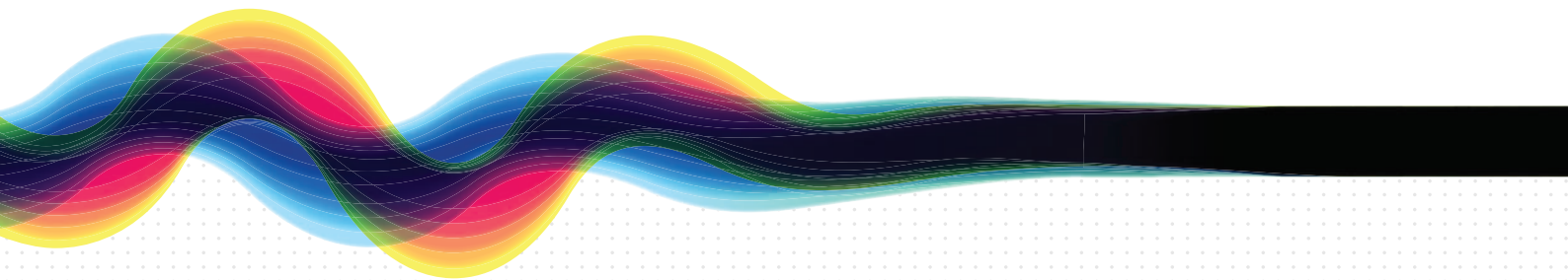


Peel Day Hospital, 42-52 Lakes Road Greenfields Development Application

February 2024 | 23-370

Prepared for: Ramsay Health Care c/- Bridge42



We acknowledge the Whadjuk people of the Noongar nation as traditional owners of the land on which we live and work.

We acknowledge and respect their enduring culture, their contribution to the life of this city, and Elders, past and present.

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1. Introduction

This report has been prepared by **element** on behalf of Bridge 42 and Ramsay Health Care Australia in support of a development application for a 'Hospital' (Day Surgery) at Lot 4 (No. 42-52) Lakes Road, Greenfields (the 'subject site').

The day surgery use is best described as a 'hospital' land use under the City of Mandurah Local Planning Scheme No. 12 (LPS12).

The proposed development has an estimated cost of approximately \$24.6 million. Given the development cost, pursuant to s.171A(2) (a) of the *Planning and Development Act 2005* (the Act) and r.5 of the *Planning and Development (Development Assessment Panel) Regulations 2011* (the DAP Regulations), the Metro Outer Joint Development Assessment Panel (MOJDAP) must determine the application as if it were the responsible authority in respect to the proposed development.

- The following report will provide an overview of the proposed development, and an assessment of the proposal against relevant statutory and strategic planning framework. The following technical reports have informed the preparation of this application:
- Tree assessment and Black Cockatoo habitat assessment attached at Appendix C;
- Landscaping concept plan attached at Appendix D;
- Acoustic study and noise management plan attached at Appendix E;
- Stormwater management plan attached at Appendix F;
- Traffic Impact Statement attached at Appendix G;
- Waste Management Plan attached at Appendix H;

2. Subject Site

2.1 Site Location and Property Description

Whilst the development is to occur mainly on Lot 4 (No. 42-52) Lakes Road, Greenfields, the subject site also includes Lot 3 (No. 54-64) as the proposed access road to the development is located on Lot 3. Lot 4 is vacant with some retained vegetation, and a 0.5-1.5 metre slope running from the front to the rear of the Lot 4.

The subject site comprises two lots, the title particulars of which are outlined in the table below. It is noted that the proposed development is situated on the northern half of Lot 4 only, with an anticipated subdivision to occur that will separate the southern half of the Lot from the proposed development portion.

Lot	Plan	Volume	Folio	Street Address	Registered Proprietor	Land Area
3	D042593 3	2103	625	54-64 Lakes Road Greenfields	Numeruno Pty Ltd	2.164ha
4	D042593 4	1322	349	42-52 Lakes Road Greenfields	Wildport Investments Pty Ltd	2.161ha

The subject site is situated on the eastern side of Lakes Road, to the south of the existing Peel Health Campus. The accompanying image refers to a render of the proposed development.

Refer Appendix A – Certificates of Title

Refer Figure 1 – Location plan

Refer Figure 2 – Site plan

2.2 Site and Planning Context

To the immediate north of the subject site is the remainder of Lot 3 Lakes Road, which is zoned 'Urban Development' under LPS12. Lot 3 abuts the existing Peel Health Campus which is zoned for 'Community and Public Purpose' under the Mandurah East Structure Plan. Access arrangements to Lot 4 are arranged over a 5m wide portion of land along the southern boundary of Lot 3, adjacent to the northern boundary of Lot 4.

To the south of the subject site are residential dwellings, zoned Residential under LPS12.

To the west of the site, on the opposite side of Lakes Road, are dwellings zoned Residential to the south of Kwella Entrance. The Salvation Army Mandurah Corps Church, zoned Urban Development, sits to the north of Kwella Entrance. The east of the subject site directly abuts residential properties facing Falstaff Close and Jamestown Terrace - these lots are zoned Residential.

The subject site is zoned 'Urban Development' under LPS12. Under Clause 3.3.6 of the Scheme, the City may consider any use for approval on the site, provided regard is had for any approved structure plan on the site. Whilst the extent of development is notably different from that depicted on the approved Outlined Development Plan – St John of God Private Hospital Lot 4 Lakes Road, Greenfields (ODP), the general principles of the development are consistent in that the use of hospital is the same, access arrangements are very similar and the development proposes two storey built form, but the proposed development is of a much smaller scale being situated on only half the site.

The proposed development has been assessed in accordance with the requirements of this ODP.

Refer to Figure 3 – ODP

Refer to Figure 4 – Context plan

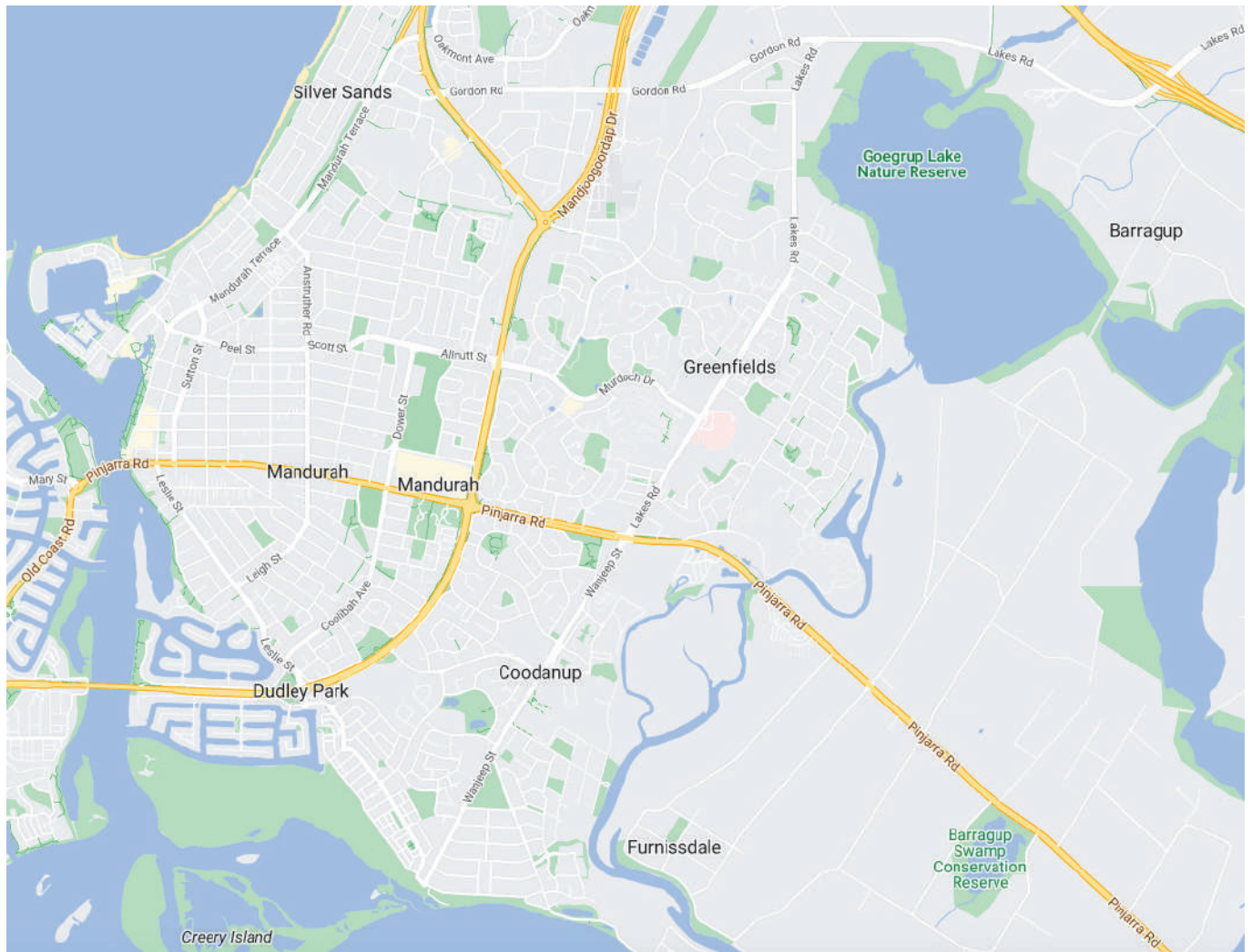


Figure 1. Location plan



Figure 2. Site plan

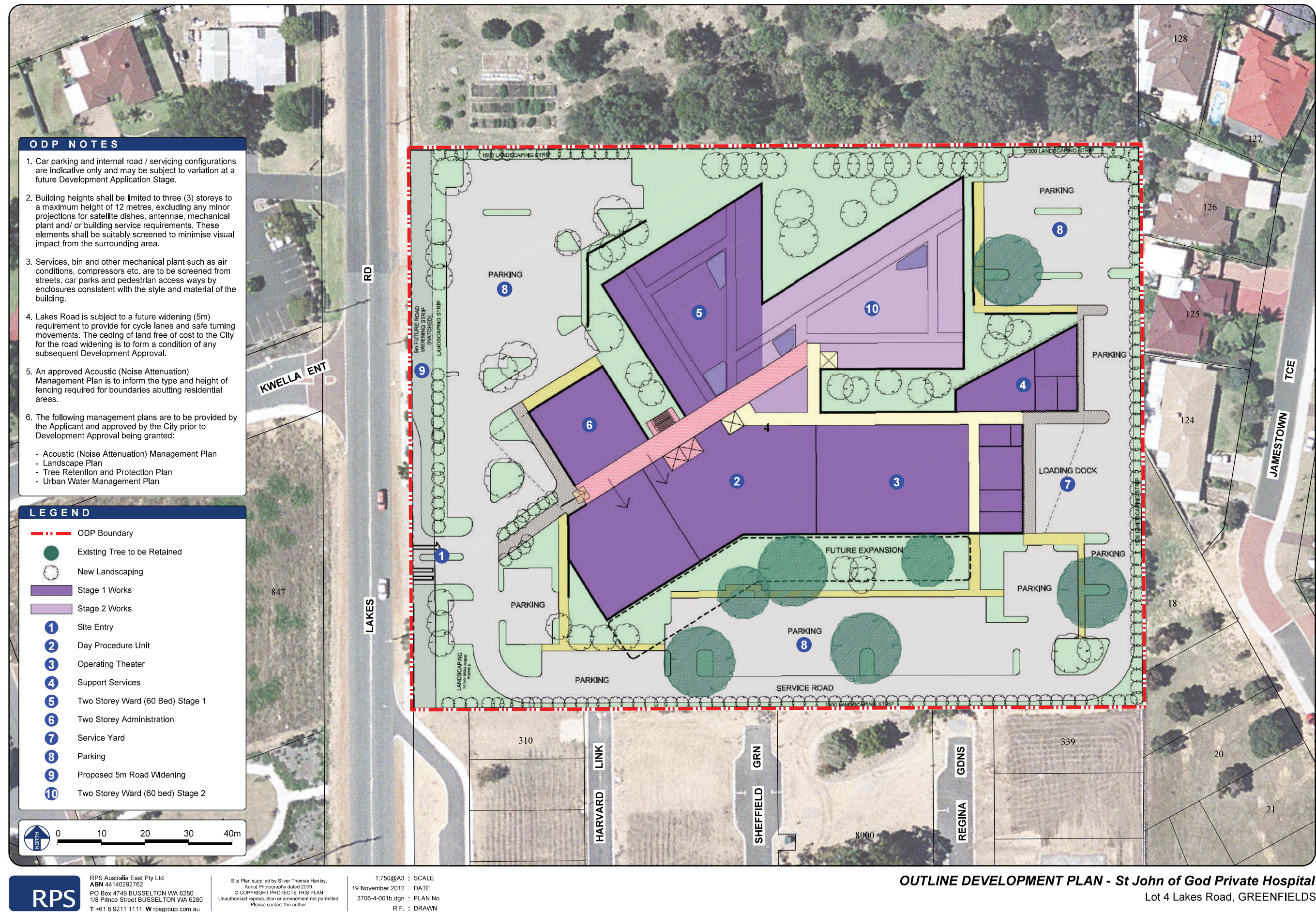


Figure 3. ODP

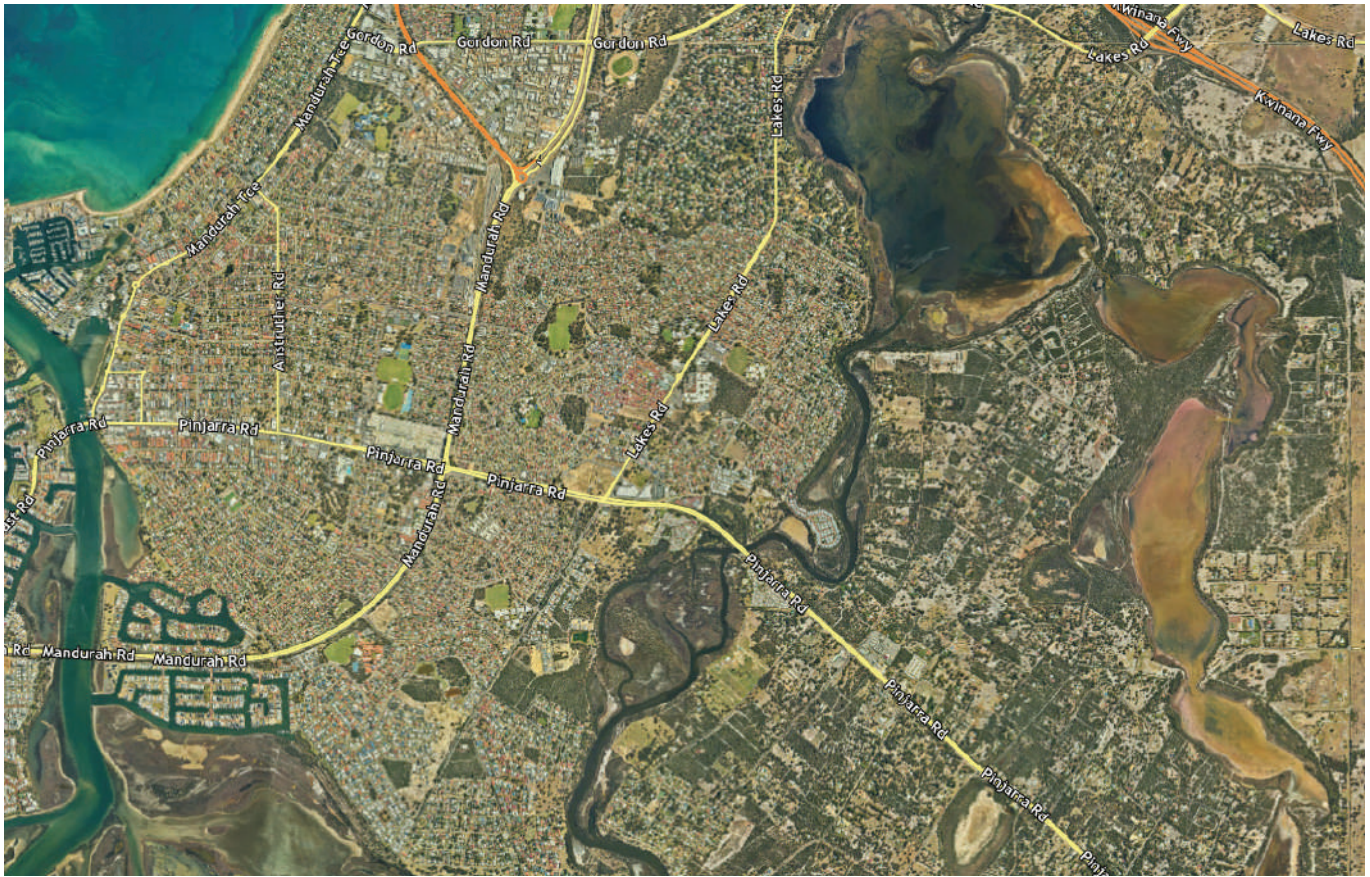


Figure 4. Context plan

2.3 Environmental and Heritage Considerations

2.3.1 Environmental

Based on a desktop assessment, the site is in the Spearwood Soil Subsystem (S4a Phase), which is characterised by flat or gently undulating sandy soil, featuring deep and pale coloured sand and yellow-brown subsoils.

PGV Environmental have prepared a report relating to a tree survey undertaken to identify any potential Black Cockatoo breeding habitat trees on the subject site, as well as identifying any trees that might be suitable for retention. 15 significant trees were noted on Lot 4, and 30 potential Black Cockatoo breeding habitat trees occur on the site. The report states that clearing one or more of these trees could lead to a significant impact on Black Cockatoo habitat and therefore requires referral under the *EPBC Act* prior to clearing occurring. The site is not subject to any of the following environmental constraints:

- Acid sulfate soils;
- Contaminated site;
- Flood plain area;
- Geomorphic wetlands; and
- Road or rail noise.

2.3.2 Heritage

A desktop search of the Department of Planning, Lands and Heritage (DPLH) Aboriginal Heritage Inquiry System indicates that the subject site is affected by Aboriginal heritage on or within proximity of the subject site. The particulars of the Aboriginal heritage place are provided in the following table.

Table 1. Aboriginal heritage particulars

Place ID	Name	Status	Type
3582	Serpentine River	Registered Site	Ritual / Ceremonial; Creation / Dreaming Narrative

As noted by the DPLH on its website, to preserve confidentiality, the exact location and extent of some places are not displayed on the Aboriginal Heritage Inquiry System, however a shaded region (generally within an area of at least four-square kilometres) provides a general indication of where the place is located.

Considering this, the development is considered unlikely to cause any adverse impact on the Registered Site. To ensure the cultural safety of the proposed development, the plans should be referred to the DPLH Heritage team for their comments and consideration.

Further searches of the Heritage Council's State Heritage Register and the City's Municipal Inventory indicate that there will be no impacts on European heritage.

2.3.3 Contamination

A desktop search of the Department of Water and Environmental Regulation (DWER) Contaminated Sites Database indicates that the subject site is not identified as a contaminated site.

2.3.4 Bushfire

A desktop search of the Department of Fire and Emergency Services (DFES) Map of Bushfire Prone Areas indicates the site is not within a bushfire prone area.

3. Description of Proposal

3.1 Development Summary

The proposal is to create a high quality day surgery operated by Ramsay Health Care. Ramsay was established in 1964 and has grown to become a leading and respected health care provider across Australia, employing over 30,000 staff and caring for over 1.1 million patients a year. The Ramsay Peel Surgical Centre will make available this specialist surgical care to the local Mandurah community.

Whilst the majority of use will simply be minor day surgeries, the Peel Day Hospital proposes to be in operation 24 hours a day, 7 days a week, to allow medical staff to provide care for patients that may have to stay at the hospital overnight. Whilst approval is being sought for Stages 1 and 2, it is expected that Stage 1 will be the ground floor comprising 8 pre-operation bays (beds/chairs) and 4 theatres with 12 beds and Stage 2 being a 12 bed surgical ward on the first floor. There is future potential for a further expansion through a Stage 3 development that would see a total of 28 beds on the first floor (not part of this application, but catered for in the traffic report). There is also an area at the front of the building where long-term future expansion may occur that is also not part of this application.

The development itself has been architecturally designed by renowned architects STH Architects who have designed a contemporary building that is welcoming, but clearly fit for purpose as a surgical centre. The care of patients starts at the entry with a covered drop off area where patients can be delivered to the door and then their loved one's park in the adjoining car park, before coming back to collect the patient in the afternoon from the front door. The parking provided is overly generous as day surgery patients typically do not receive any visitors due to the short length of stay but has been designed to allow for the future expansion of the facility without the need to redesign or expand the car park.

The day surgery features the following patient facilities:

Ground Floor Level

- 3 theatre rooms and 1 procedure room.
- Pre operation room - 3 bed bays and 5 chair bays.
- Recovery stage 1 - 6 beds.
- Recovery stage 2 - 12 beds.
- Recovery lounge - 10 chair bays.

First Floor Level

- Surgical ward – 12 beds. (Stage 2)

Vehicle Parking

- 37 visitor bays at the front of the development.
- 45 staff parking bays at the rear of the development.

In addition, the following is also proposed:

- Allowance for future road widening on Lakes Road, landscaping and then a shared accessway to allow for future development to the south without the need for unnecessary crossovers to Lakes Road;
- Additional 8m setback at the rear of the property, to again allow for access for any development to be constructed on the balance of the site; and
- Various plant, operations, staff facilities and waste storage as required to support the operations of the development.

Development plans are attached at Appendix B – Development Plans.

3.2 Land Use

LPS12 defines the land use term 'hospital' as follows:

Hospital means premises used as a hospital as defined in the Private Hospitals and Health Services Act 1927 section 2(1) (see Health Services Act 2016 section 8);

1Section 8(4) of the Health Services Act 2016 states –

Each of the following premises is a hospital for the purposes of this Act –

- (a) premises where medical, surgical or dental treatment, or nursing care, is provided for ill or injured persons and at which overnight accommodation may be provided; and*
- (b) a day hospital facility; and*
- (c) a nursing post.*

Pursuant to the Zoning Table under LPS12, the land use permissibility of a 'Hospital' within the 'Urban Development' zone is determined by reference to any applicable local structure plan. Site-specific Outline Development Plan – St John of God Private Hospital Lot 4 Lakes Road, Greenfields (ODP) is applicable to this site.

Pursuant to the requirements of the former ODP, a 'hospital' is the proposed and planned use for the site. As an extension of the existing Peel Health Campus, and as a major employment hub and health and wellness provider for the southern metropolitan region, the proposed development is an appropriate land use for the subject site.

3.3 Built Form and Setbacks

The building is proposed to be situated on the northern half of existing Lot 4. These setbacks are for proposed Stage 1 (ground floor) of the development proposal.

Development Element	Detail	Assessment
Floor area	Main building – ground floor (Stage 1)	~2,300m ²
	Main building – first floor (Stage 2) (including plant)	~1,800m ²
	Total floor area	~4,100m ²
Building Height	Main building – highest point	11.7m
Building Width	Main building – widest point	33m
Building Length	Main building – longest point	90m
Street setback	Main building	51.5m
	Outbuilding (front of property)	15m
Side Setback (southern) (setback calculated to future subdivision site boundary – see site plan)	Main building	3m
	Outbuilding (WP substation) (front of property)	Nil
	Outbuilding (fire pump room) (rear of property)	5.2m
Side Setback (northern) (setback calculated to future subdivision site boundary – see site plan)	Main building	15m
Rear Setback (Measurements inclusive of 8m rear setback provided on the subject site)	Main Building – ground floor	50.08m (42.081 setback + additional 8m rear setback provided)
	Main Building – ground floor (service area)	28.6m (20.6m setback + additional 8m rear setback provided)
	Outbuilding (fire pump room) – rear of property	8.5m (0.5m setback + additional 8m rear setback provided)

The building is an institutional building, designed as per its hospital purpose. The function of the proposed development necessitates controlled access and the need for privacy from the public domain.

The building has been designed to facilitate opportunities for outwards surveillance of the public realm. It is not designed, or indeed intended to be designed, with fine grain ground floor detailing, windows or entrances that may be appropriate for other forms of commercial development.

Note that building rear setbacks have been calculated inclusive of the 8-metre additional setback to be provided, as detailed on the site location plan in Appendix B.

The development makes allowance for a 5-metre road widening of Lakes Road at the front of the property, buffered by a 3-metre landscaping zone. This landscaping zone is adjacent to the vehicle access which will eventually service any future development to the south, and patient parking situated at the front of the lot with servicing and staff parking at the rear.

3.4 Staff Numbers and Hours of Operation

The proposed Day Hospital will operate 24 hours a day, 7 days a week.

At full build out of Stage 1 and 2, it is expected that there will be up to 45 staff at peak operation on site during an average working day, including up to 26 physicians and nurses, and 19 support staff.

3.5 Car Parking and Vehicle Access

The TIS prepared by PJA Consultants details the proposed car parking and access arrangements for the site as follows.

Traffic Generation

- The report proposes that the development is forecast to generate 80 vehicle movements across the busiest PM peak period. The site therefore does not require a detailed traffic assessment, as per the requirements of the WAPC Transport Impact Assessment guidelines.

Car Parking

All parking related to the proposed development will be contained within the site. The development is proposing the following parking provision:

- Visitor parking – 37 vehicle parking bays – 5 bays to the north of the main building, 1 universal access bay to the east of the main building, and 31 bays to the west of the main building.
- Staff parking – 45 vehicle parking bays and 1 motorcycle parking bay at the rear of the site, to the east of the main building.

Schedule 2 - Parking Requirements of LPS 12 notes that, where a land use is not included in the Parking Requirements Table, parking ratios will be determined by the local government. The Hospital land use is not included in Schedule 2, however the ODP for the site states that car parking and road servicing is indicative only and may be subject to variation during the development application process.

In this instance, the parking proposed is in excess of requirements for a small-scale hospital. The staff members are catered for at a ratio of 1 parking bay per staff member (allowing for Stages 1 and 2). As it is likely that some staff members will choose active transport methods to travel to work, the parking required will be in excess of staff seeking to park on site.

Vehicle Access

Vehicle access will be via a driveway to be constructed on Lot 3, running adjacent to the existing Lot 4 northern boundary.

Access will be provided to the development via a new proposed left-in/left-out access on the eastern carriage of Lakes Road, to be located north of Kwella Entrance, and north of an existing access to a development on the western side of Lakes Road. The existing median in Lakes Road is proposed to be lengthened to ensure the access to the proposed day surgery development is physically limited to left-in/left out access.

Public Transport

The site is in proximity to public transport services on Pinjarra Road (Routes 600, 604 and 605 approximately 730 metres via footpath to the south) and Route 598 which terminates within the adjacent Peel Health Campus approximately 430 metres to the north. These services run to and from the Mandurah train station and, in combination, offer services every 10 -15 minutes in peak periods, which will encourage staff use.

Active Travel

Lakes Road is identified as a Secondary Route in the Long-Term Cycle Network (LTCN) for Perth and Peel, connecting from Gordon Road in the north to Pinjarra Road in the south. The cycle facilities on Lakes Road provide connectivity for longer distance access to the site via cycling, and the footpaths on both side of the road provide connectivity with the surrounding residential area.

Servicing

Waste disposal is proposed to occur wholly within the site at the rear of the development. Service vehicles will be able to enter and exit the site in a forward gear and manoeuvre within the staff parking area separate from visitors.

In addition to the setbacks shown on the Site Plan, the proposed development provides for an additional 8-metre setback between the rear boundary of the hospital site and the boundary fence at the rear of the property that will allow for a future accessway to service the southern portion of the property. This setback will allow for both an accessway and for landscaping, that will serve the dual purpose of greening the property and providing screening between the adjacent rear lots and the subject site.

See Traffic Impact Statement at Appendix G for additional detail.

3.6 Landscaping

PlanE have prepared a Landscape Concept Plan in support of the proposed development, pursuant to the landscaping requirements of the ODP. The key components of the Landscape Concept Plan include:

- Existing Tuart tree to be retained in car parking area at the rear of the subject site (Tree 26 on Site Plan).
- Existing Tuart trees to be retained at the front of the development on the subject site (Trees 5, 6 and 7 on Site Plan) (noted as point 10 on Landscape Concept Plan).
- Extensive new tree planting proposed to be located around the edges of the development, and as a buffer between the car parking area and new access road on Lot 3, including 37 additional trees. The inclusion of this extensive landscaping component, and its location, aligns with the intention of the ODP relevant to the subject site.
- Incorporation of a resting area for informal seating and gathering of staff, patients or visitors at the front of the development (noted as point 05 on Landscape Concept Plan).

The full Landscape Concept Plan accompanies this application as Appendix D.

3.7 Signage

Signage identifying the Ramsay Surgical Centre – Peel is proposed to be located at the top of the parapet wall of the proposed building. The primary sign will face out on to Lakes Road, allowing the building to be readily identified from the public realm.

The secondary sign will face out to the proposed car parking area to the north of the building, providing identification for drivers travelling south on Lakes Road and those entering the subject site.

