME	*Metrosideros excelsa*
PA	*Platanus x acerifolia*
PC	*Pyrus calleryana*
SS	*Sapium sebiferum*
TT	*Tipuana tipu*
UL	*Ulmus cv.*

PROPOSED LANDSCAPE - AREAS AND DEMOLITION

BASSENDEAN SHOPPING VILLAGE REDEVELOPMENT

Scale: 1 : 500 @ A1

Date: 3/04/12

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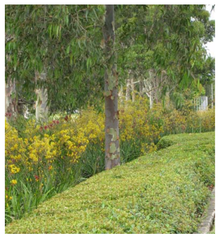
PLANTING THEMES

Plans Received 23 April 2012

Native Planting Theme.
Street verge under planting to Old Perth Road, southern end of West Road and the pedestrian access from West Road. Predominantly for planting to the existing large eucalyptus. Planting theme clipped neat natives with textural contrast and some seasonal colour.

Anigozanthos cultivars



Grevillea crithmifolia
prostrate form

Westringia fruticosa
White Rambler

Low water exotic & native mix theme.
For the repair of the south west verge corner and under planting to the existing Tipuana car park trees. Predominantly low clipped planting with accents of texture and colour. Species selected generally mix well with the native planting theme. Note includes species from the Native Planting Theme.

Diospyros lucidia

Hibbertia scandens

Rosmarinus officinalis

Moderate water exotic mix.
For small garden beds and the planters near the entries and social areas.

Dianella cv. variagated

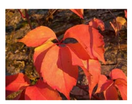
Nandina domestica nana

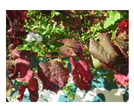
Philodendron s. Xanadu

Trachelospermum jasminoides

Climbing plants for trellis and pergolas.
For the social areas and car park access near new hospitality venues.

Parthenocissus tricuspidata





Vitus vinifera cv.
Ornamental grape

Existing grassed verges

Amenity paving area

TREE SELECTION

INCLUDING EXISTING TREES ON SITE TO REMAIN

Existing eucalyptus stand on West Road to remain

Melaleuca quinquenervia

Platanus x acerifolia

Pyrus calleryana

Tipuana tipu

COMMUNITY GARDEN

The community garden will be an area displaying culinary plants with a priority for herbs and aromatics in raised planters. The selection will include annual leafy greens and perennial species that will be changed with the seasons. The aim of the garden will be for engagement of all the senses and to promote and highlight fresh and seasonal produce to complement the hospitality and fresh food tenancies.

The garden will be in raised planters designed to suit the drainage requirements, with aisle spaces suitable for wheelchair and pram access.

PROPOSED LANDSCAPE - PLANTING AND THEMES

BASSENDEAN SHOPPING VILLAGE REDEVELOPMENT

0 5 10 25 50m

Scale: 1 : 500 @ A1

Date: 3/04/12

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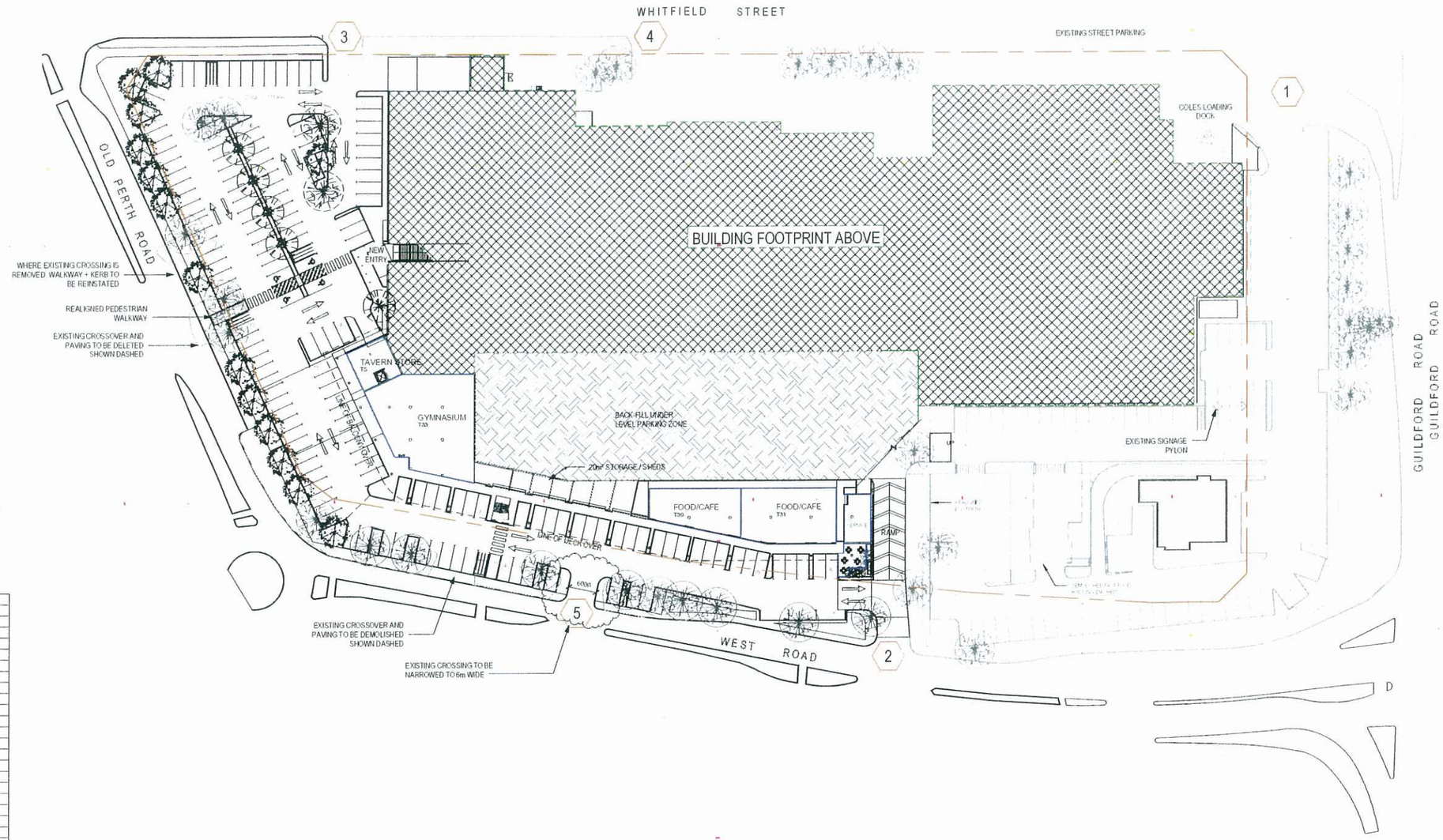

AREA SCHEDULE	
CATEGORY	AREA
BACK OF HOUSE	83 m²
CENTRE MANAGMENT	16 m²
COMMUNITY SPACE	12 m²
EXISTING	452 m²
EXISTING SUPERMARKET	2973 m²
FAST FOOD	224 m²
FOOD RETAIL	417 m²
FOODICAFE	847 m²
GARDEN SHED	10 m²
GYMNASIUM	421 m²
KIDS PLAY	55 m²
KIOSK	93 m²
KIOSK/FOOD	52 m²
LICENCED AREA	20 m²
LIQUOR STORE	151 m²
MECH. SERVICES	60 m²
RETAIL	796 m²
SEATING AREA	201 m²
SPECIALTY	1757 m²
SUPERMARKET EXPANSION	1045 m²
TAVERN	509 m²
TAVERN STORE	79 m²
Grand total	10271 m²

PARKING SCHEDULE	
TYPE	COUNT
EXISTING CARBAYS	136
NEW CARBAYS	302
NEW CARBAYS D.A	10
Grand total	448

Lower Ground Floor Plan

BASSENDEAN SHOPPING CENTRE

0 5 10 20 50m

Path: West Road, Corner of Guildford Road Bassendean. WA 6054

Scale: 1 : 500 @ A1

Date: 26/07/12

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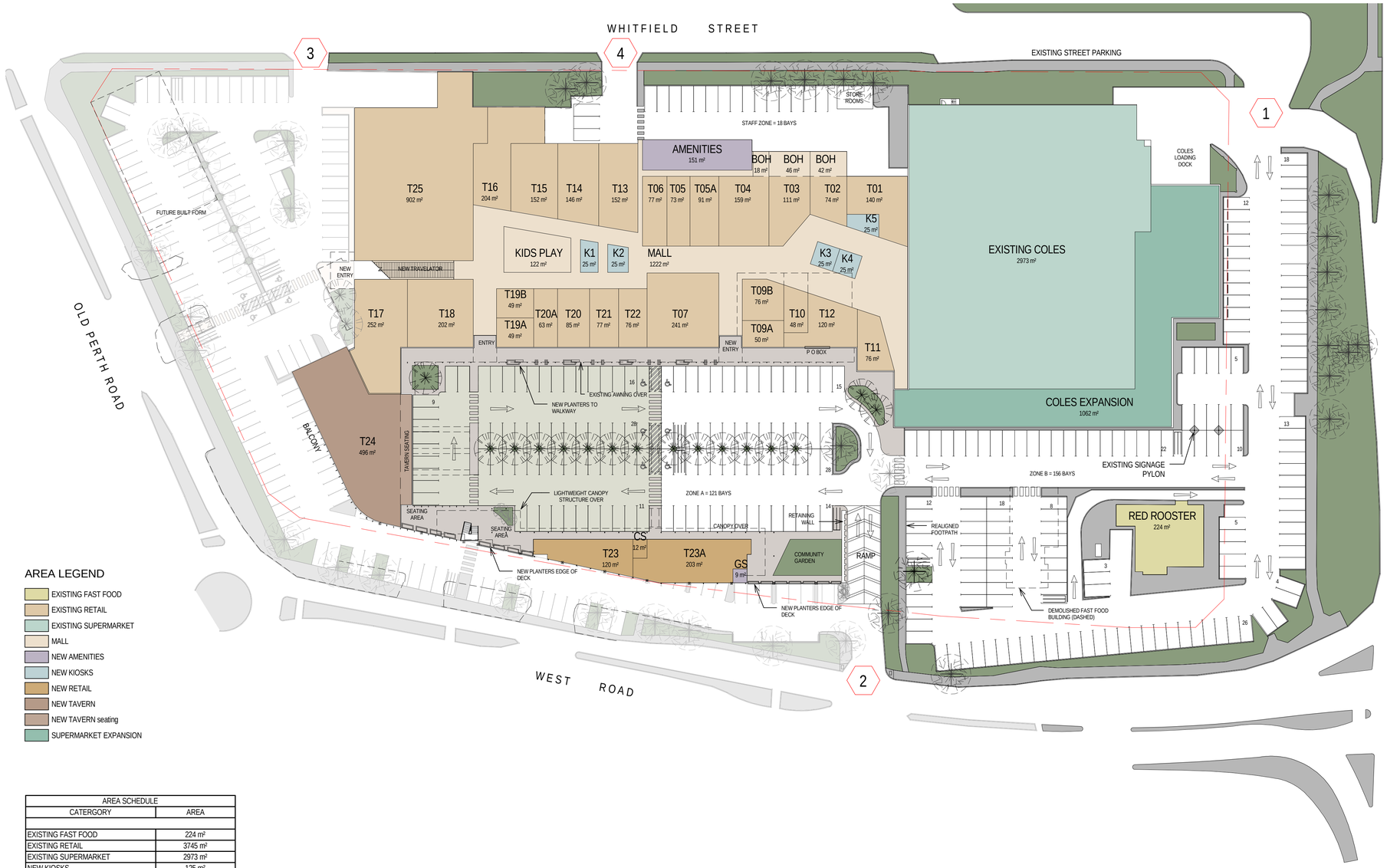

AREA LEGEND

- EXISTING FAST FOOD
- EXISTING RETAIL
- EXISTING SUPERMARKET
- MALL
- NEW AMENITIES
- NEW KIOSKS
- NEW RETAIL
- NEW TAVERN
- NEW TAVERN seating
- SUPERMARKET EXPANSION

AREA SCHEDULE	
CATERGORY	AREA
EXISTING FAST FOOD	224 m²
EXISTING RETAIL	3745 m²
EXISTING SUPERMARKET	2973 m²
NEW KIOSKS	125 m²
NEW RETAIL	761 m²
NEW TAVERN	496 m²
NEW TAVERN seating	58 m²
PROPOSED GYMNASIUM	400 m²
SUPERMARKET EXPANSION	1062 m²
Grand total	9845 m²

PARKING SCHEDULE	
TYPE	COUNT
EXISTING CARBAYS	136
NEW CARBAYS	311
NEW CARBAYS D.A.	10
Grand total	457

Ground Floor Plan

BASSENDEAN SHOPPING VILLAGE REDEVELOPMENT

0 5 10 25 50m

Scale: 1 : 500 @ A1

Date: 04/18/12

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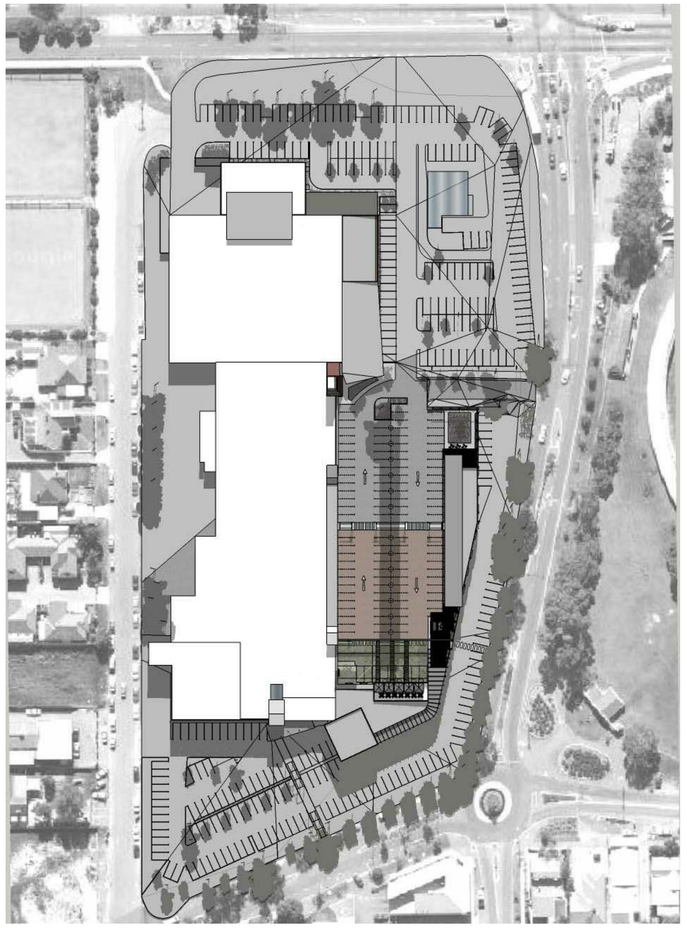
PLANS RECEIVED 23 APRIL 2012

7am JUNE



12pm JUNE

5pm JUNE

Shadow Study

BASSENDEAN SHOPPING VILLAGE REDEVELOPMENT

0 0.5 1 2.5 5m

Scale: @ A1

Date: 04/18/12

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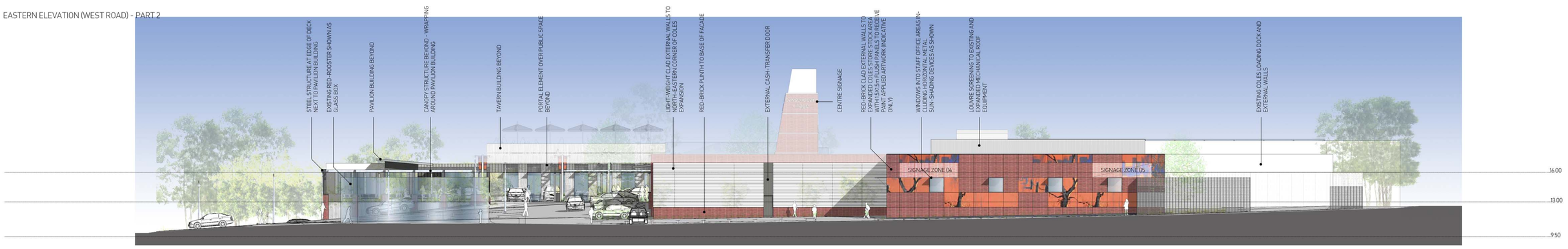
PLANS RECEIVED 23 APRIL 2012

SOUTHERN ELEVATION (OLD PERTH ROAD) - PART 1

EASTERN ELEVATION (WEST ROAD) - PART 1

EASTERN ELEVATION (WEST ROAD) - PART 1

EASTERN ELEVATION (WEST ROAD) - PART 2



NORTHERN ELEVATION (GUILDFORD ROAD)

SIGNAGE SCHEDULE	
ZONE	DIMENSIONS
SIGNAGE ZONE 01	15m X 2.5m
SIGNAGE ZONE 02	7.5m X 1.5m
SIGNAGE ZONE 03	6m X 1.5m
SIGNAGE ZONE 04	6m X 1.5m
SIGNAGE ZONE 05	6m X 1.5m

Proposed Elevations

BASSENDEAN SHOPPING VILLAGE REDEVELOPMENT

0 2 4 10 20m

Scale: 1 : 200 @ A1

Date: 04/18/12

42307 rev SD 400 A

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EXECUTIVE SUMMARY

- The proposed shopping centre layout has been amended to retain two accesses to West Road as recommended by Main Roads Western Australia.

- Recognised trip generation source documentation (RTA) indicates that the expansion to Bassendean shopping centre will not increase peak hour traffic movements, due to the reduction from 2 supermarkets to 1 supermarket.

- Notwithstanding the expectation of no traffic increases during the peak periods, this assessment has determined that an increase of up to 227 movements could occur as a result of better trading of the expanded shopping centre.

- Analysis of the Guildford Road / West Road intersection indicates the potential traffic increases will have a marginal impact to current Levels of Service. Only one movement, the right turn to Lord Street, is shown to experience a change in the Level of Service from D to E. Queue lengths are shown to extend and may more frequently affect access to the shopping centre.

- Analysis of the accesses on West Road indicates that the 95th%ile queue for traffic turning right into the shopping centre is a maximum of 1.4 vehicles. However, the analysis is based on isolated operation and the results are reliant upon traffic queuing from the traffic signals not blocking the right turn into the shopping centre. This was witnessed to rarely occur during the site inspection, so appropriate operation of the right turn lanes is expected. The southern car park access is now retained and alternative access is available should blocking occur.

PURPOSE

This technical note has been prepared following a meeting with Main Roads Western Australia on 24 July 2012. At the meeting the anticipated traffic attraction to the proposed expanded shopping centre was discussed. As it is now proposed that only 1 major supermarket will exist, the view was offered that the traffic attraction will not be as high as previously anticipated.

This technical note applies the Road Traffic Authority (RTA) NSW peak hour trip generation rates for shopping centres as shown in the *Guide to Traffic Generating Developments* (October 2002) to the proposed expansion of Bassendean shopping centre. The traffic report of March 2011 was prepared on the basis of both Woolworths and Coles having a supermarket within the shopping centre. It is now proposed that only Coles will provide a supermarket within the shopping centre.

Traffic flow plans are provided to show the existing traffic associated with the shopping centre, the expected increases as a result of the RTA trip rates and the forecast traffic movements at the intersection of Guildford Road / West Road.

Also as a result of the meeting it has been decided to accord with Main Roads' suggestion to retain the southern access on West Road to the shopping centre. A revised concept plan is shown as Figure 1.

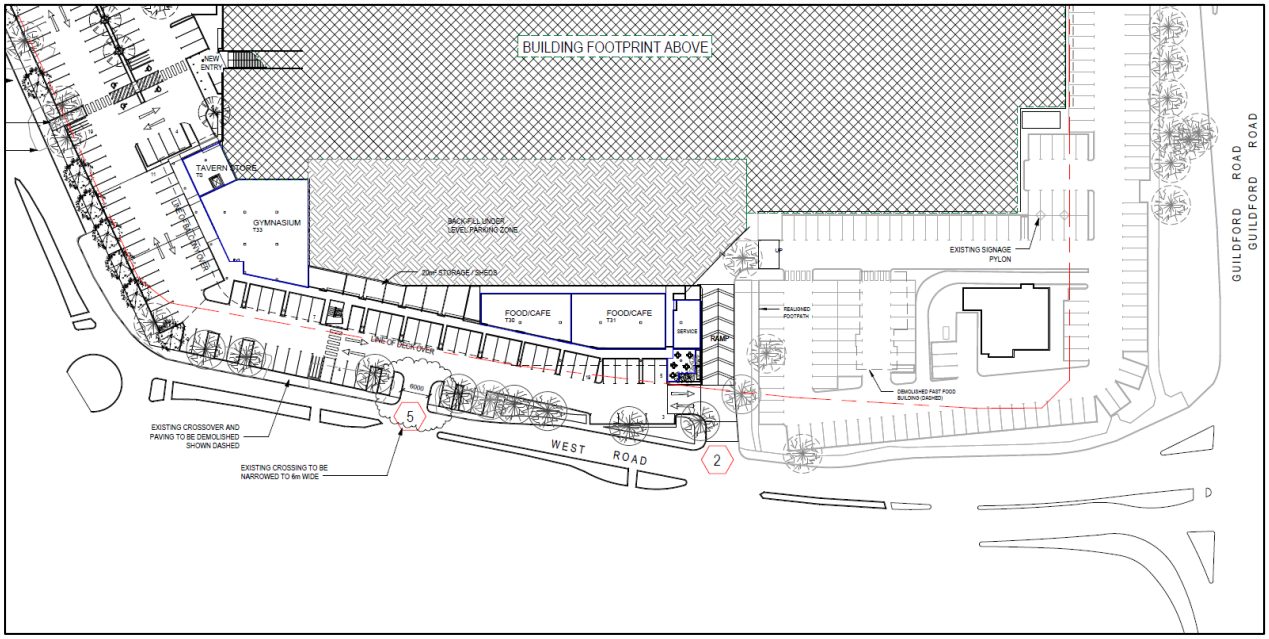


Figure 1 **Bassendean Shopping Centre Expansion Access Plan** (extract)

TRAFFIC GENERATION

The traffic report (March 2011) for the shopping centre was based on trip rates derived by the Director General of Transport South Australia – *Land Use Traffic Generation Guidelines* (March 1987). These trip rates assume a typical shopping centre with multiple major attractors, which was the expectation for Bassendean shopping centre at the time of assessing the future traffic. However, it has since come to light that Woolworths will no longer have a presence and thus only 1 major attractor will be located in the expanded shopping centre.

Figure 2 shows an extract from the RTA Guide indicating the formulae used to determine the traffic generation of the shopping centre.

Peak Period Traffic Generation.

Models.

For Thursdays and Fridays, the models are for the vehicle trips in the evening peak hour - V(P) - where this period has been taken as 4.30-5.30 pm.

For Saturday morning, the peak vehicle hour has been used - PVT. This is typically 11.00 am-12.00 pm. Localised variations in these peak hours can occur.

Thursday:

V(P) = 20 A(S) + 51 A(F) + 155 A(SM) + 46 A(SS) + 22 A(OM)
(vehicle trips per 1000m^2).

Friday:

V(P)= 11 A(S) + 23 A(F) + 138 A(SM) + 56 A(SS) + 5 A(OM)
(vehicle trips per 1000m^2).

Saturday:

PVT= 38 A(S) + 13 A(F) + 147 A(SM) + 107 A(SS)
(vehicle trips per 1000m^2).

where:

A(S): Slow Trade gross leasable floor area (Gross Leasable Floor Area in square metres) includes major department stores such as David Jones and Grace Bros., furniture, electrical and whitegoods stores.

A(F): Faster Trade GLFA - includes discount department stores such as K-Mart and Target, together with larger specialist stores such as Fosseys.

A(SM): Supermarket GLFA - includes stores such as Franklins and large fruit markets.

A(SS): Specialty shops, secondary retail GLFA - includes specialty shops and take-away stores such as McDonalds. These stores are grouped as they tend to not be primary attractors to the centre.

A(OM): Office, medical GLFA: includes medical centres and general business offices.

Figure 2 RTA Guide to Traffic Generating Developments – Shopping Centres

Appendix A shows the RTA formula applied to the existing shopping centre with Coles and Woolworths and also to the proposed expansion with only Coles. It can be seen from Appendix A that during the Thursday PM peak period, it can be expected that:

- The existing shopping centre should generate 872 movements
- The proposed expanded shopping centre should generate 852 movements

The RTA Guide suggests that traffic can actually be expected to reduce slightly as a result of removing the Woolworths supermarket.

Appendix A also shows the RTA formula applied to the original shopping centre expansion retaining both Coles and Woolworths. It can be seen that the impact is an expected increase of 171 vehicle movements during the Thursday PM peak period. This demonstrates how it is the supermarkets that provide the primary attraction to shopping centres. The results of applying the RTA data are not unexpected as associated retail outlets are heavily dependent on their trade from an anchor tenant.

CHANGE TO THURSDAY PEAK HOUR TRAFFIC FLOWS

Although the RTA Guide suggests that the attraction of traffic to the shopping centre will not actually increase, it is evident that the current operation of the centre is perhaps, not as good as it could be. However, the current reduced level of peak hour attraction may actually be due to current local traffic conditions on Guildford Road deterring customers using the centre at peak times.

To determine the anticipated increase in traffic attraction to the shopping centre, a comparison is made between the expectations of the RTA Guide forecast traffic generation and the actual traffic movements associated with the existing shopping centre. Appendix B shows the recorded Thursday PM peak period traffic movements at the accesses to West Road and Old Perth Road. From Appendix B it can be seen that the shopping centre currently attracts about 625 peak hour movements[1]. Appendix A indicates that current traffic should be in the order of 872 movements.

The existing shopping centre generates less peak hour traffic than would be expected.

If the difference between the RTA traffic generation expectation for the future expansion of the Bassendean shopping centre and the existing traffic movements is taken, then it could be reasonably assumed that the proposed expansion could increase peak hour flows by (RTA 852 movements – 625 existing) 227 peak hour movements.

The proposed shopping centre expansion could generate 227 additional peak hour vehicle movements on a Thursday.

