



Metro South-West Joint Development Assessment Panel Agenda

Meeting Date and Time: 26 July 2018; 1:00pm
Meeting Number: MSWJDAP/164
Meeting Venue: City of Cockburn
9 Coleville Crescent
Spearwood

Attendance

DAP Members

Mr Tony Arias (Presiding Member)
Mr Brian Curtis (A/Deputy Presiding Member)
Mr Andrew MacIver (Specialist Member)

Item 8.1

Cr Chris Elliot (Local Government Member, City of Rockingham)
Cr Deb Hamblin (Local Government Member, City of Rockingham)

Items 8.2 and 10.1

Cr Charmonix Terblance (Local Government Member, City of Cockburn)
Cr Carol Reeve-Fowkes (Local Government Member, City of Cockburn)

Officers in attendance

Item 8.1

Mr Greg Delahunty (City of Rockingham)

Items 8.2 and 10.1

Mr Don Bothwell (City of Cockburn)
Mr Patrick Andrade (City of Cockburn)
Mr Andrew Lefort (City of Cockburn)
Mr Daniel Arndt (City of Cockburn)

Minute Secretary

Ms Lynette Jakovcevic (City of Cockburn)

Applicants and Submitters

Item 8.1

Mr Ben Carter (Pinnacle Planning)

Item 8.2

Ms Emma Van Der Linden (RobertsDay)
Mr Ryan Darby (RobertsDay)
Mr Greg Zieschang (Opal Aged Care)
Mr Chris Fagri (Johnstaff)
Mr Joel Bryan (Johnstaff)
Mr Todd Paterson (KPA Architects)
Mr John Loreck (KPA Architects)



Item 10.1

Mr Alexander Kingsbury (Lavan)
Mr Tony Watson (MW Urban)
Mr Matthew Elliot (Accord Property)

Members of the Public / Media

Nil

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

Signed minutes of previous meetings are available on the [DAP website](#).

5. 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.

6. Disclosure of Interests

Nil

7. Deputations and Presentations

The City of Rockingham and City of Cockburn may be provided with the opportunity to respond to questions of the panel, as invited by the Presiding Member.

8. Form 1 – Responsible Authority Reports – DAP Applications

8.1	Property Location:	Lot 61 (No.37) and Lot 62 (No.39) Council Avenue, Rockingham
	Development Description:	Proposed Mixed Use Development – 62 Multiple Dwellings, 13 Consulting Rooms, Two Shops and a Restaurant
	Applicant:	Pinnacle Planning Services Pty Ltd
	Owner:	Rockingham No 1 Pty Ltd
	Responsible Authority:	City of Rockingham
	DAP File No:	DAP/18/01398



8.2 Property Location: Lot 7002 Abelia Road, Treeby
 Development Description: Residential Aged Care Facility
 Applicant: Roberts Day
 Owner: Principal Healthcare Finance Pty Ltd
 Responsible Authority: City of Cockburn
 DAP File No: DAP/18/01405

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

Nil

10. Appeals to the State Administrative Tribunal

10.1 Property Location: Lot 803 Yangebup Road, Yangebup
 Development Description: Service Station
 Applicant: MW Urban
 Owner: RPD 1 Pty Ltd
 Responsible Authority: City of Cockburn
 DAP File No: DAP/17/01335

11. General Business / Meeting Closure

In accordance with Section 7.3 of the DAP Standing Orders 2017 only the Presiding Member may publicly comment on the operations or determinations of a DAP and other DAP members should not be approached to make comment.



Form 1 – Responsible Authority Report (Regulation 12)

Property Location:	Lot 7002 Abelia Road, Treeby
Application Details:	Residential Aged Care Facility
DAP Name:	Metro South-West JDAP
Applicant:	Roberts Day
Owner:	Principal Healthcare Finance Pty Ltd
LG Reference:	DAP18/003
Responsible Authority:	City of Cockburn
Authorising Officer:	Don Bothwell - Senior Planning Officer
Department of Planning File No:	DAP/18/01405
Report Date:	5 July 2018
Application Receipt Date:	30 April 2018
Application Process Days:	90 Days
Attachment(s):	1. A2-01 – Site and Ground Floor Plan 2. A2-02 – First Floor Plan 3. A5-01 – Elevations 4. A7-01 – Signage Details 5. Development Application Report 6. Traffic Impact Assessment 7. Bushfire Management Plan

Recommendation:

That the Metro South-West JDAP resolves to:

Approve DAP Application DAP/18/01405 and accompanying plans A2-01, A2-02, A5-01 and A7-01 in accordance with Clause 68 of the *Planning and Development (Local Planning Schemes) Regulations 2015* and the provisions of the *City of Cockburn Town Planning Scheme No. 3*, as depicted on the plans dated 26 April 2018, subject to the following conditions:

Conditions

1. Prior to the issue of a Building Permit for new buildings, the submission of a detailed landscape plan for assessment and approval by the City is required. The Landscape Plan shall include the following:-
 - (a) the location, species and size of proposed planting;
 - (b) the location, species, size and density of proposed shrubs;
 - (c) those areas to be reticulated or irrigated and what the source of water is;
 - (d) details of any common area lighting; and
 - (e) verge treatments including removal and replacement of existing street tree on Abelia Road to accommodate the footpath connecting to the site.
2. Landscaping shall be installed and reticulated in accordance with an approved detailed landscape plan prior to the occupation of the development. Landscaped areas are to be maintained thereafter in good order to the satisfaction of the City.
3. A detailed material, colours and finishes schedule for the development shall be

submitted to and approved by the City prior to the issue of a Building Permit for new buildings. The details as agreed to by the City are to be implemented and maintained in the development

4. All mechanical plant and related hardware shall be screened from view of adjoining properties and the respective street frontages. The details in respect of which are to be provided to the City's satisfaction prior to the issue of a Building Permit for new buildings. The location of plant and equipment shall also minimise the impact of noise on future occupants of the development and adjoining residents.
5. Prior to the initial occupation of the building, the parking bays, driveways and points of ingress shall be sealed, kerbed, drained and line marked in accordance with the approved plans to the satisfaction of the City. Car parking and access driveways shall be designed, constructed and maintained to comply with AS2890.1 and provide for safe pedestrian movement, to the City's satisfaction.
6. Prior to the initial occupation of the building, signage and painted arrows shall be provided in the driveway area to inform drivers of the one-way access.
7. Walls, fences and landscape areas are to be truncated within 1.5 metres of where they adjoin vehicle access points, where a driveway and/or parking bay meets a public street or limited in height to 0.75 metres to the satisfaction of the City.
8. All stormwater being contained and disposed of on-site to the satisfaction of the City.
9. The premises must clearly display the street number/s.
10. A Dust Management Plan shall be submitted to and approved by the City prior to any works commencing on-site. The approved Dust Management Plan shall be implemented to the satisfaction of the City.
11. A Construction Management Plan shall be submitted to and approved by the City prior to the issue of a Building Permit for new buildings. The Construction Management Plan shall be implemented to the satisfaction of the City.
12. No building or construction related activities associated with this approval causing noise between the hours 7.00pm and 7.00am, Monday to Saturday, and not at all on Sunday or Public Holidays (unless prior written approval of the City is issued).
13. Prior to the issue of a Building Permit for new buildings, the owner/applicant shall:
 - submit to the City for approval a preliminary proposal for an art work designed by a professional artist at a cost of 1% of the total project cost (to a maximum of \$250,000), to be located within the subject site as an integral part of the development or in the public realm;
 - submit to the City for approval an 'Application for Art Work Design'; and
 - enter into a contract with a professional artist/s to design and install (if appropriate) the art work approved by the City.

14. Provisions identified in the Waste Management Plan approved by the City on 29 June 2018, which include recycling measures and management of commercial and residential waste, shall be implemented and maintained thereafter to the satisfaction of the City.
15. The bicycle parking spaces are to be designed and installed to comply with Australian Standard 2890.3 within the designated bicycle parking area marked on the ground floor plan. Details of the bicycle parking shall be submitted to the City for assessment and approval prior to the issue of a Building Permit for new buildings.
16. All outdoor lighting shall be installed and maintained in accordance with Australian Standard AS 4282 - 1997 "Control of the Obtrusive Effects of Outdoor Lighting".
17. The Bushfire Management Plan dated April 2018 shall be implemented to the satisfaction of the City.
18. 6.38mm laminated glazing (or equivalent Rw rated glazing) shall be provided to all habitable areas within the Aged Care Facility.
19. An Acoustic Report shall be submitted to and approved by the City, prior to the submission of a Building Permit application. All noise attenuation measures, identified by this acoustic report are to be implemented prior to occupancy of the development (or as otherwise required by the City) and the requirements of the Acoustic Report are to be observed at all times.
20. Written confirmation from the builder shall be submitted to the City with the Building Permit Application confirming that all habitable areas are provided with 6.38mm laminated glazing (or equivalent Rw rated glazing) in accordance with condition 17 and that all recommendations made in the Acoustic Report required under condition 18 have been incorporated into the proposed development.
21. The builder shall provide written confirmation that the requirements of condition 18 and all recommendations made in the Acoustic Report have been incorporated into the completed development with the Form BA7 Completion Form, prior to occupation of the development.
22. The development site shall be connected to the reticulated sewerage system of the Water Corporation before commencement of any use.
23. No wash-down of plant, vehicles or equipment is permitted on the premises.
24. The Medical Centre is limited to the following number of consultants/practitioners at any one time:
 - Consultancy 1 – 1 consultant;
 - Consultancy 2 – 1 consultant; and
 - Consultancy 3 – 1 consultant.

Advice Notes

1. The application has been determined by the JDAP on the basis of the plans and information provided to City for assessment.

2. This is a Planning Approval only and does not remove the responsibility of the applicant/owner to comply with all relevant building, health and engineering requirements of the Council, or with any requirements of the City of Cockburn Town Planning Scheme No. 3. Prior to the commencement of any works associated with the development, a building permit is required.
3. The development is to comply with the requirements of the National Construction Code. In this regard, it is recommended the City's Building Services team should be consulted prior to the commencement of working drawings.
4. With regards to Condition 8, all stormwater drainage shall be designed in accordance with Australian Standard AS3500.
5. With regards to Condition 10, an Application for Approval of a Dust Management Plan may be obtained from www.cockburn.wa.gov.au and shall identify the mitigation and contingency measures proposed by the developer. Appropriate mitigation and contingency measures are outlined in the Department of Environment Regulation publication "Land development sites and impacts on air quality" (November 1996) The developer is further advised that the City's Health Service cannot approve bulk earthworks on Class 3 and 4 development sites between 1 October and 31 March the following year.
6. With regards to Condition 11, the Construction Management Plan shall address the following items:
 - (a) access to and from the site;
 - (b) delivery of materials and equipment to the site;
 - (c) storage of materials and equipment to the site;
 - (d) parking arrangements for contractors and subcontractors;
 - (e) management of construction waste; and
 - (f) other matters likely to impact on the surrounding properties.

Your attention is drawn to the City's Engineering Services for further information on formal road closures (if required) for the parking arrangements approved within the Construction Management Plan.

7. All toilets, ensuites and kitchen facilities in the development are to be provided with mechanical ventilation flued to the outside air, in accordance with the requirements of the National Construction Code (Building Code of Australia), the Sewerage (Lighting, Ventilation and Construction) Regulations 1971, Australian Standard S1668.2-1991 "The use of mechanical ventilation for acceptable indoor air quality" and the City of Cockburn Health Local Laws 2000. The City's Health Service further recommends that laundries without external windows and doors should be ventilated to external air and condensating clothes dryers installed.
8. This development has been defined as a public building and shall comply with the relevant provisions of the Health Act 1911 (as amended), and the Health (Public Buildings) Regulations 1992. An Application to Construct, Extend or Alter a Public Building shall be submitted for approval, prior to fit out works commencing for this development.

9. With regards to Condition 13, the art work shall be in accordance with Council's Local Planning Policy LPP 5.13 - Percent for Art and the 'Application for Art Work Design' and shall include a contract between the owner/applicant and the artist, full working drawings (including an indication of where the art work is located) and a detailed budget being submitted to and approved by the City. Further information regarding the provision of art work can be obtained from the City's Community Arts Officer on 9411 3444.
10. The development shall comply with the noise pollution provisions of the *Environmental Protection Act 1986*, and more particularly with the requirements of the *Environmental Protection (Noise) Regulations 1997*. The installation of equipment within the development including air-conditioners, spas, pools and similar equipment shall not result in noise emissions to neighbouring properties exceeding those imposed by the *Environmental Protection (Noise) Regulations 1997* (as amended).
11. All food handling operations shall comply with the Food Act 2008 and Chapter 3 of the Australia New Zealand Food Standard Code (Australia Only). Under the Food Act 2008 the applicant shall complete and return a Food Business Notification/Registration Form to the City of Cockburn's Health Services. Operation of this food business may be subject to the requirement to pay an Annual Assessment Fee under the Act.
12. Parts of this development has been defined as a 9b public building in accordance with the National Construction Code (NCC) and shall comply with the relevant provisions of the Health (Miscellaneous Provisions) Act 1911 (as amended), and the Health (Public Buildings) Regulations 1992.
13. All food businesses must comply with the *Food Act 2008* and Chapter 3 of the Australia New Zealand Food Standard Code (Australia Only). Under the *Food Act 2008* the applicant must obtain prior approval for the construction or amendment of the food business premises. An Application to Construct or Alter a Food Premises must be accompanied by detailed plans and specifications of the kitchen, dry storerooms, coolrooms, bar and liquor facilities, staff change rooms, patron and staff sanitary conveniences and garbage room, demonstrating compliance with Chapter 3 of the Australia New Zealand Food Standard Code (Australia Only).

The plans are to include details of:

- (a) the structural finishes of all floors, walls and ceilings;
- (b) the position, type and construction of all fixtures, fittings and equipment (including cross-sectional drawings of benches, shelving, cupboards, stoves, tables, cabinets, counters, display refrigeration, freezers etc); and
- (c) all kitchen exhaust hoods and mechanical ventilating systems over cooking ranges, sanitary conveniences, exhaust ventilation systems, mechanical services, hydraulic services, drains, grease traps and provisions for waste disposal.

These plans are to be separate to those submitted to obtain a Building Permit.

14. With regard to Condition 19 above, the acoustic report shall be prepared by a suitably qualified and recognised acoustic consultant and demonstrate that the design and location of plant and other sources of noise within the development will not exceed the assigned noise levels set out in the *Environmental Protection (Noise) Regulations 1997* (as amended). The Acoustic Report must incorporate a Noise Management Plan which addresses:
 - (a) Predictions of anticipated noise emissions associated with activities, plant or equipment (such as air-conditioners, garbage areas, refrigeration, entry gates and sources of break out noise)
 - (b) Sound proofing measures proposed to mitigate noise;
 - (c) Control measures to be undertaken (including monitoring procedures); and
 - (d) A complaint response procedure.
15. An “Application to Construct or Alter a Food Premises” is required to be submitted to Health Services prior to construction. This is to be accompanied by detailed plans and specifications of the food preparation and storage area (including mechanical ventilation and hydraulics), sanitary conveniences and garbage room, demonstrating compliance with the mentioned legislation.
16. The occupier of premises in which clinical waste is produced shall comply in all respects with the Environmental Protection (Controlled Waste) Regulations 2004. For further information please contact the Department of Water and Environmental Regulation.
17. With regards to Condition 1, it is to be noted that the existing street tree cannot be replanted and will require replacing to the side of the connecting path. For further information regarding this and the required Landscaping Plan, please contact the City’s Parks Technical Officer on 9411 3540.
18. A Sign Permit is required in accordance with the City’s Local Laws (2000) prior to the erection of the any signs on-site. A permit is obtainable from the City’s Building Services Department.
19. If the development the subject of this approval is not substantially commenced within a period of two (2) years, the approval shall lapse and be of no further effect.
20. Where an approval has so lapsed, no development shall be carried out without further approval having first being sought and obtained, unless the applicant has applied and obtained Development Assessment Panel or Council approval to extend the approval term under regulation 17(1)(a) of the Development Assessment Panel Regulations 2011.

Background:

Insert Property Address:	Lot 7002 Abelia Road, Treeby
Insert Zoning	MRS: Urban
	TPS: Development Zone (DA37) R40 (under Local Structure Plan)
Insert Use Class:	Residential Aged Care Facility (Use Not Listed)
Insert Strategy Policy:	-

Insert Development Scheme:	City of Cockburn Town Planning Scheme No. 3
Insert Lot Size:	9679m ²
Insert Existing Land Use:	Vacant
Value of Development:	\$23.5 million

The subject site is located in Stockland's Calleya Estate in the locality of Treeby. The site is currently vacant and cleared. The topography of the site is flat. The site is bound by a retirement village which is under construction to the north and existing single residential houses immediately to the west.

The subject site is zoned for Residential (R40) purposes under the Banjup Quarry Local Structure Plan (LSP).

Details:

In detail, the proposal will facilitate a Residential Aged Care Development (Opal Aged Care) comprising:

- Two (2) storey building consisting of 120 residential aged care units providing a range of aged care dependant living including low dependency and Alzheimer's care;
- 58 on-site car bays for the proposed use; and
- Allied Health Facility (Medical Centre with 3 consulting rooms).

Legislation and Policy:

Legislation

The legislative framework and policy base providing for the assessment and determination of the subject application is as follows:

- *The Planning and Development Regulations 2015* (local planning schemes) (applications to be determined in accordance with the provision of Part 9 of the Regulations 'Procedure for Dealing with Applications for Development Approval');
- The LSP (Banjup Quarry Local Structure Plan) applicable to the land and location. The LSP details general planning considerations in the areas of: land use, density of development in the case of residential land use, and anticipated built forms; and
- Town Planning Scheme No. 3 (TPS3) (Development Area 37).

State Government Policies

- State Planning Policy 3.7 – *Planning in Bushfire Prone Areas* (SPP 3.7). The policy provides guidance for planning in bushfire prone areas. A Bushfire Attack Level (BAL) report was submitted with the application (attached) with the findings of this report and other matters associated with Bushfire discussed in the *Bushfire Management* section of this report.
- State Planning Policy 5.3 – *Land Use Planning in the Vicinity of Jandakot Airport* (SPP 5.3). The objectives of the policy are to protect Jandakot Airport

from encroachment by incompatible land use and development and to minimise the impact of airport operations on existing and future communities, with reference to aircraft noise.

Local Policies:

- Local Planning Policy 1.12 – *Noise Attenuation*. This policy details the noise attenuation and noise management reporting process when undertaking development within the City of Cockburn.
- Local Planning Policy LPP1.14 - *Waste Management in Multiple Unit Developments*. The policy provides guidance on how larger developments should plan for waste management and minimisation. A Waste Management Plan was submitted to the City's Waste Manager for approval who subsequently requested changes to the external garbage loading area to include a hose cock and drainage area connected to sewer. This was incorporated into the Waste Management Plan and this was subsequently approved by the City Waste Manager.
- Local Planning Policy LPP5.13 – *Percent for Art*. The policy seeks to achieve delivery of public art for large development applications. All commercial developments exceeding an estimated cost of over \$1 million are required to set aside 1% of the estimated project cost for artworks on the subject site.

Consultation:

Public Consultation

Letters advising the adjoining landowners of the details of the proposal, inviting them to view the development plans and provide comment were sent to adjoining landowners. No comments were received during the 3 week public consultation period.

Consultation with other Agencies or Consultants

Consultation with external agencies has not been necessary in this instance.

Design Review

The plans which are the subject of this report have been through the City's Design Review process. Preliminary designs of the proposal were presented to the City's Design Review Panel (DRP) at its meeting held on 21 June 2017. Following this meeting, modified plans were re-submitted to the DRP addressing feedback received from the DRP based on the principles of the City's LPP 5.16 Design Review Panel. Based on the modified plans presented to the DRP, the following recommendations were made to be incorporated into plans which were submitted for a development application:

- Minor adjustments to the NW wind to allow enhanced landscape buffer to the north of this wing;
- Enhanced landscape zone to Abelia Road for improved arrival experience and public realm;

- Design development to ensure service road area is a landscaped based solution, which will also deliver an enhanced landscape buffer to the north of the NE wing; and
- Adjustments to the roof massing and design to interrupt the long continuous built form to Abelia Road.

To achieve an enhanced landscape buffer to the north-west wing, setbacks to the north and west were increased from 1.5m to 3.0m - 4.0m with landscaping provided in these increased areas. Landscaping has also been included in the Abeila Road setback area. Mature trees and lighting been incorporated to the southern edge of the car parking area which is considered to increase the arrival experience and increase streetscape amenity. To break up the building bulk as viewed from the street, an additional hipped roof feature and the use of a lighter roof colour have been included on the subject plans which are the subject of this report.

Planning Assessment:

Zoning and Use

The site is located within the 'Development' zone and is affected by the 'Development Area 37' (DA37) provisions of TPS3. The LSP indicates that the site is zoned R40. The Zoning Table of TPS3 does not contain the use of Residential Aged Care rendering it a 'use not listed'. However, it should be noted that multiple dwellings are a 'D' or discretionary use and this proposal is considered to have a similar amenity impact. A residential building is also a 'D' use under the City's TPS3. An Aged Care Development in this built form is considered appropriate as clause 3.4.2 of the City's TPS3 states that when a proposed use cannot reasonably be determined as falling within the type, class or genus of activity of any use category in the zoning table, the City can determine that the use may be consistent with the objectives of the zone. It should be noted that the land use of a 'Hospital' is an 'A' use which has a similar but slightly reduced impact to the proposed land use of Residential Aged Care.

It is to be noted that the use of a Medical Centre (Allied Health Facility) is an 'A' use in a residential area which means that the use must be advertised prior to the determination of the use.

Development

There are no site specific local planning policies, design guidelines, local development plan or R-Code requirements which are applicable to the site. An assessment of the most relevant general planning considerations is outlined below.

Design

The design of the proposed building addresses Abelia Road sufficiently. The ancillary café next to the main entry point with the footpath connecting through to the dog park to the south provides for an active and engaging street frontage.

The design of the building incorporates a distinctive main entry point. This covered entry point is important in welcoming residents, staff and visitors arriving at the facility. This entrance also provides a weather protected hub for visitors and residents to the facility. It is considered important to have a convenient and functional drop off

area as proposed, to provide convenient drop off and pick up for family and friends of the residents.

The building has been designed to be generally consistent with and read as a residential development which characterises the immediate locality. The design of the building is residential in context and is generally consistent with the requirements of the R-Codes in terms of setbacks, building height and open space.

Building Articulation

The building form has been well articulated through the use of contrasting building materials and colours, windows and balconies and a roof form that provides articulation and breaks up the buildings bulk. The verandas and balconies which contribute to the building's articulation also offer park views to the residents of the aged care facility as well as providing passive surveillance to the POS. The following materials have been incorporated:

- Light coloured brickwork;
- Red blend brickwork;
- Perforated screens;
- Tile cladding; and
- Stone cladding.

Open Space

The proposed building occupies a total of 3,100m² of the subject lot which is a total of 9,679m² resulting in 68% open space on the site. There is no specific open space requirement for the use of aged care so the R-Code requirement of 55% in R40 has been used as a guide in this instance. The open space achieved is significantly greater than this requirement and it is considered that there are significant open space areas including large courtyard areas providing a sufficient level of open space amenity for the residents of the Aged Care Centre. The size of the building is therefore appropriate in relation to the size of the lot.

Parking

The City's TPS3 does not contain a use class or associated car parking rate for Residential Aged Care Facilities. The land use of 'Hospital' requires 1 car bay for every 3 beds plus 1 bed for every 2 staff but would have with potentially higher staffing needs than the proposal.

Consistent with the approach taken by the City for the Regis Nursing Home in Port Coogee which was recently approved by the JDAP (DAP/16/00968) and Aegis Aged Care in Cockburn Coast (DAP/17/01196) a car parking ratio of 1 car bay per 3 beds has been considered as suitable for assessment purposes. The car parking rate is based on demand for staff, visitors and residents. The ratio of 1 car bay per 3 beds is also the same as the City of Stirling who have a designated 'Nursing Home' use and parking requirement in their scheme and have processed several large Nursing Home/Aged Care developments in their area including another Opal aged care development in Carine.

The applicant has also provided bicycle parking facilities in locations close to the main entrance and staff amenities area although none were required under TPS3

which will assist in promoting sustainable nodes of transport for staff and visitors to the facility.

The proposed car parking calculations for the development are summarised below:

Car Parking Calculation – Residential Aged Care Facility & Allied Health			
	Aged Care Facility	Allied Health	Total
Required Number of Car Bays	1 bay per 3 beds	5 bays per practitioner	55 car bays
Provided Number of Car Bays	40 – for 120 beds	15 – for 3 practitioner	58 car bays

As demonstrated above, the car parking requirement generated from the Residential Aged Care facility is 55 car bays based on the car parking ratio of 1 car bay per 3 beds with 58 car bays resulting in a surplus of 3 car bays.

Access & Traffic

As shown on the site plan, access to the site will be provided via the two proposed crossovers off Abelia Road. The City's Engineering Services upon review of the application commented that the width of parking aisle is 6m which is considered the standard width for a two-way traffic operation. It was suggested by Engineering that restricting the traffic flow to one-way simply with line marking could create compliance issues with vehicles travelling against the intended direction of flow. It was therefore recommended to allow a two-way operation on the parking aisle to ensure it is self-complaint. However, in response to these comments, the applicant has advised that DFES vehicles require the full width of the crossover and entry section of the driveway, without any vehicles in the opposing direction. It was therefore suggested by the applicant that signage and painted arrows be included to inform drivers of the one-way access. The City is comfortable with the applicant response and recommends that should the JDAP approve the proposal that an appropriate condition is imposed.

A Traffic Impact Assessment (TIA) prepared by an Independent Traffic Consultant (attached) was submitted with the application. The report indicates that the proposal will not result in increased traffic flows on any adjacent or surrounding roads to cause an undue impact on the locality in terms of traffic.

The City's Engineering Services sought clarification on the assumed time/period for the afternoon peak hour. It was subsequently advised by the applicant that the peak afternoon staff changeover is expected at around 3:00pm, therefore the afternoon peak hour expected for the centre is expected to be 3:00pm.

Pedestrian Amenity

It is considered that the informal pedestrian crossing from the site to the POS on the northern side of Abelia Road provides good interface between the centre and the dog park immediately to the south on the opposite side of Abelia Road. This footpath linking to the park will provide a safe and legible link for the residents of the centre to go to the dog park with their family and friends on visits.

To facilitate this path however, an existing semi-mature street tree is proposed to be relocated as shown on the submitted site plan. The matter has been referred to the

City's Parks Technical Officer who has conducted a site visit to inspect the tree and has advised that the existing street tree cannot be replanted but is agreeable for the subject tree to be removed and replaced on the opposite side of the connecting path. If the JDAP resolves to approve this proposal an appropriate condition can be imposed requiring this to occur.

Bushfire Management

A BAL assessment was submitted with the application as the subject lot has been classified as a bushfire prone area. The BAL report indicates that the highest BAL applicable to the proposed building is BAL12.5.

Given that the use of the site for Aged Care is considered a venerable land use under SPP3.7, a Bushfire Management Plan (BMP) including an Emergency Evacuation Plan (EEP) is required to be submitted with the development application. The BMP and EEP (attached) which were submitted with the application were submitted to the City's Bushfire Officers who requested some minor changes. These changes were incorporated into the revised BMP/EEP as required.

If the JDAP resolves to approve this application, a condition can be imposed for the BMP to be implemented to the satisfaction of the City.

Noise

SPP 5.3 identifies the subject lot as being within the 'frame area' of Jandakot Airport. The Noise Impact Assessment undertaken as part of the Banjup Quarry Local Structure Plan (BQLSP) which applies to the subject site states that habitable rooms are to incorporate 6.38mm thick laminated glazing with a condition requiring this to be incorporated into a condition of planning approval. If the JDAP approve this application, a condition can be applied to address this requirement as follows:

6.38mm laminated glazing (or equivalent Rw rated glazing) is to be provided to all habitable areas within the Aged Care Facility.

LPP1.12 – *Noise Attenuation* states indicates that a further Acoustic Report may be requested to be submitted as part of the building permit as a condition of approval of the development application. In this instance, the City's Environmental Health Services have recommended an acoustic report at the Building Permit stage and this can be imposed as a condition if the JDAP resolve the application.

