

## Metro Outer Development Assessment Panel Agenda

**Meeting Date and Time:** Wednesday, 29 July 2026; 9:30am  
**Meeting Number:** MODAP/151  
**Meeting Venue:** 140 William Street, Perth

A live stream will be available at the time of the meeting, via the following link:  
[MODAP/151- 29 July 2026 - City of Cockburn](#)

### PART A – INTRODUCTION

1. Opening of Meeting, Welcome and Acknowledgement
2. Apologies
3. Noting of Minutes

### PART B – CITY OF COCKBURN

1. Declarations of Due Consideration
2. Disclosure of Interests
3. Form 1 DAP Applications
  - 3.1 Lot 1 (No. 490) Wattleup Road, Hammond Park - Fast Food Outlets (Construction) – DAP/26/03119
4. Form 2 DAP Applications
5. Section 31 SAT Reconsiderations

### PART C – OTHER BUSINESS

1. State Administrative Tribunal Applications and Supreme Court Appeals
2. Meeting Closure

*Please note, presentations for each item will be invited prior to the items noted on the agenda and the presentation details will be contained within the related information documentation*

|                                                |
|------------------------------------------------|
| <b>DAP Members</b>                             |
| Dale Page (Presiding Member)                   |
| Eugene Koltasz (Deputy Presiding Member)       |
| Agata Cabanek                                  |
| Cr Tom Widenbar (Part B – City of Cockburn)    |
| Cr Chontelle Stone (Part B – City of Cockburn) |

|                        |
|------------------------|
| <b>DAP Secretariat</b> |
| Tenielle Brownfield    |
| Ashlee Kelly           |

## **PART A – INTRODUCTION**

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**2. Disclosure of Interests**

**3. Form 1 DAP Applications**

- 3.1 Lot 1 (No. 490) Wattleup Road, Hammond Park - Fast Food Outlets  
(Construction) – DAP/26/03119

**4. Form 2 DAP Applications**

Nil

**5. Section 31 SAT Reconsiderations**

Nil



## Part B – Item 3.1 - LOT 1 (NO.490) WATTLEUP ROAD HAMMOND PARK

### RESPONSIBLE AUTHORITY REPORT – FORM 1

|                                     |                                  |
|-------------------------------------|----------------------------------|
| <b>DAP Name:</b>                    | DAP26/003 Metro Outer DAP        |
| <b>DAP File No:</b>                 | DAP/26/03119                     |
| <b>LG Reference:</b>                | DAP26/003                        |
| <b>Proposed Development:</b>        | FAST FOOD OUTLETS (CONSTRUCTION) |
| <b>Value of Development:</b>        | \$2.5 million                    |
| <b>Owner:</b>                       | Sunview Developments Pty Ltd     |
| <b>Applicant:</b>                   | Lidija Langford – Rowe Group     |
| <b>Local Government Area:</b>       | City of Cockburn                 |
| <b>Responsible Authority:</b>       | City of Cockburn                 |
| <b>Authorising Officer:</b>         | Shehan Mendis (Planning Officer) |
| <b>Application Acceptance Date:</b> | 29/05/2026                       |

### LOCATION PLAN



## RESPONSIBLE AUTHORITY RECOMMENDATION

That the Metro Outer DAP resolves to **APPROVE** DAP Application reference DAP/26/03119 for Construction of the Fast Food Sites at Lot 1 (No.490) Wattleup Road, Hammond Park in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the Planning and Development (Local Planning Schemes) Regulations 2015, and the provisions of the City of Cockburn Town Planning Scheme No. 3, subject to the following conditions:

1. The development is to be undertaken in accordance with the approved plans and documents attached to this approval, as listed below, except where amended by subsequent conditions:

| Plan/ Document Name               | Reference    | Date        |
|-----------------------------------|--------------|-------------|
| Hungry Jack's Hammond Park        |              |             |
| Cover Page & Location Plan        | DA00 Rev. A  | March 2024  |
| Overall Site Plan                 | DA01 Rev. C  | March 2024  |
| Site Plan & Signage Location Plan | DA02 Rev. C  | March 2024  |
| Floor Plan                        | DA03 Rev. B  | March 2024  |
| Roof Plan                         | DA04 Rev. A  | March 2024  |
| External Elevations Sheet 1       | DA05 Rev. A  | March 2024  |
| External Elevations Sheet 2       | DA06 Rev. A  | March 2024  |
| Signage Details Sheet 1           | DA07 Rev. C  | March 2024  |
| Signage Details Sheet 2           | DA08 Rev. A  | March 2024  |
| Signage Details Sheet 3           | DA09 Rev. B  | March 2024  |
| Drive Thru Order Station Details  | DA10 Rev. A  | March 2024  |
| External Finishes Schedule        | DA11 Rev. A  | March 2024  |
| 3D Sketches                       | DA12 Rev. C  | March 2024  |
| KFC                               |              |             |
| Site Plan                         | A0.02 Rev. I | 19 May 2026 |
| Site Plan Signage                 | A0.10 Rev. D | 19 May 2026 |
| External Signage Details          | A0.11 Rev. E | 19 May 2026 |
| Floor Plan                        | A1.00 Rev. J | 19 May 2026 |
| Elevations – Sheet 1              | A2.00 Rev. H | 19 May 2026 |
| Elevations – Sheet 2              | A2.01 Rev. G | 19 May 2026 |
| Perspectives 01                   | A2.02 Rev. H | 19 May 2026 |
| Perspectives 02                   | A2.03 Rev. G | 19 May 2026 |
| Internal Perspectives             | A9.06 Rev. F | 19 May 2026 |

2. This decision constitutes planning approval only and is valid for a period of four years from the date of approval, being 29 July 2026. If the subject development is not substantially commenced within the specified period, the approval shall lapse and be of no further effect.
3. No building or construction activities shall be carried out before 7.00am or after 7.00pm, Monday to Saturday, and not at all on Sunday or Public Holidays, unless otherwise approved by the City.

4. The premises shall be kept in a neat and tidy condition at all times by the owner/occupier to the satisfaction of the City.
5. Prior to occupation or use of the development, vehicle manoeuvring and circulation areas shall be designed, constructed, sealed, drained, line marked and kerbed in accordance with:
  - The approved plans;
  - Council's engineering requirements and design guidelines. The areas must be sealed in bitumen or concrete in accordance with City's specifications, unless otherwise approved by the City
6. The loading and/or unloading of vehicles is to occur on-site and in a manner that does not interfere with the parking of vehicles in the car park. All car parking bays in the car park are to be always made available for the parking of vehicles by visitors or employees.
7. All stormwater to be contained on site. Stormwater drainage to be able to contain a 1 in 100-year, 24-hour storm event.
8. **Prior to the issue of a Building Permit**, details about the stormwater drainage design intended for the proposed development shall be submitted to the City for review and approval. Details should include drainage calculations with catchment area, rainfall intensity and other relevant information.
9. **Prior to the issue of a Building Permit**, a construction management plan (CMP) shall be submitted to and approved by the City. The CMP shall be implemented to the satisfaction of the City. The Construction Management Plan shall be always implemented during the construction phase.
10. No wash-down of plant, vehicles or equipment is permitted on the premises. Industrial, commercial or wash-down wastes shall not enter stormwater disposal systems or otherwise be discharged into the environment.
11. Prior to the issue of a Building Permit, a detailed landscaping plan shall be submitted to and approved by the City, and shall include the following:
  - the location, number, size and species type of existing and proposed trees and shrubs, including calculations for the landscaping area;
  - any lawns to be established;
  - any existing landscape areas to be retained;
  - those areas to be reticulated or irrigated; and
  - verge treatments.
12. Landscaping including verge planting shall be installed, reticulated and/or irrigated in accordance with the/an approved plan and maintained thereafter to the satisfaction of the City. The landscaping shall be implemented prior to the initial occupation of the development and any species which fail to establish within a period of 12 months from planting shall be replaced to the satisfaction of the City.
13. **Prior to the issuance of a Building Permit**, Engineering drawings and specifications are to be submitted, approved, and works undertaken in accordance

with the approved engineering drawings, specifications and approved plan of development, to ensure that:

- Adequate Pedestrian crossings;
- Associated pram ramps

14. All outdoor lighting shall be installed and maintained in accordance with Australian Standard AS 4282 - 1997 "*Control of the Obtrusive Effects of Outdoor Lighting*"
15. Noise from waste and delivery 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.
16. An updated Mechanical Plant Noise Report shall be submitted to and approved by the City, **prior to the submission of a Building Permit application**, and implemented thereafter, to the satisfaction of the City.
17. All noise attenuation measures, identified by the Lloyd George Acoustics "Environmental Noise Assessment, Proposed Hammond Park Shopping Centre, Hammond Park" (Ref: 20075601-01I, dated 24-01-24) and the Lloyd George Acoustics "Mechanical Plant Noise Assessment, Lots 9043 & 9053 Wattleup Road and Lot 305 Whadjuk Drive, Hammond Park Shopping Centre" (Ref: 20075601-05B, dated 21-6-24) and the further Mechanical Plant Noise Report required under condition 16, are to be implemented prior to occupancy of the development (or as otherwise required by the City) and the requirements of the Acoustic Report are to be observed at all times.
18. Written confirmation from a recognised acoustic consultant that all recommendations made in the Acoustic Report prepared by Lloyd George Acoustics and the further Mechanical Plant Noise Report required under conditions 16 & 17 have been incorporated into the proposed development, shall be submitted to the City at the time of lodgement of the Building Permit Application.
19. Written confirmation from a recognised acoustic consultant that all recommendations made in the Acoustic Report prepared by Lloyd George Acoustics and the further Mechanical Plant Noise Report required under conditions 16 & 17 have been incorporated into the proposed development, shall be submitted to the City at the time of lodgement of the BA7 Completion Form, prior to occupation of the development.
20. Provisions identified in the Delivery Management Plan provided Rowe Group dated 31/07/2023 which include specified delivery operation hours and noise management measures, are to be implemented and maintained thereafter to the satisfaction of the City.
21. An "Application to Construct or Alter a Food Premises" is required to be submitted to Health Services **prior to the issuance of a Building Permit**. This is to be accompanied by detailed plans and specifications of the food preparation and storage area (including mechanical ventilation and hydraulics), sanitary conveniences and garbage room, demonstrating compliance with the mentioned legislation.



22. The signage shall not include fluorescent, reflective or retro reflective colours or materials. If illuminated, signage shall not to flash, pulsate or chase.
23. All approved signage shall be installed and maintained in accordance with the plans approved by the City of Cockburn. Any alteration, addition, replacement, or display of signage not shown on the approved plans shall require the prior written approval of the City of Cockburn.
24. The approved signage is to be in relation to the use(s) of the site. Signage is to be maintained and not offensive in nature, to the satisfaction of the City.
25. No bunting is to be erected on the site (bunting includes streamers, streamer strips, banner strips or decorations of similar kind).
26. **Prior to the issue of an Occupancy Permit**, a minimum of five (5) bicycle parking spaces shall be provided for the Hungry Jack's site and a minimum of six (6) bicycle parking spaces shall be provided for the KFC site. Bicycle parking facilities shall be installed in accordance with AS 2890.3 – Bicycle Parking Facilities, and maintained for the life of the development, to the satisfaction of the City of Cockburn.
27. **Prior to the issue of an Occupancy Permit**, a minimum of six (6) vehicle parking bays shall be provided on the Hungry Jack's site and a minimum of seven (7) vehicle parking bays shall be provided on the KFC site. All parking areas, driveways, and points of ingress and egress shall be constructed, sealed, kerbed, drained, line-marked, and made available for use in accordance with the approved plans, to the satisfaction of the City of Cockburn.
28. The dimensions of all car parking bays, aisle widths, wheel stops, columns, ramps and circulation areas shall comply with the Australian Standards AS/NZS 2890.1:2004 and AS/NZS 2890.6:2009.
29. All access ways, parking areas and hardstand areas shall be maintained in accordance with the City's engineering requirements and design guidelines.
30. All services areas and service-related hardware, including antennae, satellite dishes, and air conditioning units, being suitably located away from public view and/or screened to the satisfaction of the City.
31. Provisions identified in the Waste Management Plan provided by Talis Consultants on behalf of Rowe Group dated 19/10/2023 and approved by the City on 03/11/2023, which include recycling measures and management of waste, are to be implemented and maintained thereafter to the satisfaction of the City.
32. The applicant must implement all of the recommendations contained in the Bushfire Management Plan prepared by JBS&G dated 12 May 2023 and approved by the Local Government for the duration of the development.
33. Prior to the issue of a Building Permit, the owner/applicant shall:

- submit to the City for approval a preliminary proposal for an artwork designed be a professional artist at a cost of 1% of the total project cost (to a maximum of \$250,000), to be to be located within the subject site as an integral part of the development;
- submit to the City for approval an 'Application for Artwork Design';
- enter into a contract with a professional artist/s to design and install (if appropriate) the artwork approved by the City.

The artwork shall then be installed prior to occupation of the building/development and maintained thereafter to the satisfaction of the City.

### Advice Notes

1. This is a Development Approval only and does not remove the responsibility of the applicant/owner to comply with all relevant building, health and engineering requirements of the City, or with any requirements of the City of Cockburn Town Planning Scheme No. 3 or with the requirements of any external agency.
2. With regard to **Condition 33**, the art work shall be in accordance with Council' Local Planning Policy 5.13 Percent for Art and the 'Application for Art Work Design' and shall include a contract between the owner/applicant and the artists full working drawings (including an indication of where the art work is located) and a detailed budget being submitted to and approved by the City. Further information regarding the provision of artwork can be obtained from the City's Community Arts Officer on 9411 3444.
3. With regards to **Condition 12**. The landscaping plan should avoid any species that is considered detrimental to the neighbouring nature reserve, with an emphasis on WA natives to be confirmed by the City's Environmental Team. All Trees proposed to be suitable evergreen species to achieve screening and shading required to neighbouring properties and carpark area.
4. With regards to **Condition 9**, the City has developed CMP guidelines and checklist that is required to be completed and submitted to City's Development Engineer, (ATTN to: [urajaram@cockburn.wa.gov.au](mailto:urajaram@cockburn.wa.gov.au)) for review and approval. The CMP format is also available on the City's website (<https://www.cockburn.wa.gov.au/Building-and-Development/Town-Planning-and-Development/Land-Development-And-Subdivisions>).
5. If an odour detected at an adjacent premises is deemed to be offensive by the City, then any process, equipment and/or activities that are causing the odour shall be stopped until the process, equipment and or activity has been altered to prevent odours to the satisfaction of the City.
6. All food businesses shall comply with the Food Act 2008 and Chapter 3 of the Australia New Zealand Food Standard Code (Australia Only).
7. The estimated development cost provided in the development application form will be reviewed and compared to the cost stated in the subsequent building permit application. If a significant discrepancy is identified, the City reserves the right to recover any resulting difference in application fees. The release of the building permit may be deferred until the outstanding fee balance is paid in full.

8. Please be advised that the development must comply with the requirements of the Building Codes of Australia.
9. You are advised that a Sign Permit is required in accordance with the City's Local Laws (2000) prior to the erection of the signs. A permit is obtainable from the City's Building Services Department.
10. You are advised that a plan and description of any signage and advertising not exempt under Town Planning Scheme No. 3 or beyond the signage identified on the development plans shall be submitted to and approved by the City prior to the erection of any signage.
11. All earthworks and/or associated drainage details shall be in accordance AS3500 with plans and specifications certified by a suitably qualified practicing Engineer to the satisfaction of the City.
12. Retaining wall(s) being constructed in accordance with a suitably qualified Structural Engineer's design and a Building Permit being obtained prior to construction. Retaining walls are required for any cut and/or fill greater than 150mm in height. In this regard, any fill above or below natural ground level at the lot boundaries is to be suitably retained or have a compliant stabilised embankment.
13. The development shall comply with the noise pollution provisions of the Environmental Protection Act 1986, and more particularly with the requirements of the Environmental Protection (Noise) Regulations 1997. The installation and use of equipment within the development shall not result in noise emissions to neighbouring properties exceeding those imposed by the Environmental Protection (Noise) Regulations 1997 (as amended).

#### **PROPOSAL:**

The application seeks approval for the construction of two fast-food outlets within the Hammond Park Neighbourhood Centre. The outlets are proposed on two previously approved pad sites, each approximately 300 square metres in area, located on the southern portion of the site fronting Wattleup Road. The proposed tenants are Hungry Jack's and KFC.

The proposed site areas are:

- Hungry Jacks Site Area: 275m<sup>2</sup>
- KFC Site Area: 287m<sup>2</sup>

The initial approval included six parking bays adjoining the Hungry Jack's site. Under the current proposal, three of these bays would be allocated as a pull-through bay, delivery bay and accessible parking bay. Hungry Jack's proposes 16 signs and two speaker boxes. For the KFC site, two of the seven adjoining parking bays would be used as a waiting bay and an accessible parking bay. KFC proposes 21 signs on the building exterior. Loading bays for both fast-food outlets are located on the northern side of the buildings, consistent with the initial approval.

The application proposes that landscaping around the fast-food outlets be removed from the scope of the initial centre approval and instead included as part of this approval. This would allow landscaping to be delivered in conjunction with building construction and reduce the risk of damage during works.

No new land use is proposed. The pad sites were previously approved for fast-food outlets, and the proposed use is therefore this application is for the works component of the pad sites only.

|                            |                                             |
|----------------------------|---------------------------------------------|
| Proposed Land Use          | None proposed                               |
| Proposed Net Lettable Area | N/A – Not Defines – GLA = 520m <sup>2</sup> |
| Proposed No. Storeys       | 1                                           |
| Proposed No. Dwellings     | N/A                                         |

### **SUBJECT SITE AND SURROUNDS:**

The subject site was identified as a “Neighbourhood Centre” but is zoned Local Centre under the Wattleup Roads Lots 114, 123–125 Structure Plan, approved on 18 July 2014. The structure plan envisaged the site being developed as a neighbourhood centre.

### **BACKGROUND:**

#### **DAP23/02556 (DAP23/002)**

On 18 September 2023, the Metro Outer JDAP received application DAP/23/02556 (DAP23/002) for the Hammond Park Neighbourhood Centre. The proposal included a main shopping centre building fronting Whadjuk Drive, intended to accommodate a supermarket and specialty tenancies. The 2.78-hectare site was approved with a total Gross Lettable Area of 6,004 square metres, comprising 5,404 square metres within the main single-storey building and two 300-square-metre pad sites.

The application included two pad sites for fast-food outlets along Wattleup Road. These pad sites were considered compatible with the centre and were approved as part of the overall development.

On 18 December 2023, the DAP determined that the proposed land uses, including shop, liquor store, medical centre, restaurant, fast food, office and lunch bar, were appropriate for consideration and compatible with the objectives of the zoning table under Clause 3.4.2 of the City of Cockburn Town Planning Scheme No. 3. The application was approved subject to conditions.

#### **DAP/23/02556 (DAP24/005)**

On 20 June 2024, application DAP/23/02556 (DAP24/005) was lodged for minor amendments to DAP23/002. The amendments included:

- Increasing the mall area by reducing B1.6 tenancy
- Re-configuration of the bin store / service areas
- Minor increase to the supermarket area (rear service area)
- Amendments to parking
  - o Total approved bays 367 bays



On 15 August 2024, the DAP approved the amendment application subject to conditions.

### **DAP/23/02556 (DAP24/006)**

On 6 November 2024, the applicant lodged DAP/23/02556 (DAP24/006), which proposed further amendments, including:

- Addition of kiosk to entry mall (minor internal works)
- Amendment to Condition 5, whereby the approved Pylon on Wattleup Road is required to be reduced to 6m in height from the proposed 12m height. This application proposes to amend the pylon sign to 9m high.
- One (1) additional 6m high pylon sign to Wattleup Road in conjunction with the approved two 4m high pylon signs as per condition 5.

The City recommended refusal of the proposed sign heights as they were inconsistent with Local Planning Policy 3.7 – Signs and Advertising. The City recommended that the sign heights remain as conditioned and that the condition be amended to require removal of the additional signage proposed along Wattleup Road.

On 19 February 2025, the DAP approved the kiosk addition and amended Condition 5 in accordance with the City's recommendation.

### **PLANNING ASSESSMENT:**

| <b>PLANNING FRAMEWORK</b>                                  |                                                                                                                                                                                                       |
|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Region Scheme</b>                                       | Metropolitan Region Scheme                                                                                                                                                                            |
| <b>Region Scheme - Zone/Reserve</b>                        | Urban                                                                                                                                                                                                 |
| <b>Local Planning Scheme</b>                               | Town Planning Scheme No.3                                                                                                                                                                             |
| <b>Local Planning Scheme - Zone</b>                        | Local Centre                                                                                                                                                                                          |
| <b>Structure Plan/Precinct Plan</b>                        | <a href="#">Wattleup Roads – Lots 114,123 – 125</a>                                                                                                                                                   |
| <b>Structure Plan/Precinct Plan - Land Use Designation</b> | Development Zone                                                                                                                                                                                      |
| <b>Lot Size</b>                                            | 2.78ha                                                                                                                                                                                                |
| <b>Existing Land Use</b>                                   | Neighbourhood Centre                                                                                                                                                                                  |
| <b>Heritage Status</b>                                     | <input checked="" type="checkbox"/> N/A<br><input type="checkbox"/> State Register of Heritage Places<br><input type="checkbox"/> Local Heritage List<br><input type="checkbox"/> Local Heritage Area |
| <b>Bushfire Prone Area</b>                                 | Yes                                                                                                                                                                                                   |

The proposal has been assessed against the *Town Planning Scheme No. 3 (TPS3)*, the relevant Local Structure Plan, the Local Development Plan and the applicable Local Planning Policies.

#### Land Use

Fast-food outlets are a discretionary use in the Local Centre zone. The use was considered and approved under **DAP23/02556 (DAP23/002)**. As no change to the approved land use is proposed, the use is considered acceptable.

### Noise Attenuation

The City's Environmental Health Department reviewed the application against the previously submitted acoustic reports: Lloyd George Acoustics, *Environmental Noise Assessment, Proposed Hammond Park Shopping Centre, Hammond Park* (Ref: 20075601-011, dated 24 January 2024), and Lloyd George Acoustics, *Mechanical Plant Environmental Noise Assessment, Lots 9043 and 9053 Wattleup Road and Lot 305 Whadjuk Drive, Hammond Park Shopping Centre* (Ref: 20075601-05B, dated 21 June 2024). Although the location and number of vehicles in the drive-through areas vary slightly from the previous assessment, the differences are considered negligible. An updated environmental acoustic report is therefore not required.

The mechanical plant report notes that once plant selections are available for the fast-food tenancies, they must be integrated into the noise model to confirm ongoing compliance. An updated mechanical plant acoustic report is therefore required. The applicant has agreed to provide this report as a condition of approval.

### Amenity

LDP23/10 allows primary buildings within the neighbourhood centre to reach 11 metres in height, reducing to 8.5 metres for buildings fronting Whadjuk Drive and Wattleup Road. The proposed buildings fronting Wattleup Road are limited to 7 metres and therefore comply with the height requirements. LDP23/10 also requires a 6 metre setback from residential lot boundaries, which both sites achieve. The built form is professionally designed and is not expected to detract from the streetscape.

### Landscaping

Landscaping, including street trees across the site, was considered and approved under **DAP23/02556 (DAP23/002)**. The applicant for the main centre has proposed removing the requirement to deliver landscaping around the pad sites from that approval so it can be delivered later, in conjunction with construction of the fast-food outlets. This approach is intended to avoid damage to landscaping during subsequent building works. The applicant for DAP26/03119 (DAP26/003) agreed to this approach on 8 June 2026. A landscaping plan will therefore be required as a condition of approval. Landscaping to be conditioned as part of the approval.

### Signs

Two pylon signs along Wattleup Road were approved under DAP/23/02556 (DAP24/006). The proposed fast-food outlets will use these signs for advertising. As no changes to their approved size are proposed, no further assessment is required.

Additional signage has been assessed against Local Planning Policy 3.7 – Signs and Advertising, which sets out the requirements for signage within the City. The proposed development's compliance with the policy is detailed below.