[1] It should be noted that some unrecorded traffic used Whitfield Street, but this was considered to be about 5% and not significant in terms of the anticipated impacts to the local road network.

IMPACTS OF TRAFFIC INCREASES

The expected traffic increase of 227 movements is distributed to the local road network based on current attractions to the shopping centre. Appendix C shows the existing peak hour attraction to the centre at the intersection of Guildford Road / West Road. Using the proportions of attraction applied to the expected increase provides the Thursday PM peak hour traffic increases shown in Figure 3.

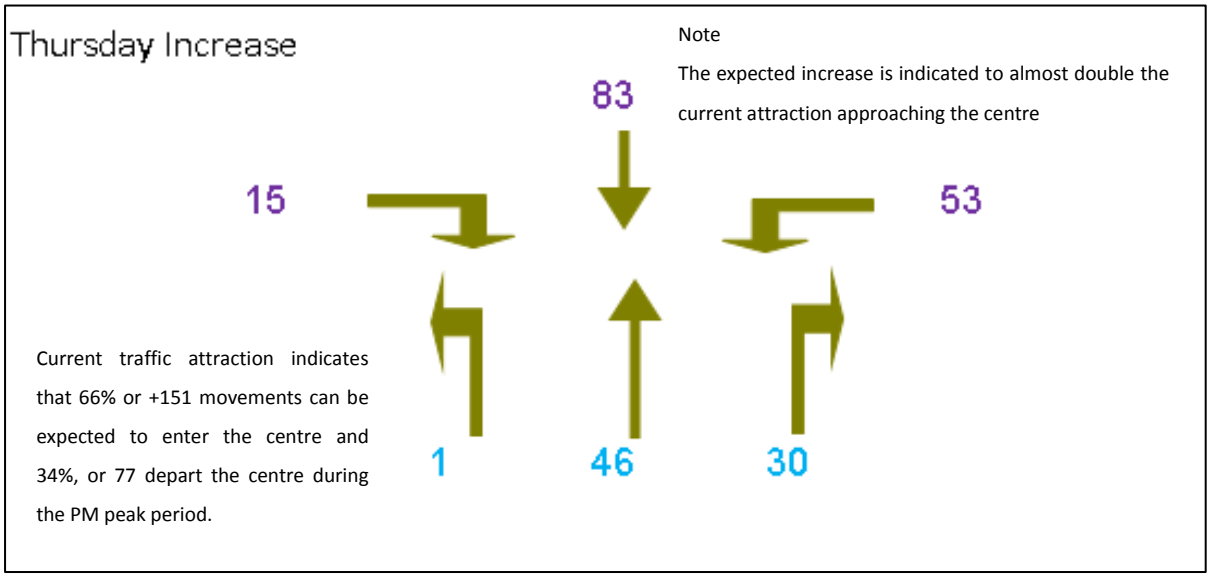


Figure 3 Traffic Increases at Guildford Road

SIDRA ANALYSIS

The March 2011 traffic report provided analysis of the expected operation of local intersections which is updated in this technical note based on the RTA traffic generation data. Appendix D shows the Thursday PM peak hour Scats data for the intersection of Guildford Road / West Road, which includes the existing traffic associated with the shopping centre. Sidra analysis is provided based on a fixed 150 second cycle time for the current traffic flows and the expected increase with the shopping centre expansion.

Guildford Road / West Road Thursday PM Peak

Analysis attached as Appendix E indicates that overall the intersection will operate with similar Levels of Service to current operation with the proposed expansion of the shopping centre. Only one movement is shown to experience a change in the Level of Service from D to E, being the right turn from Guildford Road east to Lord Street. The analysis allows Sidra to select appropriate green times as this provides the best comparison of possible operation.[2]

[2] It is noted that alternative green times may be utilised to prioritise regional movements.

Access to West Road

Analysis of access to West Road is provided and is based on the traffic demands shown in Appendix F. The traffic demands include the potential increase of 227 peak hour trips and the redistribution of traffic from closed access points.

Sidra analysis of the northern access is shown in Appendix G. The analysis indicates that in isolated operation, the northern (main) access can be expected to operate with excellent Levels of Service. The critical right turn movement into the shopping centre is shown to experience a 95th%ile queue of 1.2 vehicles, indicating that the right turn will not result in queuing that will affect the Guildford Road intersection.

Sidra indicates that access to the shopping centre will not affect the Guildford Road intersection.

A sensitivity analysis has been undertaken based on the original proposal for a single access to West Road. Appendix H shows the peak hour traffic flows that could be expected with the proposed shopping centre expansion and traffic redistributed from other accesses to a single access. The analysis, shown in Appendix H, indicates that the 95th%ile queue for the right turn to the shopping centre will increase to 1.5 vehicles (10 metres). Again this indicates that right turning traffic into the shopping centre should not affect the intersection of Guildford Road.

In isolation a single access to the expanded shopping centre is shown to operate in an acceptable manner.

In reality, it is known that queues forming on West Road approaching Guildford Road sometimes block the shopping access during certain periods of the Thursday PM peak period. Whilst queued vehicles were witnessed not to block the ability of vehicles turning right into the shopping centre, the retention of the second access will ensure an alternative route is always available.

Analysis of the southern access is not provided as analysis of a single access shows that acceptable operation is achieved.

APPENDIX A

RTA TRAFFIC GENERATION

Bassendean Existing
RTA Guide

Thursday Peak

use	Category	Rate	Area	Peak trips
Department stores	AS	20	0	0
Discount stores	AF	51	0	0
Supermarket	ASM	155	5085	788
Speciality	ASS	46	1635	75
Other related	AOM	22	400	9
			7120	**872**

Bassendean Proposed
RTA Guide

Thursday Peak

use	Category	Rate	Area	Peak trips
Department stores	AS	20	0	0
Discount stores	AF	51	0	0
Supermarket	ASM	155	4035	625
Speciality	ASS	46	4631	213
Other related	AOM	22	624	14
			9290	**852**

Note the assessment has not included the tavern which is not expected to attract traffic during the Thursday PM peak period.

The RTA trip rates have been applied to the original shopping centre expansion proposal with both Coles and Woolworths retained. The RTA formula indicates a Thursday PM peak traffic generation of 1,043 trips, an increase of 171 trips to what the current shopping centre would be expected to attract.

Bassendean expansion with Coles and Woolworths
RTA Guide

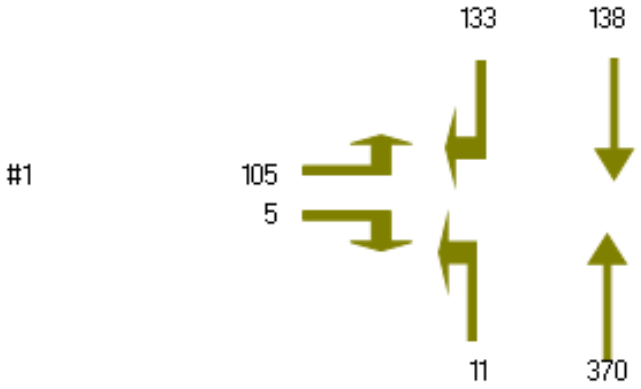
Thursday Peak use	**Category**	**Rate**	**Area**	**Peak trips**
Department stores	AS	20	0	0
Discount stores	AF	51	0	0
Supermarket	ASM	155	5729	888
Speciality	ASS	46	3184	146
Other related	AOM	22	400	9
			9313	**1,043**

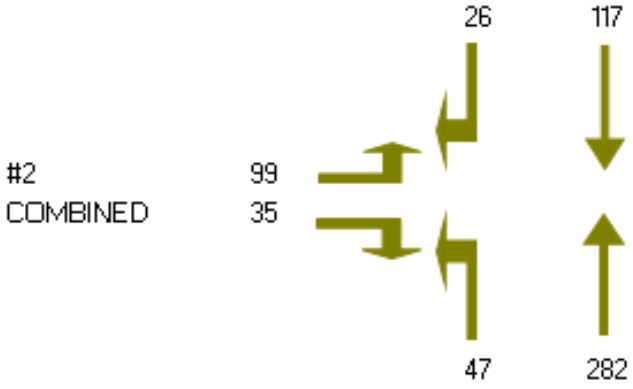
This is provided for comparative purposes only.

APPENDIX B

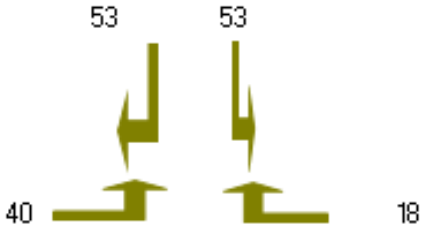
THURSDAY PM PEAK HOUR TRAFFIC MOVEMENTS (EXISTING)

Thursday PM Peak
Actual Count





#3

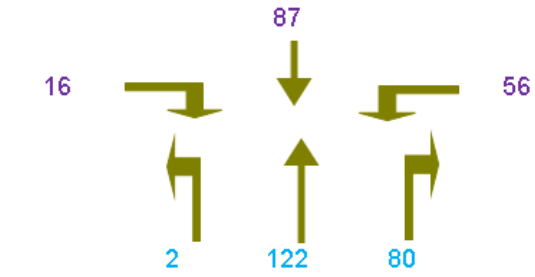


IN	275
OUT	350
	625

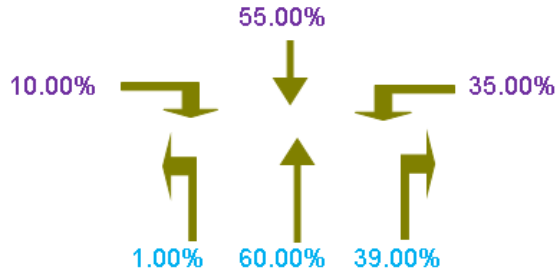
APPENDIX C

THURSDAY PM PEAK HOUR ATTRACTION AT GUILDFORD ROAD

Thursday Exisiting Attraction
Peak Hour count



In	159
Out	204



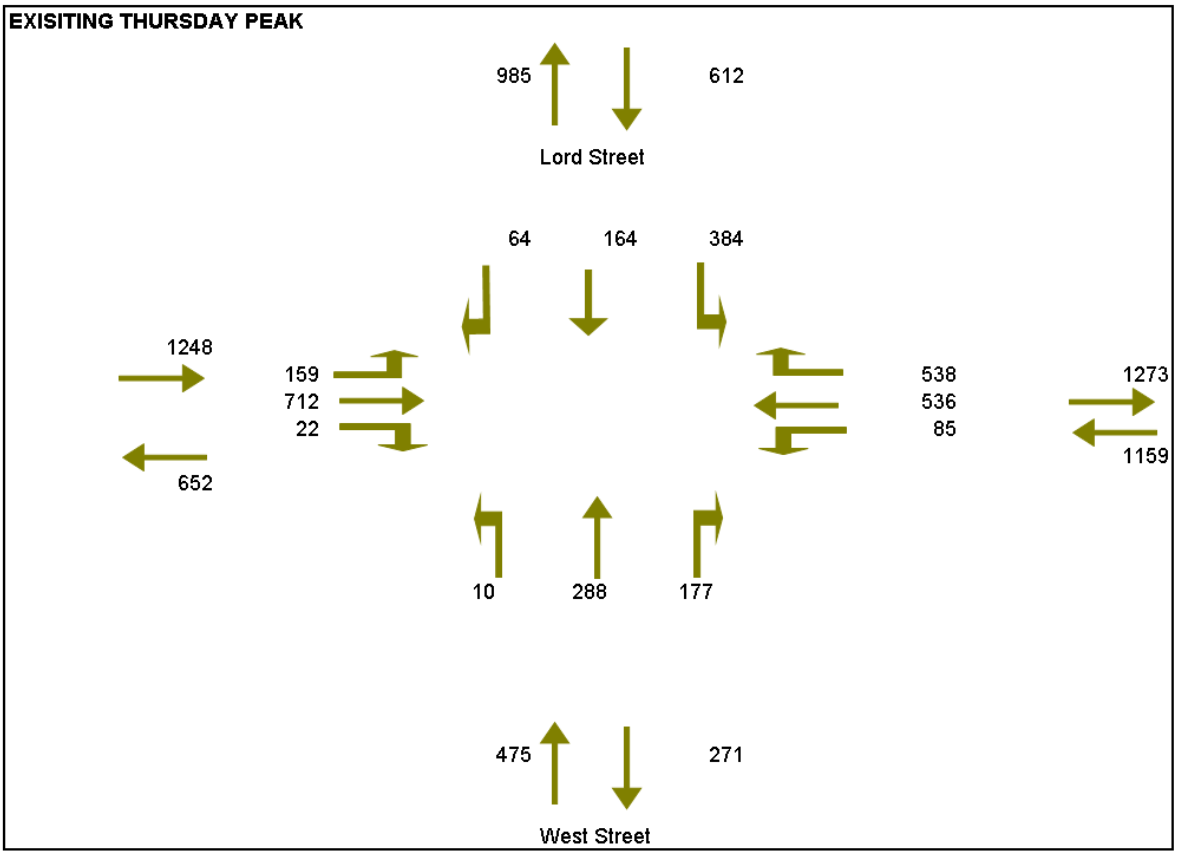
Note

Figure 3 indicates that the attraction to the expanded centre may almost double.

The turning proportions are used to derive the anticipated traffic increases shown in Figure 3.

APPENDIX D

GUILDFORD ROAD SCATS DATA 6-12 DECEMBER 2010



Traffic data from December was used as it represents a peak period of shopping centre activity and is in the same period as the counts undertaken for the shopping centre.

APPENDIX E

SIDRA ANALYSIS OF GUILDFORD ROAD

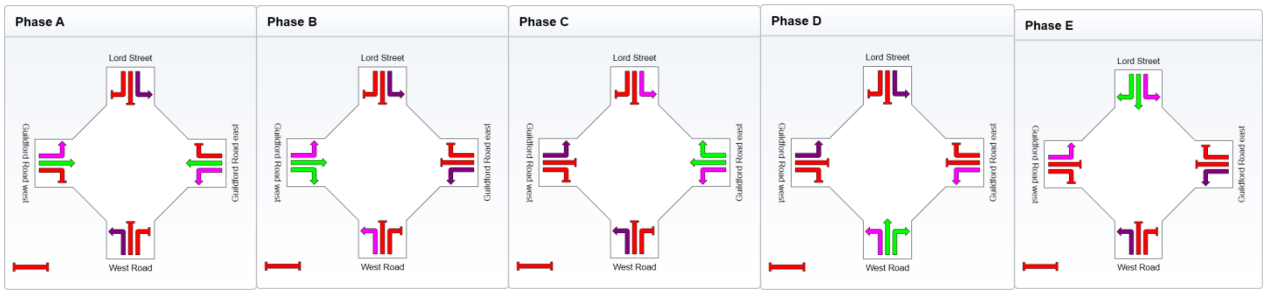
Guildford Road / West Street Thursday PM peak
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	95% Back of Queue Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: West Road											
1	L	11	0.0	0.017	9.4	LOS A	0.2	1.6	0.24	0.60	42.1
2	T	303	0.0	0.962	99.9	LOS F	28.7	200.9	1.00	1.23	14.8
3	R	186	0.0	0.621	70.0	LOS E	14.3	100.3	0.99	0.82	19.8
Approach		500	0.0	0.962	86.8	LOS F	28.7	200.9	0.98	1.07	16.6
East: Guildford Road east											
4	L	89	0.0	0.084	8.9	LOS A	1.2	8.6	0.18	0.64	48.3
5	T	749	0.0	0.380	15.8	LOS B	14.7	102.7	0.65	0.56	39.7
6	R	382	0.0	1.000[3]	52.6	LOS D	21.8	152.6	1.00	0.86	25.0
Approach		1220	0.0	1.000	26.8	LOS B	21.8	152.6	0.73	0.66	33.8
North: Lord Street											
7	L	404	0.0	0.653	17.7	LOS B	13.2	92.3	0.49	0.73	40.5
8	T	173	0.0	0.939	94.7	LOS F	16.3	114.4	1.00	1.09	16.2
9	R	67	0.0	0.385	77.8	LOS F	6.3	44.2	0.98	0.76	19.5
Approach		644	0.0	0.939	44.6	LOS D	16.3	114.4	0.68	0.83	26.8
West: Guildford Road west											
10	L	167	0.0	0.316	18.6	LOS B	6.3	44.1	0.46	0.71	39.9
11	T	749	0.0	0.984	103.6	LOS F	36.2	253.2	1.00	1.20	15.2
12	R	23	0.0	0.309	87.2	LOS F	2.6	18.2	1.00	0.71	18.1
Approach		940	0.0	0.984	88.1	LOS F	36.2	253.2	0.90	1.10	17.2
All Vehicles		3304	0.0	1.000	56.8	LOS E	36.2	253.2	0.80	0.88	22.8

Phase Timing Results

Phase	A	B	C	D	E
Green Time (sec)	17	6	59	24	14
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	23	12	65	30	20
Phase Split	15 %	8 %	43 %	20 %	13 %



Guildford Road / West Street Thursday PM peak with shopping centre expansion
Signals - Fixed Time Cycle Time = 150 seconds (User-Given Cycle Time)

Movement Performance - Vehicles

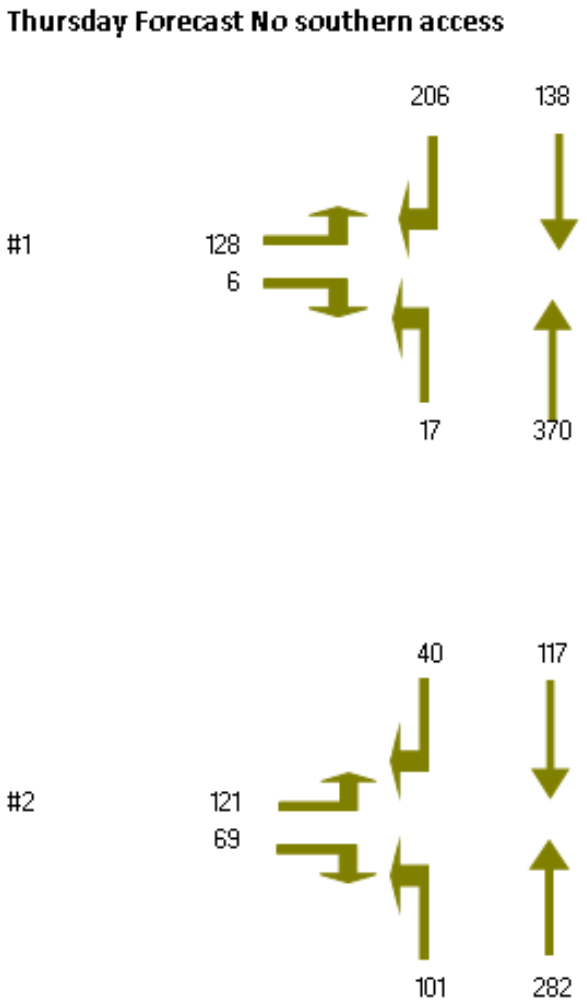
Mov ID	Turn	Demand Flow	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue		Prop. Queued	Effective Stop Rate	Average Speed
							Vehicles	Distance			
		veh/h	%	v/c	sec		veh	m		per veh	km/h
South: West Road											
1	L	13	0.0	0.021	10.2	LOS A	0.3	2.2	0.27	0.61	41.4
2	T	432	0.0	0.996	76.5	LOS F	35.2	246.3	1.00	0.98	17.6
3	R	271	0.0	0.655	63.5	LOS E	19.1	133.9	0.97	0.84	21.0
Approach		715	0.0	0.996	70.4	LOS E	35.2	246.3	0.98	0.92	19.0
East: Guildford Road east											
4	L	148	0.0	0.165	10.3	LOS A	2.9	20.3	0.25	0.66	46.9
5	T	793	0.0	0.502	26.4	LOS B	18.8	131.3	0.79	0.72	33.0
6	R	338	0.0	1.000[3]	59.6	LOS E	21.8	152.6	1.00	0.86	23.2
Approach		1279	0.0	1.000	33.3	LOS C	21.8	152.6	0.78	0.75	30.5
North: Lord Street											
7	L	404	0.0	0.714	20.5	LOS B	14.7	102.6	0.54	0.75	38.5
8	T	264	0.0	1.006	129.9	LOS F	28.4	198.9	1.00	1.30	12.9
9	R	67	0.0	0.345	70.7	LOS F	6.0	42.0	0.94	0.76	20.8
Approach		736	0.0	1.006	64.4	LOS E	28.4	198.9	0.74	0.95	21.5
West: Guildford Road west											
10	L	167	0.0	0.339	22.5	LOS B	7.1	49.9	0.53	0.72	37.2
11	T	749	0.0	1.019	132.0	LOS F	40.7	284.7	1.00	1.33	12.7
12	R	40	0.0	0.533	88.6	LOS F	4.3	30.3	1.00	0.74	17.9
Approach		957	0.0	1.019	111.1	LOS F	40.7	284.7	0.92	1.20	14.6
All Vehicles		3686	0.0	1.019	66.9	LOS E	40.7	284.7	0.85	0.94	20.6

Phase Timing Results

Phase	A	B	C	D	E
Green Time (sec)	17	6	59	24	14
Yellow Time (sec)	4	4	4	4	4
All-Red Time (sec)	2	2	2	2	2
Phase Time (sec)	23	12	65	30	20
Phase Split	15 %	8 %	43 %	20 %	13 %

APPENDIX F

THURDAY PM PEAK TRAFFIC FLOWS ON WEST ROAD



Based on current traffic patterns, the increase of 227 movements would comprise of +151 entering the centre and +76 departing during the Thursday PM peak period. The flows include traffic previously turning right in and left out of the access to Old Perth Road.

APPENDIX G

ACCESS TO WEST ROAD

Bassendean Shopping Centre Northern Access to West Road
Future Thursday PM Peak Giveway / Yield (Two-Way)

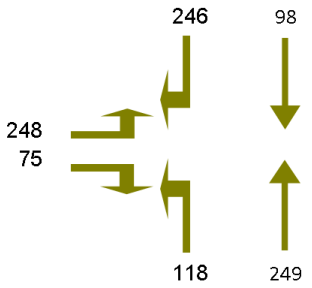
Movement Performance - Vehicles

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
South: West Road south											
1	L	18	0.0	0.010	8.2	LOS A	0.0	0.0	0.00	0.67	49.0
2	T	389	0.0	0.200	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		407	0.0	0.200	0.4	LOS A	0.0	0.0	0.00	0.03	59.4
North: West Road north											
8	T	145	0.0	0.074	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
9	R	217	0.0	0.226	10.3	LOS B	1.2	8.6	0.49	0.75	46.7
Approach		362	0.0	0.226	6.2	LOS B	1.2	8.6	0.29	0.45	51.3
West: Northern Access											
10	L	135	0.0	0.197	11.2	LOS B	0.9	6.6	0.49	0.77	45.8
12	R	6	0.0	0.197	11.2	LOS B	0.9	6.6	0.49	0.83	45.8
Approach		141	0.0	0.197	11.2	LOS B	0.9	6.6	0.49	0.77	45.8
All Vehicles		911	0.0	0.226	4.4	NA	1.2	8.6	0.19	0.31	53.6

APPENDIX G

Analysis of single access

One Access



Flows shown in Appendix F assigned to 1 access. Note that the right turn would decrease as traffic from the southern car park would not head north to go south, they would utilise Whitfield Street.

Bassendean Shopping Centre Single Access to West Road
Future Thursday PM Peak Giveway / Yield (Two-Way)

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
South: West Road south											
1	L	124	0.0	0.067	8.2	LOS A	0.0	0.0	0.00	0.67	49.0
2	T	262	0.0	0.134	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		386	0.0	0.134	2.6	LOS A	0.0	0.0	0.00	0.21	55.9
North: West Road north											
8	T	103	0.0	0.053	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
9	R	259	0.0	0.264	10.3	LOS B	1.5	10.3	0.49	0.75	46.7
Approach		362	0.0	0.264	7.3	LOS B	1.5	10.3	0.35	0.54	49.9
West: Northern Access											
10	L	262	0.0	0.572	16.5	LOS C	5.3	37.2	0.64	1.00	41.2
12	R	79	0.0	0.572	16.5	LOS C	5.3	37.2	0.64	1.00	41.2
Approach		341	0.0	0.572	16.5	LOS C	5.3	37.2	0.64	1.00	41.2
All Vehicles		1089	0.0	0.572	8.5	NA	5.3	37.2	0.32	0.57	48.6

The analysis assumes a single approach lane on the shopping centre access and a standard 60m right turn lane on West Road (although the existing turn lane is over 80 metres).

Government of **Western Australia**
Development Assessment Panels

Form 1 - Responsible Authority Report
(Regulation 12)

Application Details:	Mixed Use Multiple Residential Development
Property Location:	Lot 3; 85 Old Perth Road Bassendean
DAP Name:	Metro Central JDAP
Applicant:	K Bevilaqua : Bevilaqua Design
Owner:	Department of Housing
LG Reference:	DABC/BDVAPPS/2012-100
Responsible Authority:	Town of Bassendean
Authorising Officer:	Brian Reed Manager Development Services
Application No and File No:	DP 12/00644
Report Date:	15 August 2012
Application Receipt Date:	7 June 2102
Application Process Days:	46
Attachment(s):	Plans: 1. DAO1, DAO2, DAO3, DAO8, DAO9, All Revision B dated 10 August 2012; DAO4, DAO5, DAO6, DAO7, DA10*, DA11, DA12, DA13, DA14, DA15, DA16, DA17 All Revision A dated 25 July 2012; DA18 dated 12 August 2012 2. Assessment of the proposal against the Residential Design Codes and Town Centre Area Strategy 3. Town Centre Area Strategy and Guidelines

* DA10 will be made available at the meeting as no electronic copy was received.

Recommendation:

That the Metro Central JDAP resolves to:

Approve DAP Application reference DP 12/00644 and accompanying plans DAO1, DAO2, DAO3, DAO8, DAO9, All Revision B dated 10 August 2012; DAO4, DAO5, DAO6, DAO7, DA10, DA11, DA12, DA13, DA14, DA15, DA16, DA17 All Revision A dated 25 July 2012 in accordance with Clause 10.3 (a) of the Town of Bassendean Local Planning Scheme No. 10, subject to the following conditions:

1. Prior to the issue of a building permit the applicant shall lodge a Construction Management Plan to the satisfaction of the Town of Bassendean, which provides details of the following:

    a) Estimated timeline and phasing of construction;
    b) Dust control measures;
    c) Noise control measures;
    d) Access points for heavy vehicles during demolition and construction; and
    e) 24 hours contact details of staff available to deal with either an emergency

2. End of trip bicycle facilities shall be provided in accordance with clause 5.7.6 of the Town of Bassendean Local Planning Scheme No 10.