See elevation plans included at Appendix B for further detail.

4. Town Planning Considerations

4.1 Zoning and Reservations

4.1.1 Peel Region Scheme

The Peel Region Scheme (PRS) defines the future use of land and provides the legal basis for planning in the Peel region, dividing land into broad zones and reservations. The zoning and development intent of the subject site is detailed in the following table.

Pursuant to the provisions of the PRS, the subject site is zoned 'Urban'. The Urban zone is described as follows:

To provide for residential development and associated local employment, recreation and open space, shopping, schools, and other community facilities.

As a large commercial development that will contribute to the provision of social infrastructure and be a major employment hub, the proposed expansion of the hospital is consistent with the purpose and intent of the 'Urban' zoning under the PRS.

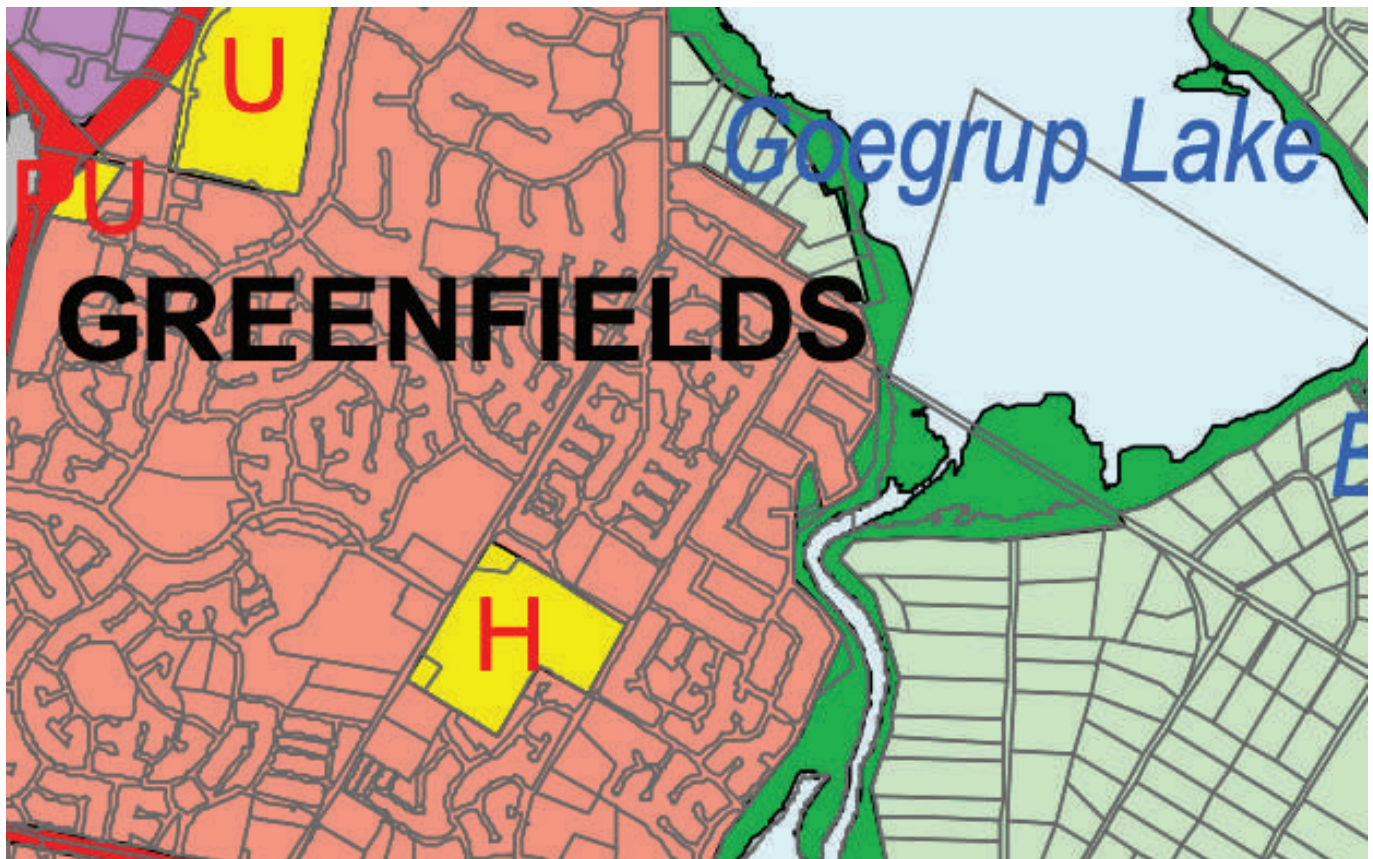


Figure 5. Peel Region Scheme

4.1.2 Planning and Development (Local Planning Schemes) Regulations 2015

Clause 67(2) of Schedule 2 – Deemed Provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015* (the Regulations) prescribes matters to be given due regard in determining a development application. The relevant matters to this development application are detailed in the following table.

Provision	Justification
(a) The aims and provisions of the Scheme and any other local planning scheme operating within the Scheme area.	Refer to the assessment of LPS 12.
(b) The requirement of orderly and proper planning	<p>The use and form of the development is consistent with the zoning, approved use as part of the ODP and planned character for this site.</p> <p>The development is very compliant with the relevant development requirements and consistent with the intended scale and character of the site.</p> <p>Supporting technical advice demonstrates that the development will be appropriately serviced and can ameliorate noise emissions to be compatible with nearby residential amenity.</p>
(c) Any approved State Planning Policy	Refer to the assessment of State Planning Policy 7.0.
(fa) Any local planning strategy for this Scheme endorsed by the Commission	The proposal is generally consistent with the City of Mandurah's 2021 Local Planning Strategy in that it helps create employment opportunities, provides vital medical services to the local community and promotes the continued use of the area as part of the Peel Health Campus.
(h) Any structure plan or local development plan that relates to the development.	Refer to the assessment of St John of God Private Hospital – Lot 4 Lakes Road Greenfields Outline Development Plan.
(m) The compatibility of the development within the desired future character of its setting and the relationship of development to development on adjoining land or on other land in the locality including, but not limited to, the likely effect of the height, bulk, scale, orientation and appearance of the development	<p>The proposal addresses Lakes Road, however is set back sufficiently to minimise its impact on the streetscape.</p> <p>The proposal is set back from neighbouring residential properties, and includes acoustic attenuation to ensure it does not negatively impact upon the neighbouring properties.</p> <p>The relatively low, two storey proposed height of the proposal is in keeping with the ODP, as well as being respectful of the surrounding low rise residential character.</p>
(n) The amenity of the locality including the following – <ul style="list-style-type: none"> - Environmental impacts of the development - The character of the locality - Social impacts of the development 	<p>The proposal makes effective use of under-utilised land to deliver necessary health care in a highly connected area.</p> <p>The character of the subject site is dominated by existing hospital and health care land uses. The proposal allows for new development which will establish a contemporary architectural standard from which other subsequent developments will reference.</p>
(p) Whether adequate provision has been made for the landscaping of the land to which the application relates and whether any trees or other vegetation on the land should be preserved	The landscape response is depicted in the accompanying Landscape Concept Plan prepared by PlanE.
(s) The adequacy of – <ul style="list-style-type: none"> - The proposed means of access to and egress from the site; and - Arrangements for the loading, unloading, manoeuvring and parking of vehicles 	Vehicle access will be provided on Lot 3, with the vehicle accessway to be directly adjacent to the northern boundary of Lot 4.
(t) The amount of traffic likely to be generated by the development, particularly in relation to the capacity of the road system in the locality and the possible effect on traffic flow and safety.	Refer to the accompanying Traffic Impact Assessment prepared by PJA, attached as Appendix G.
(u) The availability and adequacy for the development of the following – <ul style="list-style-type: none"> - Public transport services - Public utility services - Storage, management and collection of waste - Access for pedestrian and cyclist (including end of trip storage, toilet, and shower facilities) - Access by older people and people with disability. 	The subject site is in proximity to current public transport services on Pinjarra Road (Routes 600, 604 and 605 are available at a bus stop approximately 730m to the south), and Route 598 which terminates within the adjacent Peel Health Campus approximately 430m to the north. These services run to and from the Mandurah Train station and, in combination, offer services every 10-15 minutes in peak periods.

4.1.3 Perth and Peel @ 3.5 million

The Perth and Peel @ 3.5 million land use planning and infrastructure frameworks aim to accommodate 3.5 million people by 2050. The subject site is within the South Metropolitan Peel Sub-Regional Planning Framework (the Framework) which is one of three frameworks prepared for the outer sub-regions of Perth and Peel.

The Framework aims to establish a long-term, integrated planning framework for land use and infrastructure to guide future growth across the sub-region. The proposed development of the Ramsay Peel Surgical Centre complies with the objectives and principles of the Framework as it:

- Contributes to the provision of social infrastructure, meeting the community's needs in terms of healthcare;
- Promotes and diversifies local employment opportunities within Mandurah as a Strategic Metropolitan Centre;
- Contributes to the growth of the Mandurah Strategic Metropolitan Centre as a Transit Oriented Precinct, by providing employment and medical services proximate to high frequency bus routes; and
- Provides essential community and social infrastructure to support the growing demand for the community to have access to health and well-being services.

Considering the above, the proposal is considered to align with the objectives and intent of Perth and Peel @ 3.5 million.

4.1.4 State Planning Policy 7.0 Design of the Built Environment

State Planning Policy 7.0 Design of the Built Environment (SPP7.0) is the lead policy that elevates the importance of design quality across the whole built environment. This policy includes 10 principles for good design and establishes the framework for integrating design review as part of the evaluation process. An assessment against these 10 principles follows.

Design Principles	Assessment
Context and Character	<p>The proposal is consistent with the City's vision for the land and fits neatly into the local area which contains a variety of institutional, recreational, commercial and residential uses.</p> <p>The proposed design of the facility considers the adjoining residential land and is set back with an additional 8m rear buffer from rear adjoining residential homes.</p> <p>The proposed design is consistent with the intended Urban zoning under the ODP and is proposed with colours and materials that reflect the mixed-use nature of the location.</p>
Landscape quality	<p>The proposal makes clear intent to save as many trees as possible within the site and provides areas of additional landscaping along the frontage, northern side and rear boundary. The extent and specification of landscaping is consistent with the intent of landscaping to be used as a buffer and contributor to amenity, as proposed in the ODP.</p>
Built form and scale	<p>The proposed development is low in scale and will present as a two-storey building to adjacent properties and from the public street. The proposed development is setback from all boundaries, providing separation to nearby residential dwellings and minimising the impact of the development on the streetscape.</p>
Functionality and build quality	<p>The facility is designed to allow vehicles to manoeuvre through the development safely and efficiently. The materials and colour palette is befitting of each use and supports the planned character of this site.</p>
Sustainability	<p>The proposal contributes to the social sustainability of the area by providing additional medical facilities for the growing Peel region, as well as bringing services closer to the local community and in an area where access is available to staff via alternative means of transport.</p> <p>Additionally, the landscaping plan proposes shade trees, including the retention of a mature tuart tree, that will contribute to cooling and greening the development.</p>
Amenity	<p>To ensure the development does not have adverse impacts on the surrounding area, the development has been reviewed by acoustic consultant Herring Storer Acoustics. Herring Storer have confirmed that,</p> <p><i>'Noise emission associated with the proposed day surgery is limited to mechanical plant.</i></p> <p><i>Given the plant room allocations within the current plan, and the separation to nearby noise sensitive premises, designing the noise emissions associated with mechanical plant to meet the relevant assigned noise levels is not considered onerous'.</i></p> <p>As the development and design process continues, the acoustic mitigation requirements will continue to be reviewed. Should additional mitigation requirements be needed, they will be integrated to the proposal at detailed design phase. It is anticipated that this will be required as a condition of approval.</p>
Legibility	<p>The proposal is legible for users, with straight forward vehicle access and manoeuvring, easily identifiable entry points and exit points.</p>
Safety	<p>The development proposes a clear and legible site design, with passive surveillance provided over vehicle access and car parking areas. There are minimal areas available for concealment.</p>
Community	<p>The proposal provides an additional medical facility for the Peel region, expanding upon the offerings of the existing Peel Health Campus. The facility will provide private hospital facilities to the region, reducing pressure on the existing medical facilities.</p>
Aesthetics	<p>The facility is designed to sit within the streetscape, being commercial of appearance to reflect the intent of the lands zoning and the buildings use.</p>

4.1.5 City of Mandurah Local Planning Scheme No. 12

The zoning and development intent of the subject site is detailed in the following table.

Table 2. City of Mandurah Local Planning Scheme No. 12 Particulars

Zone	Objectives
Urban Development	<p>To provide an intention of future land use and a basis for more detailed structure planning in accordance with the provisions of this Scheme.</p> <p>To provide for a range of residential densities to encourage a variety of residential accommodation.</p> <p>To provide for the progressive and planned development of future urban areas for residential purposes and for commercial and other uses normally associated with residential development.</p>

As a development that is generally consistent with the approved Outline Development Plan for the Precinct, the proposed development is consistent with the purpose and intent of the 'Urban Development' zoning and the City's vision for the area.

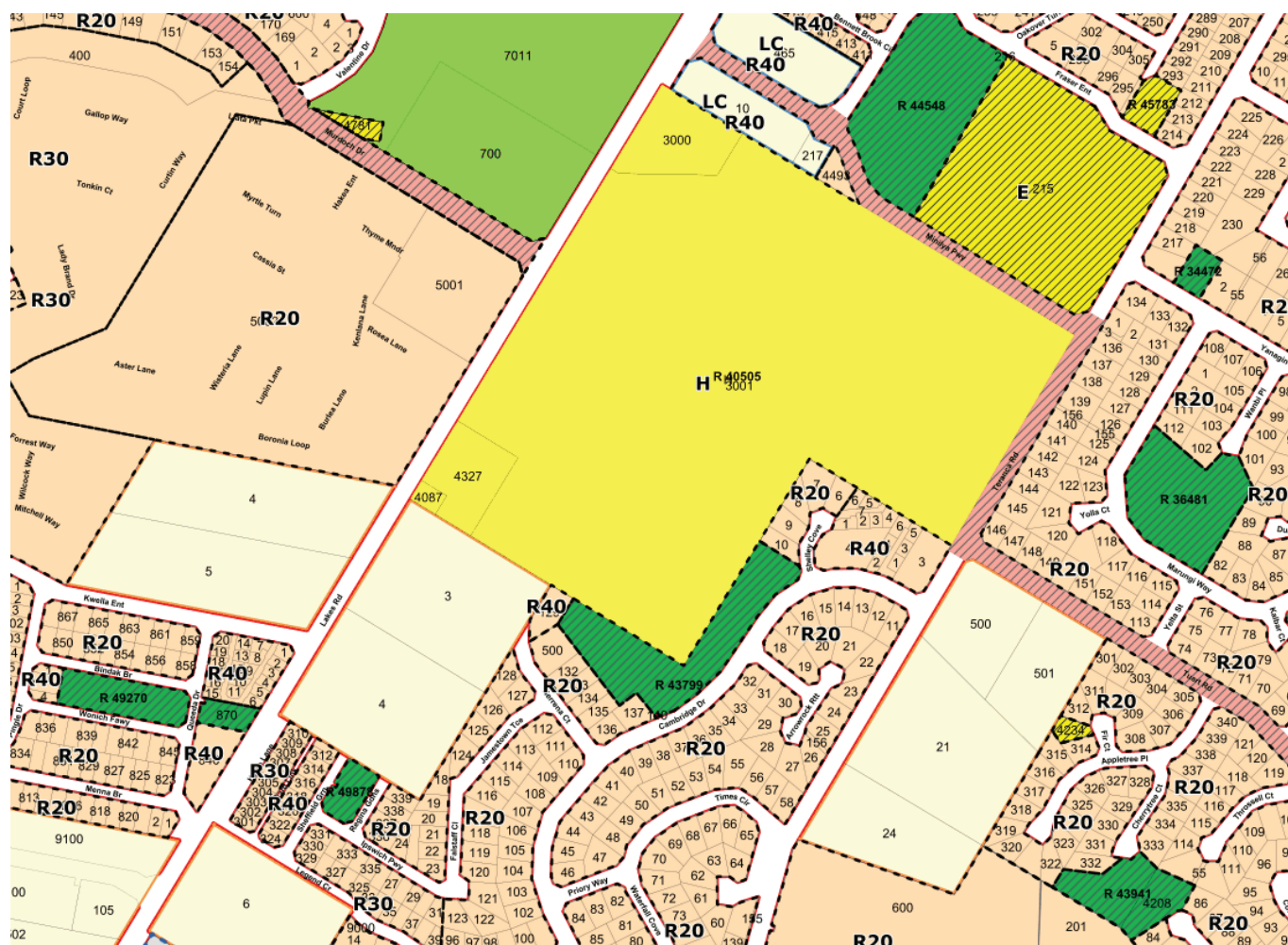


Figure 6. City of Mandurah Local Planning Scheme No. 12

4.1.6 Outline Development Plan – St John of God Private Hospital Lot 4 Lakes Road Greenfields

The proposed development generally accords with the key principles of the LDP in that:

- The use is the same 'hospital' land use;
- Height of two storeys is consistent;
- Road widening to Lakes Road is provided;
- Access points to Lakes Road are limited;
- Vehicle parking is provided at the front (visitors) and rear of the development (staff);
- A peripheral internal 'accessway network is provided; and
- A peripheral landscaped buffer is provided.

ODP Requirement	Development Proposal
Car parking and internal road/servicing configurations are indicative only and may be subject to variation at a future Development Application stage.	<p>Development application proposes some variations to the indicative car parking and internal road servicing detailed on the ODP, but the general principle of visitor parking at the front and less frequently used staff parking is at the rear.</p> <p>The development proposal considers a subdivision of the subject site, but the peripheral internal road network is allowed for.</p>
Building height shall be limited to three (3) storeys to a maximum height of 12 metres, excluding any minor projections for satellite dishes, antennae, mechanical plant and/or building service requirements. These elements shall be suitably screened to minimise visual impact from the surrounding area.	The proposed development is two storeys high with a maximum height of just under 12m.
Services, bin and other mechanical plant such as air conditioners, compressors etc are to be screened from streets, car parks and pedestrian access ways by enclosures consistent with the style and material of the building.	Service areas are proposed to be located towards the rear of the lot, concealed from the public realm by the building itself. The rear 8 metre setback will include a landscape buffer to ensure servicing elements do not have a negative impact on the adjoining lots.
Lakes Road is subject to a future widening (5m) requirements to provide for cycle lanes and safe turning movements. The ceding of land free of cost to the City for the road widening is to form a condition of any subsequent Development Approval.	The development proposal makes allowance for the 5-metre road widening at Lakes Road.
An approved Acoustic (Noise Attenuation) Management Plan is to inform the type and height of fencing required for boundaries abutting residential areas.	An Acoustic Management Plan is included as Appendix E. As this early design stage, acoustic fencing is not considered to be required to mitigate noise from the proposed facility. This will continue to be monitored during detailed design phase.
<p>The following management plans are to be provided by the Applicant and approved by the City prior to Development Approval being granted:</p> <p>Acoustic (Noise Attenuation) Management Plan</p> <p>Landscape Plan</p> <p>Tree Retention and Protection Plan</p> <p>Urban Water Management Plan</p>	<p>The following management plans are included as appendices:</p> <p>Acoustic Management Plan – Appendix E</p> <p>Landscape Plan – Appendix D</p> <p>Stormwater Management Plan – Appendix F</p> <p>Trees have been retained wherever possible within the design.</p>

5. Supporting Technical Studies

5.1 Acoustic (Noise Management) Plan

Herring Storer Acoustics have prepared a Noise Management Plan for the proposed development. The report notes that the National Construction Code (NCC) does not have acoustic requirements for day surgeries.

The consultant notes that the level of noise expected to be created by the hospital is limited to mechanical plant. The locations of the plant room within the current plan, and the separation to nearby noise sensitive (residential) premises, designing the noise mitigation measures associated with mechanical plant to meet the relevant assigned noise levels is not considered onerous.

Noise mitigation requirements in accordance with the ODP are recommended to be applied as a condition of development approval.

The Acoustic (Noise Management) Plan is attached at Appendix E.

5.2 Stormwater Management Plan

A Stormwater Management Plan has been prepared by BG&E Civil Engineering Services. The report includes a drainage plan that supports the proposed development. Key comments from the Stormwater Management Plan are summarised below:

- Drainage for the site has been designed as follows:
 - Provision for stormwater pipe network to cater for the 1 in 10-year ARI;
 - Provision for all building and major overland flow routes to cater for flows up to the 100-year ARI;
 - Sized accordingly to meet the requirements of both infiltration capacity and storage volume as per the City of Mandurah to store the 100-year ARI event.
- The above criteria complies with the City of Mandurah requirements for commercial lots.
- The on-site storage will be located beneath the carpark areas. 250m³ storage tank underneath the eastern carpark, and a similar storage underneath the western carpark. Both storages are trafficable with infiltration.
- No geotechnical investigation works have been done yet for the site.
- In-situ permeability testing needs to be completed as part of the geotechnical investigation to determine suitable infiltration rates and have confirm the required storage volume.

The Stormwater Management Plan is attached at Appendix F.

5.3 Traffic Impact Statement

A Traffic Impact Statement (TIS) has been prepared by PJA to support the proposed development. A copy of the TIS is attached at Appendix G to this report.

The TIS concluded that the proposed development is supported in terms of its traffic, transport and road safety impacts on the road network and recommends approval of the development. Key comments from the TIS are summarised below:

- The daily traffic on Lakes Road is approximately 12,900 vehicles per day, which is categorised as very high road user exposure under the Austroads 2016 Safe System Assessment Framework.
- Proposed development is expected to generate around 720 vehicle movements per day, and up to 80 vehicle movements in the busiest PM peak hour, when it is anticipated that most movements would be leaving the site.
- These anticipated vehicle movements are based upon full bed capacity and full use of the facilities within the proposed development.
- MRWA classifies Lakes Road as a Distributor B under their Functional Road Hierarchy and is not classified under the Metropolitan Region Scheme.
- The traffic generated by the proposed development is expected to be low across the course of the day. Most of the movements are expected to be outside of the traditional peak times of day that traffic is at its heaviest.

- Loading services, such as waste collection and main deliveries, are designed to occur within the site.
- Vehicle parking will be provided wholly within the boundaries of the site and is sufficient to cater for both Stages 1 and 2 of the development.

The TIS is attached at Appendix G.

5.4 Waste Management Plan

A Waste Management Plan has been prepared by Talis Consultants to support the proposed development.

Key comments from the Waste Management Plan are summarised below:

- Refuse and recycling will be collected from the facility twice a week by a private contractor.
- A disposal corridor runs along the southern side of the development, connecting to a disposal and waste store room at the rear of the development.
- The WMP demonstrates that the proposed development provides a suitably sized bin storage area for the storage of general and recyclable waste and appropriate collection arrangements.
- The bin storage area will be designed appropriately to ensure that washing of the area and bins is easily managed, and that the self-closing doors protect from vermin, theft and/or vandalism.
- Bin numbers and storage space within the development will be monitored by management to ensure that the number of bins and collection frequency is sufficient.

The Waste Management Plan is attached at Appendix H.

6. Conclusion

This report demonstrates that the proposed development is consistent with the orderly and proper planning for the locality and, once approved and developed, will provide the community with specialist surgical services and advanced health care services, as well as providing local employment opportunities.

The quality design of the building by STH Architects will make a valuable contribution to the area and set the high quality benchmark for the development of the balance of the land. Whilst it is in a different form to the approved ODP, the principles of the orderly future development of the site are allowed for, and in a manner that has a high regard for key environmental principles of tree retention, orderly traffic and access and protection of the amenity of neighbours.

In collaboration with Bridge 42 and STH Architects, on behalf of Ramsay Health Care we are pleased to present this development to the City for their support. The approval of the MOJDAP is respectfully sought.

Appendix A – Certificate of Title

WESTERN



AUSTRALIA

TITLE NUMBER

Volume

Folio

1322

349

RECORD OF CERTIFICATE OF TITLE UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts
REGISTRAR OF TITLES



LAND DESCRIPTION:

LOT 4 ON DIAGRAM 42593

REGISTERED PROPRIETOR: (FIRST SCHEDULE)

WILDPORT INVESTMENTS PTY LTD OF 1 CANNING HIGHWAY FREMANTLE WA 6160

(T O754882) REGISTERED 1/6/2021

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

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 1322-349 (4/D42593)
PREVIOUS TITLE: 1118-409
PROPERTY STREET ADDRESS: 42-52 LAKES RD, GREENFIELDS.
LOCAL GOVERNMENT AUTHORITY: CITY OF MANDURAH

WESTERN



AUSTRALIA

TITLE NUMBER

Volume

Folio

2103

625

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts
REGISTRAR OF TITLES



LAND DESCRIPTION:

LOT 3 ON DIAGRAM 42593

REGISTERED PROPRIETOR: (FIRST SCHEDULE)

NUMERUNO PTY LTD OF 1 CANNING HIGHWAY FREMANTLE WA 6160

(T O718882) REGISTERED 30/4/2021

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

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
Lot as described in the land description may be a lot or location.

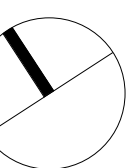
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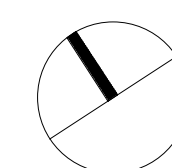
STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

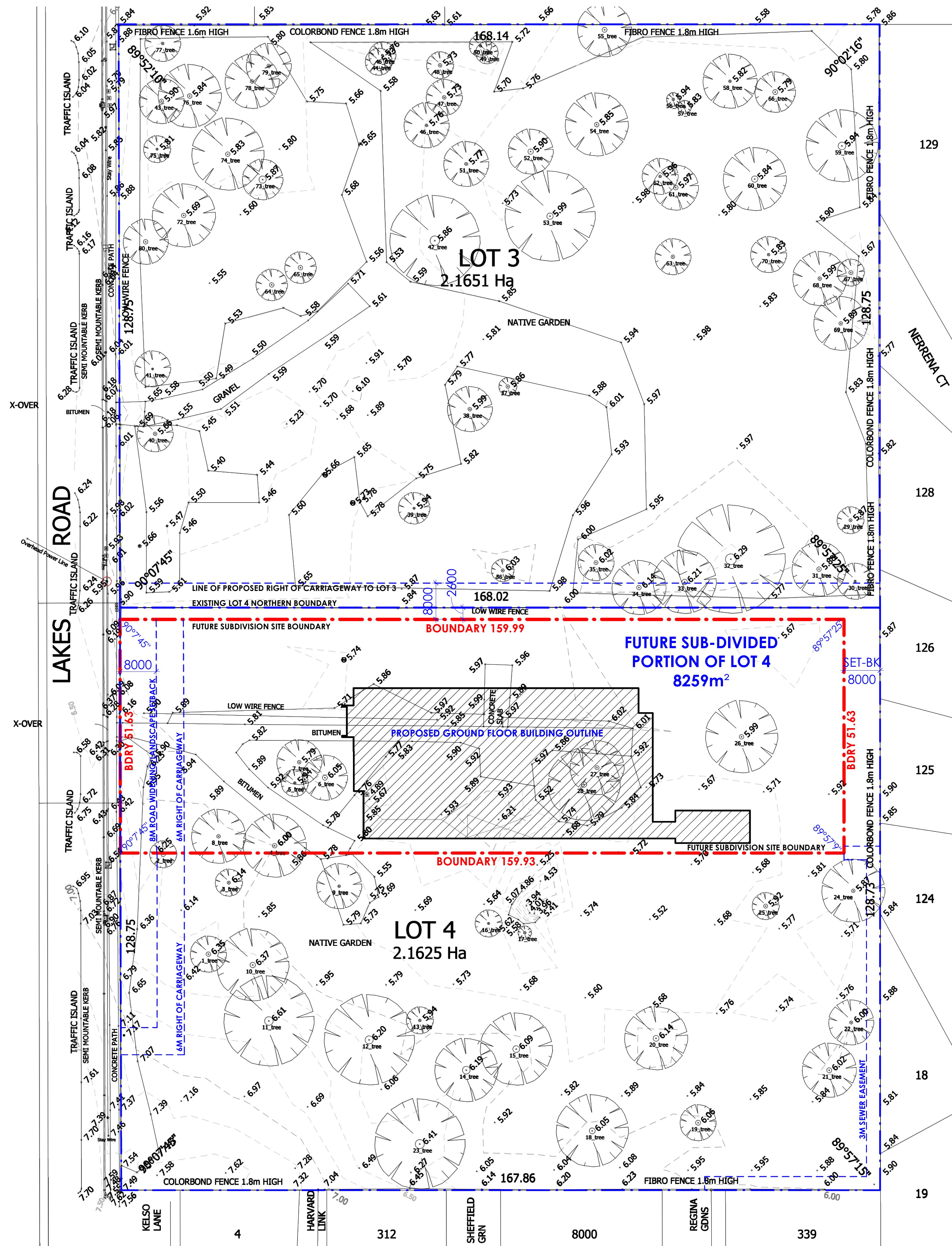
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PREVIOUS TITLE: 1322-348
PROPERTY STREET ADDRESS: 54-64 LAKES RD, GREENFIELDS.
LOCAL GOVERNMENT AUTHORITY: CITY OF MANDURAH

Appendix B – Development Plans





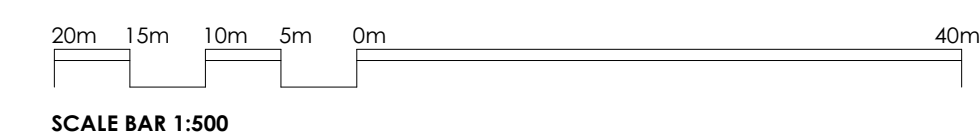
EXISTING SITE SURVEY PLAN **RAMSAY HEALTH CARE - PEEL DAY HOSPITAL : DEVELOPMENT APPLICATION**



- ROAD TRAFFIC SIGN
- TREE
- STOP VALVE
- WATER TAP
- BORE
- STORM WATER MANHOLE
- GRATE
- SIDE ENTRY PIT
- CONSUMER POLE
- POWER POLE
- POWER DOME
- TELSTRA MANHOLE
- TELECOMMUNICATIONS PIT

Scale 1 : 500 @ A1

Date 19.12.23



Project No.