### **Hungry Jacks**

| Provision                 | Requirement                     | Proposal                    | Assessment                                                                         |
|---------------------------|---------------------------------|-----------------------------|------------------------------------------------------------------------------------|
| Local Planning Policy 3.7 | LPP 3.7 – Section (3) Standards | S03 – Drive Thru height Bar | These proposed signs are exempt under Clause 61 (1) (a) of the <i>Planning and</i> |

|                         |                                                             |                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| – Signs and Advertising |                                                             | <p>S04a – Drive Thru Preview Board</p> <p>S04b – Drive Thru Speaker Box &amp; Menuboard</p> <p>S05 – illuminated Blade Wall Sign</p> <p>S11 – Bike Sign Post</p> <p>S13 – Pull Thru Bay Post &amp; Ground Marking Signs</p> <p>S14 – Delivery Bay Ground Marking</p> <p>S15 – Pedestrian Crossing Sign</p> | <p><i>Development (Local Planning Schemes) Regulations 2015.</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                         | LPP 3.7 – Section (4) Signage requires development approval | <p>S06 – Illuminated Hungry Jack's Letterset</p> <p>S07a – Drive Thru Window 1 Sign</p> <p>S07b – Drive Thru Window 2 Sign</p> <p>S07c – Drive Thru Window 3 Sign</p> <p>S08 – Printed Graphic (DT Lane)</p> <p>S09 – Spray Paint Graphic (Shopfront)</p> <p>S12 – Painted Flame Grilled Logo</p>          | <p>These signs are not exempt and have been assessed against sections (2) and (4) of the LPP.</p> <p>The illuminated lettering is less than 6m<sup>2</sup> in area and less than 1m high.</p> <p>The projected drive-through signs do not provide the required head clearance; however, they are located within the drive-through area, where pedestrian access is not expected.</p> <p>The printed and painted graphics relate to the subject site and are not expected to adversely affect surrounding amenity.</p> |

## KFC

| Provision                                         | Requirement                     | Proposal                                                                                                                                      | Assessment                                                                                                                                       |
|---------------------------------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Local Planning Policy 3.7 – Signs and Advertising | LPP 3.7 – Section (3) Standards | <p>SG03 – Drive Thru Awning + SPKR Bollard</p> <p>SG05 – Directional Sign – DT Entry</p> <p>SG07 – Height Bar</p> <p>SG08 – Colonels Sign</p> | <p>These proposed signs are exempt under Clause 61 (1) (a) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i>.</p> |

|  |                                                             |                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |                                                             | SG14 – Digital Menu board Sign<br>SG16 – No Smoking Sign<br>SG17 – Delivery Area Sign<br>SG20 – Order here Sign                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|  | LPP 3.7 – Section (4) Signage requires development approval | SG01a – Pylon Sign – 6m<br>SG09 – Stripe Set<br>SG10 – Original Recipe Stamp<br>SG11 – KFC Letters: White<br>SG12 -Kentucky Fried Chicken Entry Sign | <p>These signs are not exempt and have been assessed against sections (2) and (4) of the LPP.</p> <p>The pylon sign is 6m high and located 40m from the street frontage, limiting its impact on nearby residential properties.</p> <p>The illuminated lettering complies with the LPP, as it is less than 6m<sup>2</sup> in area and less than 1m high.</p> <p>The printed and painted graphics relate to the subject site and are not expected to adversely affect surrounding amenity.</p> |

### Parking

The parking facilities approved by **DAP/23/02556 (DAP24/005)** include a total of 367 parking bays, comprising:

- 344 on-site bays,
- 6 ACROD bays (1 in each fast-food outlet),
- 4 direct-to-boot bays,
- 3 Pram bays and,
- 10 on-street bays

The approved parking provision accounted for the future fast-food outlets and was considered sufficient. The current proposal results in a reduction of one bay on the Hungry Jack's site. This is a minor reduction and is not expected to create a significant parking issue for the centre.

The loading bay and bin store areas are located on the southern elevations of the fast-food outlets. These areas were assessed and are not expected to adversely affect the amenity of surrounding properties, as they are positioned behind the buildings and supported by landscaping along the southern boundary.

### Bicycle

Bicycle parking requirements for the fast-food outlets were not assessed as part of **DAP/23/02556 (DAP24/005)**. The current proposal includes one bicycle rack for Hungry Jack's and three bicycle racks for KFC.

| Bicycle Parking<br>TPS3 | Required                                                                                    | Proposed          | Assessment                                                         |
|-------------------------|---------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------|
|                         | 1 per 50m <sup>2</sup> GLA<br><br>HJ – 250m <sup>2</sup> = 5<br>KFC – 275m <sup>2</sup> = 6 | HJ – 1<br>KFC - 3 | Additional bicycle bays to be conditioned as part of the approval. |

The applicant has agreed to a condition requiring the provision of bicycle parking as part of the approval.

### Traffic and Transportation

Further clarification is required regarding the proposed continuous pedestrian path, including the design and treatment of pram ramps. Amended plans or supporting details will be required to demonstrate how the ramps will be incorporated and to confirm compliance with the City's engineering requirements and relevant accessibility standards. This matter will be addressed through a condition requiring civil drawings to be submitted.

### Public Art

Local Planning Policy 5.13 – Percent for Art requires a 1% public art contribution for commercial developments with an estimated cost greater than \$1 million, up to a maximum contribution of \$250,000. This requirement will be applied as a standard condition.

## **CONSULTATION:**

### PUBLIC CONSULTATION

The proposal was not advertised because the fast-food use and pad sites were previously advertised and approved under DAP23/02556 (DAP23/002). No further public consultation is required, as the proposal does not involve variations from the previous approvals.

### REFERRALS/CONSULTATION WITH GOVERNMENT/SERVICE AGENCIES

Referral to government or service agencies was not required, as the approval relates only to works within the previously approved pad sites.

### DESIGN REVIEW PANEL ADVICE

Design Review Panel referral was not required because the proposal has an estimated value below \$10 million and DRP review is not mandatory.

## CONCLUSION:

The application has been assessed against the relevant provisions of the City of Cockburn Town Planning Scheme No. 3, the approved structure plan, the Local Development Plan and applicable local planning policies. The proposed fast-food outlets are located on pad sites previously approved for this purpose as part of the Hammond Park Neighbourhood Centre, and the application does not seek to alter the approved land use.

The key assessment matters include noise attenuation, landscaping, signage, parking, bicycle parking, loading and service areas, and pedestrian access. These matters are either consistent with previous approvals or can be appropriately managed through recommended conditions, including requirements for an updated mechanical plant acoustic report, landscaping plans, bicycle parking and civil drawings.

The proposed signage has been assessed against Local Planning Policy 3.7 – Signs and Advertising and is considered acceptable having regard to its scale, location and relationship to the subject site. The minor reduction in parking is not expected to adversely affect the operation of the centre. Loading and service areas are also suitably located to minimise amenity impacts on surrounding properties.

On balance, the proposal has planning merit and is consistent with the established planning framework for the site. It is therefore recommended that the application be approved, subject to appropriate conditions.

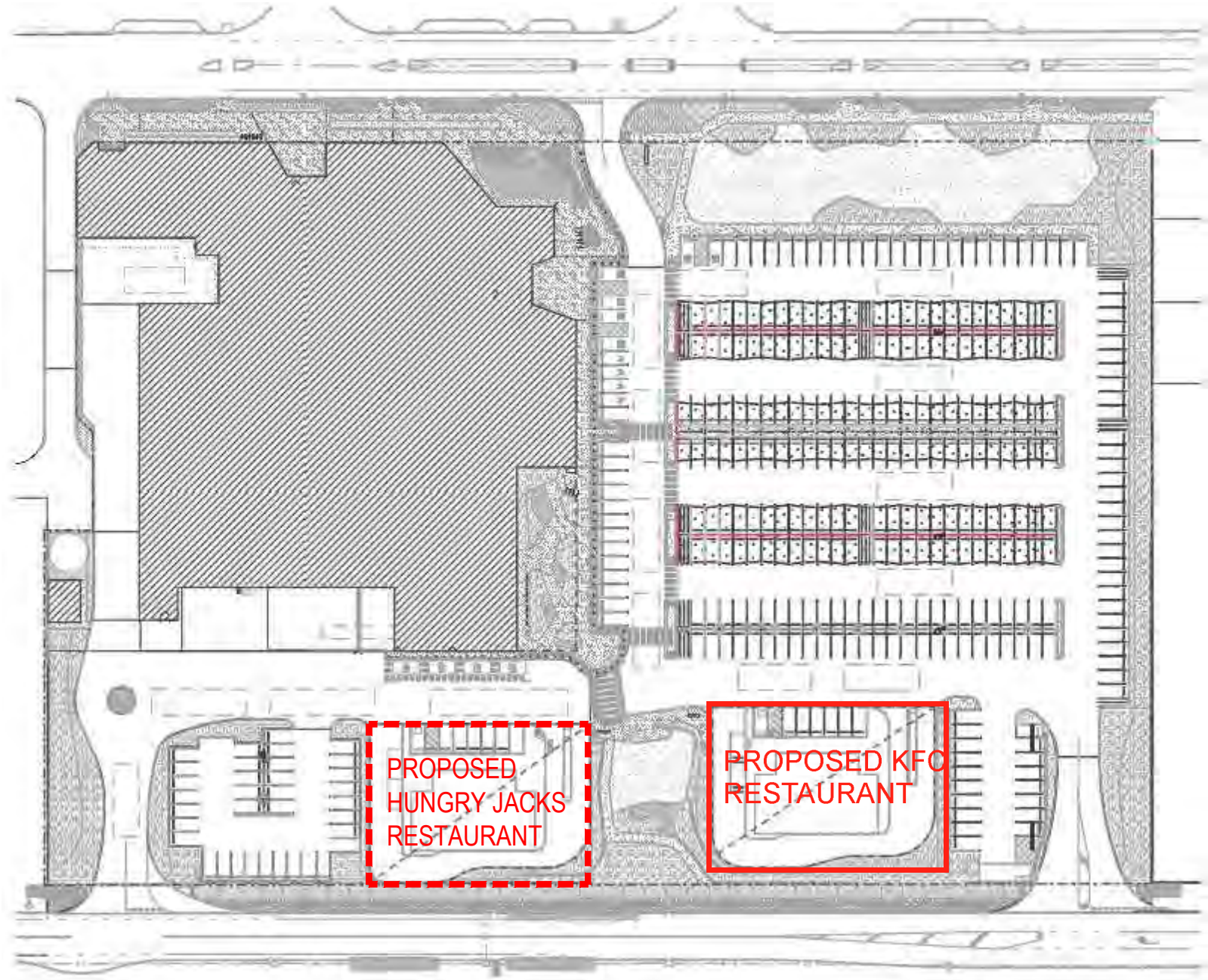
## ATTACHMENTS

1. [Plans & Elevations](#)
2. [Certificate of Title](#)
3. [Landscape plan](#)
4. [Full Planning Report](#)
5. [LDP23/10](#)
6. [Attachment 4 - BMP](#)
7. [Attachment 5 – WMP](#)
8. [Attachment 6 – Delivery Plan](#)
9. [Attachment 7 – Noise Assessment](#)
10. [Attachment 8 – Transport Memorandum](#)





HUNGRY JACK'S HAMMOND PARK  
WHADJUK DRIVE, HAMMOND PARK WA 6164



LOCATION PLAN

DRAWING LIST

- DA00 COVER PAGE
- DA01 OVERALL SITE PLAN & SIGNAGE LOCATION PLAN
- DA02 SITE PLAN & SITE SIGNAGE LOCATION PLAN
- DA03 PROPOSED FLOOR PLAN
- DA04 PROPOSED ROOF PLAN
- DA05 ELEVATIONS SHEET 1
- DA06 ELEVATIONS SHEET 2
- DA07 SIGNAGE DETAILS SHEET 1
- DA08 SIGNAGE DETAILS SHEET 2
- DA09 SIGNAGE DETAILS SHEET 3
- DA10 DRIVE-THRU ORDER STATION DETAILS
- DA11 EXTERNAL FINISHES SCHEDULE
- DA12 3D SKETCHES



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| STATUS                                  |  | REV | DATE     | AMENDMENT    | DRW |
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| <input checked="" type="radio"/> DA/ PP |  | A   | 13.02.26 | ISSUE FOR DA | SF  |
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| <input type="radio"/> TENDER            |  |     |          |              |     |
| <input type="radio"/> CONSTRUCTION      |  |     |          |              |     |

PROJECT HUNGRY JACK'S

**HAMMOND PARK SHOPPING CENTRE**

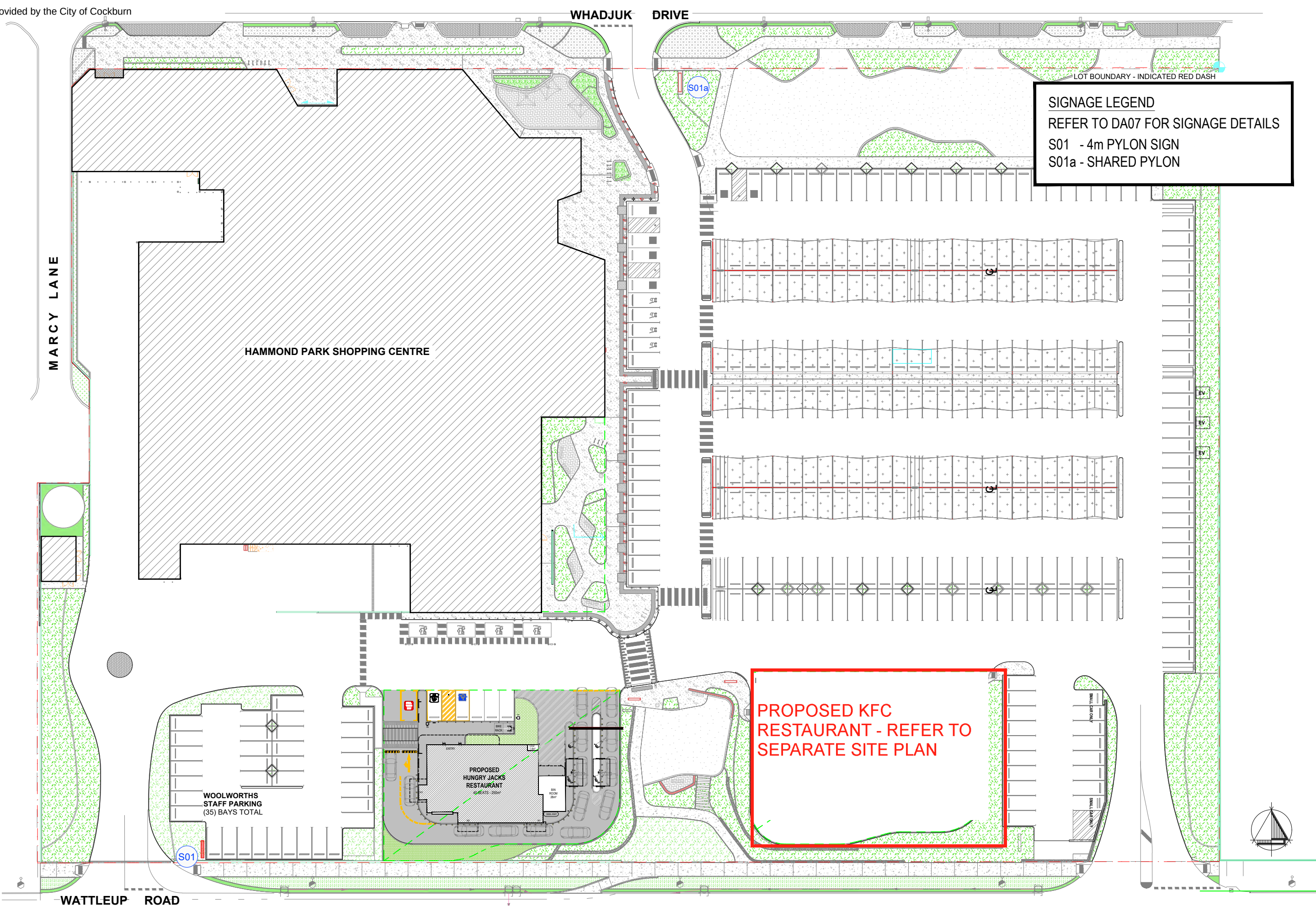
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

| DRAWING                    |             |            |
|----------------------------|-------------|------------|
| COVER PAGE & LOCATION PLAN |             |            |
| PROJECT NO. 240308         | DATE        | MARCH 2024 |
| SCALE                      | DRAWING NO. | REV.       |
| NTS@A3                     | DA00        | A          |

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Nominated Architect: Shyan Fang (Reg 7958)







SIGNAGE LEGEND

REFER TO DA07 FOR SIGNAGE DETAILS

S01 - 4m PYLON SIGN

S01a - SHARED PYLON

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| <input type="radio"/>            | CONSTRUCTION |     |          |                                        |     |

PROJECT HUNGRY JACK'S

**HAMMOND PARK SHOPPING CENTRE**  
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

DRAWING

**OVERALL SITE PLAN & SIGNAGE LOCATION PLAN**

PROJECT NO. 240308

SCALE 1:600@A3

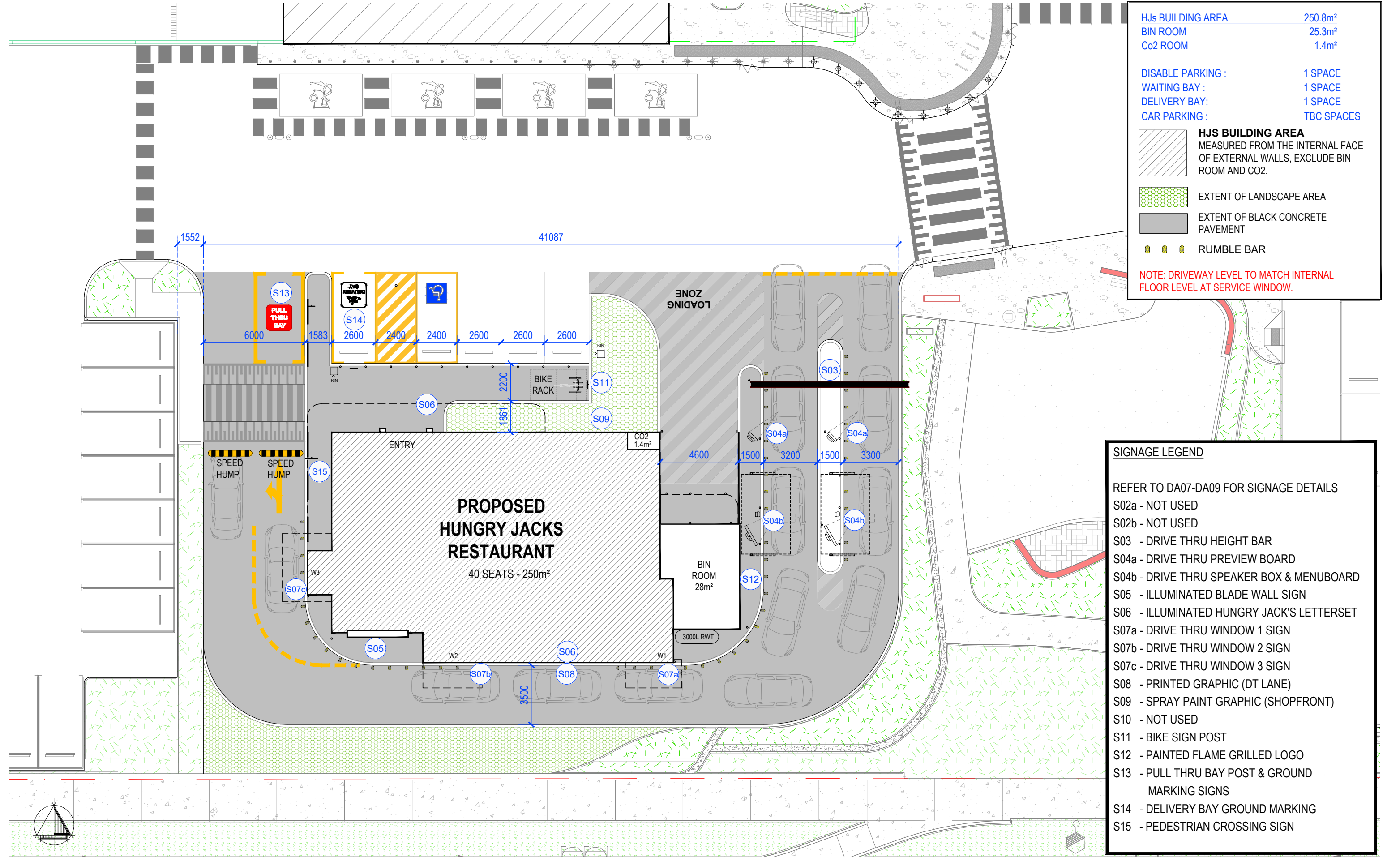
DATE MARCH 2024

DRAWING NO. DA01

REV. C

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PROJECT HUNGRY JACK'S

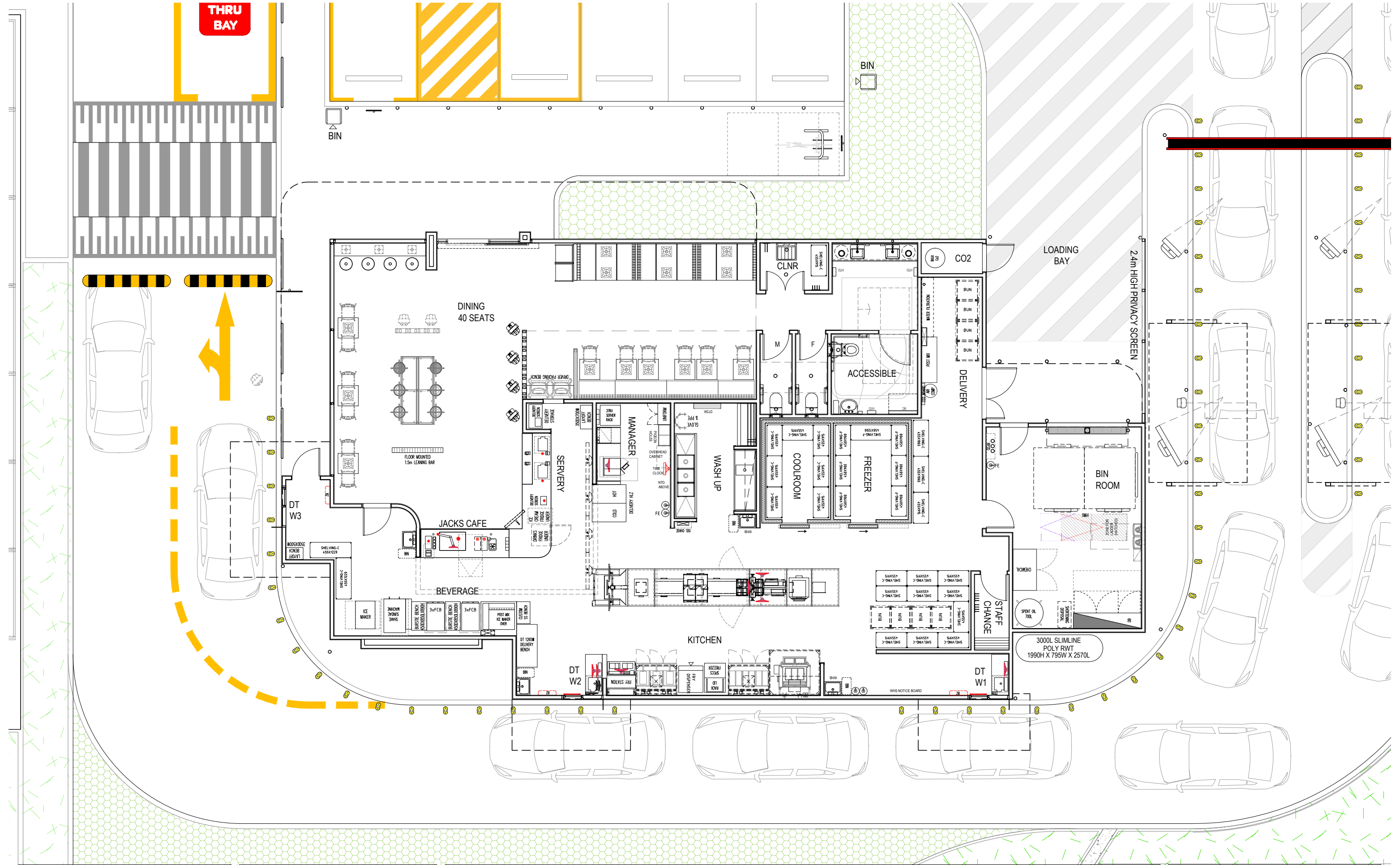
**HAMMOND PARK SHOPPING CENTRE**  
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

**SITE PLAN & SIGNAGE LOCATION PLAN**

|                    |                  |
|--------------------|------------------|
| PROJECT NO. 240308 | DATE MARCH 2024  |
| SCALE 1:200@A3     | DRAWING NO. DA02 |
|                    | REV. C           |