3. Prior to the issue of a building permit the applicant shall pay to the Town of Bassendean the 2% contribution of the building construction costs as prescribed under LPP NO. 1 - Town Centre Area Strategy and Guidelines for Bassendean.

4. The applicant to pay the costs to the Town of Bassendean for the removal of the 2 x juvenile Chinese Tallows and one mature Queensland Box trees and for replacement trees.

5. Four of the bays annotated for resident parking at the ground level parking area shall be marked and used for commercial parking.

6. The applicant shall arrange for the construction of four street parking bays within the Whitfield Street road reserve to the satisfaction of the Town of Bassendean (Manager Development Services)

7. Revised plans shall be submitted for the approval of the Town of Bassendean indicating the balconies for each unit with a minimum area of 10m² and a minimum dimension of 2.4m.

8. Prior to the construction of the building hereby approved the applicant shall submit for the approval of the Town of Bassendean an outline of the refuse and recycling regime demonstrating that adequate provision has been made to cater for the estimated demand of the building and being capable of collection.

9. A detailed landscape plan being submitted with the application for a building licence which shows the location and type of existing and proposed trees and shrubs and lawns to be installed, and natural landscaping areas to be retained, in accordance with the approved plans.

10. The street verge adjacent to the Lot 3 Old Perth Road being landscaped and maintained to Council's satisfaction (Manager Development Services).

11. The landscaping plan shall include details of the proposed watering system to ensure the establishment of species and their survival during the hot, dry summer months. Council encourages landscaping methods which do not rely on reticulation. Where reticulation is not used, the alternative method should be described.

12. The landscaped areas being developed in accordance with the approved plan and maintained thereafter for a minimum period of 12 months (Manager Development Services).

13. The car parking spaces and accessways to be designed and constructed in accordance with AS 2890.1.

14. Visitor parking bays being clearly marked for "Visitors Only".

15. The street number being prominently displayed at the front of the development.

16. The provision of letterboxes in materials to complement the development to the satisfaction of Council (Manager Development Services).

17. Signage for the commercial tenancies being subject to a separate application.

18. The issue of a Building Permit prior to the commencement of any on-site works.

19. The proposed boundary wall shall be finished to the satisfaction of Council (Manager Development Services).

20. The building hereby approved shall not be occupied until all of the conditions of planning consent have been complied with to the satisfaction of the Manager Development Services, unless the applicant has entered into an agreement with Council to comply with those conditions within a specified period.

21. Potential tenants of the commercial tenancies seeking Council's approval of their proposed use prior to occupying and commencing the business operation (Manager Development Services).

22. The existing street tree(s) other than for those agreed to be removed shall be protected during construction activities in accordance with Council's Street Tree Protection Policy.

Advice notes

(a) The applicant is advised in relation to condition 3. above that the Town can consider onsite art works subject to Council approval and demonstration of equivalent value and public access.

(b) The Town of Bassendean encourages the retention of stormwater onsite through various best management practices, as laid out in its Planning Policy. Details of the stormwater containment and disposal method are to be provided with the building licence application.

Background:

Insert Property Address:		Lot 3 # 85 Old Perth Road Bassendean
Insert Zoning	MRS:	Urban
	TPS:	Town Centre
Insert Use Class:		Multiple Dwelling Shop, Office, Café (P)
Insert Strategy Policy:		Town Centre Area Strategy
Insert Development Scheme:		N/a
Insert Lot Size:		2041sq m
Insert Existing Land Use:		Vacant Land
Value of Development:		$9,000,000

The application site was formerly developed with squash courts in the early 1970's. The site was acquired by the Town of Bassendean in 1994 and used as a business incubator until approximately 2007. The building was demolished in 2009 and sold to the Department of Housing in 2012.

The site is currently vacant.

Details: outline of development application

The application proposes to erect a five storey building comprising commercial tenancies on the ground floor with a frontage to Old Perth Road, a commercial tenancy on part of the first floor together with 40 residential apartments.

The proposal involves a basement car park accommodating 61 bays with access off Whitfield Street, together with a further 39 bays at ground level served by an easement over the adjoining lot to the south. Four street bays are also proposed to be included.

Legislation & policy:

Local Planning Scheme No. 10

Clause 4.2.3 - Town Centre Zone
Clause 5.7.6 - Bicycle Facilities
Clause 5.7.2.4 - Car parking
Clause 5.5 - Variations to Site and Development Standards and Requirements.

State Government Policies

Directions 2031 (recognised Bassendean Town Centre as District Centre).

State Planning Policy 4.2 Activity Centres for Perth and Peel (Bassendean in the Central sub region). Section 7.4 is particularly relevant.

Local Policies

Local Planning Policy No 1 - Town Centre Area Strategy and Guidelines (2008)
Local Planning Policy No 2 - Per cent for Art Policy

Consultation:

Public Consultation

Public consultation was not carried out on the application as none of the uses proposed require advertising under the Local Planning Scheme No 10 and the proposal complies to a large extent with the Town Centre Area Strategy and with part 7 of the Residential Design Codes.

However, the adjoining landowners to the south, who own lot 5; 32 Whitfield Street, have engaged a solicitor and advise that unless the developer removes the right of way as a burden on their clients' land an application will be made to the Supreme Court *either for the extinguishment of the right of way, or in the alternative, an order to prevent excessive use.*

At the time of writing this report the application site enjoys a right of carriageway over a portion of Lot 5 and this right of carriageway is included on the Certificate of Title of the property.

The State Administrative Tribunal in the case *Gretna Nominees Pty Ltd v Town of Claremont & Ors* [2012] WASAT (DR 254/2011) considered that it was not appropriate for the responsible planning authority to have regard to the private property dispute between the adjoining owners, and the relevant development application was required to be dealt with on its planning merits.

Consultation with other Agencies or Consultants

No consultation has been carried out with other agencies or consultants.

Planning assessment:

The application site is zoned "Town Centre" by the Town of Bassendean Local Planning Scheme No 10. The objectives of the Town Centre Zone are:

(a) to promote, facilitate and strengthen the town centre zone as the principal focus of the district in terms of shopping, professional, administrative, cultural, entertainment and other business activities;

(b) To recognise the unique and specific function of each precinct within the town centre in terms of:

  i) Traditional main street pedestrian based commercial retail, west of Wilson Street;

  ii) Civic, drive-by commercial and town centre living uses between Wilson and Whitfield Street; and

  iii) Car based retail in the Bassendean Village Shopping Centre.

(c) to accommodate a diversity of commercial, cultural and residential facilities;

(d) to encourage the integration of existing and proposed facilities within the zone so as to promote ease of pedestrian movement and the sharing of infrastructure, as well as to retain the opportunity for any future expansion of the area;

(e) to achieve safety and efficiency in traffic circulation;

(f) to ensure that buildings, ancillary structures and advertising are of high quality and achieve an architectural theme contributing to the uniqueness of the townscape;

(g) to provide sheltered places for pedestrians and shade to car parking areas;

(h) to preclude the storage of bulky and unsightly goods from public view;

(i) to provide landscaping appropriate to the scale of development; and

(j) to ensure that development conforms to the Local Planning Strategy and the principles of any Local Planning Policy adopted by the Council.

The application proposes a mixed use development comprising commercial development and 40 residential apartments and the land uses proposed are considered to fit in well with the objectives of the Town Centre zone.

By virtue of clause 5.10.3 of the Local Planning Scheme No 10, the local government may, at its discretion, permit residential development within the Town Centre Zone to a maximum density of R Inner City. Residential development shall only be permitted where the local government is satisfied that this development is complementary to the scale and character of buildings within the Town Centre Zone.

The notes to table 4 of the Residential Design Codes state that *Residential Development in land zoned R-IC is to be assessed under the provisions of the R-AC3.*

It should also be noted that the Town has adopted the Bassendean Town Centre Strategy and Guidelines as a planning policy under the Local Planning Scheme No 10 and the proposal has been assessed against the Strategy and Guidelines and Part 7- *Design elements for multiple dwellings in areas with a coding of R30 or greater and within mixed use development and activity centres - State Planning Policy 3.1- Residential Design Codes.*

The proposal has been assessed against primarily the Part 7 of the Residential Design Codes and the Town Centre Strategy and Guidelines: details of this assessment may be found in attachment No 1. A summary of the assessment is included below.

Design Element	**Residential Design Codes**	**Town Centre Strategy**	**Compliance**
7.1.1 Plot ratio	2.0	Building envelop	Complies
7.1.2 Building height	Top of external wall = 20m Top of pitched roof =23m	5 Storey	Complies
7.1.3 Street setback	Minimum primary =2 m Minimum secondary =2 m	Developments should generally have nil setbacks to front and side boundaries	Complies with Town Centre Area Strategy
7.1.4 side and rear boundary setbacks	Table 5 = 4m Mixed use table 4 Max height 7.0m Average 6.0m Max length 20.46m	Developments should generally have nil setbacks to side boundaries	Complies with Town Centre Strategy
7.1.5 Open space	0	No requirements	Complies
7.2.1Surveylance of the street	Building addresses street	Building addresses street	Complies
7.2.2.street walls and fences	Front walls and fences within the front setback are visually permeable above		Complies

	1.2m		
7.2.3 Building appearance	Needs to comply with local planning policy		Complies
7.3.1 Outdoor living areas	Each unit to be provided with a balcony of appropriate size	Each unit to be provided with a balcony of appropriate size	The western units appear to include balconies with an area of around 11 Sq. m however part of the balconies are below the minimum width of 2.4m- impose condition
7.3.2 Landscaping	The street setback developed without car parking and a maximum of 50%hard surface.		Complies
7..3.3 on-site car parking provision	Residential Commercial		Complies Requires Discretion
7.3.4.- design of car parking spaces	Compliance with Australian standards		Appears to comply but no details of ramp- impose condition
7.3.5 Vehicular Access	Vehicular access is limited to one opening per 20m street frontage that is visible from the street.		Complies
7.3.6 site lines at vehicle access points and street corners	Structures and vegetation are not to exceed 0.75m in height within of where wall and fences adjoin vehicle access points		Complies
7.3.7 site works	Excavation and filling		Complies
7.4.1 Visual Privacy	Cone of vision	Rear setbacks from residential properties should provide for privacy and comply with R code requirements.	Complies
7.4.2 solar access for adjoining sites	Not to overshadow		Complies

	adjoining property by more than 25%=330m^2		

7.4.3 Dwelling size	Minimum 20% I bedroom up to a maximum of 50 % of the development Minimum 40% 2 bedrooms Development does contain any dwelling smaller than 40 m^2	15% of dwellings in any development shall be affordable-promotes 1bed/bath or 2 bed/bath are encouraged to provide affordable housing for younger and older people.	Complies
7.4.4Outbuidings	Size of outbuildings		N/A
7.4.5 External fixtures	Solar collectors are ok Visible external fixtures limited		Complies
7.4.6 Stormwater disposal	All stormwater to be directed to garden areas sumps or rainwater tanks and retained on site where possible		Complies
7.4.7 Essential facilities	Storerooms 1 per unit and 4m^2 with a minimum of 1.5 Rubbish bins Clothes drying		Complies Appears to Comply but condition included in recommendation Variation sought

The following section of this report includes a discussion of the areas of the application that requires discretion and also discusses some of the design features of the proposed building principally against the Town Centre Area Strategy and Guidelines.

The Local Planning Scheme No 10, by virtue of Clause 5.5, gives the local government the ability to vary the site and development standards for all development other than residential development.

Similarly, the Town Centre Area Strategy, which is adopted as a Planning Policy under the Scheme, gives the discretion to vary any part of the Guidelines, subject to the quality of the building and place design being considered when granting any variation.

The Residential Design Codes provides acceptable development standards to ensure a certain path to approval and also the opportunity to provide performance based solutions.

Car parking

Residential

The residential component of the development requires the provision of 41 bays for residents and 10 bays for visitors. The visitor bays are required to be provided outside and security barrier. There is also a requirement to provide 14 bicycle bays for residents and 4 bicycle bays for visitors.

The proposal includes 61 car parking bays for residents with 24 bays in tandem at the basement level. This means that the basement will provide for resident parking for 37 of the 40 units.

A further 10 resident parking (5 tandem bays) are proposed at the ground floor together with the required 10 bays for visitors to the residents.

The proposal also includes 4 motor cycle bays.

Commercial parking

The proposal includes three commercial tenancies as shown in the table below. While the exact uses of the commercial tenancies are not known at this stage, the likely uses for the tenancies are shown below:

Area	Gross floor area m²	Net floor area m²	Land use m²
Commercial tenancy 1 Ground floor	334	290	Café 190 Retail 100
Commercial tenancy 2 Ground floor	122	100	Retail 100
Commercial tenancy 3 Ground floor	182	140	Office 140
Total	638	530	530

The following table shows the required amount of car parking required based on the Local Planning Scheme No 10 and the Activity Centres Policy:

Land use	LPS requirement	Activity Centres requirement
Café	25 Bays *	Not mentioned
Shop	16 bays **	10 bays****
Office	7 bays ***	3 bays

* based on an estimated capacity of 100 people with one space for every four people.
** based on 8 bays per 100m² gross floor area.
*** based on 1 bay per of ever 20m² of lettable floor area.
**** based on 5 bays per 100m².
***** based on 2 bays per 100m².

Based on the above, 48 bays would be required to comply with Scheme, and 38 bays would be required to be provided to take account of the Activity Centre Policy. The proposal intends to provide 19 commercial bays onsite together with an additional 4 indented bays within the street reserve.

The matter of the shortfall of commercial parking has been discussed with the applicant. It is agreed that the four of the bays annotated for resident parking should be made available for commercial parking. As these bays are located in tandem they will need to be allocated to the owners and staff of the commercial tenancies.

It is understood that the Activity Centres Policy reduces the demand for parking spaces due to the proximity of public transport and the availability of public parking. The application site is located approximately 520m from the Bassendean Train Station; 750m form the Success Hill Train Station and 400m from the Wilson Street car park. There is also street parking available throughout the Town Centre and surrounding streets.

It is interesting to note that the while the Activity Centres Policy speaks in general terms on reducing the amount of car parking in Activity Centres, it only specifically mentions a reduction in the number of car bays for offices, retail and showrooms: it is silent on land uses such as restaurants and cafes, unless the intention is to include such uses in the broader definition of retail.

The local government is requested to approve the proposal with a reduction in the number of car bays for the commercial component of the development to 23 car parking bays onsite, together with the proposed additional four bays proposed for the Whitfield Street road reserve. This approach is supported by the Manager Development Services, as the intention behind the proposal and the Town Centre Area Strategy is to activate the street and to bring vibrancy to the Town Centre, particularly beyond daylight hours.

Alternatively, a condition could be added to the approval limiting the use of the commercial tenancies to shops and offices. An appropriate condition could read as follows:

The commercial tenancies at ground and first floor shall be used for shops and offices only.

Such a condition would cause the car parking provision for the commercial component to comply with the Activity Centres Policy on the provision of parking spaces.

Floor to ceiling heights – Town Centre Area Strategy

The Town Centre Area Strategy and Guidelines requires the ground floor, floor to ceiling height to be a minimum of 4.0 metres to provide a consistency with the

historic buildings in the Town and flexibility of use. In addition, upper floor, floor to ceiling heights should allow for future change of use.

The proposal includes a ground floor, floor-to-ceiling height of 3850mm and a height of 3150mm for the apartments.

The application is seeking the exercise of discretion on this aspect and has provided the following justification:

Floor to Floor Heights: The ground to first floor height is 150mm below the 4.0 metres suggested at 3850 [22 risers at 175mm] and the floor to floor of the apartments set at 3150mm [18 risers at 175mm] this allows us to achieve the 5 storey frontage to Old Perth Road under the height limits of the R-AC3 zoning. This building is purpose designed for residential and this typical floor to floor allows us to achieve a 2700 ceiling height in the apartments whilst maintaining the acoustic separation required. A floor to floor of 3500mm would be inappropriate as the intensive nature of the wet services would not lend itself to any adaptive reuse besides re-configured residential.

This particular variation is supported by the Manager Development Services.

Removal of Street Trees

The proposal involves the removal of 3 street trees being 2 x juvenile Chinese Tallows and one mature Queensland Box tree. The trees are proposed to be removed to accommodate an awning over the footpath which is a requirement of the Town Centre Area Strategy and the Codes.

This particular element is supported by the Manager Development Services and a condition has been included in the recommendation calling for the applicant to pay the costs to the Town of Bassendean of the removal of the trees and for replacement trees.

Refuse disposal

The project architect has been working with Council officers on the adequacy and positioning of rubbish facilities. The submitted plans indicate rubbish facilities being provided adjacent to the access easement to the south of the site. There has been agreement with the architect that the commercial waste and recycling facilities will be stored separately from the residential waste and recycling. Officers are confident that adequate provision will be made for refuse disposal. There has also been and continues to be discussion with the Town's refuse and recycling contractor.

However, the exact nature of the refuse and recycling will depend on the nature of the uses included, particularly whether food shops or a café is included. Therefore a condition has been included in the officer recommendation as follows:

Prior to the construction of the building hereby approved the applicant shall submit for the approval of the Town of Bassendean an outline of the refuse and recycling regime demonstrating that adequate provision has been made to cater for the estimated demand of the building and is capable of collection.

Clothes Drying: Element A7.3 – Residential Design Codes

The Residential Design Codes require the provision of a communal area set aside for clothes drying or clothes drying facilities excluding electric clothes dryers screened from public view for each multiple dwelling.

The applicant has requested a variation to waver this requirement as all apartments will be fitted with directly exhausted clothes dryers and external clothes lines will mar the aesthetic to Old Perth Road.

The requested variation will mean that the only way of drying clothes will be through electrical means; however the electric clothes dryers are likely to be adequate for the needs of the residents and have no impact on the amenity of the area.

While this particular variation is supported by the Manager Development Services if it is considered that external drying facilities should be provided then the following condition should be added to any approval:

External clothes drying facilities shall be provided in accordance with clause A7.3 of the Residential Design Codes
Design Response:

The following section of this report contains information on the design response as supplied by the project architect.

Facade & Streetscape: As this is the first major building under the new zoning on Old Perth Road it will by its very nature be larger and taller than the surrounding developments made under less intensive codes. That said the building form responds to the corner location on the road bend on the approach to the town centre stepping up with a corner feature. The two storey building across Whitfield Street transitions to this feature with and the building heights as one approaches and views from the East. To the West a circa 1950 single storey shop with street awning will nestle against the development's western wall. This with the screening to the single bedroom balcony at this building edge reducing the impact of the structure from pedestrian view. This western wall will have a grid of grooves and form a neutral backdrop when seen from a distance. To the street frontages the façade is articulated by window and balcony elements augmented by the sun screening elements.

Provision of Public Bicycle Racks: 14 No. Public racking shown on footpath may be as part of landscape treatment although we would like to discuss locating it on Old Perth Road frontage at the solid ground floor portions of the front facade. 14 No. resident bays in basement.

Ground Floor Finishes: Materials adjusted to display 'finer grain' at main street ground level especially at the max. 2M areas of the front facade.

Low Pitched Roofs: 5% pitched roofs are concealed behind parapet walls on the two street facades as is the 22% photo-voltaic 'house' power array. The roof is unlikely to be seen at the rear except from a great distance. The circular 'drum' at the corner with its out-raking 'cornice' will conceal any roofing required for this feature.

Materials and Colour: Refer revised drawings: The colour rendering scanned for submission may be giving a false reading of the 'brightness of the ochre & glass colour but we assure you that the philosophy is to use a' traditional' or 'heritage red' brick [midland] and matching panel colour against white / limestone banding & trim

hues. The materials and colour selections remain as previously proposed but the drawings adjusted to more closely reflect the true colours. On the Old Perth Road frontage the screens & shading devises will be in 50% free area charcoal reinforced plastic in hot dip galvanised frames and the blank wall of the balconies that will be seen from the West will be finished in ''Shadowclad' eco-ply' in timber stain colours. The underside of the top of the 'drum' at the corner will also be in this material as a feature.

Climate & Energy Response: Energy Consultant: Obviously the project will be designed in compliance with the Building Code of Australia and particularly for Part 'J' - Energy Efficiency. To this end we have engaged an ESD consultant [Mr Daniel Smee, ESD Australia] to advise during documentation and provide Energy assessment & certification for the project upon completion. [Copy of qualifications attached] We have directed him to Section 9.1 of the Town Centre Area Strategy and he will work with ourselves and the consultant team to ensure the best possible star rating equivalence is obtained. We hope to use this process to achieve a building that uses energy efficiency as a market advantage during the selling period.

Noise Attenuation: Acoustic Consultant: Obviously the project will be designed in compliance with the Building Code of Australia and to meet the Environmental Noise Regulations. To this end we have engaged an acoustic consultant [Mr Norbert Gabriels, Gabriels Environmental Consultants] to advise on the building construction and location of plant. His report will acknowledge the different functional uses within the structure and inform the construction to avoid conflict and loss of amenity.

CONCLUSION:

This application represents the first Mixed Use development within the Town of Bassendean to take advantage of the site's development potential under the Local Planning Scheme No 10 and the Town Centre Area strategy and Guidelines.

The proposal has been assessed and has found to be compliant with the Scheme, incorporating the Residential Design and Strategy for the greater part.

The assessment of the proposal indicates that the proposed building should deliver the type of building envisaged by the site's zoning and the Town Centre Area Strategy.

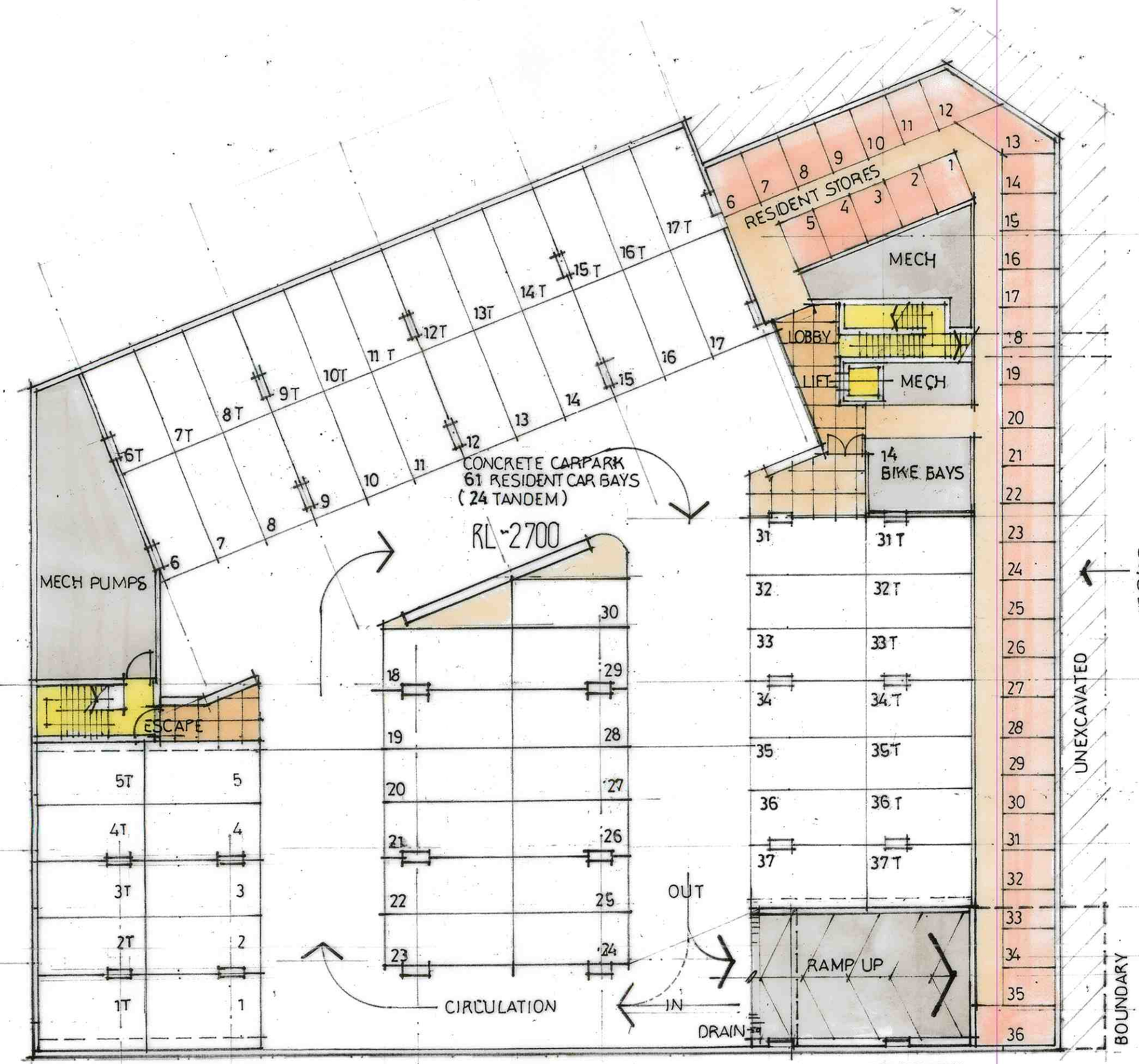
The applicant is seeking the Town to exercise discretion on certain aspects of the development, and the Manager Development Services supports such exercise of discretion as outlined in this report.

Should the exercise of discretion not be supported by the approving authority, suggested conditions have been incorporated in the report to remove the exercise of discretion

PLANS RECEIVED 10 AUGUST

JADD PROJECTS PTY LTD

'B' 9.8.12 RAMP AMENDED.



NOTES

5400 X 2400 TYPICAL CAR BAY
5000 X 2400 TANDEM BAY [T]
5800 AISLE WIDTH.

NORTH

SCALE 0 5 10

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN.

BASEMENT PLAN
LEVEL 0.