Percent for Art

The City's percentage for art policy applies to the development given it meets the threshold trigger based on the cost of development. The applicant has advised that they will be commissioning an artist to incorporate art into the design of the building. Submitted with the application is some artist design concepts which are obviously subject to change. It appears that the artworks will be incorporated into screening, balustrading and entry statements.

Conclusion:

The proposed development is residential in nature, bulk and scale and is consistent with the expectations for the location and importantly presents a good built form outcome for the site. The proposed aged care facility will provide high quality aged

care accommodation to the area as well as providing employment opportunities for the local community. The application has significantly addressed constraints and requirements for the site including bushfire and noise management. It is therefore recommended the Metro South-West Joint Development Assessment Panel resolve to conditionally approve the development application in accordance with Clause 68 of Part 9 of the *Planning and Development (local planning schemes) Regulations 2015*.

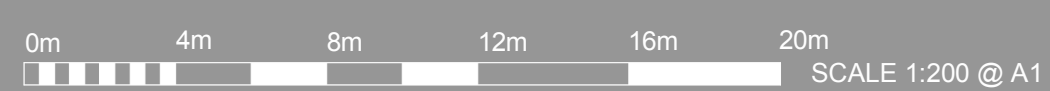


CAR PARKING TABLE	
RESIDENTS: (120)	
1 CAR BAY FOR EVERY 3 BEDS	40
ALLIED HEALTH: (3 CONSULTANTS)	
5 CAR BAYS PER CONSULTANT	15
TOTAL CAR BAYS REQUIRED BY C.O.C.	55
TOTAL CAR BAYS PROVIDED	58
CAR BAY SURPLUS	3
BIKE RACK SPACES PROVIDED	8



OPAL TREEBY
SITE AND GROUND FLOOR PLAN

26/04/2018 17-002



DA APPLICATION
A2-01

1
DRAWING
REVISION

4 Bowman Street, South Perth, WA 6151
PO Box 271, South Perth, WA 6951
P 61 8 9367 6866
E admin@kpa-architects.com
W kpa-architects.com
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OPAL TREEBY FIRST FLOOR PLAN

26/04/2018

17-002

0m 4m 8m 12m 16m 20m
SCALE 1:200 @ A1

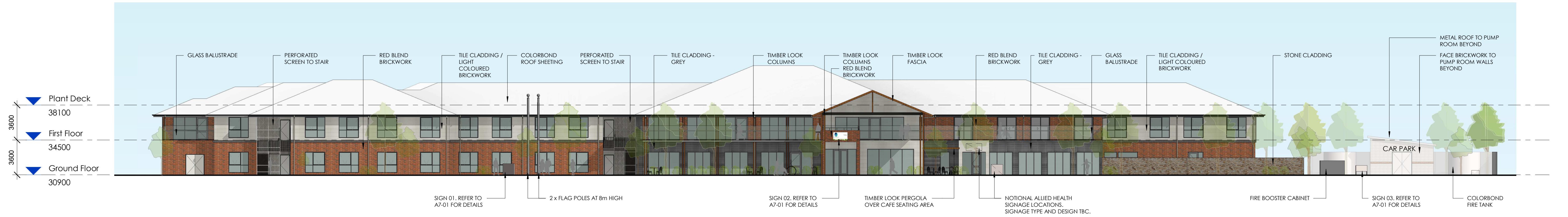


DA APPLICATION
A2-02
DRAWING

1
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4 Bowman Street, South Perth, WA 6151
PO Box 271, South Perth, WA 6951
P 61 8 9367 6866
E admin@kpa-architects.com
W kpa-architects.com
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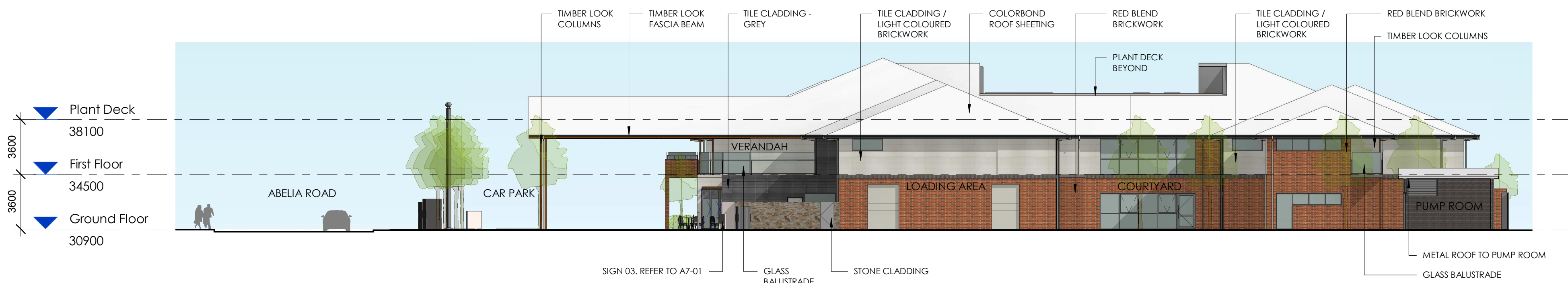




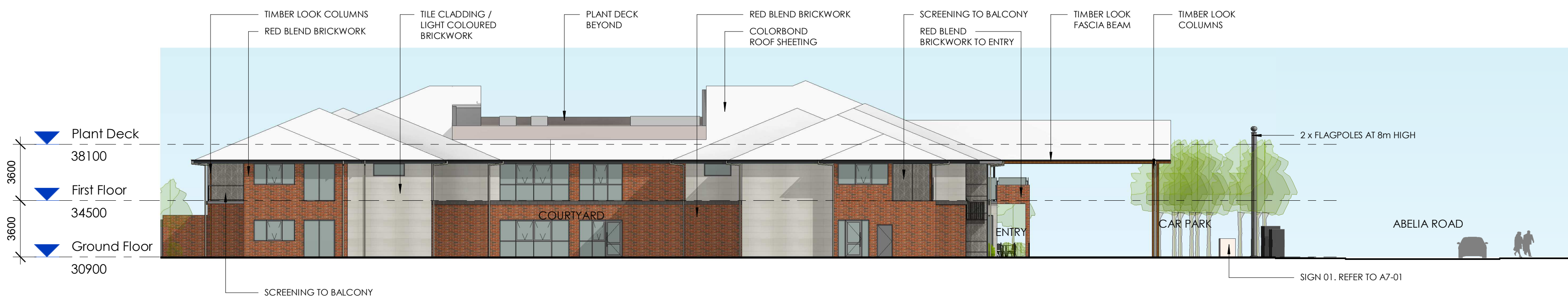
1 Abelia Road Elevation
A2-01 1 : 200



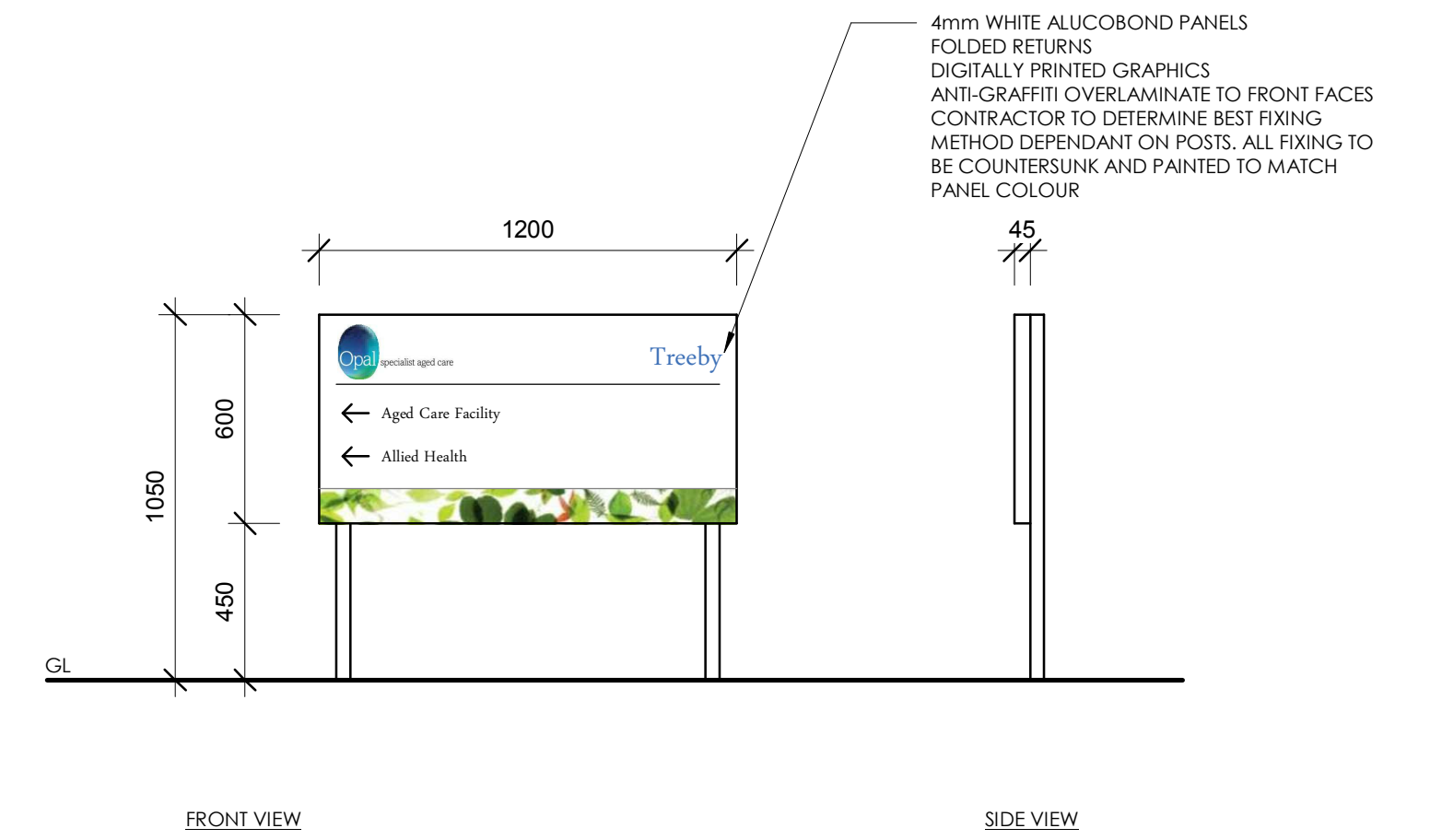
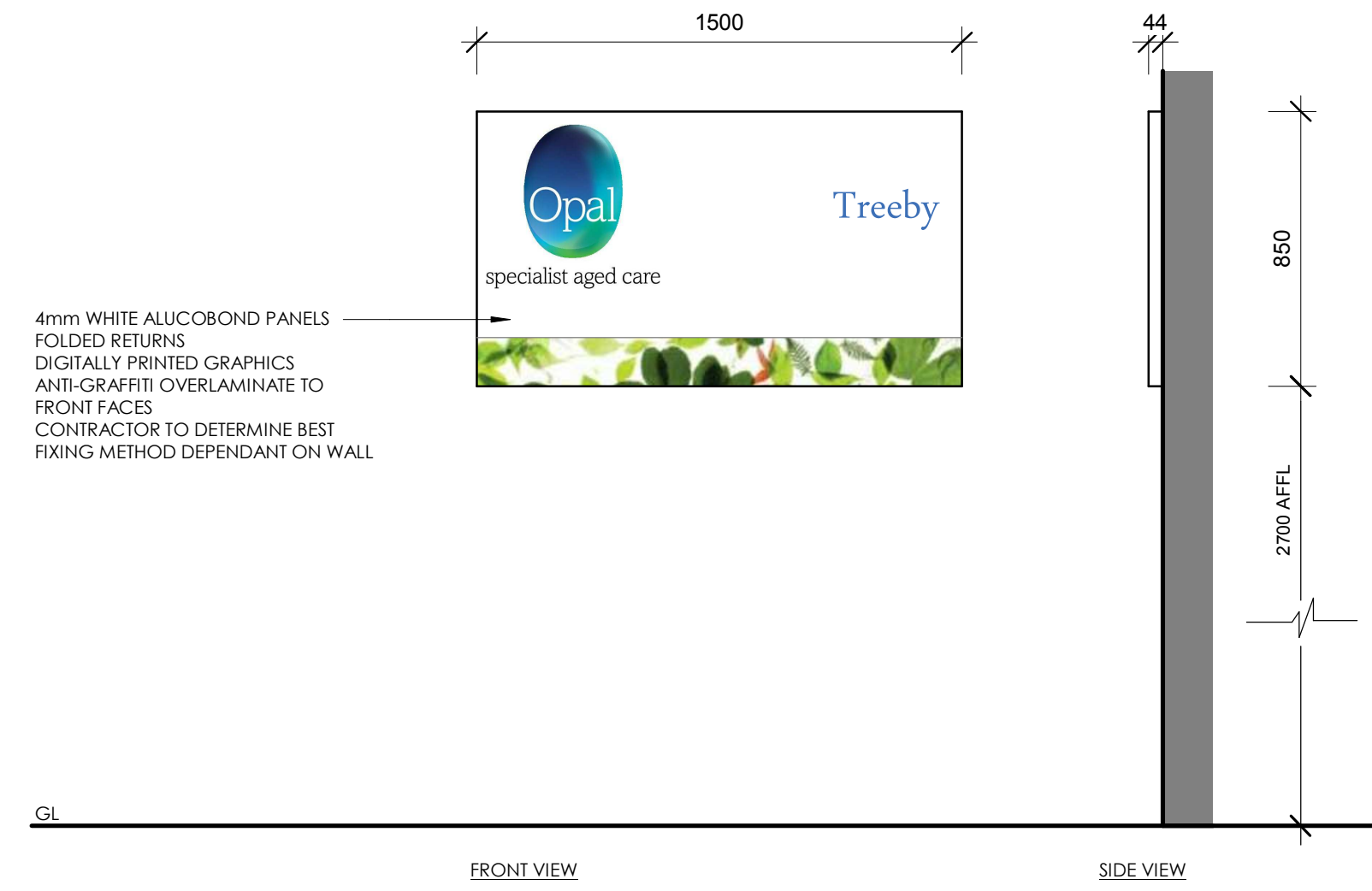
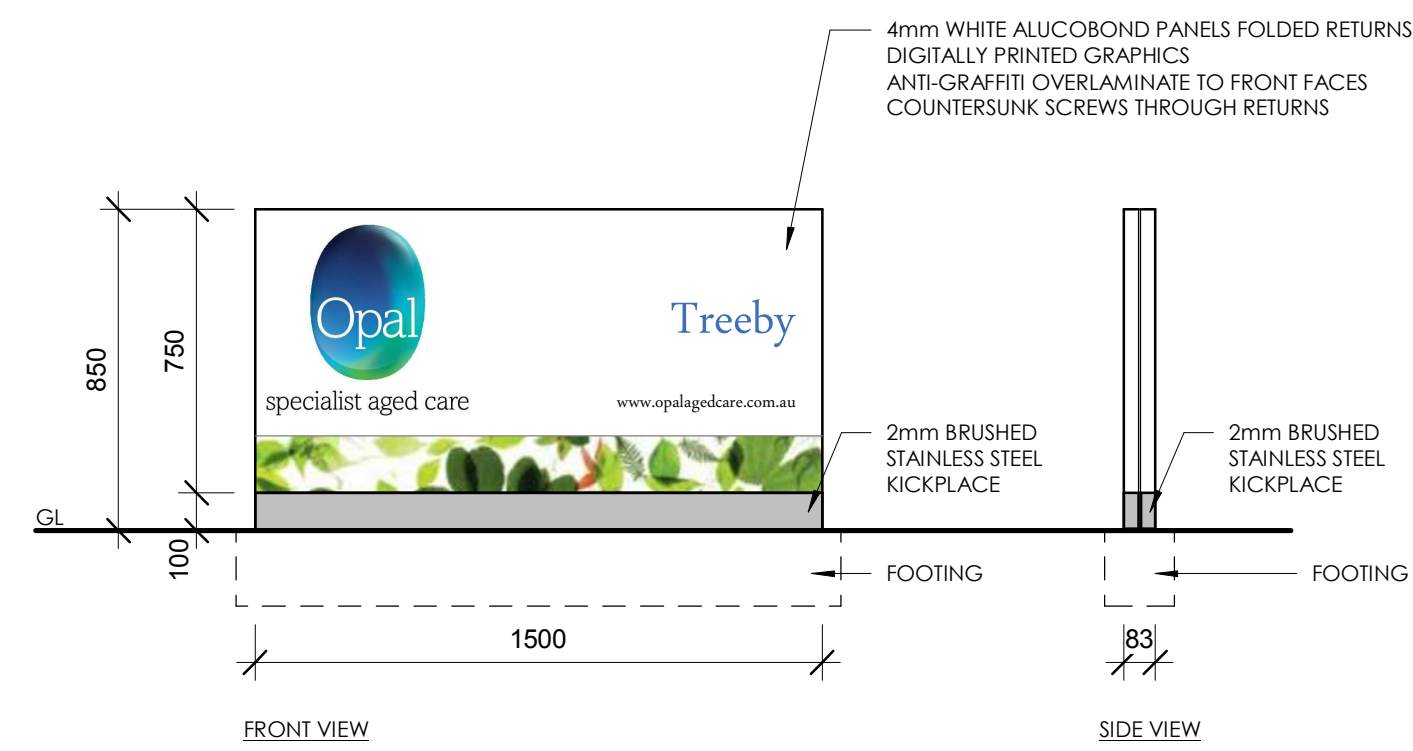
2 North Elevation
A2-01 1 : 200



3 East Elevation
A2-01 1 : 200



4 West Elevation
A2-01 1 : 200



SIGN 01 - SITE ENTRY
1 : 20

SIGN 02 - BUILDING ENTRY
1 : 20

SIGN 03 - CAR PARK ENTRY
1 : 20

NOTE:

- SIGNAGE DESIGN AS PER OPAL AGED CARE SIGNAGE SUITE 2014, ISSUE 2, BY DIADEM
- SIGNAGE TEXT AS PER OPAL AGED CARE SIGNAGE KIT SUITE 2014, ISSUE 2, BY DIADEM
- FINAL LOCATIONS TO BE CONFIRMED

LOT 7002 ABELIA ROAD, TREEBY DEVELOPMENT APPLICATION RESIDENTIAL AGED CARE FACILITY

APRIL 2018



specialist aged care



KPA
Architects



strategen
ENVIRONMENTAL



RobertsDay
planning·design·place

1.0 INTRODUCTION

This development application seeks planning approval for a proposed ‘Aged Care Facility’ development at Lot 7002 Abelia Road, Treeby (herein referred to as the subject site). The project area is part of the broader land subdivision known as Calleya.

The proposed development comprises a 120 bed care facility with an Allied Health component, spread over two storeys, along with associated vehicle car parking, internal access road and landscaping.

The subject site is located within the area covered by the Banjup Quarry Local Structure Plan (BQLSP), which was approved in March 2016. In the 1950’s the BQSP area was primary used for sand extraction as a quarry site. The approval of the BQLSP was a catalyst for the development and activation of this previously underutilised land asset. The subject site is an opportune location for infill development, particularly offering residential care, as it’s within walking distance of a planned Neighbourhood Activity Centre and future transport routes that carry passengers to the Cockburn Central Activity Centre and Transit Station.

The development of the proposed ‘Aged Care Facility’ is the final piece of the BQLSP puzzle, with the Stocklands retirement village, Neighbourhood Centre and residential development already under construction.

2.0 STRATEGIC CONTEXT

2.1 STATE PLANNING CONTEXT

Draft Perth and Peel @3.5 Million Central sub-regional planning framework

The recently released Perth and Peel @ 3.5 million and supporting sub-regional frameworks are suite of strategic land use documents that guide the future development of the Perth Metropolitan Region to accommodate a population of 3.5 million by the year 2050.

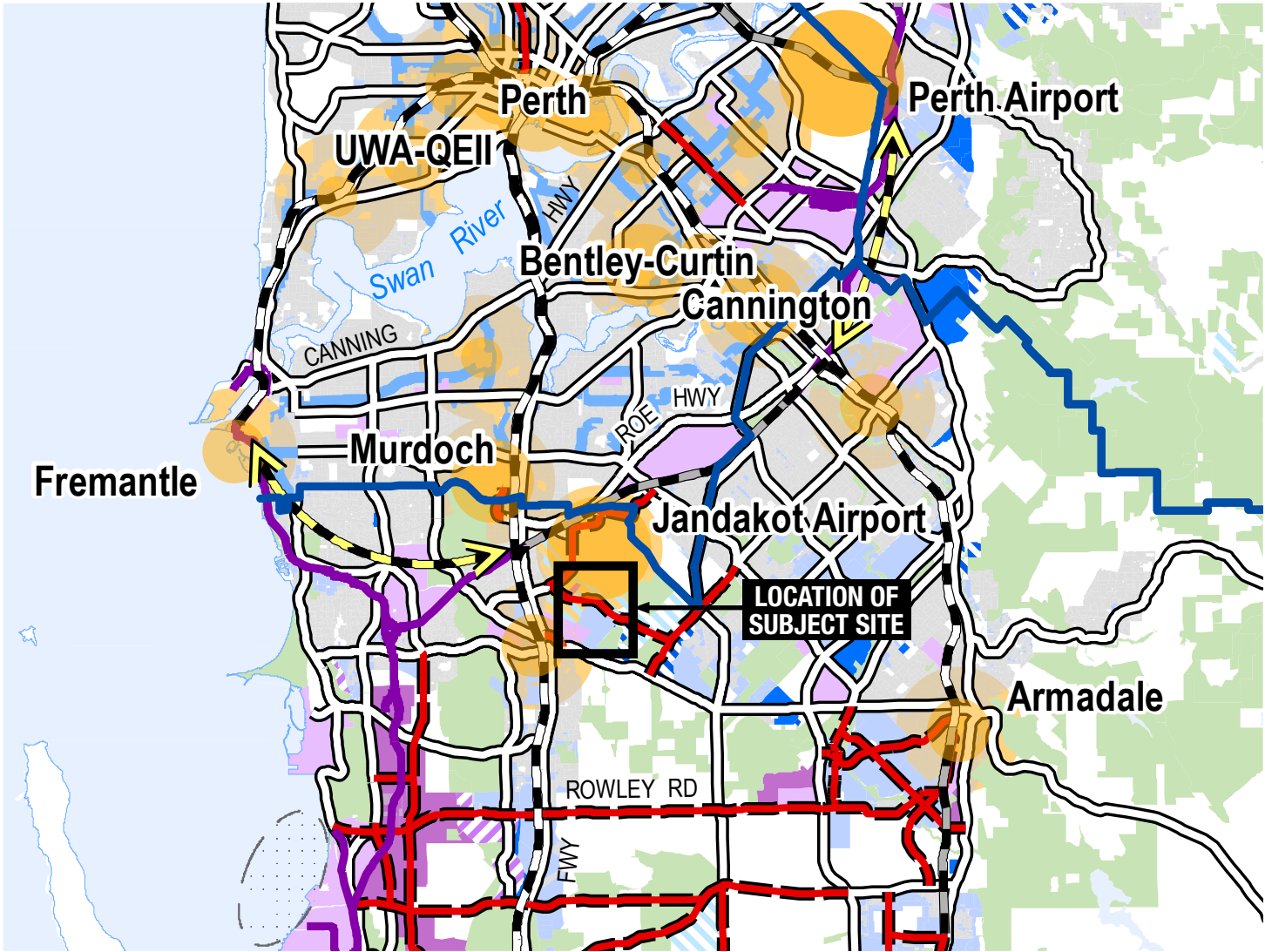
The South Metropolitan Peel Sub-regional Planning Framework is one of four sub-regional frameworks. The South Metro/Peel framework, together with the three frameworks for the North-West, North-East and Central Region, establish a long-term integrated land use and infrastructure planning framework to guide future infill growth.

The sub-regional frameworks build upon the principles of Directions 2031 and Beyond, specifically increased urban infill development, higher densities in undeveloped areas already zoned for urban use and reduced dependence on greenfield developments. Directions 2031 identified the BQLSP area as an ‘Urban Expansion Area 2011 – 2015’, indicated as ‘BAN1’ with a projected yield of approximately 1,700+ dwellings (for a ‘Connected City’ scenario). This area remains identified as ‘Urban – Undeveloped’ in Perth and Peel @ 3.5 million which encourages development to occur on land already zoned for urban purposes.

The sub-regional framework for South Metro/Peel promotes higher densities and a diversity of housing and employment around activity centres and public transport, in an effort to make better use of existing infrastructure. The framework also recognises the need to minimise the impact of consolidating urban infill development on existing suburbs and existing built-up residential character and amenity.

The development of the subject site is in keeping with the overarching principles of the framework as it represents mixed-use development providing an increase in density and diversity; and provides a key opportunity to provide urban infill within 20km of the Perth CBD and 1km of the Cockburn Activity Centre and Train Station.

FIGURE 1: SITE LOCATION IN PERTH AND PEEL @ 3.5 MILLION



2.2 LOCAL PLANNING FRAMEWORK

Banjup Quarry Local Structure Plan

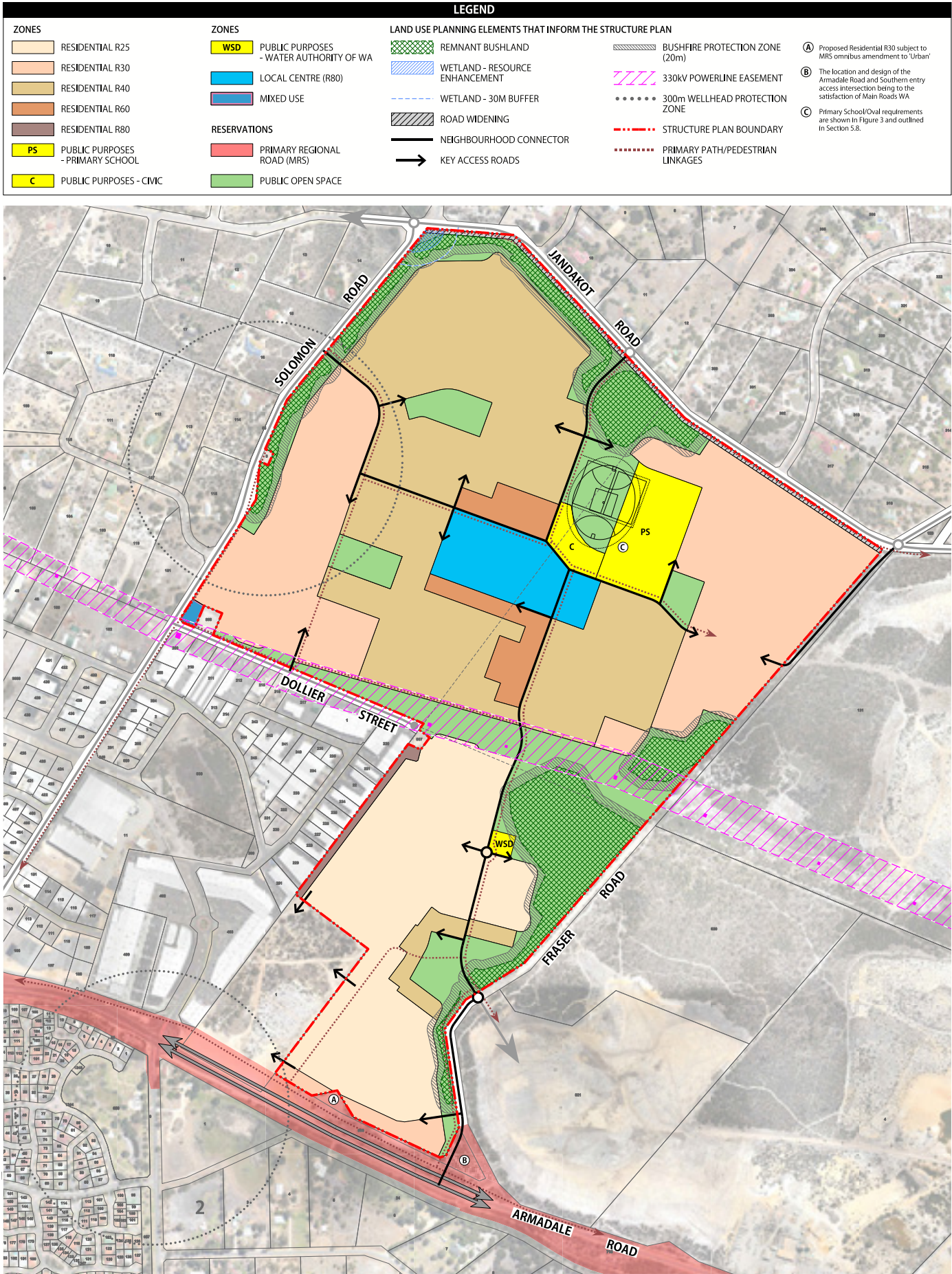
Underpinning the Structure Plan is a series of objectives for the site to help achieve a distinct and well connected urban community, these include:

- Maximise opportunities for sustainable development afforded by the site’s characteristics and strategic location in proximity to the Cockburn Activity Centre and Transit Station;
- Respond to the site’s convenient proximity and access to public transport (Cockburn Central) by providing for direct pedestrian links to this nearby Transit Oriented Development;
- Provide a stand out approach in rehabilitating the site and creating a distinct residential community;
- Achieve an integrated development that provides appropriate linkages and interfaces with surrounding areas;
- Promote design excellence and innovation in all aspects of urban design, the public realm and built form (including landscape architecture, public art and art spaces);
- Provide high quality multifunctional community spaces for all ages;
- Be at the forefront of innovative sustainable development initiatives;
- Create a vibrant, cohesive, healthy, happy, adaptable prosperous and sustainable community;
- Provide an attractive and viable Local Centre with suitable residential density in and around the centre to support its development;
- Locate and provide public open space to ensure accessibility, visual aesthetics and view corridors for all residents;
- Attract a high level of community amenity to the area through appropriate design of the public realm;

- Ensure appropriate built form outcomes that will respond to the local environment, be that climate, crime prevention, community development or promoting the use of public transport; and
- Generate diversity in the character of place through retention and introduction/attraction of native flora and fauna.