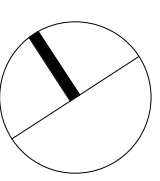
3279

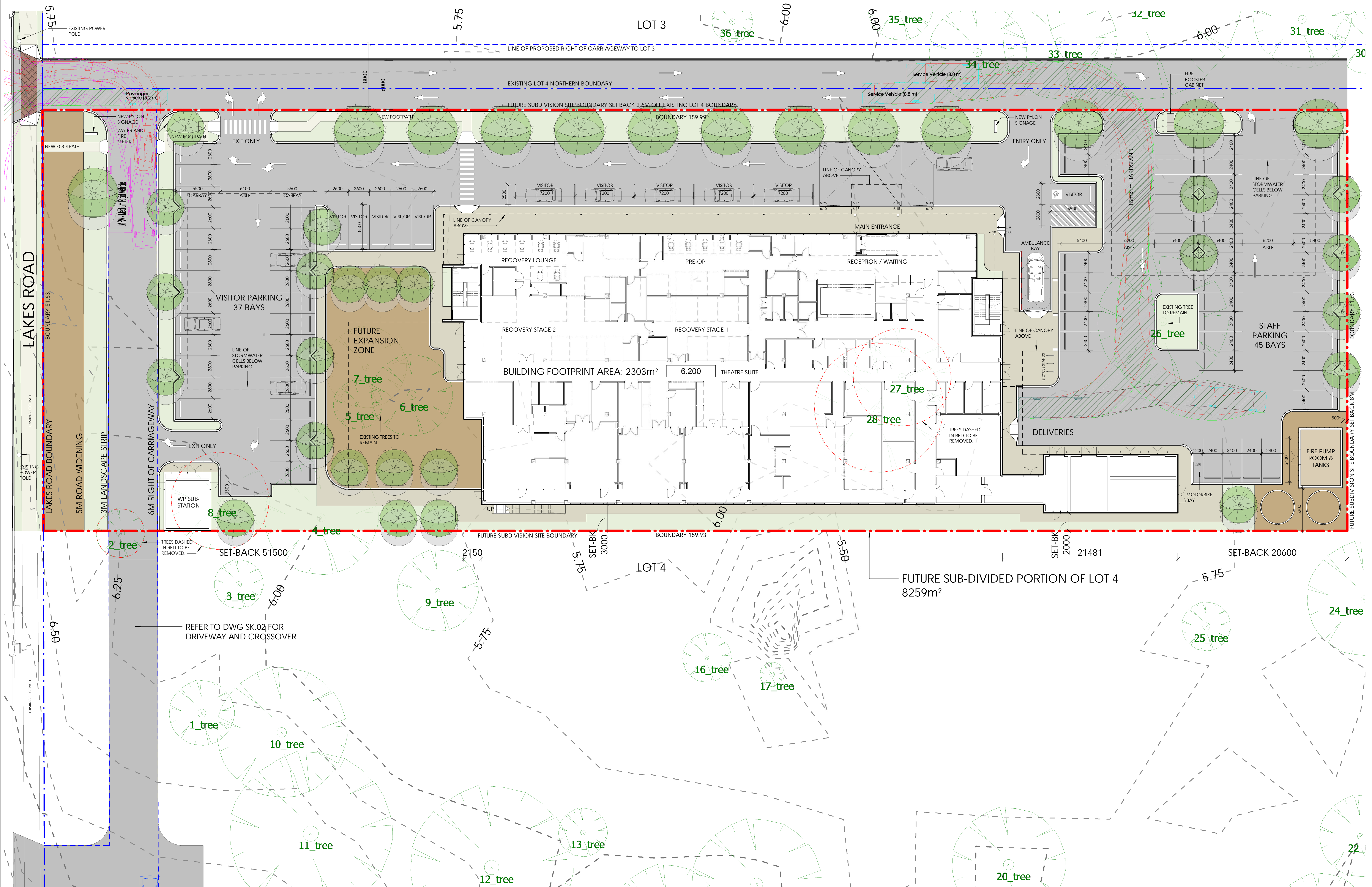
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SK.03

Revision

A

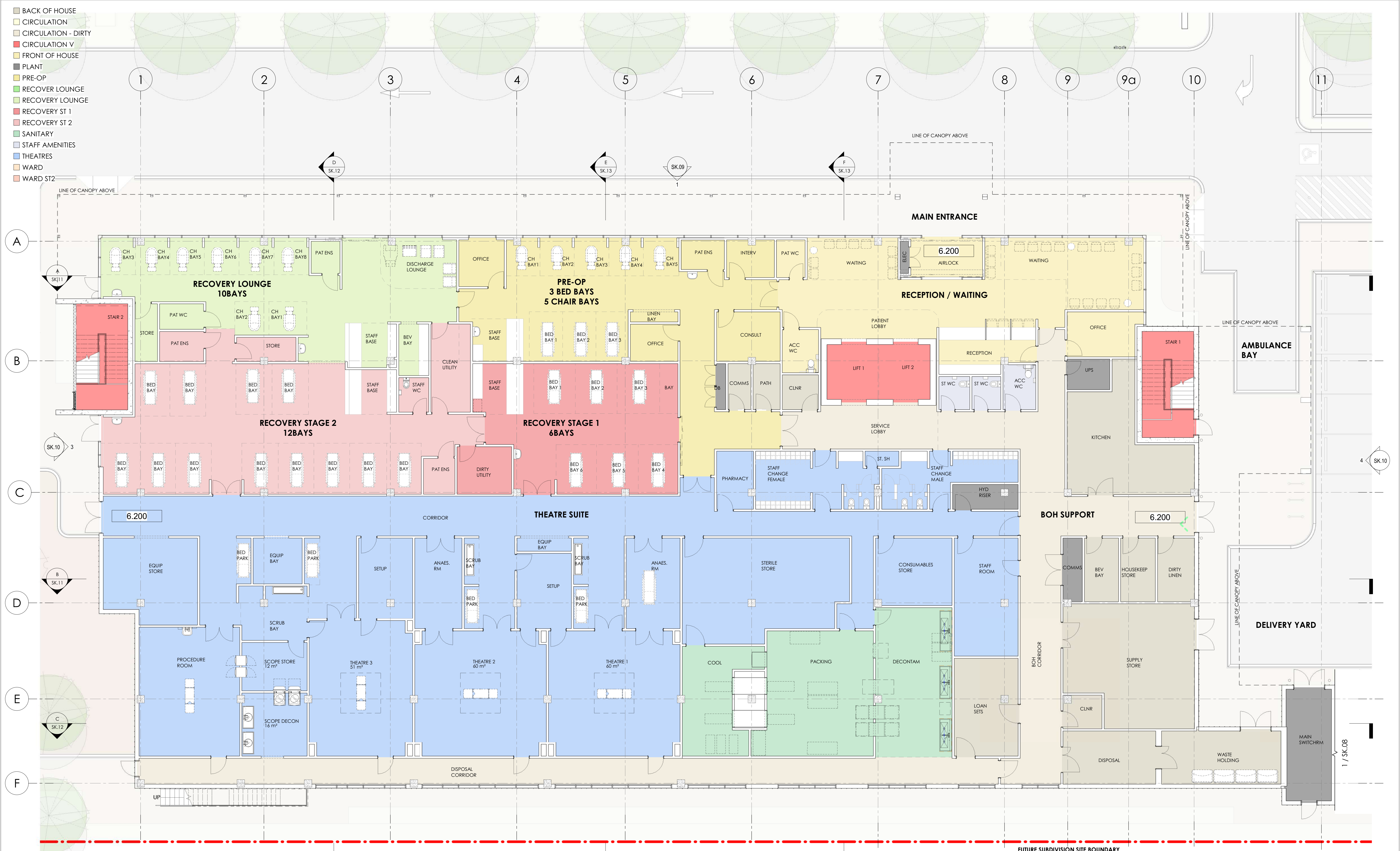




PROPOSED SITE PLAN
RAMSAY HEALTH CARE - PEEL DAY HOSPITAL : DEVELOPMENT APPLICATION

Scale 1 : 200 @ A1
Date 22.04.24
8m 6m 4m 2m 0m 16m
SCALE BAR 1:200

Project No.	Sheet No.	Revision
3279	SK.04	B



GROUND FLOOR PLAN
RAMSAY HEALTH CARE - PEEL DAY HOSPITAL : DEVELOPMENT APPLICATION

Scale 1 : 100 @ A1
Date 19.12.23
Scale bar 1:100

Project No.	Sheet No.	Revision
3279	SK.05	A

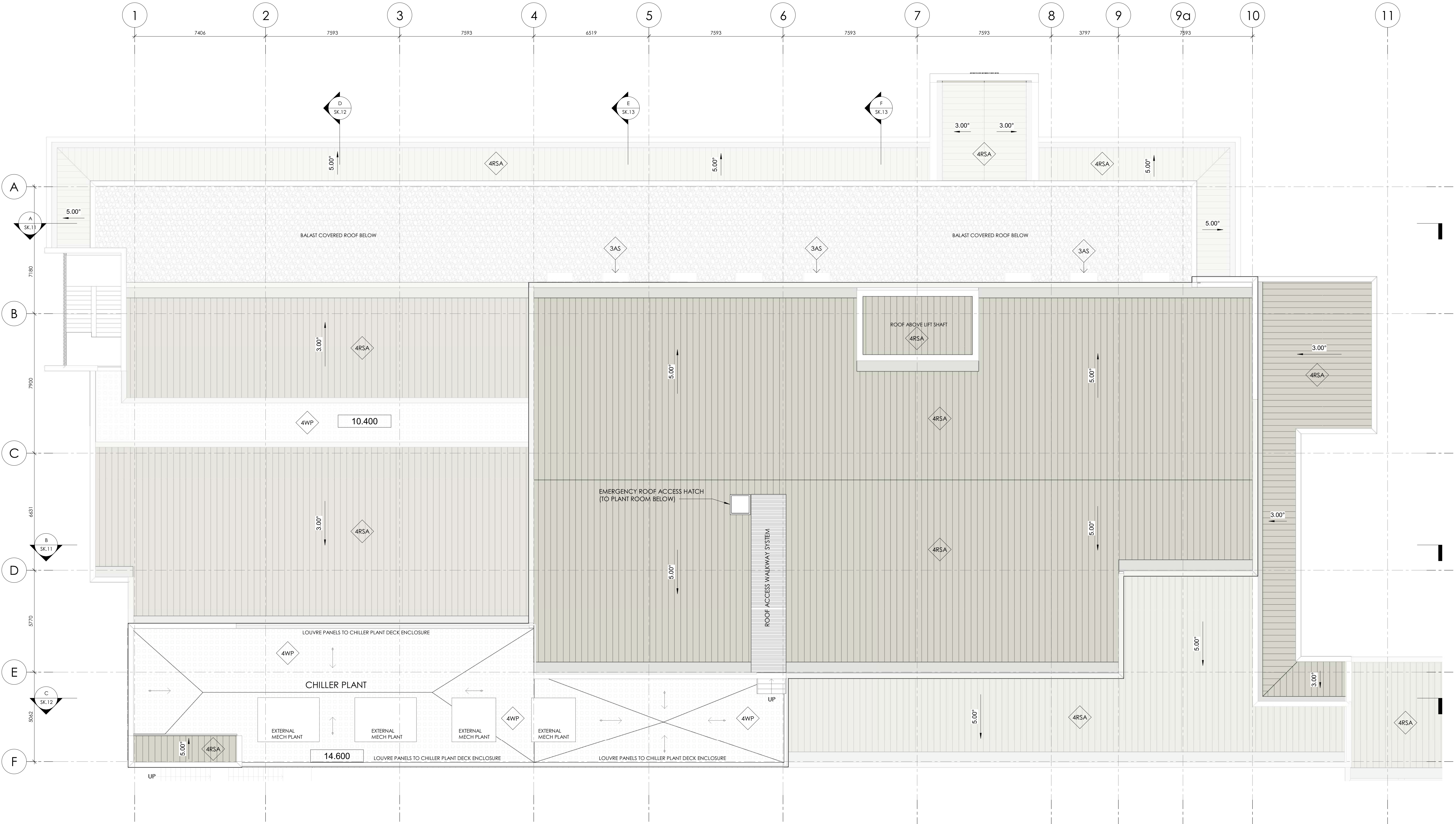
- BACK OF HOUSE
- CIRCULATION
- CIRCULATION - DIRTY
- CIRCULATION V
- FRONT OF HOUSE
- PLANT
- PRE-OP
- RECOVER LOUNGE
- RECOVERY LOUNGE
- RECOVERY ST 1
- RECOVERY ST 2
- SANITARY
- STAFF AMENITIES
- THEATRES
- WARD
- WARD ST2



FIRST FLOOR PLAN
RAMSAY HEALTH CARE - PEEL DAY HOSPITAL : DEVELOPMENT APPLICATION

Scale 1 : 100 @ A1
Date 19.12.23
4m 3m 2m 1m 0m 8m
SCALE BAR 1:100

Project No.	Sheet No.	Revision
3279	SK.06	A



LEGEND - EXTERNAL FINISHES	
CODE	DESCRIPTION
3AS	ANODISED ALUMINIUM SUNSHADES ON FRAMING. COLOUR DARK GREY
4RSA	KLIP-LOK CLASSIC 700 0.48BMT ROOF SHEETING, ANTICON INSULATION AND METROLL SAFEBRIDGE SAFETY MESH. COLOUR: SURFMIST
4WP	TRAFFICABLE WATERPROOFING FINISH TO CONCRETE SLAB



ROOF PLAN
RAMSAY HEALTH CARE - PEEL DAY HOSPITAL : DEVELOPMENT APPLICATION

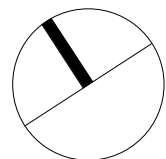
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4m 3m 2m 1m 0m 8m
SCALE BAR 1:100

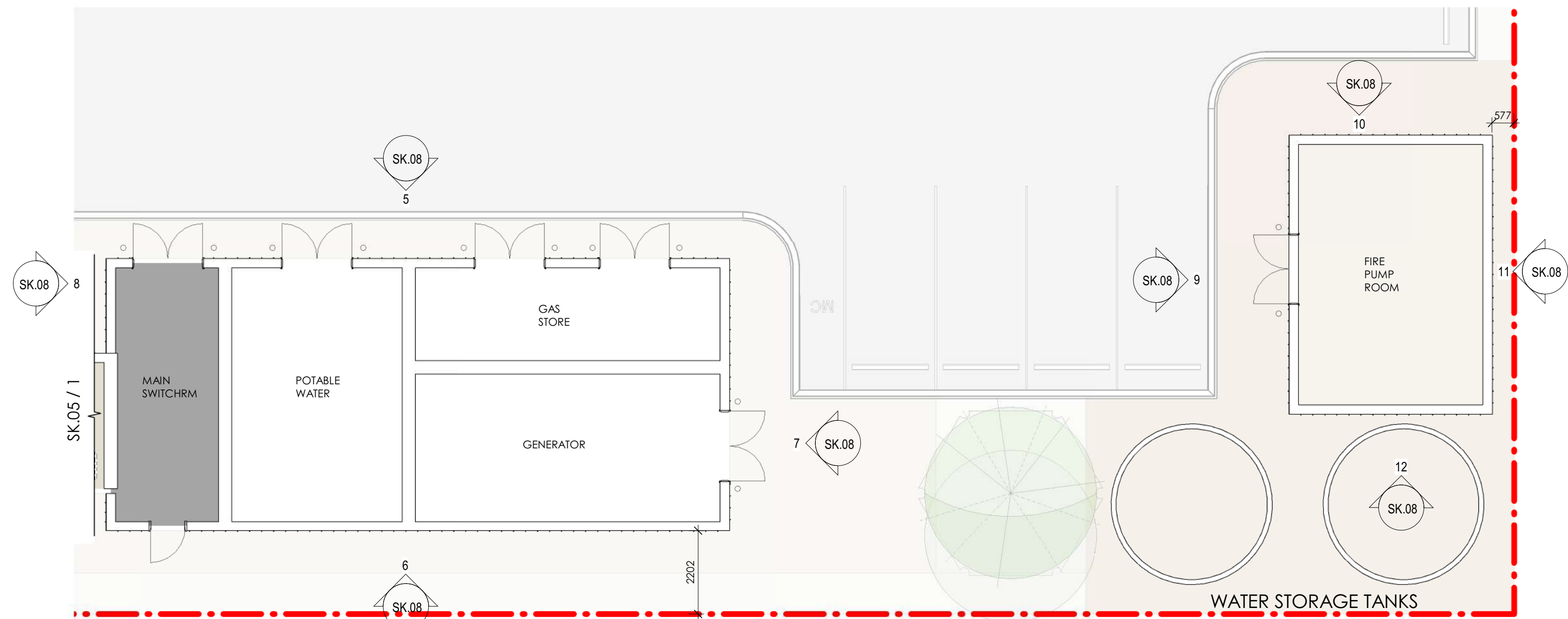
Date 19.12.23

Project No.
3279

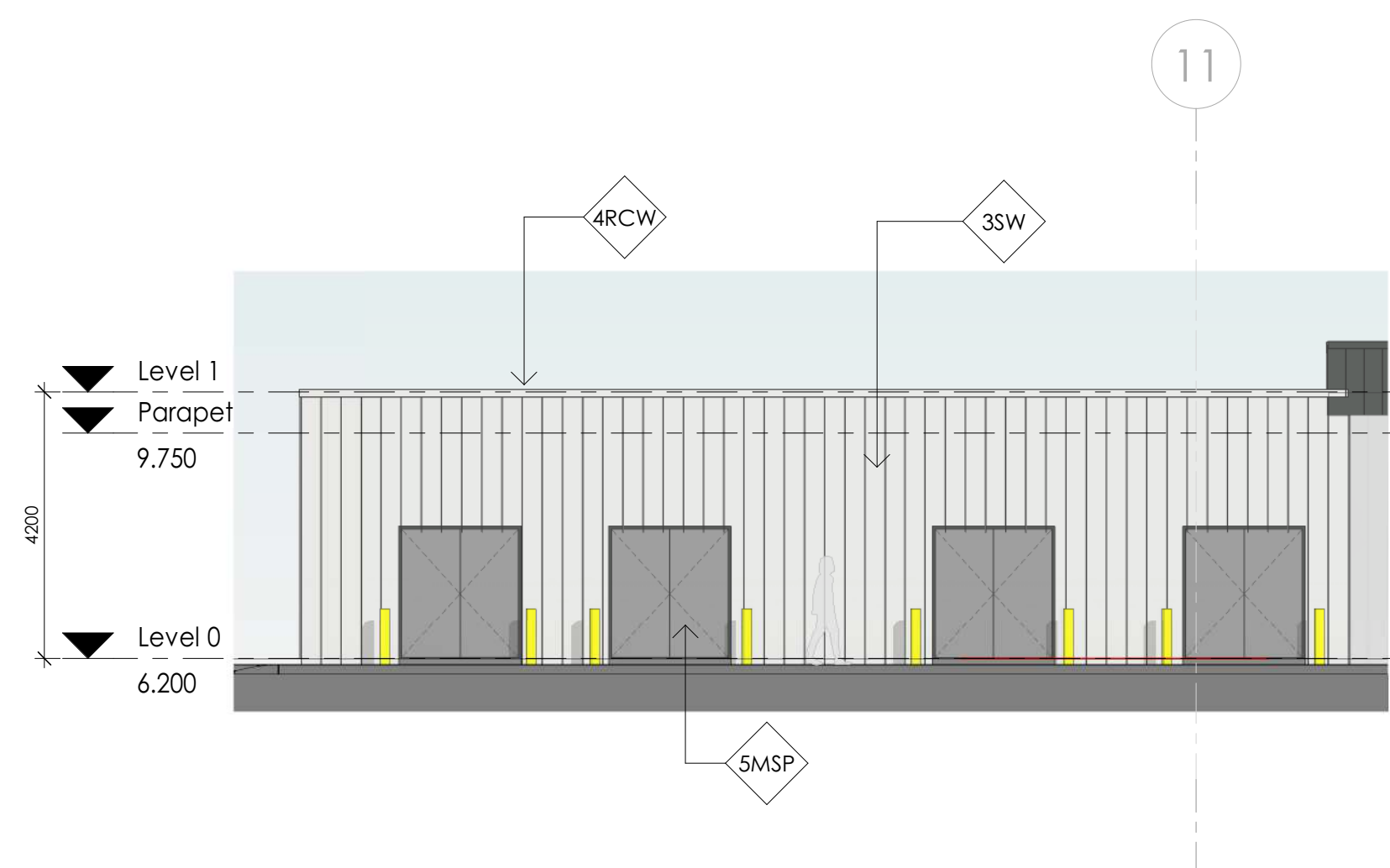
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Revision
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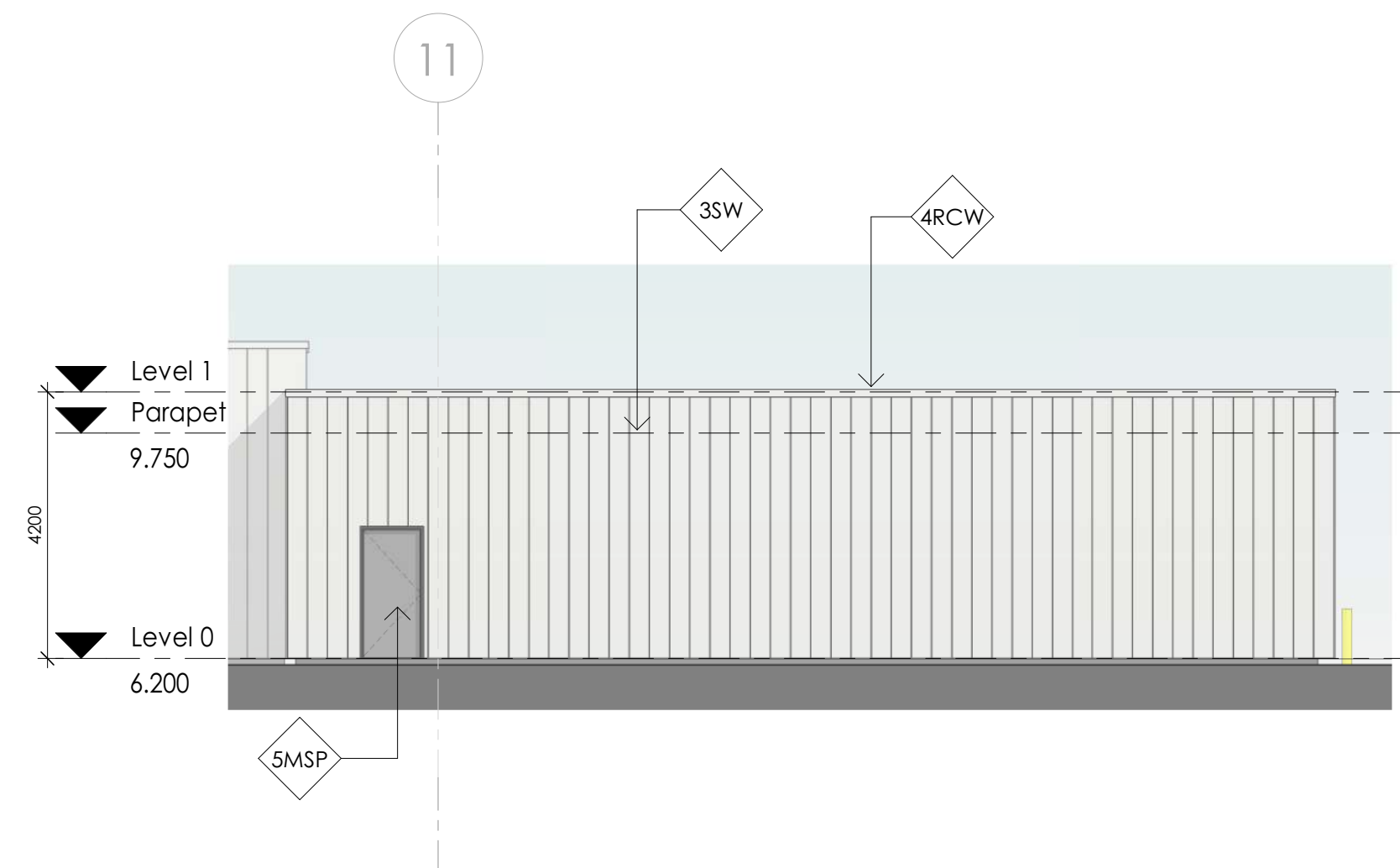




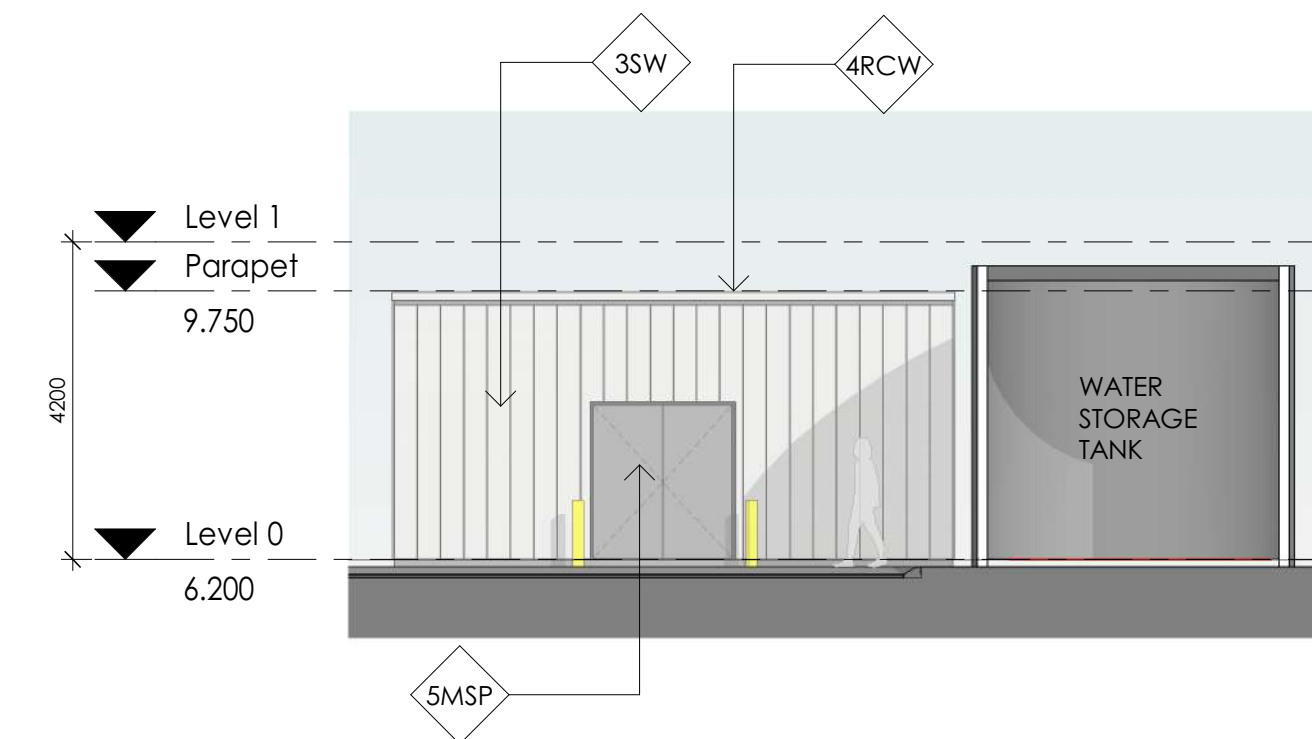
LEGEND - EXTERNAL FINISHES	
CODE	DESCRIPTION
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4RCW	POWDERCOATED FOLDED ALUMINIUM ROOF CAPPING. COLOUR: WHITE
4RSA	KLIP-LOK CLASSIC 700 0.48BMT ROOF SHEETING, ANTICON INSULATION AND METROLL SAFEBRIDGE SAFETY MESH. COLOUR: SURFMIST
5MSP	METAL FRAMES SOLID CORE PAINTED EXTERNAL DOORS