REV B

10006 160412

DA 01

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PLANS RECEIVED 10 AUGUST

JADD PROJECTS PTY LTD

'B' 9.8.12 RAMP&PARKING AMENDED.

OLD PERTH ROAD

STREET PARKING

ENTAY

EX TREE

BOUNDARY 46800

-400

8480

SIDEWALK CANOPY (MIN 2.5) (POSSIBLE ARTWORK INSTALLATION)

-300

RAMP

LANDSCAPE / PUBLIC ART.

COMMERCIAL TENANCY 2. CONCRETE GROSS AREA 122 SQ M NET 100 SQ M.

LOBBY

RL 000

EX TREE

-050

ELE

FF ACCESS STAIR

ESCAPE

14 BIKE STATIONS

COMMERCIAL TENANCY 1. CONCRETE GROSS AREA 334 SQ M NET 290 SQ M

ESCAPE

BOUNDARY 43700

LIFT

M

HC

TRANSFORMER HV SWITCH.

C F

ENTRY

WHITFIELD STREET

C8 C9 C10 C11 C12 C13 C14 C15 C16 DISABLED C17

CONCRETE DECK TO FALLS

39 CAR BAYS

C = COMMERCIAL = 19

R = RESIDENT =5+5T

V = VISITOR =10

RL -100

C7

C6

ESCAPE

MECH IN

BOUNDARY 31000

T5 R 5

T4 R 4

T3 R 3

T2 R 2

T1 R1

V 18 C29

V 19 C28

V 20 V27

V21 V26

V22 V25

V23 V24

DECK FALLS TO R.O.W. LEVEL APPROX. 300

C 30

C 31

C 32

C 33

C 34

MC1

2

3

4

RESIDENCE 101/A 82 + 12 + GARDEN

RL +700

102/AA 57 TYPE 1+1

GARDENS

FOOTPATH

TCE

POSSIBLE DEVELOPER STREET BAYS COMMERCIAL FOOTPATH AND LANDSCAPE

RAMP UP

OUT

IN

50 290 BOUNDARY

INCLUDING SERVICE / EMERGENCY VEHICLES.

1000 ROW WIDENING

-400

-200

-050

2200 X 950 PLASTIC GENERAL & RECYCLE BINS CONTRACT PICKUP

2000 SETBACK

RL 000 GFL.

R.O.W.

NORTH

SCALE 0 5 10

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN.

GROUND FLOOR PLAN
LEVEL 1.

10006 160412

REV B

DA 02

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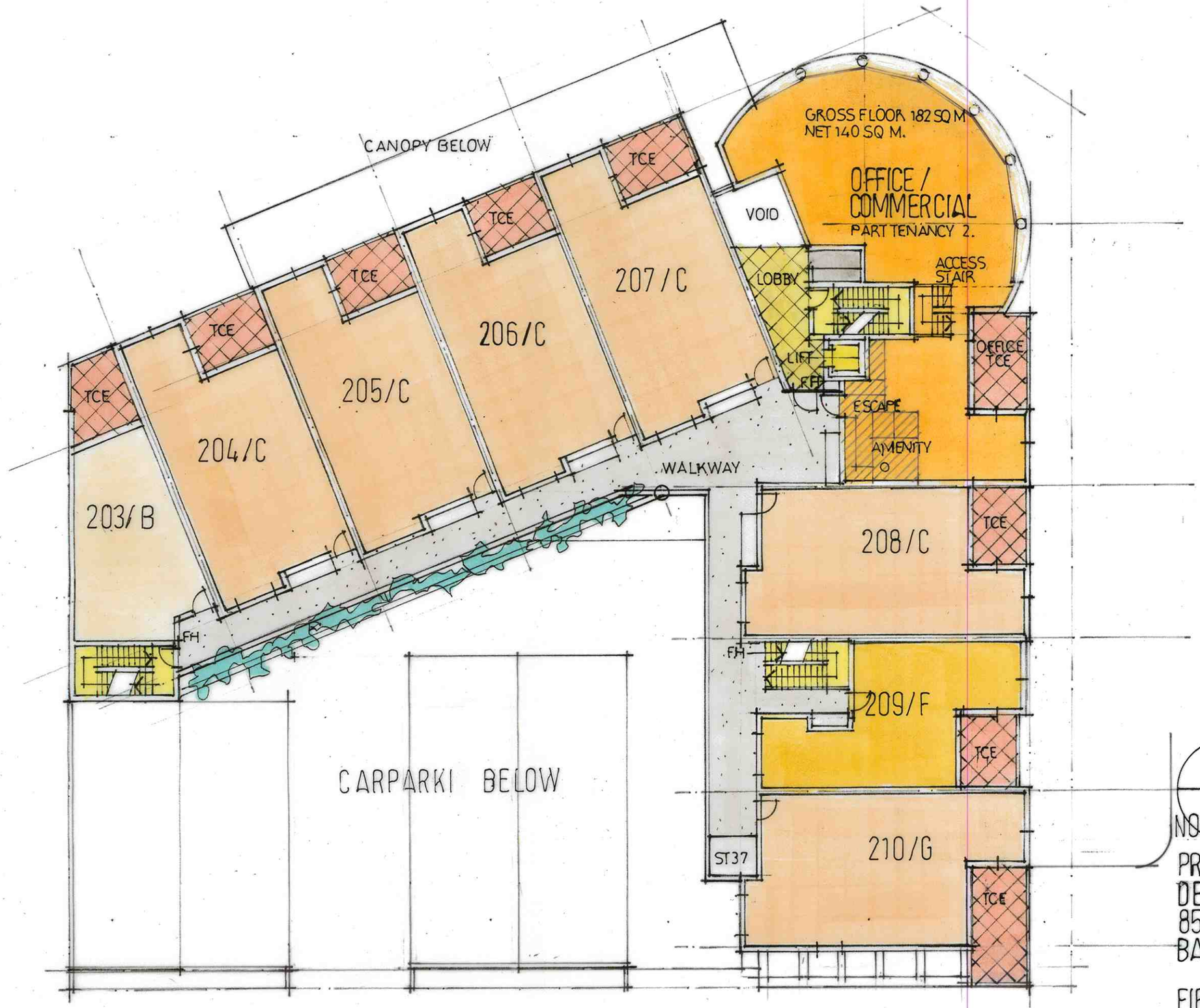
PLANS RECEIVED 10 AUGUST



NORTH

SCALE 0 5 10

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN.

FIRST FLOOR PLAN
LEVEL 2

10006 160412

B

DA 03

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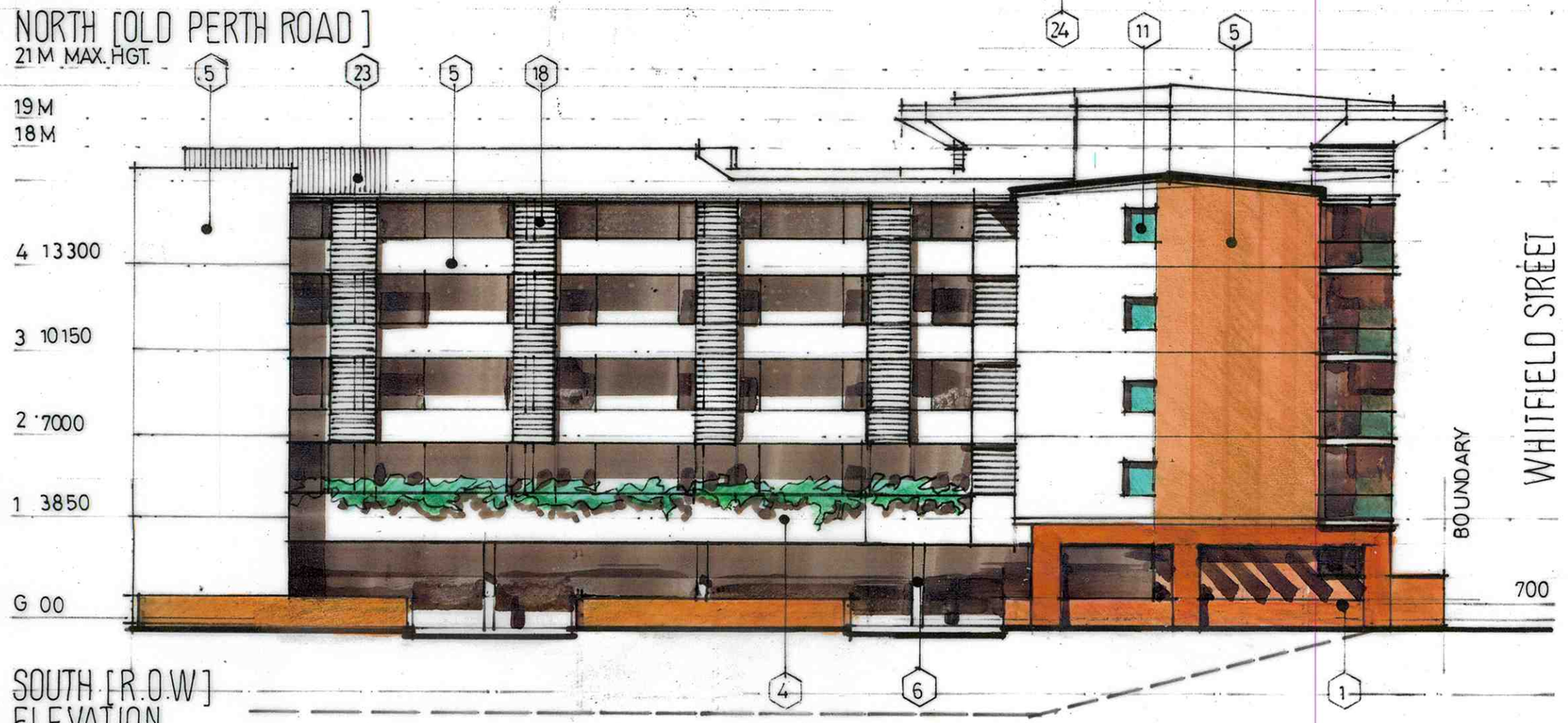
NORTH [OLD PERTH ROAD]
21 M. MAX. HGT.



SOUTH [R.O.W]
ELEVATION.

EXTERNAL FINISHES & COLOUR-WAYS

SUB-STRATE	FINISH	COLOUR
1 FACE BRICK WORK [cream joints]	FACEWORK	OCHRE
2 MASONRY WITH SYSTEM RENDER	TEXTURE	WHITE
3 CONCRETE PANEL WITH SYSTEM RENDER [1]	TEXTURE	OCHRE
4 CONCRETE PANEL WITH SYSTEM RENDER [2]	TEXTURE	WHITE
5 CONCRETE PANEL WITH SYSTEM PAINTWORK	HIGH BUILD	WHITE
6 CONCRETE COLUMNS: CAST OFF-FORM	TEXTURE	WHITE
7 SOFFITS: CFC WITH EXPRESSED JOINTS [INSULATED]	LOW-SHEEN	WHITE
8 SOFFITS: CONCRETE WALKWAYS & STAIRS	FLAT	DARK GREY
9 SOFFIT: ROTUNDA FEATURE: MARINE PLYWOOD	LOW-SHEEN	CLEAR
10 LOUVRE INFILLS: P.C. ALUMINIUM	GLOSS	CHARCOAL
11 WINDOWS: ALUMINIUM POWDER-COAT	GLOSS	CHARCOAL
12 SLIDING DOORS: ALUMINIUM POWDER-COAT	GLOSS	SILVER
13 APARTMENT DOORS [Coded by Floor]	GLOSS	ACCENT COLOUR
14 ESCAPE DOORS [with Statutary signage]	GLOSS	RED
15 BALUSTRADES: CONCRETE OR MASONRY	LOW-SHEEN	WHITE
16 BALUSTRADES: GLASS & P.C. ALUMINIUM	GLOSS	SILVER
17 HANDRAILS: STEEL: HOT DIP GALVANISED	FLAT	GREY
18 SCREENING: FIBRE REINFORCED PLASTIC	LOW-SHEEN	CHARCOAL
19 SUN SCREENING: FIBRE REINFORCED PLASTIC	LOW SHEEN	ACCENT COLOUR
20 STEEL FRAMES: HOT DIP GALVANISED	FLAT	GREY
21 TERRACE PAVING: TERRA-COTTA TILING	FLAT	OCHRE
22 WALKWAY / EXTERNAL STAIR CONCRETE	TEXTURED	DARK GREY
23 ROOF SHEETING & RAINWATER GOODS	GLOSS	WHITE
24 CANOPY : HDG STEEL & ARTWORK GLAZING	FLAT	GREY

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN.

ELEVATIONS

B

10006 121211

DA 08

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0419 119 917

PLANS RECEIVED 10 AUGUST

JADD PROJECTS PTY. LTD.

EAST [WHITFIELD STREET]

21M MAX. HGT.

WEST ELEVATION

BASEMENT - 2700

EXTERNAL FINISHES & COLOUR-WAYS SUB-STRATE	FINISH	COLOUR
1 FACE BRICK WORK [cream joints]	FACEWORK	OCHRE
2 MASONRY WITH SYSTEM RENDER	TEXTURE	WHITE
3 CONCRETE PANEL WITH SYSTEM RENDER [1]	TEXTURE	OCHRE
4 CONCRETE PANEL WITH SYSTEM RENDER [2]	TEXTURE	WHITE
5 CONCRETE PANEL WITH SYSTEM PAINTWORK	HIGH BUILD	WHITE
6 CONCRETE COLUMNS: CAST OFF-FORM	TEXTURE	WHITE
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15 BALUSTRADES: CONCRETE OR MASONRY	LOW-SHEEN	WHITE
16 BALUSTRADES: GLASS & P.C. ALUMINIUM	GLOSS	SILVER
17 HANDRAILS: STEEL: HOT DIP GALVANISED	FLAT	GREY
18 SCREENING: FIBRE REINFORCED PLASTIC	LOW-SHEEN	CHARCOAL
19 SUN SCREENING: FIBRE REINFORCED PLASTIC	LOW SHEEN	ACCENT COLOUR
20 STEEL FRAMES: HOT DIP GALVANISED	FLAT	GREY
21 TERRACE PAVING: TERRA-COTTA TILING	FLAT	OCHRE
22 WALKWAY / EXTERNAL STAIR CONCRETE	TEXTURED	DARK GREY
23 ROOF SHEETING & RAINWATER GOODS	GLOSS	WHITE
24 CANOPY : HDG STEEL & ARTWORK GLAZING	FLAT	GREY

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN

ELEVATIONS

B

DA 09

10006 121211

BEVILAQUA DESIGN DEVELOPMENT
ARCHITECTURE URBAN AND INTERIOR
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0419 119 917

JADD PROJECTS PTY LTD

PLANS RECEIVED 25 JULY 2012

316 /D
112 5 + 17.
2B / 2B PLUS STUDY

TCE

LOBBY

LIFT

FH

315 /C

314 /C

313 /C

312 /C
89·2 + 10
2B / 2B

311
TYPE B
52·3 + 13
1B/1B

317/E
68·3 + 10.5
2B/1B

WALKWAY

318 /C

319/F
67 + 10
2B/1B

320/G
89·2 + 10
2B/2B

ST 38

RL: 7000

NORTH

SCALE
0 5 10

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN.

SECOND FLOOR PLAN
LEVEL 3

A

10006 160412

DA 04

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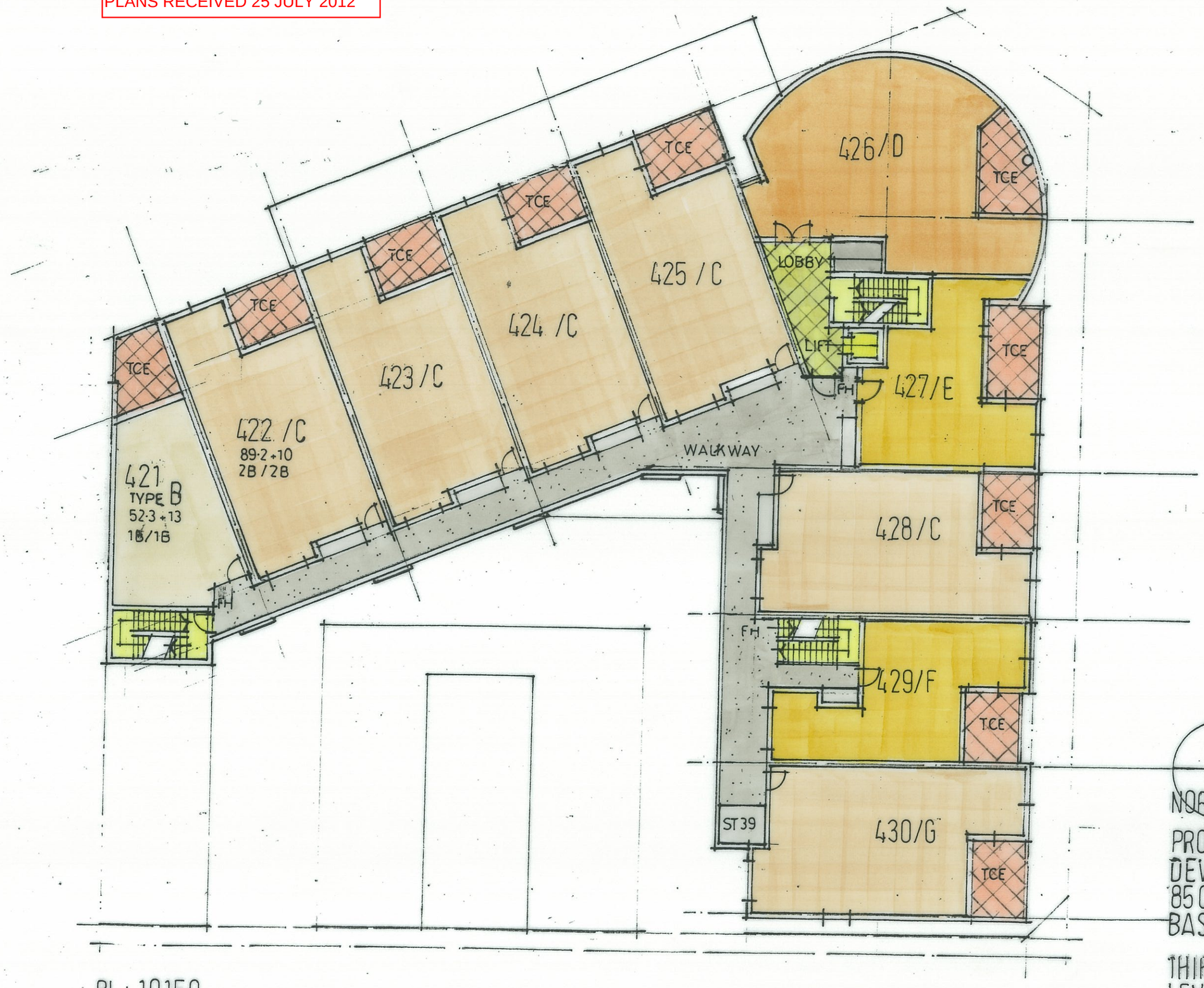

RL : 10150

NORTH

SCALE 0 5 10

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN.

THIRD FLOOR PLAN
LEVEL 4

DA 05

BEVILAQUA DESIGN DEVELOPMENT
ARCHITECTURE URBAN AND INTERIOR

JADD PROJECTS PTY LTD

PLANS RECEIVED 25 JULY 2012

536 /D
TCE
TCE
LOBBY
535 /C
TCE
534 /C
TCE
533 /C
TCE
TCE
532 /C
89·2 +10
2B /2B
531
TYPE B
52·3 +13
1B/1B
LIFT
FH
537/E
TCE
WALKWAY
538/C
TCE
FH
539/F
TCE
ST40
540/G
FH

RL: 13·300

NORTH

SCALE
0 5 10

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN.

FOURTH FLOOR PLAN
LEVEL 5

A

DA 06

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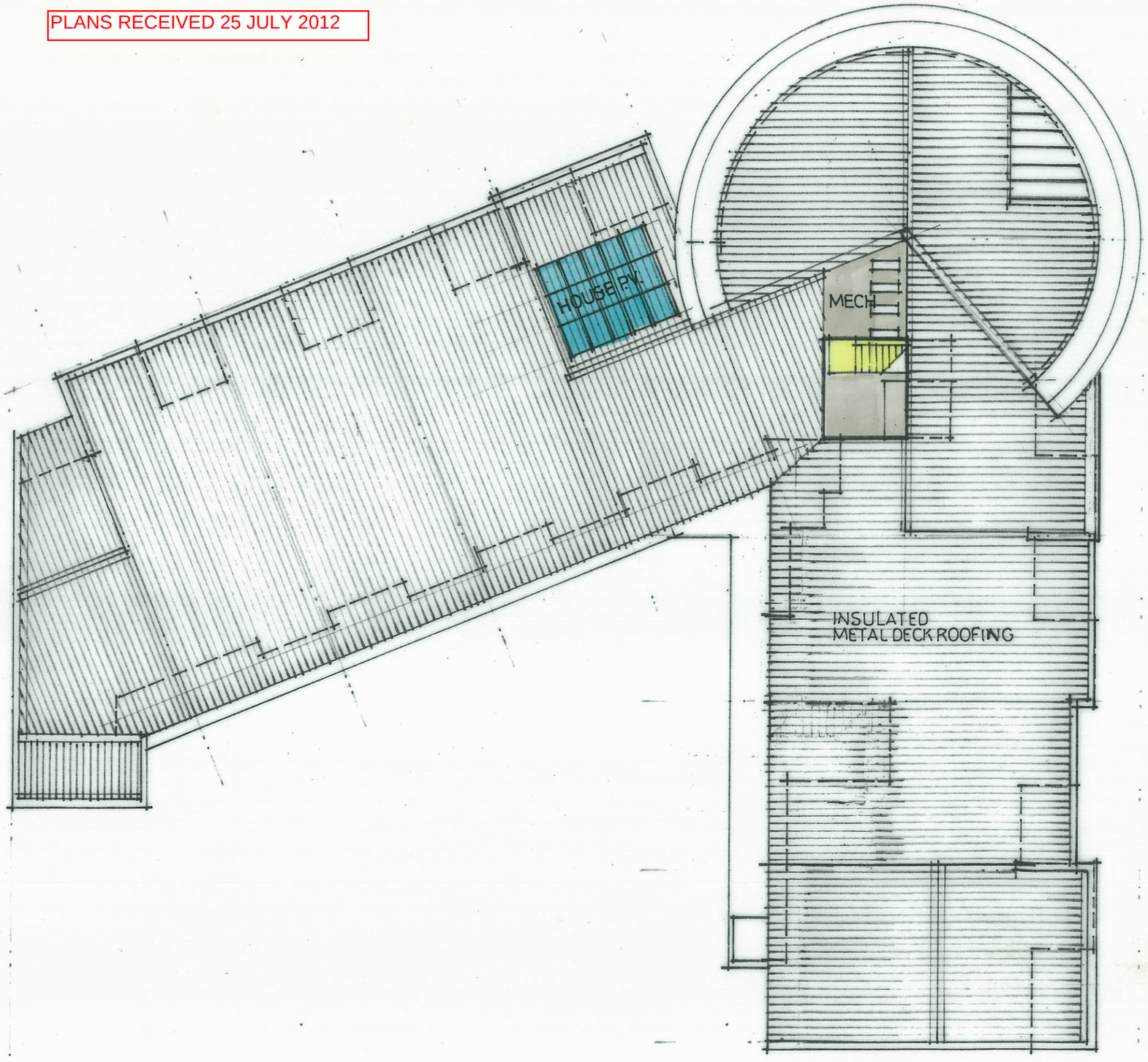

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN

ROOF PLAN

A

DA07

10006 121211

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0419 119 917

PLANS RECEIVED 25 JULY 2012

JADD PROJECTS PTY LTD

DESK
LOUNGE
TERRACE
GARDEN
UP
AC
DINING
KITCHEN
BEDROOM 2
CAR PARKING
HWS
BATHROOM
ENSUITE
WIR
BEDROOM 1.
GARDEN
FOOTPATH & VERGE WHITFIELD STREET.

SCALE
0 1 2 3 4 5

FLOOR PLAN 1:50 at A3

UNIT PROFILE

AREA	82 2B/2BATH
TERRACE	12 + GARDEN
CARS	2

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN.

UNIT TYPE A

10006 160412

A

DA 11

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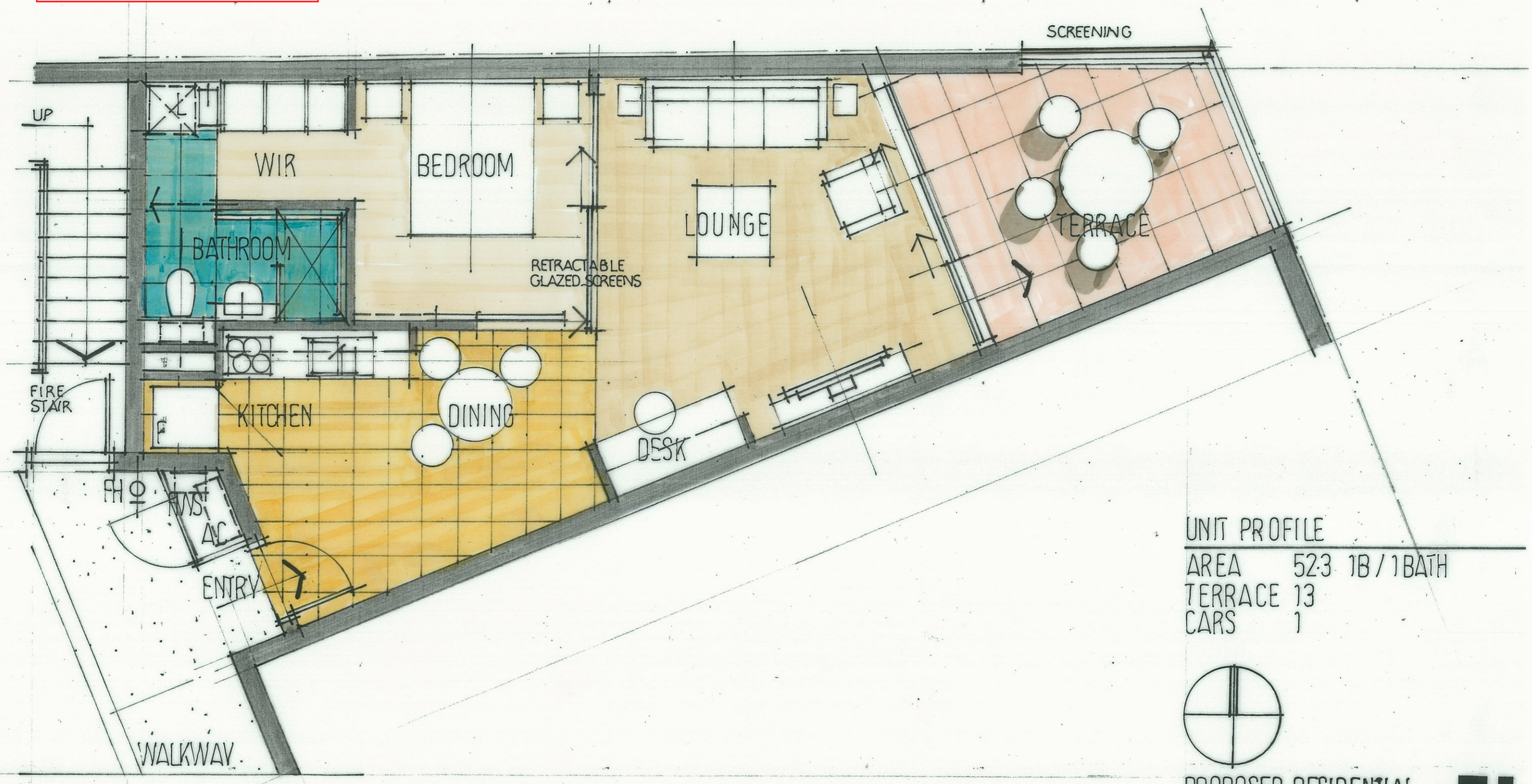
PLANS RECEIVED 25 JULY 2012



FLOOR PLAN 1:50 at A3

SCALE

0 1 2 3 4 5

UNIT PROFILE

AREA	52·3	1B / 1BATH
TERRACE	13	
CARS	1	

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN.