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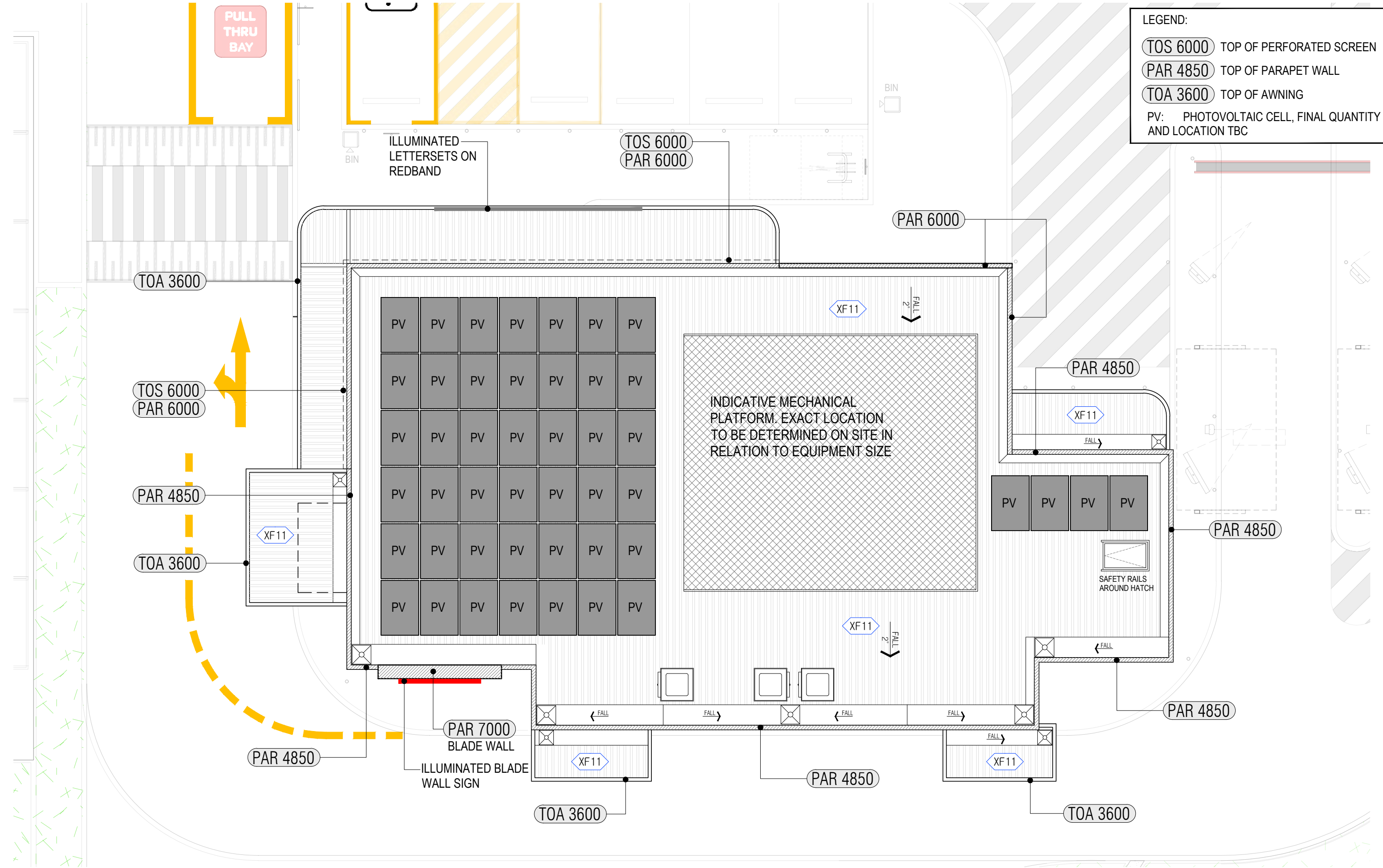
PROJECT HUNGRY JACK'S

**HAMMOND PARK SHOPPING CENTRE**  
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

| DRAWING                    |                  |            |
|----------------------------|------------------|------------|
| <b>PROPOSED FLOOR PLAN</b> |                  |            |
| PROJECT NO. 240308         | DATE             | MARCH 2024 |
| SCALE 1:100@A3             | DRAWING NO. DA03 | REV. B     |

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PROJECT HUNGRY JACK'S

**HAMMOND PARK SHOPPING CENTRE**  
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

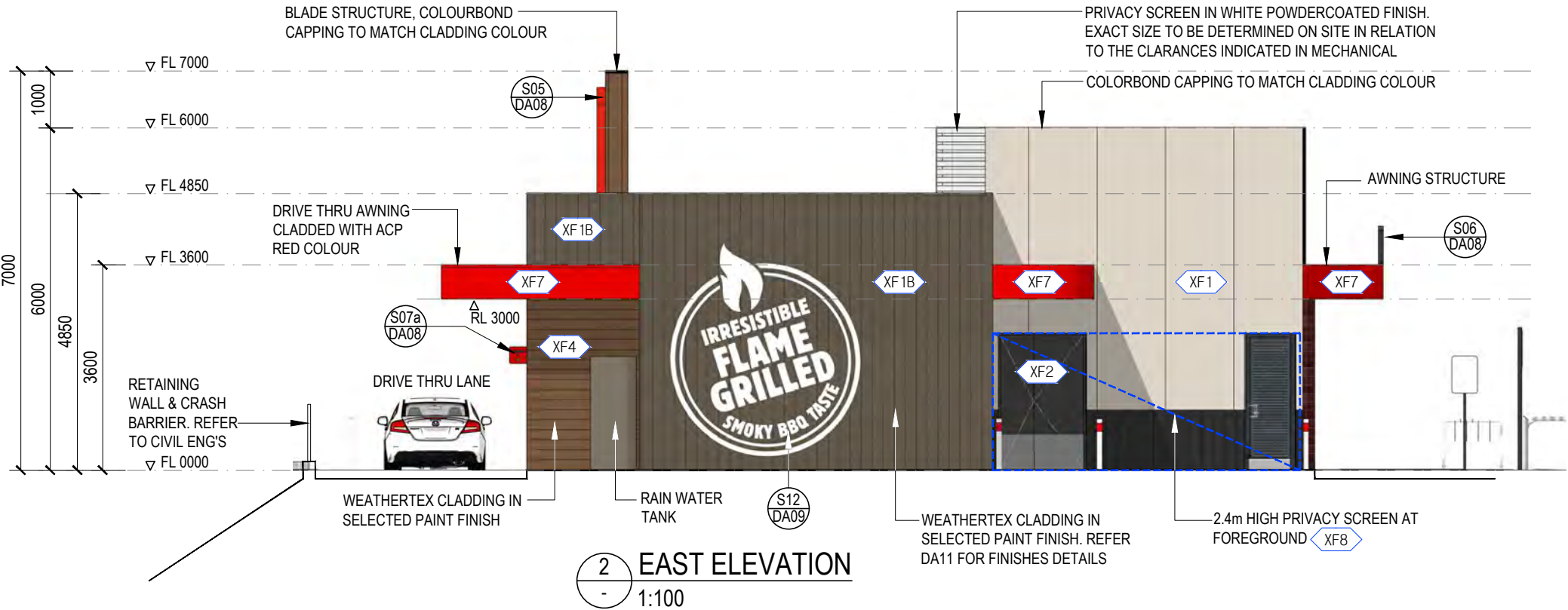
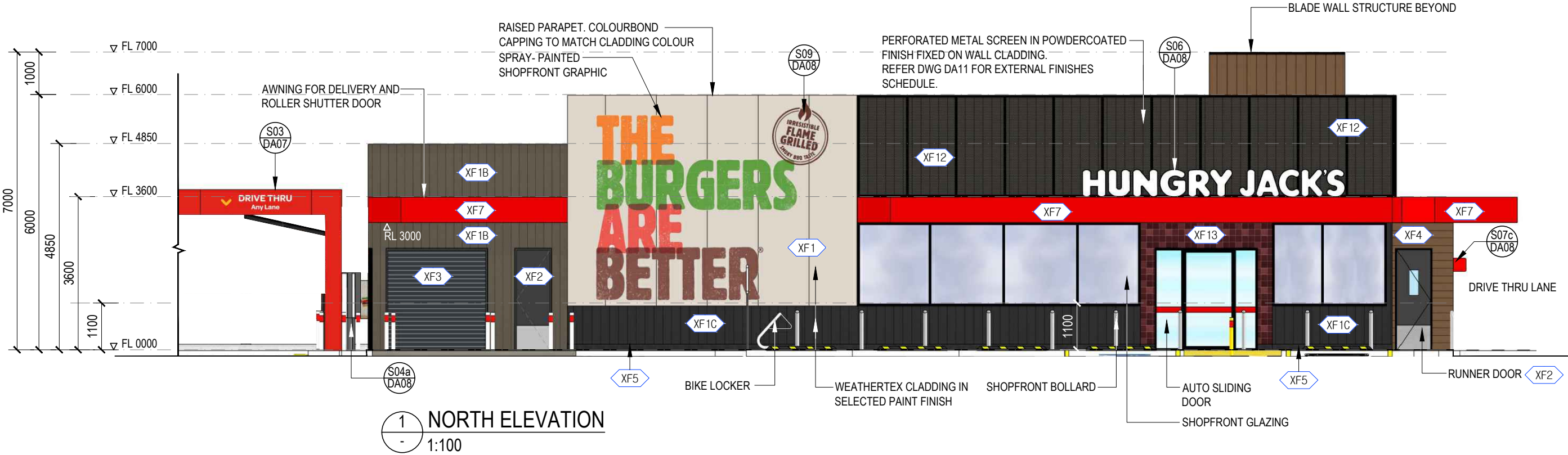
DRAWING

**ROOF PLAN**

|                    |                  |
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| PROJECT NO. 240308 | DATE MARCH 2024  |
| SCALE 1:100@A3     | DRAWING NO. DA04 |
|                    | REV. A           |

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PROJECT HUNGRY JACK'S

**HAMMOND PARK SHOPPING CENTRE**  
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

DRAWING

**EXTERNAL ELEVATIONS SHEET 1**

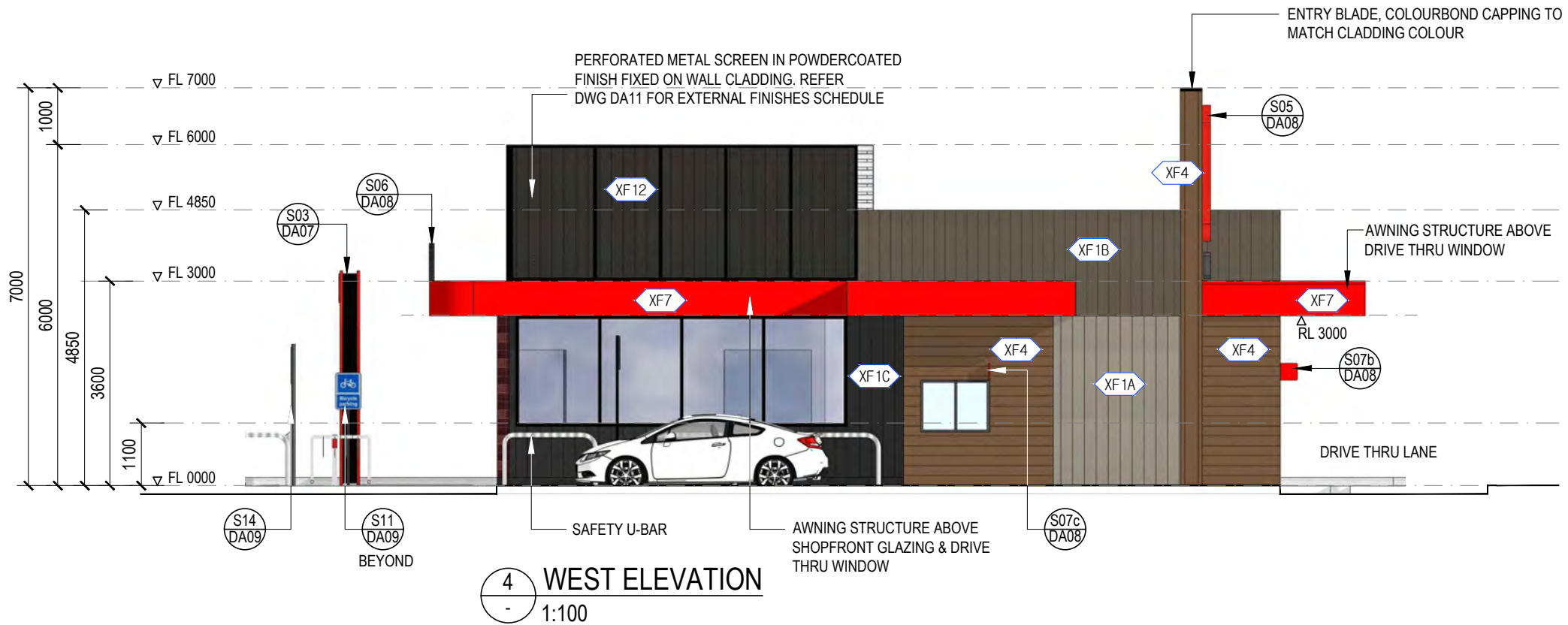
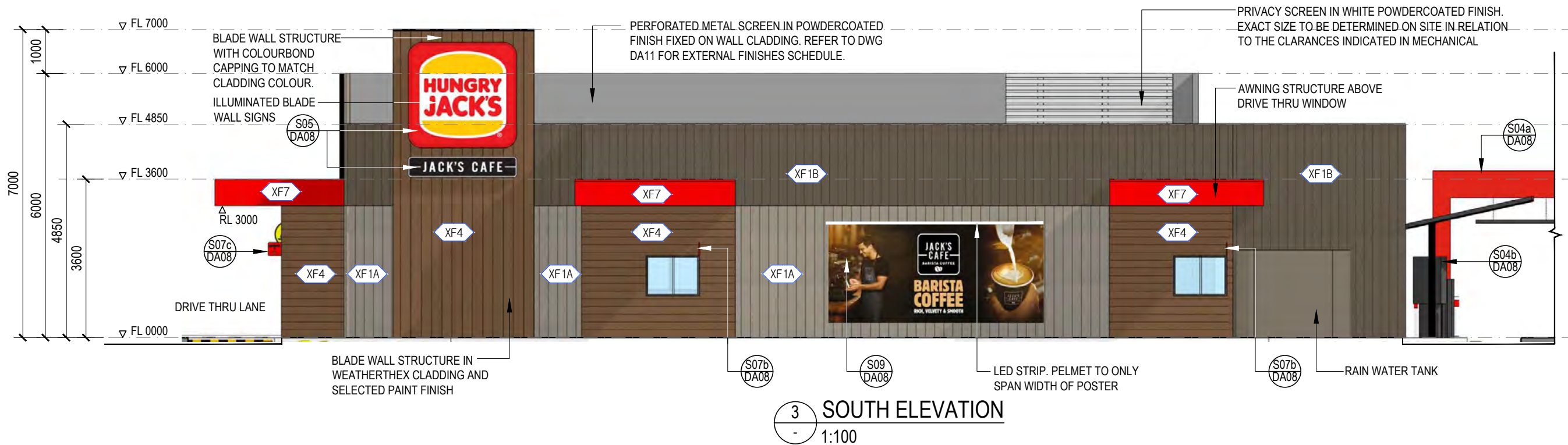
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|                    | REV. A           |

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STATUS  
☐ SKETCH  
☒ DA/ PP  
☐ AMENDED DA  
☐ BA/CC  
☐ TENDER  
☐ CONSTRUCTION

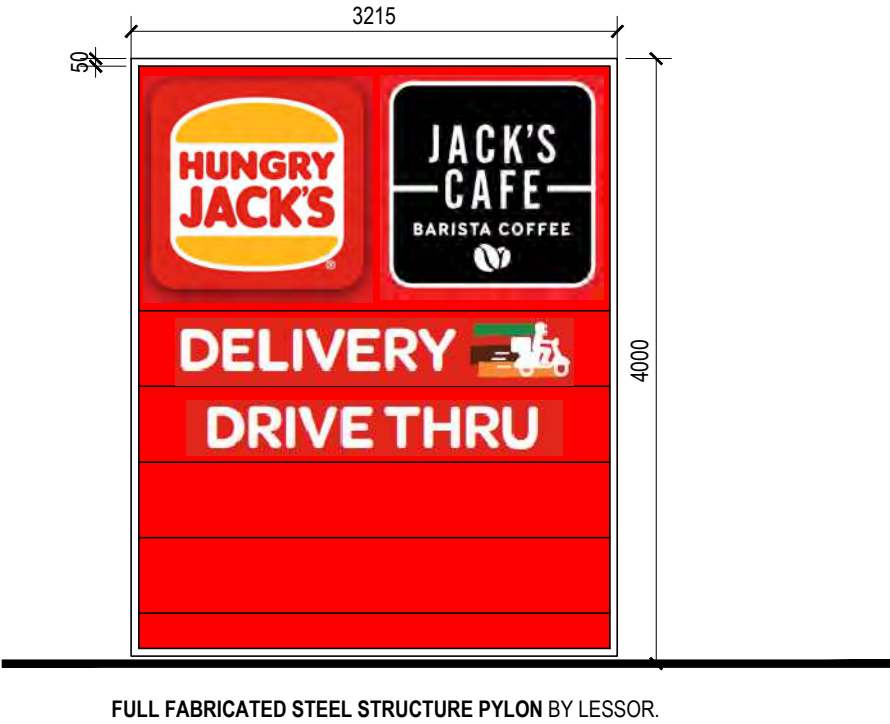
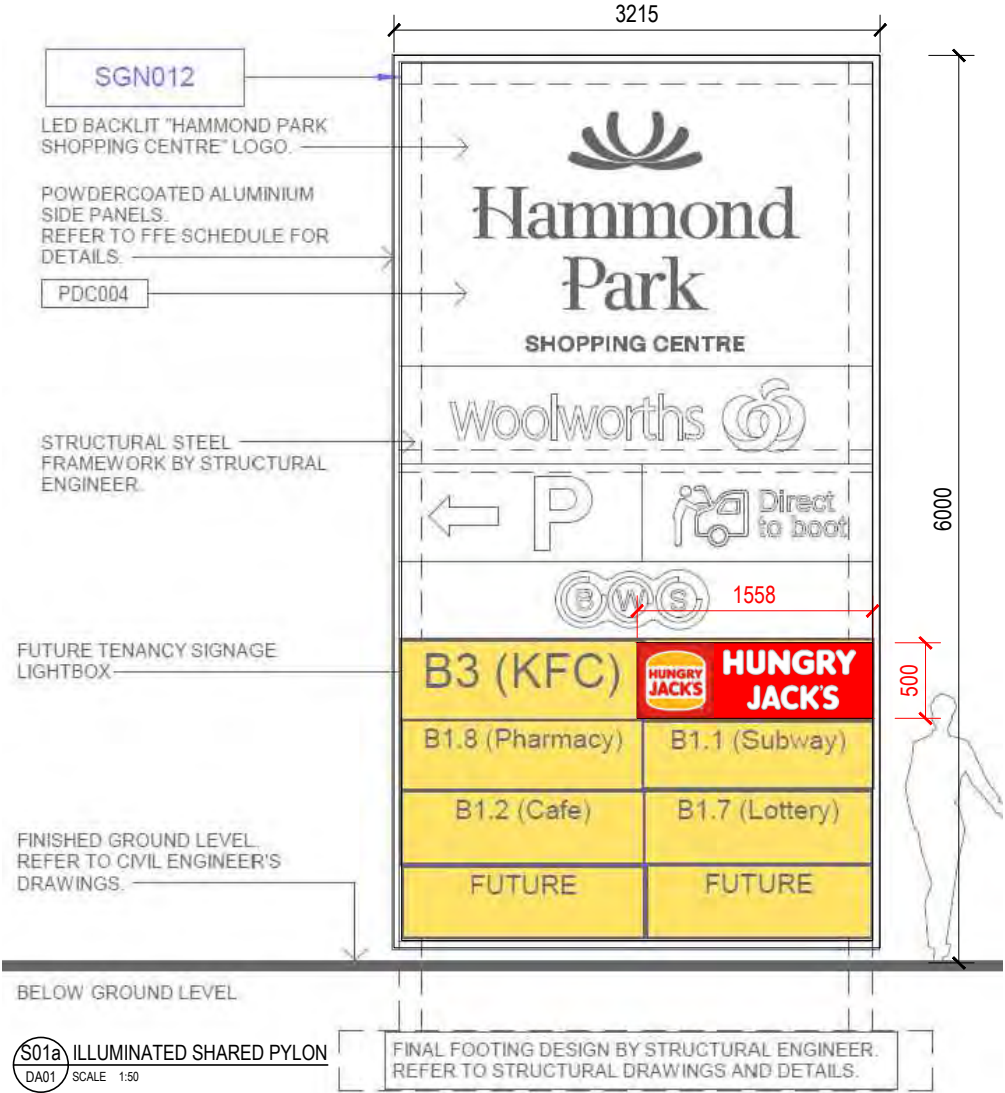
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|     |          |              |     |
|     |          |              |     |
|     |          |              |     |

PROJECT HUNGRY JACK'S  
**HAMMOND PARK SHOPPING CENTRE**  
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

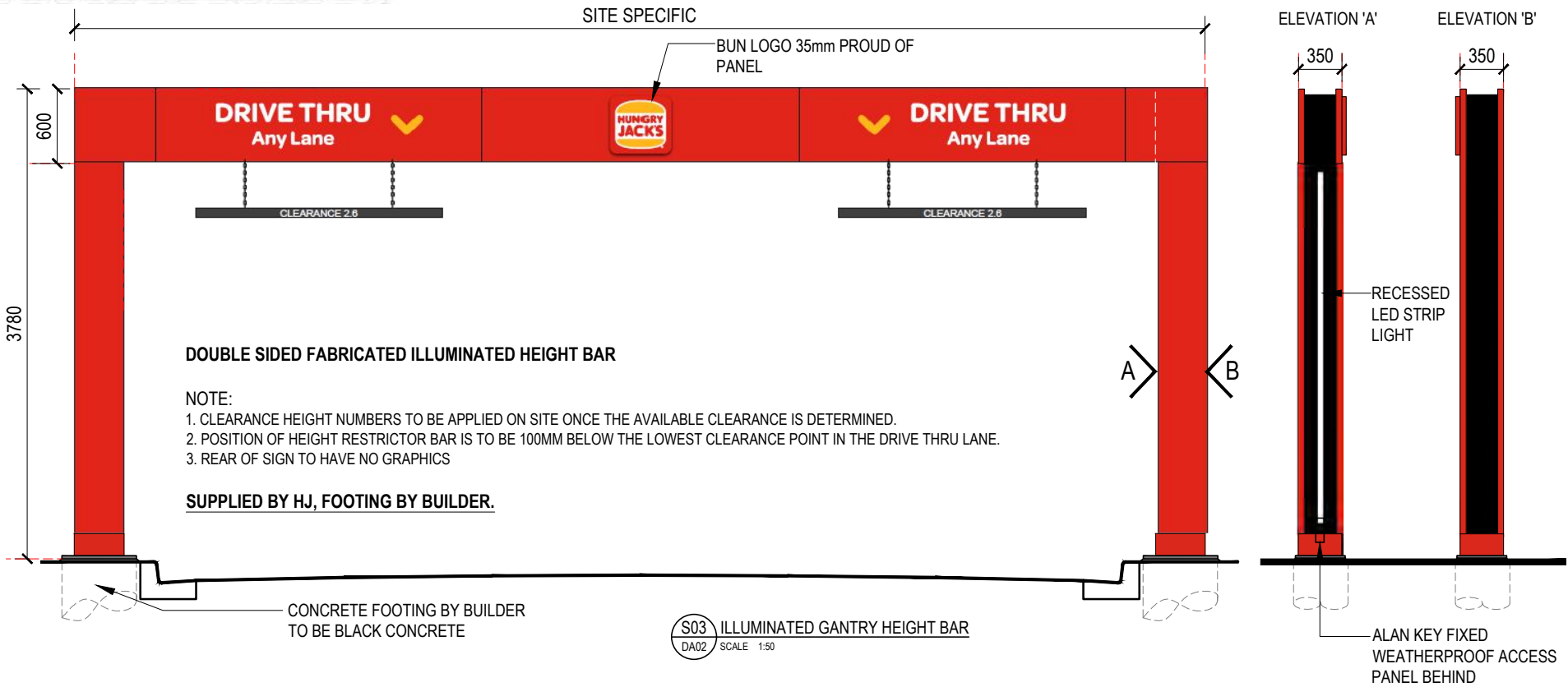
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| SCALE 1:100@A3                     | DRAWING NO. DA06 | REV. A |

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Nominated Architect: Shyan Fang (Reg 7958)





S01 4m HIGH PYLON  
DA01 SCALE 1:50



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| <input type="radio"/> AMENDED DA   | B   | 24.03.26 | S01 & S01a REVISED                           | SF  |
| <input type="radio"/> BA/CC        | C   | 17.04.26 | REVISED S01 & S01a, DIRECTIONAL SIGN REMOVED | SF  |
| <input type="radio"/> TENDER       |     |          |                                              |     |
| <input type="radio"/> CONSTRUCTION |     |          |                                              |     |

PROJECT HUNGRY JACK'S

**HAMMOND PARK SHOPPING CENTRE**  
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

DRAWING

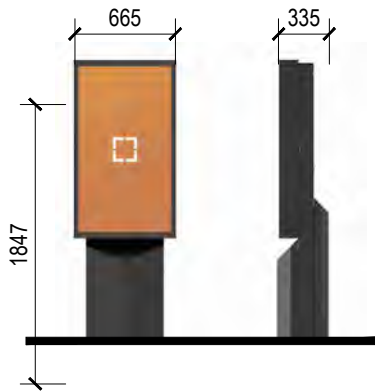
**SIGNAGE DETAILS SHEET 1**

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| SCALE 1:50@A3      | DRAWING NO. DA07 |
|                    | REV. C           |

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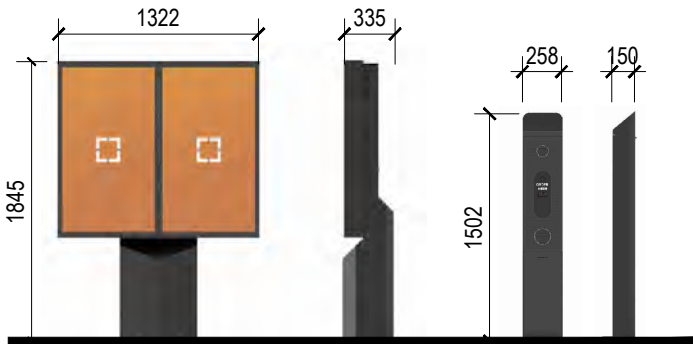






S04a DIGITAL REVIEW BOARD  
DA02 SCALE 1:50

DIGITAL DRIVE THRU PREVIEW MENUBOARD.  
SUPPLY & INSTALLATION BY HJ'S. BUILDER TO  
INSTALL FOOTINGS, UNDERGROUND CONDUITS,  
POWER AND DATA. READY FOR FIT OFF.