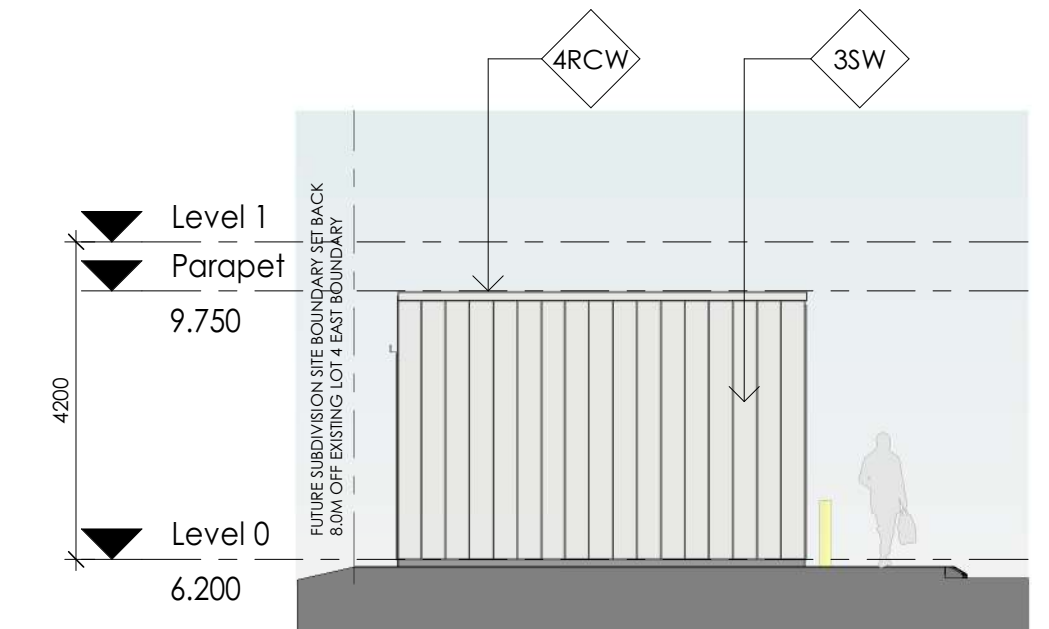
5 ELEVATION 1 (NORTH EAST)
SCALE 1 : 100



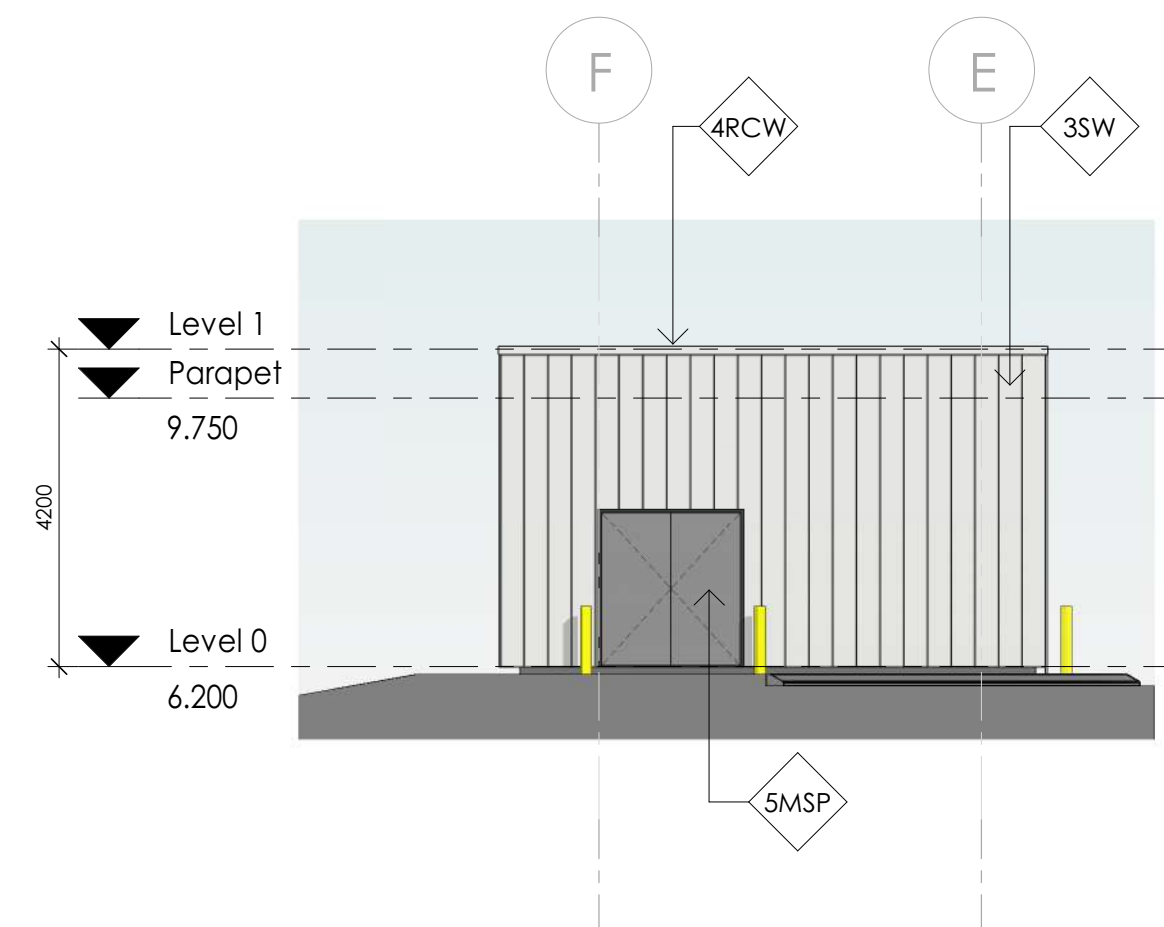
6 ELEVATION 2 (SOUTH WEST)
SCALE 1 : 100



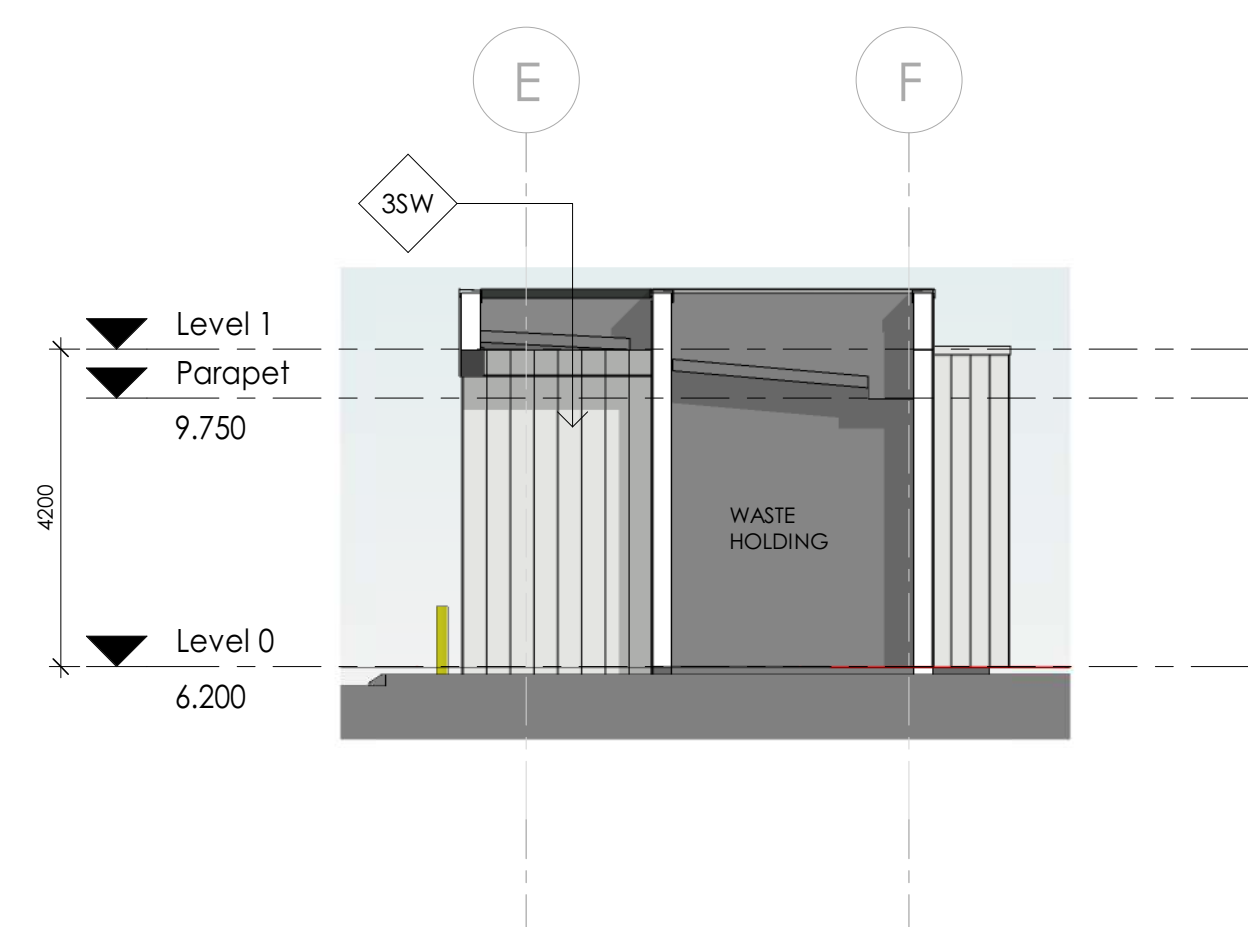
9 ELEVATION 1 (FIRE PUMP)
SCALE 1 : 100



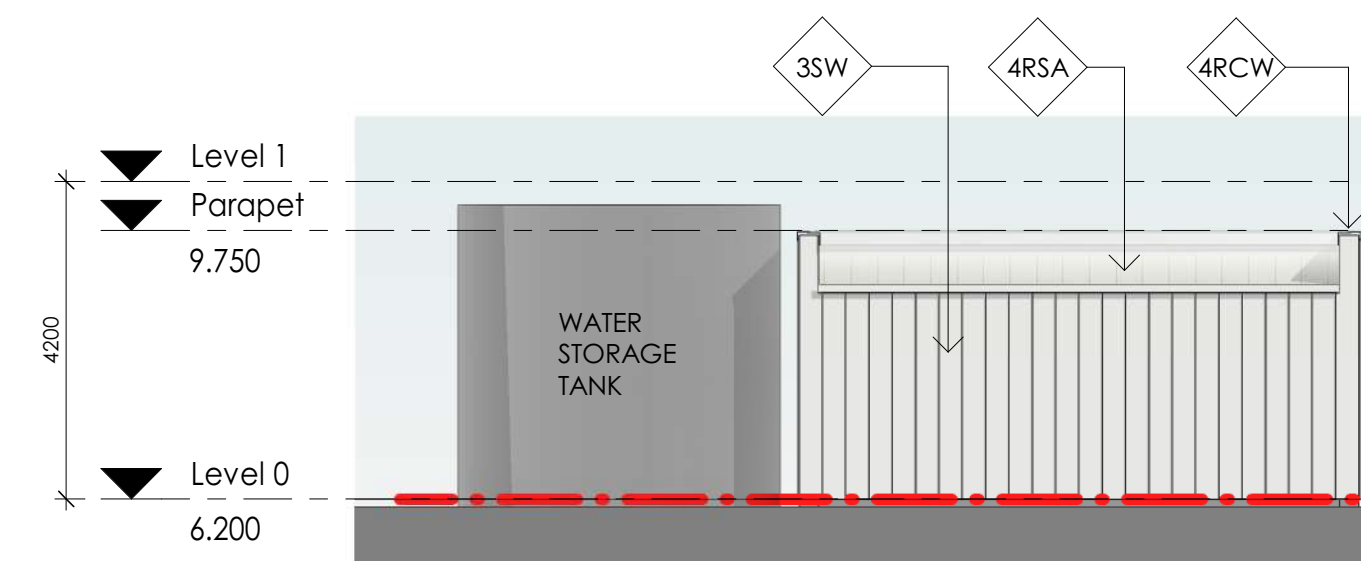
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SCALE 1 : 100



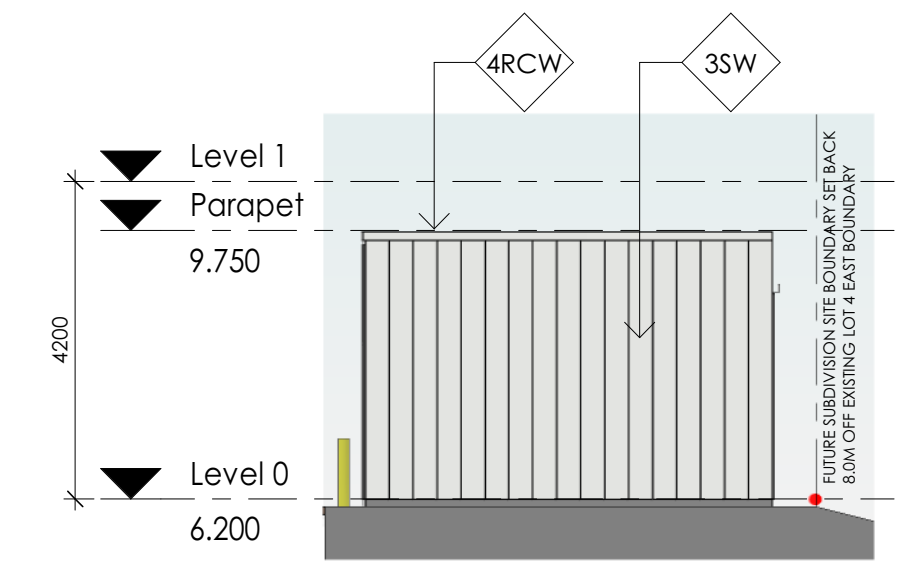
7 ELEVATION 4 (SOUTH EAST)
SCALE 1 : 100



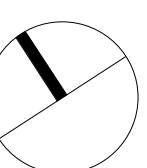
8 ELEVATION 3 (NORTH WEST)
SCALE 1 : 100



11 ELEVATION 3 (FIRE PUMP)
SCALE 1 : 100



12 ELEVATION 4 (FIRE PUMP)
SCALE 1 : 100



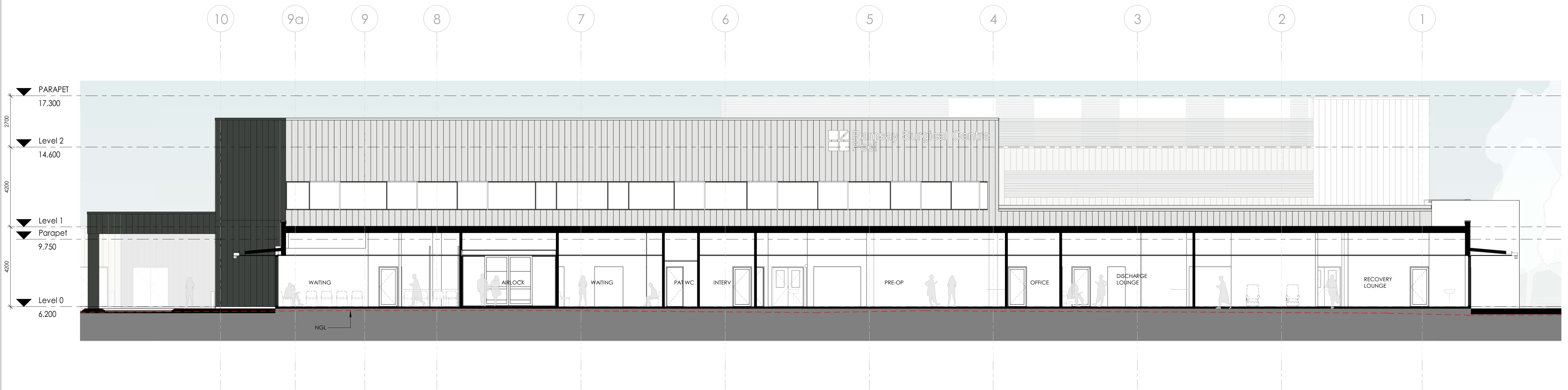


3 ELEVATION 3 (NORTH WEST)
SK.05 SCALE 1 : 100

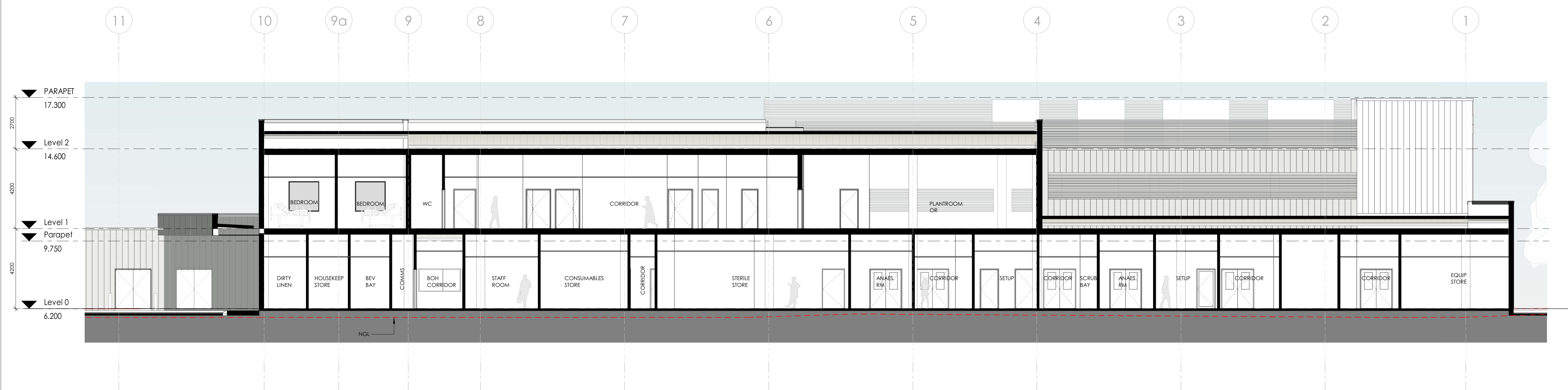
LEGEND - EXTERNAL FINISHES	
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3MP	PAINTED CONCRETE COLOUR: GREY
3SG	POWDERCOATED STANDING SEAM PROFILE ALUMINIUM PANELS. COLOUR: DARK GREY
3SW	POWDERCOATED STANDING SEAM PROFILE ALUMINIUM PANELS. COLOUR: WHITE
3SWB	POWDERCOATED STANDING SEAM PROFILE ALUMINIUM PANELS. COLOUR: DARK BLUE
4CFG	POWDERCOATED FOLDED ALUMINIUM CANOPY FASCIA. COLOUR: GREY
4RCG	POWDERCOATED FOLDED ALUMINIUM ROOF CAPPING. COLOUR: DARK GREY
4RCW	POWDERCOATED FOLDED ALUMINIUM ROOF CAPPING. COLOUR: WHITE
5GWB	ALUMINIUM FRAMED GLAZING PANELS WITH COLOUR BACK GLASS SPANDREL PANEL
5GWT	ALUMINIUM FRAMED GLAZING PANELS WITH GREY TINTED GLASS
5MLW	ALUMINIUM FRAMED POWDER COATED LOUVRES. COLOUR: WHITE
5MSP	METAL FRAMES SOLID CORE PAINTED EXTERNAL DOORS
9PCG	FEATURE CANOPY SUPPORT STRUCTURE. COLOUR: DARK GREY
9SI	BUILDING SIGNAGE (SUBJECT TO SEPARATE APPROVAL APPLICATION)



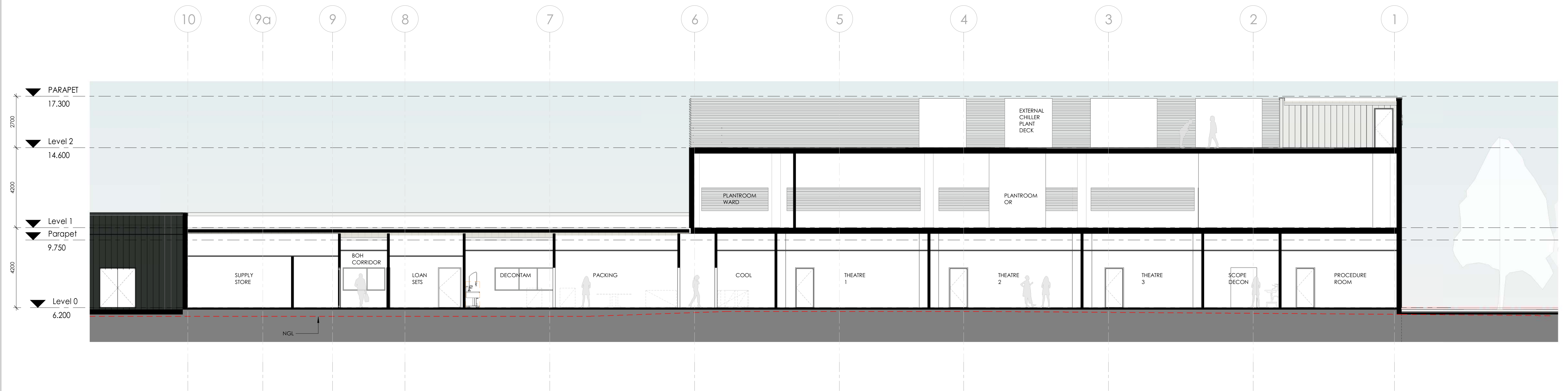
4 ELEVATION 4 (SOUTH EAST)
SK.05 SCALE 1 : 100