UNIT TYPE B

10006 160412

DA 12

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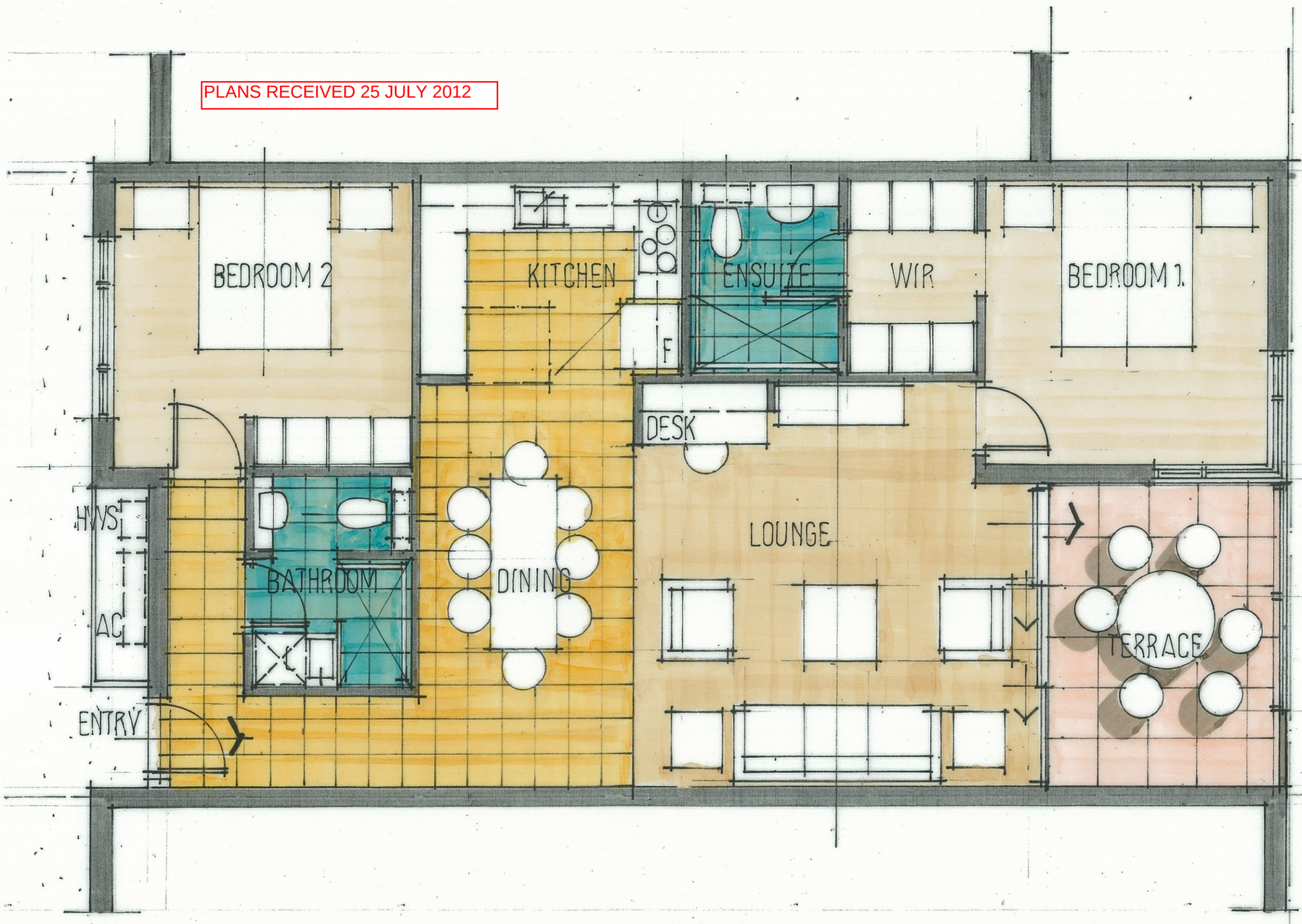
PLANS RECEIVED 25 JULY 2012



FLOOR PLAN 1:50 at A3

SCALE

0 1 2 3 4 5

UNIT PROFILE

AREA 89.2 2B/2BATH
TERRACE 10
CARS 2

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN.

UNIT TYPE C

10006 160412

A

DA 13

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0419 119 917

PLANS RECEIVED 25 JULY 2012

JADD PROJECTS PTY LTD

UNIT PROFILE

AREA 110·0 2B/2BATH+POWDE
TERRACE 12·20 STUDY
CARS 2

BEDROOM 1.
WIR
STUDY [HOME·OFFICE]
ENSUITE
LOUNGE
DINING
TERRACE
HALLWAY GALLERY
KITCHEN
POWDER
BEDROOM 2
ENTRY LOBBY
SERVICES
ENSUITE
W.I.R
FIRE STAIR ESCAPE

FLOOR PLAN 1:50 at A3

SCALE
0 1 2 3 4 5

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN.

UNIT TYPE D (A)

10006 160412

DA14

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WESTERN AUSTRALIA 6953
0419 119 917

JADD PROJECTS PTY LTD

ADJOINING APARTMENT
TYPE 'D'

PLANS RECEIVED 25 JULY 2012

FIRE STAIR
ESCAPE

ST.

SCREENING

LOUNGE

STUDY

LIFT

TERRACE
10·71 SQM
(4·46 X 2·40)

FH

ENTRY

DINING

HWS

KITCHEN

AC

BATHROOM

WIR

BEDROOM 1.

FLOOR PLAN 1:50 at A3

SCALE 0 1 2 3 4 5

UNIT PROFILE

AREA	68·3 1B/1 BATH
TERRACE	10·71
CARS	1.

PROPOSED RESIDENTIAL
DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN.

UNIT TYPE E REV A.

10006 160412

DA15

BEVILAQUA DESIGN DEVELOPMENT
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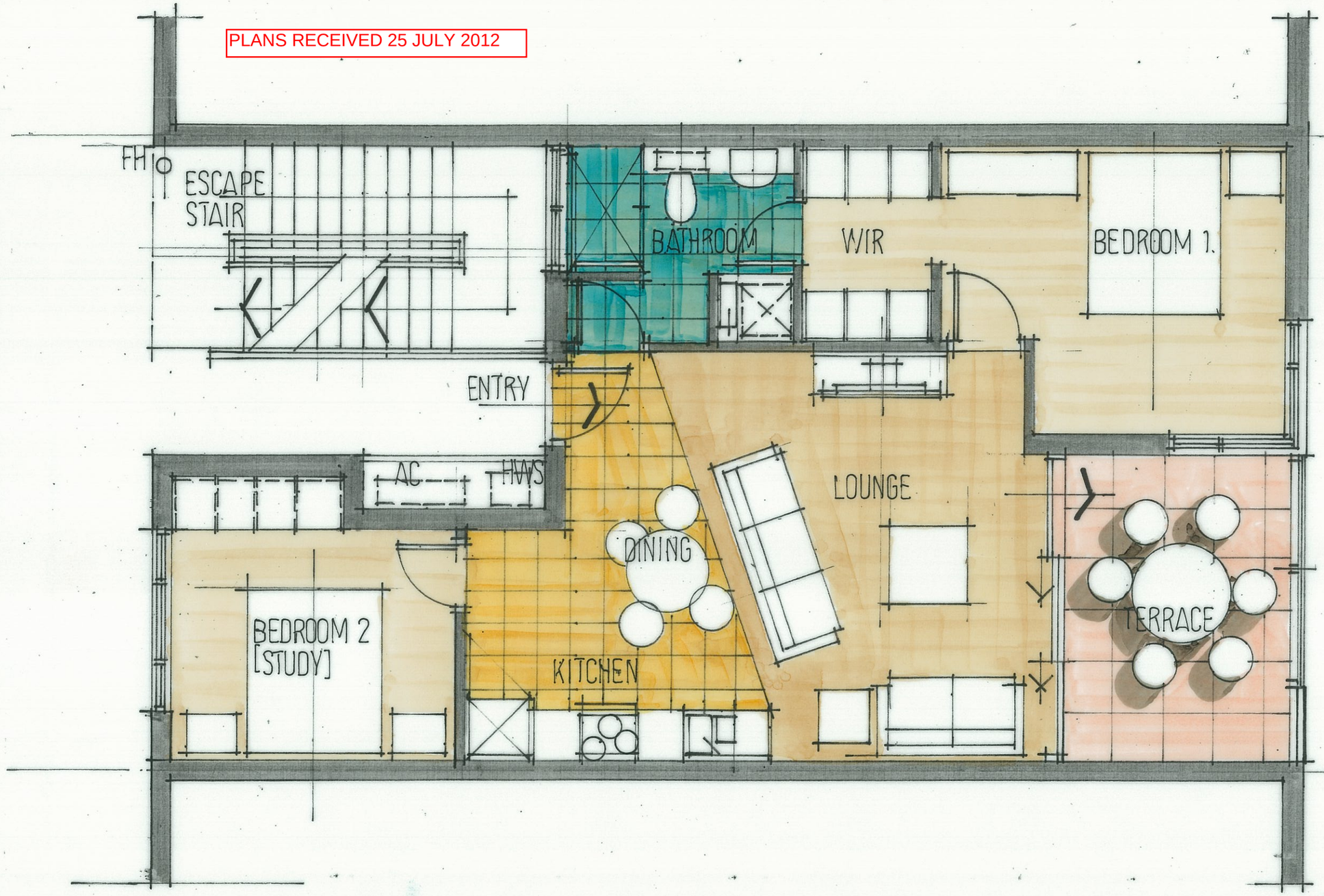
0419 119 917

JADD PROJECTS PTY LTD

PLANS RECEIVED 25 JULY 2012



FLOOR PLAN 1:50 at A3

SCALE

0 1 2 3 4 5

UNIT PROFILE

AREA	67	2B / 1BATH
TERRACE	10	
CARS	1.	

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN.

UNIT TYPE F

10006 160412

DA 16 A

BEVILAQUA DESIGN DEVELOPMENT
ARCHITECTURE URBAN AND INTERIOR
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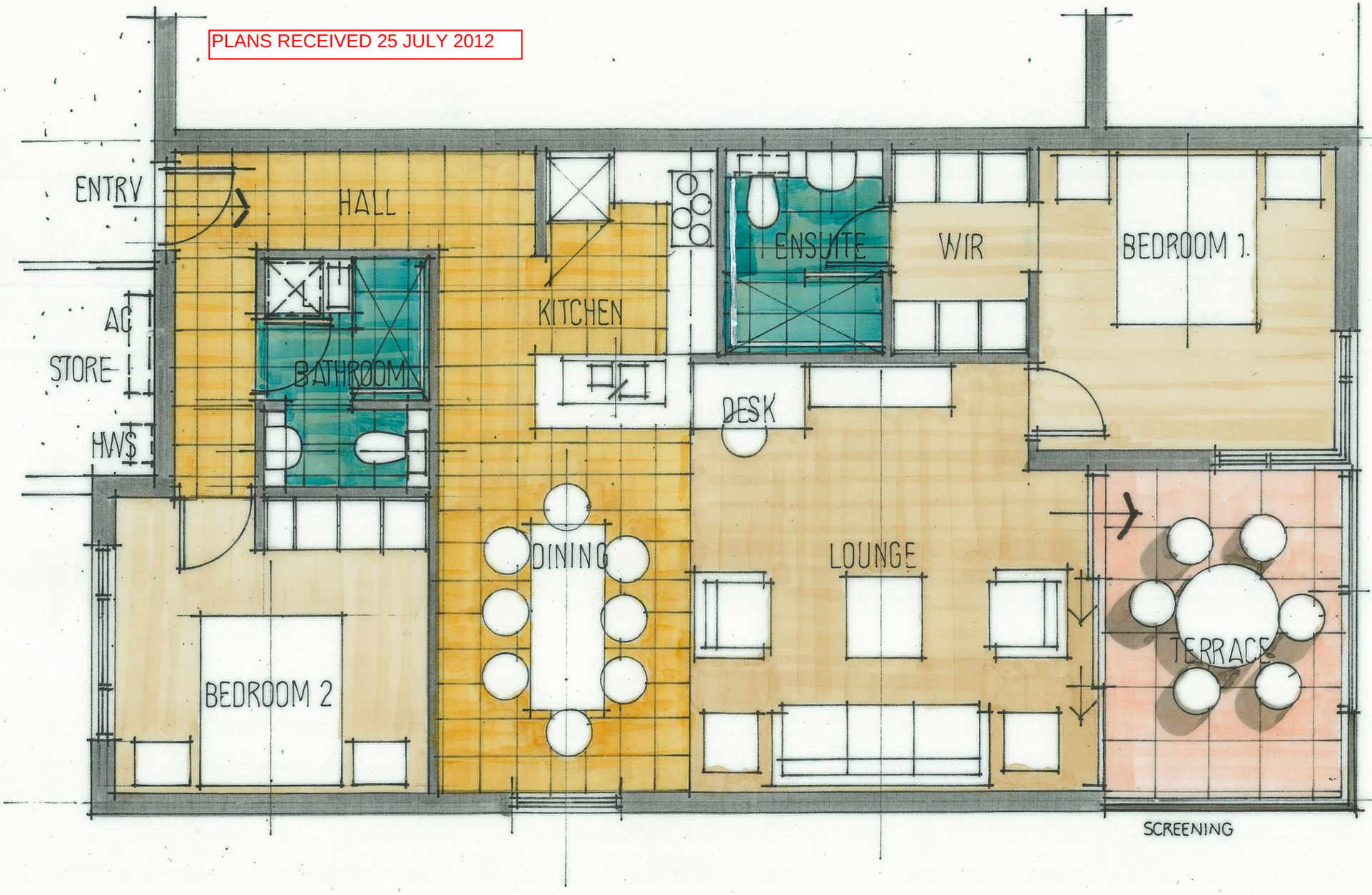
0419 119 517

JADD PROJECTS PTY LTD

PLANS RECEIVED 25 JULY 2012



UNIT PROFILE

AREA	89-2 2B/2BATH
TERRACE	10
CARS	2

FLOOR PLAN 1:50 at A3

SCALE

0 1 2 3 4 5

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN.

UNIT TYPE G

10006 160412

A

DA17

BEVILAQUA DESIGN DEVELOPMENT
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0419 119 917

JADD PROJECTS PTY LTD

PLAN RECEIVED 12 AUGUST 2012

RAMP TO BASEMENT PARKING

FLOOR PLAN 1:50 at A3

SCALE

0 1 2 3 4 5

UNIT PROFILE

AREA 51.70 1B/1BATH
TERRACE 12 + GARDEN
CARS 1.

PROPOSED RESIDENTIAL DEVELOPMENT LOT 3
85 OLD PERTH ROAD
BASSENDEAN.

UNIT TYPE AA

REV

10006 10 0812

DA 18

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0419 119 917

Assessment of 85 Old Perth Road the Residential Design Codes and Town Centre Area Strategy

Residential Design Codes R-AC3	**Specific requirements**	**Town Centre Strategy**	**Proposed**
7.1.1 Development complies with the maximum plot ratio requirements set out in table 4	Residential 2.0 = 4082m^2	An agreed envelope of footprint and height will define new development There is no plot ratio limit in the town centre.	3490 m^2 (total) 2852m^2 = 1.41- residential 638 m^2 commercial
7.1.2 Building height Development complies with the maximum height set out in table 4	Top of external wall = 20m Top of pitched roof =23m	A Maximum height of 5 storeys is set for buildings on Old Perth Road subject to streetscape shadowing and overlooking issues	5 storey-TCAS Top of external wall = 19m Top of pitched roof =21.2m
7.1.3 Street setback Development complies with minimum setback form the primary and secondary setbacks in accordance with table 4 Balconies are to be located entirely within the property boundary	Minimum primary =2 m Minimum secondary =2 m	Developments should generally have nil setbacks to front and side boundaries Residential development at ground level can be setback 2.0m to 4.0m to provide a transition between and private space	0 setback to Old Perth Road 2m setback to Whitfield Street. Balconies are located within the lots boundaries
7.1.4 side and rear boundary setbacks	Table 5 = 4m Mixed use table 4 Max height 7.0m Average 6.0m Max length 20.46m	Developments should generally have nil setbacks to side boundaries. Rear setbacks should be provided suitable to accommodate parking and avoid overshadowing of neighbouring buildings Rear setbacks from residential properties should provide for privacy and comply with R code requirements.	Side 0 Rear 700mm Height 17.0m Length 16.0m The extent of overshadowing would be 277sq m (21%) with about 75sq m overshadow on the adjoining property to the south. (14%)

7.1.5 Open space	Table 4 =0	No requirement for open space to be provided on site	
7.2.1Surveylance of the street	Building addresses street with facades parallel to the street with clearly defined entry points accessible from the street Habitable room windows or balconies facing street Basement parking no more than 1.0m above street Blank walls minimised Discourage large scale tenancies	•	Complies with Codes Balconies face street Basement parking below NGL Amended plans complies more than 80% glazing to commercial tenancy (88%)
7.2.2.street walls and fences	Front walls and fences within the front setback are visually permeable above 1.2m		No fences within street setback areas
7.2.3 Building appearance	Needs to comply with local Planning Policy Residential entrance to be minimised to maximise active commercial frontage. Function of residential and commercial components do not conflict Provide weather protection in commercial areas where appropriate.		Appears ok Awnings provided over footpath for commercial areas
7.3.1 Outdoor living areas	Each unit to be provided with a balcony or equivalent accessed directly off a habitable room with a minimum area of $10m^2$ with a minimum dimension of 2.4		203(b) too small + subsequent levels condition re size of balconies
7.3.2 Landscaping	The street setback developed without car parking and a maximum of 50%hard surface. Separate pedestrian paths providing wheelchair accessibility connecting		No parking proposed in front setback

	all entrys of the building with the public footpath and car parking areas. Landscaping between each six consecutive external parking spaces and to include shade trees. Lighting to be provided to pathways communal open space and car parking areas Clear sight lines at pedestrian and vehicular crossings		
7..3.3 on-site car parking provision	A3.1 small <75m = 0.75 medium 75-110= 1 per dwelling large >110= 1.25 per dwelling visitors 0.25 per dwelling A3.2 I bicycle space to each 3 dwellings for residents and I bicycle space to each 10 dwellings for visitors	Commercial floorspace. 1. GROUND FLOOR : Tenancy 1 : 334.01.sq m Gross 2. 290sqm Net 3. GROUND FLOOR : Tenancy 2 : 121.845 Sq. m (100sq net) 4. 3 FIRST FLOOR: Tenancy 2A : 182.57 Sq. m 140 sq m net TOTAL COMMERCIAL SPACE: 638.425 Sq.m **Car Parking based on LPS no 10** Ground floor tenancy 1Retail = 26 Ground floor tenancy 2 Retail = 10 First floor tenancy office = = 10 bays **Total of 46 bays** If restaurant on tenancy 1 I space for every four seats **Activity centres** **2 bays per 100m² for offices = 4 bays** **5 bays per 100m² for retail = 23 bays**	Small = 37 =37 bays Medium =3 =4 bays Visitors bays 40 X 0.25=10 **Bicycle parking for residents =14** **Bicycle parking for visitors = 4** **41 bays for residents** **10 bays for visitors** bays for visitors needs to be outside of any security barrier

7.3.4.- design of car parking spaces	All car parking spaces are designed in accordance with as 2890.1 Visitor spaces including bicycle place to be clearly marked Located close to and clearly signposted from the entry of the development and outside any security barrier Providing a barrier free path of travel for people with disabilities. All spaces except visitor spaces fully concealed form the street or public space		Complies but impose condition re parking and access ways to comply with AS/NZS 2890.1.2004
7.3.5 Vehicular Access	Vehicular access is limited to one opening per 20m street frontage that is visible from the street. Access to on site parking is to be adequately paved and drained from the property boundary to a constructed Street etc Formed driveways designed for two way access and to allow vehicles to enter the street in forward gear.		OK
7.3.6 site lines at vehicle access points and street corners	Structures and vegetation are not to exceed 0.75m in height within of where wall and fences adjoin vehicle access points		
7.3.7 site works	Excavation and filling		ok
7.4.1 Visual Privacy	Cone of vision	Rear setbacks from residential properties	Appears ok but further assessment

		should provide for privacy and comply with R code requirements.	required
7.4.2 solar access for adjoining sites	Not to overshadow adjoining property by more than 25%=330m^2		The extent of overshadowing would be 277sq m (21%) with about 75sq m overshadow on the adjoining property to the south. (14%)
7.4.3 Dwelling size	Minimum 20% I bedroom up to a maximum of 50 % of the development Minimum 40% 2 bedrooms Development does contain any dwelling smaller than 40 m^2	15% of dwellings in any development shall be affordable- promotes 1bed/bath or 2 bed/bath are encouraged to provide affordable housing for younger and older people.	20% 1 bedroom 8o% are 2 bedroom Smallest dwelling 67 m^2
7.4.4 Outbuildings			N/A
7.4.5 External fixtures	Solar collectors are ok Visible external fixtures limited		
7.4.6 Stormwater disposal	All stormwater to be directed to garden areas sumps or rainwater tanks and retained on site where possible		
7.4.7 Essential facilities	Storerooms 1 per unit and 4m^2 with a minimum of 1.5 Rubbish bins Clothes drying		Ok Dependent on actual use condition Clothes drying area need resolution

TOWN CENTRE AREA STRATEGY Considerations

Situated in central area of Old Perth Road

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Dwelling should not be reliant on air conditioning and be provided with cross ventilation and solar control for passive climate control.

Building envelop

.

Building orientation and address

Building should have their long access east wet to maximize their northern solar access.

Buildings should have their primary entrance, address and frontage on or clearly identifiable form the primary street.

Topography and floor levels

Guidelines

• Facades should be stepped to express change of level across the building frontage. and should relate well to neighbouring facades.
• All floor levels should be expressed in the façade design through awning or balcony elements or the design of windows within a façade.
• Care should be taken to resolve the detail relationship between adjoining building with different floor and awning levels.
• Ground floor to floor height shall be a minimum of 4.0 metres to provide a consistency with the historic buildings in the town and flexibility of use.
• Upper floor to floor heights should allow for future change of use.

7.8 Pedestrian and cycle amenity

Guidelines

• Provide clear, well designed paths around buildings leading to entrances that link into the public footpath network.
• Provide pedestrian shelter at entrances and along active street frontages.
• Provide good end of trip facilities, including lockers and showers for walkers and cyclists in workplaces in the town centre.
• Provide bicycle racks outside all commercial, retail and civic buildings.

7.9 Vehicle movement and parking

Guidelines

• Car parking is to be provided consistent with LPS 10.
• Parking should be located to rear of or below buildings. Cars and parking areas should not visually dominate development.
• Where car parking requirements limit optimum site development council may consider cash- in- lieu payment.
• Parking for motor cycles and scooters should be provided to encourage use.
• At- grade parking areas including the Bassendean Village car park should be well landscaped with shade trees (1 for every 4 car bays) and have clearly defined, direct and well lit pedestrian links.
• For residential dwellings of 1 to 2 bedrooms the parking ratio shall be reduced to 1 bay per dwelling.
• Shared surfaces are encouraged using trafficable unit paving and materials consistent with neighbouring developments and public areas.
• Parking should be accessed from secondary streets and not from Old Perth Road.
• Crossovers should be limited to one crossover (3 – 6m wide) per development site. Crossovers should match footpath colour.
• Service and delivery should be provided discretely and in minimal space.
• Consideration should be given to location, access to and storage of recycling and other rubbish bins including communal bin facilities.
• Emergency vehicle access, particularly for fire fighting vehicles, must be provided to satisfaction of Council and FESA.

7.10 Landscape and hardscape

A town centre public realm contribution of 2% of development cost will be payable to Council as a condition of development approval. This contribution will be used to enhance the public realm in the vicinity of the development site and will include public art, street furniture, planting, paving and amenities such as bicycle racks, bins, shade structures, signage. Etc. Timing of these enhancements will be agreed between Council and the developer to be completed shortly after construction and to suit council works programmes.

• Landscape provision will be assessed on quality rather than quantity. No specific percentage provision is required in the town centre but all outdoor areas are expected to be landscaped and maintained to a high quality appropriate to an urban setting.