It is referred to in the BQLSP text that the subject site is located within the Retirement Living Village (RLV), with the land assigned an R40 density coding. Stockland has undertaken some preliminary master planning of the RLV site to address the interface with the public realm and to provide a connected development rather than ‘gated community’ often characterised by Retirement Living estates.

FIGURE 2: BANJUP QUARRY APPROVED LOCAL STRUCTURE PLAN



3.0 NEIGHBOURHOOD CONTEXT

To demonstrate that the development of the subject site is aligned with the broader State Government strategic agenda for consolidated urban development, it is appropriate to review the local context of the surrounding neighbourhood. The subject site is perfectly suited for infill development for the following reasons:

- The proposed residential care facility is one part of the broader Calleya development area, including single residential dwellings, open space, retirement village and neighbourhood activity centre. This proposal adds to the diversity of housing choice on offer and will allow future residents to ‘age in place’ as Calleya develops; and
- The subject site is within the walkable catchment of a planned Neighbourhood Activity Centre site incorporating a Mixed Use and Commercial (Shop/ Retail) development, Public Purpose site (Primary School and co-located community land uses) and adjoining Retirement Living Village with space for community facilities.

FIGURE 3: CONTEXT MAP



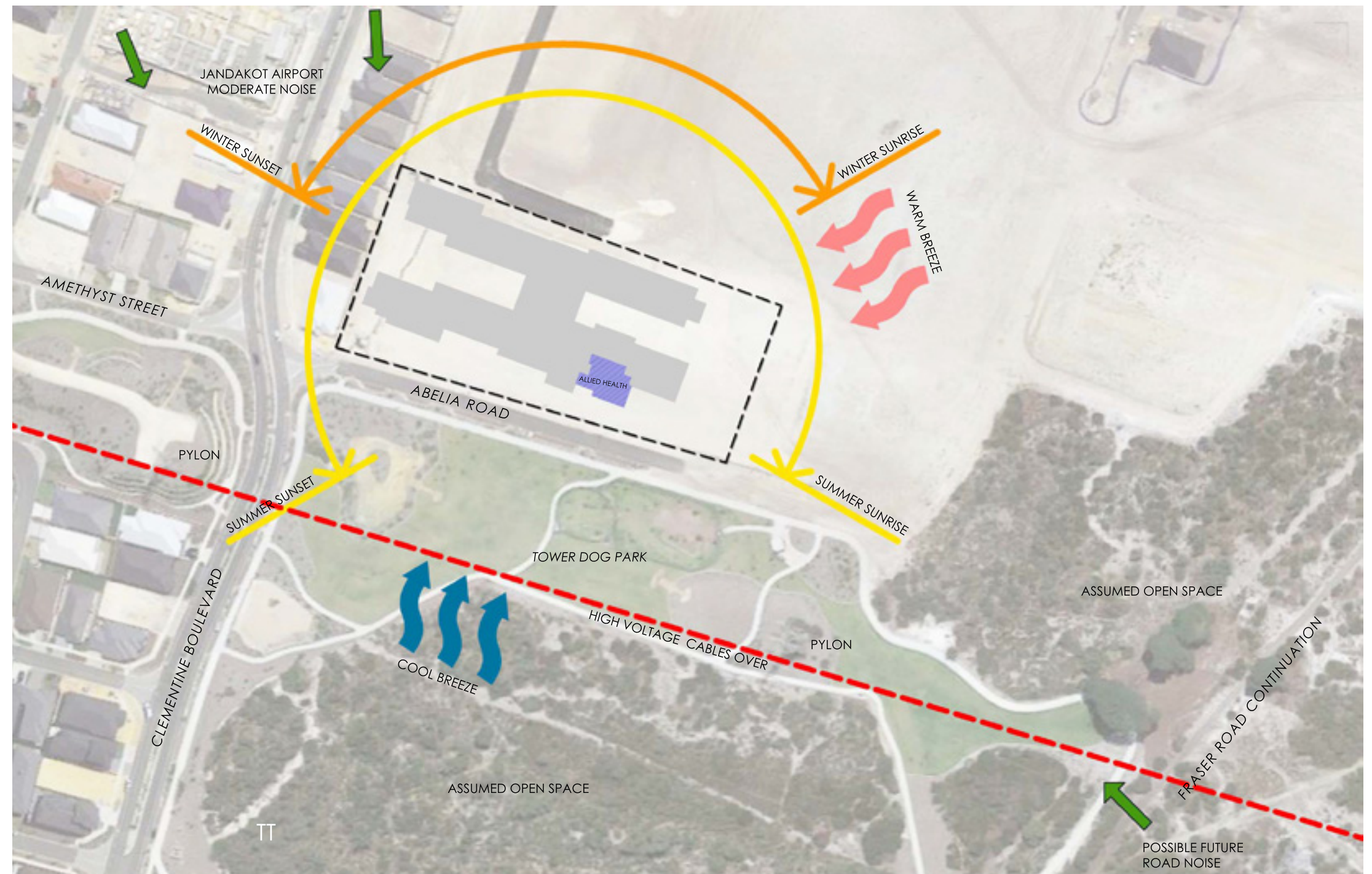
4.0 DESIGN RESPONSE

The development proposes a two (2) storey building, accommodating 120 aged care facility beds to provide a range of care needs, including low dependency and Alzheimer's care, a 191m² allied health space to allow for up to three (3) health consultants, and associated car parking and bicycle parking.

When examining the site, there are a number of key characteristics of the site and immediate surrounding that have informed the design response:

- Building heights that are sensitive to the existing single residential houses within the established surrounding area;
- The interface with public open space (Calleya Dog Park) south;
- Shared interface to the retirement village on the adjoining lot east and existing residential housing west and north-west;
- Favourable orientation to northern winter sunlight; and
- High quality architectural design, residential in context and considered material palette to provide a strong visual aesthetic and a positive impact for the Abelia Road streetscape environment.

FIGURE 4: SITE ANALYSIS



4.1 ARCHITECTURAL STATEMENT

The facades are face brickwork, typically with a dark coloured base and a lighter coloured upper storey. The fenestration in selected areas has a strong vertical emphasis to help break up the long horizontal nature of the facility. Despite the repetition of identical bedrooms to the residential wings, the facades have movement and variety due to the considered articulations of the floor and roof plans. From within, these articulations serve to break up long corridor lengths, reducing the institutional nature of the building, which in turn help to create a more welcoming, home-like environment, reflected on the building exterior.

Extensive verandahs and balconies provide places for the residents to sit and enjoy views to the adjacent park to the south and to the new development under construction to the north.

The most distinctive element of the building is the double volume Porte – Cochere that clearly identifies the main entry, and welcomes residents, staff and visitors arriving by foot, bike or car. The adjacent external café overflow area, the separate entry to the Allied Health consultancy suites, public art, the provision of bike racks, and an informal pedestrian crossing linking the facility to the dog park, will all help to provide an activated street presence that will contribute to the vibrancy of the area.

The gardens will provide places for both quiet contemplation and social interaction, and will provide ever changing views, fragrances, textures and bird –life.

Wherever possible, the interior spaces have views to the outdoors. The interior spaces will be clearly identified by changes to colours and materials, so that the residents and their visitors can find their way easily around the facility.

A full set of Development Plans can be viewed in Appendix 1.

FIGURE 5: COLOURED PERSPECTIVE OF PROPOSAL



4.2 DESIGN REVIEW PANEL

Conceptual designs of the proposal were originally tabled at the 21 June 2017 Design Review Panel (DRP) (refer Appendix 2). The following table summarises the comments received from the DRP and how this proposal addresses the comments received. Modified designs were re-submitted to the City of Cockburn for review, where it was considered that the design acceptably address the DRP comments and was not required for re-review. The design review panel provided comments based on the principles provided in draft State Planning Policy 7.0 – Draft Apartment Design Policy.

DESIGN PRINCIPLE	DESIGN REVIEW PANEL COMMENTS	DESIGN RESPONSE OF PROPOSAL
<p>Principle 1 – Context and Character</p> <ul style="list-style-type: none">• Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.	<ul style="list-style-type: none">• The panel noted that the project was located within a greenfields area. Consequently, there is very little surrounding existing built form or natural context from which influence or integration could be progressed;• The panel noted that the site is located south of the recently approved Stockland Retirement Village consisting of single storey 3 x 2 homes on small lots. At full build out, the surrounding context will consist of single detached residential dwellings to the north, west and east side of the project site. The long, southern boundary of lot 7002 faces Abelia Road, with a neighborhood park immediately across the road.	<ul style="list-style-type: none">• The subject site is considered appropriate as an aged care facility given the proximity to:<ul style="list-style-type: none">• Existing residential development to the west, northwest and southwest;• Proposed Retirement Living site directly to the north;• Vacant land proposed for future residential development to the east and northeast; and• Parks and Recreation reserve to the south and southeast comprising of landscaped areas (including Calleya Dog Park and Community Gardens).• The development is located within the area identified as a possible Retirement Living Village in the BQLSP. An Aged Care Facility is therefore consistent with the construction of the Stockland’s retirement village north of the subject site.• The subject site is within walking distance to the planned Neighbourhood Activity Centre identified in the BQLSP on the corner of Clementine Boulevard and Turquoise Boulevard. Clementine Boulevard will also provide links to Armadale Road, for access to Cockburn Central Train Station and Gateway Shopping Centre.• The subject site is located interfacing with public open space to the south (Calleya Dog Park), providing attractive outlook for future residents.• The development will provide a diversity in housing mix to the area which is predominantly single residential and low density single retirement.
<p>Principles 2 – Landscape Quality</p> <ul style="list-style-type: none">• Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.	<ul style="list-style-type: none">• The panel congratulated the project team for the quality landscape plan that was presented, as this is seen as critical to the success of the proposed aged care facility. A strong and meaningful relationship between indoor functional spaces with the main central landscaped areas (and also the outer landscape areas) will provide opportunities for improved visual outlook from most rooms, along with the ability to access the amenity of these spaces by residents and visitors. With residents spending significant periods of time confined to their rooms or beds, outlook and access to quality landscape areas was considered very important;• The panel commented that enhanced landscaping along the Abelia Road frontage was critical to the proposal, given the extensive length of the development on the street frontage.• Strengthening the front of house landscape would assist with enhanced amenity on arrival, improved public realm to Abelia Road and an enhanced pedestrian experience;• In respect of the above point, the panel questioned if additional landscaping could be incorporated into the Abelia Road verge zone, whilst retaining the footpath;	<ul style="list-style-type: none">• A Landscaping Plan has been provided (refer Appendix 4), which details the consideration of landscaping in the design of the proposal.• The proposal includes two major internal east-west courtyards. The western courtyard provides a for lower-care living, with spaces for vegetable gardens, seating and access between the front and the side of the building. The courtyard to the east services higher-care residents, such as Alzheimer’s patients, with spaces designed to be secure and which are more suitable to reduced physical capabilities and personal safety. Both courtyard areas are designed to service the specific needs of each wing of residents.• The internal courtyard areas are important spaces to provide attractive outlook for residents, providing points of interest and activities (such as vegetable gardens) for residents, and intimate areas for residents to spend time with visitors.• Landscaping also provides important privacy screening for bedrooms which face onto the courtyard and street.• Access to northern sunlight is a significant design consideration, with the separation of the wings of the building providing sufficient space for sunlight access and ventilation. Due to these considerations the available space to provide a setback for landscaping along Abelia Road is limited. In response to the DRP comments, the car parking and access was relocated to the eastern boundary. The Landscaping Plan provides for mature street tree planting and lighting along Abelia Road to provide an attractive streetscape.• Landscaping is also accommodated in the setback area between the building and car parking to reduce the visual bulk of the building and provides improved pedestrian scale amenity to the front of the building and emphasises the entry points.• In response to the comments received, more landscaping has been considered around servicing areas and within the rear setback area.

DESIGN PRINCIPLE	DESIGN REVIEW PANEL COMMENTS	DESIGN RESPONSE OF PROPOSAL
	<ul style="list-style-type: none"> The panel questioned whether the car parking bays in the southern car park adjacent to Abelia Road could be modified to provide optimised landscaping between the car parking area and the road, thus further improving/softening this long street frontage; The panel suggested that the service road to the NE could benefit from landscaping to both sides to ensure this area is a landscaped space with vehicle access, rather than a road with some landscaping; The panel questioned the material selection, width (minimise as much as possible) and colour of the service road, suggesting that the applicants consider alternatives to asphalt/bitumen to lessen the road-like nature of the space. This will strengthen the landscape quality of this area, improve view lines and visual quality for residents located in the NE wing of the facility; The panel suggested minor adjustments to the NW and NE building wings in terms of site location to ease the closeness of the building edge to the boundaries, which will allow for more generous landscaping in these areas to ensure that the rooms located in this part of the facility will have views to a reasonable landscape area. 	<ul style="list-style-type: none"> To limit damage created by manoeuvring service vehicles, the eastern section of the car park/access way will need to be constructed with concrete-like material. Given the relocation of the access and parking, the material used for this area will not have an impact upon the streetscape to the north or south. The wings have been redesigned on the site to have setback minimum of 3.0m to the north and 4.0m to the west, with the setback areas provided with landscaping to provide greater privacy for residents and enhanced interface with adjoining residential development.
Principle 3 – Built Form and Scale <ul style="list-style-type: none"> Good design provides development with massing and height that is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area. 	<ul style="list-style-type: none"> The panel noted that the complex has been designed with a focus on the internal landscaped courtyards, which aims to ensure that all internal spaces have views to landscaped areas; The panel discussed the Abelia Road frontage and questioned if the built form and massing could be further broken up to contribute to a more residential feel, rather than a long continuous institutional feel. This will be more important when the future adjoining development of single houses is delivered. 	<ul style="list-style-type: none"> In response to the DRP comments, the façade of the building has been significantly stepped to break up the bulk of the building, this is coupled with changes in materials and colours. Balconies have been incorporated into the first floor, overhanging the ground floor to provide interest to the front façade. The development incorporated high quality materials such as red brick and tile/light coloured brick work which is consistent with the style of the surrounding residential areas, addressing the DRP concerns that the proposal would appear institutional. The roof pitch has varied hips, visually breaking the building into components.
Principle 4 – Functionality and Build Quality <ul style="list-style-type: none"> Good design meets the needs of users efficiently and effectively, balancing functional requirements to deliver optimum benefit and performing well over the full life-cycle. 	<ul style="list-style-type: none"> The panel expressed concerns about the proximity of the NW wing to the adjoining residential lots and questioned whether the crank in the building could be adjusted to provide additional space for landscaping to the north whilst balancing the aim to optimise the size of the internal courtyard; The panel questioned the location of the Dirty Utility 2 and 3, suggesting they could be relocated to free up this north facing area for additional bedrooms on each level, which would maximise the number of bedrooms with north solar access; The panel agreed that the inclusion of an Allied Health facility was an excellent opportunity to integrate with the growing community, bring externals into the aged care facility (considered to be important) and provide much needed services to the growing suburb. 	<ul style="list-style-type: none"> Following the DRP comments, the wings of the buildings were adjusted to provide greater setbacks to the northern and western boundaries, with the minimum setbacks provided 3.0m north and 4.0m west. Each wing has been stepped, to reduce the length of consistent wall, which aids in reducing the bulk of the building to the north and provides varied courtyard spaces for interest. The changes to the location of the wings on the site has also provided improved aspects to northern sunlight for the courtyard areas and number of rooms with northern aspects. In response to the DRP comments, the servicing areas have been relocated to the south/eastern corner of the development, with access to the car parking and loading areas. In doing this, the design maximises on the number of bedrooms with northern sunlight access. An Allied Health can be accessed both internally and externally from the front of the building providing provides activation and surveillance.

DESIGN PRINCIPLE	DESIGN REVIEW PANEL COMMENTS	DESIGN RESPONSE OF PROPOSAL
<p>Principle 5 – Sustainability</p> <ul style="list-style-type: none"> Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes. 	<ul style="list-style-type: none"> The panel questioned if the Lounge and Audio Rooms in the NE wing (ground and first floor) could be directly aligned in plan, rather than off-set, to provide better solar access to the southern lounge – as has been done in the other wings; The panel questioned whether the corner bedrooms of each wing (particularly the solely south facing rooms) could have an additional window to the east or west (appropriately shaded) to provide additional amenity; The panel questioned if the north facing bedrooms (particularly on the ground floor which does not have the benefit of a roof eaves overhang) would benefit from appropriately designed horizontal sun protection; The panel questioned how unwanted western sun would be managed to Sitting areas 3 and 4 in the SW wing; The panel suggested that some level of natural ventilation would be advantageous to the facility. The design team advised that residents would be able to open bedroom windows and the mechanical systems would adjust locally; The panel questioned if double glazed velux or skylights could be incorporated in upper levels to improve internal amenity. Opal advised that due to maintenance issues demonstrated in other developments, this was not an option. 	<ul style="list-style-type: none"> The location of communal spaces has been reconsidered – specifically with the need to provide areas which are secure and can be self-contained for areas of high care. Sitting rooms, dining and audio lounge areas are serviced off the main central component of the building. The central component of the building will provide access to the internal courtyards which benefits the relocation of these communal areas. For wings which are longer in length, communal sitting rooms are provided at the end of the corridor for resident's ease of access. Corner bedrooms are provided with windows with either northern aspect to sunlight or views to the internal courtyards, which is considered to provide a high degree of amenity to residents. Areas of solid walls for these corner bedrooms are required to provide servicing, accommodate areas furniture and privacy to residents. Due to the re-orientation of the wings, sunlight is managed to the SW with corner, with bedrooms having windows either north or south, not directly facing west or east. The development will incorporate an eave overhang more than 750mm to provide additional weather protection and shading. Windows to bedrooms will be able to open for ventilation.
<p>Principle 6 – Amenity</p> <ul style="list-style-type: none"> Good design optimises internal and external amenity for occupants, visitors and neighbours, contributing to living and working environments that are comfortable and productive. 	<ul style="list-style-type: none"> The panel discussed the importance of the connection between the bedrooms and the courtyards for improved amenity. The applicant confirmed that direct access to the courtyards would not be provided from the rooms directly but good access had been planned from various points of the facility to encourage easy access and use of the internal courtyards; The importance of landscaping quality and improved amenity is discussed under Principle 2. 	<ul style="list-style-type: none"> Due to the varied levels of care being provided in the facility, direct access from bedrooms to the internal courtyard is not possible. The proposal has been designed so that there are a number of access points to the courtyards. These access points are focused around the central component of the building which provides for the main communal areas and at the end of each wing.
<p>Principle 7 – Legibility</p> <ul style="list-style-type: none"> Good design results in building and places that a legible, with clear connections and memorable elements to help people find their way around. 	<ul style="list-style-type: none"> The panel suggested considering further, with the view to strengthening, the connection between the Abelia Road footpath and the front entrance; The panel strongly supported any opportunity to activate and enliven the foyer area at the next level of design development. This would assist visitors and families to experience a positive foyer on first contact, whilst also creating a meeting point for community, residents and visitors; The panel questioned the planning in respect of the café and supported a strong presence for this function within the foyer zone, with strengthened access and relationship to a courtyard or the front of the facility. The café has the opportunity to become a community asset and ensure that the aged care residents have strong contact with the surrounding community; The panel questioned if the entrance to the Allied Health facility could be emphasized for ease of access and wayfinding, whilst also contributing to activation of the foyer and street address; 	<ul style="list-style-type: none"> A universal access footpath is proposed aligning from the entrance of the building, linking to the footpath on Abelia Road, and with the POS opposite. This pathway will provide safe access for residents and visitors across car parking areas to the park opposite and links in with the surrounding path network. This pathway is subject to further approvals by council for the removal of an existing tree in the POS and works within the verge, however Council officers have indicated initial support for this concept. This proposed pathway also provides defined entry point to the building which is strengthened by the extension of the roofline over this entry point, providing weather protection. The entry/foyer area has been redesigned to incorporate a waiting area, hair dressing salon, café and alfresco seating areas to enhance the visitor and resident experience at the first point of contact and reduces the institutional feel of the facility. These areas have been concentrated at the front of the development so that it can be self-contained to ensure that there are safe access points separating other communal areas and bedrooms. This is required for high-dependent care for the safety of residents.

DESIGN PRINCIPLE	DESIGN REVIEW PANEL COMMENTS	DESIGN RESPONSE OF PROPOSAL
	<ul style="list-style-type: none"> The panel requested further information in respect of the design and materiality of the northern boundary fence between lot 7002 and the Stockland Retirement Village. The project team believes the fence will be solid. The panel questioned the City of Cockburn whether this fence could be an open-style design to provide a better connection between the two developments and ensure that each development is not seen as gated or closed. 	<ul style="list-style-type: none"> The café was redesigned to be located at the entry point and includes a more open layout with alfresco seating. This redesign provides greater interaction with the front of the building and provides access not only to residents, but could be utilised by allied health consultants, and surrounding existing residential development. The café and seating areas will help to activate the front of the building and reduce the perception of the facility being an institution. The allied health consulting rooms have been designed so that there is both access externally and internally, with the potential to provide benefits for both the residents and surrounding community. The allied health space has a more defined entry point with a separate designated pathway, awning and signage. In order for the design to be consistent with the surrounding residential and retirement living village, Stocklands have requested that the same fencing be constructed as the Calleya estate. Additional landscaping has been proposed in the setback areas surrounding the proposal to provide an improved interface between the proposal and the surrounding residential areas. Solid fencing provides consistent streetscape with the estate and also provides for privacy for residents with northern facing bedrooms.
<p>Principle 8 – Safety</p> <ul style="list-style-type: none"> Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use. 	<ul style="list-style-type: none"> The panel questioned if alternative secure access for staff, including enhanced lighting, is possible for the eastern staff car park to facilitate safe movement for staff, particularly late at night. A better understanding of fencing and security around the site is required. 	<ul style="list-style-type: none"> In response to the DRP comments, a separate staff entrance is provided on the SE wing connecting to a staff room, adjacent to staff courtyard, changeroom facilities and bathrooms provided separate from resident living areas. These staff communal areas are fenced for privacy, security and to reduce the visual impact on the front streetscape. These areas will be provided with seating and landscaping for the amenity of staff. A pathway is provided between this staff room and car parking area. The car parking areas will be provided with lighting to ensure safety at night.
<p>Principle 9 – Community</p> <ul style="list-style-type: none"> Good design response to local community needs as well as the wider social context, providing buildings and spaces that support a diverse range of people and facilitate social interaction. 	<ul style="list-style-type: none"> As discussed previously the panel felt that the café located at the entry area of the complex, has the potential to become a shared asset for the greater community, as would the Allied Health clinic. The next level of detailed design, should strive to optimise and strengthen the community interface that these 2 components offer for this development. 	<ul style="list-style-type: none"> The allied health entrance and café are located next to one another, with both internal and external access. This has been designed to maximise on these services and provide benefits to the wider community, without the need to enter the facility. The co-location of these uses will strengthen the front of the building by providing activation.
<p>Principles 10 – Aesthetics</p> <ul style="list-style-type: none"> Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses. 	<ul style="list-style-type: none"> The panel suggested that restraint and careful editing is required in respect of the material and colour palette for the overall development, particularly in respect of the Abelia Road elevation. Whilst located in a future suburban area, the aesthetic and architectural influences need not come from the project home industry. This development has the opportunity to contribute an appropriately scaled but still unique architectural contribution to this fast growing community; The above in conjunction with a strong landscape approach, has the potential to provide an important component to the built environment of this new community; The panel expressed concern at the possibility of using an overly dark roof colour, as the selected profile was quite industrial in nature. This combined with too dark a roof colour could diminish sustainability outcomes and lower the aesthetic result for this development; 	<ul style="list-style-type: none"> Following the DRP comments the number of materials and colours proposed of the development has been simplified. The high-quality materials of red brick with light coloured tile/brick work is consistent with the residential surrounding developments, with the aim of presenting a more residential feel, as opposed to institutional development. Grey cladding and stone walls will provide feature points of interest as viewed from Abelia Road. Roofing has been revised to be light coloured colourbond sheeting, to reduce the dominance of the roof and achieve a more sustainable outcome. This is consistent with the request of the DRP. Due to the length of the wings and the level of servicing required for the facility, the roofline has cannot be altered. The roof has been designed to mask the plant servicing area. Changes in the roof line and height of the roof would mean concealed servicing would not be possible. It is considered that this would have a negative impact on the outlook from the street. Additional hips have been created in the by stepping the building, with the aim to break up the bulk of the development as viewed from the street.

DESIGN PRINCIPLE	DESIGN REVIEW PANEL COMMENTS	DESIGN RESPONSE OF PROPOSAL
	<ul style="list-style-type: none"> With the roof forming a strong statement in terms of massing, continuity and extent, the project could benefit from softening this significant component – in design (see earlier comments about interrupting the continuous roof mass) and colour. The project team confirmed the colour had not been selected and agreed a lighter colour would be better suited for this development. 	
Design Review Panel Recommendations:	<ol style="list-style-type: none"> Minor adjustments to the NW wing to allow enhanced landscape buffer to the north of this wing. Enhanced Landscape zone to Abelia Road for improved arrival experience and public realm. Design development to ensure service road area is a landscaped based solution, which will also deliver an enhanced landscape buffer to the north of the NE wing. Adjustments to the roof massing and design to interrupt the long continuous built form to Abelia Road. 	<ol style="list-style-type: none"> The re-orientation of the wings of the buildings has increased setbacks to the north and west from 1.5m to 3.0m-4.0m. These setbacks will be landscaped in accordance with the Landscaping Plan provided (refer Appendix 4). Significant landscaping has been incorporated within the setback area between the building and Abelia Road reserve. Abutting the road reserve mature trees and lighting has been incorporated into car parking areas to address streetscape amenity. This tree planting is consistent with the treatment of the POS road reserve opposite the development. Stepping the building into components, with additional hip roof features has reduced the overall building bulk. The roof colour has been lightened to reduce the dominance to the street.

5.0 TOWN PLANNING ASSESSMENT

The property is zoned ‘Development’ under the City of Cockburn’s Local Planning Scheme No. 3, subject to the approved Banjup Quarry Structure Plan, which identifies the site as Residential R40 for the purpose of Retirement Living Village. In accordance with the City of Cockburn’s Local Planning Scheme No. 3, ‘Aged Care’ is a use not listed in the Scheme, and ‘Medical Centre’ for allied health is listed as an ‘A’ use in residential zone.