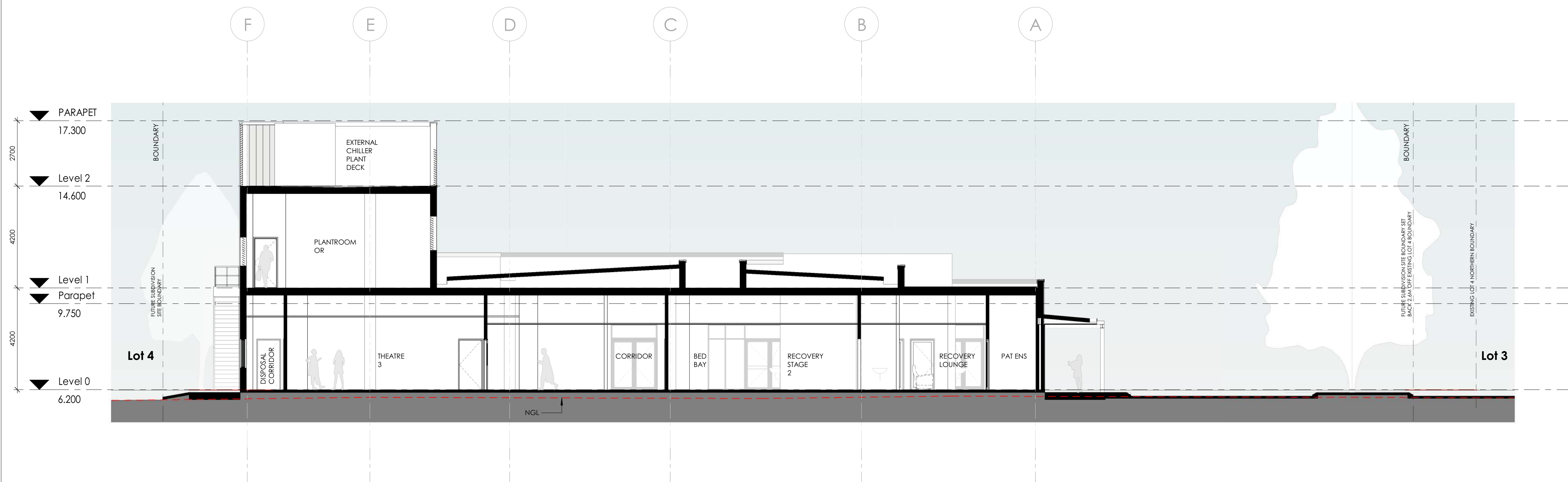
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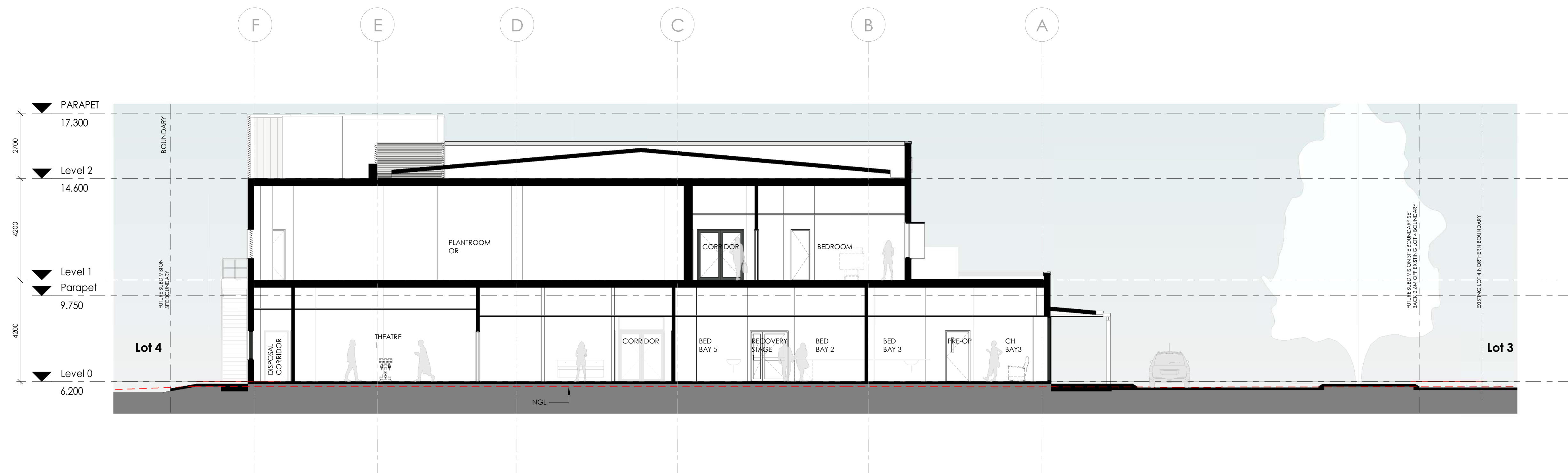
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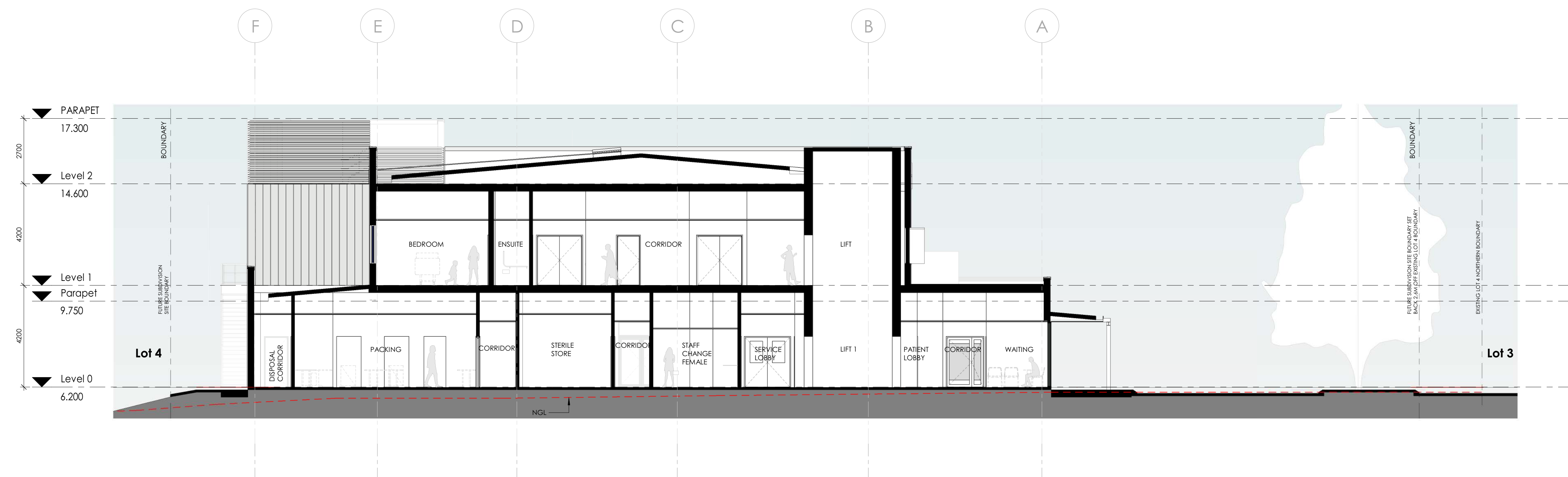
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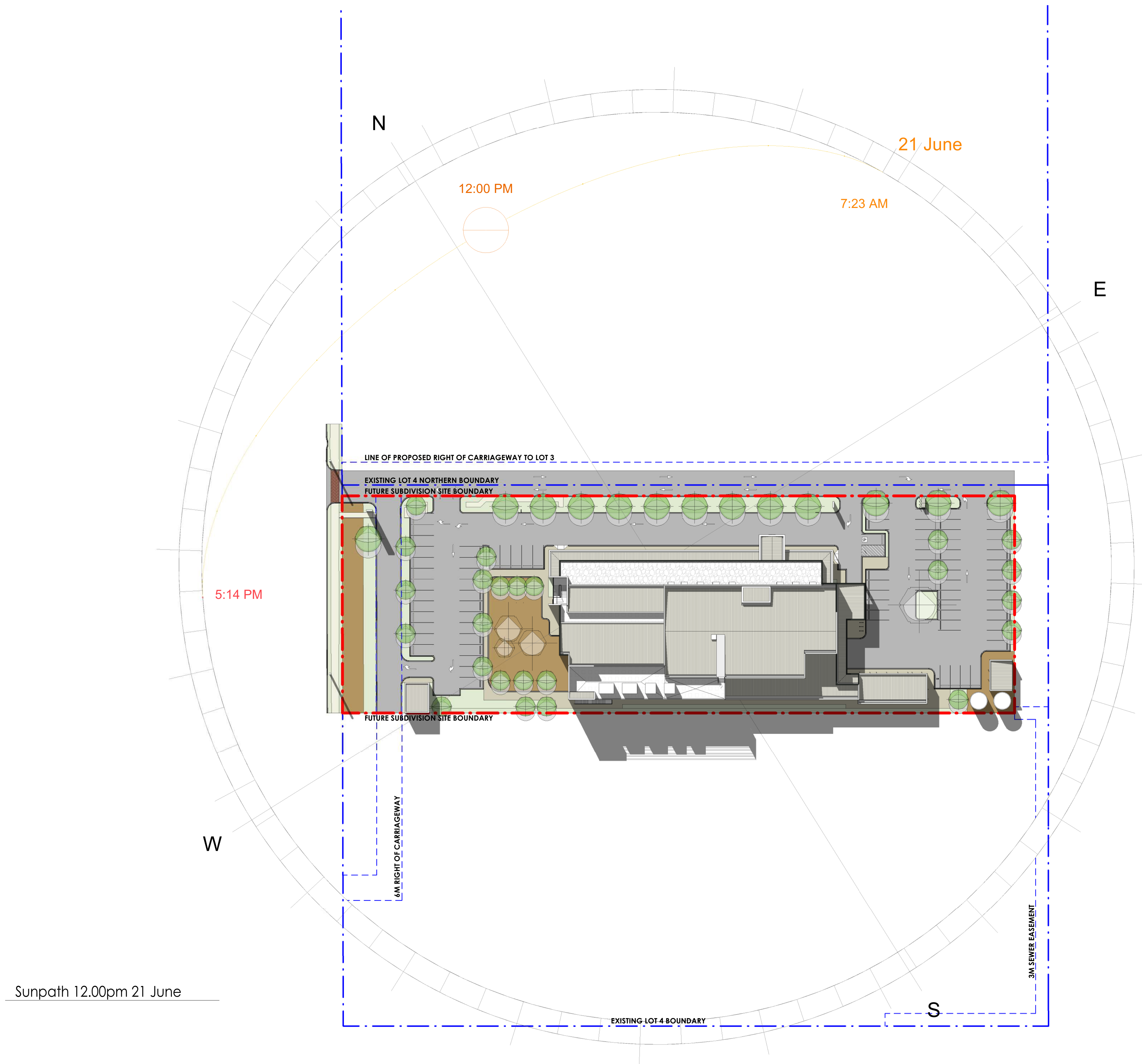
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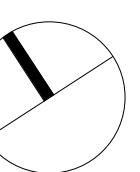
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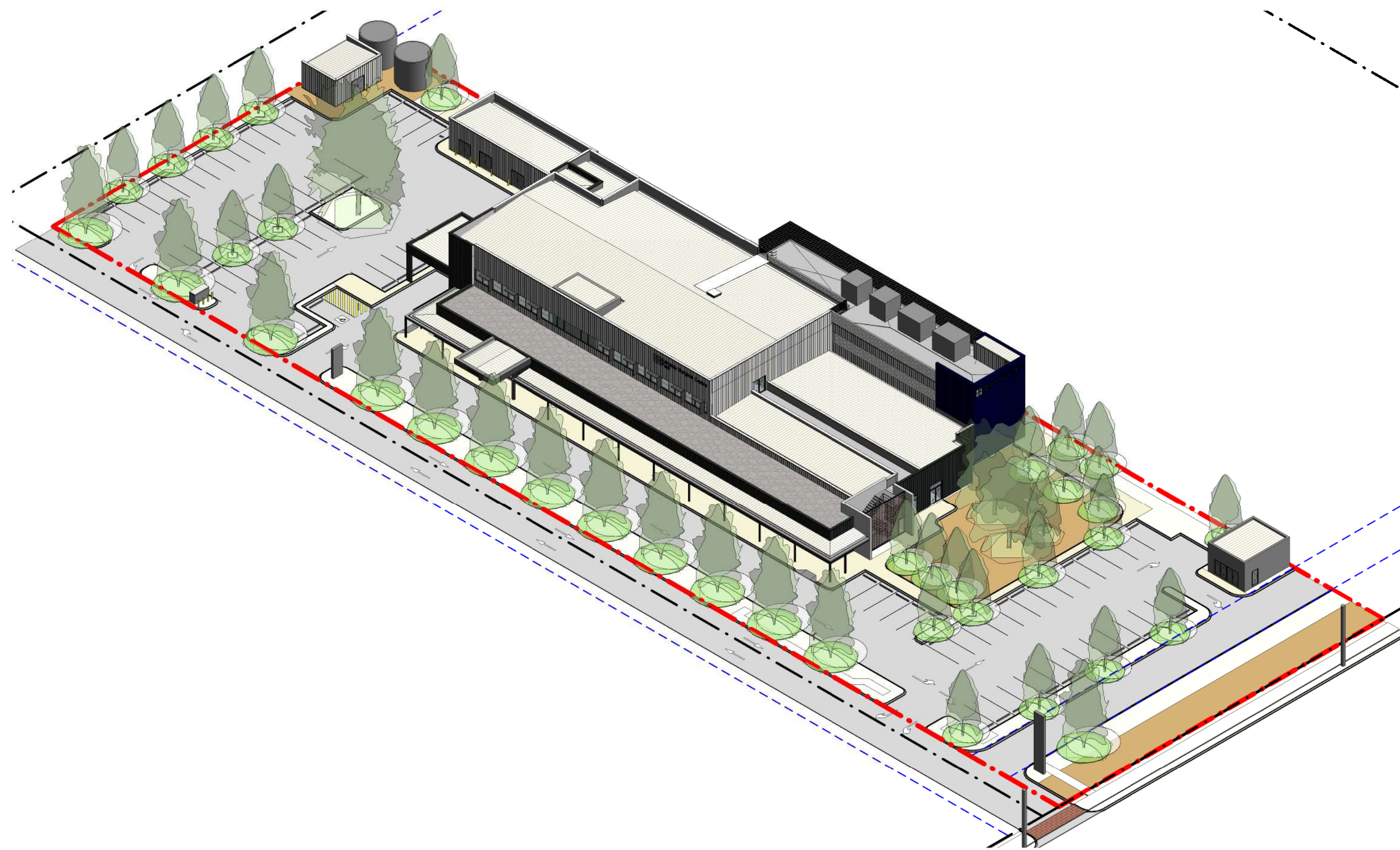


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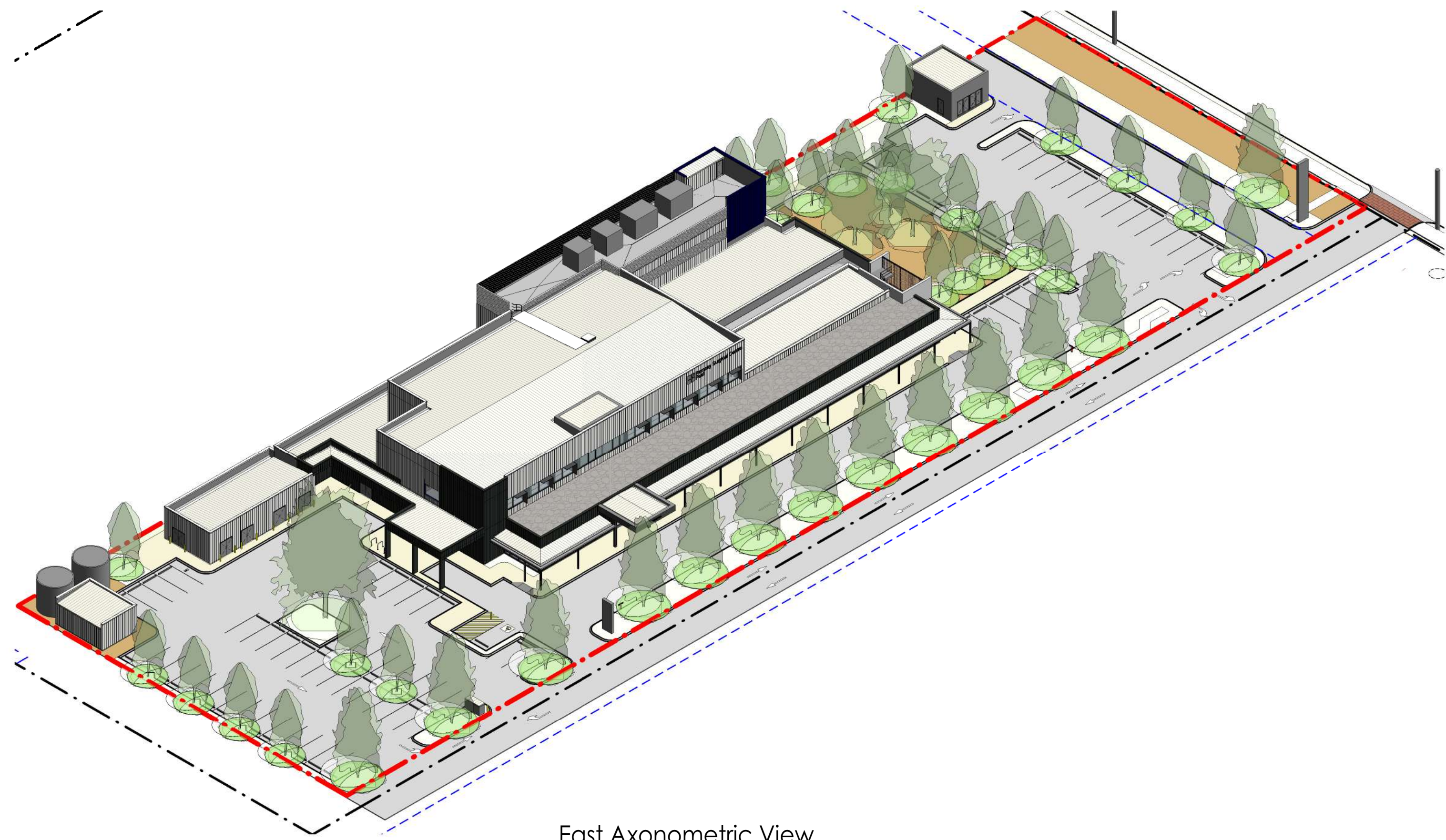


Sunpath 12.00pm 21 June

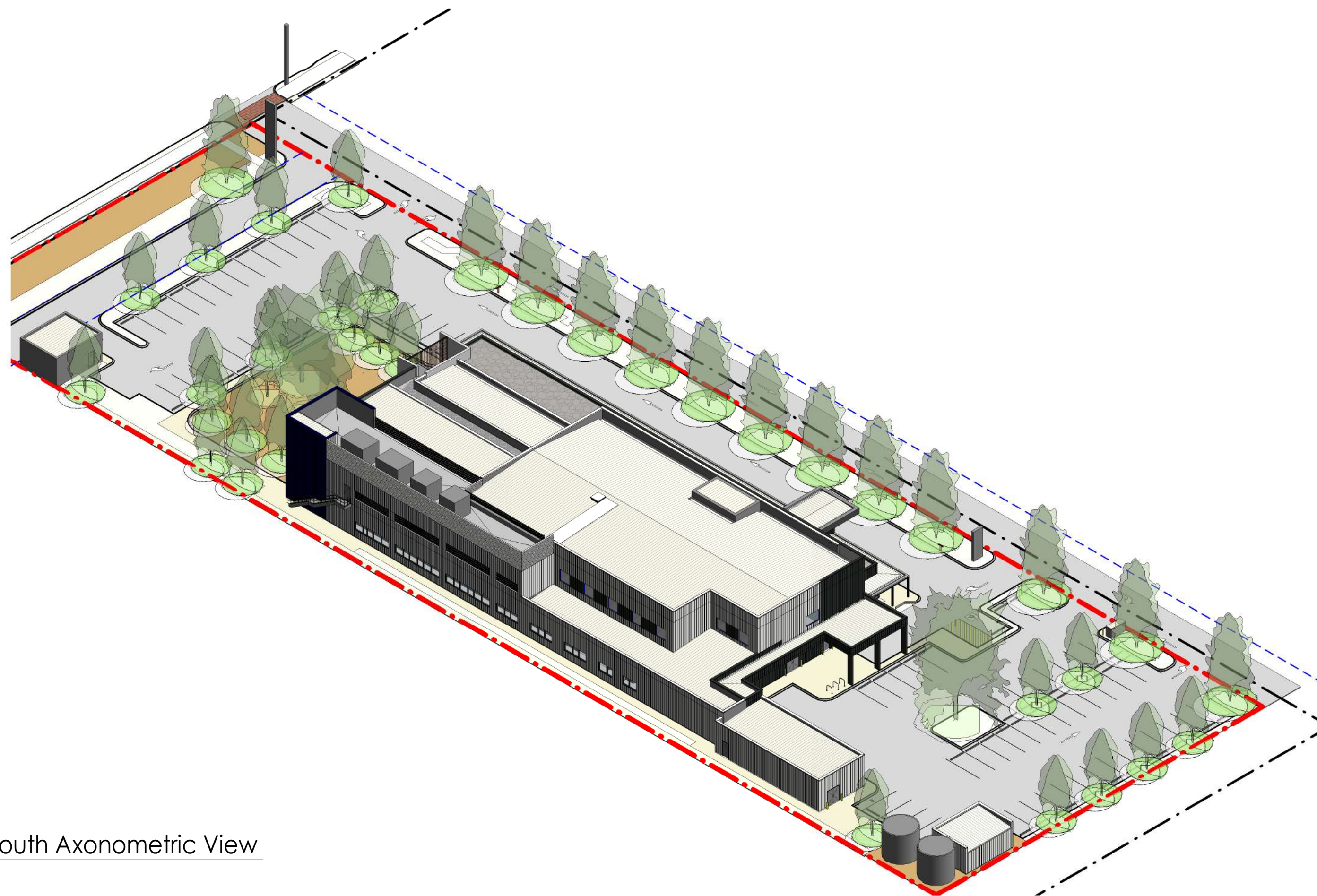




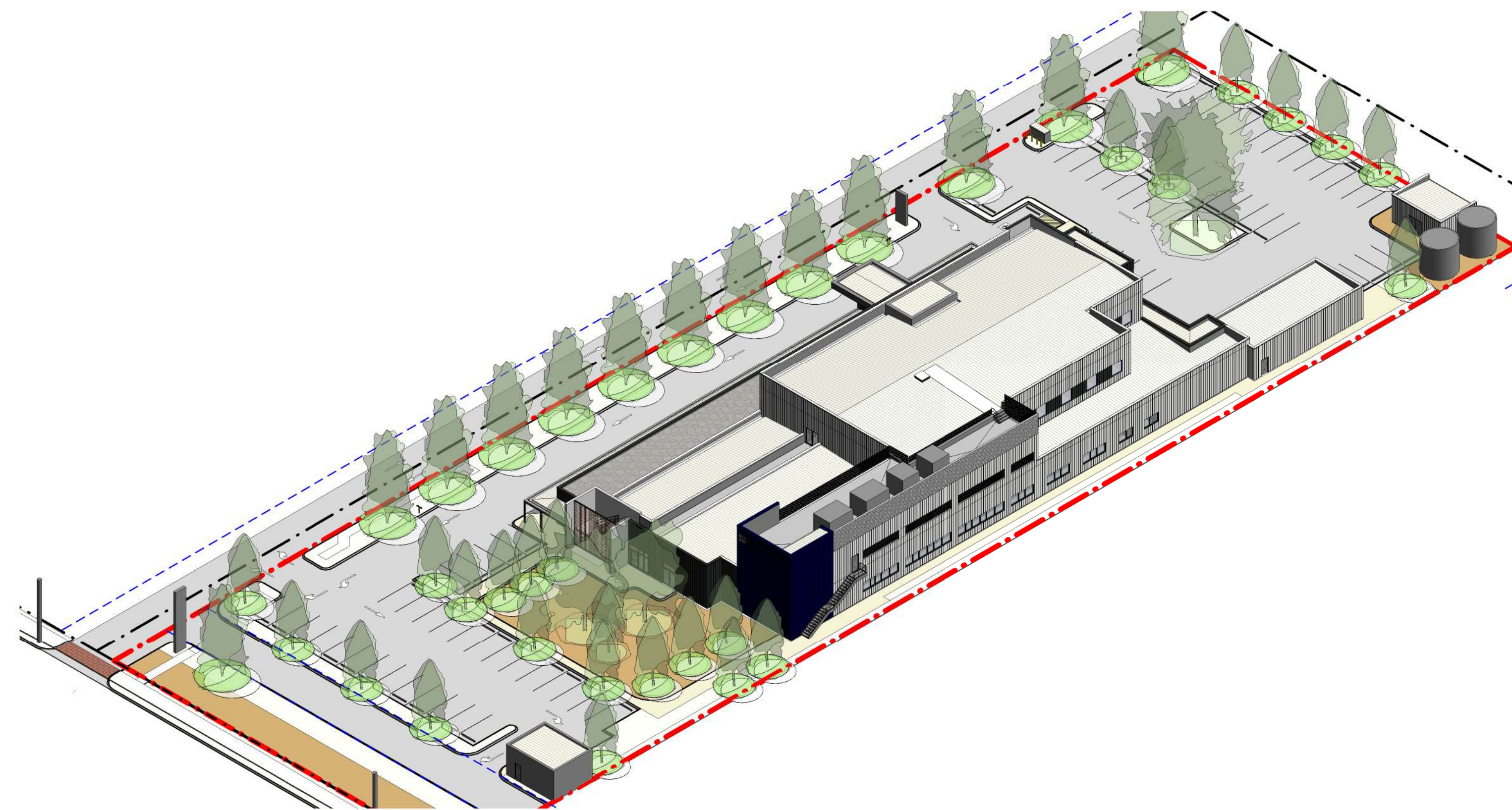
North Axonometric View



East Axonometric View



South Axonometric View



West Axonometric View





Appendix C - Environmental Assessment

30 July 2021

Mitch Allen

Phone + 61 8 9202 6819

Mob +61 0 427 005 226

Email saui@pgv.me.au

Suite 3, 67 Howe Street

Ostana Park WA 6317

ABN 44 981 725 498

Knightside Nominees Pty Ltd

Co-Medical

1 Canning Highway

Fremantle WA 6160

Dear Mitch,

RE: Lots 3 and 4 Lakes Road, Greenfields – Tree Assessment and Black Cockatoo Habitat Assessment

Following is our tree assessment report for Lots 3 and 4 Lakes Road, Greenfields (the site).

1 Scope of Work

A tree survey was undertaken to identify any potential Black Cockatoo breeding habitat trees as well as to assist in identifying any trees that might be suitable for retention within a development of the site.

During the tree assessment evidence of any Black Cockatoo foraging and roosting was also looked for.

2 Methodology

2.1 Tree Assessment

The tree assessment was undertaken on 23 July 2021 by Dr Paul van der Moezel of PGV Environmental. All relevant native trees with a diameter at breast height (DBH) of 50cm or greater were assessed, with information collected on:

- Species
- Location (hand-held GPS with accuracy 3-5m)
- DBH (diameter at breast height)
- Height
- Presence of any hollows suitable for black cockatoos
- Overall health of the trees

Each tree was rated as High, Medium or Low in terms of the potential to retain within a future development. The rating is based on the health and age of the tree as well as its aesthetic appeal.

2.2 Black Cockatoo Habitat Assessment

PGV Environmental undertook a Black Cockatoo Habitat Assessment in accordance with the *EPBC Act referral guidelines for three threatened Black Cockatoo species: Carnaby's cockatoo (endangered) Calyptorhynchus latirostris Baudin's cockatoo (vulnerable) Calyptorhynchus baudinii Forest red-tailed Black Cockatoo (vulnerable) Calyptorhynchus banksii naso* (SEWPaC, 2012) (Black Cockatoo Referral Guidelines) and the methodology that is outlined in the SPRAT Database for each of the Black Cockatoo species for Black Cockatoo Habitat Assessments.

During the site visit a search for feeding signs or feeding debris such as chewed Jarrah (*Eucalyptus marginata*) and Tuart (*E. gomphocephala*) nuts was undertaken. No other native foraging habitat species occur on the site.

The assessment also searched for evidence of roosting including areas of droppings, moulted feathers, feather down or clippings from branches under trees.

Breeding habitat was assessed using the definition contained in the Black Cockatoo Referral Guidelines which defines breeding habitat as trees of particular species known to support breeding within the range of the Black Cockatoo species that either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow. For the relevant tree species on the site, Tuart and Jarrah, the suitable DBH is 50cm.

3 Results

A total of 30 significant trees were recorded on the site, with 15 on Lot 3 and 15 on Lot 4 (Attachment 1, Table 1).

The trees comprised 16 Tuarts and 14 Jarrah, including one dead Tuart tree. Nine trees contained small hollows or spouts suitable for small birds to nest in. Pairs of Pink and Grey Galahs and 28 Parrots were observed on three trees and were potentially nesting or preparing to nest in the trees. Most of the hollows and spouts had small diameter openings which are not large enough for Black Cockatoos to breed in. The largest tree on the site (Tree #3) had a large diameter hollow on the trunk (Plate 1). No evidence of past or recent nesting by Black Cockatoos was observed around the edges of the hollow. The hollow is highly likely to be continuous with a hollowed-out centre of the large tree and therefore not have a base suitable for any birds to form a nest.

Table 1: Significant Trees Recorded on the site

Species	Lot 3	Lot 4	Total
Tuart (<i>Eucalyptus gomphocephala</i>)	6	10	16
Jarrah (<i>Eucalyptus marginata</i>)	9	5	14
Total	15	15	30

Approximately half (17) of the trees were considered healthy specimens while the other 13 were unhealthy due primarily to termite activity (Plate 2) and also the impact of past fires.

Eight of the trees were rated as High, seven Medium and 15 Low based on the health of the tree as well as the size and aesthetic appeal. Of the eight High rated trees, six were Tuart and occurred mostly on Lot 4, and two were Jarrah, both on Lot 3. The location of the High rated trees is shown on Attachment 2.

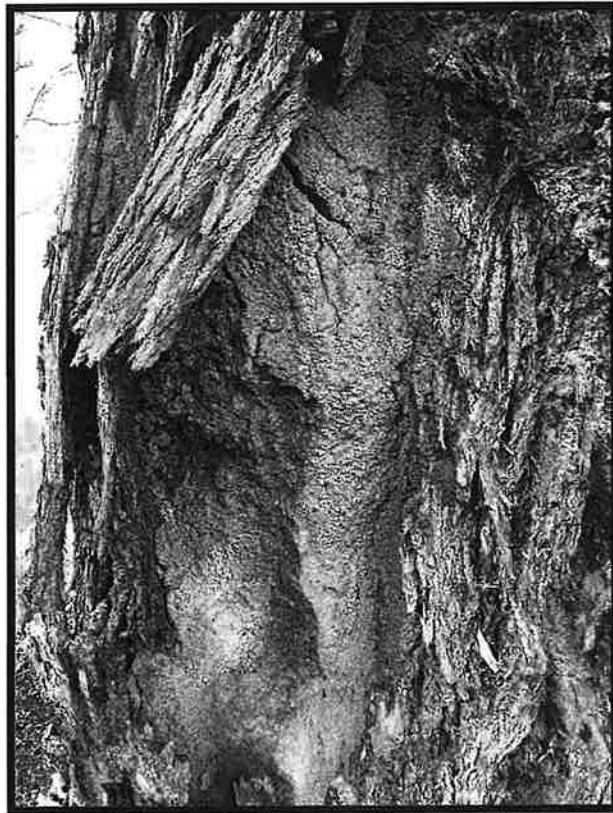
Table 2: Summary of Tree Data

Species	Hollows/spouts	Healthy	Diseased/Dying/ Dead	Rating		
				High	Medium	Low
Tuart	3	13	3	6	6	4
Jarrah	6	4	10	2	1	11
Total	9	17	13	8	7	15

Plate 1: Large hollow ((Tree #3)



Plate 2: Termite Activity ((Tree #13) on Lot 3



Foraging habitat on the site consists mostly of the Jarrah trees, with Tuart trees providing a low-level foraging habitat. The amount of foraging habitat on the site (combined canopy of the Jarrah and Tuart trees) is well under 1ha. Therefore, according to the Black Cockatoo Referral Guidelines clearing the Jarrah and Tuart trees would not result in a significant impact to Black Cockatoos.

No evidence of overnight roosting by Black Cockatoos was recorded on the site. The previous occupants of the site, who lived on Lot 3 for many years, had not observed any Black Cockatoo activity on the site.

While no actual breeding by Black Cockatoos was observed on the site, or could occur due to the absence of suitable hollows, 30 potential breeding habitat trees occur on the site. Clearing one or more of these trees could lead to a significant impact on Black Cockatoo habitat and therefore require referral under the EPBC Act.

Ideally some or all of the large Tuart and Jarrah trees in good condition rated as High could be kept in a development. Photographs of the eight High rate trees are provided in Attachment 3. The most significant tree is clearly the large Tuart tree (Tree #3) on Lot 3. The tree is up to 25m high with a dbh of nearly 2m and in very healthy condition (Plate 1). Retaining the tree in a development would need to consider the safety of pedestrians, vehicles and structures beneath the large canopy.

Plate 3: Large Tuart ((Tree #3) on Lot 3



4 Conclusion

A total of 30 significant Tuart and Jarrah trees were recorded on the site with an even spread over Lots 3 and 4. The significance was based on a trunk diameter greater than 50cm. Many of the trees were unhealthy, including several with termite activity.

Eight trees were rated as High and could be considered for retention within a future development.

Clearing any of the 30 trees may lead to a significant impact on Black Cockatoo potential breeding habitat and a Referral under the EPBC Act would be recommended. In PGV Environmental's experience the result of a referral to clear any or all of the Jarrah and Tuart trees on the lot would highly likely not require a full assessment by the Commonwealth environment department.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Paul van der Moezel'.