• Existing healthy, mature trees of appropriate species should be retained and incorporated into new development. Where trees are removed they shall be indicated as removed on plans and their removal justified

• Generally use water- wise and indigenous plant species

• Improve microclimate of courtyards and other urban spaces with use of some deciduous shade trees and water elements. The use of deciduous trees will be limited to courtyards and other urban spaces where seasonal climate response is considered important. Paving materials and details shall match proposed public realm finishes or be of a quality associated with high traffic town centre and civic precincts and approved by council.

• Seating, lighting and other street furniture should match that proposed in public areas or be of high quality design durable materials and approved by Council.

• Trees planted in car parks shall be planted as mature specimens no less than 3.0 m high and protected with tree grates and bollards. Tree canopies shall be managed to allow clear visibility to building facades and signage.

• All private and public open spaces should be designed and maintained to minimise fertilising, excess watering and nutrient runoff

8.1 Adaptable buildings

Buildings designed for adaptive re-use should include:

• Load bearing columns/walls in regular grid allowing addition

or removal of dividing walls to reconfigure internal space.
• Lightweight façade systems that can be updated in future.
• Service cores and stairs at sides or rear of buildings and generous vertical circulation space for people and piping.
• Maximum number of openings in primary street facade to allow for additional entrances and/or different uses within building in future.
• Maximum natural light by limiting building depth to 20- 25m, use of light wells or internal courtyards.
• Limited internal fit-out and refit wastage
• Generous ground floor to floor heights to match existing or a minimum of 4.0metres
• Upper floor to floor heights of 3.5metres to 4.0metres

8.2 Building character

Guidelines

• Buildings should reflect contemporary lifestyle, function and materials and not mimic historic styles and building methods.
• Buildings should respond to the character of significant buildings in the town.
• Buildings should have a proportion and scale appropriate to their location within a high quality urban town setting and respecting neighbouring buildings

8.3 Facades

Guidelines

• Refer to Streetscape policies on non residential property facades and security grilles and to 8.5 :Old Perth Road frontage
• Building facades should respond to neighbouring facades through use of consistent horizontal lines, good proportion and other design aspects.
• A consistent, well detailed design approach to all facades of a building is expected. Care should be taken in design of all facades that can be viewed from anywhere in the public realm, this includes window placement, proportion and relief in the wall plane.
• No façade shall appear as a “back “and blank walls should be avoided. Exposed plumbing or other services are not acceptable on any facades.
• Ground floor façades should be distinctive from upper levels, changes in wall plane, texture, material and colour can be used.
• Circulation spaces such as stairs and foyers should be positioned

and glazed to add activity that is visible from the street.
• Glazing of facades is encouraged to provide visibility between inside and outside the building. Windows at ground level on active frontages shall be minimum 2.4m high. External sun shading is encouraged appropriate to orientation.
• The top of buildings should finish with a roof or expressed detail.

8.4 Roofs

• Simple roof forms complementing the linearity of buildings are desirable.
• Verge and eaves overhangs sufficient to create strong shadow lines are encouraged on expressed roofs.
• Low pitch roofs (<10 degrees) should be concealed by parapet walls.
• Pitched roofs should respect and be consistent in pitch with roofs in close proximity.

8.5 Old Perth Road frontage

•

Active frontage can include small landscaped spaces that are publicly accessible and contribute to the streetscape and building address
• Non- residential and mixed-use buildings shall have nil setbacks to Old Perth Road frontage.
• Mixed-use buildings should have predominantly non-residential ground floor frontages to Old Perth Road, with the exception of common foyers or home based studios/ offices.
• Residential active frontages should offer a transition such as a terrace or veranda between the public and private space where the resident can spend time and express identity through landscape and detail.
• Verandas or terraces can be raised above adjacent footpath level to a maximum of 1.2 metres.
• Glazed shopfronts are required in retail and commercial buildings. Old Perth Road facades should have a minimum of 80% clear glazed area at ground level.
• Solid frontage is accepted below 0.8 metres above footpath level to allow raised display windows and outside tables up against shopfronts.
• Blank walls longer than 2.0 metres at street level are not permitted.
• Upper levels of buildings fronting Old Perth Road should include functional size balconies.
• Where cafes, restaurants and coffee shops front Old Perth Road the

provision of an outdoor eating area is encouraged.
• All frontages on Old Perth Road should be well illuminated.

8.7 Awnings, canopies & balconies

• All active commercial and retail frontages in the west and east ends along Old Perth Road should have continuous pedestrian shelter over the footpath.
• Residential and mixed use buildings shall have pedestrian shelter such as awnings or canopies over entrances.
• Balconies and terraces are encouraged on street facades in residential and mixed use buildings.
• Balconies should have predominantly open balustrades, while considering the need for screening of washing and air conditioner units and solar screens.
• Awnings, canopies and balconies should :
- Have minimum clearance to footpath of 2.7 metres
- Have minimum extension out from building of 2.5 metres
- Relate in height/ design to adjoining canopies/ awnings
- Consider signage locations and dimensions

• Provision and maintenance of canopies and awnings over the footpath is the responsibility of the building owner

8.8 Materials and colour

• Respond to neighbouring buildings with complimentary colours and materials.
• A limited palette of external colours and building materials should be used to ensure building harmony. Generally, use neutral, subtle colours for long lasting surface finishes and use bright colours only as accent and for surfaces that will be repainted or finished regularly.
• High quality durable materials that have acceptable levels of weathering and wear are preferred to materials that require constant maintenance..
• Use of tilt- up concrete is discouraged unless carefully detailed, finished and given relief in the wall plane.
• Use of highly reflective glazing is not permitted. Samples of reflective/ tinted coatings shall accompany any development application and will be to satisfaction of the Town of Bassendean.
• Strong and bright colours may be approved subject to durability, where council considers that proposed use of colour will contribute to the character of the town centre in a positive way

8.9 Signage and public art

• Refer to Public Art Policy and Master Plan and Commercial Advertising Signage Policy
• A Public Realm contribution of 2% of building construction cost will be required for development in Bassendean Town Centre. This includes provision for public art.
• All building signage will be of a high standard and generally not exceed 5% of the building wall area to which it is fixed.
• Pylon signs will not generally be permitted. Signage designed as part of the building and themed to complement development is encouraged and if a building has numerous tenants, consolidated signage is preferred.
• Signage suspended below awnings, canopies or balconies or cantilevered will have a minimum clearance above footpath level of 2.7m.
• Illuminated signage (not pulsating or flashing) is preferred to externally lit signs. Signs should be lit at night.
• Signage erected above rooflines will not be permitted.
• Signage shall not obscure display windows by more than 5% area.
• Refer to 7.10 Landscape and hardscape..

8.10 Plant and equipment

• All plant and equipment must be concealed from public view using screening or other means that is an integral part of the building design. Surface mounted services piping and conduits will not be permitted.
• Roof mounted equipment, aerials, antennas, masts etc must be screened from all views including from above where applicable. Detail of screening shall be included in DA plans, elevations and 3D images
• Ground level or balcony mounted equipment/air conditioning plant must be well screened using materials to suit the building.
• All plant and equipment must have noise attenuation to council satisfaction.
• Telecommunications dishes are not permitted on roofs.
• Lift over runs shall be contained within the roof space or appropriately designed as an element of the building active frontages.

9.1 Climate and energy response

• A solar access and shadow analysis is required as part of the DA.
• Buildings should be designed to minimise energy consumed for heating, cooling and artificial light including:
o Window design for good thermal and daylight performance
o Building materials and insulation to contribute to comfortable thermal conditions
o Air movement within buildings to provide comfortable thermal conditions and appropriate air quality
o Building materials, appliances and fuel sources selected to minimise energy requirements and greenhouse gas emissions
• Building services should be designed and maintained to minimise energy and resource use including:
o Optimum natural light
o Optimum natural ventilation
o Energy efficient motors and equipment ,lighting control systems, fittings and appliances
o Energy efficient air conditioning and mechanical ventilation systems and controls
o Minimum water use and waste
o Energy efficient hot water systems
o Water efficient taps and fittings
o Minimal energy use over the whole life of the building
o Maximum use of renewable energy and use of fuels with low greenhouse gas emissions
• Current ‘5 star’ requirements of the green star rating system can be used to demonstrate a response to this commitment. A report accompanying the DA should describe the climate response and energy requirements of the building.

9.2 Services and infrastructure

• The Town of Bassendean requires infrastructure contributions to be made based on the value of development.
• All stormwater shall be contained on site or connected to drainage points where supplied.

9.3 Servicing and maintenance

• Service yards must not be located along active frontages and shall be designed as integral parts of the building.

• All waste storage and delivered goods should be contained within buildings. Rubbish storage and collection facilities shall comply with the current general requirements of the Town of Bassendean and will be efficient, convenient and allow for collection of recyclable material.
• Doors providing access to internal waste/storage or loading dock areas should be the minimum width and height possible to serve the required loading/unloading function and be constructed of aesthetically pleasing materials.

9.4 Noise attenuation

• Incorporate suitable noise attenuation measures in buildings affected by train or traffic noise in windows, ceilings and insulation airport noise controls.
• All accommodation buildings are to be detailed and/or designed so that internal noise levels in bedroom areas will be in the range of 30 to 35dB.
• All plant and equipment is to have noise attenuation.

9.5 Safety and security

• A diverse and complementary mix of uses will encourage public presence and activity at different times of the day and night.
• Buildings should overlook public spaces and building entries should be clearly visible from public spaces.
• Buildings should not have recesses or other unsecured areas not in full public view.
• Solid fencing/screening above 0.8m high is discouraged on street frontages.
• A clear view from 0.8m- 2.0m above ground should be maintained in landscape, walling and screening unless screening is fully secure. Landscaping, walls and fencing shall be designed to maintain clear visibility to and from doors, windows, and pedestrian paths.
• Appropriate lighting shall be provided for safety and security (Refer 12.6)
• Robust materials which are aesthetically pleasing should be used in public places. Materials vulnerable to graffiti and vandalism shall be avoided. Use of security film to windows and anti graffiti treatment to other surfaces accessible at ground level is

encouraged

9.6 External lighting.

Guidelines

• Appropriate lighting for pedestrian safety shall be provided to all pedestrian paths and parking areas.
• Building entrances should be lit for safety and identity.
• All external lighting shall be robust, vandal resistant and themed to complement development character.
• Display lighting to commercial and retail premises along Old Perth Road shall be time-switched to remain on every evening until at least 15 minutes after the last train has left Bassendean Station.
• Consideration should be given to pedestrians, cyclists and drivers with regard to glare from lighting sources

Bassendean Town Centre Strategy and Guidelines

TOWN OF BASSENDEAN
Home by the Swan

HAMES SHARLEY

April 2008

HAMES SHARLEY

TOWN OF BASSENDEAN
Home by the Swan

Contents

1.0 Introduction

The Bassendean Town Centre Strategy 2007 outlines a vision and objectives for development within the Bassendean Town Centre.

The guidelines provide further guidance for:

- Old Perth Road: west end to Wilson Street
- Old Perth Road central: Wilson to Whitfield Street
- Old Perth Road: east end and Bassendean Village

Detailed area plans will be prepared for:

- BIC Reserve and the civic precinct
- Bassendean Blue Steel Oval

Council should have regard to the Bassendean Town Centre Strategy, the guidelines and detailed area plans when assessing development applications and providing infrastructure within the town centre.

Bassendean Town Centre

Vision 2030-Community Plan was prepared in 2005 by the Town of Bassendean in response to the State Government's Network City strategic vision.

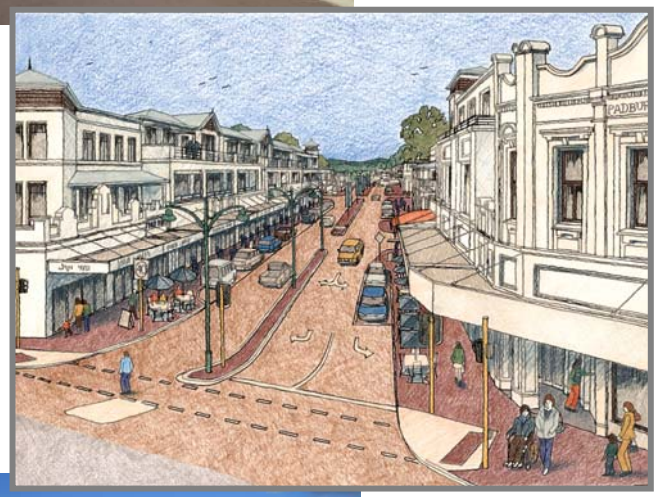
' By 2030, the Town of Bassendean will be an ideal, highly accessible urban village location where people can participate in a cohesive, vibrant and diverse community lifestyle and a thriving local business economy within a high quality built and natural environment.'

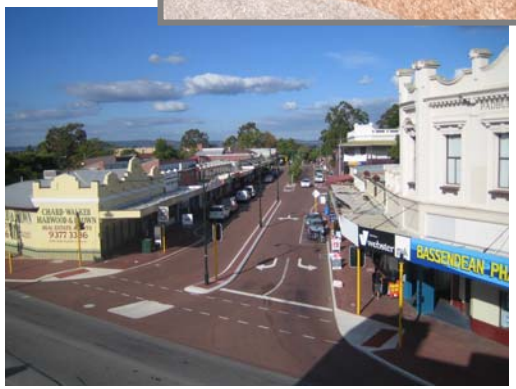
'By 2030, the town centre has been transformed into a vibrant hub of mixed uses and activities with a unique sense of place, rich in history and heritage. ……Bassendean has a modern village feel to it attracting well designed new development. It is a place where people want to be.

There is a wide choice of housing options and densities to suit a diversity of lifestyles. Higher density development is clustered around the town's 3 railway stations….. Attractive landscape, street lighting, public artworks, street furniture and car parking enhance the safe pedestrian friendly streets…

Bassendean is recognised as an amazing place with lots of character – …people live and thrive in Bassendean. '

Creating a stronger heart for Bassendean





Old Perth Road perspective from Vision 2030 M.Mckay

2.0 State Planning Context

West Australian Planning Commission (WAPC) strategic planning initiatives give context to the Bassendean Town Centre Strategy:

2.1 Network City (WAPC 2005)

Network City: Community Planning Strategy for Perth and Peel is based on principles and policies for liveable neighbourhoods, water sensitive urban design, vibrant activity centres, transit oriented development, better public transport and major infrastructure investments such as the new Metro Rail.

The strategy proposes activity centres along activity corridors where a full range of activities are encouraged including retail, living, entertainment, higher education and specialised medical services.

Network City proposes 60% of new housing should be within established suburbs. Councils are encouraged to support higher density housing around key activity nodes to achieve a more compact urban form. The strategy focuses on diversity of housing type, accessibility and housing affordability.

2.2 Liveable Neighbourhoods (WAPC 2004)

Liveable Neighbourhoods is a state planning framework for communities that are sustainable, safe, vibrant and efficient. The intent is to create complete integrated communities that promote local identity and create a sense of place.

This calls for an urban structure based on walkable, mixed use towns and neighbourhoods that have a strong community focus and a compatible mix of uses. The preferred urban form is "main street" mixed use centres that offer street frontage retail and high density residential with good access to public transport. The model is based on the premise that mixed use centres are inherently more socially, environmentally and economically sustainable and adaptable to change.

2.3 Metropolitan Centres Policy No 9 (WAPC 2000)

The Metropolitan Centres Policy (MCP) (currently under review) applies to commercial activities in the Perth Metropolitan Region. It establishes a hierarchy of centres including Strategic, Regional, District, Neighbourhood and Local Centres. Bassendean is designated a District Centre.

'District Centres will be promoted as centres servicing the weekly shopping and service needs of the suburban population. They should provide mainly convenience goods, a range of comparison goods, local services and local employment. Shopping floor space should generally be confined to 15,000 sqm unless consistent with a Commission endorsed Local Planning Strategy or centre plan'

The Policy also refers to traditional 'Main Street' centres, encouraging development in accordance with traditional main street design principles and providing additional retail floor space incentives.

The policy defines 'Main Street' as:
'mixed land use developments fronting to a street in a manner whereby pedestrian access to the majority of individual businesses can be achieved directly from the street and / or where customer car parks on private property generally do not separate the road reserve boundary from the front of a building.'

Bassendean has both car based retail at Bassendean Village and traditional 'main street' retail along Old Perth Road.

2.4 Transit Oriented Development

The State Government actively encourages intensification of development around railway stations (TOD) and is considering increased residential densities and establishment or consolidation of commercial and other employment activity nodes in the Midland rail corridor.

400metre walking distances from train stations in Bassendean Town Centre

Bassendean Town Centre is an excellent model of an existing urban village on the Midland rail corridor with its historical main street and surrounding residential areas. It has excellent potential to become an employment node relating to surrounding industrial areas.

Bassendean Train Station is a modern attractive station that could become a focus for increased commercial or education activity.
Success Hill Station could become a focus for more intense residential development as well as continuing its role as an events station for the Bassendean Oval.

The 2 train stations at Bassendean Town Centre provide excellent opportunity for the future of the town centre as a highly accessible and walkable urban village. Much of the town centre is within 400 metres walk of a station.

The Perth to Midland railway line itself, however, combined with heavy regional through traffic on Guildford Road results in a town that has been divided and bypassed. North-south connections, access and visibility from Guildford Road are fostered in the Strategy Plan for the town centre.

The Town of Bassendean, with good access to transport, a robust urban structure and an established historical main street is ideally placed to promote and implement the strategic initiatives of the WAPC.

3.0 Town of Bassendean Planning Framework

The Strategy Plan builds on recent planning initiatives and offers design solutions that can be implemented over time in a staged and sustainable manner.

3.1 Vision 2030-Community Plan

Vision 2030 is a long term community plan set out by the Town of Bassendean to coincide with the timeframe and principles outlined in the State Governments 'Network City' model.

3.2 Bassendean Town Centre Enquiry by Design

The Bassendean Town Centre Enquiry by Design was undertaken between Nov 2001 and Feb 2002. Community members came together in a workshop to investigate future growth of the Town using principles of Liveable Neighbourhoods and traditional town centre design. The outcomes of the "Enquiry by Design" workshop have been formally adopted by Council for inclusion into the Local Planning Strategy and Local Planning Scheme 10.

3.3 Town of Bassendean Local Planning Strategy

The Town of Bassendean Local Planning Strategy (LPS) sets out a vision for the municipality, and establishes short, medium and longer term directions for sustainable land use and development. The LPS is an expression of Council's and the community's vision for the Town of Bassendean over the next 15 – 20 years.

3.4 Town of Bassendean Commercial Strategy

The LPS incorporates a Commercial Strategy, which confirms the Bassendean Town Centre as the primary commercial, retail and civic centre of the municipality.

The Bassendean Town Centre, extending 800m along Old Perth Road, is divided into three (3) distinct sub-precincts, each having a different but complementary function that contributes to the overall vitality of the town centre.

- Traditional "Main Street" pedestrian based commercial/retail at the intersection of Old Perth Road with Guildford Road and the train station;
- "Drive-by" commercial with interspersed retail and civic uses (including a school and aged accommodation) between Wilson and Whitfield Streets; and
- Car based retail in the Bassendean Village Shopping Centre at the corner of Old Perth Road and West Road.

Objectives of the Commercial Strategy are to:

- Promote the continued importance of the Bassendean Town Centre as the commercial, retail and civic centre of the municipality and facilitate its sustainable growth and vitality;
- Promote and facilitate revitalisation of the traditional main street pedestrian based commercial retail precinct at the west end of Old Perth Road, without undermining the overall importance of Bassendean Village as a car based retail centre servicing the district.
- Ensure that different retail, commercial and civic activities in the town centre function and integrate in a manner that is mutually up-building rather than undermining of other town centre uses.

3.5 Town of Bassendean Local Planning Scheme 10

Local Planning Scheme No. 10 (LPS 10) has evolved over a number of years and is based on the Model Scheme Text.

LPS 10 aims to:

- Enhance the lifestyle of residents and provide community and leisure facilities for a range of socio-demographic groups;
- Encourage a housing stock that provides for a variety of lifestyle choices for a range of socio economic and age groups;
- Promote vibrant local shopping opportunities and provide for home businesses;
- Preserve local Aboriginal and European culture and heritage;
- Promote local tourist attractions;
- Protect and enhance the environment and natural resources of Bassendean and in particular urban bushland and the river environs; and
- Promote greater use of alternative modes of transport and public transport.

Objectives for the Town Centre Zone under LPS 10 include:

- Promote, facilitate and strengthen the town centre zone as the principal focus of the district in terms of shopping, professional, administrative, cultural, entertainment and other business activities;
- Recognise the unique and specific function of each precinct within the town centre:
- Promote traditional main street pedestrian based commercial retail, west of Wilson Street; civic, drive-by commercial and town centre living uses between Wilson and Whitfield Street; and car based retail in the Bassendean Village Shopping Centre.
- Accommodate a diversity of commercial, cultural & residential facilities;
- Encourage the integration of existing and proposed facilities within the zone so as to promote ease of pedestrian movement and the sharing of infrastructure, as well as to retain the opportunity for any future expansion of the area;
- Achieve safety and efficiency in traffic circulation;
- Ensure that buildings, ancillary structures and advertising are of high quality and achieve an architectural theme contributing to the uniqueness of the townscape;

- Provide sheltered places for pedestrians & shade to car parking areas;
- Preclude the storage of bulky and unsightly goods from public view;
- Provide landscaping appropriate to the scale of development

Residential development is encouraged in the Town Centre. The local government may, at its discretion, permit residential development within the Town Centre Zone to a maximum density of R60. Residential development shall only be permitted where the local government is satisfied that this development is complementary to the scale and character of buildings within the Town Centre Zone.

The requirement for producing design guidelines is contained in Part 2 of Town Planning Scheme No. 10.

Upon adoption, all development is required to comply with the design guidelines and any development that is deemed not to be consistent with the intention of the Strategy Plans and Guidelines may be refused by Council.

3.6 Bassendean Townscape Study 1989

The Bassendean Townscape Study was released in 1989 and provides an analysis of land use, activities, movements and parking in the Town Centre area. It outlines a preferred identity and image for the Town, and highlights several key townscape elements, including the idea of a 'heritage trail'. It describes the townscape structure at the time, and makes mention of the fact that although the Swan River is only 800 metres from the intersection of West and Old Perth Roads, it bears no relationship to the town. The Study provides guidelines for elements such as Town Centre entries, landmarks, colour schemes, materials, building height and landscape within the Town.

3.7 Municipal Heritage Inventory

The Town of Bassendean has a Municipal Heritage Inventory in place that is updated on a semi regular basis. Although not as comprehensive as the Heritage Council's Register, it does earmark several notable sites within the Town Centre, such as some sections of the BIC Reserve, Bassendean Oval, Bassendean Post Office, the Padbury Buildings, Bassendean Railway Station, and the Bassendean War Memorial for varying levels of protection.

3.8 Other studies

- Bassendean Oval Conservation Plan
- Civic Centre Redevelopment Plan
- Strategic Plan 2005-2010
- Economic Development Plan 2005-2010
- Environment and Social Plans
- Community Safety and Crime Prevention study

4.0 Place making in Bassendean

The Bassendean Town Centre Strategy Plan and Guidelines have been prepared through a process of stakeholder and community workshops and the adoption of a place making approach.

Place making is more than architecture, urban design and streetscapes. The physical aspects of place only provide a setting for activities that make a place unique and interesting. An appropriate and sustainable mix of activities is the key to a successful place.

Place making drivers appropriate to Bassendean include:

- Build and support the local economy
- Nurture and define the community's identity
- Foster frequent and meaningful community contact
- Create accessibility for all
- Provide a comfortable and safe environment
- Attract a diverse population

4.1 Create possibilities for intense people spaces

A good quality public realm along Old Perth Road will provide places for people to meet, stay and be part of the Bassendean community

People visit and stay in a town centre to see and be seen by other people. Sometimes in a quiet way to sit and have coffee or a meal alone while feeling part of the community and at other times to actively engage in community events and celebrations.

4.2 Focus on parks and gardens

Embrace the Town Park (BIC) as part of the Bassendean town centre

Our cities and suburbs are becoming more intensely developed and urbanised. Bassendean has range of open spaces close to the town centre including the Swan River parklands, BIC Reserve, Bassendean (Blue Steel) Oval and other smaller parks. These open spaces should be nurtured and integrated into the town for the enjoyment of residents and workers for both active and passive recreation and to give breathing space from the intensity of urban life.

4.3 Create a vibrant smaller retail hot spot

Create a number of 'activity nodes' along Old Perth Road with Bassendean Station precinct and Blue Steel Oval redevelopment as lively end points

The Old Perth Road is 800 metres long, this length of 'main street' can not be sustained with intense active pedestrian based retail. Focussing hot spots of activity at each end will in time facilitate activities that link the town together. The Bassendean Village is a successful food and convenience shopping place. A smaller 'hot spot' at the west end of Old Perth Road should compliment rather than compete with Bassendean Village.

4.4 Use interactive water features in the town square

Create places where people of all ages can interact and enjoy being in the town centre, water adds a cooling effect and is fun

The Swan River is part of the Bassendean landscape. Old Perth Road leads down to the river foreshore and landscape along the road should reflect this. A water feature in the town square will suggest the water connection and also offer a gentle cooling effect in the urban streetscape. The water will be safe and playful attracting children to splash and others to watch.





4.5 Use a tower to signify the town centre

Draw attention to the Bassendean town centre – open up vistas and celebrate landmarks

Towers are traditional elements of towns seen in churches and civic buildings.

A tower can be seen from a distance signifying the importance of the central place to passers by. It can also be functional perhaps providing the vertical circulation for the civic building and also offering a place for community advertising and interactive art.

4.6 Totems to signify a special place

Give Guildford Road motorists the feeling of driving through a special place –give Bassendean an address

Totems and repetitive sculptures can lead the eye along vistas and draw attention to the place that is being passed through.

The use of totems at the intersections of the town's street grid and Guildford Road will emphasise that Guildford Road passes through not past the town and that the town is a place to visit and not just by pass.

4.7 Provide diversity of uses at street level

Provide opportunity for people to work in the Bassendean town centre – flexible mixed use and commercial space

For a town centre to be lively and safe ground level uses need to be active during the day and evening.

Street life, people, light, landscape and streetscape all contribute to the ambience of a place and make it attractive to live in. The activity at the edges of buildings and the ground level uses are essential ingredients.