S04b SPEAKER & DIGITAL MENUBOARD  
DA02 SCALE 1:50

DIGITAL DRIVE THRU PREVIEW MENUBOARD.  
SUPPLY & INSTALLATION BY HJ'S. BUILDER TO INSTALL FOOTINGS,  
UNDERGROUND CONDUITS, POWER AND DATA. READY FOR FIT OFF.



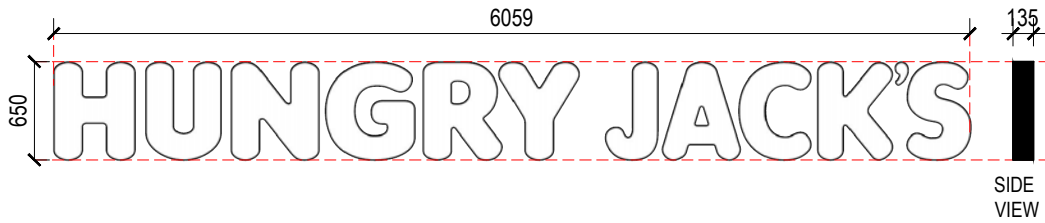
SINGLE SIDED ROUNDED BUN LOGO LIGHTBOX  
SUPPLIED BY HJ, INSTALLED BY BUILDER

S05 ILLUMINATED BLADE WALL SIGN  
DA02 SCALE 1:50



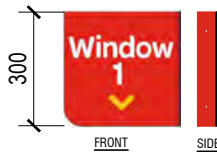
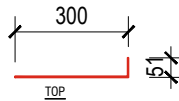
MASK AND PAINTED GRAPHICS TO EXTERNAL WALL CLADDING.  
REFER TO ELEVATIONS  
SPRAY PAINTED BY BUILDER

S09 SPRAY PAINT GRAPHIC (SHOPFRONT)  
DA02 SCALE 1:50

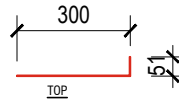


S06 ILLUMINATED HUNGRY JACK'S LETTERSET  
DA02 SCALE 1:50

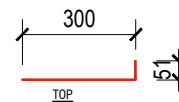
INTERNALLY ILLUMINATED OPAL ACRYLIC FACES  
WITH BLACK ALUMINUM BACKING AND RETURNS.



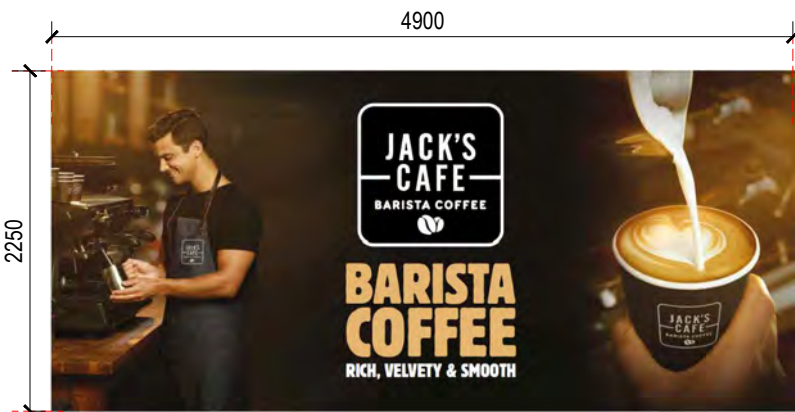
S07a DRIVE THRU WINDOW SIGNS  
DA01 SCALE 1:20



S07b DRIVE THRU WINDOW SIGNS  
DA01 SCALE 1:20



S07c DRIVE THRU WINDOW SIGNS  
DA01 SCALE 1:20



DIGITALLY PRINTED GRAPHIC ADHERED TO 3MM ACM PANEL.  
PANEL TO BE DIRECT STICK TO WALL  
BY HJ SIGNAGE CONTRACTOR.

S08 PAINTED GRAPHIC (DT LANE)  
DA02 SCALE 1:50

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STATUS

- ☐ SKETCH
- ☒ DA/ PP
- ☐ AMENDED DA
- ☐ BA/CC
- ☐ TENDER
- ☐ CONSTRUCTION

| REV | DATE     | AMENDMENT        | DRW |
|-----|----------|------------------|-----|
| 1   | 16.01.26 | ISSUE FOR REVIEW | JF  |
| A   | 13.02.26 | ISSUE FOR DA     | JF  |
|     |          |                  |     |
|     |          |                  |     |
|     |          |                  |     |
|     |          |                  |     |

PROJECT HUNGRY JACK'S  
**HAMMOND PARK  
SHOPPING CENTRE**  
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

DRAWING

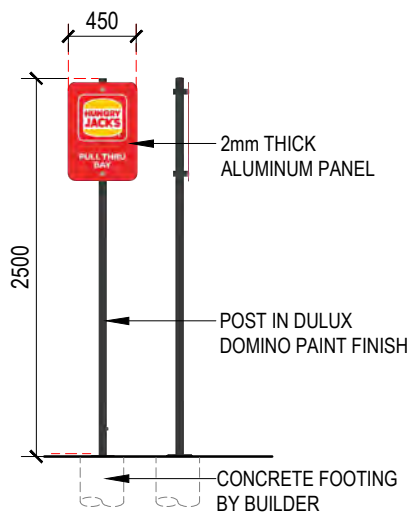
**SIGNAGE DETAILS  
SHEET 2**

|                    |                  |
|--------------------|------------------|
| PROJECT NO. 240308 | DATE MARCH 2024  |
| SCALE 1:50@A3      | DRAWING NO. DA08 |
|                    | REV. A           |

63 WYNDHAM STREET  
ALEXANDRIA NSW 2015  
ABN 47 627 526 881  
PH : 02 8590 5185  
info@fangarchitects.com.au

Nominated Architect: Shyan Fang (Reg 7958)

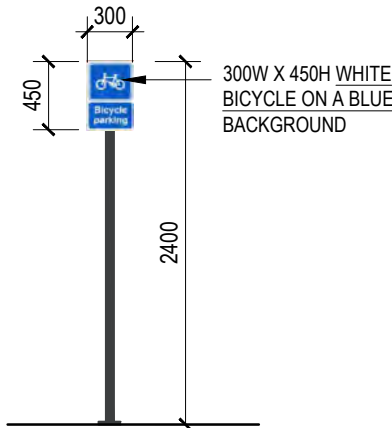




POST SIGNAGE BLOW UP



PULL THRU BAY SIGN POST  
PANEL FIXED TO POST  
SIGNAGE CONTRACTOR TO SUPPLY SIGN, POST & HARDWARE



BIKE SIGN POST

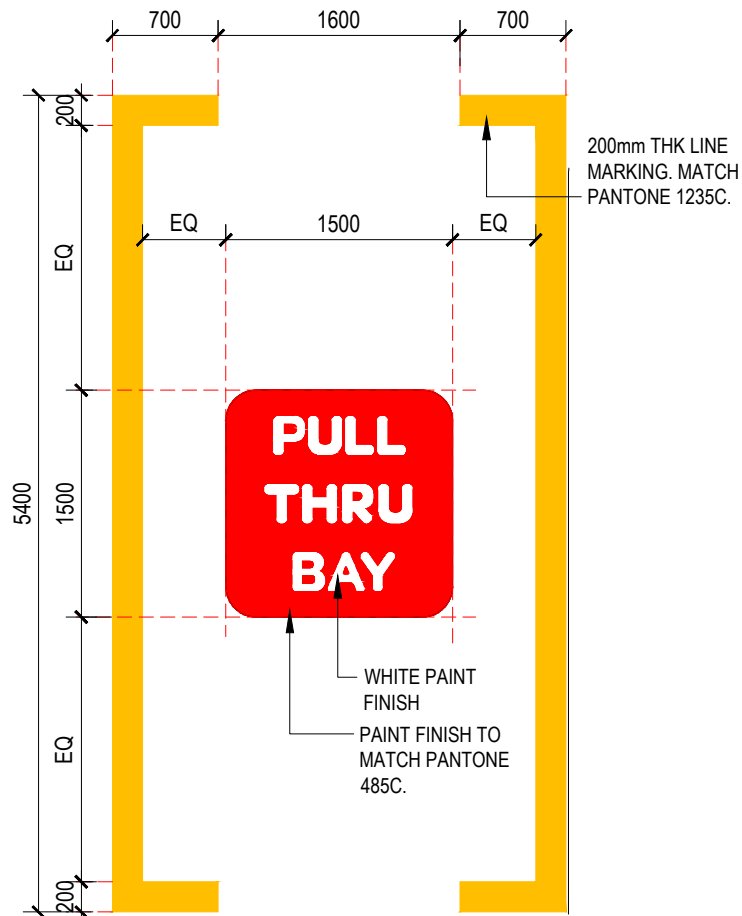
PANEL ~~FIXED~~ TO POST. STANDARD ROAD SIGN COMPLY WITH LOCAL ROAD AUTHORITY.  
**SIGNAGE CONTRACTOR TO SUPPLY SIGN, POST AND HARDWARE, INSTALL BY BUILDER**

S11 BIKES SIGN POST  
DA02 SCALE 1:50

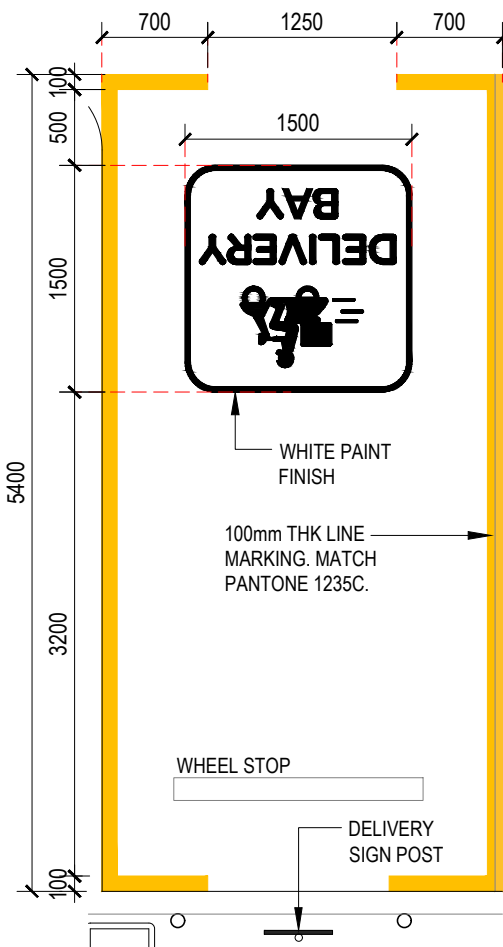


S12 PAINTED FLAME GRILLED LOGO  
DA02 SCALE 1:50

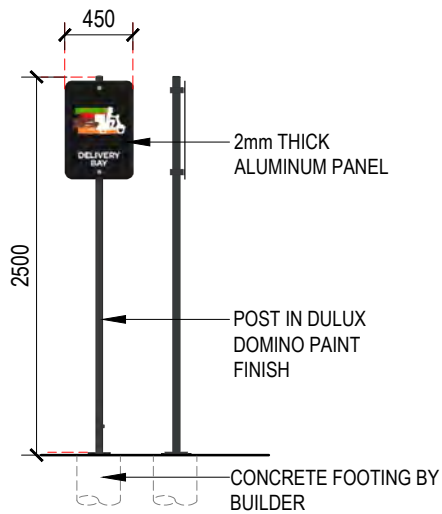
MASK AND PAINTED SIGN TO EXTERNAL WALL CLADDING. WHITE PAINT FINISH. **SPRAY PAINTED BY BUILDER**



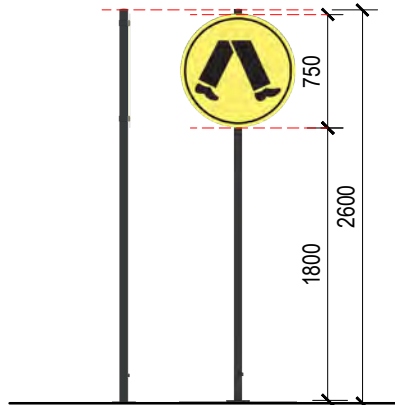
S13 PULL THRU BAY LINE MARKING & SIGN POST  
DA02 SCALE 1:50



S14 DELIVERY BAY SIGN & SIGN POST  
DA02 SCALE 1:50



DELIVERY BAY SIGN POST  
PANEL FIXED TO POST  
**SIGNAGE CONTRACTOR TO SUPPLY SIGN, POST & HARDWARE**



PEDESTRIAN SIGN POST

PANEL ~~FIXED~~ TO POST. STANDARD ROAD SIGN COMPLY WITH LOCAL ROAD AUTHORITY.  
**SIGNAGE CONTRACTOR TO SUPPLY SIGN, POST AND HARDWARE, INSTALL BY BUILDER**

S15 PADESTRAIN CROSSING SIGN  
DA02 SCALE 1:50

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☒ DA/ PP  
☐ AMENDED DA  
☐ BA/CC  
☐ TENDER  
☐ CONSTRUCTION

| REV | DATE     | AMENDMENT           | DRW |
|-----|----------|---------------------|-----|
| 1   | 16.01.26 | ISSUE FOR REVIEW    | JF  |
| A   | 13.02.26 | ISSUE FOR DA        | JF  |
| B   | 17.04.26 | BANNER POLE REMOVED | JF  |
|     |          |                     |     |
|     |          |                     |     |
|     |          |                     |     |

PROJECT HUNGRY JACK'S  
**HAMMOND PARK SHOPPING CENTRE**  
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

DRAWING  
**SIGNAGE DETAILS**  
SHEET 3

|                    |                  |
|--------------------|------------------|
| PROJECT NO. 240308 | DATE MARCH 2024  |
| SCALE 1:50@A3      | DRAWING NO. DA09 |
|                    | REV. B           |

63 WYNDHAM STREET  
ALEXANDRIA NSW 2015  
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PH : 02 8590 5185  
info@fangarchitects.com.au

Nominated Architect: Shyan Fang (Reg 7958)







| EXTERNAL FINISHES SCHEDULE                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                 |                                                                                                                                                               |                                                                           |                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------|
| NOTE: FINISHES LEGEND & SCHEDULES ARE TO BE READ IN CONJUNCTION WITH SPECIFICATION AND CONSTRUCTION DRAWINGS - REFER TO PLANS, ELEVATION & SECTION DRAWINGS AS DETAILED. CONTRACTORS ARE TO ENSURE ALL MATERIALS ARE TO BE ORDERED IN TIME TO MEET DEADLINE AS SCHEDULED OR CONTRACTOR SHALL BEAR THE COST OF AIR FREIGHTING MATERIALS IN TO MEET DEADLINE. ANY FINISHES RE-SELECTING WILL BE CHARGED TO BUILDER AT PER HOUR RATE ON ITEMS |                                                 |                                                                                                                                                               |                                                                           |                              |
| CODE                                                                                                                                                                                                                                                                                                                                                                                                                                       | DESCRIPTION                                     | FINISH SPECIFICATION                                                                                                                                          | LOCATION                                                                  | SAMPLE PICTURE FOR REF. ONLY |
| XF1A                                                                                                                                                                                                                                                                                                                                                                                                                                       | PAINT - WEATHERTEX (WEATHERGROOVE WOODSMAN 150) | BRAND: DULUX<br>COLOUR :HEIFER (P14B2)<br>FINISH: LOW SHEEN<br>APPLY NON SACRIFICIAL ANTI GRAFFITI COATING TO WEATHERTEX                                      | EXTERIOR WALLS / FASCIA                                                   |                              |
| XF1B                                                                                                                                                                                                                                                                                                                                                                                                                                       | PAINT - WEATHERTEX (WEATHERGROOVE WOODSMAN 150) | BRAND: DULUX<br>COLOUR : STRING S13B6<br>FINISH: LOW SHEEN<br>APPLY NON SACRIFICIAL ANTI GRAFFITI COATING                                                     | EXTERIOR WALLS                                                            |                              |
| XF1C                                                                                                                                                                                                                                                                                                                                                                                                                                       | PAINT - WEATHERTEX (WEATHERGROOVE WOODSMAN 150) | BRAND: DULUX<br>COLOUR : DOMINO GR10<br>FINISH: LOW SHEEN<br>APPLY NON SACRIFICIAL ANTI GRAFFITI COATING                                                      | EXTERIOR WALLS                                                            |                              |
| XF1                                                                                                                                                                                                                                                                                                                                                                                                                                        | PAINT - WEATHERTEX (WEATHERGROOVE SMOOTH 1200)  | BRAND: DULUX<br>COLOUR :HEIFER (P14B2)<br>FINISH: LOW SHEEN<br>APPLY NON SACRIFICIAL ANTI GRAFFITI COATING TO WEATHERTEX                                      | EXTERIOR WALLS / FASCIA                                                   |                              |
| XF2                                                                                                                                                                                                                                                                                                                                                                                                                                        | PAINT - DARK GREY                               | BRAND: DULUX<br>COLOUR NAME: DOMINO GR10<br>FINISH: SEMI-GLOSS                                                                                                | WALLS GUTTERS, FASCIA & DOOR                                              |                              |
| XF3                                                                                                                                                                                                                                                                                                                                                                                                                                        | POWDER COATED FINISH                            | BRAND: DULUX<br>NAME: ZEUS CHARCOAL 90087732<br>FINISH: GLOSS                                                                                                 | BIN ROOM ROLLER SHUTTER, WINDOW & DOOR FRAMES (EXCLUDE DRIVE THRU WINDOW) |                              |
| XF4                                                                                                                                                                                                                                                                                                                                                                                                                                        | WALL CLADDING WEATHERTEX-SELFLOK ECOGROOVE)     | WOODSMAN 150, CONCEALED 300mm WOODSMAN OFF STUD JOINER<br>COLOUR: TAUBMAN FOX TERRIER SATIN (2 COATS) (T15 105.5) APPLY NON SACRIFICIAL ANTI GRAFFITI COATING | EXTERIOR WALLS<br>CHECK ELEVATION FOR GROOVE DIRECTION                    |                              |
| XF5                                                                                                                                                                                                                                                                                                                                                                                                                                        | SKIRTING TILES                                  | BRAND: SKHEME<br>COLOUR: FORM BLACK GRIP<br>GROUT: BLACK EPOXY GROUTING<br>SIZE: 150 X 600mm                                                                  | ENTRY PORTAL & EXTERNAL WALLS.<br>REFER TO DRAWING FOR LOCATION           |                              |
| XF6                                                                                                                                                                                                                                                                                                                                                                                                                                        | PAINT - WHITE COMPRESSED FIBRE CEMENT CLADDING  | BRAND: DULUX<br>COLOUR NAME: LEXICON B16<br>FINISH: LOW SHEEN                                                                                                 | EXTERIOR WALLS, SOFFITS AND CANOPY FASCIA                                 |                              |
| XF7                                                                                                                                                                                                                                                                                                                                                                                                                                        | NON-COMBUSTIBLE PRE-FINISHED ALUMINUM PANELS    | BRAND: MONOCLAD<br>COLOUR: RED                                                                                                                                | AWNING                                                                    |                              |
| XF8                                                                                                                                                                                                                                                                                                                                                                                                                                        | SLATTED RECYCLED PLASTIC                        | BRAND: REPLAS (RECTANGULAR PROFILES)<br>COLOUR: BLACK<br>SIZE: 1800mmX150mmX40mm SLAT<br>CONTACT : sales@ replas.com.au 1800 737 527                          | PLANT ENCLOSURE & PRIVACY SCREEN & CO2 ENCLOSURE DOOR                     |                              |
| XF11                                                                                                                                                                                                                                                                                                                                                                                                                                       | POWDER COATED FINISH                            | BRAND: DULUX<br>COLOUR NAME: COLORBOND SHALE GREY C4                                                                                                          | ROOF                                                                      |                              |

| CODE | DESCRIPTION                        | FINISH SPECIFICATION                                                                                                                                                                                                                                                                                                                                                                                                  | LOCATION                                               | PICTURES- REFERENCE ONLY |
|------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--------------------------|
| XF12 | PERFORATED SCREEN PANELS           | LOCKER GROUP OR EQUAL<br>(10-15mmØ @ 35mm CENTRES 40-50% OPEN AREA)<br>POWDERCOAT: DULUX DURATEC MONUMENT (SATIN)                                                                                                                                                                                                                                                                                                     | MESH STRUCTURE                                         |                          |
| XF13 | WALL TILES                         | SKHEME<br>DIMENSION: 130mm X 130mm<br>COLOUR: BURGUNDY                                                                                                                                                                                                                                                                                                                                                                | ENTRY PORTAL                                           |                          |
| WS   | WHEELSTOP                          | PRODUCT: REPLAS WHEETSTOPS<br>DIMENSION: 100mm X 135mm<br>LENGTH: 1650mm<br>COLOUR: BLACK WITH 4 DIAMOND REFLECTORS ON FRONT, 2 ROUND REFLECTORS ON BACK                                                                                                                                                                                                                                                              | CAR PARKING BAY<br>(REFER TO SITE PLAN FOR LOCATION)   |                          |
| B1   | BOLLARD (FACING SHOPFRONT GLAZING) | BELOW GROUND 90mm STAINLESS STEEL BEVELLED TOP BOLLARD<br><br>BRAND: SAFETY XPRESS<br>CODE: SKU-BOLBG90SSB<br>WEIGHT: 22 KGS<br>MATERIAL: 304 GRADE STAINLESS STEEL<br>COLOUR: SILVER BRUSHED<br>HEIGHT: 1200mm (900mm ABOVE GROUND, 300mm BELOW GROUND)<br>DIAMETER: 90mm<br>FIXINGS: ANCHOR ROD INCLUDED AT BASE WHICH CAN BE REMOVED WHEN CORE DRILLING INTO NEW CONCRETE OR INSERTED WHEN SETTING IN NEW CONCRETE | DRIVEWAY ALONG ENTRY AND FOH GLAZING                   |                          |
| B2   | HEAVY DUTY BOLLARD                 | BELOW GROUND 90mm Ø GALVANISED BOLLARD<br>COLOUR: SILVER WITH CLASS 1 RED REFLECTIVE TAPE<br>HEIGHT: 1300mm (1000mm ABOVE GROUND AND 300mm BELOW GROUND)<br>FIXING: ANCHOR ROD INCLUDED AT BASE WHICH CAN BE REMOVED WHEN CORE DRILLING INTO EXISTING CONCRETE OR INSERTED WHEN SETTING IN NEW CONCRETE                                                                                                               | LOADING AREA, DT LANES AND LPG STORAGE (IF APPLICABLE) |                          |
|      | PLASTIC RUMBLE BAR                 | PRODUCT: eSAFETY SUPPLIERS<br>TYPE: 25MM PLASTIC RUMBLE BAR<br>SKU : BDD-NPS-006<br>SIZE: 120(W) X 220(L) X 25(H)mm<br><br>PH: 1300 291 700<br>EMAIL: <a href="mailto:sales@esafetysupplies.com.au">sales@esafetysupplies.com.au</a>                                                                                                                                                                                  | DT LANE KERB                                           |                          |
| RWT  | 3000L RAINWATER TANK               | PRODUCT: KINGSPAN 3000L OR EQUAL<br>TYPE: SLIMLINE POLYETHYLENE TANK<br>COLOUR: TO MATCH CLOSEST BUILDING FACADE.<br><br>SOURCE BY BUILDER, TO BE REVIEWED AND CONFIRMED BY HJS PM BEFORE ORDER AND INSTALLATION                                                                                                                                                                                                      | DT LANE                                                |                          |
| UB   | U-BAR DOUBLE RAIL                  | PRODUCT: TRAFFIC SAFETY SYSTEMS (TSS)<br>U-BAR DOUBLE RAIL 1.5m BELOW GROUND- GALVANISED<br>DIMENSION: 1500L x 1051H<br>DEPTH BELOW GROUND- 280mm                                                                                                                                                                                                                                                                     | RUNNER DOOR FOOTPATH TO WAITING BAY                    |                          |