As ‘Aged Care’ is not a residential land use, and is a use not listed in the Scheme, there are no specific R-Code or Policy requirements applicable to the site. The following assessment are the key design consideration of the proposal that are considered important for assessment.

5.1 BULK AND SCALE

Since there are no policies or guiding principles for aged care facilities within the local planning framework at the City of Cockburn, the building has been designed to be consistent with the surrounding residential area.

The development includes two (2) storey building with a maximum building height of 6.5m above natural ground level (where the roof intersects with the wall), which is generally consistent with the 6.0m building height permitted in the R-Codes for lots coded R40, which is the height requirement for residential lots surrounding the proposal.

The total ground floor footprint of the building is 3,100m² on a lot of 9,679m², which represents only 32% of the site area. The R-Codes, R40 density requirements permit site cover up to 55%, which is considered significantly greater than the proposal.

5.2 PARKING AND ACCESS

As the use of ‘Aged Care’ is a use not listed within the City of Cockburn’s Scheme, there are no associated car parking allocated to the use. ‘Medical’ and ‘Consulting Rooms’ require a car parking ratio of five (5) bays per one (1) practitioner.

In order to assess the car parking requirement of this proposal for the ‘Aged Care’ component of the development, comparison has been made to the Opal development in Carine (City of Stirling). The Carine development was similar with the approval of a two (2) storey, 140 bed ‘Nursing Home’ facility, providing a range of aged care dependent living. This proposal required a car parking provision of one (1) car parking bay per three (3) beds proposed.

To apply this standard to the proposal, a total of 55 car bays is required to service the aged care facility and allied health. 58 car bays have been provided, representing an oversupply of three (3) car bays. There were no bicycle parking requirements for the Opal Carine development, however a total of eight (8) bicycle bays have been provided, six (6) of which will be provided for the aged care visitors and staff. Given the nature of the proposal residents cycling is unlikely and therefore does not need to be catered for.

A Transport Report has been prepared by Transcore (refer Appendix 3) which states that the likely traffic generated by the proposal is moderate (less than 100vph in peak hour). In accordance with the WAPC *Transport Impact Assessment Guidelines for Developments* (2016) the proposal will not result in increased traffic flows on any adjacent roads to warrant further analysis.

TABLE 3 - COMMERCIAL USE CLASSES - VEHICLE PARKING	AGED CARE (ASSESSED AS HOSPITAL REQUIREMENTS)	ALLIED HEALTH	TOTAL
Required Number of Car Bays	1 bay per 3 beds*	5 bays per practitioner	55 required
Provided Number of Car Bays	40 – for 120 beds	15 – for 3 practitioners	58 provided
Required number of Bicycle Parking	6 bicycle bays**	1 bicycle bay per 200m² (staff); and 1 bicycle bay per 400m² (visitors)	1 bicycle bay 1 bicycle bay
Provided Number of Bicycle Parking	8 bicycle bays provided for both aged care facility and allied health.		

TABLE 1: CAR AND BICYCLE PARKING CALCULATIONS

* Based on car parking ratio provided in Opal Carine development (City of Stirling)
** Based on one bicycle bay provided per 4 staff

5.3 VISUAL PRIVACY

The following provides an assessment of overlooking from the proposal, on the R-Codes, Part 5.

SOUTH WEST WING

The south-western wing proposes a balcony facing the front of the building, with screening included on the western side to limit views. As illustrated below, the balcony is setback 7.0m in lieu of 7.5m from this western boundary in the direct line of sight of the cone of vision.

FIGURE 6: OVERLOOKING FROM SOUTH WEST WING

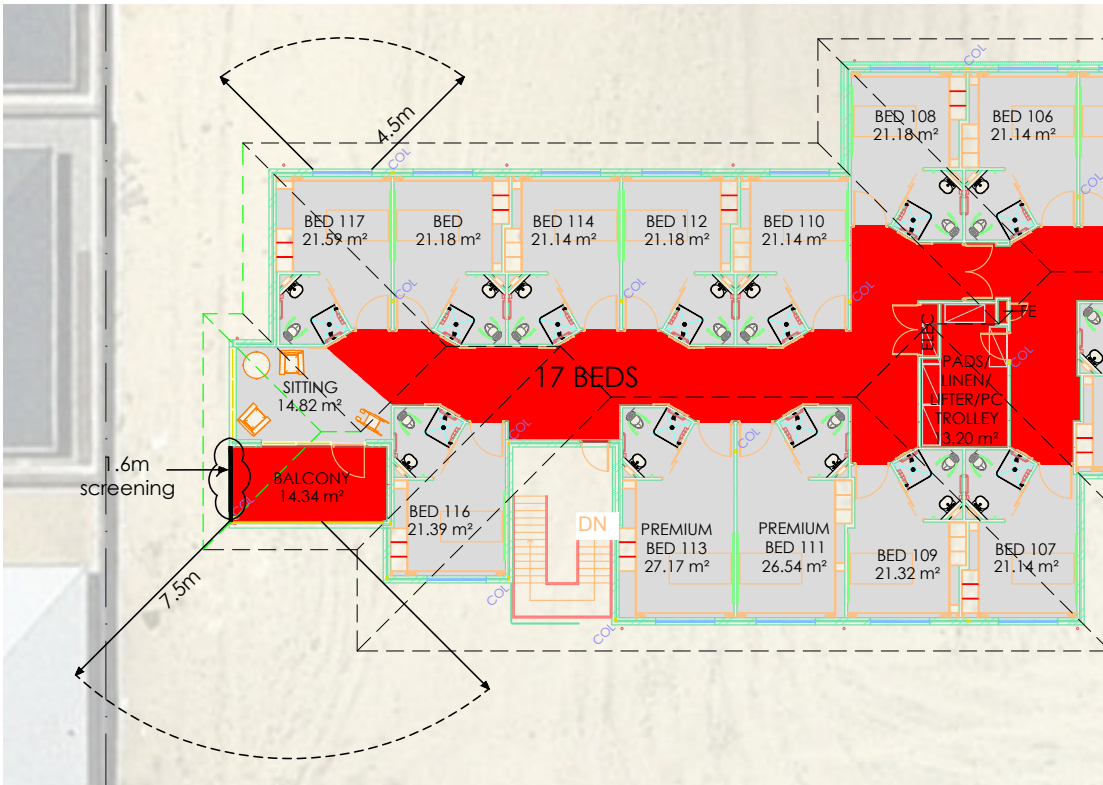


FIGURE 7: AFFECTED ADJOINING PROPERTY AS VIEWED FROM SUBJECT SITE



This proposal is considered acceptable, with the following justification provided, as per the R-Codes:

DESIGN PRINCIPLE	JUSTIFICATION
<p>P1.1 Minimal direct overlooking of active habitable space and outdoor living areas of adjacent dwellings achieved through:</p> <ul style="list-style-type: none">• Building layout, location;• Design of major openings;• Landscape screening of outdoor active habitable spaces; and/or• Location of screening devices	<ul style="list-style-type: none">• The balcony is oriented facing directly south, with screening limiting any views directly west. Any area of overlooking is likely to be peripheral to the main views.• Screening to the western side of the balcony limits any direct views of overlooking to the neighbouring property.• The adjoining property to the west is a corner lot, with their major outdoor living area located within the secondary street setback area abutting Clementine Boulevard. The area of overlooking will therefore not impact upon the adjoining neighbours outdoor living area.• Significant landscaping is proposed within the cone of vision which will aid to reduce the perception of overlooking.
<p>P1.2 Maximum visual privacy to side and rear boundaries through measures such as:</p> <ul style="list-style-type: none">• Offsetting the location of ground and first floor windows so that viewing is oblique rather than direct;• Building to the boundary where appropriate;• Setting back the first floor form the side boundary;• Providing higher or opaque and fixed windows; and/or• Screen devises (including landscaping, fencing, obscure glazing, timber screens, external blinds, window hoods and shutters).	<ul style="list-style-type: none">• The area of overlooking is from the first floor balcony of the proposal to the single storey neighbouring property. Due to this level difference, the eave overhang of the adjoining property and the location of a 1.8m dividing fence, it is unlikely that views will extend to any habitable rooms.• The area of overlooking is likely to only extend to the neighbour's roofline.• Under the R-Codes the neighbouring property would be setback between 1.0m and 1.5m, meaning that the area of overlooking will not extend to the dwelling, being contained within the side setback.• It should also be noted that the development does not proposed any building up to the boundary or reduced side setbacks, which could address this area of non-compliance. It is considered that a building to the boundary would have a more adverse impact to the neighbours.

NORTH WEST WING

The north-western wing of the development proposes a balcony and bedrooms which are setback 3.0m from the northern boundary. This has resulted in areas of overlooking, as indicated below.

FIGURE 8: OVERLOOKING FROM NORTH WEST WING

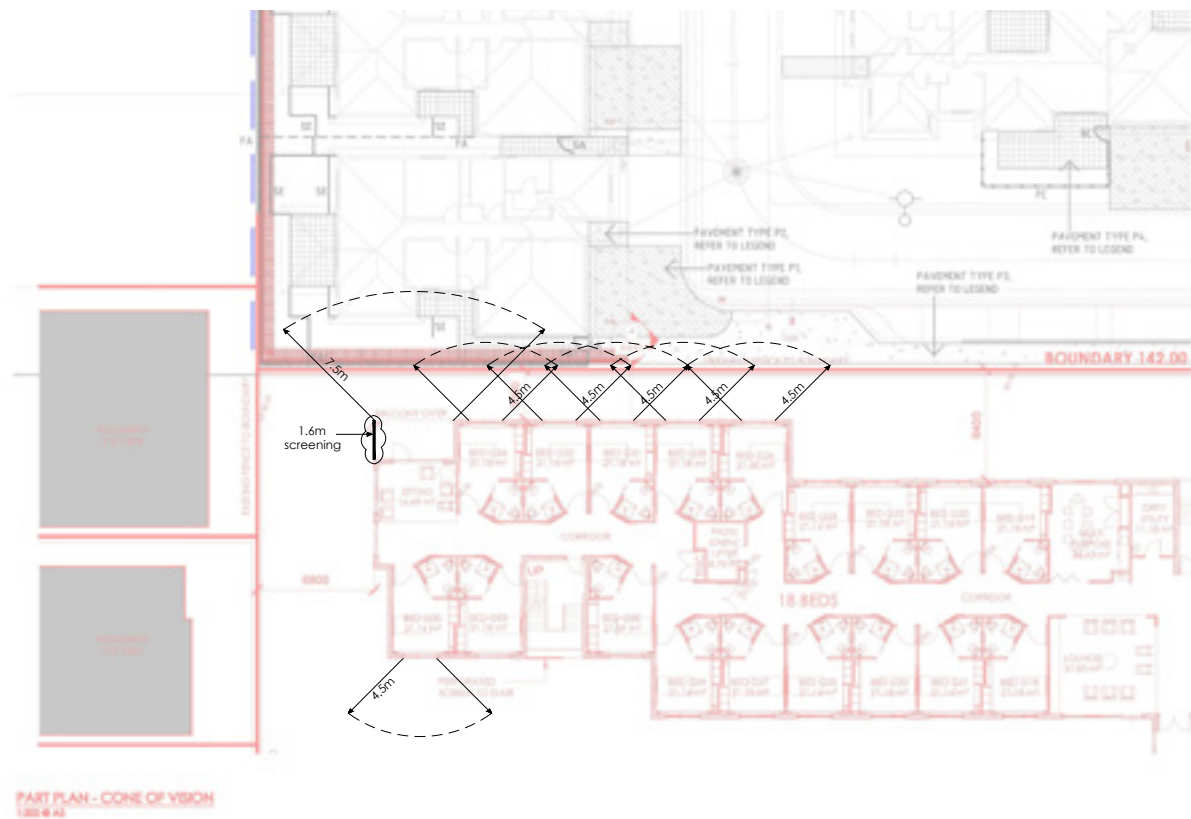


FIGURE 9: AFFECTED ADJOINING PROPERTY AS VIEWED FROM SUBJECT SITE



This proposal is considered acceptable, with the following justification provided, as per the R-Codes:

DESIGN PRINCIPLE	JUSTIFICATION
<p>P1.1 Minimal direct overlooking of active habitable space and outdoor living areas of adjacent dwellings achieved through:</p> <ul style="list-style-type: none">• Building layout, location;• Design of major openings;• Landscape screening of outdoor active habitable spaces; and/or• Location of screening devices	<ul style="list-style-type: none">• Stockland’s landscape consultants providing the neighbours plans, which demonstrate the layout of the adjoining property.• The neighbours outdoor living area is located to the rear boundary, away from the area affected by overlooking.• The areas affected by overlooking on the neighbours if a blank garage wall, windowless living room wall and laundry area. The side setback area is therefore not providing outlook for any habitable rooms.• It is also considered that the area of overlooking is likely to only extend to the adjoining properties roofline, given the level difference of the proposal being two storey and the adjoining property being single storey.
<p>P1.2 Maximum visual privacy to side and rear boundaries through measures such as:</p> <ul style="list-style-type: none">• Offsetting the location of ground and first floor windows so that viewing is oblique rather than direct;• Building to the boundary where appropriate;• Setting back the first floor form the side boundary;• Providing higher or opaque and fixed windows; and/or• Screen devises (including landscaping, fencing, obscure glazing, timber screens, external blinds, window hoods and shutters).	<ul style="list-style-type: none">• Significant landscaping is proposed between the building and the northern boundary, which will aid to reduce visual overlooking.• It was not considered appropriate to provide a building up to the boundary, which could potentially address the area of overlooking as it was this would be an adverse impact to the neighbouring properties.• For the amenity of residents, it was not considered appropriate to provide highlight bedroom windows (1.6m above floor level) to limit overlooking.• Screening has been provided to the balcony on the western side, to prevent direct overlooking west.

5.4 LANDSCAPING

A Landscaping Plan (refer Appendix 4) has been prepared by Plan/E Landscape Architects to address how landscaping will be integrated into the design of the building and provide appropriate function for the future residents and staff.

As outlined by Plan/E the key landscape objectives for the design include:

- To create sustainable, comfortable, outdoor spaces which are relevant and welcoming to the whole aged care facility, including visitors and staff, and to encourage social interaction and a sense of community through good design;
- To create a landscape setting that is complimentary to the building architecture, highly legible to users and accommodates for the different levels of mobility across the site;
- To provide spaces that encourage gathering and interaction of residents and visitors, and promote a socially inclusive ethos where residents have the opportunity to “personalise” or “take ownership” of the external spaces through landscape maintenance and planting of seasonal fruiting/flowering species;
- To introduce and establish plant species that are known to tolerate the local conditions, are adaptable to the local soil types and climatic characteristics, and provide seasonal colour, smell and texture to enhance the outdoor areas. To use low-water use plants, with a preference for hardy native and exotic species to ensure that the proposed landscape reaches its full potential;
- To use materials within the site that complement the colours, textures and forms of the architectural style adopted for the development, and are robust in terms of ongoing maintenance and longevity, and;
- Refer to Crime Prevention through Environmental Design (CPTED) principles for the public realm of the Opal Treeby Aged Care project to ensure safety of residents and public is fully considered. Key aspects of the landscape strategy include no obstructions to lines of sight, low level planting with upper canopy trees, use of robust materials and detailing, and well-lit spaces.

The proposal includes two large internal courtyards which provide different experiences to cater for the function of the residents. The eastern courtyard “Dementia Courts” caters for high care residents (such as Alzhimers/Dementia care) which has been designed to provide an overall visual and sensory experience for residents who have reduced mental and physical capabilities. The courtyard includes:

- Large covered alfresco space connects directly to the main building foyer and dining area, thereby providing areas of rest and respite;
- Private seating opportunities
- An open turf area, together with a meandering loop path network and low level lighting, connects all areas of the garden under the canopy of feature shade trees; and
- Screen planting located along the eastern boundary to provide privacy screening the carpark.

The western courtyard “Activity Courtyard” has been designed to cater for residents with lower care needs. The design encourages social interaction and mobility with the following features incorporated:

- Multi-use irrigated lawn area which offers residents opportunities for structured activities and exercise to occur;
- Outdoor (alfresco) area where cafe uses can spill out into the external space;
- Outdoor informal lounge area bounded by a low feature stone seat wall; and
- Low stone walls provide additional seating opportunities and act to retain garden bed planting.

To address the interface with Abelia Road, mature trees and lighting has been incorporated into the setback area between the building and the road reserve. The entry court is designed to create a sense of arrival with well-defined aggregate paths, feature entry shade canopy, flowering exotic shrub planting and upper storey of feature shade trees, the entry area will also include key signage to define entry locations.

5.5 BUSHFIRE MANAGEMENT

The subject site is designated as bushfire prone on the Department of Fire and Emergency Services (DFES) Map of Bush Fire Prone Areas. Strategen has prepared a Bushfire Management Plan (BMP) for the subject site, in accordance with the Guidelines for Planning in Bushfire Prone Areas and State Planning Policy 3.7 – Planning in Bushfire Prone Areas (refer to Appendix 5). The BMP provided is generally consistent with the bushfire assessments undertaken by Strategen as part of the BQLSP and supporting subdivision and building stages of the Calleya Estate. The BMP includes a BAL Contour Assessment Map, based on post-development conditions taking into consideration proposed low-threat landscaping around the building, indicating the highest BAL applicable to the proposed building is BAL-12.5.

In response to the requirements of SPP 3.7 and the Guidelines, bushfire management measures have been provided for in the proposed development in accordance with the acceptable solutions to meet compliance with the bushfire protection criteria. These measures include, the incorporation and maintenance of low threat landscaping into the design, which is demonstrated within the future Landscaping Plan (refer Appendix 4). On completion of the development the subject site will be developed and managed in a low threat state.

The maintained POS to the south and future residential development to the east, provides a substantial buffer between bushfire hazards and the subject site. As a result of this defendable space, Strategen consider the potential radiant heat impact on the proposal would be minimal; however, potential ember attack is possible, which is consistent with the assessment of BAL-12.5 rating. The proposed development is a Class 9c building, so there is no statutory requirement for the proposed building to meet the construction requirements of AS 3959; however, the building will be voluntarily fitted with ember protection features to increase building resilience, including:

- Vents and weepholes in external walls covered with a corrosion-resistant steel, bronze or aluminium mesh to prevent gaps greater than 2.0mm;
- Openable portions of windows screened internally or externally, with corrosion-resistant steel or bronze with a maximum aperture of 2.0mm;
- Garage doors fitted with weather strips/draught seals to prevent gaps greater than 3.0mm;
- Garage roller doors with a maximum gap of 3.0mm, fitted with nylon brush that is in contact with the with door, with no ventilation slots;
- Any gaps greater than 3.0mm in the roof, seal at the fascia or wall line and at valleys, hips and ridges by a mesh with a maximum aperture of 2.0mm made of corrosion-resistant steel, bronze or aluminium; mineral wool or other non-combustible material;
- Roof ventilation openings fitted with ember guards with a maximum aperture of 2.0mm; and
- Eaves ventilations and penetrations fitted with non-combustible ember guards with a maximum aperture of 2.0mm.

The proposed development is considered to be a vulnerable land use on the basis that the occupants will include aged persons with reduced mental and physical capabilities. Development Applications for vulnerable land uses in areas of in area of BAL-12.5 to BAL-29 are to be accompanied by a Bushfire Emergency Evacuation Plan (refer to Appendix 5). The Emergency Evacuation Plan identifies two key pre-emergency actions to ensure a high level of site diligence and duty of care for on-site occupants is maintained:

- should the Fire Danger Rating be ‘Severe’ or greater, nominated staff will monitor the DFES website for notification of any bushfire within the local area; and
- on days where the Fire Danger Rating is ‘Extreme’ or ‘Catastrophic’, nominated staff will alert all on-site occupants of the increased bushfire risk and potential for an emergency bushfire evacuation to be activated if required in accordance with the BEEP and nominated evacuation assembly areas.

An Emergency Planning Committee will be established by Opal Aged Care, responsible for ensuring the ultimate effectiveness of the Emergency Evacuation Plan.

5.6 WASTE MANAGEMENT

A Waste Management Plan (refer Appendix 6) has been prepared by Universal Foodservice Designs (UFD) to address the operational requirements of the facility and spatial requirements for waste collection areas.

For the development of 120 bed aged care facility plus allied health services, it is estimated 9,600L of general waste and 4,800L of recyclable waste and 156L of medical waste will be generated each week. Based on this amount of waste generation, UFD recommend:

- Waste removal is carried out three (3) times per week for both the collection of general waste and continence aids;
- General waste is to be held in five (5) 660L bins;
- Recyclable waste is to be held in three (3) 660L bins;
- Medical waste is to be held in two (2) 240L bins; and
- Private collection contractor waste removalists remove waste.

A dedicated waste holding area (indicated as garbage on site plan) is located on the ground level for the storage of the waste generated. A waste collection/ vehicle access pick up point is provided (indicated as a loading area on site plan) with vehicle entry and exit designed in accordance with AS 2890.2. A private contracted waste collector specialist (Veolia) will remove collected waste on a regular basis. Due to residential areas having noise restrictions, waste collection will occur during business hours. The frequency of waste collection will be managed by an onsite caretaker/ maintenance manager. This onsite manager will also organise collecting bins from holding areas on the upper floors and food service operations and moving these bins to the ground floor level for ‘unloading’ into 660L and 240L bins as required.

5.7 ACOUSTIC

Draft State Planning Policy 5.3 – Land Use Planning in the Vicinity of Jandakot Airport (as updated January 2017) identifies the subject site being located within the ‘Frame Area’ of Jandakot Airport. The Frame Area is land located between the 20 ANEF contour and Roe Highway, Randford Road, Warton Road, Armadale Road and Kwinana Freeway.

According to SPP 5.3 there are no restrictions on zoning or development within the frame area. A ‘notice on title’ advising of the potential for noise nuisance is required at subdivision or development application approval within the frame area. The notice wording is provided below:

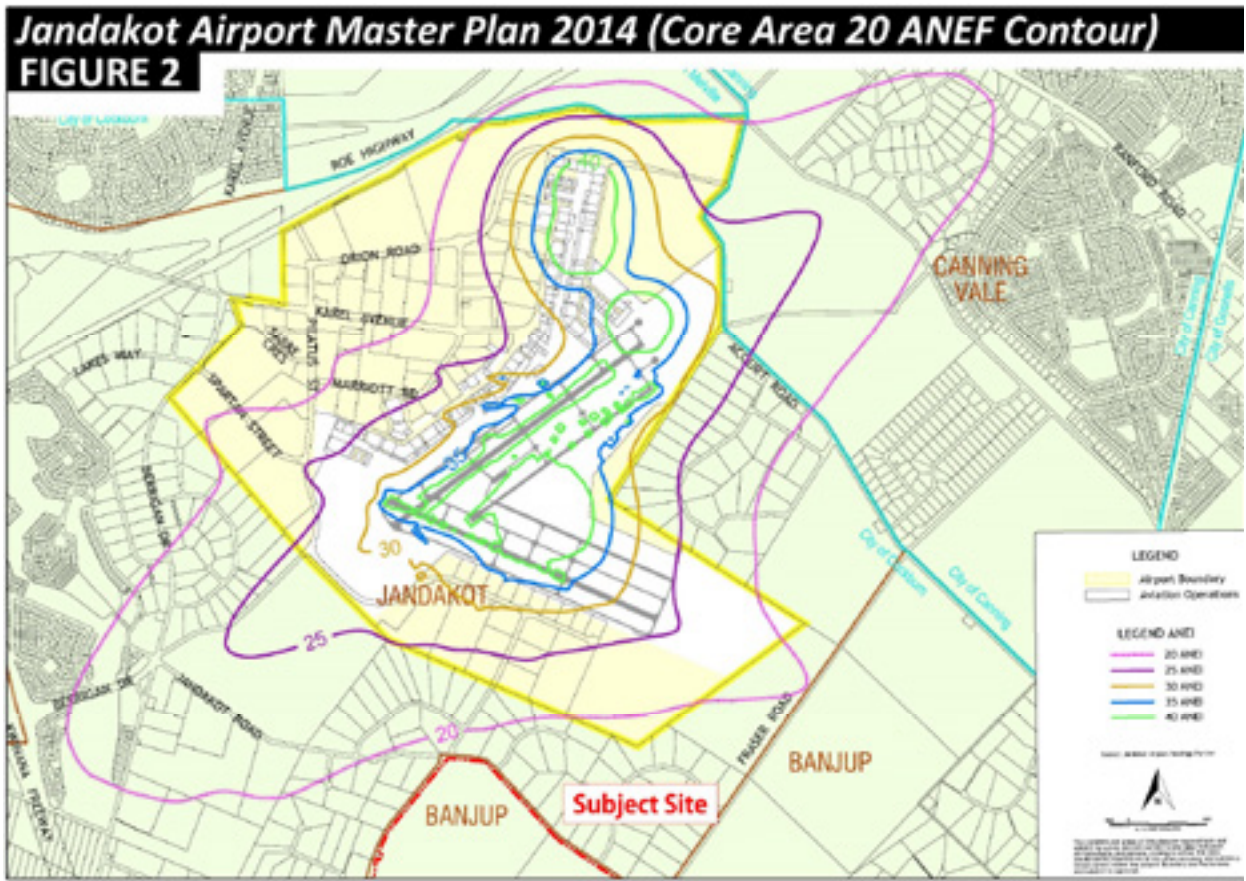
“This property is situated in the vicinity of Jandakot Airport and is currently affected or may be affected in the future by aircraft noise. Noise exposure levels are likely to increase in the future as a result of an increase in the aircraft using the airport, changes in aircraft type, or other operational changes. Further information about aircraft noise is available from the Jandakot Airport website. Information regarding development restrictions and noise insulation requirements for noise-affected property is available on request from the relevant local government offices.”

SPP5.3 also states that developers should be made aware of the benefits of window closure and associated need for forced ventilation. This is consistent with the attached Noise Impact Assessment which was undertaken for the BQLSP, by Lloyd George Acoustics, which states that all lots (outside of the 20 ANEF) are to incorporate 6.38mm thick laminated glazing to all habitable rooms, including kitchens. The laminated glazing requirement is requested to be conditioned as part of the approval of the development application.

The BQLSP (as amended February 2016), states that a Noise Management Plan is required for those lots identified in the Noise Impact Assessment (prepared by Lloyd George Acoustics). The impacted lots identified in the assessment are only those located within the 20 ANEF. Both SPP 5.3 and the Banjup Structure Plan do not make reference to a Noise Management Plan or further acoustic assessment being required for those properties within the frame area (e.g. the subject site).

The City of Cockburn Local Planning Policy 1.2 – Noise Attenuation, states that a further Acoustic Report may be requested to be submitted as part of the building permit as a condition of approval of the development application.