4.8 Provide diversity of residential opportunities

Facilitate a dramatic increase in people living in the Bassendean town centre – 24 hour life – a wide range of dwelling types

Bassendean has traditionally offered only low density single housing on large lots. To ensure a diverse and interesting local community population that is large enough to sustain local retail and commercial activity an increase in the diversity of housing beyond just smaller lot sizes and town houses will be needed.

Good rental accommodation and apartments with access to transport and services will appeal to the growing number of smaller households both older and younger.

4.9 Mix old and new architecture

Respect the history of Bassendean while giving it a new contemporary heart beat

Bassendean is a place with history and the heritage buildings in the town are important. Good quality contemporary architecture can be sympathetic to this heritage without copying or mimicking it. The counterpoint between old and new design can be very exciting while respectful of the past

4.10 Integrate parking and landscape

Create a stronger 'heart' for Bassendean

Bassendean is a walkable town centre and the streets and open places need to be pedestrian friendly. Large parking areas devoid of landscape and footpaths are inappropriate. Parking can be set in landscape with trees providing shade and a pleasant ambience to the town.




5.0 Strategy Plan

The Bassendean Town Centre Strategy has been developed with the following objectives:

- Reinforce the current strong sense of place in Bassendean
- Ensure the plan includes sustainable mixed uses along Old Perth Road as a vibrant main street
- Maximise opportunities around the 2 railway stations
- Consolidate and build upon work already achieved by the Town of Bassendean
- Ensure development proposals are economically viable and practical
- Reflect the views of the Bassendean community and stakeholders
- Ensure Bassendean Town Centre can develop over time into…

'...a place where people want to be'

TOWN OF BASSENDEAN
Home by the Swan

Creating a stronger heart for Bassendean

Key Principles:

1. Draw attention to the Bassendean Town Centre - open up vistas.
2. Give Guildford Road motorists the feeling of driving through a special place - give Bassendean an address.
3. Create a new Town Square for Bassendean.
4. Facilitate a dramatic increase in people able to live in the town centre - 24 hour life - wide range of dwelling types.
5. Provide opportunities for people to work in the town - flexible commercial space.
6. Create a number of 'activity nodes' along Old Perth Road with station precinct and oval redevelopment as end points.
7. Retain and enhance existing landscape.
8. Embrace the Town Park as part of the Bassendean Town Centre.

1. Significant building such as adult education or commercial integrated with Bassendean train station.
2. Improved retail frontage to Guildford Road corner as a 'hot spot' and introduction to the town
3. Opportunity to increase intensity of use of buildings
4. Town Square extends across Old Perth Road as a people place (cars can drive through)
5. Upgrade war memorial
6. Landmark community building multipurpose hall (senior citizens) council chambers and administration including landmark tower and a hot spot for food and coffee
7. Improve links with narrow access roads
8. Improved frontage to retail
9. New 3-4 storey building for football club and function centre
10. Bassendean Oval re-orientated and opened up to become a combined 'people's park' and football oval
11. Housing fronting oval
12. Landscaped mound
13. Significant residential building
14. Heritage grandstands
15. Teenage activity area
16. Upgrade Success Hill train station
17. Improve a link to Success Hill train station and residential
18. Pedestrian access under Lord Street
19. Rationalise community sporting facilities
20. Totems and streetscape improvements to Guildford Road
21. Town Park - retain significant trees. Improve safety and integration with town centre. Develop a small seasonal wetland
22. Residential opportunity
23. Improve and open up underpass and pedestrian access into town park
24. Construct footpath between station and underpass
25. Embayment parking
26. Improve streetscape character and pedestrian amenity on Guildford Road

TOWN OF BASSENDEAN
Home by the Swan

BASSENDEAN TOWN CENTRE STRATEGY PLAN

For a vibrant future

Adopted by Council August 28, 2007

HAMES SHARLEY

TOWN OF BASSENDEAN
Home by the Swan


Provide cafes and offices at street level below apartments


Create possibilities for intense people spaces


Create a vibrant smaller retail hot spot:


Provide a diversity of residential opportunities


Integrating parking and landscape


Focus on parks and gardens


Mixing old and new architecture


Use interactive water features in the town square


Use totems to signify a special place

Key Outcomes

- Rationalisation of BIC sporting and recreation facilities
- A Town Square on Old Perth Rd
- A new civic building combining administration with community facilities and council chambers.
- A Town Park integrated with the town
- Town centre living creating a safer, more active place
- Bassendean Oval becomes a multi purpose 'people's park' for the community while remaining the same ground of WAFL SDFC.
- New substantial commercial opportunities
- Creation of a vibrant 'hot spot' at the west end of Old Perth Road
- Opportunity to partner with the State Government in redevelopment of key sites in support of TOD strategies.
- 340 - 400 new dwelling opportunities recommended adoption of inner city residential planning codes
- 400 - 500 car bays – potential for reciprocal parking and relaxed parking provisions due to public transport and town centre amenity.

Place making objectives

- Build and support the local Bassendean economy
- Nurture and define community identity of Bassendean
- Foster frequent and meaningful contact in the Bassendean community
- Create accessibility for everyone
- Provide a comfortable and safe town centre environment
- Attract a diverse population to Bassendean
- Respect the history and heritage of Bassandean

6.0 Planning and design guidelines

6.1 Scope and intent

The Bassendean Town Centre guidelines encourage:

- Development consistent with the place making objectives of the Strategy Plan
- Innovative and sustainable design; and
- Development that respects and contributes to the character, scale and amenity of the Bassendean Town Centre.

The intent is to develop a built environment in Bassendean that is valued as 'cultural capital' for future generations. Sustainable development that improves the amenity of the public realm is encouraged.

The planning and design guidelines are performance based rather than prescriptive controls to encourage flexibility and design innovation.

Principles of sustainability should be incorporated into all aspects of development in the Bassendean Town Centre. A variety of activities and uses is encouraged and innovative solutions in building, landscape and urban design will be promoted.

New development should be of a high quality, respond to the climate and be appropriate in the context of a thriving town centre. Landscape and urban design should reflect and incorporate a sustainable approach and contribute to the overall amenity of the area.

Residential development should respond to changing demographics and support the social and cultural diversity of the community. A broad range of housing options including a minimum of 15% affordable housing should be provided. Dwellings designs should provide for families, singles, couples, seniors and youth.

Well designed public spaces and integrated cycle and pedestrian networks should be provided to enable ease of movement and encourage physical activity.

Amalgamation of sites is encouraged in the town centre to enable good quality integrated development to occur at a feasible scale. This will enable good design solutions to aspects of development such as building scale and parking provision. Small scale modifications to existing development particularly along Old Perth Road are not encouraged except to bring development up to an acceptable standard in the short term.

Planning and design guidelines are grouped in 3 sections:

- Site planning and urban design;
- Building form and detail; and
- Environment and services.

6.2 Design and approval process

These guidelines are performance based and do not attempt to control design detail. Innovative, sustainable and well considered design outcomes that respond to the context, neighbouring development and the public realm are expected. A high level of development quality will ensure a stronger, long lasting heart for Bassendean.

Close liaison with the council and its representatives is recommended from the outset of a development project, prior to commencing design. This will ensure that the objectives of both the council and the developer are understood and that the best development and design outcomes can be achieved in a collaborative manner.
The council may engage expert advice to assist in development assessment which may include design professionals (staff or consultant) such as architects, landscape architects, engineers and planners.
A design review committee made up of such professionals may be called upon from time to time to assess development.

These guidelines should be read in conjunction with the current Local Planning Scheme and current council policies.

6.3 Variation Discretion

Council has discretion to vary any part of these guidelines.
The overall objectives of the Bassendean Town Centre Strategy Plan and the quality of building and place design will be considered when granting any variation.

6.4 Development Approval requirements

In addition to normal documentation required for Development Approval the following shall be submitted to the council;

- Design report covering response to the guidelines
- Energy efficiency report
- Climate response report
- Shadow and 3D bulk and scale analysis
- Landscape and hardscape strategy, plan and concept report
- Streetscape views showing building scale and character in its setting
- Movement plan and report indicating provision for vehicles, pedestrians and cyclists and including rubbish removal and storage and servicing issues
- Signage strategy including sign locations, specifications and graphics
- Concept ,costing ,location and detail of any artworks proposed
- Report on construction timing /staging issues including impact on adjacent public realm, temporary services, access for delivery trucks, cranes etc, fencing and other construction phase issues.

7.0 Site planning and urban design

7.1 Urban setting and context

Position

The Bassendean town centre will become an active and vibrant place for the local community and visitors. Old Perth Road is the historic main street and town focus. It is about 800 metres long and will therefore change in character along the way.

Old Perth Road is understood as 3 sub- precincts:

- The west end, between Guildford Road and Wilson Street
- The central area between Wilson Street and Whitfield Street
- The east end between Whitfield Street and West Road

The area beyond West Road is considered part of the Bassendean Blue Steel Oval and subject to a future detailed area plan.

Guidelines

- Buildings should contribute positively to the desired character of the precinct and to the streets and public spaces around them.
- Refer to the following pages for guidelines for the 3 sub precincts

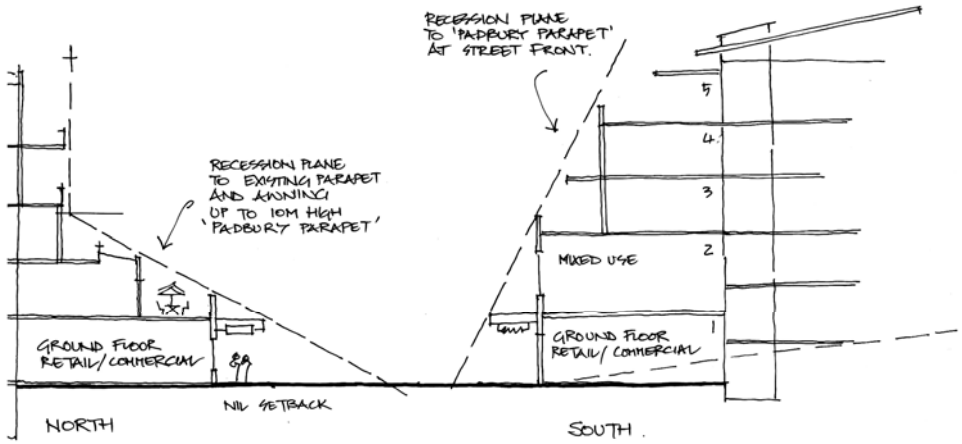
Variation

The council has discretion to vary this guideline where a building will not detract from the ambience of the town, is of exceptionally high quality design and will contribute to the unique urban setting of Bassendean Town Centre.

WEST END - OLD PERTH ROAD



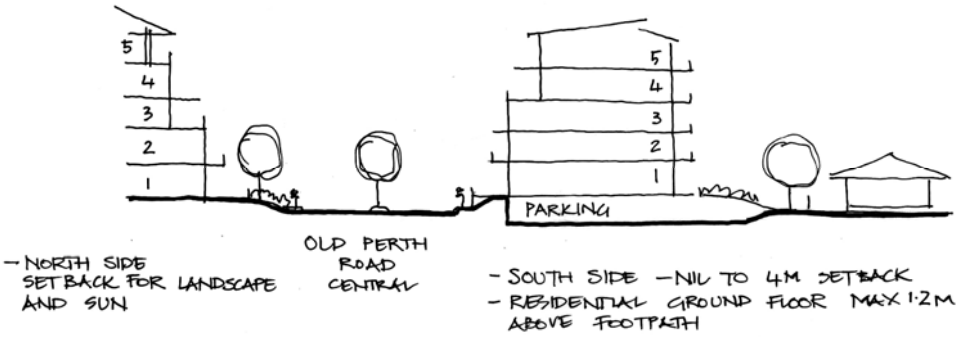


- In the west end, a clear response to existing building character and respect for Bassendean town centre streetscape and history is expected. This should be expressed in scale and form while offering contemporary urban design character appropriate for a revitalised town centre in the twenty first century.

CENTRAL - OLD PERTH ROAD

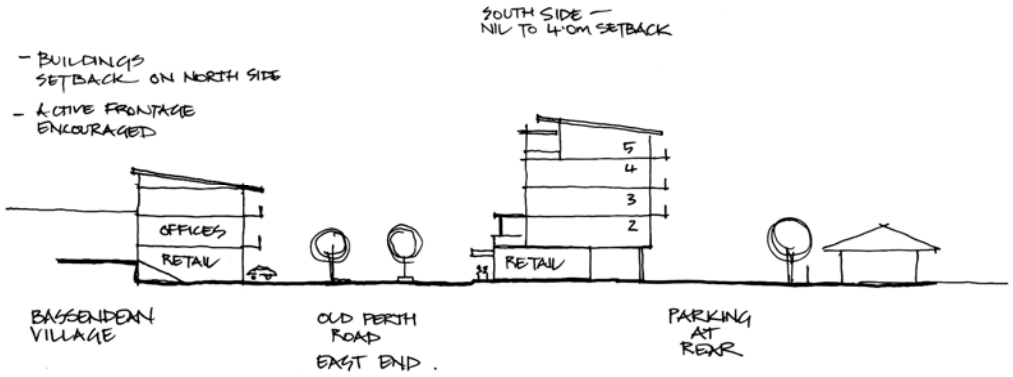
- In the central area, a softer response is expected with a more residential and landscape character. The new civic spaces will contribute to the enhanced character of this area. All buildings edging and overlooking these civic spaces will be important to the townscape and have a consistency of detail and design. A small retail node will develop at the bend on Old Perth Road (south side) and the intersection of Hamilton Street.



EAST END - OLD PERTH ROAD




- In the east end, building character should reflect contemporary retail and commercial design and recognise Bassendean Village as the retail focus. Bassendean Village should be given improved presence and activation with a pedestrian focus on Old Perth Road.



7.2 Landmark buildings in Bassendean

Position

Bassendean Train Station, the Padbury Building, Bassendean Hotel, St Marks Church, the Library, the future civic building and the proposed residential/mixed use buildings on the corners of Guildford Road and Wilson Street are and will be the landmark buildings in the Bassendean town centre.

New buildings and spaces should respect the scale, character and position of these landmark buildings. This does not necessarily mean that building height is limited to below the height of these buildings.

Guidelines

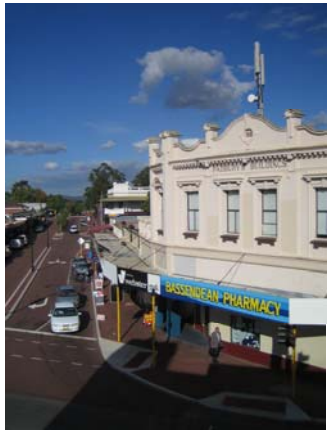
- New buildings on the south side of Old Perth Road in the west end should not extend above the parapet height of the Padbury buildings at the street front.
- Buildings on the north side of Old Perth Road should not extend above the existing parapet (Refer Building Envelope)
- New buildings fronting the central area of Old Perth Road should consider views to the church and proposed civic buildings.

Variation

The council has discretion to vary this guideline where a building is of exceptionally high quality design and will become a fitting landmark itself without detracting from the existing landmarks in the town.

Bassendean Train Station

St Marks Church



Padbury Building

Bassendean Library

7.3 View corridors and vistas

Position

Old Perth Road is an excellent urban setting with vistas east toward the hills and north down to the BIC parkland on Guildford Road. These vistas give Bassendean a unique setting.

The town centre strategy identifies some important view corridors and vistas that should be respected and celebrated in future development of the town centre.

Guidelines

- View corridors and vistas identified in the town centre strategy should not be obstructed.
- Buildings and landscape should be positioned to enhance vistas and view corridors.

Variation

This guideline may be varied where council considers that a building contributes to the overall urban quality of the town centre and that new vistas are set up through its location, scale and character.

7.4 Development type and intensity in Bassendean

Position

The town centre strategy encourages an increased intensity of residential and mixed use development in the town centre in close proximity to the amenity of the town and the Bassendean train station.

It is intended to amend LPS 10 in the future, to introduce RIC codes in the Town Centre Zone. This will increase opportunity for comprehensive redevelopment and amalgamation of sites, with the aim to achieve a diversity of residential type and size within the town centre. This increased development potential will be available to high quality development that contributes positively to the townscape in Bassendean and complies with these guidelines.

To ensure that Bassendean continues to have a diverse and cohesive community where people can continue to live through different phases of life it is important that housing in the town is affordable and adaptable.

Guidelines

- Preferred uses in the town centre include:
    - Residential such as townhouses, apartments, mews, row housing, maisonettes as well as opportunities for home office and short stay
    - Retail focussed on west and east ends of Old Perth Road
    - Civic and community
    - Commercial including small-scale office space
    - Higher intensity and mixed uses that contribute to vitality of town centre are encouraged while low intensity uses are discouraged.
    - Provision of affordable single or 2 bed apartments is encouraged.
    - Short-stay serviced apartments shall conform to R-IC provisions of the Residential Planning Codes.
- Affordable housing is encouraged in the town centre:
    - 15% of dwellings in any development should be affordable.
    - Smaller dwellings with, 1 bed/1bath or 2 bed/2 bath, flexible living space and limited internal fit out and finishes are encouraged to provide affordable housing for younger and older people.
    - Dwellings should not be reliant on air conditioning and should be provided with cross ventilation and solar control for passive climate control.
    - All dwellings should be suitable for disabled occupants and visitors.
- Public transport use is encouraged in the town centre and therefore parking provision should be limited to the LPS 10 requirements. Common parking areas below ground are encouraged. Large garaged frontages are discouraged.

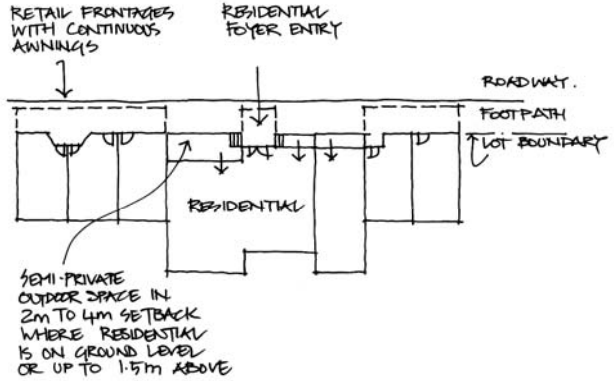
7.5 Building envelope

Position

The town centre strategy indicates a general arrangement of buildings for the town centre.
Where possible buildings should be orientated with long axis and occupied spaces approximately north-south to maximise solar access.

Guidelines

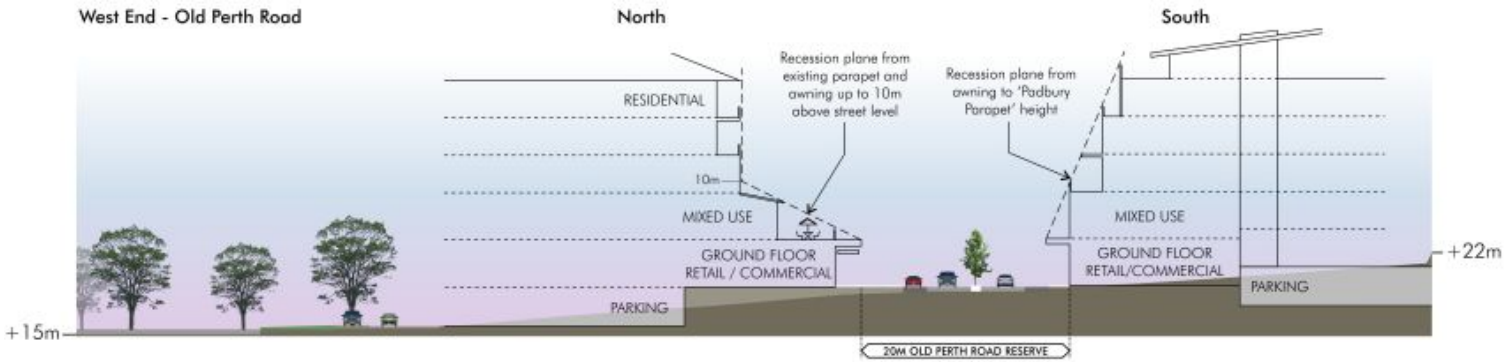
- An agreed envelope of footprint and height will define new development on each lot. There is no plot ratio limit in the town centre.
- A minimum height of 3 storeys or 10 metres is set for buildings generally in the town centre.
- A maximum height of 5 storeys is set for buildings generally on lots fronting Old Perth Road subject to streetscape, shadowing and overlooking issues.
- Buildings on the north boundary of Old Perth Road (west end) shall not be higher than the existing parapet at street front.
- Buildings on the south boundary of Old Perth Road (west end) shall not be higher than the existing Padbury building parapet at street front.
- Development should generally have nil set back to front and side boundaries.
- Residential development at ground level can be setback 2.0 to 4.0 metres to provide a transition between public and private space. Residential entry foyers at ground level can have a nil setback.
- Rear setbacks should be provided suitable to accommodate parking and avoid overshadowing of neighbouring buildings.
- Rear setbacks from residential adjoining should provide for privacy and comply with R code requirements.
- Entrances can be set back up to 4.0metres to create a sense of address; these setbacks should be co-ordinated with neighbouring buildings and detailed as small urban public spaces.

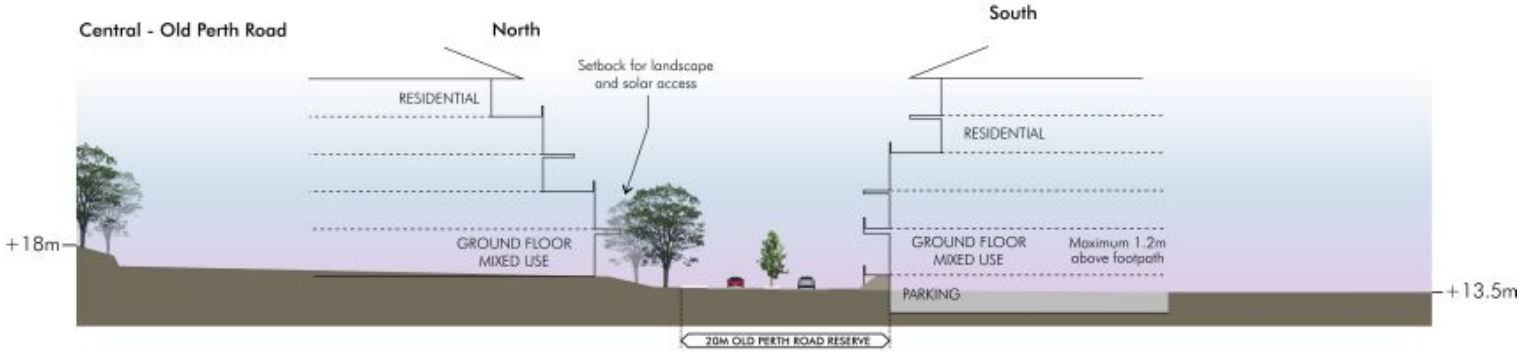


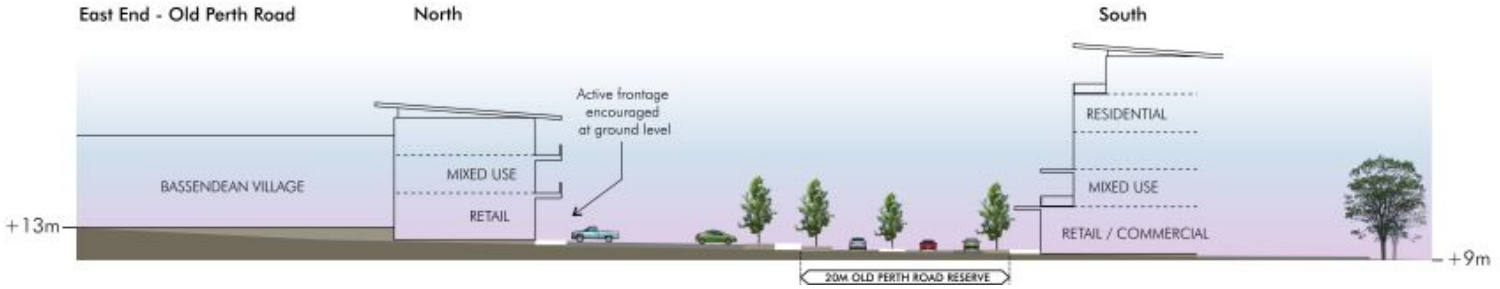
MIXED USE ACTIVE FRONTAGE

Variation

The building envelope may be varied where council considers that the building does not adversely affect neighbouring buildings and spaces or the general townscape by overshadowing or dominating through scale or character.


West End - Old Perth Road
North
South
RESIDENTIAL
Recession plane from existing parapet and awning up to 10m above street level
Recession plane from awning to 'Padbury Parapet' height
10m
MIXED USE
GROUND FLOOR RETAIL / COMMERCIAL
PARKING
MIXED USE
GROUND FLOOR RETAIL/COMMERCIAL
PARKING
+22m
+15m
20M OLD PERTH ROAD RESERVE


Central - Old Perth Road
North
South
Setback for landscape and solar access
RESIDENTIAL
RESIDENTIAL
GROUND FLOOR MIXED USE
GROUND FLOOR MIXED USE
Maximum 1.2m above footpath
PARKING
+18m
+13.5m
20M OLD PERTH ROAD RESERVE


East End - Old Perth Road
North
South
Active frontage encouraged at ground level
BASSENDEAN VILLAGE
MIXED USE
RETAIL
RESIDENTIAL
MIXED USE
RETAIL / COMMERCIAL
+13m
+9m
20M OLD PERTH ROAD RESERVE

7.6 Building orientation and address

Position

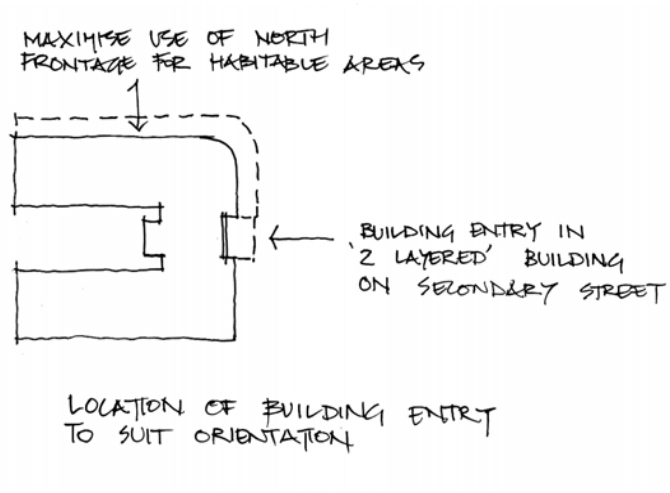
Townscape, address and solar access are all very important in orientating buildings.