NOTE: IMAGES FOR REFERENCE ONLY

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| STATUS                           |              | REV | DATE     | AMENDMENT                           | DRW |
|----------------------------------|--------------|-----|----------|-------------------------------------|-----|
| <input type="radio"/>            | SKETCH       | 1   | 19.01.26 | ISSUE FOR HJ                        | SF  |
| <input checked="" type="radio"/> | DA/ PP       | A   | 16.03.26 | DA ISSUE                            | SF  |
| <input type="radio"/>            | AMENDED DA   | B   | 24.03.26 | RAMP AND WALKWAY REMOVED            | SF  |
| <input type="radio"/>            | BA/CC        | C   | 17.04.26 | DIRECTIONAL SIGN AND BANNER REMOVED | SF  |
| <input type="radio"/>            | TENDER       |     |          |                                     |     |
| <input type="radio"/>            | CONSTRUCTION |     |          |                                     |     |

PROJECT HUNGRY JACK'S

HAMMOND PARK SHOPPING CENTRE

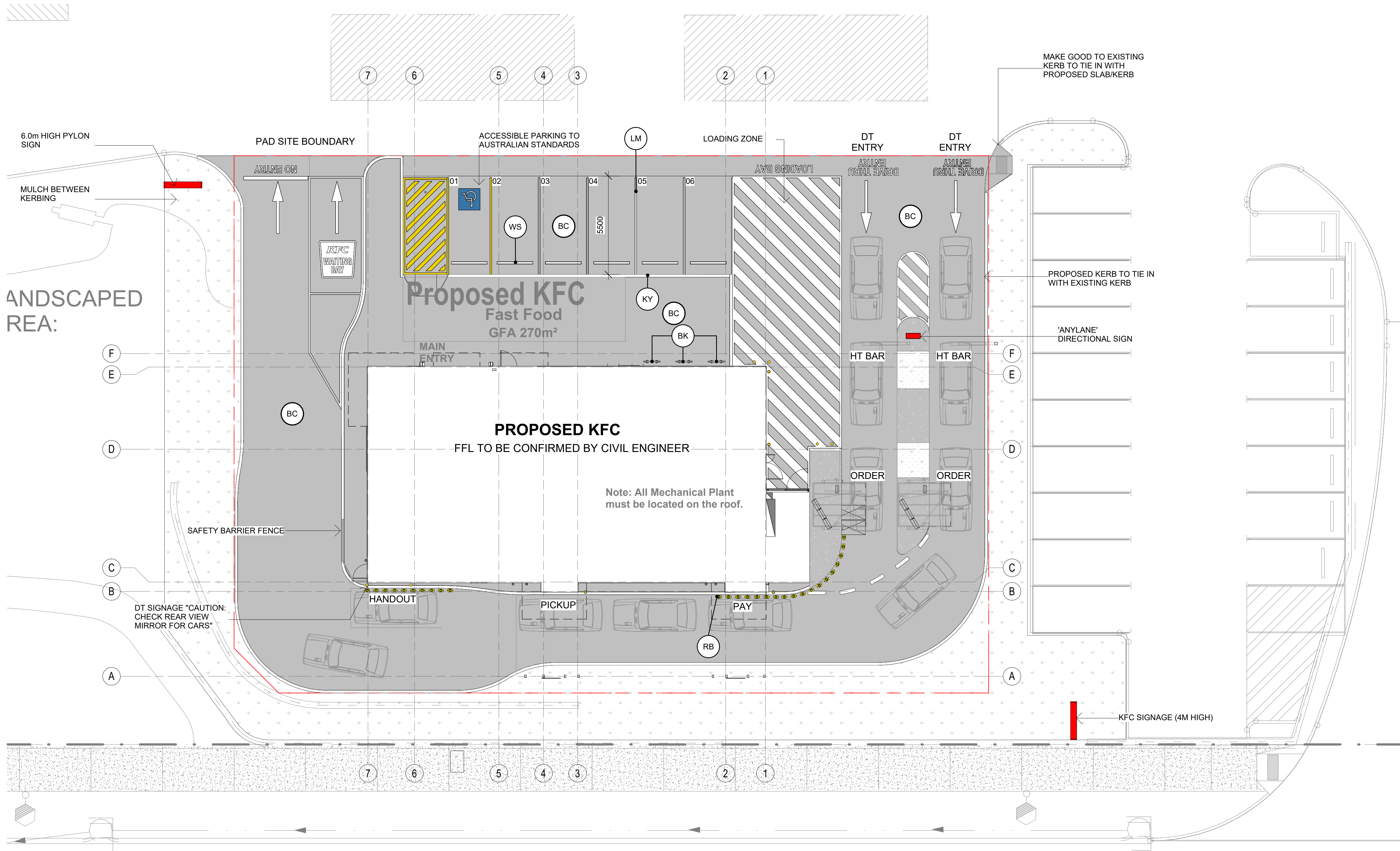
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

| DRAWING            |                  |        |
|--------------------|------------------|--------|
| 3D SKETCHES        |                  |        |
| PROJECT NO. 240308 | DATE MARCH 2024  |        |
| SCALE NTS@A3       | DRAWING NO. DA12 | REV. C |

63 WYNDHAM STREET  
ALEXANDRIA NSW 2015  
ABN 47 627 526 881  
PH : 02 8590 5185  
info@fangarchitects.com.au  
Nominated Architect: Shyan Fang (Reg 7958)







1 SITE PLAN  
Scale @ A1: 1 : 125

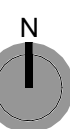


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| Rev | Date     | Title                           |
|-----|----------|---------------------------------|
| E   | 03.09.25 | Updated Drawings - CFL Comments |
| F   | 28.11.25 | Updated Drawings for DA         |
| G   | 07.04.26 | Updated Drawings for DA         |
| H   | 17.04.26 | Revised to CFL for review       |
| I   | 19.05.26 | FAF 02 Update                   |



ISSUED FOR CFL REVIEW

PRINCIPAL ARCHITECTS



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p: (08) 9316 0531  
f: (08) 9316 0531  
w: www.mandsarchitects.com.au  
ABEW Reg: 2222

CLIENTS



PROJECT

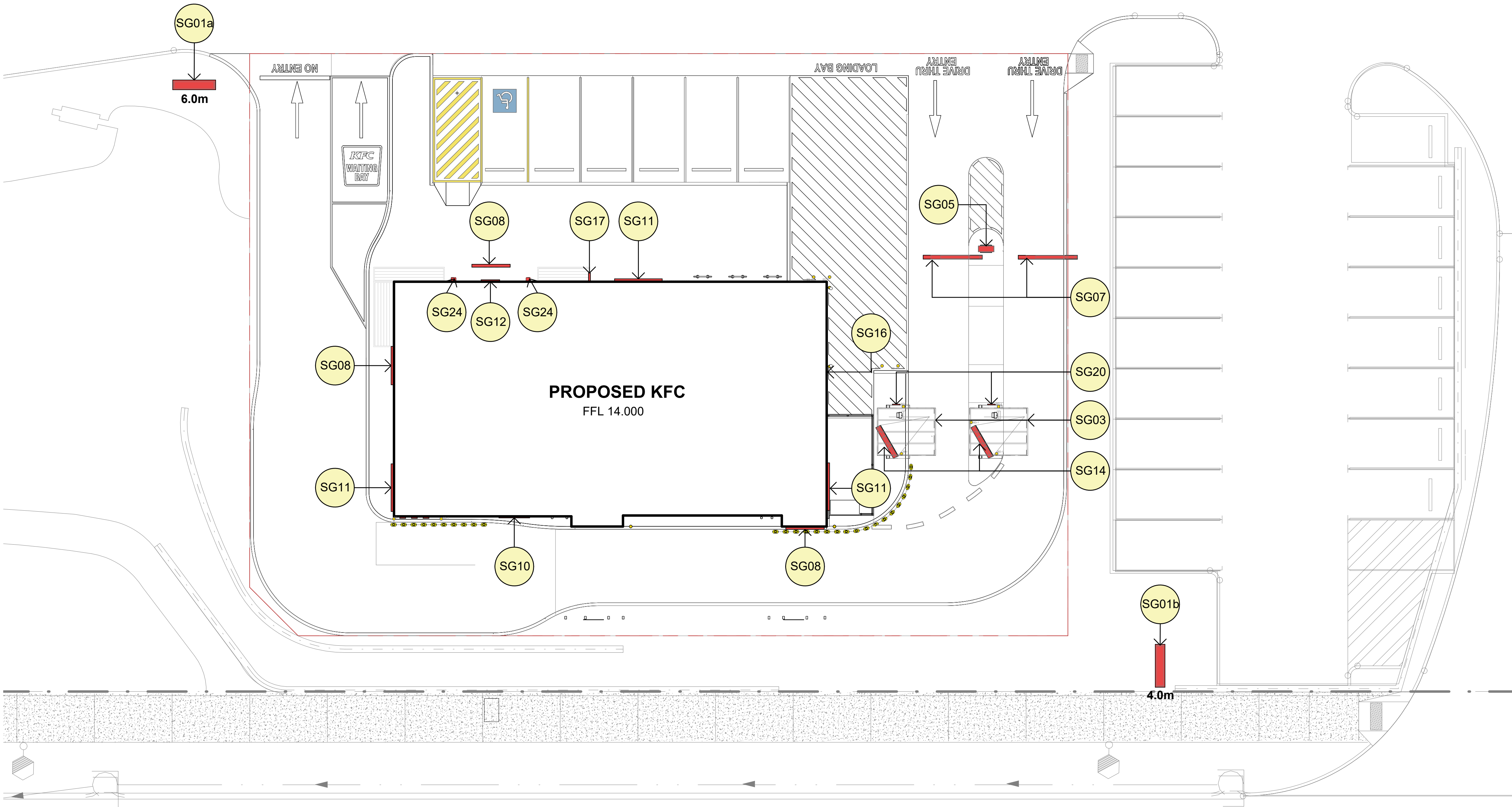
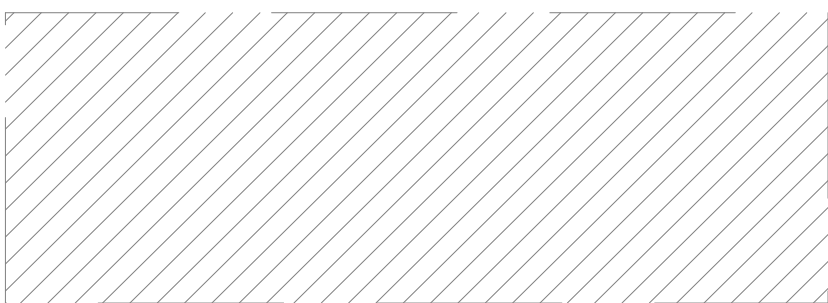
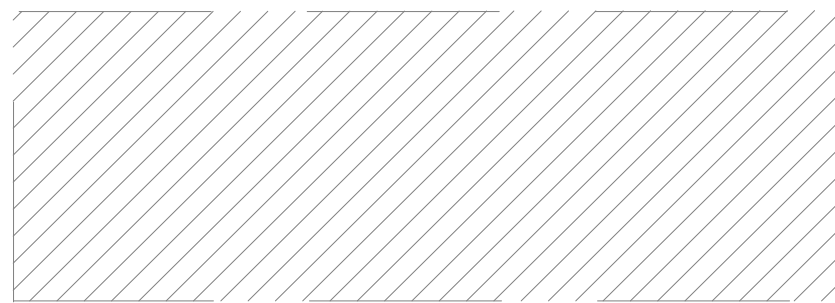
**KFC**  
HAMMOND PARK SHOPPING CENTRE - PAD  
SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA  
6164

DRAWING

SITE PLAN

|             |         |          |                   |
|-------------|---------|----------|-------------------|
| DRAWN       | Author  | SCALE    | As indicated @ A1 |
| CHECKED     | Checker | APPROVED | Approver          |
| DRAWING No. |         |          | REV               |
| A0.02       |         |          | I                 |





1 SIGNAGE PLAN  
Scale @ A1: 1 : 125



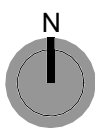
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| Rev | Date     | Title                           |
|-----|----------|---------------------------------|
| A   | 02/09/25 | Updated Drawings - CFL Comments |
| B   | 07/04/26 | Updated Drawings for DA         |
| C   | 17/04/26 | Issued to CFL for review        |
| D   | 19/05/26 | PAF 52 Update                   |

| EXTERNAL SIGNAGE |                                   |
|------------------|-----------------------------------|
| Mark             | Comments                          |
| SG01a            | PYLON SIGN - 6m                   |
| SG01b            | PYLON SIGN - 4m                   |
| SG03             | DRIVE THRU AWNING + SPKR BOLLARD  |
| SG05             | DIRECTIONAL SIGN - DT ENTRY       |
| SG07             | HEIGHT BAR                        |
| SG08             | COLONELS SIGN                     |
| SG09             | STRIPE SET                        |
| SG10             | ORIGINAL RECIPE STAMP             |
| SG11             | KFC LETTERS: WHITE                |
| SG12             | KENTUCKY FRIED CHICKEN ENTRY SIGN |
| SG14             | DIGITAL MENUBOARD SIGN            |
| SG16             | NO SMOKING SIGN                   |
| SG17             | DELIVERY AREA SIGN                |
| SG20             | ORDER HERE SIGN                   |
| SG24             | COLONELS SIGN                     |



ISSUED FOR CFL REVIEW

PRINCIPAL ARCHITECTS



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ABEW Reg: 2222

CLIENTS



PROJECT

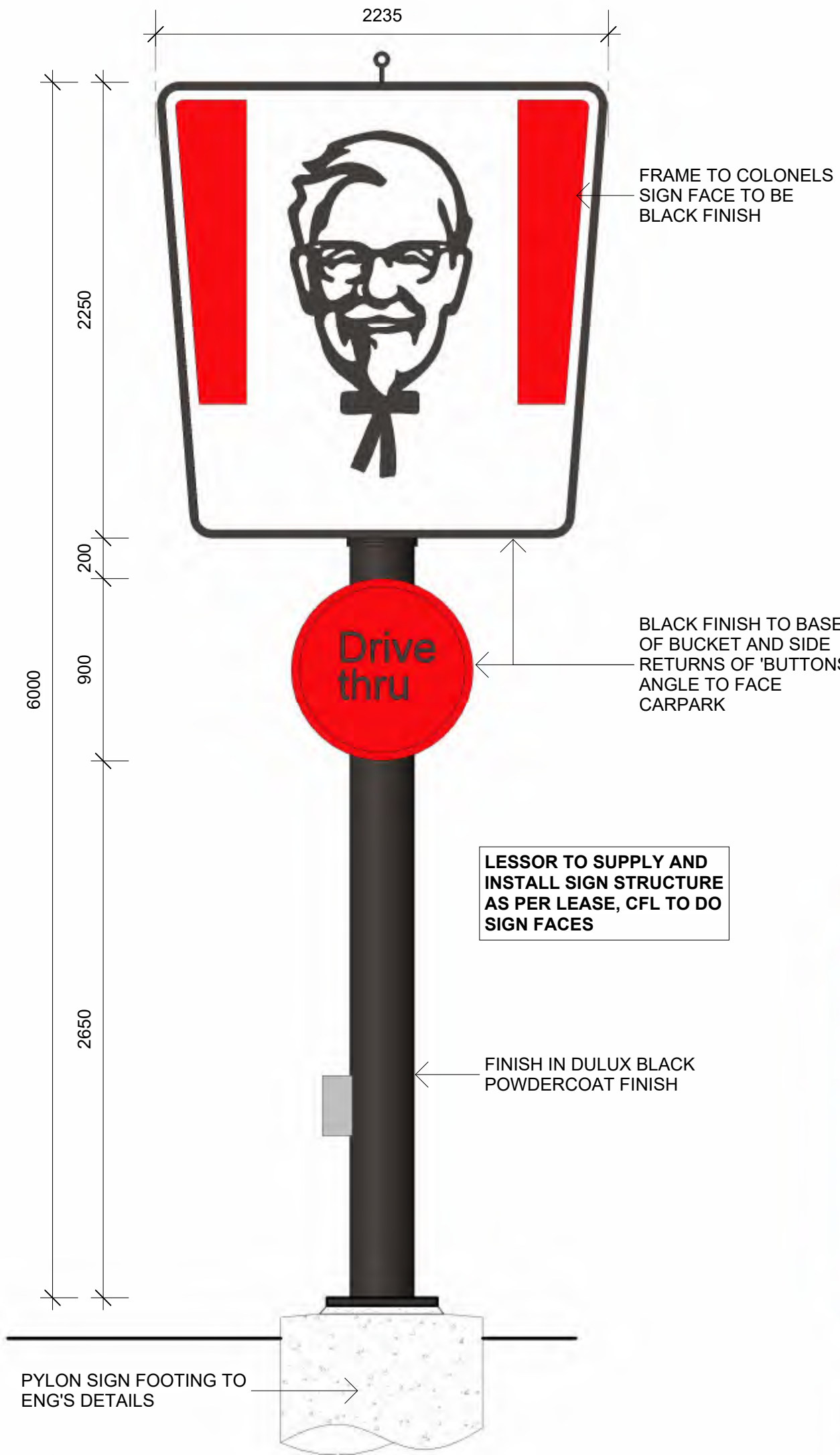
**KFC**  
HAMMOND PARK SHOPPING CENTRE - PAD  
SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA  
6164

DRAWING

SITE PLAN SIGNAGE

|             |         |               |          |
|-------------|---------|---------------|----------|
| DRAWN       | Author  | SCALE 1 : 125 | @ A1     |
| CHECKED     | Checker | APPROVED      | Approver |
| DRAWING No. | REV     |               |          |
| A0.10       | D       |               |          |