FIGURE 10: ANEF CONTOUR MAPPING



Draft SPP 5.3 Land Use Planning in the Vicinity of Jandakot Airport, December 2015 (Frame Area)

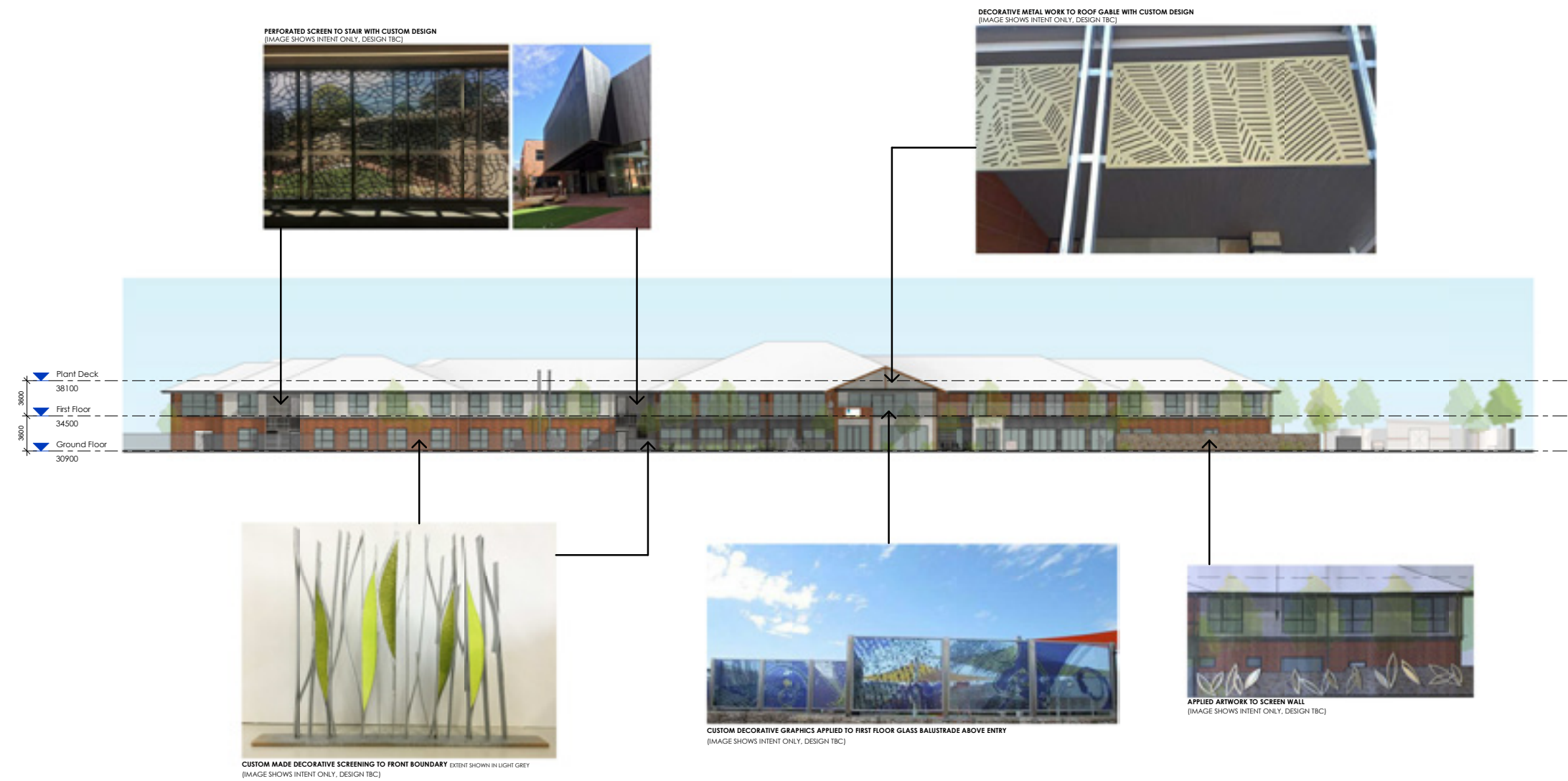


5.8 ART CONTRIBUTION

The City of Cockburn Local Planning Policy 5.13 – Percentage for Art requires a contribution of art work to the value of 1% of the total project cost (up to a maximum value of \$250,000) with the artwork to reflect the place, locality and/or community in the area. In accordance with the Policy, the artist Steve Tepper, will be commissioned to provide elements that are incorporated into the design of the building and are visible from the street. A key component of the artwork is to ensure it is both aesthetically pleasing and provides functionality, with designs incorporated into screening, balustrading, and entry statements.

The following provides a conceptual overview of the artwork that is considered for the proposal, with further details to be provided with the City of Cockburn with the finalisation of the design and location of the artwork.

FIGURE 11: ARTIST DESIGN CONCEPTS (SUBJECT TO CHANGE)



5.8.1. Artist Statement (Steve Tepper)

The function of this new development – an aged care facility – inspired me to consider references to ‘life’, while being sensitive to creating compositions that were not gender specific or restricted to any one culture or age group (even though this is an aged care facility, family and visitors will probably be of a different generation).

The process started by considering the theme of nature. Nature has been a constant source of inspiration, informing the shape and patterning of many of my artworks. The ‘model of nature,’ with its many beautiful forms, intriguing structures and organizing principles has inspired the widest range of concepts. Patterns can be more than just an observation of nature. Patterning can be a depiction of the ‘essence’ of nature.

This starting point, along with my research into the suburb of Cockburn, confirmed my direction for artworks for this new facility. Cockburn boasts some of Western Australia’s best inland lakes. These unique features are a chain of five lakes running north to south through the heart of the City. They are major tourism attractions and provide wonderful leisure activities and opportunities to enjoy nature. The close proximity of these natural features offers opportunities for Cockburn residents and visitors to enjoy this natural asset. For many people, trees, leaves and flowers are treasures, symbols of the memories they represent.

The City of Cockburn is fortunate to have a variety of flora species, vegetation complexes and groupings in its natural areas. Indigenous plants in the wetland such as Scaevola crassifolia (Thick Leaved Fan Flower), the club-rush Bolboschoenus caldwellii, Freshwater Paperbark (Melaleuca rhaphiophylla and Baumea juncea), Chenille Honey Myrtle (Melaleuca huegelii) and Parrot bush (Dryandra sessilis) – are just a few that offer a wealth of inspiration.

Intentionally the artwork designs will allude to the source without being a literal translation of any one species of plant. The goal is that people are reminded of nature and the pleasure it gives us.

When researching ideas for the artworks the approach will be:

- that the artwork will be integrated within the building and landscape and that the artworks are engaging, relevant and appropriate
- that the artworks respond to the physical characteristics of the Cockburn area
- to strive for minimal maintenance and longevity (both for material and concept).

With regard to commissioned artwork or design in any context, the work is research led and based on the accumulation of knowledge from previous commissions and the direct experience gained from these. The key is to clearly define the project needs (this is not intended to be a detailed design solution but to encourage flexibility) and to keep focused during the development of the designs in response to several key factors including:

- Context – Aged Care Facility sited within the City of Cockburn.
- Intended users of the space or place – Residents, Visitors and Staff
- Character of the area, including new development (and how the artworks will integrate within the overall building and landscape design) – Opal Treeby is an aged care development within an urban environment/context. It will be important that the artworks are integrated and relevant to local residents as well as residents and staff. The artworks will be visible to the general public and as streets are important shared spaces, the artwork will impact on the perception of place – i.e. Treeby
- Theme – vision and aesthetics – one of Cockburn’s most unique features is the chain of five lakes running north to south through the heart of the City and this has influenced my theme direction
- Scale and visual impact of the artwork – the artwork must take into account the scale of the buildings and compliment the overall development and landscape. The artwork should be distinctive and read from a distance, without overwhelming the architectural intent for the overall development.
- Material – the materials need to be durable with low maintenance.

The artwork designs will be contemporary, abstract, and pleasurable and offer a connection to the local environment and the cultural richness of Cockburn. At the same time any artwork proposed must address other environmental factors, visibility, human contact, safety, installation constraints, budget, and longevity.

The intention is not to imitate nature, but to use it as a starting point and source for an innovative response to the new buildings and the Cockburn environment.

6.0 COMMUNITY CONSULTATION

As part of the design process, consultation was undertaken to the five (5) adjoining residential dwellings to the west, HN 1 Abelia Road and HN 68 – 74 Clementine Boulevard. Communication has been open with Stocklands the landowner of the property to the north which is yet to be subdivide and sold.

The consultation process included sending letters to the adjoining land owners (refer Appendix 7), explaining Opal operations, the proposed development and inviting them to meet with the architect, representative from Opal the landowner and project manager to provide feedback and shape the design process. Three (3) of the five (5) landowners responded to the letter, requesting a copy of the plans to view. A full set of plans was emailed to these landowners.

Following this the landowner of HN 74 Clementine Boulevard requested a meeting, which was held 10 April 2018, to discuss the plans and the potential impact of the proposal. As part of this meeting the neighbouring owners raised concerns regarding:

- Visual privacy – from this discussion the plans were modified increasing the setback to the west and screening the first floor balcony to the North-West to prevent any overlooking to this neighbour.
- Traffic – concerns were raised due to the lack of right turn available to Abelia Street, which may result in additional traffic on Clementine Boulevard. This concern was raised with the City of Cockburn however it was advised that this intersection cannot be altered.

There were two (2) landowners that did not respond to the consultation letter and did not request a copy of plans.

Based on the above, it is not considered necessary to advertise the application.

7.0 SUMMARY

The proposed development capitalises on an opportunity to provide a residential care facility adjacent to a retirement village and within an existing suburban community. Co-locating the proposed residential care facility with the Calleya retirement living village provides an aging population with the opportunity to age in place, and remain within their local community, even as their housing needs change.

The development of the proposed residential care facility, combined with the allied health services, will not only address the residential and health care needs of an aging population, but will also provide an improved and expanded offering of amenities and services for the wellbeing of residents and the greater community.

The proposed redevelopment of Lot 7003, will provide a substantial improvement for the amenity of the subject site and the surrounding area. The provision of the residential care facility at Lot 7003 represents the next step in the logical progression of development, as envisaged within the BQLSP.

The proposed development is acceptable and predominantly consistent with the surrounding residential, the proposed development warrants the favourable consideration and support of the City, as it achieves the following key outcomes:

- The proposed development is consistent with the State Government’s strategic planning framework for the Perth metropolitan region, in particular achieving an increase in infill development to make improved use of existing services and infrastructure;
- The proposed development is in keeping with the vision for the redevelopment of the former Banjup Quarry site, providing essential residential care facilities and assisted living services, and co-locating with the retirement village, to achieve an intergenerational community and aging in place opportunities;
- The residential care facility, along with the allied health services will contribute to the redevelopment and revitalisation of the subject site and surrounding area; and
- The redevelopment of Lot 7003 is a significant step in the implementation of the vision of the BQLSP, contributing to the offer of improved services and amenities for the vibrancy and wellbeing of both residents and the local community.



Perth

Level Two, 442 Murray Street
Perth WA Australia 6000
T. +61 8 9213 7300

Sydney

Level Four, 17 Randle Street
Surry Hills NSW Australia 2010
T. +61 2 8202 8000

Melbourne

33 Chessell Street
South Melbourne, VIC Australia 3205
T.+61 3 9645 0788

Brisbane

4 Nerang Street,
Nerang QLD Australia 4217

Jakarta

Level Seventeen, Pondok Indah Office Tower 3
Jl. Sultan Iskandar Muda kav V-TA
Jakarta Selatan 12310 Indonesia
T. +62 21 2953 8859



Opal Treeby Aged Care Facility
Lot 7002 Abelia Road, Treeby
Transport Impact Statement

PREPARED FOR:
Opal Aged Care

April 2018

Document history and status

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Author: Mohammad Rasouli

Project manager: Mohammad Rasouli

Client: Opal Aged Care

Project: Opal Treeby RACF

Document revision: r01a

Project number: t18.050

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TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
2.0	PROPOSED DEVELOPMENT.....	2
3.0	VEHICLE ACCESS AND PARKING	3
3.1	ACCESS	3
3.2	PARKING DEMAND AND SUPPLY	3
4.0	PROVISION FOR SERVICE VEHICLES.....	4
5.0	HOURS OF OPERATION.....	5
6.0	DAILY TRAFFIC VOLUMES AND VEHICLE TYPES.....	6
6.1	EXISTING TRAFFIC FLOWS	6
6.2	TRAFFIC GENERATION	6
6.3	IMPACT ON SURROUNDING ROADS.....	7
7.0	TRAFFIC MANAGEMENT ON THE FRONTAGE STREETS.....	8
8.0	PUBLIC TRANSPORT ACCESS.....	9
9.0	PEDESTRIAN ACCESS	10
10.0	CYCLE ACCESS	11
11.0	SITE SPECIFIC ISSUES	12
12.0	SAFETY ISSUES	13
13.0	CONCLUSIONS.....	14

APPENDIX A: PROPOSED DEVELOPMENT PLANS

APPENDIX B: SWEEP PATH ANALYSIS

REPORT FIGURES

Figure 1: Location of the site	1
Figure 2: Total post-development traffic flows – Weekday (PM peak hour)	7
Figure 3: Abelia Road fronting the subject site	8
Figure 4: Proposed bus route and bus stops.....	9
Figure 5: Proposed development internal footpath and its connectivity to the existing abutting footpath network	10

REPORT TABLES

Table 1: Applicable car parking requirements	3
Table 2. Daily and peak hour trips generated by the proposed development.....	6

1.0 Introduction

This Transport Impact Statement has been prepared by Transcore on behalf of Opal Aged Care with regards to the proposed Opal Aged Care Facility (ACF), located at Lot 7002 Abelia Road, Treeby, in the City of Cockburn.

The subject site is located within the Calleya Structure Plan (SP) area. The Calleya SP area connects to Armadale Road at the signalised intersection of Armadale Road/ Ghoastgum Avenue. Three roundabout intersections are also proposed on Jandakot Road at the intersections with Solomon Road, Fraser Road and the Clementine Boulevard.

The northern precinct of the SP area is under construction with the majority of the internal roads and some residential dwellings already constructed. The southern precinct has been fully developed. As shown in Figure 1, the proposed ACF will be bound by a number of residential properties to the west and east and proposed Calleya Retirement Village immediately to the north.



Figure 1: Location of the site

The key issues that will be addressed in this report include the traffic generation and distribution of the proposed development, access and egress movement patterns, and access to the site by alternative modes of transport.

2.0 Proposed Development

The proposal for the subject site entails the aged care facility (ACF), comprising 120 beds over two levels, with ancillary café, laundry, kitchen and other associated facilities. The proposed development also includes an Allied Health component serviced by three consultants.

The proposed ACF entails two crossovers on Abelia Road at the southern side of the development. Waste collection, delivery and other service vehicle operations for the ACF will be accommodated within the site in the loading area accessed from the proposed crossovers on Abelia Road. The proposed one-way traffic circulation system within the southern part of the site would reduce traffic conflicts and would facilitate safe traffic circulation of vehicles within the site.

Pedestrians will access the development from the external footpath network abutting the site. Currently, the constructed section of the Abelia Road entails a 3.0m shared path along the south side of this road and a 1.5m footpath along the northern side.

The proposed ACF would provide a mini-bus service which would facilitate the pickup and drop offs of the residents from and to the site in order to reduce the car dependency of the residents. The location of the bus drop off/ pickup area within the site is shown in the development plans (refer Appendix A). The proposed mini-bus is expected to be a small size 16-seat Toyota Coaster mini-bus which can enter, park and exit the site easily without impacting the traffic operations within the site.

The proposed ACF provides a total of 58 on-site parking bays which satisfies the anticipated parking demand of the proposed development.

The proposed development plans are included for reference in Appendix A.

3.0 Vehicle Access and Parking

3.1 Access

Vehicular access to the proposed ACF is provided via two crossovers on Abelia Road. The western crossover is entry only and the eastern crossover is entry and exit crossover.

One-way clockwise circulation is proposed through the car park facility along Abelia Road between the western and eastern crossovers. The internal access way has been designed to accommodate Toyota Coaster mini-buses.

3.2 Parking Demand and Supply

The proposed development provides a total of 58 on-site car bays. Car parking will not be allocated to specific users and will operate as all-purpose shared parking.

As the use of 'Aged Care' is not listed within the City of Cockburn's Scheme, comparison has been made to the Opal development in Carine (City of Stirling) which is similar in size (two storey, 140 bed 'Nursing Home' facility). This Carine ACF required a car parking provision of one car parking bay per three beds.

For the Allied Health component of the development reference has been made to the 'Medical' and 'Consulting Rooms' parking requirement of five bays per one practitioner/consultant which is in line with the City of Cockburn's Scheme.

The parking requirements are detailed in Table 1.

Table 1: Applicable car parking requirements

Element	Requirement	Bay Calculation
Aged Care	1 bay per 3 beds	$120 / 3 = 40$ bays
Allied Health (3 consultants)	5 car bays per consultant	$5 \times 3 = 15$ bays
Total		55 bays

The development application proposes the provision of 58 car bays which meets the anticipated requirements of similar aged care facilities within metropolitan area. The proposed development also provides a total of eight bicycle bays, six of which will be provided for the aged care visitors and staff and two for the residents.

4.0 Provision for Service Vehicles

Waste collection for the Aged Care Facility will be undertaken by a privately contracted (Veolia) waste collector specialists periodically as detailed in the “Waste Management Plan Operational Brief” prepared by Universal Food Service Design from April 2018.

Waste vehicles will access the site from the western crossover on Abelia Road and will use the waste loading area to pick up the rubbish bins and will exit the site from the eastern crossover on Abelia Road. Appendix B shows the relevant turn path analysis for the waste collection trucks which indicates satisfactory movement of the tucks.

The swept paths for the service and delivery vehicles are similar to the waste vehicle’s movements. Appendix B also shows the turn paths of the fire emergency trucks and the location of the Booster pumps within the site.

5.0 Hours of Operation

Based on Transcore's experience with multiple aged care facilities and the staffing profile provided by Opal, the peak afternoon staff changeover is expected at around 3:00PM, with the morning care staff departing the site and evening care staff arriving.

The morning shift change occurs before 7:00AM and is therefore outside the road network morning peak hour.

6.0 Daily Traffic Volumes and Vehicle Types

6.1 Existing Traffic Flows

This part of the Calleya Structure Plan including the Abelia Street is currently under construction and therefore there is no existing traffic available for Abelia Road.

6.2 Traffic Generation

The traffic volume that will be generated by the proposed aged care facility has been estimated based on trip rates provided in Roads and Traffic Authority of New South Wales Guide to Traffic Generating Developments (2002) and the updated trip rates in the RTA TDT 2013/ 04a. The proposed Allied Health consultants are also conservatively assumed to generate 4 vehicle-trips per consultant per hour (1 per 15min). It is also assumed that only 50% of the visitors would use car to access the ACF. The consultants' staff are assumed to generate 2 trips per day (in and out).

As detailed in Table 2, the proposed development is estimated to generate an additional 348 daily vehicle trips and 36 trips during the PM peak hour.

These trips include both inbound and outbound vehicle movements. It is anticipated that most of the vehicle types would be passenger cars and to a lesser extent 4WDs.

Table 2 is based on the following directional split assumptions:

- PM peak split estimated at 25%/75% inbound/outbound (based on existing surveys).

Table 2. Daily and peak hour trips generated by the proposed development

Land use	Quantity	Daily Rate	PM Peak Rate	Daily Trips	PM Trips	PM Peak Trips	
						IN	OUT
Total ACF Beds	120	2	0.2	240	24	6	18
Allied Health	3 consultants	36 per consultan	4 per consultant	108	12	6	6
Total				348	36	12	24

The distribution of the proposed development traffic is detailed in **Figure 2**.

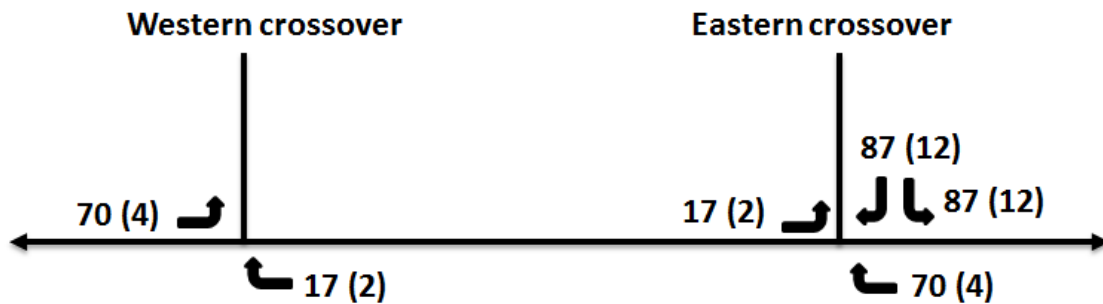


Figure 2: Total post-development traffic flows – Weekday (PM peak hour)

6.3 Impact on Surrounding Roads

The WAPC *Transport Impact Assessment Guidelines for Developments* (2016) provides the following guidance on the assessment of traffic impacts:

“As a general guide, an increase in traffic of less than 10 percent of capacity would not normally be likely to have a material impact on any particular section of road, but increases over 10 percent may. All sections of road with an increase greater than 10 percent of capacity should therefore be included in the analysis. For ease of assessment, an increase of 100 vehicles per hour for any lane can be considered as equating to around 10 percent of capacity. Therefore, any section of road where development traffic would increase flows by more than 100 vehicles per hour for any lane should be included in the analysis.”

The proposed aged care facility will not increase traffic flows on any roads adjacent to the site by the quoted WAPC threshold of +100vph to warrant further analysis.

Therefore, the impact on the surrounding road network is minor.

7.0 Traffic Management on the Frontage Streets

Abelia Road fronting the subject site has been constructed to a two-lane undivided road standard with a shared path running along the southern side of the road. There are currently some parallel on-street parking bays provided near the subject site on the southern side of Abelia Road (refer Figure 3).



Figure 3: Abelia Road fronting the subject site

Abelia Road would likely be classified as an Access Road and would operate under a default built-up area speed limit of 50km/h. The intersection of Abelia Road and Clemente Boulevard has been constructed as a left in/ left out only intersection.

8.0 Public Transport Access

According to the information provided by the Public Transport Authority (PTA) for the Calleya Structure Plan, a bus route is likely to operate along the proposed Clementine Boulevard as shown in Figure 4. This potential bus route could be:

- A new PTA bus route between Cockburn and Murdoch stations;
- A connection with Route 515 (Glen Iris); or
- An extension or alternative route to Route 515 (Glen Iris).

The timing of any future bus route is unknown at this stage and is subject to government funding that may be influenced by patronage demand and adequate road access/connections.

Figure 4 also shows the potential bus stops along the proposed bus route within the Structure Plan. Accordingly, the bus stops are conveniently located within walking distance of the proposed ACF.

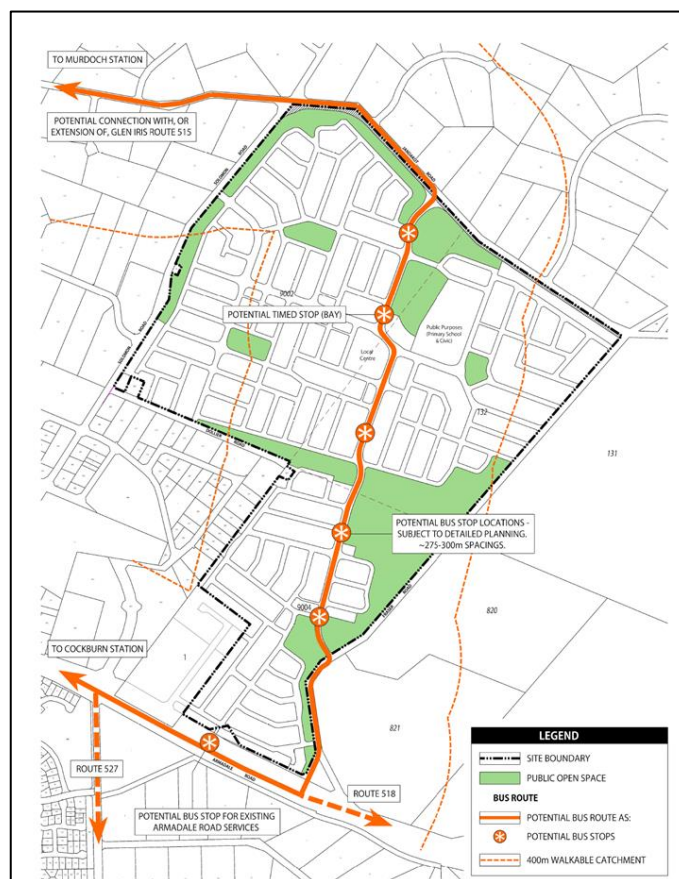


Figure 4: Proposed bus route and bus stops

9.0 Pedestrian Access

Pedestrians will access the development from the external footpath network abutting the site. Currently the constructed section of the Abelia Road entails a 3.0m shared path along the south side of this road and a 1.5m footpath along the northern side.

The proposed development plan also shows an internal footpath within the site which will provide connection to the existing footpath and shared path on both sides of the Abelia Road (refer **Figure 5**).

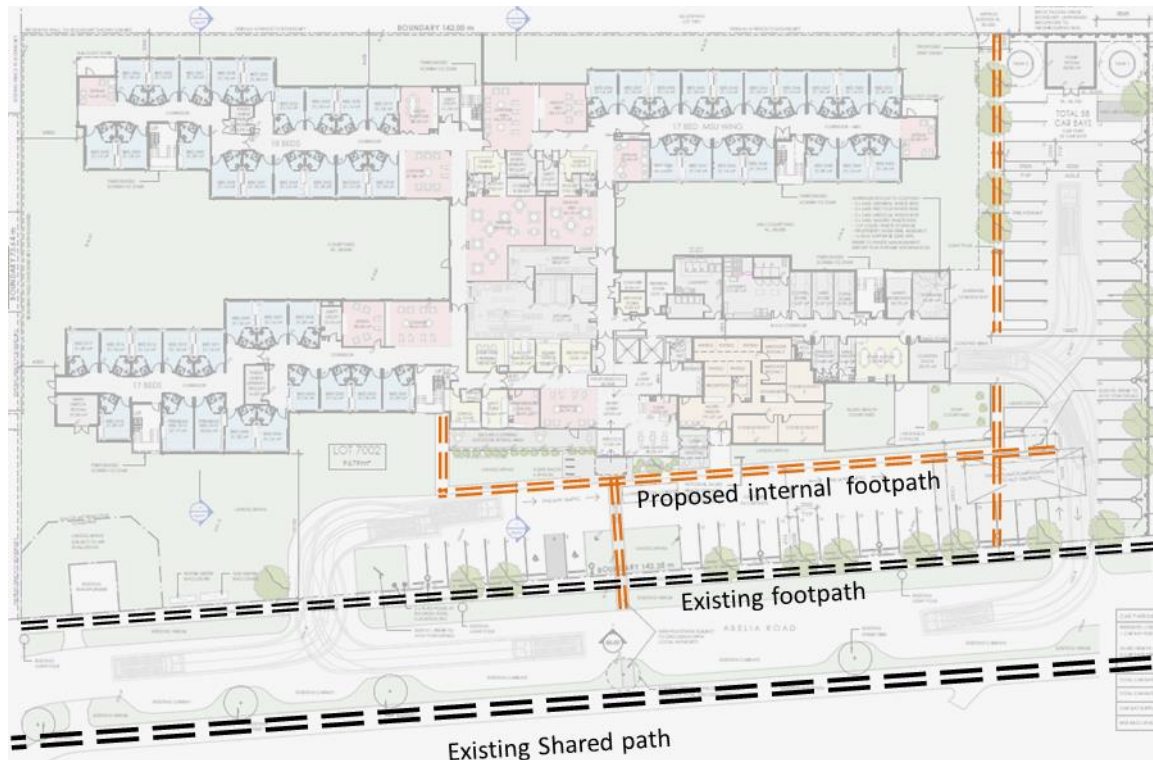


Figure 5: Proposed development internal footpath and its connectivity to the existing abutting footpath network

10.0 Cycle Access

Pedestrians and cyclists will access the development from the external shared path network abutting the site with primary access via Abelia Road. The proposed development also provides a total of eight bicycle bays, six of which will be provided for the aged care visitors and staff and two for the residents.

11.0 Site Specific Issues

No site-specific issues were identified within the scope of this assessment.

12.0 Safety Issues

No safety issues were identified within the scope of this assessment.

13.0 Conclusions

This Transport Impact Statement has been prepared by Transcore on behalf of Opal Aged Care with regards to the proposed Opal Aged Care Facility (ACF), located at Lot 7002 Abelia Road, Treeby, in the City of Cockburn.

The northern precinct of the Calleya Structure Plan area is currently under construction with the majority of the internal roads and some residential dwellings already been constructed. Once the Structure Plan is fully developed the site would feature good connectivity with the surrounding road and pedestrian network with good public transport coverage facilitated via proposed bus services in the vicinity.

The traffic analysis undertaken in this report shows that the traffic generation of the proposed development is moderate (less than 100vph in peak hour) and as such would have insignificant impact on the surrounding road network.

The development application proposes the provision of 58 car bays which meets the anticipated parking demand based on comparable similar aged care facility examples within metropolitan area.

Accordingly, the findings of this Transport Impact Statement are supportive of the proposed aged care facility development.