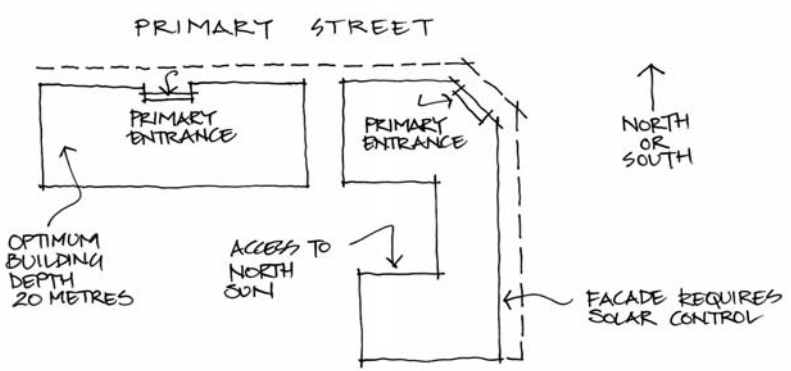
Guidelines

- Buildings should have the long axis east- west (or within 15 degrees of east- west) to maximise northern solar access.
- Buildings should have the primary entrance, address and frontage on or clearly identifiable from the primary street.
- Courtyards can be used to provide solar access in deeper buildings

Variation

This guideline may be varied where council considers that the climatic response of the building is not compromised and that spaces created around the building contribute positively to the urban quality of the town centre.





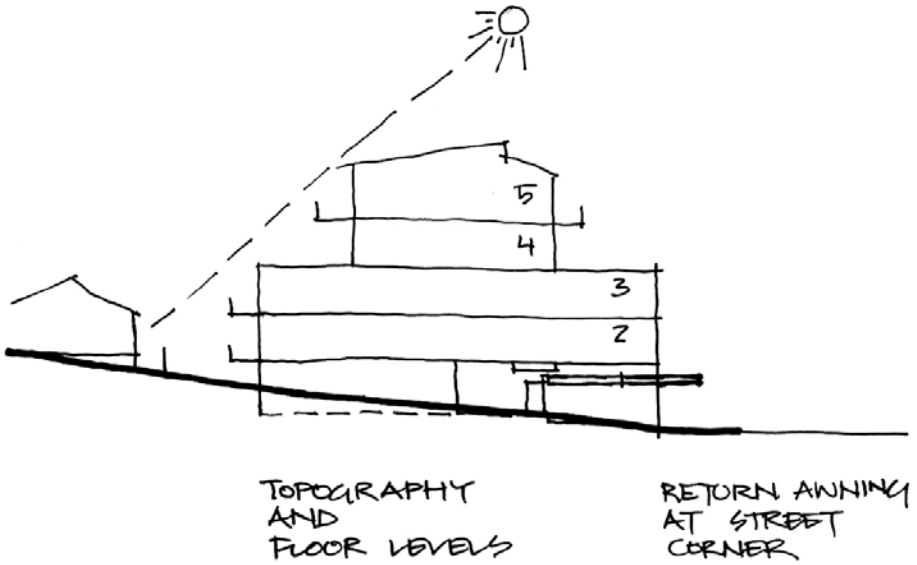
7.7 Topography and floor levels

Position

Old Perth Road slopes considerably downhill from Guildford Road. This adds interest to the built character of the town centre. Building design along Old Perth Road should reflect this change in topography. Some intersecting streets also slope considerably; this slope should be used to advantage in building design.

Guidelines

- Facades should be stepped to express change of level across the building frontage. and should relate well to neighbouring facades.
- All floor levels should be expressed in the façade design through awning or balcony elements or the design of windows within a façade.
- Care should be taken to resolve the detail relationship between adjoining building with different floor and awning levels.
- Ground floor to floor height shall be a minimum of 4.0 metres to provide a consistency with the historic buildings in the town and flexibility of use.
- Upper floor to floor heights should allow for future change of use.



7.8 Pedestrian and cycle amenity

Position

Bassendean Town Centre will be a place where pedestrian access and amenity has priority. Cycling to the town centre will also be encouraged. Buildings will provide pedestrian shelter and amenity on the street front.

Guidelines

- Provide clear, well designed paths around buildings leading to entrances that link into the public footpath network.
- Provide pedestrian shelter at entrances and along active street frontages.
- Provide good end of trip facilities, including lockers and showers for walkers and cyclists in workplaces in the town centre.
- Provide bicycle racks outside all commercial, retail and civic buildings.





7.9 Vehicle movement and parking

Position

The Bassendean Town Council encourages the reduction of car dependency. Vehicles will move slowly and safely around the town centre. People will be encouraged to walk to the town centre or to park their cars and walk to various destinations.

Guidelines

- Car parking is to be provided consistent with LPS 10.
- Parking should be located to rear of or below buildings. Cars and parking areas should not visually dominate development.
- Where car parking requirements limit optimum site development council may consider cash- in- lieu payment.
- Parking for motor cycles and scooters should be provided to encourage use.
- At- grade parking areas including the Bassendean Village car park should be well landscaped with shade trees (1 for every 4 car bays) and have clearly defined, direct and well lit pedestrian links.
- For residential dwellings of 1 to 2 bedrooms the parking ratio shall be reduced to 1 bay per dwelling.
- Shared surfaces are encouraged using trafficable unit paving and materials consistent with neighbouring developments and public areas.
- Parking should be accessed from secondary streets and not from Old Perth Road.
- Crossovers should be limited to one crossover (3 – 6m wide) per development site. Crossovers should match footpath colour.
- Service and delivery should be provided discretely and in minimal space.
- Consideration should be given to location, access to and storage of recycling and other rubbish bins including communal bin facilities.
- Emergency vehicle access, particularly for fire fighting vehicles, must be provided to satisfaction of Council and FESA.

7.10 Landscape and hardscape

Position

The outdoor spaces between buildings are as important as the buildings themselves in their contribution to townscape. All spaces around buildings are to be designed to offer attractive amenity for users and passers-by.

Landscape in the Bassendean Town Centre should:

- Complement street function and be appropriately scaled relative to street width and building form and scale
- Enhance pedestrian comfort and safety and reinforce desired traffic behaviour
- Reflect and consider development image and role, solar access, soils, selection of appropriate species and services
- Assist in micro climate management and
- Include 'water wise' strategies to reduce long-term water consumption.

Guidelines

- Refer to Bassendean Streetscape Policies
- A town centre public realm contribution of 2% of development cost will be payable to Council as a condition of development approval. This contribution will be used to enhance the public realm in the vicinity of the development site and will include public art, street furniture, planting, paving and amenities such as bicycle racks, bins, shade structures, signage. Etc. Timing of these enhancements will be agreed between Council and the developer to be completed shortly after construction and to suit council works programmes.
- Landscape provision will be assessed on quality rather than quantity. No specific percentage provision is required in the town centre but all outdoor areas are expected to be landscaped and maintained to a high quality appropriate to an urban setting.
- Existing healthy, mature trees of appropriate species should be retained and incorporated into new development. Where trees are removed they shall be indicated as removed on plans and their removal justified
- Generally use water- wise and indigenous plant species
- Improve microclimate of courtyards and other urban spaces with use of some deciduous shade trees and water elements. The use of deciduous trees will be limited to courtyards and other urban spaces where seasonal climate response is considered important.

- Paving materials and details shall match proposed public realm finishes or be of a quality associated with high traffic town centre and civic precincts and approved by council.
- Seating, lighting and other street furniture should match that proposed in public areas or be of high quality design durable materials and approved by Council.
- Trees planted in car parks shall be planted as mature specimens no less than 3.0 m high and protected with tree grates and bollards. Tree canopies shall be managed to allow clear visibility to building facades and signage.
- All private and public open spaces should be designed and maintained to minimise fertilising, excess watering and nutrient run-off.

8.0 Building form and detail

8.1 Adaptable buildings

Position

The revitalisation of Bassendean Town Centre will happen over a number of years. New buildings in the town centre should be designed to accommodate a changing range of diverse and more intense uses in the future.

Guidelines

Buildings designed for adaptive re-use should include:

- Load bearing columns/walls in regular grid allowing addition or removal of dividing walls to reconfigure internal space.
- Lightweight façade systems that can be updated in future.
- Service cores and stairs at sides or rear of buildings and generous vertical circulation space for people and piping.
- Maximum number of openings in primary street facade to allow for additional entrances and/or different uses within building in future.
- Maximum natural light by limiting building depth to 20- 25m, use of light wells or internal courtyards.
- Limited internal fit-out and refit wastage
- Generous ground floor to floor heights to match existing or a minimum of 4.0metres
- Upper floor to floor heights of 3.5metres to 4.0metres

Variation

Where council considers that the life of a building is short so as not to warrant this approach.

8.2 Building character

Position

All buildings within the town centre should be designed as good urban fabric buildings that respect the history and streetscape of Bassendean while providing a contemporary response to function, technology and materials. Buildings in landmark locations should stand apart from the urban fabric buildings.

Guidelines

- Buildings should reflect contemporary lifestyle, function and materials and not mimic historic styles and building methods.
- Buildings should respond to the character of significant buildings in the town.
- Buildings should have a proportion and scale appropriate to their location within a high quality urban town setting and respecting neighbouring buildings.

8.3 Facades

Position

The design of building facades should contribute to the harmony, liveliness and safety of streetscapes.

Guidelines

- Refer to Streetscape policies on non residential property facades and security grilles and to 8.5 :Old Perth Road frontage
- Building facades should respond to neighbouring facades through use of consistent horizontal lines, good proportion and other design aspects.
- A consistent, well detailed design approach to all facades of a building is expected. Care should be taken in design of all facades that can be viewed from anywhere in the public realm, this includes window placement, proportion and relief in the wall plane.
- No façade shall appear as a "back "and blank walls should be avoided. Exposed plumbing or other services are not acceptable on any facades.
- Ground floor façades should be distinctive from upper levels, changes in wall plane, texture, material and colour can be used.
- Circulation spaces such as stairs and foyers should be positioned and glazed to add activity that is visible from the street.
- Glazing of facades is encouraged to provide visibility between inside and outside the building. Windows at ground level on active frontages shall be minimum 2.4m high. External sun shading is encouraged appropriate to orientation.
- The top of buildings should finish with a roof or expressed detail.

8.4 Roofs

Position

Roofs are important elements of buildings and townscapes and roof form should be considered as part of the overall building design.

Guidelines

- Simple roof forms complementing the linearity of buildings are desirable.
- Verge and eaves overhangs sufficient to create strong shadow lines are encouraged on expressed roofs.
- Low pitch roofs (<10 degrees) should be concealed by parapet walls.
- Pitched roofs should respect and be consistent in pitch with roofs in close proximity.

8.5 Old Perth Road frontage

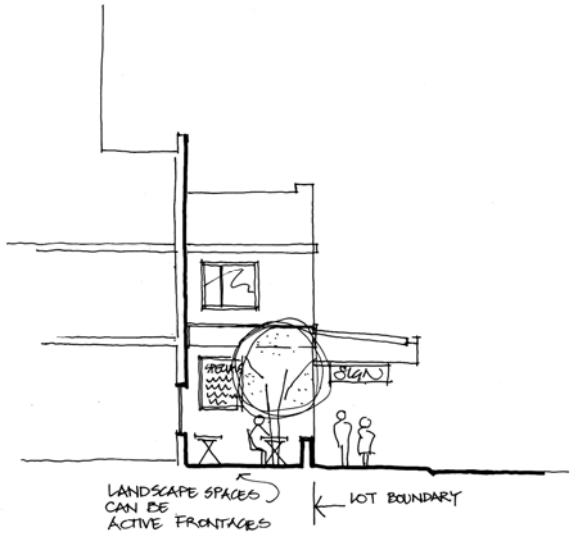
Position

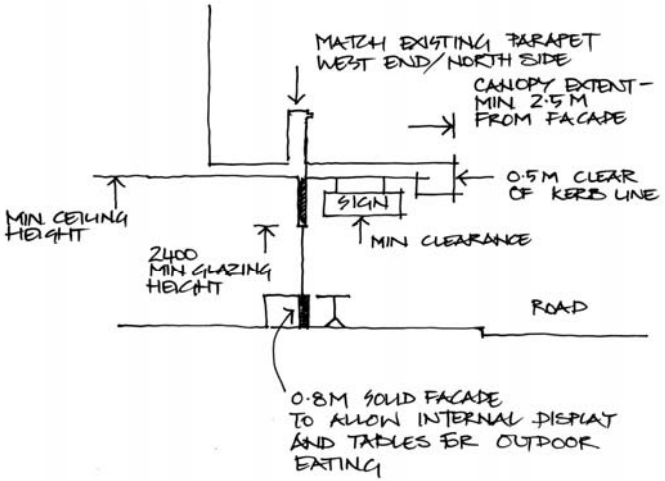
Old Perth Road is the central streetscape in the Bassendean town centre and care should be taken to enhance and enliven it. The pedestrian experience along Old Perth Road should be stimulating and vibrant.
Old Perth Road should have continuous active frontages of varying types along its length.

Guidelines

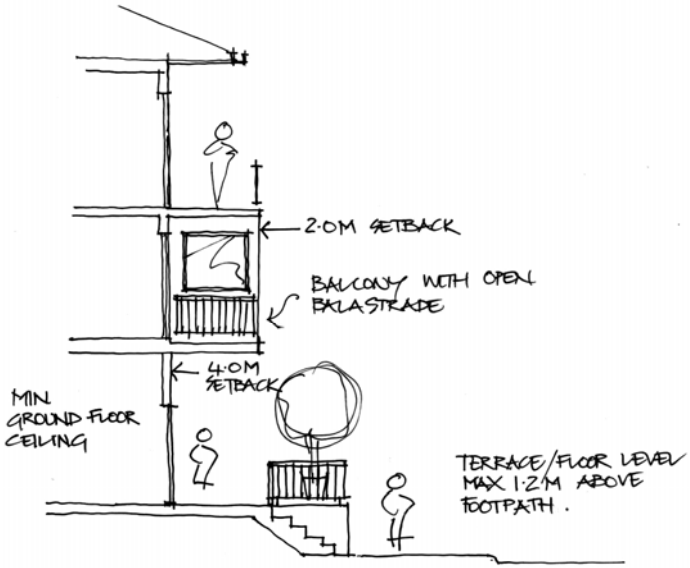
- Active frontage can include small landscaped spaces that are publicly accessible and contribute to the streetscape and building address
- Non- residential and mixed-use buildings shall have nil setbacks to Old Perth Road frontage.
- Mixed-use buildings should have predominantly non-residential ground floor frontages to Old Perth Road, with the exception of common foyers or home based studios/ offices.
- Residential active frontages should offer a transition such as a terrace or veranda between the public and private space where the resident can spend time and express identity through landscape and detail.
- Verandas or terraces can be raised above adjacent footpath level to a maximum of 1.2 metres.
- Glazed shopfronts are required in retail and commercial buildings. Old Perth Road facades should have a minimum of 80% clear glazed area at ground level.
- Solid frontage is accepted below 0.8 metres above footpath level to allow raised display windows and outside tables up against shopfronts.
- Blank walls longer than 2.0 metres at street level are not permitted.
- Upper levels of buildings fronting Old Perth Road should include functional size balconies.
- Where cafes, restaurants and coffee shops front Old Perth Road the provision of an outdoor eating area is encouraged.
- All frontages on Old Perth Road should be well illuminated.

Refer to
Non- residential Property Facades Policy, Trading in Public Places Policy and Outdoor Eating Policy





ACTIVE FRONTAGE – RETAIL



RESIDENTIAL ACTIVE FRONTAGE

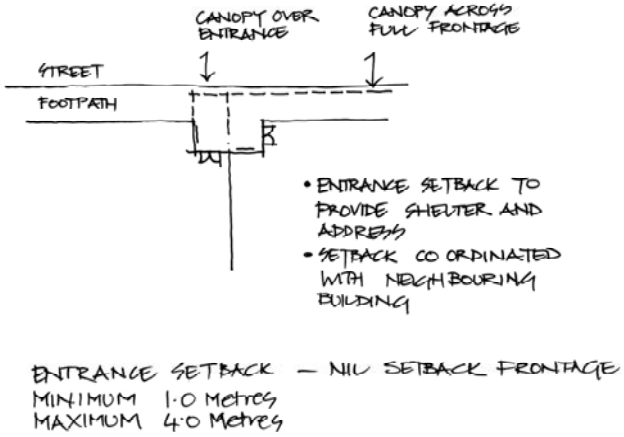
8.6 Building entry

Position

A good building entry expresses the function of the building and its character. It welcomes people in and provides information and shelter.

Guidelines

- The primary building entrance should be clearly identifiable and visible from the primary street.
- Other entrances should be scaled and designed according to their function and frequency of use.
- Entrances can be set back from the street with external treatments being consistent with the adjacent streetscape.
- Pedestrian shelter, signage and lighting should be provided at primary entrances.



Variation

Where council considers that the primary entrance is better located off the primary street, the design of the building and its surrounds should clearly lead the visitor to the entry.

8.7 Awnings, canopies & balconies

Position

Awnings and canopies provide pedestrian shelter and add interest and colour to facades along active street frontages. Other elements such as balconies and terraces provide spaces for people to be part of the street environment and contribute to passive surveillance as 'eyes on the street'.

Guidelines

- All active commercial and retail frontages in the west and east ends along Old Perth Road should have continuous pedestrian shelter over the footpath.
- Residential and mixed use buildings shall have pedestrian shelter such as awnings or canopies over entrances.
- Balconies and terraces are encouraged on street facades in residential and mixed use buildings.
- Balconies should have predominantly open balustrades, while considering the need for screening of washing and air conditioner units and solar screens.
- Awnings, canopies and balconies should :
    - Have minimum clearance to footpath of 2.7 metres
    - Have minimum extension out from building of 2.5 metres
    - Relate in height/ design to adjoining canopies/ awnings
    - Consider signage locations and dimensions
- Provision and maintenance of canopies and awnings over the footpath is the responsibility of the building owner.

8.8 Materials and colour

Position

A vibrant town centre is usually a wonderful mix of colours and materials. It is not the intention to limit the design palette of new buildings in Bassendean.

The Bassendean Town Centre should read as a harmonious grouping of buildings each with a different role and potentially a different character.

Guidelines

- Respond to neighbouring buildings with complimentary colours and materials.
- A limited palette of external colours and building materials should be used to ensure building harmony. Generally, use neutral, subtle colours for long lasting surface finishes and use bright colours only as accent and for surfaces that will be repainted or finished regularly.
- High quality durable materials that have acceptable levels of weathering and wear are preferred to materials that require constant maintenance..
- Use of tilt- up concrete is discouraged unless carefully detailed, finished and given relief in the wall plane.
- Use of highly reflective glazing is not permitted. Samples of reflective/ tinted coatings shall accompany any development application and will be to satisfaction of the Town of Bassendean.
- Strong and bright colours may be approved subject to durability, where council considers that proposed use of colour will contribute to the character of the town centre in a positive way.

8.9 Signage and public art

Position

Good signage and public art will contribute positively to the character and ambience of the town centre and reflect the image and memories of Bassendean. Both signage and art add vibrancy and interest to a place.

Guidelines

- Refer to Public Art Policy and Master Plan and Commercial Advertising Signage Policy
- A Public Realm contribution of 2% of building construction cost will be required for development in Bassendean Town Centre. This includes provision for public art.
- All building signage will be of a high standard and generally not exceed 5% of the building wall area to which it is fixed.
- Pylon signs will not generally be permitted. Signage designed as part of the building and themed to complement development is encouraged and if a building has numerous tenants, consolidated signage is preferred.
- Signage suspended below awnings, canopies or balconies or cantilevered will have a minimum clearance above footpath level of 2.7m.
- Illuminated signage (not pulsating or flashing) is preferred to externally lit signs. Signs should be lit at night.
- Signage erected above rooflines will not be permitted.
- Signage shall not obscure display windows by more than 5% area.
- Refer to 7.10 Landscape and hardscape.
- Permanent external art work should be durable and complement the themes established in the town.
- Public art should be appropriate for urban public space and should not compromise public safety.
- Opportunities for public art include: murals, tiles, mosaics or bas-relief to walkways and walls; unique, artistically devised elements which also have a functional role eg. bollards, gates, light poles, bench seating, drinking fountains.

Variation

Where art is incorporated into the building design, can be enjoyed from the public realm at all times and is of an extent and quality that satisfies the councils objectives for public art, the cost of that art can be off- set from the required public realm contribution (refer 7.10 Landscape and hardscape.)
A costed concept design by the artist is required to accompany the development application.

8.10 Plant and equipment

Position

Modern buildings require plant and equipment to function. This is usually unsightly and often noisy. The impact of plant and equipment should be minimised through design and location.

Guidelines

- All plant and equipment must be concealed from public view using screening or other means that is an integral part of the building design. Surface mounted services piping and conduits will not be permitted.
- Roof mounted equipment, aerials, antennas, masts etc must be screened from all views including from above where applicable. Detail of screening shall be included in DA plans, elevations and 3D images
- Ground level or balcony mounted equipment/air conditioning plant must be well screened using materials to suit the building.
- All plant and equipment must have noise attenuation to council satisfaction.
- Telecommunications dishes are not permitted on roofs.
- Lift over runs shall be contained within the roof space or appropriately designed as an element of the building active frontages.

9.0 Environment and services

9.1 Climate and energy response

Position

The Town of Bassendean has a commitment to sustainable development. It is important that new buildings are designed to be climate responsive and limit the use of energy and resources.

Guidelines

- A solar access and shadow analysis is required as part of the DA.
- Buildings should be designed to minimise energy consumed for heating, cooling and artificial light including:
    - Window design for good thermal and daylight performance
    - Building materials and insulation to contribute to comfortable thermal conditions
    - Air movement within buildings to provide comfortable thermal conditions and appropriate air quality
    - Building materials, appliances and fuel sources selected to minimise energy requirements and greenhouse gas emissions
- Building services should be designed and maintained to minimise energy and resource use including:
    - Optimum natural light
    - Optimum natural ventilation
    - Energy efficient motors and equipment ,lighting control systems, fittings and appliances
    - Energy efficient air conditioning and mechanical ventilation systems and controls
    - Minimum water use and waste
    - Energy efficient hot water systems
    - Water efficient taps and fittings
    - Minimal energy use over the whole life of the building
    - Maximum use of renewable energy and use of fuels with low greenhouse gas emissions
- Current '5 star' requirements of the green star rating system can be used to demonstrate a response to this commitment. A report accompanying the DA should describe the climate response and energy requirements of the building.

9.2 Services and infrastructure

Position

A high quality, well detailed and well maintained public realm will contribute to the value of residential and commercial property in Bassendean Town Centre and provide a high level of amenity for residents and visitors.

Guidelines

- The Town of Bassendean requires infrastructure contributions to be made based on the value of development.
- All stormwater shall be contained on site or connected to drainage points where supplied.

9.3 Servicing and maintenance

Position

The town centre should be pedestrian friendly, visually attractive and safe. Service areas and delivery and maintenance vehicles should not detract from this amenity.

Guidelines

- Service yards must not be located along active frontages and shall be designed as integral parts of the building.
- All waste storage and delivered goods should be contained within buildings. Rubbish storage and collection facilities shall comply with the current general requirements of the Town of Bassendean and will be efficient, convenient and allow for collection of recyclable material.
- Doors providing access to internal waste/storage or loading dock areas should be the minimum width and height possible to serve the required loading/unloading function and be constructed of aesthetically pleasing materials.

9.4 Noise attenuation

Position

Traffic noise from Guildford Road and the rail line can impact on the amenity of the town centre. Buildings should be designed to ameliorate this.

Guidelines

- Incorporate suitable noise attenuation measures in buildings affected by train or traffic noise in windows, ceilings and insulation airport noise controls.
- All accommodation buildings are to be detailed and/or designed so that internal noise levels in bedroom areas will be in the range of 30 to 35dB.
- All plant and equipment is to have noise attenuation.

9.5 Safety and security

Position

Bassendean town centre should be a safe place at all times. Building and urban design can impact on safety through ensuring all areas are overlooked, open and well maintained.

Crime prevention through environmental design (CPTED) principles will be used to assess all new development.

Guidelines

- A diverse and complementary mix of uses will encourage public presence and activity at different times of the day and night.
- Buildings should overlook public spaces and building entries should be clearly visible from public spaces.
- Buildings should not have recesses or other unsecured areas not in full public view.
- Solid fencing/screening above 0.8m high is discouraged on street frontages.
- A clear view from 0.8m- 2.0m above ground should be maintained in landscape, walling and screening unless screening is fully secure. Landscaping, walls and fencing shall be designed to maintain clear visibility to and from doors, windows, and pedestrian paths.
- Appropriate lighting shall be provided for safety and security (Refer 12.6)
- Robust materials which are aesthetically pleasing should be used in public places. Materials vulnerable to graffiti and vandalism shall be avoided. Use of security film to windows and anti graffiti treatment to other surfaces accessible at ground level is encouraged.

9.6 External lighting

Position

Bassendean Town Centre should be a safe and interesting place in the evening. Lighting of buildings, shopfronts and external spaces and landscape is important. Buildings should be well lit at night to contribute to safety and interest in the town centre. This can be achieved by up-lighting facades, illuminated signage, display lighting in shopfronts, and good landscape lighting.




Guidelines

- Appropriate lighting for pedestrian safety shall be provided to all pedestrian paths and parking areas.
- Building entrances should be lit for safety and identity.
- All external lighting shall be robust, vandal resistant and themed to complement development character.
- Display lighting to commercial and retail premises along Old Perth Road shall be time-switched to remain on every evening until at least 15 minutes after the last train has left Bassendean Station.
- Consideration should be given to pedestrians, cyclists and drivers with regard to glare from lighting sources.