**Paul van der Moezel
Managing Director**

Attachment 1: Tree Data

Attachment 2: Location of Significant Trees

Attachment 3: Photos of High rated Trees

Tree 3 – Tuart Lot 3



Tree 11 – Jarrah Lot 3



Tree 15 – Jarrah Lot 3



Tree 18 (right) – Tuart Lot 4



Tree 19 (back left)— Tuart Lot 4



Tree 21 – Tuart Lot 4

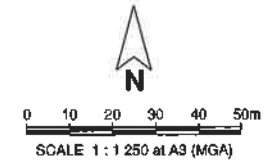
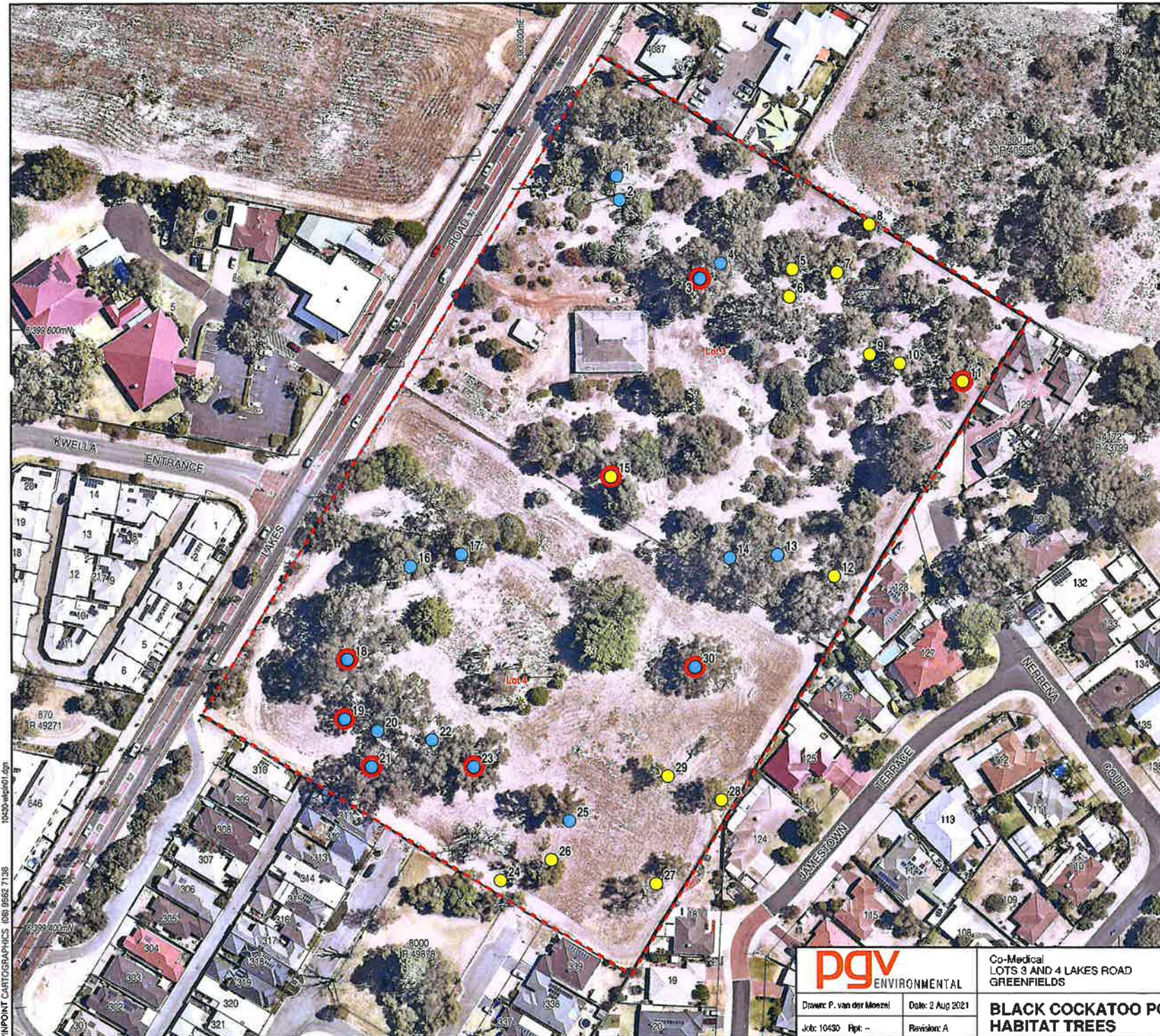


Tree 23 – Tuart Lot 4



Tree 30 – Tuart Lot 4





Legend

- Site Boundary
- Cadastral Boundary
- Easement Boundary

Potential Habitat Trees

- Jarrah (*Eucalyptus marginata*)
- Tuart (*Eucalyptus gomphocephala*)
- 6 Tree Number
- High Rating

CADASTRAL SOURCE: Landgate, July 2021.
AERIAL PHOTOGRAPH SOURCE: NearMap, flown January 2021.

pgv
ENVIRONMENTAL

Drawn: P. van der Moezel Date: 2 Aug 2021
Job: 10430 Rpt: -- Revision: A

Co-Medical
LOTS 3 AND 4 LAKES ROAD
GREENFIELDS

**BLACK COCKATOO POTENTIAL BREEDING
HABITAT TREES**

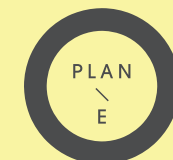
Workplan 1

Appendix D – Landscaping Concept Plan

RAMSAY HEALTH CARE PEEL PRIVATE HOSPITAL

Landscape Concept (REV C)

prepare for STH Architecture
DECEMBER 2023



LANDSCAPE ARCHITECTS

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01 landscape design



LEGEND

- | | | | | | |
|----|---|----|---|----|--|
| 01 | NATIVE SHRUB, GROUNDCOVERS AND TREE PLANTING TO CAR PARKING AND LOT BOUNDARY | 05 | RESTING AREA FOR INFORMAL SEATING AND GATHERING OF STAFF, PATIENTS OR VISITORS | 09 | POT PLANTERS AND BENCH SEATING UNDER AWNING TO DEFINE ENTRY AND PROVIDE SEATING FOR DROP OFF AND PICK UP |
| 02 | OPEN CIRCULATION ACCESS TO MAIN BUILDING WITH CREAMY CONCRETE PAVING | 06 | GARDEN BED WITH FEATURE SHADE TREE | 10 | EXISTING TUART TREE TO BE RETAINED AND PROTECTED. INSTALL STRUCTURAL SOILS BENEATH SURROUNDING ASPHALT TO PROVIDE GREATER ROOT-ABLE AREA TO MAXIMISE RETENTION SUCCESS |
| 03 | TEMPORARY LANDSCAPE TREATMENT TO ROAD RESERVE AND VERGE. RETAIN EXISTING TREES | 07 | TALL SHRUBS, GROUNDCOVER AND MAINTENANCE ACCESS PATH ALONG THE REAR OF THE BUILDING | 11 | CARPARK TREES IN TREE WELLS TO HAVE STRUCTURAL SOILS AROUND TO MAXIMISE ROOT-ABLE AREA AND PROVIDE CONDITIONS CONDUCTIVE TO TREE GROWTH |
| 04 | MULCH ONLY AREA WITH EXISITNG TREES AND PROPOSED SHADE TREE PLANTING, THE EXISITNG TREES TO BE RETAINED DURING STAGE 1, AND TO BE REMOVED DURING FUTURE DEVELOPMENT | 08 | MAIN ENTRANCE TO BUILDING WITH FEATURE UNIT PAVING OR TILES TO DEFINE ENTRY AND COMPLIMENT INTERNAL PAVING SELECTIONS | 12 | MULCH ONLY AREA TO SUBSTATIONS |

RAMSAY HEALTH CARE PEEL PRIVATE HOSPITAL

PREPARED FOR STH ARCHITECTS

LANDSCAPE CONCEPT
DECEMBER 2023

JOB NO. 2113502
1:250 @ A1

C1.102
0 5 10 15 25m
REV B

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02 planting palette - trees



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PREPARED FOR STH ARCHITECTS

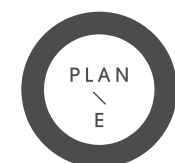
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C1.103

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03 planting palette - shrubs



Calothamnus quadrifidus
ONE-SIDED BOTTLEBRUSH
MATURE SIZE: 2 X 1.5 M
SPACING: 1/M² POT SIZE: 200 MM



Grevillea olivacea 'Red'
OLIVE GREVILLEA
MATURE SIZE: 3 X 3 M
SPACING: 2/M² POT SIZE: 140 MM



Acacia pulchella
PRICKLY MOSES
MATURE SIZE: 1 X 1 M
SPACING: 2/M² POT SIZE: 140 MM



Anigozanthos flavidus
TALL KANGAROO PAW
MATURE SIZE: 1.2 X 1 M
SPACING: 4/M² POT SIZE: 140 MM



Radermachera Summerscent
SUMMERSCENT
MATURE SIZE: 3 X 3 M
SPACING: 1/M² POT SIZE: 3L



Pittosporum 'Miss muffet'
DWARF PITTOSPORUM
MATURE SIZE: 1 X 1.5 M
SPACING: 2/M² POT SIZE: 5L



Nandina 'Lemon Lime'
HEAVENLY BAMBOO
MATURE SIZE: 1 X 1 M
SPACING: 4/M² POT SIZE: 200 MM



Acacia fectuccini
BOWER WATTLE
MATURE SIZE: 0.75 X 1.2 M
SPACING: 4/M² POT SIZE: 140 MM



Dianella 'Tasred'
FLAX LILY
MATURE SIZE: 0.45 X 0.5 M
SPACING: 4/M² POT SIZE: 140 MM



Liriope 'Just right'
LILY TURF
MATURE SIZE: 0.45 X 0.5 M
SPACING: 4/M² POT SIZE: 140 MM



Leucophyta brownii
SILVER COTTON BUSH
MATURE SIZE: 1 X 1 M
SPACING: 2/M² POT SIZE: 140 MM



Conostylis candicans
GREY COTTONHEADS
MATURE SIZE: 0.3 X 0.5 M
SPACING: 4/M² POT SIZE: 140 MM

RAMSAY HEALTH CARE PEEL PRIVATE HOSPITAL

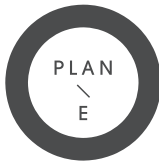
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04 planting palette - feature shrubs & ground covers



Macrozamia riedlei
ZAMIA
MATURE SIZE: 1.5 X 2 M
POT SIZE: 45L



Hemiandra pungens 'Alba'
SNAKE BUSH
MATURE SIZE: 0.3 X 1 M
SPACING: 2/M² POT SIZE: 140 MM



Hardenbergia comptoniana 'Alba'
NATIVE WISTERIA
MATURE SIZE: 0.5 X 2.5 M
SPACING: 2/M² POT SIZE: 140 MM



Myoporum parvifolium
CREEPING BOOBIALLA
MATURE SIZE: 0.2 X 2 M
SPACING: 2/M² POT SIZE: 140 MM



Casuarina 'Cousin it'
COUSIN IT CASUARINA
MATURE SIZE: 0.15 X 1 M
SPACING: 2/M² POT SIZE: 140 MM



Acacia cognata 'Limelight'
RIVER WATTLE
MATURE SIZE: 0.7 X 1.2 M
SPACING: 2/M² POT SIZE: 140 MM



Dichondra 'Silver falls'
KIDNEY WEED
MATURE SIZE: 0.1 X 2 M
SPACING: 4/M² POT SIZE: 140 MM



Hibbertia scandens
SNAKE VINE
MATURE SIZE: 0.8 X 3 M
SPACING: 2/M² POT SIZE: 140 MM

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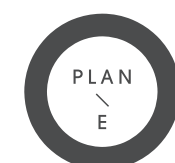
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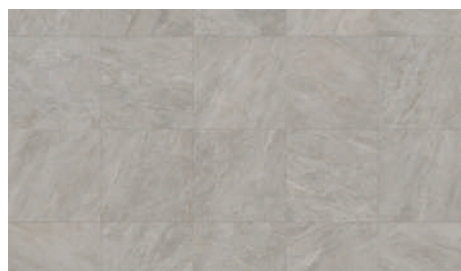
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01 landscape imagery



SEATING BENCHES PROVIDE INCLUSIVE AND RELAXING SPACE FOR STAFF AND VISITORS



SOFT ORGANIC SHAPES, CREAMY COLOURED PAVING AND DIVERSE GREEN SPACES ENHANCING THE ORGANIC AND HEALING VIBE

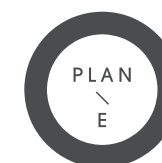
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DECEMBER 2023

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Appendix E - Acoustic Study

PRELIMINARY ACOUSTIC REVIEW

**DAY SURGERY
42-52 LAKES ROAD
GREENFIELDS**

JANUAR 2024

REFERENCE: 32083-1-23239

DOCUMENT CONTROL PAGE

**PRELIMINARY ACOUSTIC REVIEW
DAY SURGERY, GREENFIELDS**

Job No: 23239

Document Reference: 32083-1-23239

FOR

BRIDGE42

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2.0	CRITERIA	2
3.0	REVIEW	3

The purpose of this review is to provide some guidance on the concept design with regards to noise emissions from the proposed development.

2.0 CRITERIA

The criteria used is in accordance with the *Environmental Protection (Noise) Regulations 1997 (as amended)*. These regulations stipulate maximum allowable external noise levels determined by the calculation of an influencing factor. The influencing factor is calculated for the usage of land within the two circles, having radii of 100m and 450m from the premises of concern. For industrial and utility premises, the assigned noise levels are fixed for all hours. Table 2.1 lists the base assigned noise levels for the “highly sensitive area” of residence and the fixed assigned noise level for the other types of receivers.

TABLE 2.1 –ASSIGNED OUTDOOR NOISE LEVELS

Type of premises receiving noise	Time of day	Assigned level (dB)		
		L _A 10	L _A 1	L _A max
Noise sensitive premises: highly sensitive area (i.e within 15m of a dwelling)	0700 to 1900 hours Monday to Saturday	45 + IF	55 + IF	65 + IF
	0900 to 1900 hours Sunday and public holidays	40 + IF	50 + IF	65 + IF
	1900 to 2200 hours all days	40 + IF	50 + IF	55 + IF
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays	35 + IF	45 + IF	55 + IF
Noise sensitive premises: any area other than highly sensitive area	All hours	60	75	80
Commercial premises	All hours	60	75	80
Industrial premises	All hours	65	80	90

Note: The L_{A10} noise level is the noise that is exceeded for 10% of the time.
The L_{A1} noise level is the noise that is exceeded for 1% of the time.
The L_{Amax} noise level is the maximum noise level recorded.
IF = Influencing Factor

It is a requirement that noise from the site be free of annoying characteristics (tonality, modulation and impulsiveness) at other premises, defined as per Regulation 9.

Where the above characteristics are present and cannot be practicably removed, the following adjustments are made to the measured or predicted level at other premises.

TABLE 2.2 – ADJUSTMENTS FOR ANNOYING CHARACTERISTICS WHEN MUSIC IS NOT PRESENT

Where tonality is present	Where modulation is present	Where impulsiveness is present
+ 5 dB	+ 5 dB	+ 10 dB

Where the noise emission is music, then any measured level is adjusted to Table 2.3 below.

TABLE 2.3 - ADJUSTMENTS TO MEASURED MUSIC NOISE LEVELS

Where impulsiveness is not present	Where impulsiveness is present
+10 dB(A)	+15 dB(A)

The influencing factor at the eastern residences have been determined as summarised in Table 3.3.

TABLE 3.3 – INFLUENCING FACTOR

Influencing Factor Parameter	Influencing Factor (dB)
Secondary Road within inner circle (Lakes Road)	+ 2
Major Road within outer circle (Pinjarra Road)	+ 2
TOTAL IF	+4

Based on the above, the assigned noise levels are as listed in Table 3.4.

TABLE 3.4 - ASSIGNED OUTDOOR NOISE LEVEL

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L _A 10	L _A 1	L _A max
Eastern Residences	0700 - 1900 hours Monday to Saturday	49	59	69
	0900 - 1900 hours Sunday and Public Holidays	44	54	69
	1900 - 2200 hours all days	44	54	59
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays	39	49	59

3.0 REVIEW

Noise emission associated with the proposed day surgery is limited to mechanical plant.

Given the plant room allocations within the current plan, and the separation to nearby noise sensitive premises, designing the noise emissions associated with mechanical plant to meet the relevant assigned noise levels is not considered onerous.

Appendix F - Stormwater Management Plan

Ramsay Health Care Peel Private Hospital

Civil Works – Stormwater Management Plan



FOR / Civil Engineering Services

CLIENT / Ramsay Health Care

DOCUMENT NO / P23066-REP-C-0001 REV / A DATE / 21/07/2023

bgeeng.com—

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1.2.2	Pipe Network	1
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Appendices

Appendix A Drainage Plan

Document Control					
Revision	Date	Description	Prepared	Reviewed	Approved
A	21/07/2023	Issued for Planning Application	AM	CB	RBH

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- a) Using the documents or data in electronic form without requesting and checking them for accuracy against the original hard copy version; and
- b) Using the documents or data for any purpose not agreed to in writing by BG&E.



1 STORMWATER MANAGEMENT PLAN

1.1 Introduction

Ramsay Health Care – Peel Day Surgery will be located on part of Lot 4 Lakes Road, Greenfields. Greenfields is a suburb located east of Mandurah's central area. It includes several aged care residences and a large recreation oval and centre. The hospital site is within the City of Mandurah.

The scope of works for the development includes reviewing the proposed building location, stormwater implications and any impact on existing service infrastructure. The average existing ground level of the proposed development is RL6.00m.

1.2 Design Criteria

Drainage for the site has been designed as follows:

- Provision for stormwater pipe network to cater for the 1 in 10-year ARI;
- Provision for all building and major overland flow routes to cater for flows up to the 100-year ARI
- Sized accordingly to meet the requirements of both infiltration capacity and storage volume as per the City of Mandurah to store the 100-year ARI event.

The above criteria complies with the City of Mandurah requirements for commercial lots.

The critical duration for the 100-year ARI event in this vicinity is 90 minutes. The total storage for the proposed building, both stage 1 and stage 2 expansion zone, eastern and western carparks, and paths for the hospital is estimated to be **500m³**. The storage will be divided into two equal size detention tanks as shown in the drainage plan, refer to Appendix A.

The Perth Groundwater Map produced by the Department of Water and Environmental Regulation indicates the estimated historical maximum groundwater level at the site is 1.0mAHD (recorded 2003). Which is approximately 5m below existing surface level. The stormwater level will be confirmed in the geotechnical investigations as changes in groundwater and natural surface can occur over time.

No geotechnical investigation works have been done yet for the site.

In-situ permeability testing needs to be completed as part of the geotechnical investigation to determine suitable infiltration rates and have confirm the required storage volume.

The City of Mandurah provided BG&E with information on their stormwater assets within and nearby the project site which shows only four (4) side entry gully pits serving Lakes Road. These four pits are not connected to any stormwater drainage network and appear to be soakwells.

1.2.1 Catchments

Site is divided into two catchments; the western catchment will cover the western 37 bays carpark and the western half of the building. The Eastern catchment will cover the eastern 45 bays carpark and the eastern half of the building. Both catchments have similar impervious area of approx. 3800m².

1.2.2 Pipe Network

The main site stormwater network will accept flows from the roof, hard/soft scape and pavement catchments of the proposed development and discharge into the detention tanks for events up to the 100-year ARI.

1.2.3 Storage

The on-site storage will be located beneath the carpark areas. 250m³ storage tank underneath the eastern carpark, and a similar storage underneath the western carpark. Both storages are trafficable with infiltration. It is proposed to use Graf EcoBloc Maxx Stormwater System or approved equivalent.

1.2.4 Extreme Event

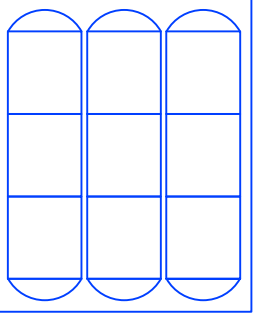
Events more than the 100-year ARI or back-to-back storm events, are expected to travel via the major overland flow routes offsite into Lakes Road and the City of Mandurah's drainage network.

Drainage Plan


NOTES

- 1. DO NOT SCALE DRAWINGS.
- 2. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.


LEGEND




NEW DRAINAGE TANK




DRAINAGE PIPE WITH FLOW ARROW



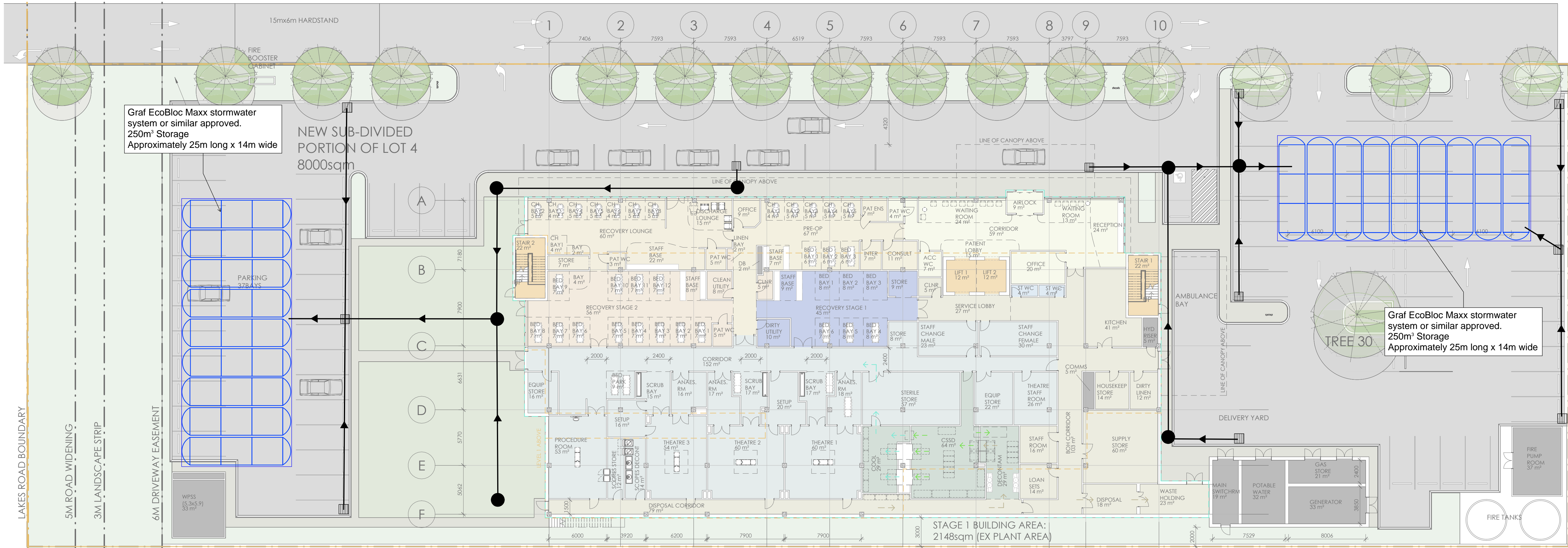
GRADED GULLY PIT




DRAINAGE PIT



MANHOLE



SKETCH ONLY

	DATE	21/07/2023	PROJECT RAMSAY HEALTH CARE - PEEL PRIVATE HOSPITAL				
	SCALE	N/A					
	GRID		TITLE DRAINAGE PLAN				
	PREPARED	AM					
	SHEET	1 OF 1	PROJECT No.	P23066	SKETCH No.	SK-C-0001	REV

Appendix G - Traffic Impact Statement



Wildport Investments Pty Ltd

Lots 3 & 4 Lakes Rd, Greenfields

Transport Impact Statement

February 2024

Project Code: 07262

PJA
Level 27
St Martins Tower
44 St Georges Terrace
Perth
WA 6000
Australia
pja.com.au



Version Control and Approval

Version	Date	Main Contributor	Issued by	Approved by
A – Draft	08 August 2023	Rodney Ding	Rodney Ding	TM
B – Final	06 December 2023	Rodney Ding	Rodney Ding	TM
C – Revised Final	18 January 2024	Rodney Ding	Rodney Ding	TM
D – Revised Final (updated plans)	6 February 2024	Rodney Ding	Rodney Ding	TM

Prepared for

Bryan Negus

Director

Wildport Investments Pty Ltd

C/- Pathfinder Property Group

1 Canning Highway

Fremantle WA 6160

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I Introduction

I.1 Background

PJA has been commissioned by Wildport Investments Pty Ltd to prepare a Transport Impact Statement (TIS) to support a Development Application for a day surgery to be constructed on vacant land on Lakes Road in Greenfields.

I.2 Report Context

This report is prepared in accordance with Western Australian Planning Commission (WAPC) Transport Impact Assessment (TIA) Guidelines – Volume 4 (Individual Developments), August 2016.

Figure 1-1: The Land Use Planning Process



Source: Adapted from WAPC TIA Guidelines, Vol. 4, 2016

This report sets out the assessment of the transport implications of the proposed development, including consideration of the following:

- Existing transport conditions
- Access arrangements for a variety of transport modes
- Traffic impacts
- Car and cycle parking
- Road safety
- Loading and waste collection.



2 Existing Conditions

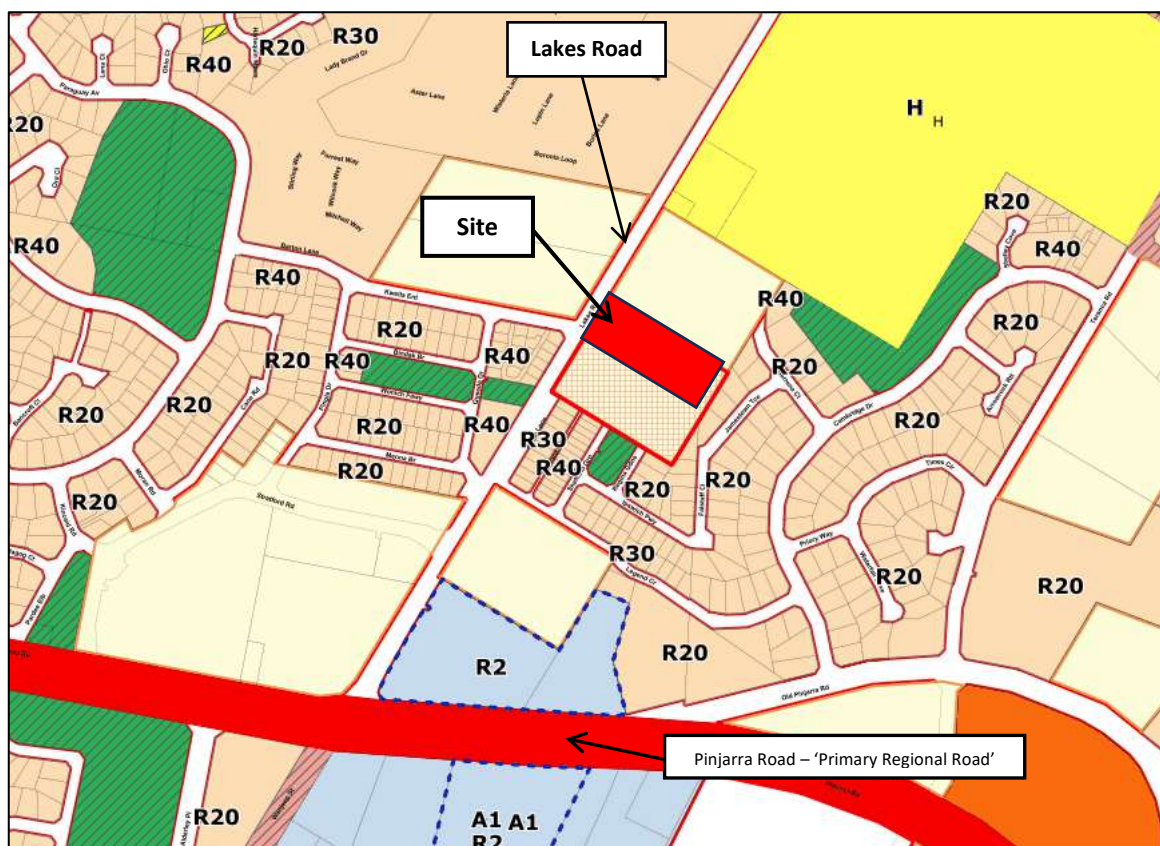
2.1 Subject Site and Surrounding Context

The site is located on the eastern side of Lakes Road, Greenfields within the Local Government Authority of the City of Mandurah. The proposed site will sit within current vacant land, mostly on Lot 4 with a portion of Lot 3 used for a private roadway.

The City of Mandurah has Local Planning Scheme No. 12 (LPS12) which applies to the entire authority and provides the planning controls which the site will be measured against. The zoning maps for the LPS12 zone the site as 'urban development' with Lakes Road neither an 'other regional road' nor 'primary regional road'.

The site is site has an approved structure plan outline development plan over it to allow the development of a private hospital.

Figure 2-1: Subject Site and Local Planning Scheme No. 12 Zones



Source: City of Mandurah



2.2 Road Network – Lakes Road

Lakes Road is under the care and control of the City of Mandurah, is classified as a “Distributor B” road under Main Roads WA Functional Road Hierarchy and is not classified under the Metropolitan Region Scheme (MRS). Lakes Road has a 20m wide road reserve and the roadway consists of two approximate 3.5m wide vehicle carriageways separated by a 2.7m wide painted/raised median. There are 1.5m wide unprotected on-road bike lanes/shoulders on each direction of travel with footpaths on both sides of the street. Lakes Road has a posted speed limit of 60km/h, across the site access. Lakes Road currently serves a single existing point of access to the site, just north of Kwella Entrance, an all-movements priority access.

Lakes Road is proposed to be upgraded to a wider road by the City of Mandurah which will widen the median to approximately 6m width. This will involve the widening of the road reserve on the eastern side of Lakes Road by 5m, along the frontage of the site.

2.3 Existing Land Use

The existing site is currently vacant land. The Lot 4 site previously had a single residential house on it until approximately 2013 when the site was cleared. Lot 3 also had a single residential dwelling on it until approximately 2021 when it was cleared.