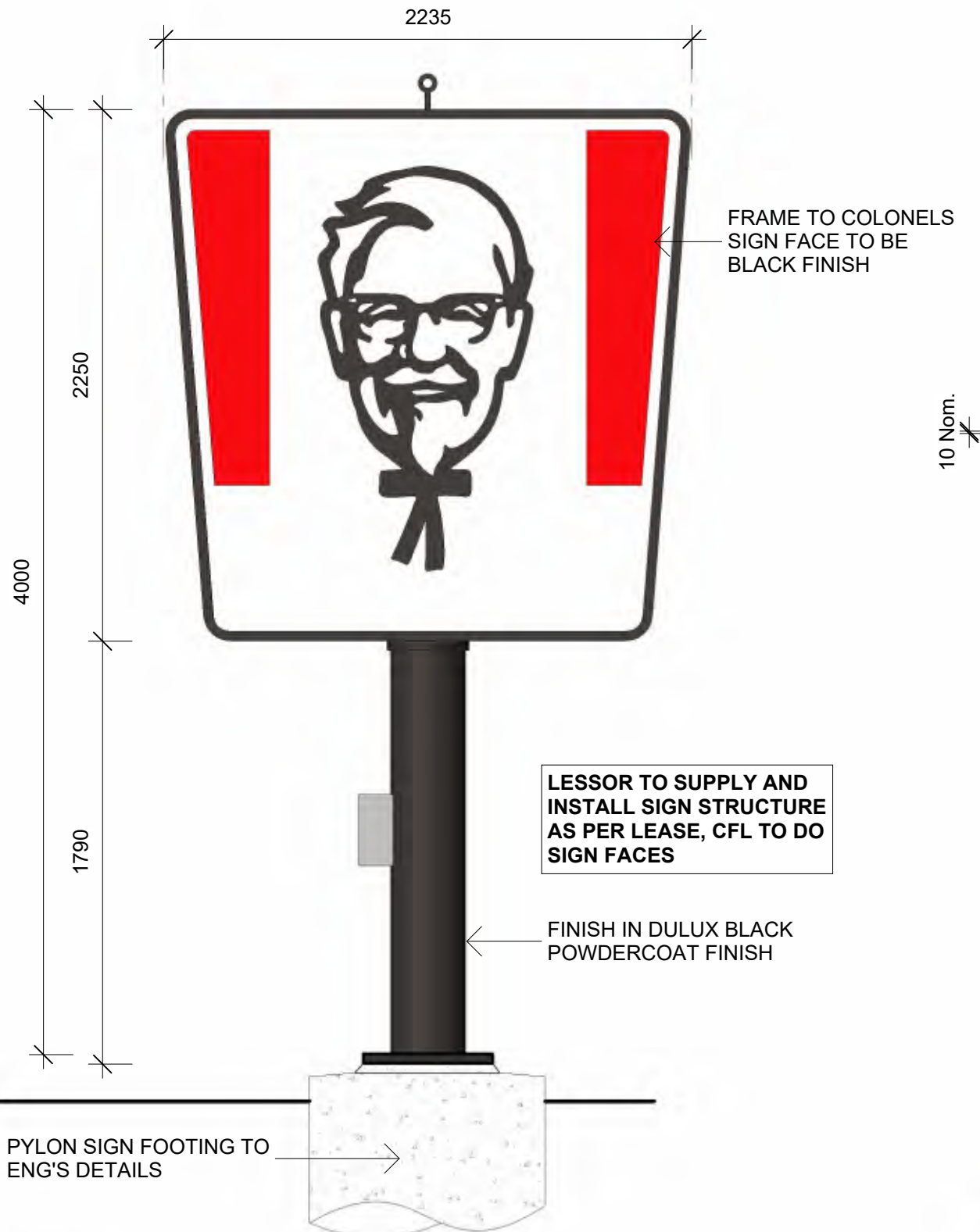




**SG01a** PYLON SIGN  
Scale @ A1: 1:25

LESSOR TO SUPPLY AND INSTALL SIGN STRUCTURE AS PER LEASE, CFL TO DO SIGN FACES

MAIN CONTRACTOR TO PROVIDE FOOTINGS, HOLD DOWN BOLTS TO STRUCTURAL DETAILS, THE PYLON POLE, POWER AND CO ORDINATION



**SG01b** PYLON SIGN  
Scale @ A1: 1:25

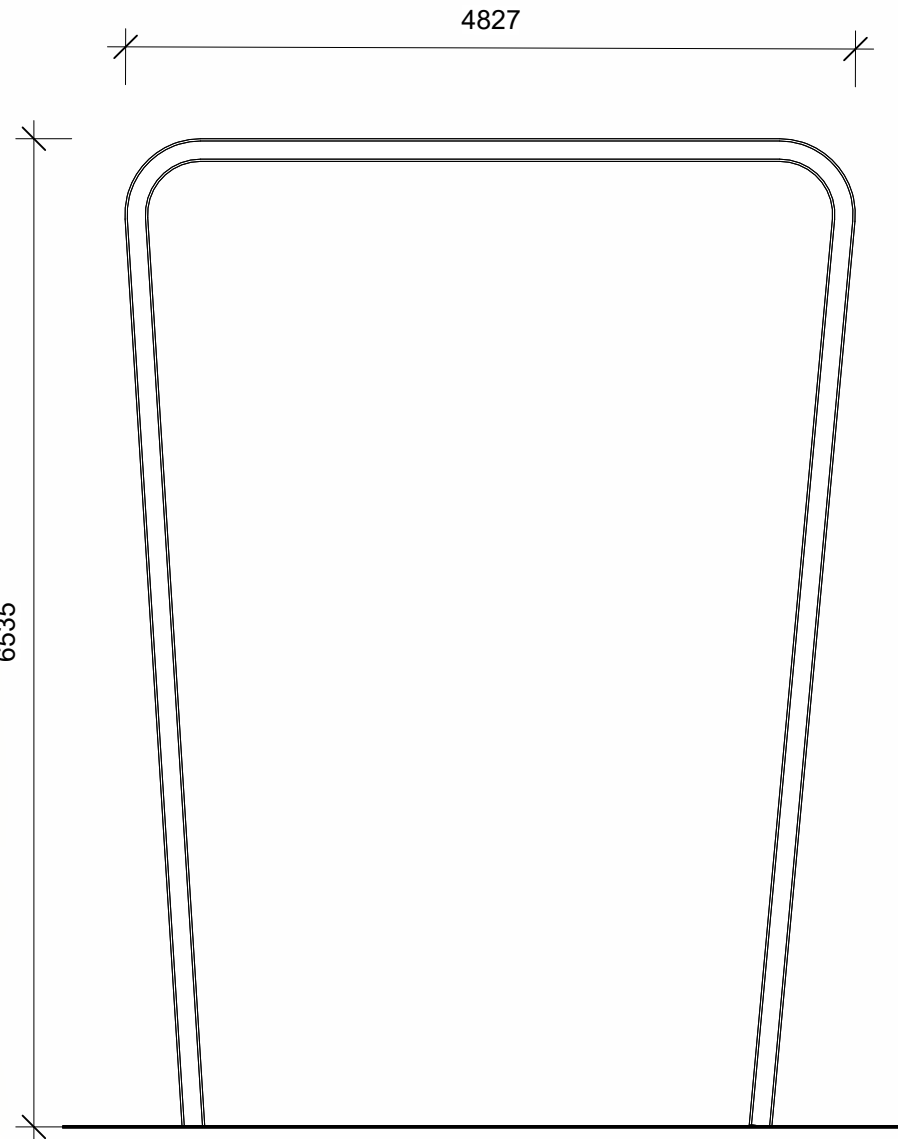
LESSOR TO SUPPLY AND INSTALL SIGN STRUCTURE AS PER LEASE, CFL TO DO SIGN FACES

MAIN CONTRACTOR TO PROVIDE FOOTINGS, HOLD DOWN BOLTS TO STRUCTURAL DETAILS, THE PYLON POLE, POWER AND CO ORDINATION



**SG05** DIRECTIONAL SIGN (DT Entry)  
Scale @ A1: 1:25

**SG06** DIRECTIONAL SIGN (DT EXIT)  
Scale @ A1: 1:25



**SG24** PORTAL SIGNAGE  
Scale @ A1: 1:50

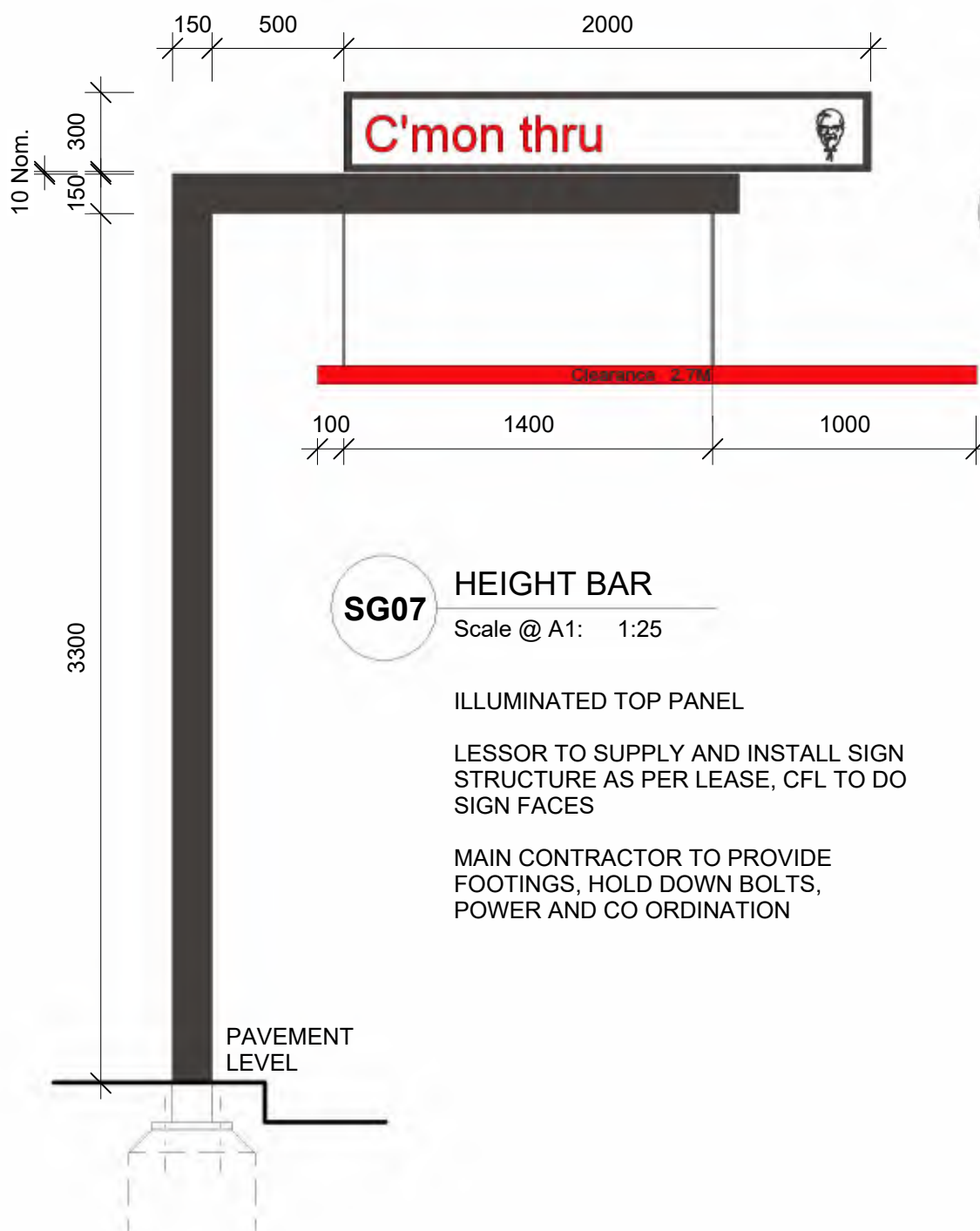


**SG08** COLONELS SIGN  
Scale @ A1: 1:25

ILLUMINATED

SUPPLIED AND INSTALLED BY CLIENTS SPECIALIST CONTRACTOR.

MAIN CONTRACTOR TO PROVIDE POWER AND CO ORDINATION



**SG07** HEIGHT BAR  
Scale @ A1: 1:25

ILLUMINATED TOP PANEL

LESSOR TO SUPPLY AND INSTALL SIGN STRUCTURE AS PER LEASE, CFL TO DO SIGN FACES

MAIN CONTRACTOR TO PROVIDE FOOTINGS, HOLD DOWN BOLTS, POWER AND CO ORDINATION

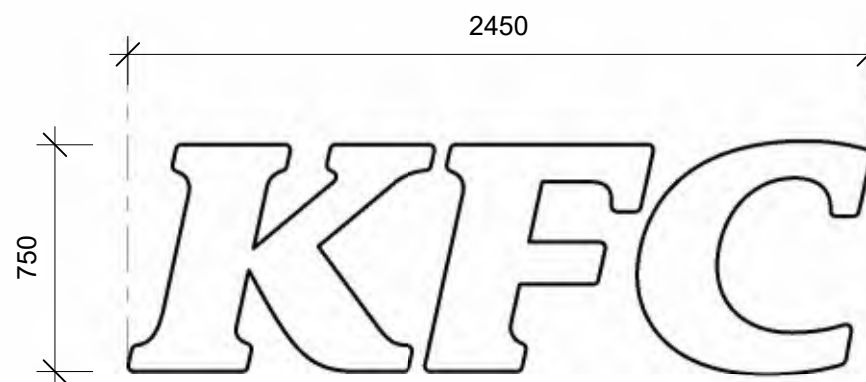


**SG10** ORIGINAL RECIPE STAMP  
Scale @ A1: 1:25

- APPLY COLONELS STAMPSTENCIL IN LOCATION AS DOCUMENTED.

- NON ILLUMINATED.

- NOTE: BY INTERNAL GRAPHICS CONTRACTOR

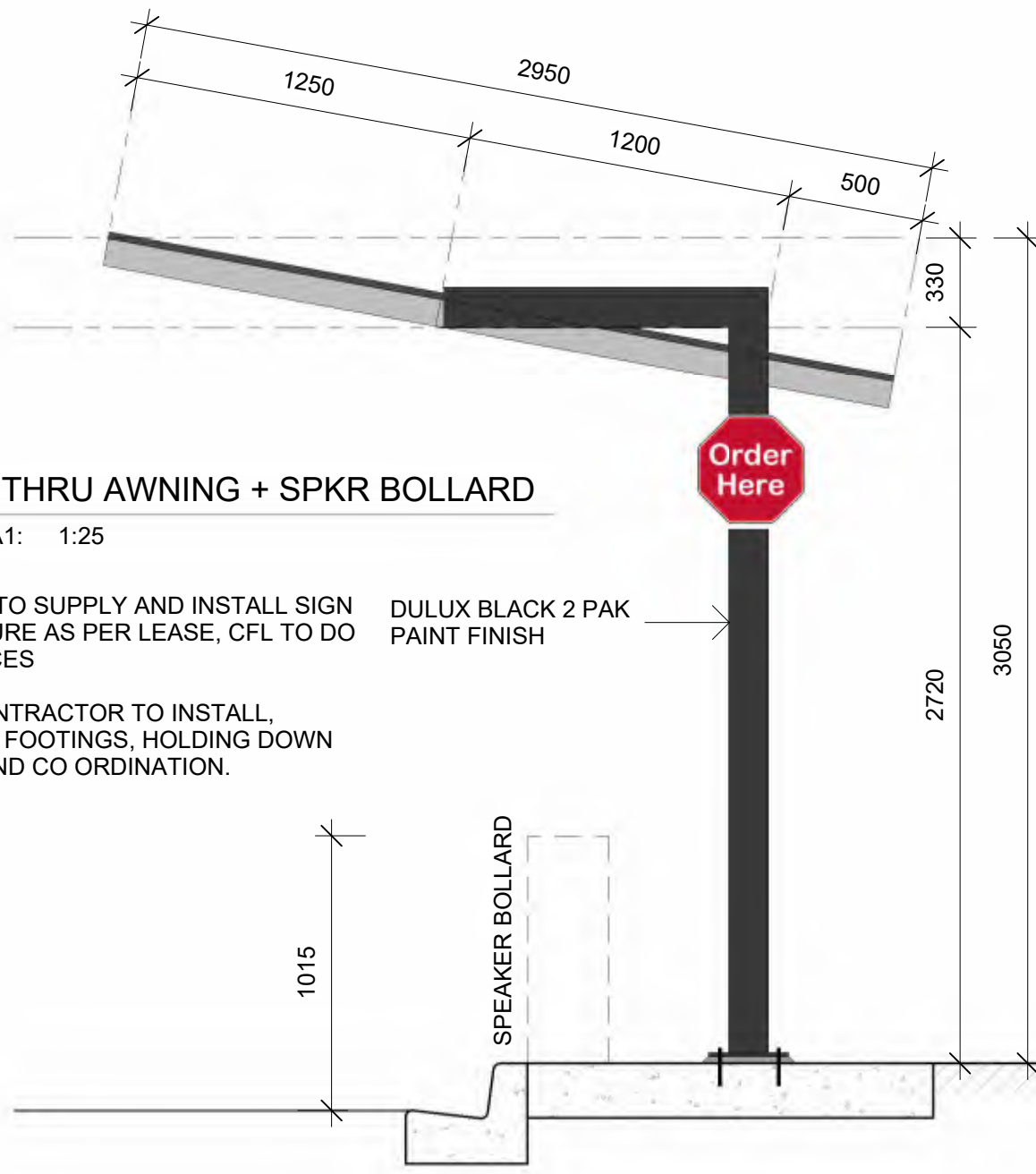


**SG11** KFC LETTERS: WHITE  
Scale @ A1: 1:25

ILLUMINATED

SUPPLIED AND INSTALLED BY CLIENTS SPECIALIST CONTRACTOR.

MAIN CONTRACTOR TO PROVIDE POWER AND CO ORDINATION



**SG03** DRIVE THRU AWNING + SPKR BOLLARD  
Scale @ A1: 1:25

LESSOR TO SUPPLY AND INSTALL SIGN STRUCTURE AS PER LEASE, CFL TO DO SIGN FACES

DULUX BLACK 2 PAK PAINT FINISH

MAIN CONTRACTOR TO INSTALL, PROVIDE FOOTINGS, HOLDING DOWN BOLTS AND CO ORDINATION.

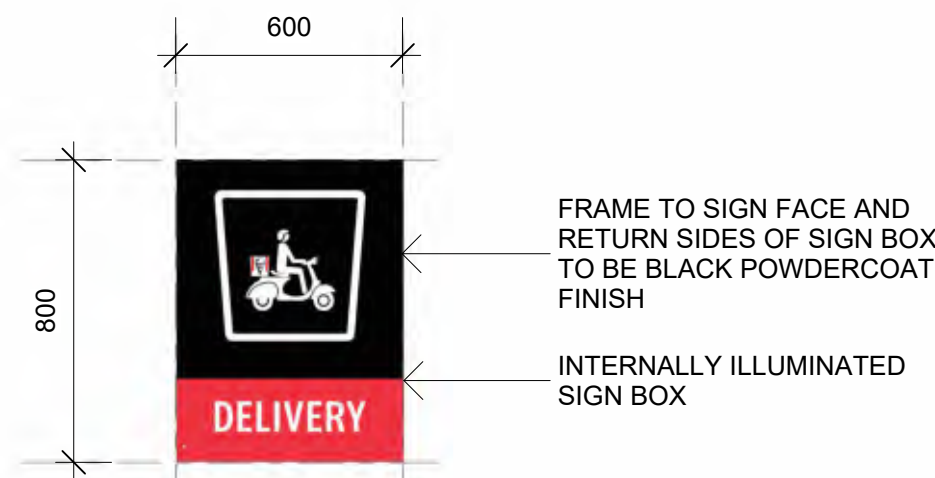


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| Rev | Date     | Title                     |
|-----|----------|---------------------------|
| A   | 02.09.25 | Updated Drawings - CFL    |
| B   | 28.11.25 | Updated Drawings for DA   |
| C   | 07.04.26 | Updated Drawings for DA   |
| D   | 17.04.26 | Revised to CFL for review |
| E   | 19.05.26 | FAF 02 Update             |



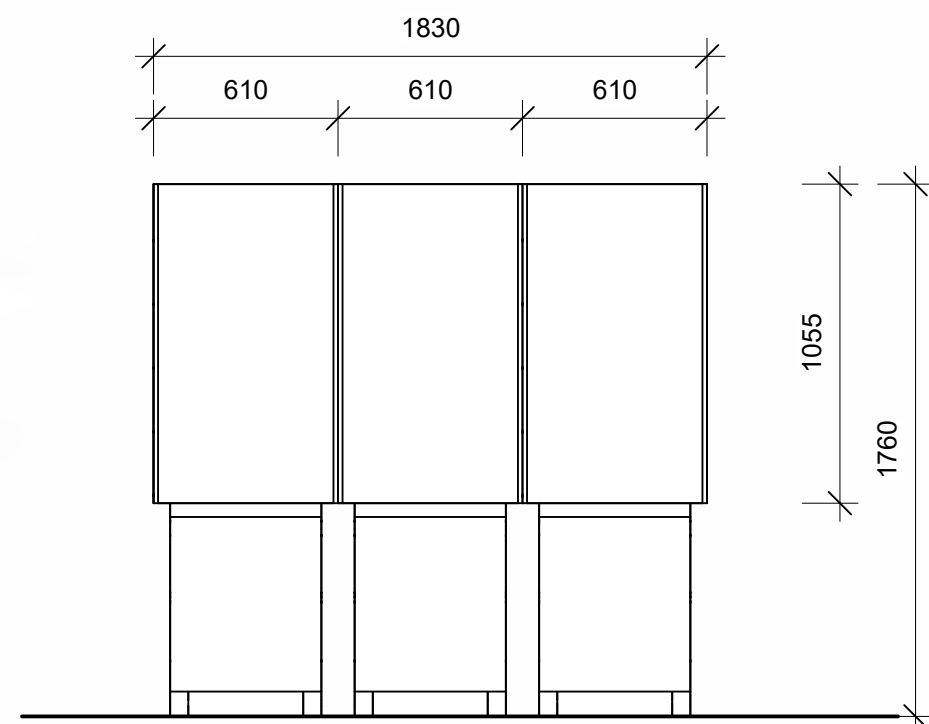
**SG17** DELIVERY AREA SIGN  
Scale @ A1: 1:20

ILLUMINATED DOUBLE SIDED DELIVERY ICON SIDE FIXED PERPENDICULAR SIGN BOX.

50mm X 3mm FRAME SURROUND WITH REAR ILLUMINATED FLEX FACE TO BOTH SIDES. TONY WING TO PROVIDE ARTWORK FILE.

SUPPLIED AND INSTALLED BY CLIENTS SPECIALIST CONTRACTOR

MAIN CONTRACTOR TO PROVIDE POWER AND CO ORDINATION



**SG14** DIGITAL MENUBOARD  
Scale @ A1: 1:25

ILLUMINATED DIGITAL MENU SCREENS SUPPLIED AND INSTALLED BY CLIENTS SPECIALIST CONTRACTOR.

MAIN CONTRACTOR TO PROVIDE FOOTINGS, POWER/ DATA AND CO ORDINATION



**SG16** 'NO SMOKING SIGN'  
NTS

TO COMPLY WITH AS 1319 'PROHIBITION SIGN'. CONTACT: SETON 1800 06 1173 REFER TO SIGNAGE PLAN FOR LOCATIONS

MAIN CONTRACTOR TO SUPPLY AND INSTALL.

ISSUED FOR CFL REVIEW

PRINCIPAL ARCHITECTS



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w: www.mandsarchitects.com.au  
ABEW Reg: 2222

CLIENTS



PROJECT

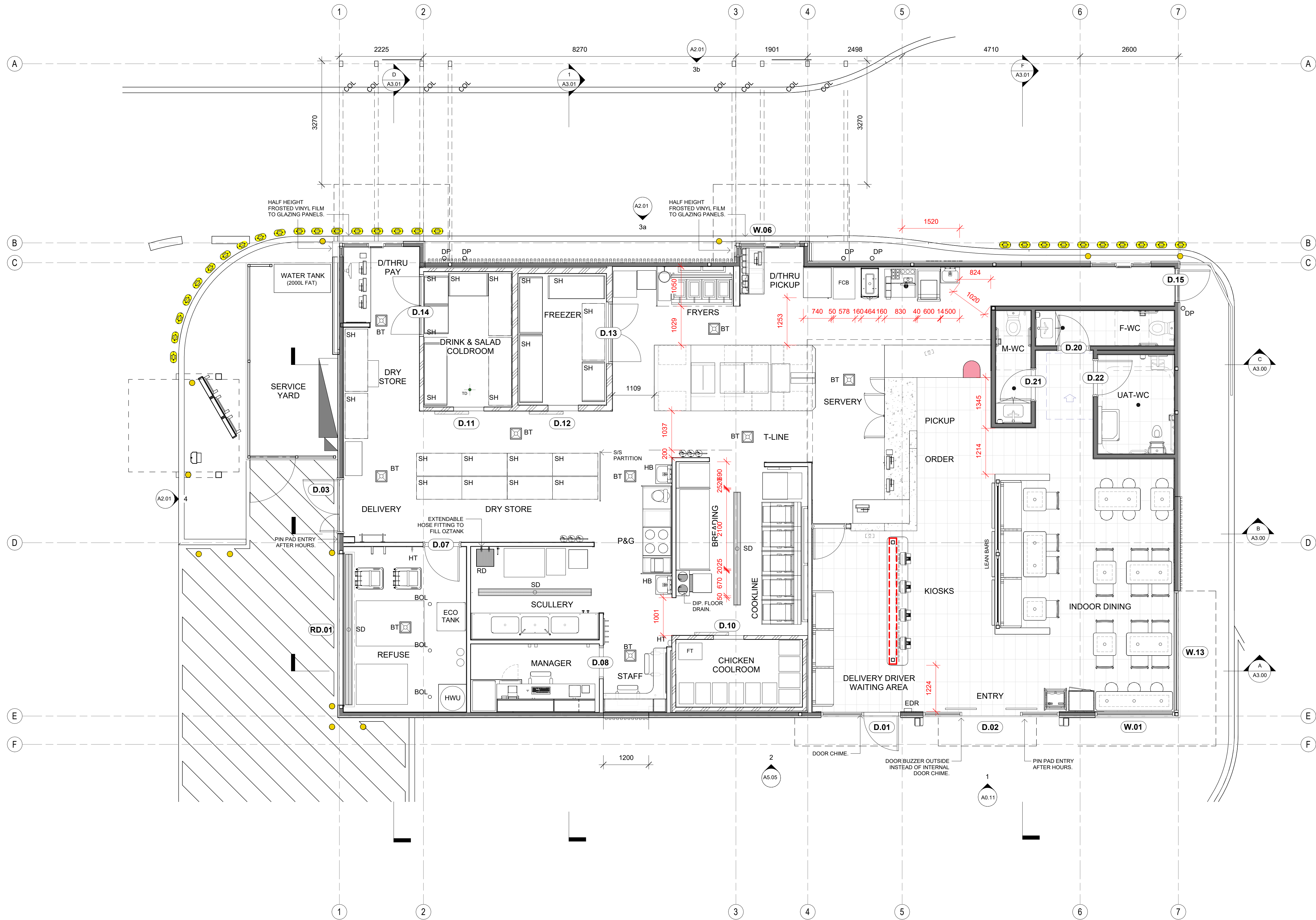
KFC  
HAMMOND PARK SHOPPING CENTRE - PAD SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA 6164

DRAWING

EXTERNAL SIGNAGE DETAILS

| DRAWN       | Author  | SCALE    | As indicated @ A1 |
|-------------|---------|----------|-------------------|
| CHECKED     | Checker | APPROVED | Approver          |
| DRAWING No. |         | REV      |                   |
| A0.11       |         | E        |                   |





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| Rev | Date     | Title                           |
|-----|----------|---------------------------------|
| F   | 03.09.25 | Updated Drawings - CFL Comments |
| G   | 28.11.25 | Updated Drawings for DA         |
| H   | 07.04.26 | Updated Drawings for DA         |
| I   | 17.04.26 | Revised to CFL for review       |
| J   | 19.05.26 | FAF 02 Update                   |



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MATTHEWS & SCAVALLI ARCHITECTS

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ABEW Reg: 2222

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COLLINS FOODS LIMITED

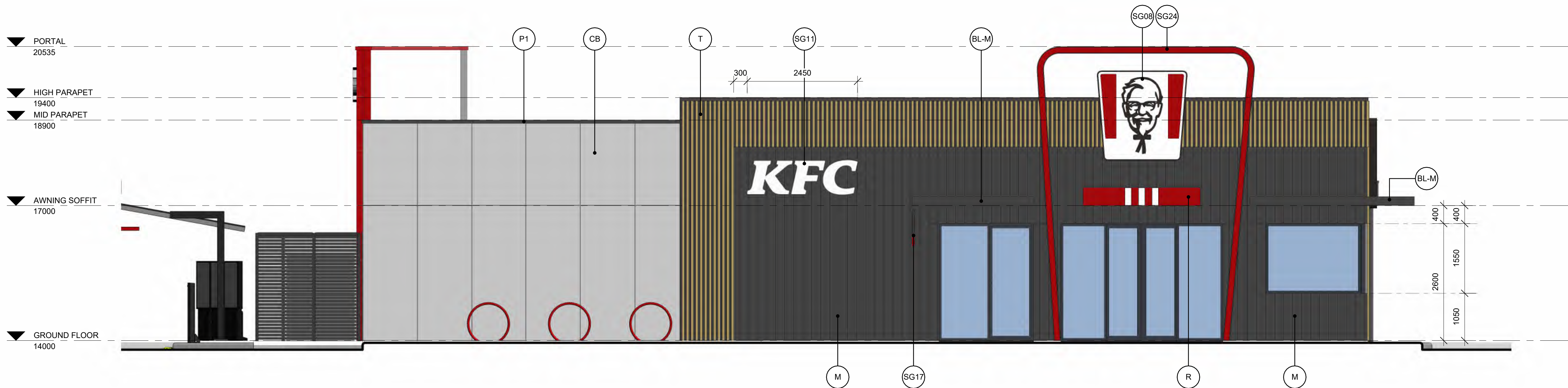
PROJECT  
**KFC**  
HAMMOND PARK SHOPPING CENTRE - PAD  
SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA  
6164