Appendix A

PROPOSED DEVELOPMENT PLANS

PRELIMINARY



OPAL TREEBY
SITE AND GROUND FLOOR PLAN

12/04/2019 13-002

SCALE 1:200 @ A1

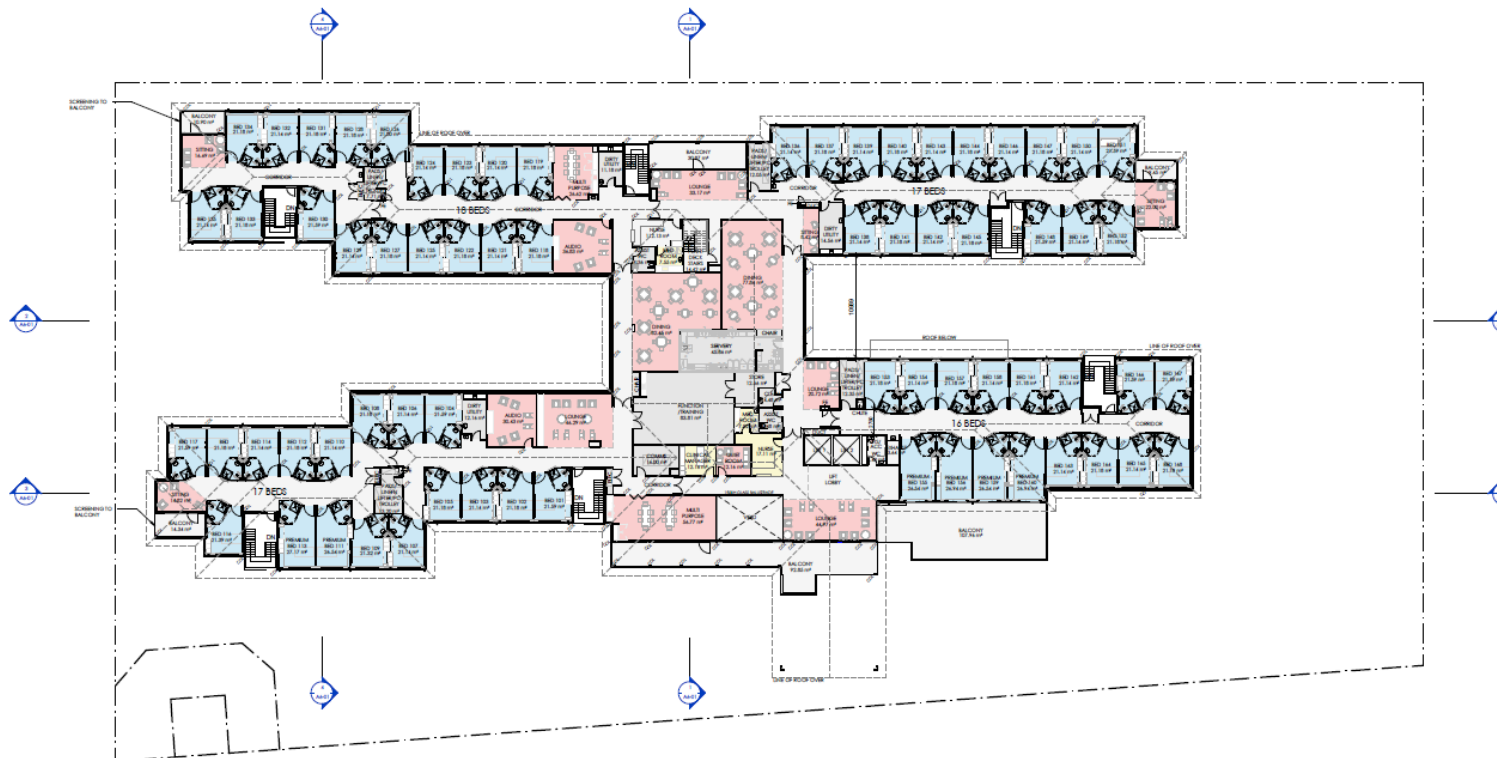


PRELIMINARY
A2-01
DRAWING

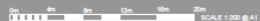
4 Broomfield Street, South Perth, WA 6150
P 08 9437 1234
F 08 9437 1235
E info@kpaarchitects.com.au
W www.kpaarchitects.com.au



PRELIMINARY



OPAL TREEBY
FIRST FLOOR PLAN
13/04/2018

PRELIMINARY
A2-02
DISCUSS

100

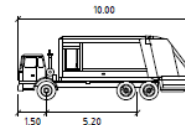
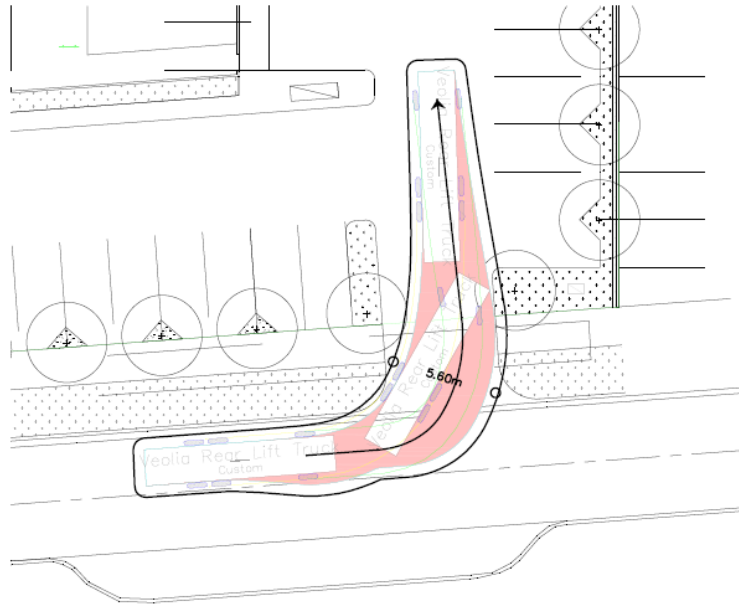
4 Bowman Street, South Perth, WA
PO Box 371, South Perth, WA 6151
P 41 8 9367 4844
E admin@po-architects.com
W po-architects.com
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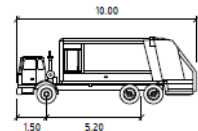
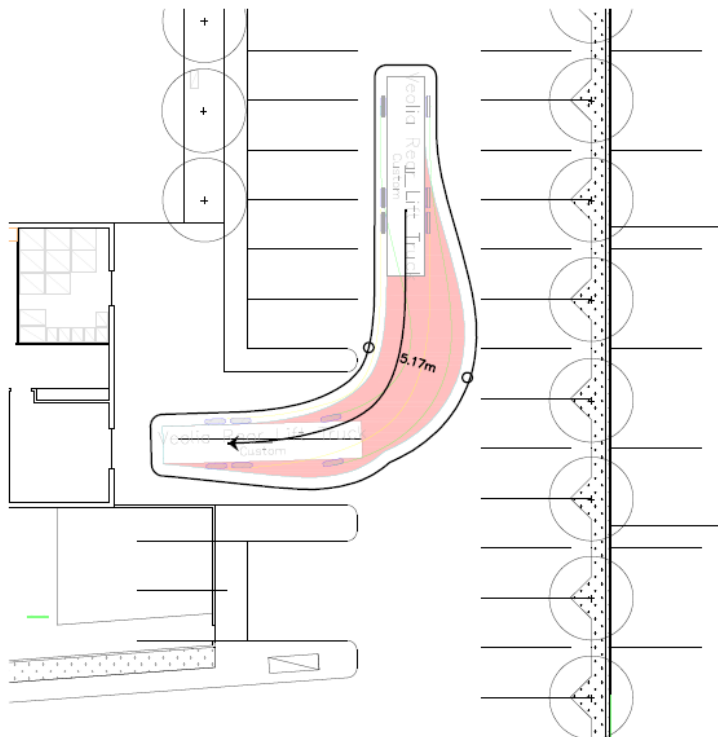
Appendix B

SWEPT PATH ANALYSIS



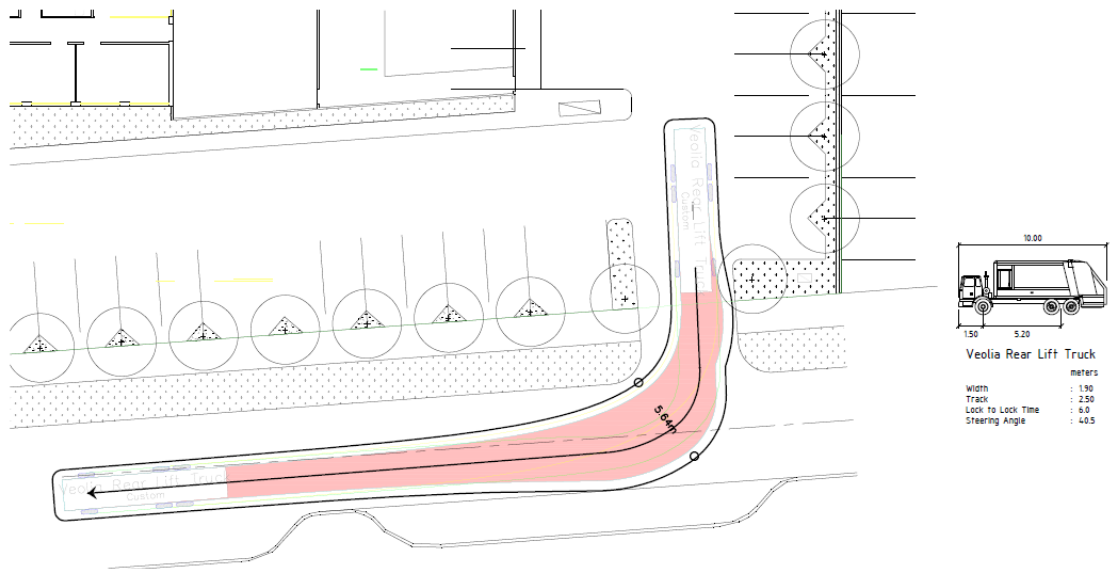
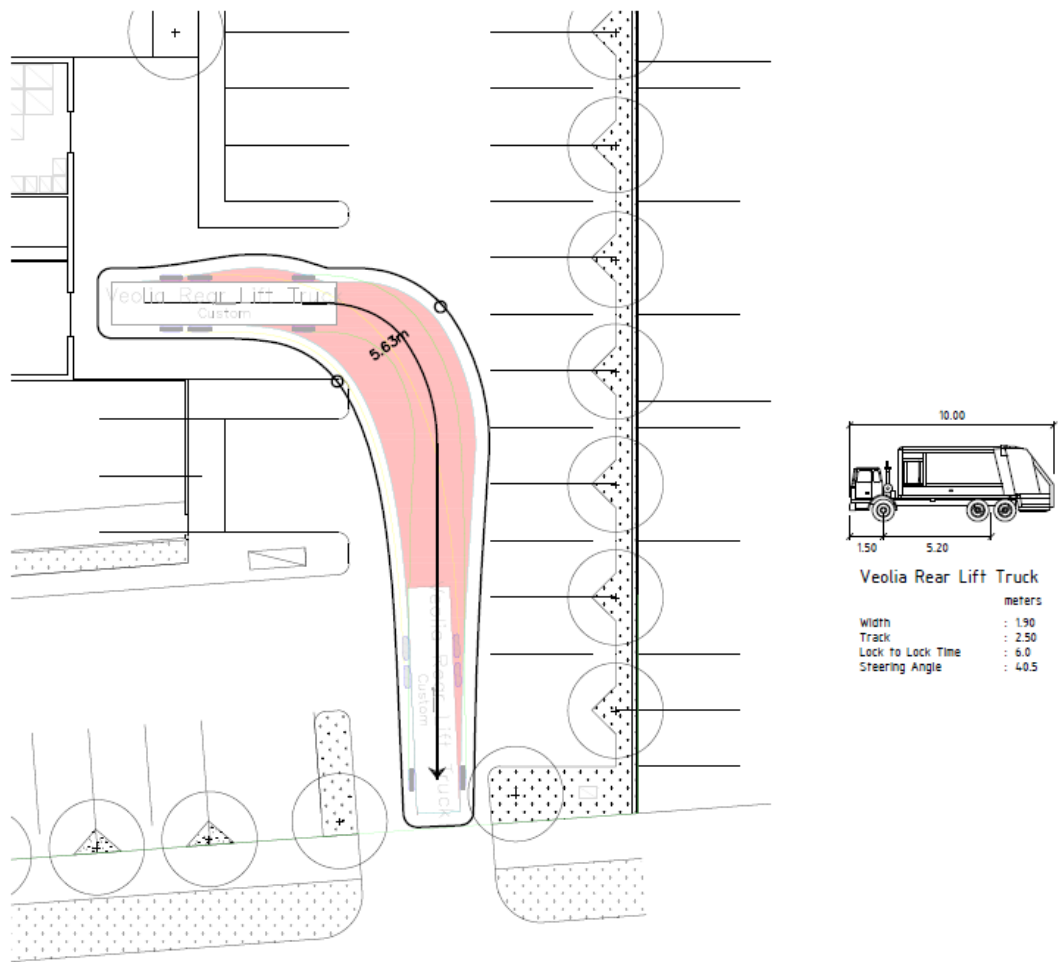
Veolia Rear Lift Truck

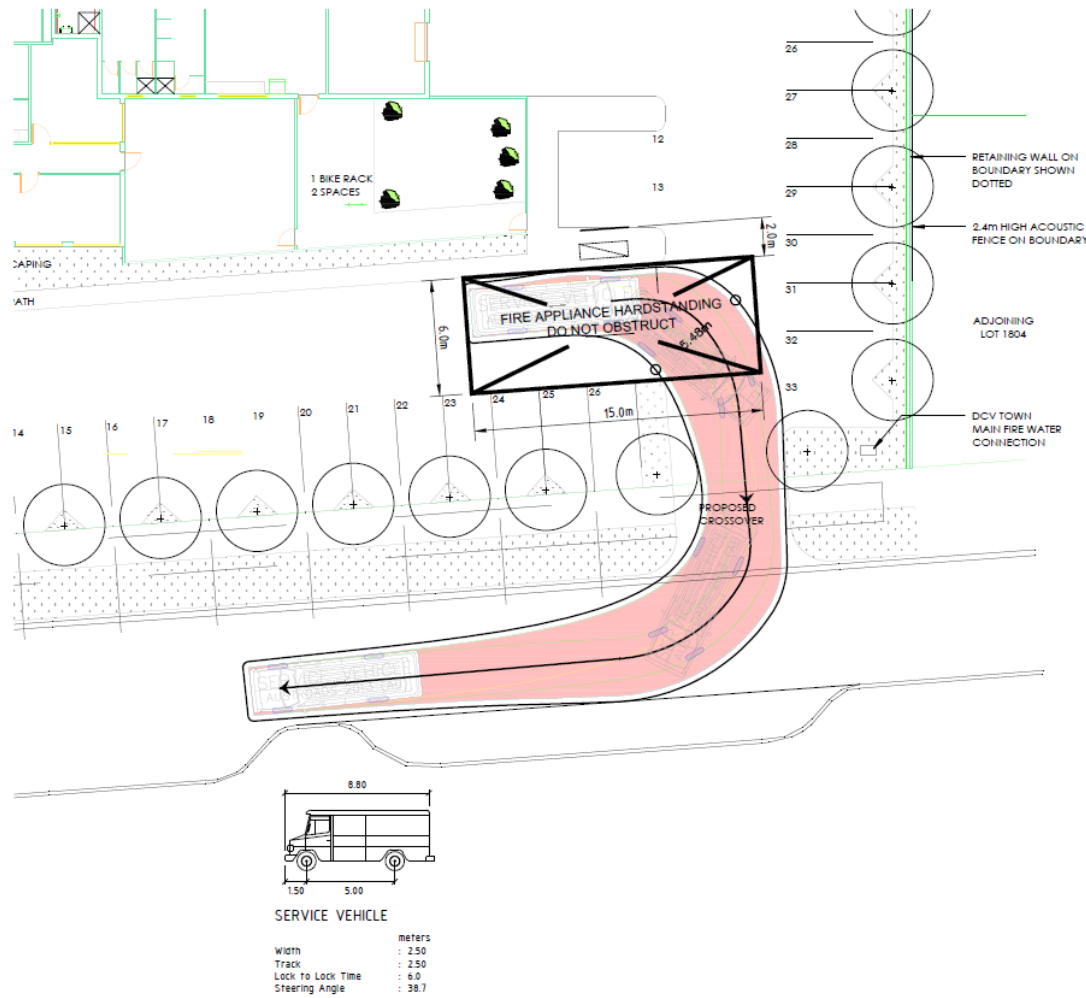
	units
width	: 1.90
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 40.5



Veolia Rear Lift Truck

	units
width	: 1.90
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 40.5





Bushfire Management Plan Coversheet

This Coversheet and accompanying Bushfire Management Plan has been prepared and issued by a person accredited by Fire Protection Association Australia under the Bushfire Planning and Design (BPAD) Accreditation Scheme.

Bushfire Management Plan and Site Details

Site Address / Plan Reference: Opal Treeby Aged Care Facility

Suburb: Treeby

State: WA

P/code: 6164

Local government area: City of Cockburn

Description of the planning proposal: Development Application

BMP Plan / Reference Number: OPA17298.01

Version: R001 Rev 0

Date of Issue: 23/04/2018

Client / Business Name: Opal Aged Care

Reason for referral to DFES	Yes	No
Has the BAL been calculated by a method other than method 1 as outlined in AS3959 (tick no if AS3959 method 1 has been used to calculate the BAL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Have any of the bushfire protection criteria elements been addressed through the use of a performance principle (tick no if only acceptable solutions have been used to address all of the BPC elements)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the proposal any of the following special development types (see SPP 3.7 for definitions)?		
Unavoidable development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Strategic planning proposal (including rezoning applications)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Minor development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
High risk land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vulnerable land-use	<input checked="" type="checkbox"/>	<input type="checkbox"/>

If the development is a special development type as listed above, explain why the proposal is considered to be one of the above listed classifications (E.g. considered vulnerable land-use as the development is for accommodation of the elderly, etc.)?

The proposal is for an aged care facility (i.e. vulnerable land use)

Note: The decision maker (e.g. local government or the WAPC) should only refer the proposal to DFES for comment if one (or more) of the above answers are ticked "Yes".

BPAD Accredited Practitioner Details and Declaration

Name	Accreditation Level	Accreditation No.	Accreditation Expiry
Zac Cockerill	Level 2	BPAD37803	31/08/2018
Company		Contact No.	
Strategen Environmental		9792 4797	

I declare that the information provided within this bushfire management plan is to the best of my knowledge true and correct

Signature of Practitioner



Date 23/04/2018



intelligent outcomes | respected experience

Opal Treeby Aged Care Facility

Bushfire Management Plan Development Application

Prepared for
Opal Aged Care
by Strategen

April 2018



Opal Treeby Aged Care Facility

Bushfire Management Plan Development Application

Strategen is a trading name of
Strategen Environmental Consultants Pty Ltd
Level 1, 50 Subiaco Square Road Subiaco WA 6008
ACN: 056 190 419

April 2018

Limitations

Scope of services

This report ("the report") has been prepared by Strategen Environmental Consultants Pty Ltd (Strategen) in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and Strategen. In some circumstances, a range of factors such as time, budget, access and/or site disturbance constraints may have limited the scope of services. This report is strictly limited to the matters stated in it and is not to be read as extending, by implication, to any other matter in connection with the matters addressed in it.

Reliance on data

In preparing the report, Strategen has relied upon data and other information provided by the Client and other individuals and organisations, most of which are referred to in the report ("the data"). Except as otherwise expressly stated in the report, Strategen has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. Strategen has also not attempted to determine whether any material matter has been omitted from the data. Strategen will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to Strategen. The making of any assumption does not imply that Strategen has made any enquiry to verify the correctness of that assumption.

The report is based on conditions encountered and information received at the time of preparation of this report or the time that site investigations were carried out. Strategen disclaims responsibility for any changes that may have occurred after this time. This report and any legal issues arising from it are governed by and construed in accordance with the law of Western Australia as at the date of this report.

Environmental conclusions

Within the limitations imposed by the scope of services, the preparation of this report has been undertaken and performed in a professional manner, in accordance with generally accepted environmental consulting practices. No other warranty, whether express or implied, is made.

Document control

Client: Opal Aged Care

Report Version	Revision No.	Purpose	Strategen author/reviewer and accreditation details	Submitted to Client	
				Form	Date
Draft Report	Rev A	For review by client	L Robertson (BPAD36748) / Z Cockerill (BPAD37803)	Electronic (email)	16/04/2018
Final Report	Rev 0	Issued for use: to accompany DA submission	L Robertson (BPAD36748) / Z Cockerill (BPAD37803)	Electronic (email)	23/04/2018

Filename: OPA17298_01 R001 Rev 0 - 23 April 2018

Table of contents

1. Proposal details	1
1.1 Project area and proposed development	1
1.2 Premise occupancy	1
1.3 Supporting reports	2
2. Environmental considerations	5
2.1 Native vegetation – modification and clearing	5
2.2 Revegetation/Landscape Plans	5
3. Bushfire assessment results	6
3.1 Assessment inputs	6
3.1.1 Vegetation classification	6
3.1.2 Effective slope	6
3.2 Assessment outputs	8
4. Identification of bushfire hazard issues	10
5. Assessment against the bushfire protection criteria	11
5.1 Compliance	11
5.2 Additional management strategies	13
5.2.1 Vulnerable Land Use	13
5.2.2 Bushfire Emergency Evacuation Plan (BEEP)	13
5.2.3 Landscape plan	13
6. Responsibilities for implementation and management of the bushfire measures	14
7. References	15

List of tables

Table 1: Maximum site occupancy	1
Table 2: Method 1 BAL calculation	8
Table 3: Compliance table	11
Table 4: Responsibilities for implementation and management of bushfire management measures	14

List of figures

Figure 1: Site plan	3
Figure 2: Site overview	4
Figure 3: Classified vegetation and effective slope	7
Figure 4: BAL Contour map	9

List of appendices

Appendix 1 Bushfire Emergency Evacuation Plan (BEEP)
Appendix 2 Landscape Concept Plan
Appendix 3 Schedule 1: Standards for Asset Protection Zones (APZs)
Appendix 4 Georeferenced site photographs
Appendix 5 City of Cockburn Fire Control Order

1. Proposal details

1.1 Project area and proposed development

Opal Aged Care is proposing to develop an aged care facility at Lot 7002 Abelia Road, Treeby (hereon referred to as the project area) through a Development Application (DA) to City of Cockburn (the City). The project area is part of the broader land subdivision known as Calleya.

The proposed development comprises a 120 bed facility with an Allied Health component spread over two floors, along with parking bays, internal access roads and landscaping. The ground floor plan for proposed development is provided in Figure 1. The proposed building is categorised as BCA Class 9c and is not formally required to be constructed to AS 3959—2009 *Construction of Buildings in Bushfire-Prone Areas* (AS 3959; SA 2009).

The project area is approximately 0.9679 ha in area and is surrounded by the following as per Figure 2:

- existing residential development to the west, northwest and southwest
- proposed Retirement Living (RL) site directly to the north
- vacant land proposed for future residential development to the east and northeast
- Parks and Recreation reserve to the southeast and south comprising landscaped areas (including Calleya Dog Park and Community Garden) as well as areas of remnant banksia woodland vegetation).

The project area is designated as bushfire prone on the *Map of Bush Fire Prone Areas* (DFES 2017; see Plate 1). Strategen has prepared this Bushfire Management Plan (BMP) in accordance with *Guidelines for Planning in Bushfire Prone Areas* (the Guidelines; WAPC 2017) to accompany the DA and address Policy Measure 6.5 of *State Planning Policy 3.7 Planning in Bushfire-Prone Areas* (SPP 3.7; WAPC 2015).

The proposed development is considered to be a vulnerable land use on the basis that occupants of the facility will include elderly persons with reduced mental and/or physical ability. DAs for vulnerable land uses in areas of BAL-12.5 to BAL-29 are to be accompanied by a Bushfire Emergency Evacuation Plan (BEEP). The BEEP is referenced in Section 5.2.2 and fully contained in Appendix 1.

1.2 Premise occupancy

The proposed development comprises two storeys, being the ground floor and Level 1. The facility will be staffed over three separate shifts and occupied 24 hours a day. The maximum number of staff and residents occupying each shift are summarised in Table 1.

Table 1: Maximum site occupancy

Shift	Occupants	Weekday	Weekend
7am to 3pm	Residents	120	120
	Staff	28	23
3pm to 11pm	Residents	120	120
	Staff	18	17
11pm to 7am	Residents	120	120
	Staff	5	5

1.3 Supporting reports

Strategen has been responsible for all bushfire management planning to date for Stockland's Calleya Residential Development, including preparation of BMPs to support strategic planning, subdivision and building stages. Strategen was also responsible for preparing bushfire management documentation and the BEEP for the RL site directly north of the project area. This BMP is generally consistent with assessment results from previous reports.

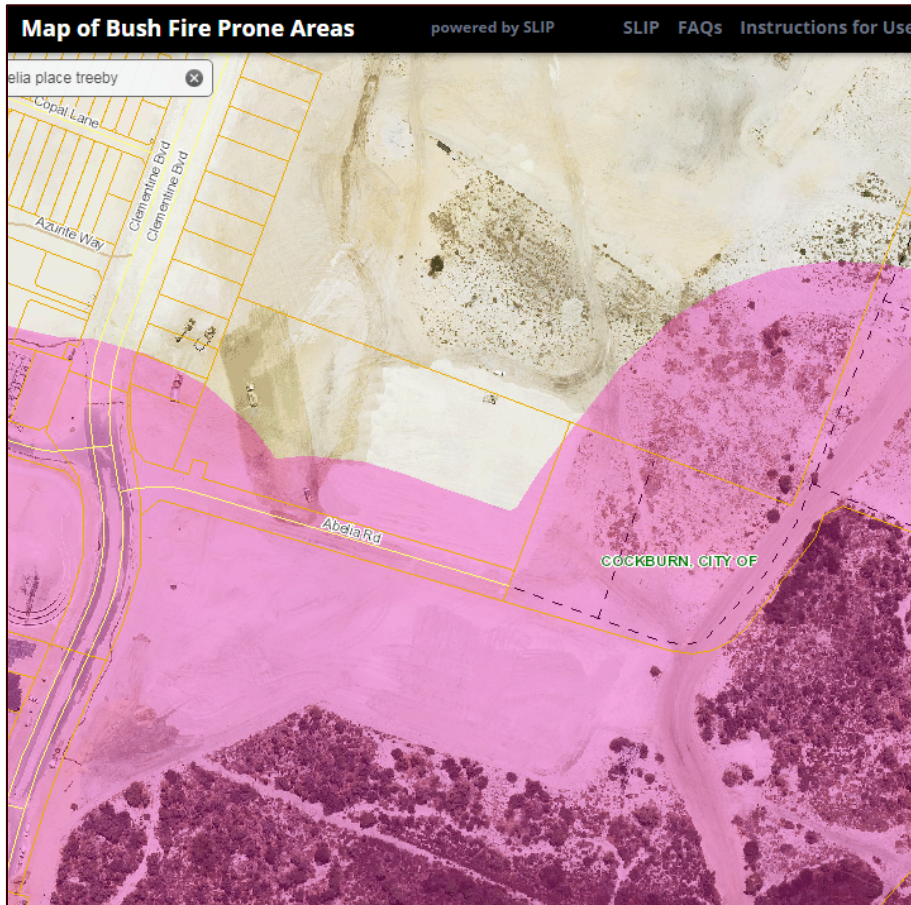


Plate 1: Current DFES bushfire prone area designation



Source: KPA Architects 2018

Figure 1: Site plan

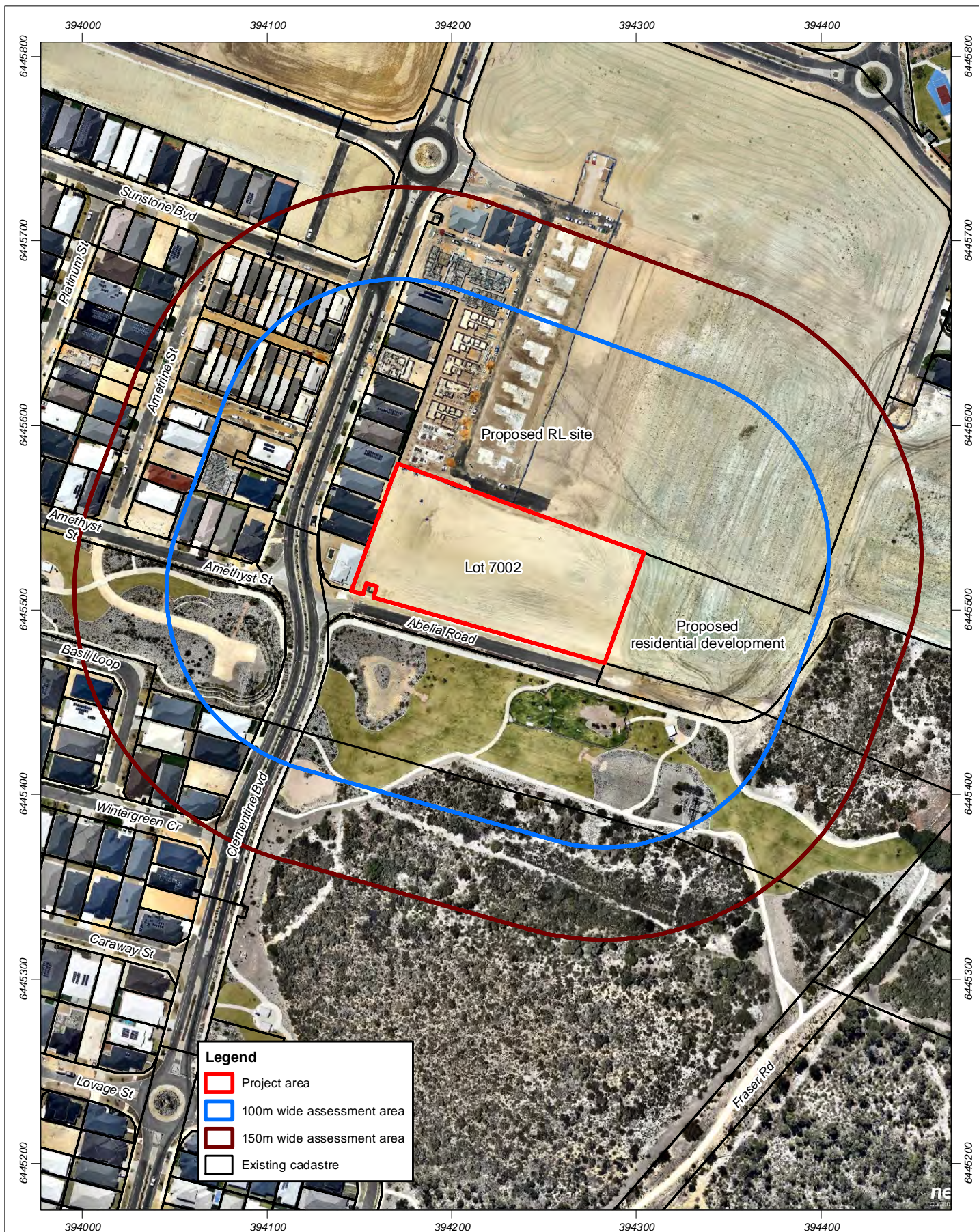


Figure 2 Site overview

Scale 1:2,800 at A4



Coordinate System: GDA 1994 MGA Zone 50
 Note that positional errors may occur in some areas
 Date: 14/03/2018

Author: JCrute
 Source: Aerial image: Nearmap, flown 02/2018.
 Existing cadastre: Landgate 2017.