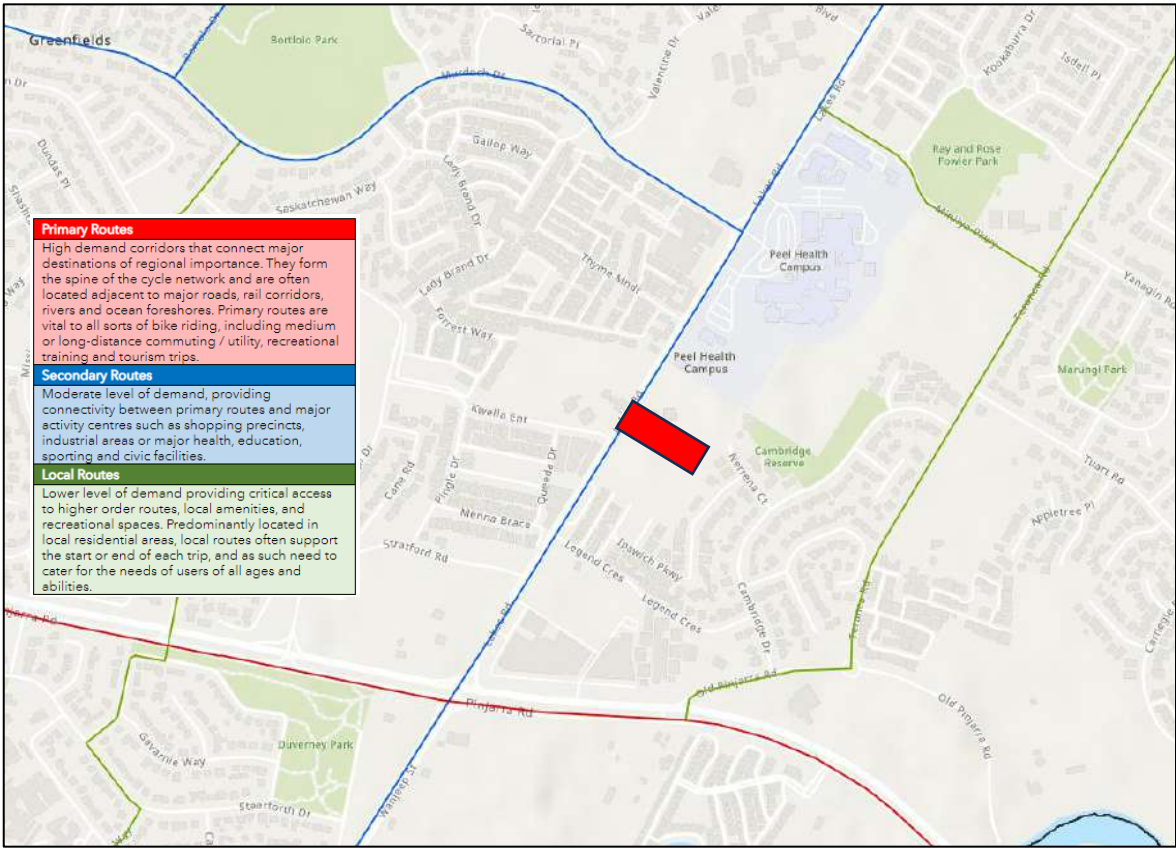
2.4 Active Travel

Accessibility by active travel provided to external areas with access via good footpath and cycle facilities on both sides of Lakes Road. The footpaths on both verges of Lakes Road provide access to nearby residential areas as well as complementary medical services north of the site as well as access to bus routes. The cycle facilities on Lakes Road provide connectivity for longer distance access to the site via cycling. The Long-Term Cycle Network (LTCN) for Perth and Peel has identified Lakes Road as a Secondary Route, connecting from Gordon Road in the north to Pinjarra Road in the south. Refer to Figure 2-2.

Given the excellent proximity to the LTCN secondary route (Lakes Road) which currently has on-road cycle lanes (unseparated), off road footpaths on both sides and a wide raised median to facilitate staged pedestrian crossings, the developments in the area can further enable active transport modes by providing end of trip facilities and bike/e-mobility parking.



Figure 2-2: Long Term Cycling Network – Site Area

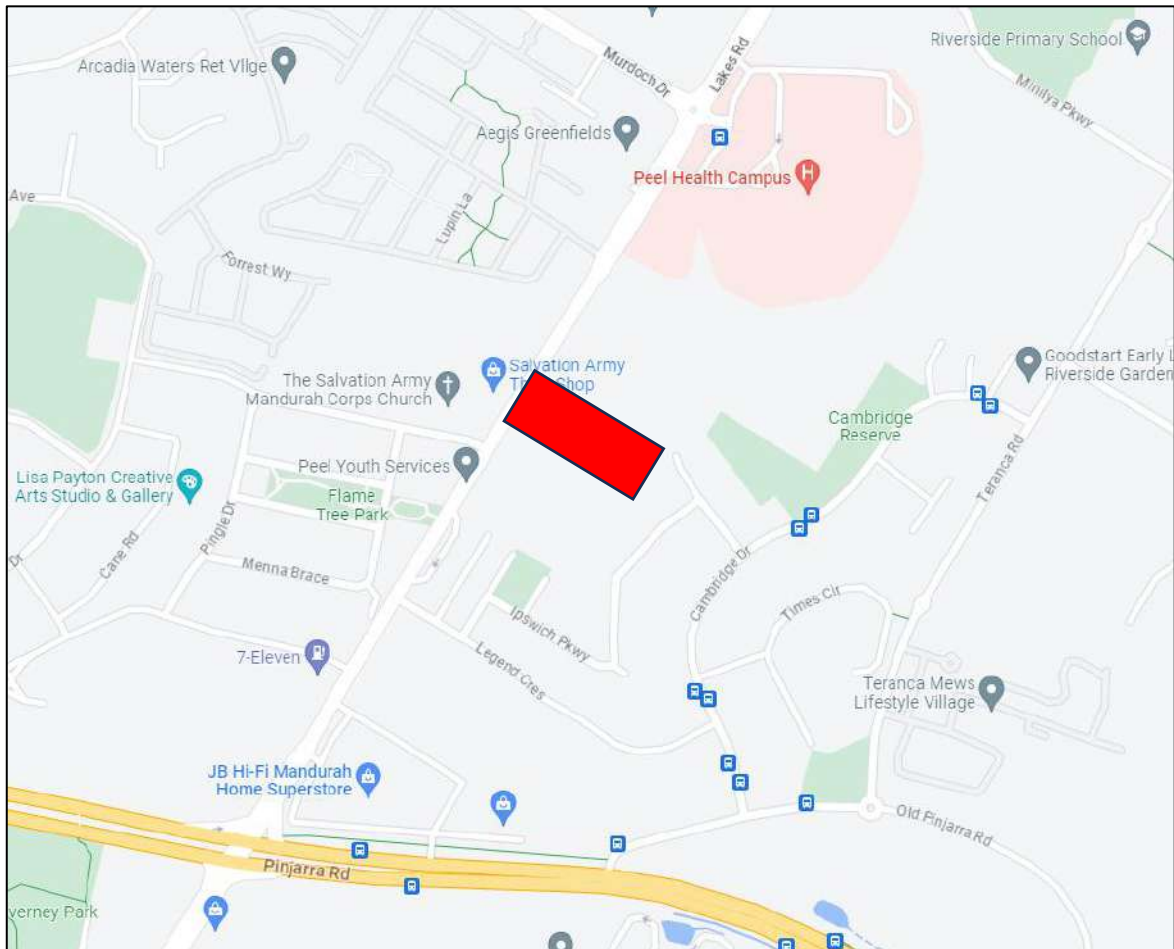


Source: Department of Transport

2.5 Public Transport

The site is in proximity to current public transport services, on Pinjarra road (Routes 600, 604 and 605 approximately 730m via footpath to the south) and Route 598 which terminates within the adjacent Peel Health Campus approximately 430m to the north. These services run to and from the Mandurah Train station and in combination, offer services every 10-15 minutes in peak periods. Refer to Figure 2-3 on the following page.

Figure 2-3: Bus Stop Locations



Source: Google

There are currently bus stops on each side of Pinjarra Road east of Lakes Road (approximately 730m from the site) and as mentioned above there is a terminus stop approximately 430m away within the Peel Health Campus.

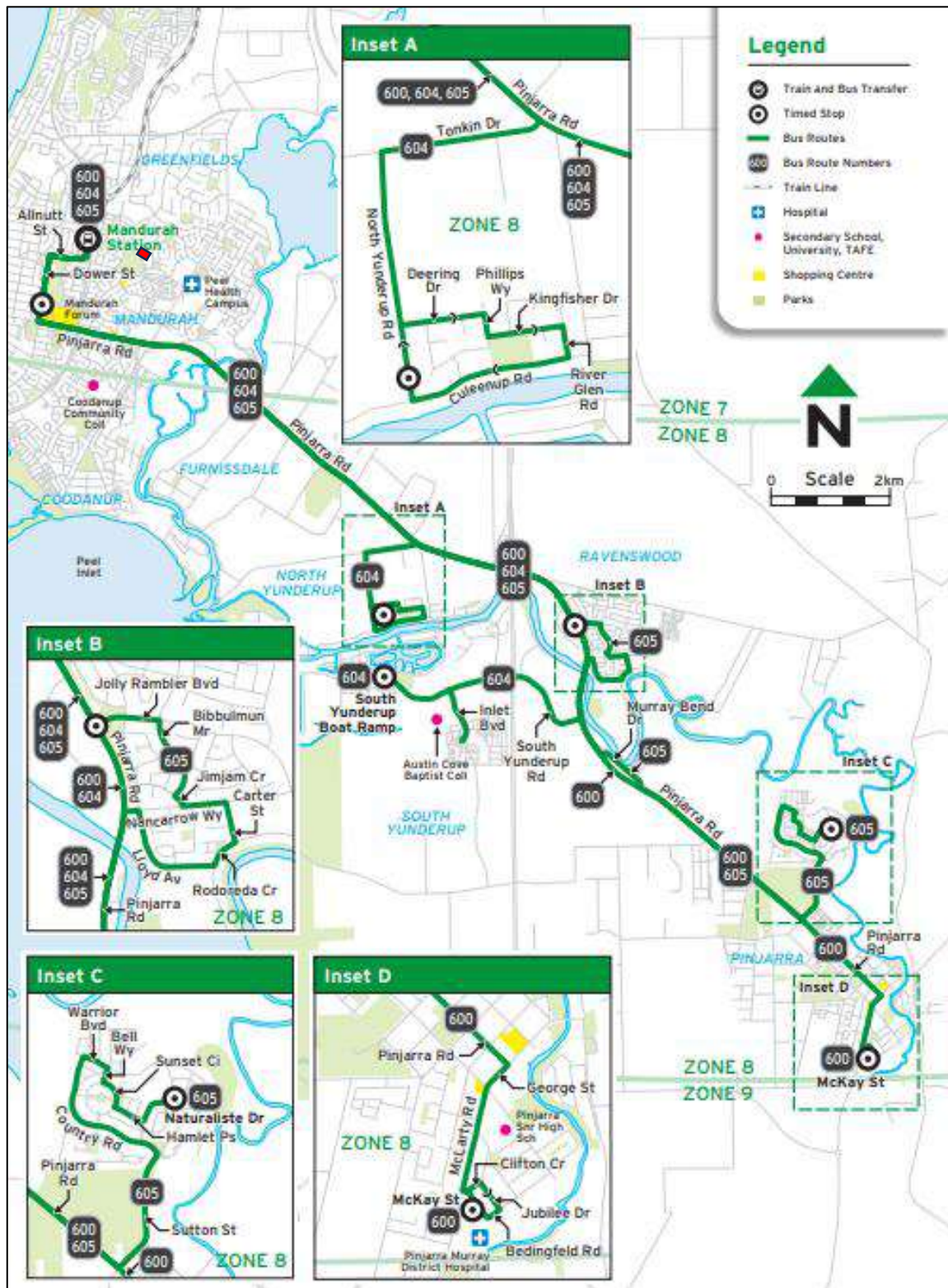
Bus route 598 runs along Murdoch Drive to and from Mandurah Station approximately every 20-30 minutes in peak periods. The other services on Pinjarra Road (Routes 600, 604 and 605) in combination run every 20-30 minutes in peak periods. Refer to Figure 2-4 and 2-5.



Table 2-1: Bus Services

Bus No.	Route	Days of Operation	Times of Operation (weekday)	Peak frequency
	Pinjarra Road			
600	Mandurah to Pinjarra	Monday – Friday	6:10am – 6:30pm	Every 45 minutes
604	Mandurah to South Yunderup	Monday – Friday	6:10am – 6:30pm	1 service
605	Mandurah to Murray River Estate	Monday – Friday	6:10am – 6:30pm	1 service
	Murdoch Drive/PHC			
598	Mandurah to Greenfields	Monday – Sunday	7:10am – 8:25pm	Every 20-30 minutes

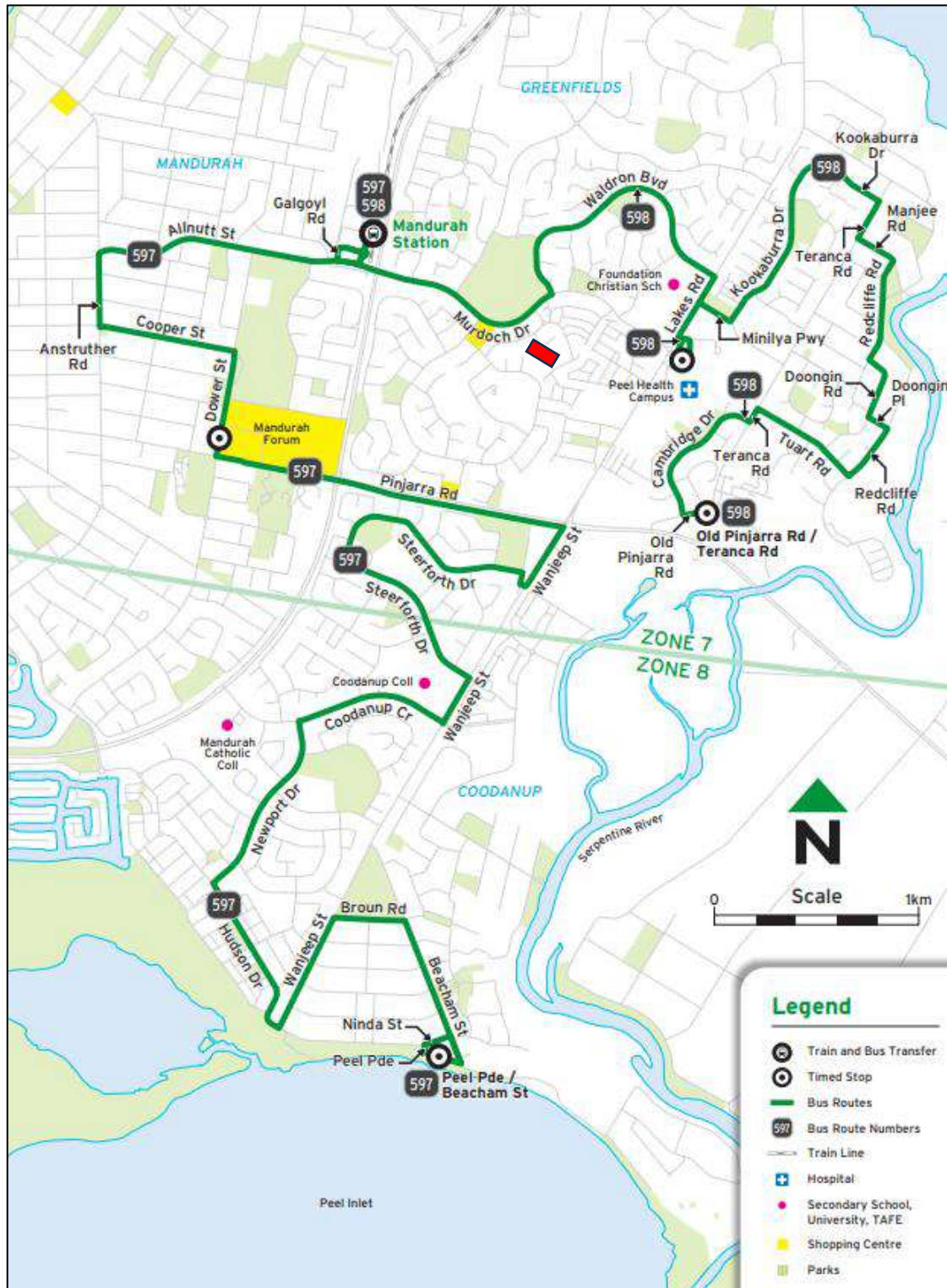
Figure 2-4: Routes 600, 604 & 605



Source: Transperth



Figure 2-5: Route 598

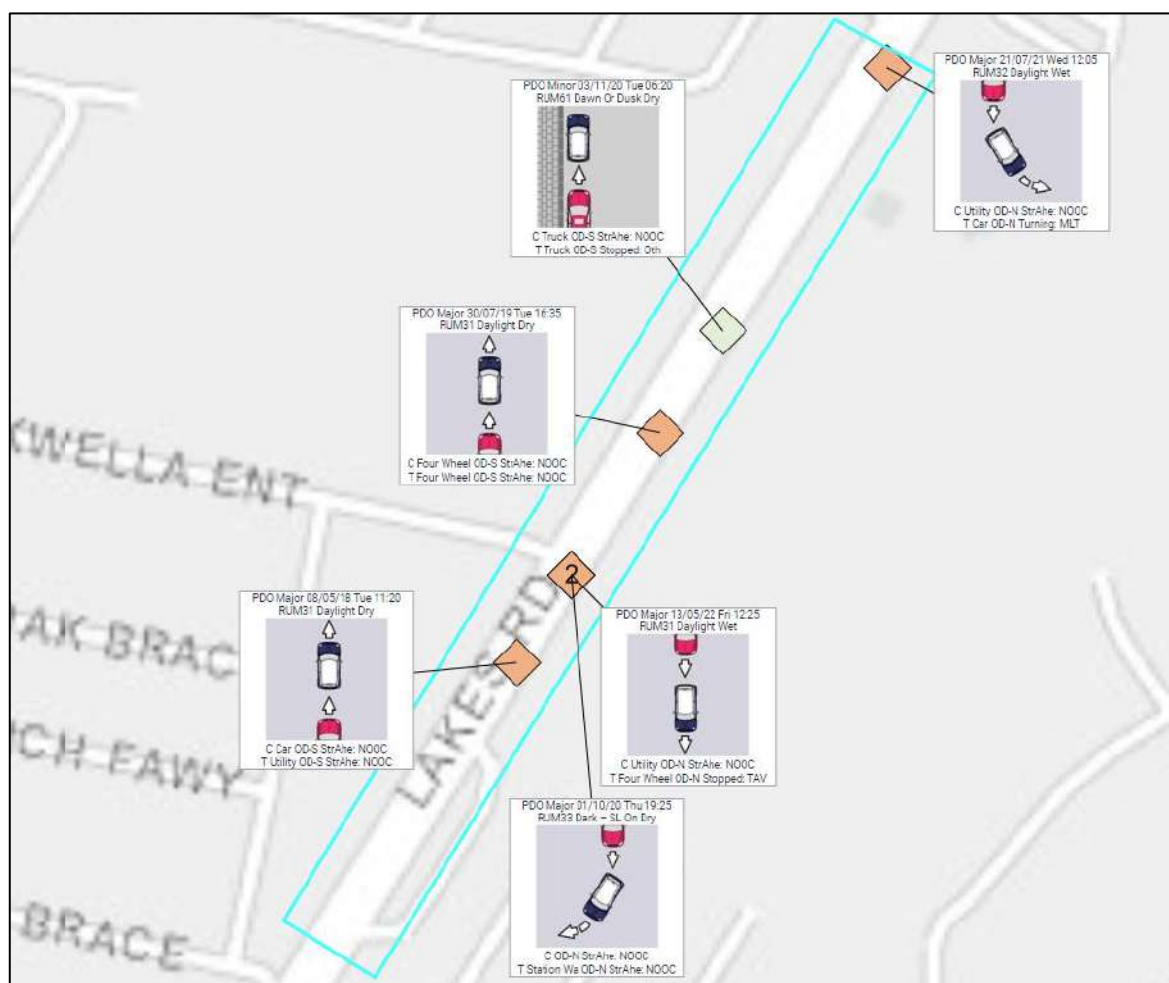


Source: Transperth

2.6 Road Safety

The existing crash history along Lakes Road between Thyme Meander and legend Crescent Road, for the most recent available five-year period (to end 2022) is presented in Figure 2-6 and Table 2-2 below. The were found to be 6 crashes, all rear end type crashes and none involving injury.

Figure 2-6: Crash Record Locations – Lakes Road Study Area



Source: Main Roads WA CrashMap

Table 2-2: Crash Record by Location and Severity – Lakes Road

Location	PDO	Medical	Hospital	Fatal	Total
Lakes Road	4	0	0	0	4
Lakes Road / Kwellia Entrance Intersection	2	0	0	0	2
Total	6	0	0	0	6

PDO – Property Damage Only

Medical – Roadside Medical Assistance

Hospital – Hospitalisation Required.



The crash record indicates that instances of collision are relatively low, with a skew towards low severity and all PDO collisions. The crashes within the study area total 6 crashes across the latest 5-year period, equating to an average of 1.2 crashes per year.

The daily traffic on Lakes Road is in the order of 12,900 vehicles per day (vpd), estimated from 2022 SCATS data at the intersection of Lakes Road with Pinjarra Road (traffic signal site 929) which is categorised as very high road user exposure under the Safe System Assessment Framework (Austroads 2016). However, the occurrences of crashes on the section of Lakes Road assessed for this TIS are low for the relatively high road user exposure with the average crash rate of approximately 0.7 crashes per million vehicle kilometres (MVkm) significantly less than the average for similar roads, this being approximately 1.75 crashes per MVkm.

The length of road was also assessed using the Infrastructure Risk Rating Tool (Austroads), finding that this section of Lakes Road has a Low Risk level.

Two crashes have occurred on the Lakes Road frontage of the proposed development site, both on the northbound traffic lane and not on the southbound traffic lane which is to be used as the main left turn entrance into the proposed development.



3 Future Travel Network

3.1 Changes to Surrounding Land Uses and Transport Networks

The proposed development will form part of a first stage of the development of Lots 3 and 4 Lakes Road on the eastern side of Lakes Road into a larger precinct. As part of this development on the eastern side of Lakes Road, a 6m wide easement/accessway is proposed parallel to Lakes Road which will eventually allow connection between sites north and south of the now proposed development on this site.

Lakes Road is proposed by the City of Mandurah to be widened at some point in the future from its current dual single lane carriageway with bike lanes in each direction with a 2.7m wide median to a similar format but with a wider 6m wide median. In discussions with the City of Mandurah, the final format of this design is yet to be finalised with little or no information currently available. There has been flagged a required widening on the eastern side of Lakes Road, which has been incorporated in the proposed development plans, with a set-back line provided along to frontage of the site.

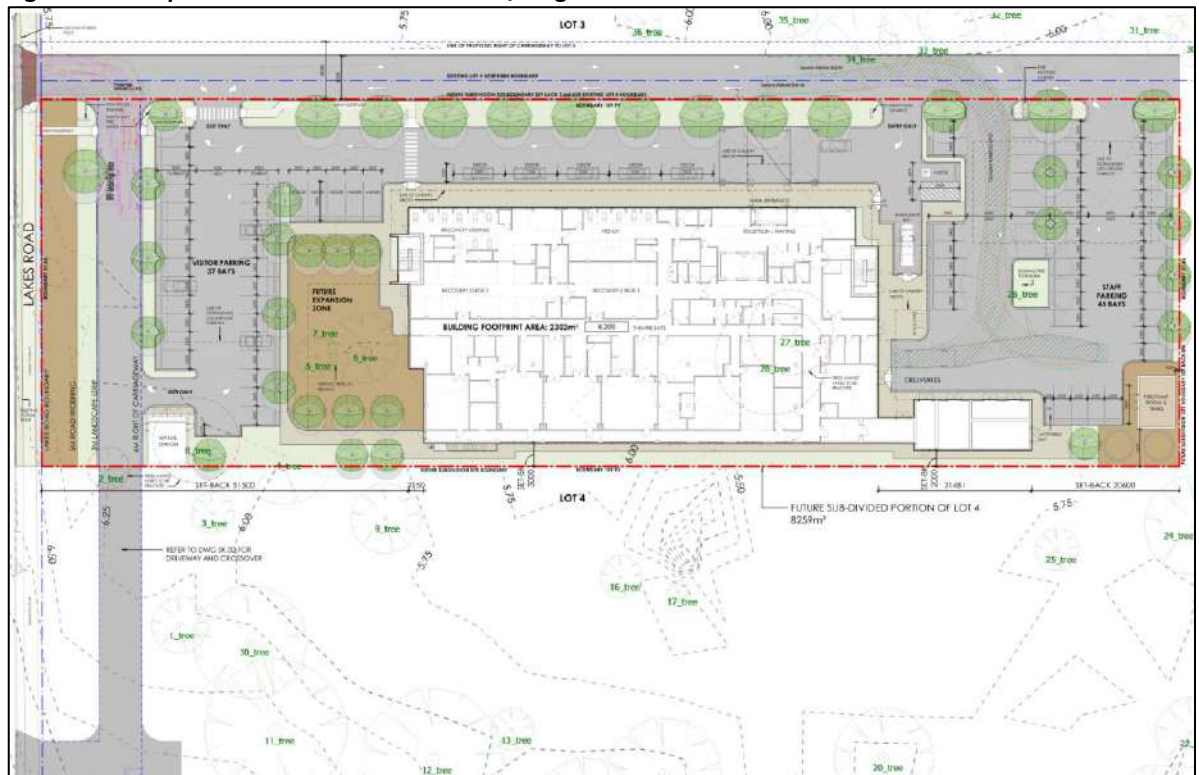


4 Proposed Development

4.1 Development Schedule

The proposed development comprises a day surgery with 8 pre-operation beds and 4 theatres, plus beds for overnight stays, initially 12 beds in Stage 1 and then expanding to 28 beds after Stage 2. The proposed Stage 1 site plan is shown in Figure 4-1 and in full in **Appendix A**.

Figure 4-1: Proposed Site Plan – Ground Level/Stage 1



Source: Silver Thomas Hanley (3279 SK.04 Rev B)

4.2 Transport-Related Proposals

Access will be provided to the development via a new proposed left-in/left-out (LILO) access on the eastern (southbound) carriageway of Lakes Road, to be located north of Kwella Entrance and north of an existing access to a development on the western side of Lakes Road. This new proposed development access will be a priority-controlled access given the low levels of traffic movements expected to be generated by the proposed development.

As a result of the proximity of the proposed LILO and the existing access opposite to the site, the current median in Lakes Road is proposed to be lengthened slightly to ensure access to the proposed day surgery development is physically limited to a LILO.



There is also proposed to be a second LILO treatment, located towards the southern boundary of Lot 4. Both LILOs are proposed to be connected via a 6m wide driveway easement, with a portion across the proposed development site. This arrangement is proposed to assist in the distribution of traffic across the site and allow patients of the proposed centre, should they miss one driveway, utilise the other to gain access to the site. Ultimately, the second LILO will provide access to future development on the southern portion of Lot 4, south of the proposed development.

The day surgery development also proposes parking within it with the following proposed:

- Patient pick-up/drop-off 6 cars on the north of the site (inc. 1 universal access bay)
- Long term patient parking 31 spaces in front of the site
- Staff Parking 45 spaces at the rear of the site.

Access to the proposed day surgery development is proposed by a 6m wide private roadway extending from the Lakes Road LILO through to the eastern end of the site. This roadway will also be used by ambulances and waste collection services to access the ambulance and service areas at the eastern end of the site, through the staff parking area.



5 Development Appraisal

5.1 Surrounding Significant Trip Generators and Attractors

Movements to and from the site is expected to be entirely from the internal activities within the development, that is the private day surgery. The main and only access into the site will be via Lakes Road from the north. Patients, staff and visitors wanting to access the site from the south can proceed past the site and undertake a U-turn at the roundabout at this intersection of Murdoch Drive and Lakes Road. When exiting the site and wanting to head north patients, staff and visitors could turn right from Lakes Road into Kwella Entrance (immediately to the south of the site) to eventually gain access to Murdoch Drive via Mississippi Drive bear Bortolo Park.

5.2 Parking Assessment

As discussed above, all parking related to the proposed development will be contained within the site. This will allow space for visitors and patients being dropped off to park as well as staff parking at the rear of the site.

Provision of parking has been based on the following:

- | | | |
|----------------|--|------------|
| • Day Surgery | 1 space per 3 beds (34 beds all up for various stages of recovery) | 12 |
| • Level 1 Beds | 1 space per bed for visitors | Stage 1 12 |
| | | Stage 2 28 |
| • Staff | 1 space per staff member (including physicians) | 45 |

The front of the site has 31 long term bays allowing for long-stay visitors, so there is expected to be a surplus of 3 spaces after Stage 2 with 28 bays required (compared to the 31 provided).

The drop-off and pick-up porte cochere has provision for 6 spaces, but those spaces are short-term parking so can provide the equivalent of up to 15-20 long term spaces due to expected high turnover.

With respect to the 45-bay parking area at the rear, there is expected to be sufficient parking provided based on the staff numbers.



The expected staffing levels are as follows:

Nurses/Physicians etc

• Pre-Op	1 per 3 beds x 8 beds	3
• Theatres	4 spaces per room	12
• Procedure Room	2 spaces per room	2
• Recovery Stg 1	1 per 2 beds x 6 beds	3
• Recovery Stg 2	1 per 3 beds x 12 beds	4
• Recovery Lounge	1 per 5 beds x 8 beds	2
		26

Other Staff

• Kitchen	3
• Office	8
• Cleaners/Orderlies	8
	19

Based on the above information, the amount of staff parking is considered appropriate for the development as the amount of parking provided caters for the expected parking demand of 45 staff on site, assuming all of which would drive a single occupancy car. However, in reviewing 2021 Census data for Greenfields it has revealed that of the employees who travel to work approximately 80% drove their vehicle, whilst the remaining 20% used other modes (public transport, cycled, walked, ride share, as a passenger etc). Thus, if this ratio was to continue for this development, of the 45 employees expected on the site at any one time, there would be about 36 vehicles parked in the staff car park. Also, 70% of employees working within Mandurah both live and work within Mandurah.