DRAWING

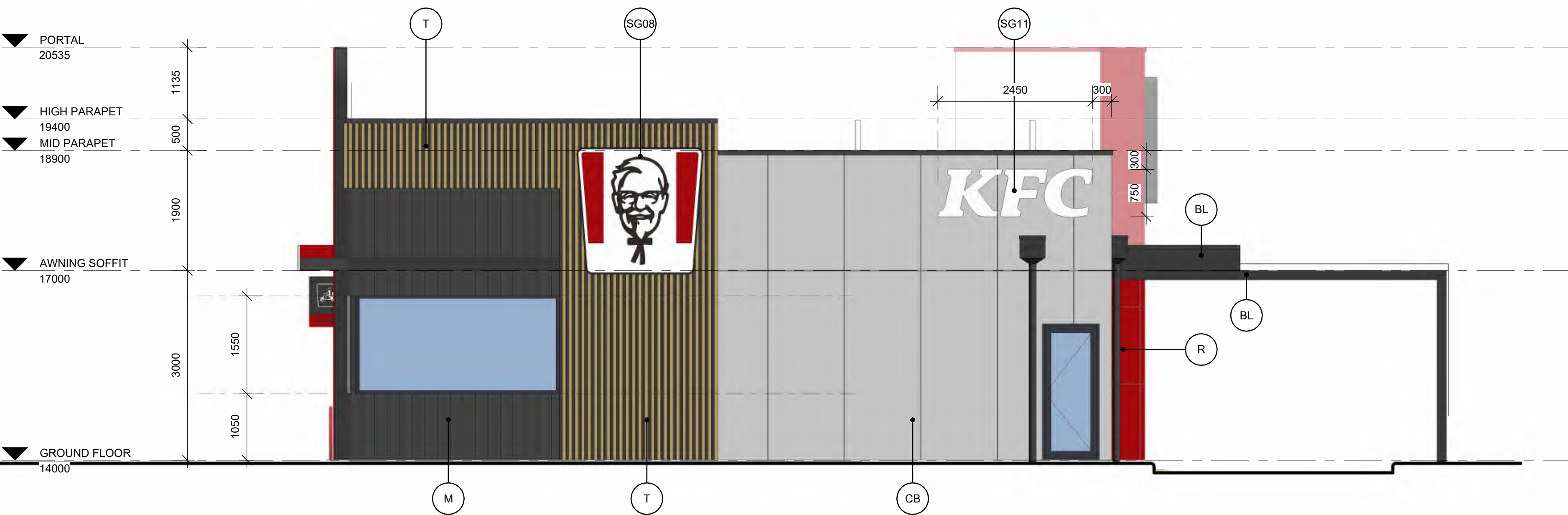
FLOOR PLAN

|             |         |          |          |     |    |
|-------------|---------|----------|----------|-----|----|
| DRAWN       | Author  | SCALE    | 1 : 50   | @   | A1 |
| CHECKED     | Checker | APPROVED | Approver |     |    |
| DRAWING No. |         |          |          | REV |    |
| A1.00       |         |          |          | J   |    |





1 ENTRY ELEVATION  
Scale @ A1: 1 : 50



2 FRONT ELEVATION  
Scale @ A1: 1 : 50

| SCHEDULE - EXTERNAL FINISHES |                                                                                                                                                                                                                                                             |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BL                           | KFC 'BLACK CAVIAR' - BLACK (SN4H9) DULUX WEATHERSHIELD LOWSHEEN ACRYLIC SUBSTRATE: EXPRESS JOINT EXOTEC FC CLADDING AND TOPHATS OR STEELWORK (External)                                                                                                     |
| BL-M                         | DULUX POWDERCOAT ELECTRO MONUMENT FLAT (9069171F) (External)                                                                                                                                                                                                |
| CB                           | 9MM PRE-FINISHED FIBRE CEMENT PANELS 'CEMINTEL TERRITORY QUARRY' URBAN GREY WITH FEATURE DIVETS. FACTORY FINISH WITH CEMINSEAL. EXPRESSED NOMINAL 20MM SHADOWLINES PAINTED DULUX 'BLACK' (SG6G6) (External)                                                 |
| M                            | METAL CLADDING TO BE 'LYSAGHT LONGLINE 305' IN COLORBOND 'MONUMENT' INSTALLED ON 35MM HORIZONTAL TOPHATS (External)                                                                                                                                         |
| R                            | KFC 'RED BOX' - RED (A0639) DULUX WEATHERSHIELD LOWSHEEN ACRYLIC ON EXPRESS JOINT EXOTEC FC CLADDING AND TOPHATS.(External)                                                                                                                                 |
| T                            | 50 X 50MM ALUMINIUM TIMBER LOOK CLKIP ON BATTENS 'ALIWOOD CLIP ON' (5050C05) IN 'SNOWGUM'. TO BE INSTALLED VERTICALLY ON FIBRE CEMENT SHEETING AND TOPHATS BEHIND TO MANUFACTURERS INSTRUCTIONS. FC SHEETING TO BE PAINTED DULUX 'BLACK' (SG6G6) (External) |

| SCHEDULE - SIGNAGE |                         |
|--------------------|-------------------------|
| SG08               | COLONELS SIGN           |
| SG11               | KFC LETTERS: WHITE      |
| SG17               | DELIVERY AREA SIGN      |
| SG24               | ENTRANCE PORTAL SIGNAGE |

| SCHEDULE - METALWORKS |                                                                                                                        |
|-----------------------|------------------------------------------------------------------------------------------------------------------------|
| P1                    | LYSAGHT PARAPET CAPPING IN DULUX POWDERCOAT ELECTRO MONUMENT FLAT (9069171F). REFER TO DETAILS FOR WIDTHS. (Metalwork) |



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| Rev | Date     | Title                           |
|-----|----------|---------------------------------|
| D   | 02.09.25 | Updated Drawings - CFL Comments |
| E   | 28.11.25 | Updated Drawings for DA         |
| F   | 07.04.26 | Updated Drawings for DA         |
| G   | 17.04.26 | Revised to CFL for review       |
| H   | 19.05.26 | FAF 02 Update                   |

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PRINCIPAL ARCHITECTS



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f: (08) 9316 0531  
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ABEW Reg: 2222

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PROJECT

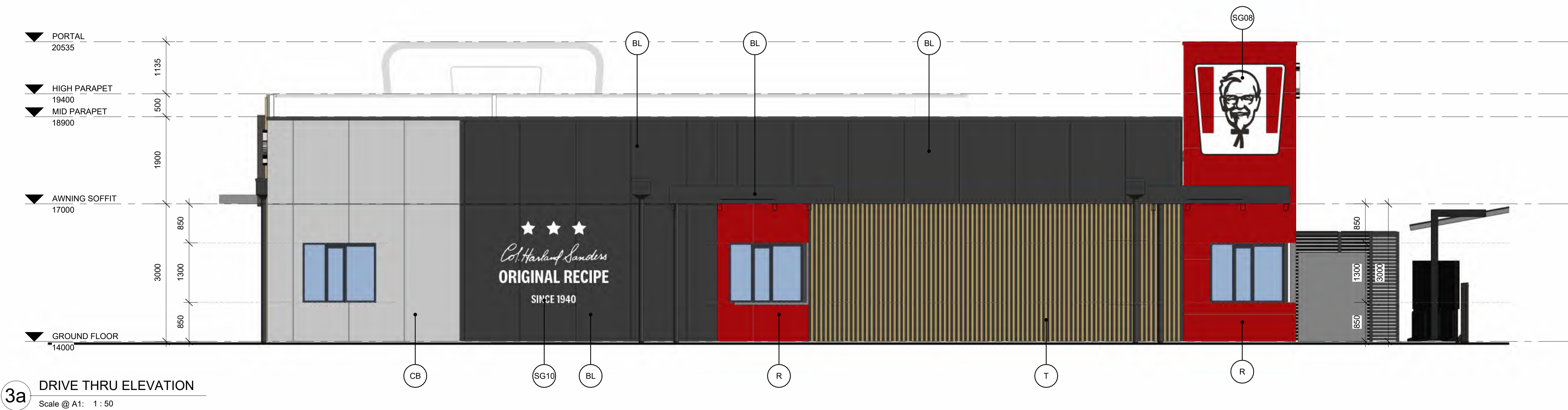
**KFC**  
HAMMOND PARK SHOPPING CENTRE - PAD  
SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA  
6164

DRAWING

ELEVATIONS - SHEET 01

|             |         |              |          |
|-------------|---------|--------------|----------|
| DRAWN       | Author  | SCALE 1 : 50 | @ A1     |
| CHECKED     | Checker | APPROVED     | Approver |
| DRAWING No. |         |              | REV      |
| A2.00       |         |              | H        |





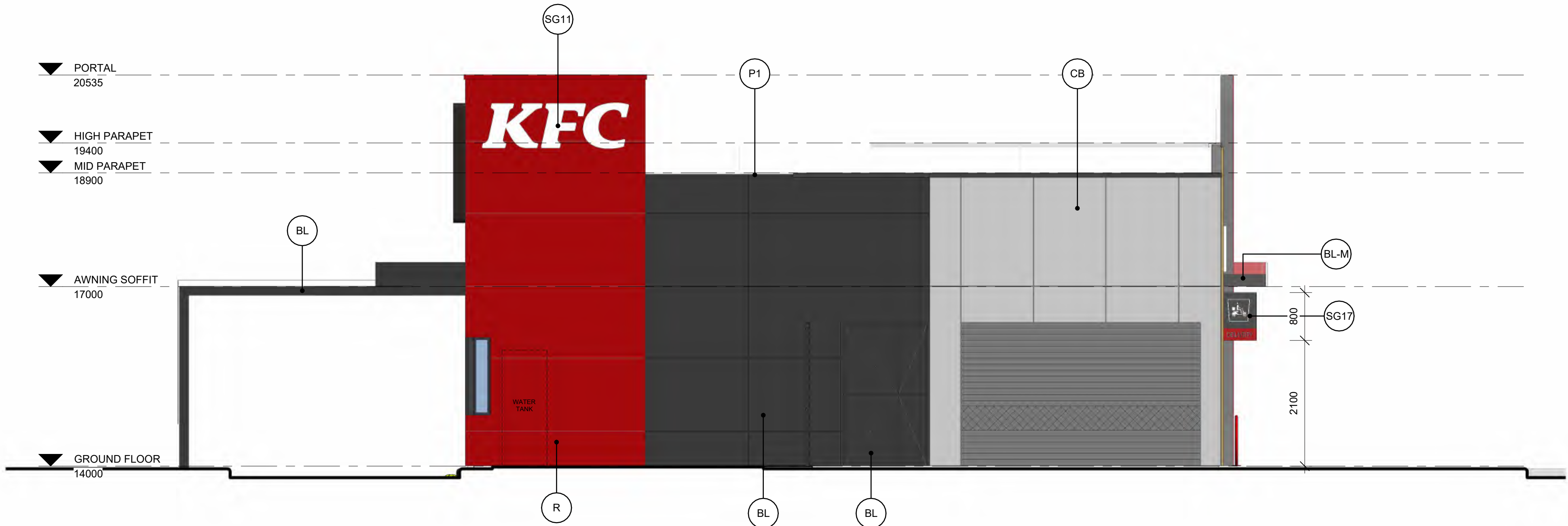
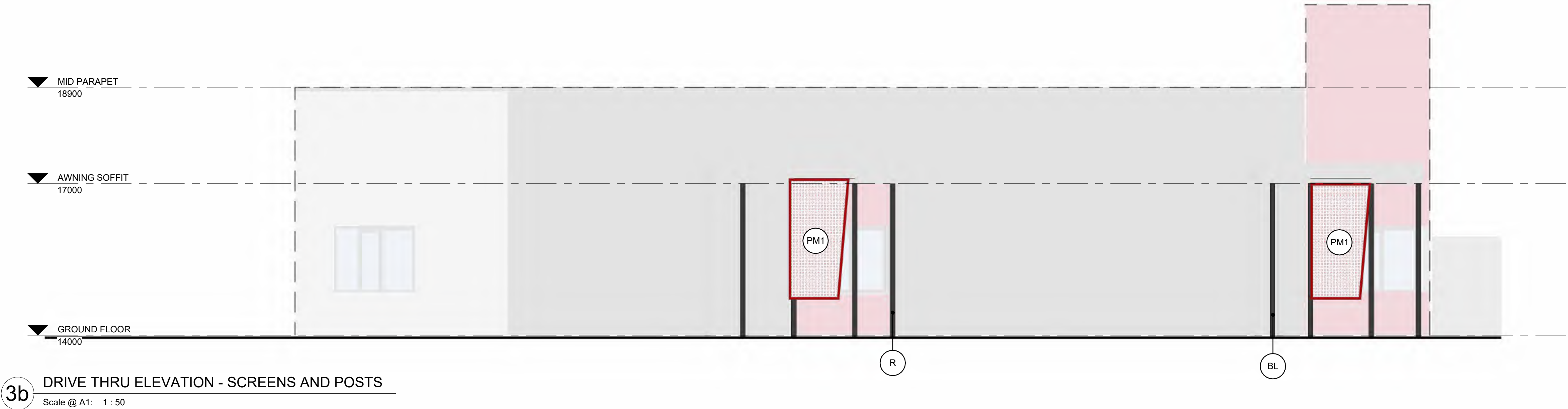
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| SCHEDULE - EXTERNAL FINISHES |                                                                                                                                                                                                                                                             |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BL                           | KFC 'BLACK CAVIAR' - BLACK (SN4H9) DULUX WEATHERSHIELD LOWSHEEN ACRYLIC SUBSTRATE, EXPRESS JOINT EXOTEC FC CLADDING AND TOPHATS OR STEELWORK (External)                                                                                                     |
| BL-M                         | DULUX POWDERCOAT ELECTRO MONUMENT FLAT (9069171F) (External)                                                                                                                                                                                                |
| CB                           | 9MM PRE-FINISHED FIBRE CEMENT PANELS 'CEMINTEL TERRITORY QUARRY'. URBAN GREY WITH FEATURE DIVETS. FACTORY FINISH WITH CEMINSEAL. EXPRESSED NOMINAL 20MM SHADOWLINES PAINTED DULUX 'BLACK' (SG6G6) (External)                                                |
| PM1                          | 3MM THICK PERFORATED METAL SCREENN MILD STEEL POWDERCOATED WITH DURATEC X15 IN 'KFC RED'. PATTERN: 3.25mm DIA. HOLES, 4.78mm CTRS, 41% OPEN AREA(External).                                                                                                 |
| R                            | KFC 'RED BOX' - RED (A0639) DULUX WEATHERSHIELD LOWSHEEN ACRYLIC ON EXPRESS JOINT EXOTEC FC CLADDING AND TOPHATS.(External)                                                                                                                                 |
| T                            | 50 X 50MM ALUMINIUM TIMBER LOOK CLKIP ON BATTENS 'ALUWOOD CLIP ON' (5050C05) IN 'SNOWGUM'. TO BE INSTALLED VERTICALLY ON FIBRE CEMENT SHEETING AND TOPHATS BEHIND TO MANUFACTURERS INSTRUCTIONS. FC SHEETING TO BE PAINTED DULUX 'BLACK' (SG6G6) (External) |



| SCHEDULE - SIGNAGE |                         |
|--------------------|-------------------------|
| SG08               | COLONELS SIGN           |
| SG10               | STAMP 'ORIGINAL RECIPE' |
| SG11               | KFC LETTERS: WHITE      |
| SG17               | DELIVERY AREA SIGN      |

| SCHEDULE - METALWORKS |                                                                                                                        |
|-----------------------|------------------------------------------------------------------------------------------------------------------------|
| P1                    | LYSAGHT PARAPET CAPPING IN DULUX POWDERCOAT ELECTRO MONUMENT FLAT (9069171F). REFER TO DETAILS FOR WIDTHS. (Metalwork) |

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PROJECT

KFC

HAMMOND PARK SHOPPING CENTRE - PAD SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA 6164

DRAWING

ELEVATIONS - SHEET 02

|             |         |              |          |
|-------------|---------|--------------|----------|
| DRAWN       | Author  | SCALE 1 : 50 | @ A1     |
| CHECKED     | Checker | APPROVED     | Approver |
| DRAWING No. |         |              | REV      |
| A2.01       |         |              | G        |









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| E   | 07.04.26 | Updated Drawings for DA         |
| F   | 17.04.26 | Issued to CFL for review        |
| G   | 19.05.26 | FAF 02 Update                   |

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ABEW Reg: 2222

CLIENTS



PROJECT

KFC  
HAMMOND PARK SHOPPING CENTRE - PAD  
SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA  
6164

DRAWING

PERSPECTIVES 02

|             |         |             |          |
|-------------|---------|-------------|----------|
| DRAWN       | Author  | SCALE 1 : 1 | @ A1     |
| CHECKED     | Checker | APPROVED    | Approver |
| DRAWING No. |         |             | REV      |
| A2.03       |         |             | G        |





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PROJECT

KFC

HAMMOND PARK SHOPPING CENTRE - PAD  
SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA  
6164

DRAWING

INTERNAL PERSPECTIVES

|             |         |          |          |     |    |
|-------------|---------|----------|----------|-----|----|
| DRAWN       | Author  | SCALE    | 1 : 1    | @   | A1 |
| CHECKED     | Checker | APPROVED | Approver |     |    |
| DRAWING No. |         |          |          | REV |    |
| A9.06       |         |          |          | F   |    |



WESTERN



AUSTRALIA

TITLE NUMBER

Volume

Folio

4062

584

## 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 1 ON DEPOSITED PLAN 425990

### REGISTERED PROPRIETOR: (FIRST SCHEDULE)

SUNVIEW DEVELOPMENTS PTY LTD OF CARE OF LEVEL 8 225 ST GEORGES TERRACE PERTH WA 6000  
(AF Q203918 ) REGISTERED 8/11/2024

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

1. EASEMENT BURDEN CREATED UNDER SECTION 167 P. & D. ACT FOR DRAINAGE/IRRIGATION/WATER SUPPLY/SEWERAGE PURPOSES TO WATER CORPORATION - SEE DEPOSITED PLAN 425990 AS CREATED ON DEPOSITED PLAN 414275.
2. Q203919 NOTIFICATION CONTAINS FACTORS AFFECTING THE WITHIN LAND. LODGED 8/11/2024.
3. Q203920 NOTIFICATION SECTION 165 PLANNING & DEVELOPMENT ACT 2005 LODGED 8/11/2024.

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: DP425990  
PREVIOUS TITLE: 2981-875, 4020-38, 4020-39  
PROPERTY STREET ADDRESS: 490 WATTLEUP RD, HAMMOND PARK.  
LOCAL GOVERNMENT AUTHORITY: CITY OF COCKBURN

**From:** "Lidija Langford" <Lidija.Langford@rowegroup.com.au>  
**Sent:** Mon, 8 Jun 2026 10:46:45 +0800  
**To:** "Riley Brown" <Riley.Brown@cockburn.wa.gov.au>  
**Cc:** "Matthew Pears" <mpears@aigleroyal.com.au>; "Kris Kennedy" <kkennedy@aigleroyal.com.au>; "Shehan Mendis" <smendis@cockburn.wa.gov.au>; "Declan Allcock" <Declan.Allcock@rowegroup.com.au>  
**Subject:** FW: 2502 Hammond Park SC - Deletion of Landscaping to Pad Sites  
**Attachments:** 8328\_20260416\_R\_CoC\_DA\_KFC-HJ\_V2\_da\_COMPILED\_Landscape Extents.pdf



**External Email:** Do not click any links or open any attachments unless you trust the sender and know the content is safe.



Hi Riley,

I'm just confirming that we have no objection to the landscaping works for the areas identified in the attached plan forming part of the DA for the Fast Food Outlets.

Regards,

**Lidija Langford**

Principal Town Planner

*Please note, I am not in the office on Wednesdays and Fridays.*



**T:** 08 9221 1991  
**M:** 0403 450 453  
**E:** [Lidija.Langford@rowegroup.com.au](mailto:Lidija.Langford@rowegroup.com.au)  
**W:** [www.rowegroup.com.au](http://www.rowegroup.com.au)  
Level 3 369 Newcastle Street,  
Northbridge WA 6003



**Wallis Drilling Headquarters Opens in Hazelmere Following Key Planning Milestone**

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**From:** Riley Brown <[Riley.Brown@cockburn.wa.gov.au](mailto:Riley.Brown@cockburn.wa.gov.au)>  
**Sent:** Wednesday, 3 June 2026 7:41 PM  
**To:** Matthew Pears <[mpears@aigleroyal.com.au](mailto:mpears@aigleroyal.com.au)>; Pritpal Singh <[p.singh@hoskinscontracting.com.au](mailto:p.singh@hoskinscontracting.com.au)>; Shehan Mendis <[smendis@cockburn.wa.gov.au](mailto:smendis@cockburn.wa.gov.au)>  
**Cc:** Tanya Wasley <[twasley@cockburn.wa.gov.au](mailto:twasley@cockburn.wa.gov.au)>; Josh Poli <[jpoli@aigleroyal.com.au](mailto:jpoli@aigleroyal.com.au)>; Nathan Reilly <[nreilly@insights.com.au](mailto:nreilly@insights.com.au)>; Darren Staunton <[dstaunton@insights.com.au](mailto:dstaunton@insights.com.au)>; Jim Blaikie <[j.blaikie@hoskinscontracting.com.au](mailto:j.blaikie@hoskinscontracting.com.au)>; Nigel Gilligan <[n.gilligan@hoskinscontracting.com.au](mailto:n.gilligan@hoskinscontracting.com.au)>; Dmitry Bukovsky <[d.bukovsky@hoskinscontracting.com.au](mailto:d.bukovsky@hoskinscontracting.com.au)>; Jazlan Zanudin <[j.zanudin@hoskinscontracting.com.au](mailto:j.zanudin@hoskinscontracting.com.au)>; 'com-inbound-hammond-park-shopping-centre-e22fdipacg@procoretech.com' <[com-inbound-hammond-park-shopping-centre-e22fdipacg@procoretech.com](mailto:com-inbound-hammond-park-shopping-centre-e22fdipacg@procoretech.com)>  
**Subject:** RE: 2502 Hammond Park SC - Deletion of Landscaping to Pad Sites

**Caution:** This is an external email and may be malicious. Please take care when clicking links or opening attachments.

Hi Matthew,

Thanks for that – the attached plan is sufficient. Lidija from Rowe Group is the contact person for the DAP applications so if you could please just get her to advise that she consents to this being added as part of the application, that is fine. Email is suffice.

Just looping in [@Shehan Mendis](#) as he will be looking after the 2 x DAP applications from our end.

Thanks,

---

**Riley Brown**  
Service Lead Statutory Planning  
P 08 9411 3444  
E [riley.brown@cockburn.wa.gov.au](mailto:riley.brown@cockburn.wa.gov.au)



Cockburn Nyungar moort Beeliar boodja-k kaadadjiny. Koora, yeyi, benang baalap nidja boodja-k kaaradjiny. Ngalak kaditj boodjar kep wer kaadidjiny kalyakool yoodaniny, wer koora wer yeyi ngalak Birdiya koota-djina nginy.

The City of Cockburn acknowledges the Nyungar people of Beeliar Boodjar. Long ago, now and in the future they care for Country.

We acknowledge a continuing connection to Land, Waters and Culture and pay our respects to Elders, past and present.

---

**From:** Matthew Pears <[mpears@aigleroyal.com.au](mailto:mpears@aigleroyal.com.au)>  
**Sent:** Wednesday, 3 June 2026 5:08 PM  
**To:** Riley Brown <[Riley.Brown@cockburn.wa.gov.au](mailto:Riley.Brown@cockburn.wa.gov.au)>; Pritpal Singh <[p.singh@hoskinscontracting.com.au](mailto:p.singh@hoskinscontracting.com.au)>  
**Cc:** Tanya Wasley <[twasley@cockburn.wa.gov.au](mailto:twasley@cockburn.wa.gov.au)>; Josh Poli <[jpoli@aigleroyal.com.au](mailto:jpoli@aigleroyal.com.au)>; Nathan Reilly <[nreilly@insightps.com.au](mailto:nreilly@insightps.com.au)>; Darren Staunton <[dstaunton@insightps.com.au](mailto:dstaunton@insightps.com.au)>; Jim Blaikie <[j.blaikie@hoskinscontracting.com.au](mailto:j.blaikie@hoskinscontracting.com.au)>; Nigel Gilligan <[n.gilligan@hoskinscontracting.com.au](mailto:n.gilligan@hoskinscontracting.com.au)>; Dmitry Bukovsky <[d.bukovsky@hoskinscontracting.com.au](mailto:d.bukovsky@hoskinscontracting.com.au)>; Jazlan Zanudin <[j.zanudin@hoskinscontracting.com.au](mailto:j.zanudin@hoskinscontracting.com.au)>; 'com-inbound-hammond-park-shopping-centre-e22fdipacg@procoretech.com' <[com-inbound-hammond-park-shopping-centre-e22fdipacg@procoretech.com](mailto:com-inbound-hammond-park-shopping-centre-e22fdipacg@procoretech.com)>  
**Subject:** RE: 2502 Hammond Park SC - Deletion of Landscaping to Pad Sites



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Hi Riley

Please see attached site plan showing padsite landscape works extent. Can you please confirm if this will suffice?