Path: Q:\Consult\2017\OPA\OPA17298\01_GIS_documents\ArcMap_documents\OPA17298_G002_RevA.mxd

2. Environmental considerations

2.1 Native vegetation – modification and clearing

The project area has been fully cleared; therefore, no modification or clearing of native vegetation is proposed as part of the development.

A search of publicly available environmental data concluded that:

- the project area does not include any mapped:
 - * environmentally sensitive areas
 - * wetlands or waterways
 - * Bush Forever sites.
- the Banksia Woodlands EPBC listed Threatened Ecological Community is mapped as being likely to occur within the project area; however, as the site has been fully cleared, it is known that this TEC does not occur within the site
- Bush Forever site 390 lies approximately 380 m east of the project area.

2.2 Revegetation/Landscape Plans

The project area has been fully cleared and broad scale revegetation is not proposed as part of the proposed development.

A Landscape Concept Plan has been prepared for the project area and is included in Appendix 2. Landscaping design includes areas of open turf, raised planter beds, feature trees, visual screening buffers and landscaped garden beds. Strategen has reviewed the proposed landscape concept and considers that future landscaping will comply with exclusion clause 2.2.3.2 (f) of AS 3959 and the standards for Asset Protection Zones (APZs) outlined in the Guidelines (refer to Schedule 1 of the Guidelines contained in Appendix 3).

3. Bushfire assessment results

3.1 Assessment inputs

3.1.1 Vegetation classification

Strategen assessed classified vegetation and exclusions within 150 m of the project area through on-ground verification on 7 March 2018 in accordance with AS 3959 methodology. Results are illustrated in Figure 3 and georeferenced site photos are contained in Appendix 4.

A summary of the assessed classified vegetation is as follows:

- Class B Woodland (banksia woodland) occurs to the east and south of the project area within Lot 8021 Clementine Boulevard and the vegetation consists predominantly of banksias with a canopy cover less than 30% and an understorey of scrub and shrub-type species and grasses.

A summary of the assessed exclusions are as follows:

- Clause 2.2.3.2 (e) (non-vegetated areas) occur throughout all surrounding areas of permanently non-vegetated land such as the public road network and built form within residential properties.
- Clause 2.2.3.2 (f) (low threat vegetation) occur within:
 - * managed parkland areas to the south of Amethyst Street and Abelia Road where the vegetation comprises maintained and reticulated lawns and low threat landscaping of feature trees and low shrubs that are coarsely mulched (it is understood that the City is responsible for maintaining these parkland areas in a low threat state in perpetuity)
 - * surrounding residential lots to the north and east that contain maintained lawns and cultivated gardens where maintenance of the vegetation in a low threat state is enforceable under the City of Cockburn Firebreak Notice (Appendix 5), which requires lots less than 2032 m² in area to “Have all flammable materials such as long dry grass and weeds slashed, mown or trimmed down by other means to a maximum height of 50 mm across the entire property for the duration of this Firebreak Time”
 - * adjacent lots to the north (Lot 7001) and east (Lot 9033) that have been previously cleared, hydro-mulched and subjected to earthworks where the vegetation comprises managed weed growth and is considered to meet the low threat criteria until future development of these lots occurs (as per requirements of previous BMPs).

3.1.2 Effective slope

Strategen measured slope under the classified vegetation in accordance with the method detailed in AS 3959. The assessment indicated that the Class B Woodland vegetation to the south and east of the site is on flat land, as stated in (Figure 3).

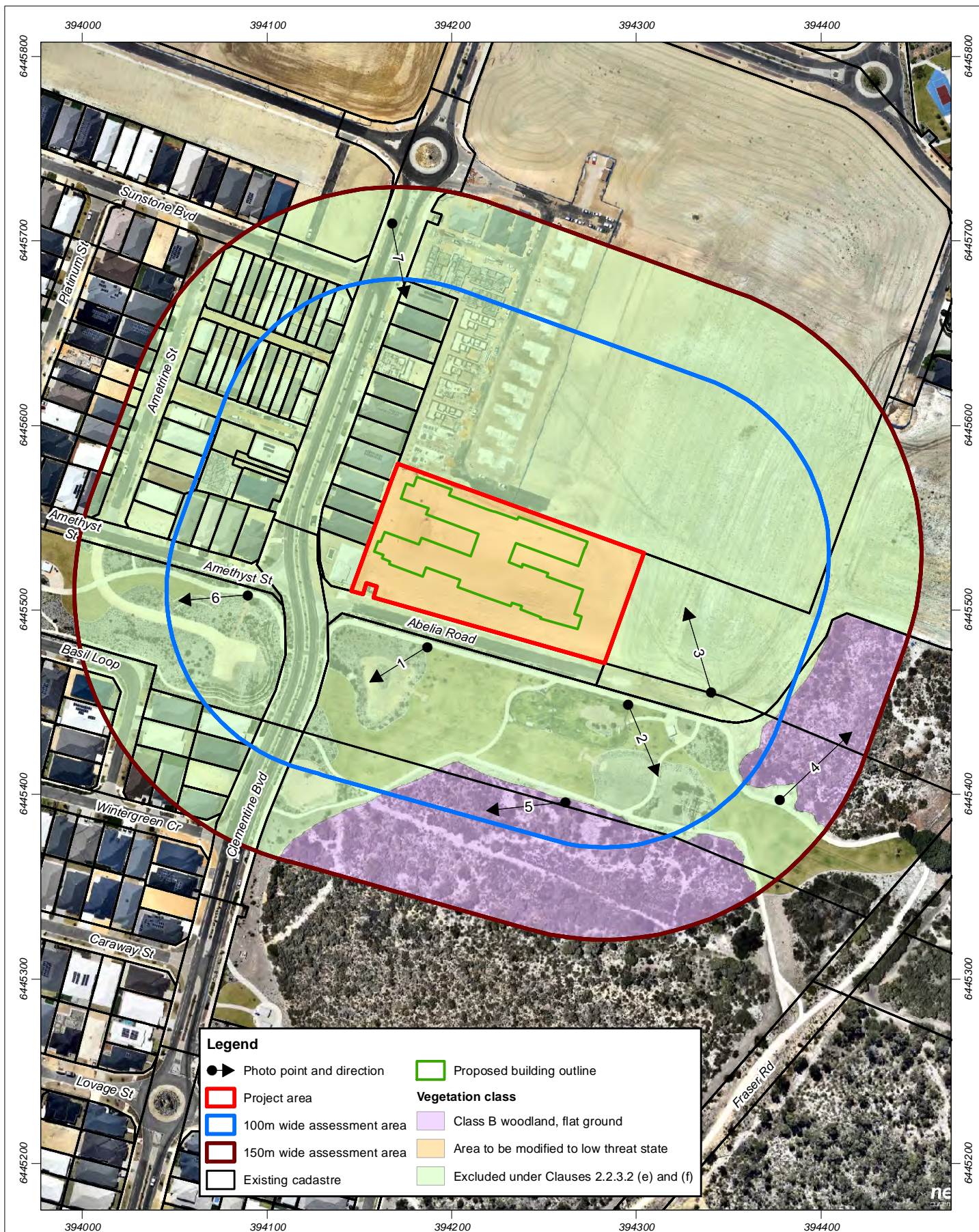
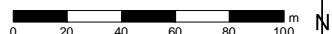


Figure 3 Classified vegetation and effective slope

Scale 1:2,800 at A4



Coordinate System: GDA 1994 MGA Zone 50

Note that positional errors may occur in some areas

Date: 14/03/2018

Author: JCrute

Source: Aerial image: Nearmap, flown 02/2018.

Existing cadastre: Landgate 2017.

Path: Q:\Consult\2017\OPA\OPA17298\01_GIS_documents\ArcMap_documents\OPA17298_G003_RevA.mxd

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3.2 Assessment outputs

Any proposed habitable development that cannot achieve a full 100 m wide low fuel separation distance to classified vegetation will require application of AS 3959 to determine appropriate location and siting of development and potential increased building construction standards in response to the assessed BAL.

Strategen has undertaken a BAL contour assessment in accordance with Method 1 of AS 3959 for the project area (Figure 4), based on the proposed development layout. The Method 1 procedure for calculating the BAL (as outlined in AS 3959) incorporates the following factors:

- state-adopted FDI rating (FDI 80)
- vegetation class
- effective slope
- distance maintained between the proposed building areas and the classified vegetation.

The BAL rating gives an indication of the level of bushfire attack (i.e. the radiant heat flux) that may be received by proposed development and subsequently informs the standard of building construction and/or setbacks required for proposed development to potentially withstand such impacts.

The assessed BAL contours are depicted in Figure 4. The width of each BAL contour is set in accordance with AS 3959 and reflects the relevant BAL rating applicable to the respective Class B woodland vegetation on flat ground (refer to Table 2).

The BAL contours are based on post-development conditions and take into consideration proposed low-threat landscaping around the proposed building. Should there be any changes in development design or classified vegetation extent that requires a modified bushfire management response, then the BAL contours will need to be reassessed for the affected areas and documented in a brief addendum to this BMP prepared to accompany future planning applications.

Table 2 below indicates that the highest BAL applicable to the proposed building is BAL-12.5.

Table 2: Method 1 BAL calculation

Classified vegetation	Effective slope	BAL contour width	BAL rating	Comment
Class B woodland to the south and east	Flat land (0 degrees)	<10 m	BAL-FZ	No development is proposed within this area
		10-<14 m	BAL-40	No development is proposed within this area
		14-<20 m	BAL-29	No development is proposed within this area
		20-<29 m	BAL-19	No development is proposed within this area
		29-<100 m	BAL-12.5	South-eastern portion of proposed building occurs within this area
		≥100 m	BAL-LOW	Majority of proposed building occurs within this area

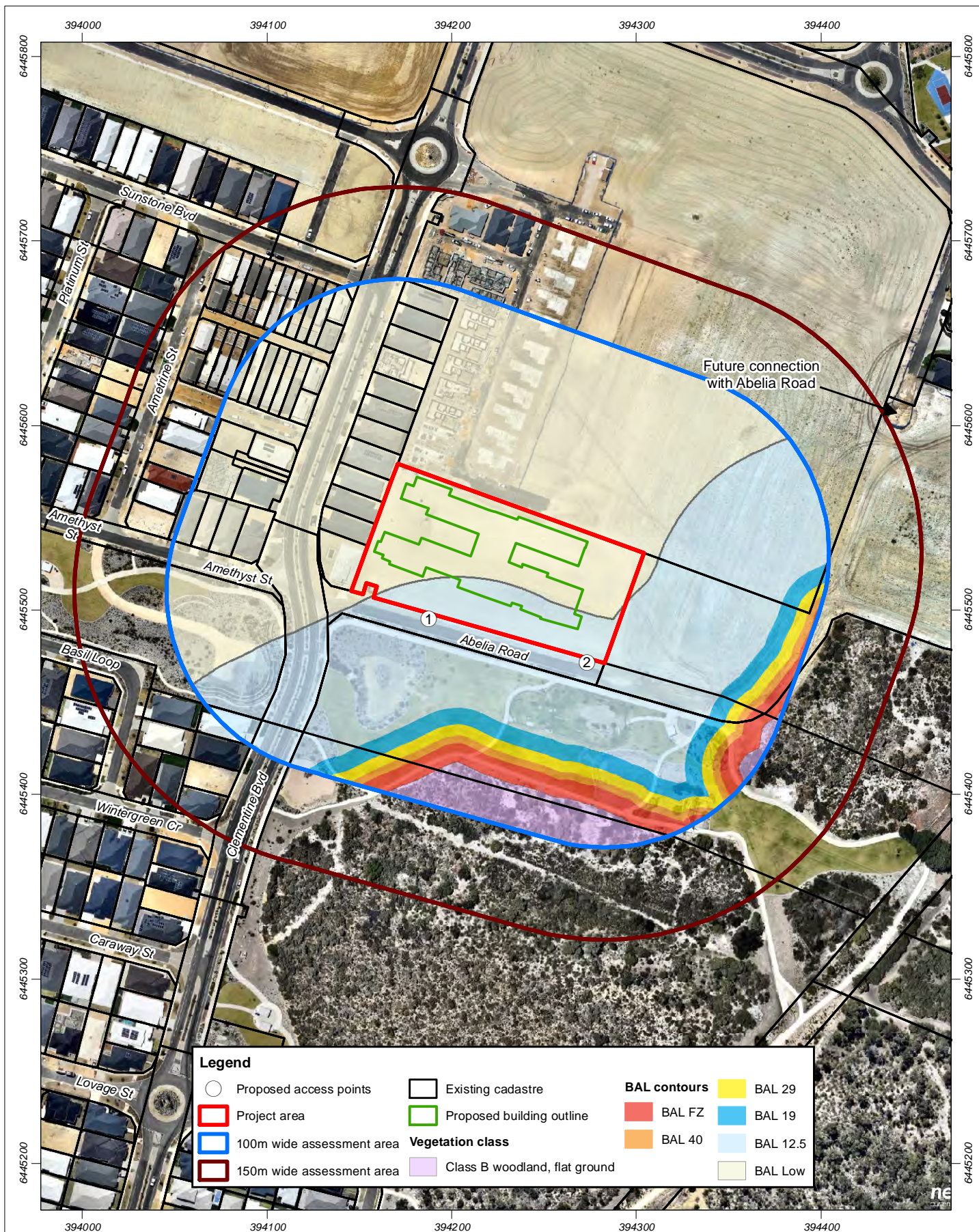
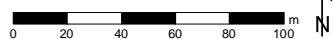


Figure 4 BAL contour map

Scale 1:2,800 at A4



Coordinate System: GDA 1994 MGA Zone 50

Note that positional errors may occur in some areas

Date: 14/03/2018

Author: JCrute

Source: Aerial image: Nearmap, flown 02/2018.

Existing cadastre: Landgate 2017.

Path: Q:\Consult\2017\OPA\OPA17298\01_GIS_documents\ArcMap_documents\OPA17298_G001_RevB.mxd

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4. Identification of bushfire hazard issues

The development has the potential to be impacted by a bushfire occurring within remnant banksia woodland and broader scrub to the south and east. The vegetation is partially fragmented with a network of firebreaks but has the potential to support fire runs from 500–900 m from the southeast.

The maintained parkland area to the south of the site and future residential development areas to the east provide substantial buffers between bushfire hazards and proposed development. As a result of this defensible space, Strategen considers the potential radiant heat impact on proposed development would be minimal; however, potential ember attack is possible, which is consistent with the assessed BAL-12.5 rating.

The proposed development is a Class 9c building so there is no statutory requirement for the proposed building to meet the construction requirements of AS 3959. However, in response to the abovementioned residual risk from ember attack, the proponent has advised that the building will be voluntarily fitted with ember protection features to increase building resilience.

The site is serviced by Abelia Road, which is an existing temporary cul-de-sac of approximately 160 m in length extending from the primary road in Clementine Boulevard. The terminus of the road is provided with a compliant temporary cul-de-sac head which allows emergency and other vehicles to turn around safely easily and at all times. Alternatively, vehicles could utilise the internal loop road to be constructed as part of development within the site to turn around. In this regard, Strategen does not consider the temporary cul-de-sac to be prohibitive to development. Abelia Road is planned to be extended in the short term to meet with the northern portion of Abelia Road, which lies approximately 170 m northeast of the current terminus. Connection of Abelia Road will remove the dead-end and the development will be provided with through access to the public road network to the northeast of the site, providing additional access and egress options in this direction.

The development will incorporate low threat landscaping into detailed design, which is demonstrated in the Landscape Concept Plan (see Appendix 2).

The proposed development is subject to a BAL-12.5 rating and the bushfire protection criteria applicable to development are addressed in Section 5.

5. Assessment against the bushfire protection criteria

5.1 Compliance

In response to the requirements of SPP 3.7 and the Guidelines, bushfire management measures have been devised for the proposed development in accordance with the acceptable solutions to meet compliance with bushfire protection criteria. An 'acceptable solutions' assessment is provided in Table 3 to assess the proposed bushfire management measures against each bushfire protection criteria in accordance with the Guidelines and demonstrate that the measures proposed meet the intent of each element of the bushfire protection criteria.

Table 3: Compliance table

Bushfire protection criteria	Method of compliance	Proposed bushfire management strategies
	Acceptable solutions	
Element 1: Location	A1.1 Development location	The proposed building is located in an area subject to a worst case rating of BAL-12.5 (refer to Figure 4).
Element 2: Siting and design	A2.1 Asset Protection Zone	The entire site is to be maintained as an APZ in accordance with Schedule 1 of the Guidelines (see Appendix 3). The proposed Landscape Concept Plan (see Appendix 2) will ensure that implementation and maintenance of landscaping within the site meets the requirements of Schedule 1 and low threat vegetation excluded under Clause 2.2.3.2 (f).
Element 3: Vehicular access	A3.1 Two access routes.	The site is directly accessed by two access points from Abelia Road as shown in Figure 4. Abelia Road connects with Clementine Boulevard and Amethyst Road approximately 25m west of the site (65 m from the closest access point into the site. Clementine Boulevard is a major dual lane road providing access to the wider public road network to the north and south and Amethyst Road provides direct access to the west. In this regard, the development is considered to achieve at least two access routes.
	A3.2 Public road	N/A No public roads are proposed as part of the development.
	A3.3 Cul-de-sac (including a dead-end-road)	N/A The proposed development does not include the construction of any new cul-de-sacs. Abelia Road is an existing compliant temporary cul-de-sac of approximately 160 m in length. A compliant temporary turnaround area is provided at its terminus. The dead-end will be removed once the planned construction of Abelia Road is continued northeast to connect with the northern dead-end of Abelia Road as shown in Figure 4. In addition to the sufficient turnaround area provided at the end of Abelia Road, emergency services and the public would be able to use the private loop road within the site to turn around easily and safely in the event of an emergency. Therefore, the temporary dead-end is not considered to be prohibitive to development.
	A3.4 Battle-axe	N/A The subject lot is not a battle-axe lot.

Bushfire protection criteria	Method of compliance	Proposed bushfire management strategies
	Acceptable solutions	
	A3.5 Private driveway longer than 50 m A private driveway is to meet detailed requirements contained within the Guidelines	N/A No private driveways longer than 50 m are proposed.
	A3.6 Emergency access way	N/A The proposed development does not require EAWs to provide through access to a public road.
	A3.7 Fire service access routes (perimeter roads)	N/A The proposed development does not require FSARs to provide access to the perimeter of the site as the surrounding land to the north and east is currently low threat and planned for future residential development.
	A3.8 Firebreak width	On completion of development, the project area will be fully developed and managed in a low threat state. In this regard, the City of Cockburn Firebreak Notice provisions for lots 2032 m ² and greater (refer to Appendix 5) are not considered to be applicable.
Element 4: Water	A4.1 Reticulated areas	The project area is serviced by existing reticulated hydrants with the nearest hydrant located on Clementine Boulevard, opposite Azurite Way, approximately 130 m northwest of the project area. The Site Plan (Figure 1) shows a main fire water connection in the southeast corner of the site and a fire hydrant located at the eastern end of the MSU Courtyard.
	A4.2 Non-reticulated areas	N/A The project area will be provided reticulated water supply.
	A4.3 Individual lots within non-reticulated areas (Only for use if creating 1 additional lot and cannot be applied cumulatively)	N/A The project area will be provided reticulated water supply.

5.2 Additional management strategies

5.2.1 Vulnerable Land Use

The proposed aged care facility will accommodate elderly persons with reduced physical and/or mental ability. The development is therefore considered a vulnerable land use as defined in Section 5.5 of the Guidelines.

5.2.2 Bushfire Emergency Evacuation Plan (BEEP)

In accordance with Policy Measure 6.6 of SPP 3.7, DAs for vulnerable land uses in areas where BAL-12.5 to BAL-29 applies are to be accompanied by a BEEP. A BEEP has been prepared for the proposed development and is included in Appendix 1.

Emergency evacuation for proposed occupants is a key measure to assist in mitigating the bushfire risk to life assets occupying the facility. Strategen considers that the emergency response and evacuation measures contained in the BEEP will provide sufficient shelter in place procedures or for prompt off-site evacuation to ensure protection of life assets as a minimum.

Pre-emergency actions

The BEEP identifies two key pre-emergency actions to ensure a high level of site diligence and duty of care for on-site occupants is maintained:

- should the Fire Danger Rating be 'Severe' or greater, nominated staff will monitor the DFES website for notification of any bushfire within the local area
- on days where the Fire Danger Rating is 'Extreme' or 'Catastrophic', nominated staff will alert all on-site occupants of the increased bushfire risk and potential for an emergency bushfire evacuation to be activated if required in accordance with the BEEP and nominated evacuation assembly areas.

Emergency actions

The BEEP has been developed to provide immediate actions to be followed to achieve the orderly movement of people as far as practicable should a bushfire emergency occur that has the potential to adversely impact the site. The BEEP specifies roles and responsibilities for both shelter in place and off-site evacuation procedures as a result of a bushfire.

Shelter in place procedures are identified as the primary action due to the limited bushfire impact potential and the logistics and amount of time involved in arranging off-site evacuation for relatively high numbers of special needs occupants at short notice. However, if sufficient time is available and a full off-site evacuation is deemed to be the most appropriate form of action on advice from emergency services, an appropriate assembly area has been identified in the BEEP to facilitate off-site evacuation to the nominated destination, which is to be determined by emergency services on the day (likely to be Fiona Stanley Hospital given the high level needs and care required by occupants).

5.2.3 Landscape plan

The Landscape Plan contained in Appendix 2 will need to be implemented to ensure exclusions for low threat vegetation are implemented and maintained around the proposed building in accordance with Clause 2.2.3.2 (f) and the APZ standards detailed in Schedule 1 of the Guidelines (refer to Appendix 3).

6. Responsibilities for implementation and management of the bushfire measures

Implementation of the BMP applies to the developer, prospective landowners and the City to ensure bushfire management measures are adopted and implemented on an ongoing basis. A bushfire compliance table is provided in Table 4 to drive implementation of all bushfire management works associated with this BMP.

Table 4: Responsibilities for implementation and management of bushfire management measures

Developer/Landowner – prior to sale or occupancy	
No.	Implementation action
1	Establish an Asset Protection Zone (APZ) across the full site area (i.e. around the proposed building footprint) in accordance with relevant standards provided in Appendix 3
2	Establish low threat landscaping within the APZ in accordance with the proposed Landscape Plan (Appendix 2)
3	Install the internal firefighting hydrant system depicted on the Site Plan
Landowner/occupier – ongoing management	
No.	Management action
1	Maintain the Asset Protection Zone (APZ) to the dimensions and standard stated in the BMP (Appendix 3)
2	Maintain low threat landscaping within the APZ in accordance with the proposed Landscape Plan (Appendix 2)
3	Comply with the relevant local government annual firebreak notice issued under s33 of the <i>Bush Fires Act 1954</i> (refer to Appendix 5)
4	Maintain the internal firefighting hydrant system in good working condition
5	Implement the BEEP (contained in Appendix 1) as and when required
Local Government – ongoing management	
No.	Management action
1	Ensure compliance with the annual firebreak notice issued under s33 of the <i>Bush Fires Act 1954</i> where applicable (as per Appendix 5)

7. References

Department of Fire and Emergency Services (DFES) 2017, *Map of Bush Fire Prone Areas*, [Online], Government of Western Australia, available from:
<http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/Pages/default.aspx>, [3/04/2018].

Standards Australia (SA) 2009, *Australian Standard AS 3959–2009 Construction of Buildings in Bushfire-prone Areas*, Standards Australia, Sydney.

Western Australian Planning Commission (WAPC) 2015, *State Planning Policy 3.7 Planning in Bushfire-Prone Areas*, Western Australian Planning Commission, Perth.

Western Australian Planning Commission (WAPC) 2017, *Guidelines for Planning in Bushfire-Prone Areas*, Western Australian Planning Commission, Perth.

Appendix 1
Bushfire Emergency Evacuation Plan
(BEEP)



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Bushfire Emergency Evacuation Plan

Opal Aged Care Facility: Lot 7002
Abelia Road, Treeby

Prepared for
Opal Aged Care
by Strategen

April 2018



Bushfire Emergency Evacuation Plan

**Opal Aged Care Facility: Lot 7002
Abelia Road, Treeby**

Strategen is a trading name of
Strategen Environmental Consultants Pty Ltd
Level 1, 50 Subiaco Square Road Subiaco WA 6008
ACN: 056 190 419

April 2018

Limitations

Scope of services

This report ("the report") has been prepared by Strategen Environmental Consultants Pty Ltd (Strategen) in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and Strategen. In some circumstances, a range of factors such as time, budget, access and/or site disturbance constraints may have limited the scope of services. This report is strictly limited to the matters stated in it and is not to be read as extending, by implication, to any other matter in connection with the matters addressed in it.

Reliance on data

In preparing the report, Strategen has relied upon data and other information provided by the Client and other individuals and organisations, most of which are referred to in the report ("the data"). Except as otherwise expressly stated in the report, Strategen has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. Strategen has also not attempted to determine whether any material matter has been omitted from the data. Strategen will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to Strategen. The making of any assumption does not imply that Strategen has made any enquiry to verify the correctness of that assumption.

The report is based on conditions encountered and information received at the time of preparation of this report or the time that site investigations were carried out. Strategen disclaims responsibility for any changes that may have occurred after this time. This report and any legal issues arising from it are governed by and construed in accordance with the law of Western Australia as at the date of this report.