5.3 Traffic Considerations

Land Use Traffic Generation

An assessment of the potential traffic generation of the development proposal is set out in Table 5-1. This makes use of rates adopted in the Institute of Transportation Engineers (ITE) publication Trip Generation for a Hospital (Land Use Code 610). These rates are based on the number of beds (these being long term beds) as this measure has the highest correlation with respects to traffic generation.

Table 5-1: Traffic Generation

Description	Size	Traffic Generation	Source	Traffic Generation
Hospital Beds	28 long term	~12 movements per bed per day	ITE	~720 vpd
	32 effective short term	~1.1 movements per bed AM		~65 vph
		~1.3 movements per bed PM		~80 vph

vpd – vehicles per day, vph – vehicles per hour

The above assessment indicates the development proposal could generate around 720 vehicle movements per day and up to 80 vehicles movements in the PM peak hour, with approximately 65% of these movements leaving the site¹. It shall be noted that the above traffic generation calculations are based upon full use of the beds and facilities within the proposed development.

5.4 Traffic Distribution and Assignment

The traffic movements generated by the site will be primarily along Lakes Road in a north to south direction with all vehicles entering from the north and then all exiting to the south, due to the LILLO controlled access. For a robust assessment of worst-case traffic operations, it has been assumed that all generated traffic would utilise the northern LILLO crossover.

5.5 Traffic Impact

Baseline Traffic Flows

Daily and Peak traffic flow data was based on 2022 SCATS data from the signalised intersection of Lakes Road and Pinjarra Road, to the south of the development site. This indicated that there is the following:

- Daily Volume 12,900vpd (approximately 52% southbound)

¹ Based on ITE Trip Generation Land Use Code 610



- AM Peak 1,160vph (approximately 57% northbound)
- PM Peak 1,190vph (approximately 58% southbound).

The AM peak occurs approximately from 8am to 9am whilst the PM peak between 3pm and 4pm daily.

Future Traffic Flows

In discussion with the City of Mandurah, they indicated that their traffic model for the City was being updated and that forecast traffic flows may be available for use in the assessment of the impacts of the proposed development. This data was not made available at the time of the completion of this report, and this report has thus assumed that any future traffic growth on Lakes Road would be in the order of 2% per annum. In reviewing traffic growth on the nearest traffic count site on Murdoch Drive, this indicated that there had been no growth in the most recent 5-year period. Therefore, the assumed 2% per annum growth is considered appropriate and conservative, to prove the robustness of the proposed crossover operation.

WAPC Guidelines for determining whether a detailed traffic assessment should be undertaken when more than 100 vehicles per hour are likely to be added to a single vehicle lane (one-way), being a conservative estimate of 10% of lane capacity.

With a 50/50 in/out split of traffic in a peak hour, which is typical for this type of land use, directional traffic will typically not exceed 100 vehicles per hour, given that the site is only forecast to generate 80 vehicle movements across the busiest PM peak period. The site will therefore generate far fewer than 100 vehicles per hour in any direction.

Additionally, as the site is primarily designed for day surgery uses with patient pick-up and drop-off through the day any traffic movements generated by the site will be likely outside of the 'traditional' peak periods for commuting and school trips and are therefore not expected to generate any detrimental peak hour traffic impacts to the local road network.

To test this, Sidra Intersection was utilised to assess the performance of the LLO crossover in the AM and PM peak periods. This was based on expected traffic flows in 10 years' time, effectively 20% higher than they currently are on Lakes Road, increasing from about 12,900vpd in 2023 to approximately 15,500vpd in 2033, an increase of approximately 2,600vpd. The results are summarised in Table 5-2 on the following page for the left turn out (LTO) from the site onto Lakes Road.

**Table 5-2: LTO Movement onto Lakes Road**

Critical Movement	Performance Measure			
	Degree of Saturation (DoS)	Average Delay (s)	Level of Service (LoS)	95 th %ile Queue (m)
AM Peak				
LTO onto Lakes Road				
LTO	0.03	3	A	0.7
Intersection	0.46	0.3	A	0.7
PM PEAK				
LTO onto Lakes Road				
LTO	0.10	6	A	2.5
Intersection	0.49	0.3	A	2.5

As can be seen above, the left turn out from the site is expected to have minimal delays in both the AM and PM peaks and as a result also have minimal queuing back from Lakes Road into the site. The above queuing results are essentially saying that most vehicles will not need to stop when exiting the site and at worst there will be only a single vehicle stopped to give way to southbound traffic on Lakes Road and then only for a moment.

The above performance measures are discussed below in Section 5.6.

On this basis, the traffic impact of the proposed development is considered acceptable.

5.6 SIDRA Analysis

The operation of each intersection has been analysed using SIDRA Intersection (Version 9.1). The key outputs of SIDRA are summarised below:

- **Degree of Saturation (DOS)** is the ratio of the volume of traffic observed making a particular movement compared to the maximum capacity for that movement.
- The **95th Percentile (95th %ile) Queue** represents the maximum queue length that can be expected in 95% of observed queue lengths in the peak hour.
- **Average Delay** is the delay time that can be expected over all vehicles making a particular movement in the peak hour.



The level of service concept describes the quality of traffic service in terms of six levels, designated A to F, with level of service A (LOS A) representing the best operating condition (i.e., at or close to free flow), and level of service F (LOS F) the worst (i.e., forced flow). More specifically:

- LOS A: Primarily free flow operations at average travel speeds, usually about 90% of the FFS (free flow speed) for the given street class. Vehicles are completely unimpeded in their ability to manoeuvre within the traffic stream. Control delay at signalised intersections is less than 10 seconds. At non-signalised intersections the average control delay is less than 10 seconds.
- LOS B: Reasonably unimpeded operations at average travel speeds, usually about 70% of the FFS for the street class. The ability to manoeuvre within the traffic stream is only slightly restricted, and control delays at signalised intersections are between 10 and 20 seconds. At non-signalised intersections the average control delay is between 10 and 15 seconds.
- LOS C: Stable operations; however, ability to manoeuvre and change lanes in mid-block locations may be more restricted than at LOS B, and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50% of the FFS for the street class. Signalised intersection delays are between 20 and 35 seconds. At non-signalised intersections the average control delay is between 15 and 25 seconds.
- LOS D: A range in which small increases in flow may cause substantial increases in delay and decreases in travel speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors. Average travel speeds are about 40% of FFS. Signalised intersection delays are between 35 and 55 seconds. At non-signalised intersections the average control delay is between 25 and 35 seconds.
- LOS E: Characterised by significant delays and average travel speeds of 33% of the FFS or less. Such operations are caused by a combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections (between 55 and 80 seconds), and inappropriate signal timing. At non-signalised intersections the average control delay is between 35 and 50 seconds; and,
- LOS F: Characterised by urban street flow at extremely low speeds, typically 25% to 33% of the FFS. Intersection congestion is likely at critical signalised locations, with high delays (more than 80 seconds), high volumes, and extensive queuing. At non-signalised intersections the average control delay is greater than 50 seconds.

The WAPC Guidelines indicate an average delay for each vehicle passing through an intersection to be less than 55 seconds for a signalised intersection and 35 seconds for a priority intersection.

5.7 Road Safety

The existing collision record across the local area indicates a relatively low record of collisions, see Section 2.6.



6 Other Considerations

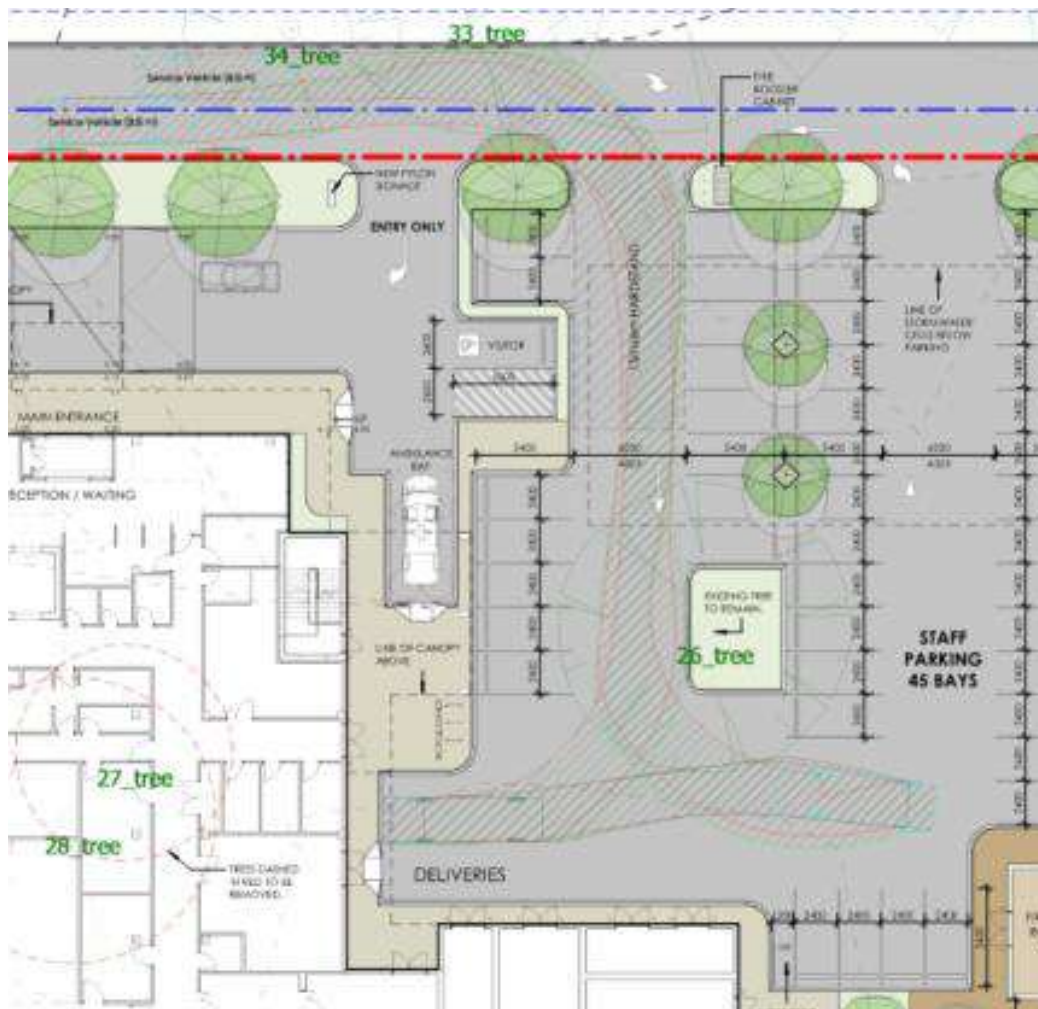
6.1 Loading Vehicles and Pick-Up/Drop-Off Parking

Loading tasks, such as waste collection and main deliveries, are proposed to be undertaken via the rear of the site. Access to and from this loading/service is proposed to be provided via a 6m wide private roadway on the north side of the site and accessed through the staff parking area.

Servicing vehicles will enter the site from the Lakes Road north approach, drive to the rear of the site through the staff car park and then then turning safely within the site to exit in a forward gear through the LILO to head south.

Swept paths of this movement though the rear of the site is shown below in Figure 6-1 and is shown to work appropriately for the service vehicle design vehicle.

Figure 6-1: Service Vehicle access at Rear





7 Conclusion

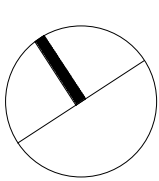
The following conclusions are made based on the analysis and discussions set out in this TIS report:

- The proposed development will be accessible by walking and cycling.
- The proposed development is serviced by nearby public transport facilities.
- Off street vehicle parking will be provided wholly within the site and supply is able to accommodate the expected demands of the development.
- The traffic generation of the proposed development is expected to be low across the course of the day and mostly outside of the 'traditional' road network peak times. It is therefore not expected to detrimentally impact the operation of Lakes Road which is operating within its mid-block capacity with the development traffic added and will therefore operate within intended function of the roads.
- Loading services, such as waste collection and main deliveries, are designed to occur within the site. Servicing vehicles will be able to enter/exit the site in a forward gear and any required turning movements has been tested to manoeuvre safely within the site as shown.
- The site will be primarily accessed by a Left-in/Left-out (LILO) access north of Kwella Entrance that has been shown to work well. However, a second LILO located on the southern boundary of the site and south of Kwella Entrance, connected via a 6m wide easement across the front of the development site will help minimise unnecessary traffic circulation on external roads as well as provide access to future development on the southern portion of Lot 4, south of the proposed development. This arrangement is suitable and supported.

Accordingly, the proposed development as proposed is acceptable from a transport perspective.



Appendix A Development Plans





3



Appendix B WAPC Guideline Checklist

Item	Provided	Comments/Proposals
Proposed Development		
Existing land uses	Y	
Proposed land uses	Y	
Context with surrounds	Y	
Vehicular access and parking		
Access arrangements	Y	
Public, private, and disabled parking set down/pick up	Y	
Service Vehicles (non-residential)		
Access arrangements	N	
On/off-site loading facilities	N	
Service Vehicles (residential)		
Rubbish collection and emergency vehicle access	Y	
Hours of Operation (non-residential)		
Traffic Volumes		
Daily or peak traffic volumes	Y	
Types of vehicles (for example, cars, trucks)	Y	
Traffic management on frontage streets		
Public Transport Access		
Nearest bus/train routes	Y	
Nearest bus stops/train station	Y	
Pedestrian/cycle links to bus stops/train station	Y	
Pedestrian access/facilities		
Existing pedestrian facilities within the development	Y	
Proposed cycle facilities within the development	Y	
Existing cycle facilities on surrounding roads	Y	
Proposals to improve cycle access	Y	
Site-specific issues		
Safety issues		
Identify issues	Y	
Remedial measures	Y	

Appendix H - Waste Management Plan



Waste Management Plan

RHC – Peel Day Surgery

Prepared for Ramsay Health Care Australia Pty Ltd c/- Bridge 42

12 December 2023

Project Number: WMP23093

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Signature					
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Executive Summary

Ramsay Health Care Australia Pty Ltd c/- Bridge 42 is seeking development approval for the proposed RHC – Peel Day Surgery development located at 42 – 52 Lakes Road, Greenfields (the Proposal).

To satisfy the conditions of the development application the City of Mandurah (the City) requires the submission of a Waste Management Plan (WMP) that will identify how waste is to be stored and collected from the Proposal. Talis Consultants has been engaged to prepare this WMP to satisfy the City's requirements.

A summary of the bin size, numbers, collection frequency and collection method is provided in the below table.

Proposed Waste Collection Summary

Waste Type	Generation (L/week)	Bin Size (L)	Number of Bins	Collection Frequency	Collection
Refuse	2,244	660	Two	Twice each week	Private Contractor
Recycling	2,244	660	Two	Twice each week	Private Contractor

A private contractor will service the Proposal onsite, directly from the Bin Storage Area. The private contractor's waste collection vehicle will enter and exit the Proposal in forward gear via Lakes Road.

Management will oversee the relevant aspects of waste management at the Proposal.

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Diagram 2: Swept Path Analysis

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Figure 1: Locality Plan

1 Introduction

Ramsay Health Care Australia Pty Ltd c/- Bridge 42 is seeking development approval for the proposed RHC – Peel Day Surgery development located at 42 – 52 Lakes Road, Greenfields (the Proposal).

To satisfy the conditions of the development application the City of Mandurah (the City) requires the submission of a Waste Management Plan (WMP) that will identify how waste is to be stored and collected from the Proposal. Talis Consultants has been engaged to prepare this WMP to satisfy the City's requirements.

The Proposal is bordered by vacant land to the north and south, residential properties to the east, and Lakes Road to the west, as shown in Figure 1.

1.1 Objectives and Scope

The objective of this WMP is to outline the equipment and procedures that will be adopted to manage waste (refuse and recyclables) at the Proposal. Specifically, the WMP demonstrates that the Proposal is designed to:

- Adequately cater for the anticipated volume of waste to be generated;
- Provide an adequately sized Bin Storage Area, including appropriate bins; and
- Allow for efficient collection of bins by appropriate waste collection vehicles.

To achieve the objective, the scope of the WMP comprises:

- Section 2: Waste Generation;
- Section 3: Waste Storage;
- Section 4: Waste Collection;
- Section 5: Waste Management; and
- Section 6: Conclusion.

2 Waste Generation

The following section shows the waste generation rates used and the estimated waste volumes to be generated at the Proposal.

2.1 Proposed Tenancies

The anticipated volume of refuse and recyclables is based on the floor area (m²) of the Day Surgery (excluding non-waste generating areas such as circulation space and storerooms) – **3,205m²**.

2.2 Waste Generation Rates

In order to achieve an accurate projection of waste volumes for the Proposal, consideration was given to the City of Gosnells' *Information Sheet – Waste Collection* as they contain waste generation rates specific to the use type and nature of the Proposal (Medical/Consulting Rooms).

Table 2-1 shows the waste generation rates which have been applied to the Proposal.

Table 2-1: Waste Generation Rates

Tenancy Use Type	City of Gosnells Guideline Reference	Refuse Generation Rate	Recycling Generation Rate
Day Surgery	Offices, Consulting Room, Medical Centre, Veterinary Centre	10L/100m ² /day	10L/100m ² /day

Medical waste (i.e. sharps, infectious waste, pathological waste, pharmaceuticals, chemical waste and non-regulated medical waste) will be managed and collected in-situ, and will be stored within the specific rooms through the Proposal and transferred to the Bin Storage Area only for collections.

2.3 Waste Generation Volumes

Waste generation is estimated by volume in litres (L) as this is generally the influencing factor when considering bin size, numbers and storage space required.

Waste generation volumes in litres per week (L/week) adopted for this waste assessment is shown in Table 2-2. It is estimated that the Day Surgery will generate 2,244L of refuse and 2,244L of recyclables each week.

Table 2-2: Estimated Waste Generation

Day Surgery	Area (m ²)	Waste Generation Rate (L/100m ² /day)	Waste Generation (L/week)
Refuse	3,205	10	2,244
Recyclables	3,205	10	2,244
Total			3,206

3 Waste Storage

Waste materials generated within the Proposal will be collected in the bins located in the Bin Storage Area, as shown in Diagram 1, and discussed in the following sub-sections.

3.1 Internal Bins and Transfer of Waste

To promote positive recycling behaviour and maximise diversion from landfill, internal bins will be available throughout the Proposal for the source separation of refuse and recycling.

These internal bins will be collected by the staff/cleaners at least once each day and transferred to the Bin Storage Area for consolidation into the appropriate bins. This internal servicing method may be conducted outside of main operational hours to mitigate disturbances to staff/visitors.

All bins will be colour coded and labelled in accordance with Australian Standards (AS 4123.7) to assist staff and cleaners to dispose of their separate waste materials in the correct bins.

3.2 Bin Sizes

Table 3-1 gives the typical dimensions of standard bins sizes that may be utilised at the Proposal. It should be noted that these bin dimensions are approximate and can vary slightly between suppliers.

Table 3-1: Typical Bin Dimensions

Dimensions (m)	Bin Sizes		
	240L	660L	1,100L
Depth	0.730	0.780	1.070
Width	0.585	1.260	1.240
Height	1.060	1.200	1.330

Reference: SULO Bin Specification Data Sheets

3.3 Bin Storage Area Size

To ensure sufficient area is available for storage of the bins, the amount of bins required for the Bin Storage Area was modelled utilising the estimated waste generation in Table 2-2, bin sizes in Table 3-1 and based on collection of refuse and recyclables twice each week.

Based on the results shown in Table 3-2 the Bin Storage Area has been sized to accommodate:

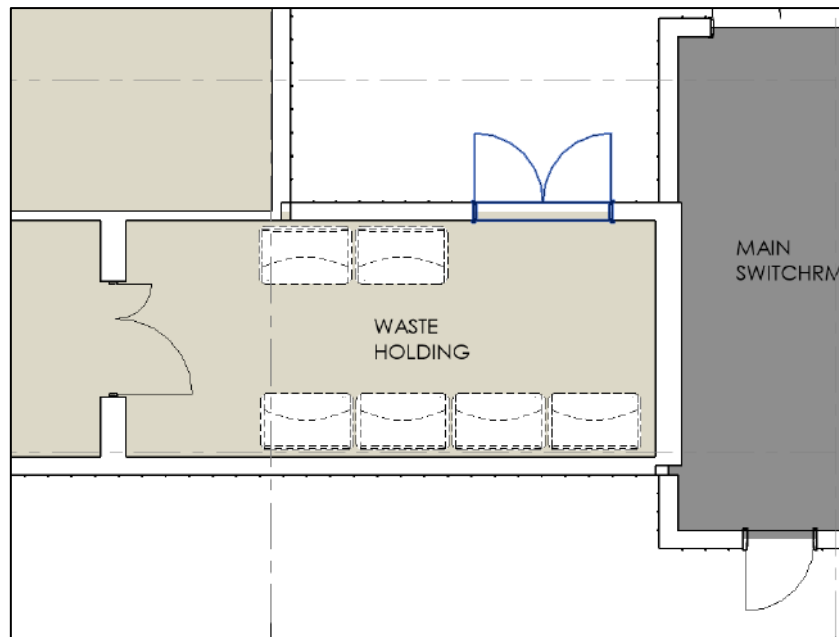
- Two 660L refuse bins; and
- Two 660L recycling bins.

Table 3-2: Bin Requirements for Bin Storage Area

Waste Stream	Waste Generation (L/week)	Number of Bins Required		
		240L	660L	1,100L
Refuse	2,244	5	2	2
Recycling	2,244	5	2	2

The configuration of these bins within the Bin Storage Area is shown in Diagram 1. It is worth noting that the number of bins and corresponding placement of bins shown in Diagram 1 represents the maximum requirements assuming two collections each week of refuse and recyclables.

Diagram 1: Bin Storage Area



3.4 Bin Storage Area Design

The design of the Bin Storage Area will take into consideration:

- Smooth impervious floor sloped to a drain connected to the sewer system;
- Taps for washing of bins and Bin Storage Area;
- Adequate aisle width for easy manoeuvring of bins;
- No double stacking of bins;
- Doors to the Bin Storage Area self-closing and vermin proof;
- Doors to the Bin Storage Area wide enough to fit bins through;
- Ventilated to a suitable standard;
- Appropriate signage;
- Undercover where possible and be designed to not permit stormwater to enter the drain;
- Located behind the building setback line;
- Bins not to be visible from the property boundary or areas trafficable by the public; and
- Bins are reasonably secured from theft and vandalism.

Bin numbers and storage space within the Bin Storage Area will be monitored by management during the operation of the Proposal to ensure that the number of bins and collection frequency is sufficient.

A private waste collection contractor will service the Proposal and provide two 660L bins for refuse and two 660L bins for recyclables.

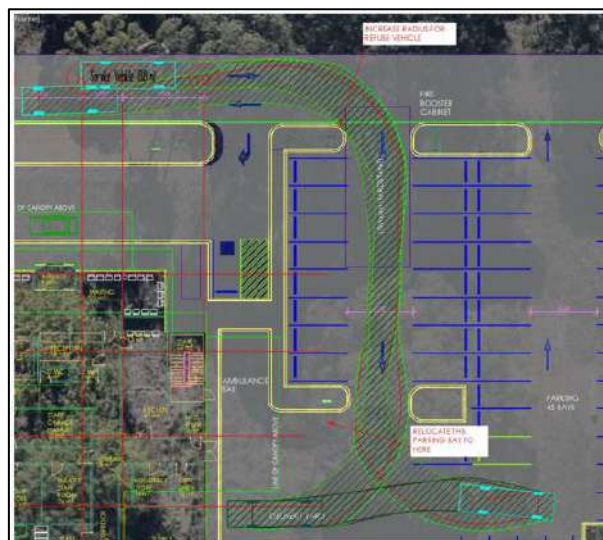
The private contractor's rear loader waste collection vehicle will service the bins onsite, directly from the Bin Storage Area. The private contractor's rear loader waste collection vehicle will travel with left hand lane traffic flow on Lakes Road, turn into the Proposal in forward gear, complete a multipoint turn within the Proposals carpark, and reverse up directly opposite the Bin Storage Area for servicing, as shown in **Diagram 2**.

Private contractor's staff will ferry bins to and from the rear loader waste collection vehicle and the Bin Storage Area during servicing. The private contractor will be provided with key/PIN code access to the Bin Storage Areas and security access gates to facilitate servicing, if required.

The above servicing method will preserve the amenity of the area by removing the requirement for bins to be presented to the street on collection days. In addition, servicing of bins onsite will reduce the noise generated in the area during collection. Noise from waste vehicles must comply with the Environmental Protection (Noise) Regulations and such vehicles should not service the site before 7.00am or after 7.00pm Monday to Saturday, or before 9.00am or after 7.00pm on Sundays and Public Holidays.

The ability for the private contractor's rear loader waste collection vehicle to access the Proposal in a safe manner has been assessed by qualified traffic engineers and will be included within their traffic impact statement.

Diagram 2: Swept Path Analysis



4.1 Controlled Medical Wastes

The volume of medical waste generated at the Facility will be dependent on the nature and scale of the medical practises undertaken. Appropriate containers will be placed in all locations where particular categories of medical waste may be generated. Instructions on identification and separation of medical wastes will be posted at each waste collection point to remind staff of procedures. Suitably qualified medical waste service providers will be engaged to determine storage and collection requirements.

4.2 Bulk and Speciality Waste

Adequate space may also be allocated throughout the Proposal for placement of cabinets/containers for collection and storage of bulk and specialty wastes that are unable to be disposed of within the bins in the Bin Storage Area. These may include items such as:

- Refurbishment wastes from fit outs;
- Batteries and E-wastes;
- White goods/appliances;
- Cleaning chemicals; and
- Commercial Light globes.

These materials will be removed from the Proposal once sufficient volumes have been accumulated to warrant disposal. A temporary skip bin could be utilised for collections, if required. Collection will be monitored by management who will organise their transport to the appropriate waste facility, as required.

5 Waste Management

A manager will be engaged to complete the following tasks:

- Monitoring and maintenance of bins and the Bin Storage Areas;
- Cleaning of bins and Bin Storage Areas, when required;
- Ensure all staff/cleaners at the Proposal are made aware of this WMP and their responsibilities thereunder;
- Monitor staff/cleaner behaviour and identify requirements for further education and/or signage;
- Monitor bulk and speciality waste accumulation and assist with its removal, as required;
- Regularly engage with staff/cleaners to develop opportunities to reduce waste volumes and increase resource recovery; and
- Regularly engage with the private contractors to ensure efficient and effective waste service is maintained.

6 Conclusion

As demonstrated within this WMP, the Proposal provides a sufficiently sized Bin Storage Area for storage of refuse and recyclables, based on the estimated waste generation volumes and suitable configuration of bins. This indicates that an adequately designed Bin Storage Area has been provided, and collection of refuse and recyclables can be completed from the Proposal.

The above is achieved using:

- Two 660L refuse bins, collected twice each week; and
- Two 660L recycling bins, collected twice each week.

A private contractor will service the Proposal onsite, directly from the Bin Storage Area. The private contractor's waste collection vehicle will enter and exit the Proposal in forward gear via Lakes Road.

Management will oversee the relevant aspects of waste management at the Proposal.

Figures

Figure 1: Locality Plan



LEGEND

- Site Boundary
- Cadastre**
 - Crown Allotment
 - Freehold
 - Road
 - Strata Plan or Lot
 - Easement
 - Reserve

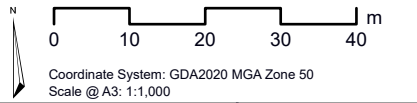
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LOCALITY

RHC - Peel Day Surgery
42-52 Lakes Road
Greenfields WA 6210

Bridge42 Pty Ltd



Prepared: T Daymond	Date: 8/12/2023
Reviewed: D Patel	Revision: A
Project: WMP23093	



Figure 01

Data source: Roads, Cadastre - Landgate, 2023, Imagery: Nearmap, 2023,



Assets | Engineering | Environment | Noise | Spatial | Waste

Talis Consultants
ABN 85 967 691 321

HEAD OFFICE

604 Newcastle Street,
Leederville
Western Australia 6007

PO Box 454,
Leederville
Western Australia 6903

NSW OFFICES

Nowra

76 Bridge Road, Nowra
New South Wales, 2541

PO Box 1189, Nowra
New South Wales, 2541

Newcastle

58 Cleary Street, Hamilton
New South Wales, 2303

P: 1300 251 070
E: enquiries@talisconsultants.com.au

element.
the art and science of place

Level 18, 191 St Georges Tce, Perth WA 6000

T. (08) 9289 8300 – **E.** hello@elementwa.com.au
elementwa.com.au