Environmental conclusions

Within the limitations imposed by the scope of services, the preparation of this report has been undertaken and performed in a professional manner, in accordance with generally accepted environmental consulting practices. No other warranty, whether express or implied, is made.

Client: Opal Aged Care

Report Version	Revision No.	Purpose	Strategen author/reviewer	Submitted to Client	
				Form	Date
Draft Report	Rev A	For review by client	L Robertson (BPAD36748) / Z Cockerill (BPAD37803)	Electronic (email)	16/04/2018
Final Report	Rev 0	Issued for use: to accompany DA submission as per Appendix 1 of BMP	L Robertson (BPAD36748) / Z Cockerill (BPAD37803)	Electronic (email)	23/04/2018

Filename: OPA17298_01 R002 Rev 0 - 23 April 2018

Table of contents

1. Introduction	1
1.1 Background	1
1.2 Purpose and application of the plan	1
2. Plan document control	1
3. Roles and responsibilities	2
4. Premise details	3
4.1 Premise occupancy and manning levels	3
4.2 Initial detection and suppression equipment	3
5. Bushfire awareness	3
5.1 Fire Danger Ratings	3
5.2 DFES warning system	4
6. Pre-emergency actions	4
6.1 Bushfire awareness	4
7. Emergency actions	5
7.1 Assembly areas	5
7.2 Occupants and visitors with special needs	5
7.3 Transport arrangements	5
7.4 Notifying family members	6
7.5 Security after evacuating	6
7.6 Evacuation procedures	6
7.6.1 On-site place of assembly and shelter	6
7.6.2 Off-site assembly areas	7
7.7 Evacuation diagram	8
7.8 Training and exercises	10
7.9 Distribution	10
8. Implementation	11
8.1 Document review	11
9. References	12

List of tables

Table 1: Controlled Copies	1
Table 2: Shelter-in-place evacuation procedures	7
Table 3: Full site evacuation procedures	8
Table 4: Proposed works program	11

List of figures

Figure 1: Bushfire emergency assembly areas	9
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List of appendices

Appendix 1 Fire Danger Ratings
Appendix 2 Bushfire Warnings

1. Introduction

1.1 Background

Opal Aged Care is proposing to develop an aged care facility within Lot 7002 Abelia Road, Treeby (hereon referred to as the project area) in the City of Cockburn. The proposed site plan identifies the building footprint for a two storey aged care facility and areas for vehicle access and landscaping.

The proposed development is situated within a designated bushfire prone area according to the DFES State Map of Bush Fire Prone Areas (DFES 2017), which triggers bushfire planning requirements under *State Planning Policy 3.7 Planning in Bushfire Prone Areas* (SPP 3.7; WAPC 2015) and reporting to accompany submission of the DA in accordance with the associated *Guidelines for Planning in Bushfire Prone Areas* (the Guidelines; WAPC 2017).

SPP 3.7 (Policy Measure 6.6) requires development applications for vulnerable land uses (such as nursing homes and retirement villages) in areas between BAL-12.5 and BAL-29 to be accompanied by a Bushfire Emergency Evacuation Plan (BEEP) for proposed occupants. The Bushfire Management Plan (BMP) prepared by Strategen for the site (Strategen 2018) identifies the facility as being located within an area of BAL-12.5 due to Class B Woodland vegetation within Lot 8021 Clementine Boulevard to the east and south of the proposed development.

Strategen has prepared this BEEP to accompany the DA in order to meet requirements triggered under State Planning Policy 3.7 and the Guidelines. This BEEP has been prepared in accordance with *Australian Standard 3745-2010 Planning for emergencies in facilities* (AS 3745-2010: SA 2010).

An overall emergency response plan addressing all types of emergencies will also be required for the proposed aged care development and it is recommended that relevant components of this BEEP be incorporated into that plan, or that it be adopted as a sub-plan of the overall emergency response plan.

1.2 Purpose and application of the plan

This plan has been developed to provide immediate actions to be followed to achieve the orderly movement of people, as far as practicable, in the event of a bushfire emergency occurring and having the potential to adversely affect the development area while the site is occupied.

2. Plan document control

At any given time there must be only one revision of the BEEP in circulation.

Table 1: Controlled Copies

Copy No	Company	Position	Name

3. Roles and responsibilities

The *Master Emergency Management Plan* (MEMP) (OAC, 2017) and associated *Site Specific Emergency Procedures Manual* (OAC, 2017) prepared for each Opal Aged Care facility document the roles and responsibilities of persons involved in emergency management. These documents are consistent with and should be read concurrently with this BEEP.

Opal Aged Care have an established Emergency Planning Committee (EPC) that is responsible for ensuring the ultimate effectiveness of the BEEP.

The EPC includes:

- Acting Managing Director
- General Manager Corporate Services
- National Fire and Property Compliance Manager
- Fire Safety Officer.

The Emergency Control Organisation (ECO), established by the EPC, is responsible for directing and controlling implementation of the BEEP. As a minimum the ECO should include the chief fire warden and fire wardens. Other positions may be incorporated into the ECO, for example communications officer, runners, stair wardens and roll call wardens.

The positions and number of ECO members, to be determined by the EPC, needs to ensure that whenever the facility is occupied, ECO members are available to respond to an emergency and enable the facility to be evacuated quickly and efficiently.

An up to date register of all ECO members is to be kept readily available and with or via the Chief Warden. The current ECO structure outlined in the MEMP (OAC, 2017) is provided in Plate 1.

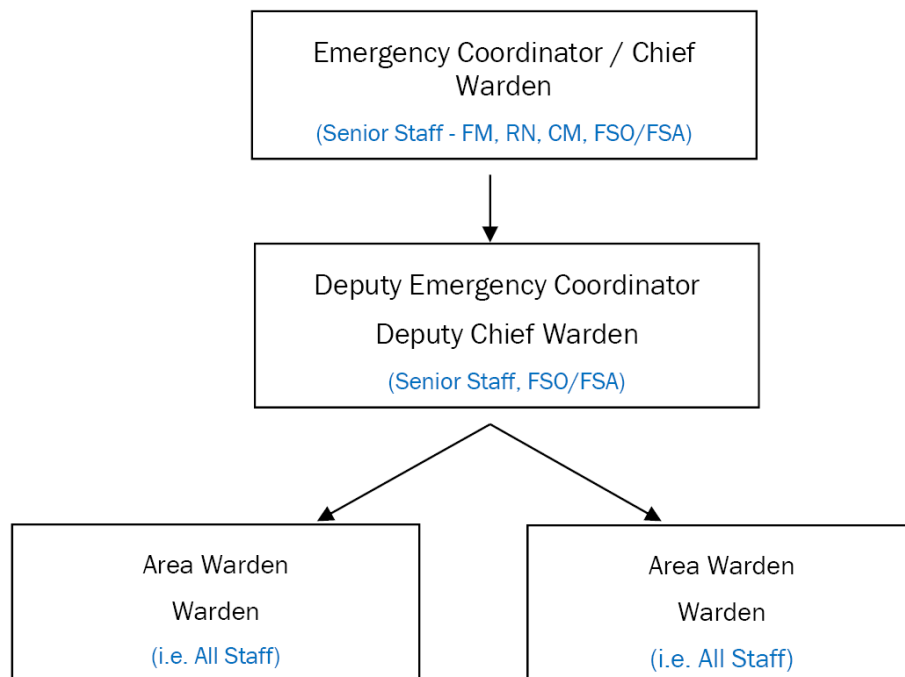


Plate 1: Identification of the Emergency Control Organisation

4. Premise details

4.1 Premise occupancy and manning levels

The proposed development involves construction of an aged care facility to accommodate approximately 120 residents.

The estimated occupancy levels for the proposed development are:

- number of employees: 28 (maximum at peak times)
- number of residents: 120.

The above information will need to be reviewed and updated following development construction.

4.2 Initial detection and suppression equipment

Initial detection and suppression equipment will be provided in the form of fire alarms, fire hydrants, fire blankets and fire extinguishers, Emergency Warning and Intercommunication System, sprinkler system to AS 2118.4 standards and mimic panels/annunciators.

Only personnel trained in the use of this equipment should be utilising the above and only if safe to do so.

5. Bushfire awareness

The scale of response will be determined by the available information from sources that include:

- Emergency Services personnel
- WA State Government emergency website (www.emergency.wa.gov.au)
- DFES emergency information telephone: 13 3337
- State Alert emergency warnings to phones and mobile phones
- local knowledge.

5.1 Fire Danger Ratings

Department of Fire and Emergency Services (DFES) use Fire Danger Ratings (FDRs) to provide advice on the level of bushfire threat on a particular day. Anyone working or living in bushfire prone areas should know the FDR for their area, monitor local conditions and keep informed.

Information on current FDRs can be found on the DFES or Bureau of Meteorology websites. Information on the different FDR levels and what they mean is provided at Appendix 1.

Understanding the FDR categories and what they mean will assist personnel in making decisions about what to do if a bushfire starts. The FDR is based on the forecast weather conditions and gives advice about the level of bushfire threat on a particular day. When the rating is high, the threat of a bushfire increases.

5.2 DFES warning system

During a bushfire, emergency services will provide information through the issuing of community alerts. The alert level changes to reflect the increasing risk to life and the decreasing amount of time until the fire arrives. Further information on the warnings and what they mean are provided in Appendix 2.

DFES issues the following warnings:

Advice

A fire has started but there is no immediate danger, this is general information to keep you informed and up to date with developments.

Watch and Act

A fire is approaching and conditions are changing, you need to leave or prepare to actively defend to protect you and your family.

Emergency Warning

You are in danger and you need to take immediate action to survive as you will be impacted by fire. An emergency warning may be supported by a siren sound called the Standard Emergency Warning Signal (SEWS).

All clear

The danger has passed and the fire is under control, but you need to remain vigilant in case the situation changes. It may still not be safe to return home.

6. Pre-emergency actions

6.1 Bushfire awareness

When the FDR is classed as Extreme or Catastrophic any fires that start are likely to be difficult to control and properties that are well prepared are likely to be difficult to defend when located in bushfire prone areas.

Should the FDR be severe or greater while the development is occupied, a nominated staff member is to monitor the DFES website for notification of any bushfire within the local area.

Local DFES officers, residents or other persons may notify staff that there is a bushfire within the local area that may impact the site, prior to any DFES warnings being issued.

Upon notification of a bushfire with the potential to impact the site, all staff are to be notified by the Chief Warden.

7. Emergency actions

7.1 Assembly areas

The Bushfire Management Plan (Strategen 2018) identifies the potential for a bushfire approaching the facility from the south and east; however, separation between the facility buildings and bushfire hazards is expected to be sufficient to limit radiant heat impacts to less than 12.5kW/m². On this basis, Strategen considers the most likely form of bushfire risk to future occupants is from potential ember attack, which is likely to be mitigated to an acceptable level via incorporating voluntary ember protection mechanisms into building design.

Therefore, in the event of a bushfire, shelter in place will be made available as a priority within the facility buildings away from the fire front to provide protection from potential ember attack and radiant heat (Figure 1). The building is not required to comply with the bushfire specific construction requirements of AS 3959—2009 *Construction of Buildings in Bushfire-Prone Areas* (AS 3959; SA 2009). However, as mentioned above, ember protection features will be incorporated into the construction design voluntarily to increase the resilience of the building to bushfire.

An assembly area at the front of the aged care facility (Figure 1) has also been identified to facilitate a full site evacuation if deemed appropriate. This site is within close proximity to Abelia Road from which emergency transport would be used to access the site.

The proponent has identified 'evacuation by sheet' as the preferred method of transporting occupants to the nominated assembly points.

7.2 Occupants and visitors with special needs

Evacuation of occupants and visitors needs to take into consideration those that may need assistance, particularly given the development is an aged care facility. This would include but not be limited to those who:

- have a guide or companion animal
- have a vision or hearing impairment
- are bedridden or use a wheeled appliance
- are easily fatigued
- are affected by medication.

During a bushfire emergency evacuation, the chief warden will be responsible for designating staff members/wardens to notify and assist persons with special needs to the assembly area.

Personal Emergency Evacuation Plans (PEEP) will need to be developed in accordance with AS 3745-2010 for occupants working or residing in the facility who have special needs to ensure safe evacuation in the event of an evacuation.

7.3 Transport arrangements

Should an evacuation from the entire facility be necessary, transport arrangements will need to be put in place to safely relocate all staff and residents.

The ECP and ECO are to undertake pre-planning to identify:

- how many vehicles/seats are required
- whether all person with special needs considered and accommodated
- do vehicles include ambulances
- how much notice is required to arrange transport.

7.4 Notifying family members

There may be a need to contact family members of residents to inform them of an evacuation and the whereabouts of family members.

Contact details of family members should be readily available and included on a resident listing form so that contact can commence after the evacuation.

7.5 Security after evacuating

Given that personal belongings will be left behind if the facility is evacuated, it is recommended that the following security procedures are implemented:

- consult with police and emergency services in relation to availability of resources that may be utilised for security
- consult a security company and pre-prepare any arrangements to ensure that in the event of an evacuation security staff could be made available on short notice
- the use of a staff member(s) to remain and monitor the premises, if safe to do so and consult with emergency services.

7.6 Evacuation procedures

Table 2 and Table 3 provide guidance on actions to be taken when a bushfire threatens to impact the facility. The actions are listed in chronological order; however, implementation of actions may change based on priorities.

The Police and Emergency Services are responsible for evacuation of the surrounding community, if required.

7.6.1 On-site place of assembly and shelter

Sheltering in place is the preferred action for the facility in the event of bushfire due to the limited bushfire impact potential and the logistics and amount of time involved in arranging off-site evacuation for special needs occupants at short notice. Table 2 provides guidance on actions to be taken when a decision has been made to shelter-in-place. The nominated places of shelter are the centrally located dining rooms on the ground floor of the building as depicted in Figure 1. These locations may be subject to review and confirmation by the EPC.

Triggers for these actions include activation of the alarm or becoming aware of a bushfire emergency threat emanating from adjacent land, including when there would not be enough time to undertake a full evacuation.

Table 2: Shelter-in-place evacuation procedures

Action	Person responsible	Actioned (Yes/No)
Assess the situation – take charge of evacuation, brief and delegate actions to wardens	Chief warden	
Call Emergency Services 000 and advise of the shelter-in-place evacuation to take place	Chief warden	
Prepare facility by closing all windows,	Wardens	
Evacuate staff and residents in orderly manner to direct them to nominated building (taking instruction from Chief Warden)	Wardens	
Designated wardens to assist special need persons or those with PEEPs	Wardens	
Check site to determine whether all persons have evacuated and report back to chief warden	Wardens	
Turn off evaporative air conditioners, close windows and doors, move flammable items away from windows and move all flammable objects away from the perimeter of the building	Wardens	
Ensure that Visitors Sign-In Register and all resident, staff and family contact lists/details are taken to the nominated building	Chief warden	
At the nominated building, account for presence of all evacuated personnel	Chief warden/wardens	
Report any unaccounted or injured persons to Emergency Services	Chief warden	
Monitor building for signs of fire, and if required, move assembled personnel to safer location	Chief warden	
Maintain contact with on scene emergency services personnel (follow any instructions) and monitor DFES warnings	Chief warden	
If required, arrange for emergency transport and alternative accommodation	Chief warden	
If required, put in place security arrangements for evacuated buildings	Chief warden	
If required, initiate procedures for notifying family members	Chief warden	
Monitor progress of evacuation and record any action taken as part of an incident report	Chief warden	
Following return to premise, account for presence of all evacuated personnel	Chief warden/wardens	

7.6.2 Off-site assembly areas

Should a full evacuation of the facility be necessary, Table 3 provides guidance on actions to be taken, assuming transport arrangements are in place to safely relocate the entire facility population. Note that emergency services will be responsible for advising whether full off-site evacuation is to be undertaken.

The area directly in front of the facility has been identified as a suitable on-site assembly point for facility occupants to come together prior to evacuation of the facility. The evacuation assembly point is shown in Figure 1.

Triggers for these actions include becoming aware of a bushfire emergency that has the potential to threaten the development, such as through the issuing of an Advice or Watch and Act bushfire warning that includes the development area. Predicted timing of bushfire threat and time required for a full evacuation would need to be considered in determining the appropriateness of a full evacuation. It is recommended that the advice of emergency services be sought when a full evacuation is being considered.

A suitable emergency evacuation centre will be advised by emergency services on the day. In the absence of specific advice, consideration should be given to evacuating residents to Fiona Stanley Hospital located approximately 10 km north of the site, where they can continue to receive medical care, if required.

Table 3: Full site evacuation procedures

Action	Person responsible	Actioned (Yes/No)
Assess the situation – take charge of evacuation, brief and delegate actions to wardens	Chief warden	
Call Emergency Services 000 and advise of the site evacuation to take place	Chief warden	
Initiate emergency transport arrangements	Chief warden	
Evacuate staff and residents in orderly manner to direct them to appropriate assembly area (taking instruction from Chief Warden)	Wardens	
Designated wardens to assist special need persons or those with PEEPs	Wardens	
Check site to determine whether all persons have evacuated and report back to chief warden	Wardens	
Ensure that Visitors Sign-In Register and all resident, staff and family contact lists/details are taken to the assembly area	Chief warden	
At the assembly point, account for presence of all evacuated personnel	Wardens	
Report any unaccounted or injured persons to Emergency Services	Wardens	
Move personnel to awaiting transport	Wardens	
On arrival at off-site location, account for all personnel	Wardens	
Maintain contact with on scene emergency services personnel (follow any instructions)	Chief warden	
Put in place security arrangements for evacuated buildings	Chief warden	
Initiate procedures for notifying family members	Chief warden	
Monitor progress of evacuation and record any action taken as part of an incident report	Chief warden	
Following return to premise, account for presence of all evacuated personnel	Chief warden/wardens	

7.7 Evacuation diagram

AS 3745-2010 requires an evacuation diagram to be displayed on-site where it can be viewed by occupants and visitors. The number and location of evacuation diagrams is to be determined by the EPC.

Evacuation diagrams are to comply with requirements under AS 3745-2010 including:

- diagrams to be positioned within a zone at height not less than 1200 mm and not more than 1600 mm above plane of finished floor
- correct orientation to be shown on plans with regard to direction of egress and its location to the 'You Area Here' point
- fire extinguishers, hose reels and fire blankets to be shown in red
- hose reels to be shown in red
- location of designated exits
- location of assembly areas
- inclusion of a validity date
- a legend which reflects the symbols used.

7.8 Training and exercises

All occupants working in the facility, including contractors and members of the ECP and ECO, must be trained in implementing bushfire emergency evacuation procedures in the BEEP.

An evacuation exercise must be carried out at least annually and within the first 12 months of implementing this BEEP. All occupants working on the site and the ECP and ECO are required to participate.

An observer checklist should be prepared and completed as part of any evacuation exercise, with the checklist outcomes analysed as part of a post exercise debrief and any deficiencies reported to the EPC.

7.9 Distribution

Hard copies of this BEEP are to be made available at locations within the facility, to be determined by the chief warden. Electronic copies will also be provided to all members of the EPC, ECO and occupants working in the project area.

The chief warden will be responsible for ensuring hard copies of the current version of BEEP are maintained at the specified locations and that all occupants working in the project area are aware of the procedures in the BEEP.

8. Implementation

Implementation of the BEEP applies to Opal Aged Care to ensure bushfire emergency evacuation procedures are adopted and implemented on an ongoing basis. A summary of the key BEEP actions are described in Table 4. These measures will be implemented to ensure ongoing bushfire evacuation procedures can be achieved. Timing and responsibilities are also defined to assist with implementation of each measure.

Table 4: Proposed works program

Evacuation action	Timing for application	Responsibility
Should the FDR be severe or greater, nominated staff to monitor DFES website for notification of any bushfire within the local area as per Section 6.1	Ongoing, following development construction	Opal Aged Care – nominated staff member
Development of PEEPs (if required) to reflect BEEP as per Section 7.2	Ongoing, following development construction	Opal Aged Care – EPC and ECO
Pre-planning of transport arrangements as per Section as Section 7.3	Following development construction	Opal Aged Care – EPC and ECO
Preparation and maintenance of resident family member contact list as per Section as per Section 7.4	Ongoing, following development construction	Opal Aged Care – EPC and ECO
Implementation of evacuation procedures in event of bushfire emergency as per Section 7.6	Ongoing, following development construction	Opal Aged Care– all staff
Preparation, installation and maintenance of evacuation diagrams as per Section 7.7	Ongoing, following development construction	Opal Aged Care – Chief warden
Development and implementation of evacuation plan training and exercises as per Section 7.8	Ongoing, following development construction	Opal Aged Care – ECO
Participation in evacuation plan training and exercises as per Section 7.8	Within 1 st 12 months of implementing this BEEP and annually thereafter, following development construction	Opal Aged Care – EPC, ECO and all staff
Distribution of BEEP – hard copies to identified locations and electronic copies to all staff as per Section 7.9	Ongoing, following development construction	Opal Aged Care – Chief warden
Undertake review and update of this BEEP as per Section 8.1	After five years following approval of this BEEP, or after major fire events	Opal Aged Care – EPC

8.1 Document review

This BEEP will be reviewed and updated at least every five years following endorsement, or after major bushfire events or changes to site conditions.

The EPC will be responsible for updating and revising the BEEP at least every five years following endorsement, or after major bushfire events or changes to site conditions and risk.

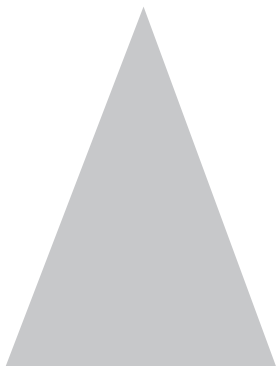
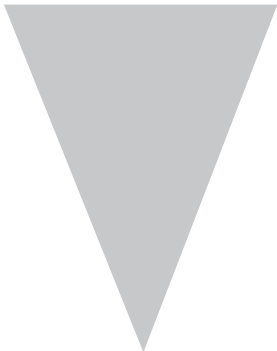
9. References

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Appendix 1

Fire Danger Ratings

FIRE DANGER RATING AND WHAT IT MEANS TO YOU.

	FIRE DANGER RATING	WHAT DOES IT MEAN?		WHAT SHOULD I DO?
<div><p>Fires can threaten suddenly and without warning.</p><p>Watch for signs of fire, especially smoke and flames.</p><p>Know your Fire Danger Rating and be aware of local conditions.</p><p>Have your bushfire survival plan and kit ready.</p><p>To seek information listen to local radio, go to www.dfes.wa.gov.au or call the DFES information line on 13 DFES (13 3337).</p><p>Call 000 to report a fire.</p></div>	<div>CATASTROPHIC 100+</div>	<ul style="list-style-type: none">These are the worst conditions for a bush or grass fireIf a fire starts and takes hold, it will be extremely difficult to control and will take significant firefighting resources and cooler conditions to bring it under control	<ul style="list-style-type: none">Spot fires will start well ahead of the main fire and cause rapid spread of the fire. Embers will come from many directionsHomes are not designed or constructed to withstand fires in these conditionsThe only safe place to be is away from bushfire risk areas.	<div>YOU NEED TO ACT NOW</div> <ul style="list-style-type: none">Put your survival first and leave bushfire risk areas the night before or early in the day – this is your best optionAct immediately – do not wait and see:<ul style="list-style-type: none">▶ leave now▶ avoid forested areas, thick bush or long, dry grass▶ take shelter if you cannot leave
	<div>EXTREME 75-99</div>	<ul style="list-style-type: none">These are very hot, dry and windy conditions for a bush or grass fireIf a fire starts and takes hold, it will be unpredictable, move very fast and difficult for firefighters to bring under control	<ul style="list-style-type: none">Homes that are prepared to the highest level, have been constructed to bushfire protection levels and are actively defended may provide safety	<div>YOU NEED TO GET READY TO ACT</div> <ul style="list-style-type: none">Only stay with your property if you are prepared to the highest level. This means your home needs to have been constructed to bushfire protection levels eg. enclosed eaves, covers over external air conditioners, metal flyscreens etcYou must be well prepared and able to actively defend your home if a fire starts. This means you have the right equipment and resources to put out fires around your home eg. enough water supply, petrol/diesel portable pump, generator, protective clothing etcIf you are not prepared to the highest level, leaving bushfire risk areas early in the day is your safest option.
	<div>SEVERE 50-74</div>	<ul style="list-style-type: none">Spot fires will start and move quickly. Embers may come from many directions	<ul style="list-style-type: none">You must be physically and mentally prepared to defend in these conditionsThe only safe place to be is away from bushfire risk areas.	
	<div>VERY HIGH 32-49</div>	<ul style="list-style-type: none">These are hot, dry and possibly windy conditions for a bush or grass fireIf a fire starts and takes hold, it may be hard for firefighters to control	<ul style="list-style-type: none">Well prepared homes that are actively defended can provide safetyYou must be physically and mentally prepared to defend in these conditions.	<div>YOU NEED TO BE AWARE</div> <ul style="list-style-type: none">Well prepared homes that are actively defended can provide safety. This means you have the right equipment and resources to put out fires around your home eg. enough water supply, petrol/diesel portable pump, generator, protective clothing etc.
	<div>HIGH 12-31</div>	<ul style="list-style-type: none">If a fire starts, it is likely to be controlled in these conditions and homes can provide safety	<ul style="list-style-type: none">Controlled burning may occur in these conditions if it is safe – check to see if permits apply.	<ul style="list-style-type: none">Check your bushfire survival planMonitor conditionsAction may be neededLeave if necessary
	<div>LOW-MODERATE 0-11</div>	<ul style="list-style-type: none">Be aware of how fires can start and reduce the risk		

Appendix 2

Bushfire Warnings

BUSHFIRE WARNINGS: WHAT SHOULD YOU DO?

ALERT LEVEL	WHEN WILL IT BE ISSUED?	WHAT SHOULD YOU DO?
ADVICE Be aware and keep up to date Issued at 11am and 4pm unless the situation changes	<ul style="list-style-type: none"> When a fire has started but there is no immediate danger There is no known threat to lives and homes The fire is likely to be small and may be causing smoke near homes Firefighters will be able to control the fire 	You need to be aware <ul style="list-style-type: none"> Stay alert and monitor your surroundings by watching for signs of a bushfire, especially smoke and flames Check the Fire Danger Rating for your area Close all doors and windows Turn off evaporative air conditioners but leave water running through the system if possible Read through your bushfire survival plan. If you do not have one decide what you will do if the situation gets worse
WATCH AND ACT Put your preparations into action – do not wait and see Issued every two hours unless the situation changes	<ul style="list-style-type: none"> When a fire is approaching and conditions are changing There is a possible threat to lives and homes The fire will be out of control. There may be smoke and embers around your home and roads Firefighters will be working with machines to put in containment lines to stop the fire spreading 	You need to leave or get ready to defend <ul style="list-style-type: none"> Put your bushfire survival plan into action If you have decided to leave for a safer place, leave now and take your survival kit with you Leave well before roads are closed and full of smoke If you are not prepared for a bushfire the safest place is to be away from the fire If you plan to stay and actively defend make final preparations now
EMERGENCY WARNING Take immediate action to survive – you will be impacted by fire Issued every hour unless the situation changes	<ul style="list-style-type: none"> When there is immediate danger and the fire will impact your home There is a threat to lives and homes The fire will be out of control and moving very fast. This is the highest level of warning Firefighters will find it difficult to control the fire and it will take significant firefighting resources and a change in conditions to bring it under control A siren sound called the Standard Emergency Warning Signal (SEWS) may be used to get your attention on radio and television 	You need to act immediately to survive <ul style="list-style-type: none"> If the way is clear leave immediately for your safer place and take your survival kit with you If you have not prepared your home, it is too late to do it now. Your safest option is to leave for a safer place, if the way is clear Do not relocate at the last minute in a vehicle or on foot as this is deadly, leave immediately if the way is clear If you are unable to leave you need to get ready to take shelter in your home and actively defend it
ALL CLEAR Take care to avoid any dangers and keep up to date Issued when the threat has passed	<ul style="list-style-type: none"> When the danger has passed and the fire is under control Firefighters will be working to put the last bits of the fire out and make the area safe It may still not be safe to return home. Emergency services will advise when you can go home 	You need to be careful <ul style="list-style-type: none"> Remain vigilant in case the situation changes When driving in the fire area you should take extreme caution and drive slowly Dangers like smoke, fallen trees and downed power lines may be on roads and emergency services will still be working in the area