The Padsite DA was submitted by Rowe Group as you know. Will the City require that the attached plan be submitted by Rowe Group and an amendment to the original submission or can this be accepted direct from Aigle Royal as the land owner?

Kind Regards

**Matthew Pears**  
Senior Development Manager



Level 31 | 1 Spring Street | Perth | WA | 6000  
Phone: (08) 9322 2248  
Mobile: 0422 280 308

---

**From:** Riley Brown <[Riley.Brown@cockburn.wa.gov.au](mailto:Riley.Brown@cockburn.wa.gov.au)>  
**Sent:** Wednesday, 3 June 2026 11:12 AM  
**To:** Matthew Pears <[mpears@aigleroyal.com.au](mailto:mpears@aigleroyal.com.au)>; Pritpal Singh <[p.singh@hoskinscontracting.com.au](mailto:p.singh@hoskinscontracting.com.au)>  
**Cc:** Tanya Wasley <[twasley@cockburn.wa.gov.au](mailto:twasley@cockburn.wa.gov.au)>; Josh Poli <[jpoli@aigleroyal.com.au](mailto:jpoli@aigleroyal.com.au)>; Nathan Reilly <[nreilly@insightps.com.au](mailto:nreilly@insightps.com.au)>; Darren Staunton <[dstaunton@insightps.com.au](mailto:dstaunton@insightps.com.au)>; Jim Blaikie <[j.blaikie@hoskinscontracting.com.au](mailto:j.blaikie@hoskinscontracting.com.au)>; Nigel Gilligan <[n.gilligan@hoskinscontracting.com.au](mailto:n.gilligan@hoskinscontracting.com.au)>; Dmitry Bukovsky <[d.bukovsky@hoskinscontracting.com.au](mailto:d.bukovsky@hoskinscontracting.com.au)>; Jazlan Zanudin



<[j.zanudin@hoskinscontracting.com.au](mailto:j.zanudin@hoskinscontracting.com.au)>; 'com-inbound-hammond-park-shopping-centre-e22fdipacg@procoretech.com' <[com-inbound-hammond-park-shopping-centre-e22fdipacg@procoretech.com](mailto:com-inbound-hammond-park-shopping-centre-e22fdipacg@procoretech.com)>

**Subject:** RE: 2502 Hammond Park SC - Deletion of Landscaping to Pad Sites

**Caution:** This is an external email and may be malicious. Please take care when clicking links or opening attachments.

Hi Matthew,

Thanks for that. Sorry yes the DAP application is for the two pad sties.

In any case, happy for that condition to be applied however we would like some certainty around where the padsite landscaping ends and the main centre landscaping begins. The plans submitted for the pad sites kind of just blend the landscaping in all together. So perhaps if the applicant of the DAP applications can provide another plan that indicates the extent of their landscaping responsibilities, that would be sufficient.

Kind regards,

---

**Riley Brown**

Service Lead Statutory Planning

P 08 9411 3444

E [riley.brown@cockburn.wa.gov.au](mailto:riley.brown@cockburn.wa.gov.au)



Cockburn Nyungar moort Beeliar boodja-k kaadadjiny. Koora, yeyi, benang baalap nidja boodja-k kaaradjiny. Ngalak kaditj boodjar kep wer kaadidjiny kalyakool yoodaniny, wer koora wer yeyi ngalak Birdiya koota-djina nginy.

The City of Cockburn acknowledges the Nyungar people of Beeliar Boodjar. Long ago, now and in the future they care for Country.

We acknowledge a continuing connection to Land, Waters and Culture and pay our respects to Elders, past and present.

---

**From:** Matthew Pears <[mpears@aigleroyal.com.au](mailto:mpears@aigleroyal.com.au)>

**Sent:** Wednesday, 3 June 2026 10:29 AM

**To:** Riley Brown <[Riley.Brown@cockburn.wa.gov.au](mailto:Riley.Brown@cockburn.wa.gov.au)>; Pritpal Singh

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**Subject:** RE: 2502 Hammond Park SC - Deletion of Landscaping to Pad Sites



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Hi Riley

Thanks for your prompt response. As Hoskins are not responsible for the recently submitted DAP application for the two fast food pad sites (KFC and Hungry Jacks) I thought I would weigh in.

Understand The City's concerns re absence of landscape design detail in the fast food DA application. Under the circumstances I'm wondering if it would be possible to address this via the inclusion of a condition similar to Condition 8 applied to the main centre approval (excerpt below)?

Hoskins are required to deliver these landscape works under their scope of works however we are concerned they will get destroyed in the subsequent pad site build outs hence the pragmatic request to have them deferred.



8. Prior to the issue of a Building Permit, a detailed landscaping plan shall be submitted to and approved by the City. The plan agreed to by the City shall be implemented in the development. The landscaping plan shall include the following;
- minimum twelve (12) additional trees to be located along Whadjuk Drive and the parking area adjacent the future development site as required by the City;
  - landscaping treatments to the fence line of Marcy Lane to the satisfaction of the City;
  - the location, number, size and species type of proposed trees and shrubs, including calculations for the landscaping area;
  - any lawns to be established;
  - those areas to be reticulated or irrigated;
  - appropriate planting within the car parking areas;
  - emphasis of the internal street through the placement of trees; and
  - verge treatments.

Kind Regards

**Matthew Pears**  
Senior Development Manager



Level 31 | 1 Spring Street | Perth | WA | 6000  
Phone: (08) 9322 2248  
Mobile: 0422 280 308

---

**From:** Riley Brown <[Riley.Brown@cockburn.wa.gov.au](mailto:Riley.Brown@cockburn.wa.gov.au)>  
**Sent:** Tuesday, 2 June 2026 8:03 PM  
**To:** Pritpal Singh <[p.singh@hoskinscontracting.com.au](mailto:p.singh@hoskinscontracting.com.au)>  
**Cc:** Tanya Wasley <[twasley@cockburn.wa.gov.au](mailto:twasley@cockburn.wa.gov.au)>; Matthew Pears <[mpears@aigleroyal.com.au](mailto:mpears@aigleroyal.com.au)>; Josh Poli <[jpoli@aigleroyal.com.au](mailto:jpoli@aigleroyal.com.au)>; Nathan Reilly <[nreilly@insighps.com.au](mailto:nreilly@insighps.com.au)>; Darren Staunton <[dstaunton@insighps.com.au](mailto:dstaunton@insighps.com.au)>; Jim Blaikie <[j.blaikie@hoskinscontracting.com.au](mailto:j.blaikie@hoskinscontracting.com.au)>; Nigel Gilligan <[n.gilligan@hoskinscontracting.com.au](mailto:n.gilligan@hoskinscontracting.com.au)>; Dmitry Bukovsky <[d.bukovsky@hoskinscontracting.com.au](mailto:d.bukovsky@hoskinscontracting.com.au)>; Jazlan Zanudin <[j.zanudin@hoskinscontracting.com.au](mailto:j.zanudin@hoskinscontracting.com.au)>; 'com-inbound-hammond-park-shopping-centre-e22fdipacg@procoretech.com' <[com-inbound-hammond-park-shopping-centre-e22fdipacg@procoretech.com](mailto:com-inbound-hammond-park-shopping-centre-e22fdipacg@procoretech.com)>  
**Subject:** RE: 2502 Hammond Park SC - Deletion of Landscaping to Pad Sites

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Hi Pritpal,

Thanks for the email.

The City has no objection to the deletion of the landscaping scope around the pad sites as you have outlined below, however I would recommend you discuss this further with the proponent as the DAP application has been lodged for the first pad site which doesn't include landscaping. Before we accept the below proposal, we will need to see the pad site proposal updated to incorporate the proposed landscaping.

For the other pad site, that is fine. We will keep an eye out for the landscaping being included once that DA is lodged.

Kind regards,

---

**Riley Brown**  
Service Lead Statutory Planning  
P 08 9411 3444  
E [riley.brown@cockburn.wa.gov.au](mailto:riley.brown@cockburn.wa.gov.au)



Cockburn Nyungar moort Beeliar boodja-k kaadadjiny. Koora, yeyi, benang baalap nidja boodja-k kaaradjiny. Ngalak kaditj boodjar kep wer kaadidjiny kalyakool yoodaniny, wer koora wer yeyi ngalak Birdiya koota-djinanginy. The City of Cockburn acknowledges the Nyungar people of Beeliar Boodjar. Long ago, now and in the future they care for Country. We acknowledge a continuing connection to Land, Waters and Culture and pay our respects to Elders, past and present.

---

**From:** Pritpal Singh <[p.singh@hoskinscontracting.com.au](mailto:p.singh@hoskinscontracting.com.au)>  
**Sent:** Tuesday, 2 June 2026 4:13 PM  
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**Cc:** Tanya Wasley <[twasley@cockburn.wa.gov.au](mailto:twasley@cockburn.wa.gov.au)>; Matthew Pears <[mpears@aigleroyal.com.au](mailto:mpears@aigleroyal.com.au)>; Josh Poli <[jpoli@aigleroyal.com.au](mailto:jpoli@aigleroyal.com.au)>; Nathan Reilly <[nreilly@insightps.com.au](mailto:nreilly@insightps.com.au)>; Darren Staunton <[dstaunton@insightps.com.au](mailto:dstaunton@insightps.com.au)>; Jim Blaikie <[j.blaikie@hoskinscontracting.com.au](mailto:j.blaikie@hoskinscontracting.com.au)>; Nigel Gilligan <[n.gilligan@hoskinscontracting.com.au](mailto:n.gilligan@hoskinscontracting.com.au)>; Dmitry Bukovsky <[d.bukovsky@hoskinscontracting.com.au](mailto:d.bukovsky@hoskinscontracting.com.au)>; Jazlan Zanudin <[j.zanudin@hoskinscontracting.com.au](mailto:j.zanudin@hoskinscontracting.com.au)>; 'com-inbound-hammond-park-shopping-centre-e22fdipacg@procoretech.com' <[com-inbound-hammond-park-shopping-centre-e22fdipacg@procoretech.com](mailto:com-inbound-hammond-park-shopping-centre-e22fdipacg@procoretech.com)>  
**Subject:** 2502 Hammond Park SC - Deletion of Landscaping to Pad Sites



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Afternoon Riley,

**2502 Hammond Park SC - Deletion of Landscaping to Pad Sites**

Hope you are well.

The developer has requested the potential deletion of the landscaping scope around the Pad sites allowing them to have it constructed at a later stage.

We believe that the developer is in negotiations with potential tenants for these 2 pad sites.

The deletion of the current contractual scope is to create a clear delineation of the scope of works that would be associated with the 2 pad sites which would be constructed at a later stage including the associated landscape works.

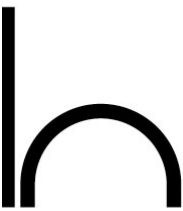
Based on the above, could we please request approval if the extent of landscape can be deleted – See attached marked up plan indicating the extent of landscape that is to be removed from our contractual development scope.

Please advise on acceptance by end of the week if possible.

Thank Riley

Kind Regards,

**Pritpal Singh**  
**Project Manager**



Level 1, 250 Oxford Street, Leederville WA 6007

/ P 08 9254 4600

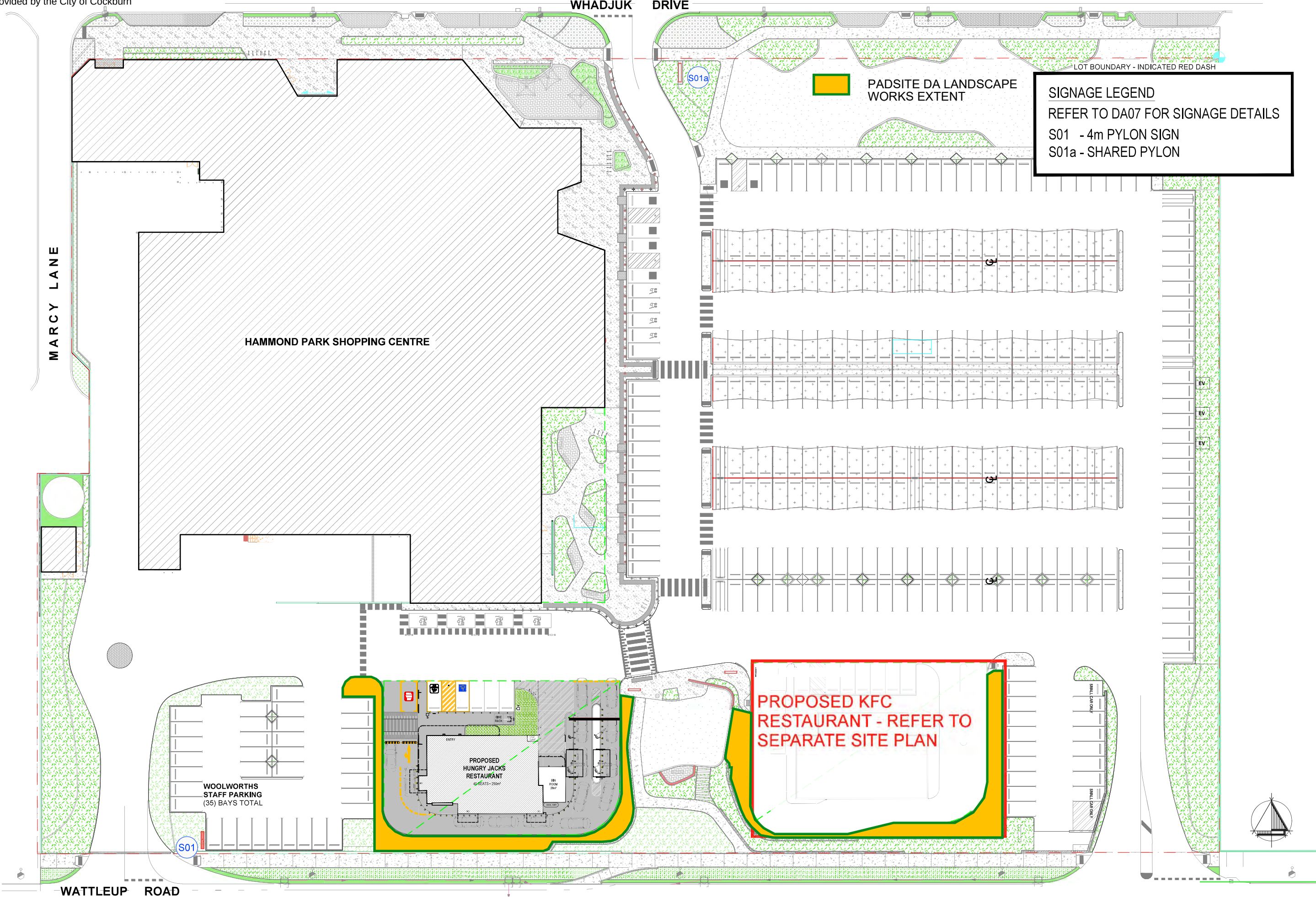
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|----------------------------------|--------------|-----|----------|----------------------------------------|-----|
| <input type="radio"/>            | SKETCH       | 1   | 19.12.25 | ISSUE FOR HJ                           | SF  |
| <input checked="" type="radio"/> | DA/ PP       | A   | 13.02.26 | ISSUE FOR DA                           | JF  |
| <input type="radio"/>            | AMENDED DA   | B   | 24.03.26 | REMOVE RAMP & WALKWAY, REVISED SIGNAGE | JF  |
| <input type="radio"/>            | BA/CC        | C   | 17.04.26 | REMOVE DIRECTIONAL SIGN & BANNER POLE  | JF  |
| <input type="radio"/>            | TENDER       |     |          |                                        |     |
| <input type="radio"/>            | CONSTRUCTION |     |          |                                        |     |

PROJECT HUNGRY JACK'S

**HAMMOND PARK SHOPPING CENTRE**

WHADJUK DRIVE,  
HAMMOND PARK WA 6164

DRAWING

**OVERALL SITE PLAN & SIGNAGE LOCATION PLAN**

|                    |                  |
|--------------------|------------------|
| PROJECT NO. 240308 | DATE MARCH 2024  |
| SCALE 1:600@A3     | DRAWING NO. DA01 |
|                    | REV. C           |

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ABN 47 627 526 881  
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info@fangarchitects.com.au

Nominated Architect: Shyan Fang (Reg 7958)



# Application for Development Approval

## Hammond Park Neighbourhood Centre - Fast Food Outlets (Works Approval)

Lot 1 (No. 490) Wattleup Road, Hammond Park



**ROWE**  
GROUP



# Document Control

Printed 14 May 2026      8328\_20260416\_R\_CoC\_DA\_KFC-HJ\_v1\_DA

| Version | File Name                           | Prepared                        | Approved       | Date        |
|---------|-------------------------------------|---------------------------------|----------------|-------------|
| 1       | 8328_20260416_R_CoC_DA_KFC-HJ_v1_DA | Lidija Langford / Declan Alcock | David Maiorana | 13 May 2026 |
|         |                                     |                                 |                |             |
|         |                                     |                                 |                |             |

This report has been authorised by;



**David Maiorana**  
Manager Town Planning



**Lidija Langford**  
Principal Planner



**Jamie Baxter**  
Quality Control



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Application for Development Approval   Lot 1 (No. 490) Wattleup Road, Hammond Park  
14/05/2026   8328\_20260416\_R\_CoC\_DA\_KFC-HJ\_v1\_da



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## Attachments

1. Certificate of Title
2. Development Plans
3. Local Development Plan
4. Approved Bushfire Management Plan
5. Approved Stage 1 Waste Management Plan
6. Approved Stage 1 Delivery Management Plan
7. Environmental Noise Assessment
8. Transport Technical Memorandum

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# 1. Introduction

Rowe Group acts on behalf of Sunview Developments Pty Ltd ('Client'), the landowner of Lot 1 (No. 490) Wattleup Road, Hammond Park ('subject site').

This Report has been prepared in support of a Development Application ('Application') to the City of Cockburn ('City'), for determination by the Development Assessment Panel ('DAP'), for the development of two (2) fast food outlets at the Hammond Park Neighbourhood Centre. The proposed works include the development of a KFC tenancy and a Hungry Jacks tenancy, along with associated signage, car parking and landscaping.

This report includes a description of the following matters:

- Location of the subject site;
- Overview of relevant planning and design issues;
- Detailed explanation of the proposed development; and
- Justification of the proposed development.

The Project Team for this development are outlined in **Table 1** below.

| Discipline        | Company                      |
|-------------------|------------------------------|
| Landowner         | Sunview Developments Pty Ltd |
| Project Manager   | Aigle Royal Developments     |
| Town Planning     | Rowe Group                   |
| Traffic Engineer  | PTG Consulting               |
| Acoustic Engineer | Lloyd George Acoustics       |

**Table 1: Project Team**

## 1.1 Background

The Metro Outer Development Assessment Panel ('JDAP') granted development approval for Stage 1 of the Hammond Park Neighbourhood Centre on 14 December 2023. The approved development incorporated the following key elements:

- A main shopping centre building incorporating a 'Woolworths' supermarket, liquor store, food/beverage and speciality retail tenancies;
- Two (2) standalone fast food outlet 'pad sites';
- A total of 370 car parking bays; and
- Landscaping and extensive tree planting throughout the site.

The approved Stage 1 development is currently under construction.

The Stage 1 development application did not include floor and elevation plans of the proposed fast food outlet pad sites on the basis that tenants had not been secured at that time. As such, whilst the land use component has been approved for the pad sites (as reflected by Condition 4 of the development approval), the works component has not been approved and forms the subject of this Application.

It should be noted that a separate Application for Development Approval was submitted in May 2026 in relation to Stage 2 works for the Hammond Park Neighbourhood Centre, the key elements of which included the following:

- A 335m<sup>2</sup> expansion of the main shopping building at its south-eastern corner, creating three (3) commercial tenancies fronting the proposed car parking area;
- The development of a new 1,233m<sup>2</sup> building in the north-eastern corner of the site (previously identified for Stage 2 works), comprising four (4) tenancies for medical and allied health uses;
- The development of a four (4) bay car wash facility in the south-eastern corner of the site, proposed to be operated Monday to Saturday between the hours of 7am and 7pm.
- Minor modifications to the approved parking layout, resulting in a total of 369 car parking bays, including six (6) ACROD bays, four (4) online pick up bays, four (4) wash bays, and ten (10) on-street bays along Whadjuk Drive.

The Stage 2 Application is currently under assessment.



## 2. Description of Site

### 2.1 Location

The subject site is located in the Municipality of the City of Cockburn ('City'), approximately 24 kilometres south of the Perth Central Business Area.

Refer **Figure 1 – Regional Location**.

The subject site is situated in the suburb of Hammond Park and bound by Whadjuk Drive to the north, Wattleup Road to the south, and Marcy Lane to the west. All of the aforementioned roads are sealed, gazetted roads. Residential development abuts the sites western and eastern boundaries.

The subject site is located approximately 900m west of the Kwinana Freeway, 400m north of Rowley Road and 150m east of the future Hammond Road reserve. Hammond Park Secondary College is located approximately 350m east of the subject site, and Frankland Park Sports and Community Facility is 180m to the south.

Refer **Figure 2 – Local Location**.

### 2.2 Cadastral Information

The subject site comprises one (1) land parcel, being:

- Lot 1 on Deposited Plan 425990 Certificate of Title Volume 4062 Folio 584.

The subject site is rectangular in shape and has a total land area of 2.78ha, with frontage to Whadjuk Drive and Wattleup Road of 205m.

Refer **Figure 3 – Site Plan**.

Refer **Attachment 1 – Certificate of Title**.

### 2.3 Existing Improvements

The future Hammond Park Neighbourhood Centre (Stage 1) is currently under construction on the subject site.



8328\_FIG14C\_20230606 Hammond Park (Regional Location) - N:\TOWN PLANNING\8000-8959\8328\DRAWING\8328-14C-VN - 2023.06.06



0 1250 m  
SCALE @ A4: 1:50,000



FIGURE 1  
REGIONAL LOCATION





8328\_FIG15E\_20230606 Hammond Park (Context Plan) - N:\TOWN PLANNING\8000-8999\8328\DRAWING\A-CAD - VN - 2023.06.07



0 75 m  
SCALE @ A4: 1:3,000



FIGURE 2  
LOCAL CONTEXT





0 75 m  
SCALE @ A4: 1:3000



FIGURE 3  
SITE PLAN

### 3. Description of Proposal

This Application is seeking development approval from the DAP for the 'works' component for the development of two (2) fast food outlets at the Hammond Park Neighbourhood Centre. As illustrated in the attached development plans, the proposed development comprises of the following:

- The construction of a 'Hungry Jacks' fast food outlet on Pad Site 1 (Tenancy B2), including;
  - A total gross floor area of 250m<sup>2</sup> (reduced from 300m<sup>2</sup> GLA under the Stage 1 approval);
  - Customer dining area accommodating seating for 40 patrons;
  - Kitchen and back-of-house areas;
  - A two-lane drive-through;
  - A 28m<sup>2</sup> bin storage area;
  - Six (6) car parking bays, including one (1) ACROD bay and one (1) drive-through waiting bay, and one (1) delivery bay; and
  - Associated signage and landscaping.
- The construction of a 'KFC' fast food outlet on Pad Site 2 (Tenancy B3), including:
  - A total gross floor area of 270m<sup>2</sup> (reduced from 300m<sup>2</sup> GLA under the Stage 1 approval);
  - Customer dining area accommodating seating for 29 patrons;
  - Kitchen and back-of-house areas;
  - A two-lane drive-through;
  - Seven (7) car parking bays, including one (1) ACROD bay and one (1) drive-through waiting bay), and one (1) delivery bay; and
  - Associated signage and landscaping.

As mentioned earlier in this Report, the 'Fast Food Outlet' land use applicable to the proposed development was approved under the Stage 1 development approval dated 14 December 2023 (Ref. DAP/23/02556).

Refer **Attachment 2 – Development Plans**.



## 4. Planning Framework

### 4.1 State Planning Framework

#### 4.1.1 Metropolitan Region Scheme

Under the provisions of the Metropolitan Region Scheme ('MRS'), the subject site is zoned 'Urban'. The land approximately 150m to the immediate west of the subject site is reserved for 'Other Regional Roads' under the MRS and will accommodate the future extension of Hammond Park.

Refer **Figure 4 – Metropolitan Region Scheme Zoning**.

#### 4.1.2 State Planning Policy 3.7 – Bushfire

State Planning Policy 3.7 – Bushfire ('SPP 3.7') guides planning and development within identified 'Bushfire Prone Areas'. The southern portion of the subject site is identified as 'Bushfire Prone' due to its proximity to bushland south of Wattleup Road, and therefore the provisions of SPP 3.7 apply.

#### 4.1.3 State Planning Policy 4.2 – Activity Centres

State Planning Policy 4.2 – Activity Centres ('SPP 4.2') specifies broad planning requirements for the planning and development of new activity centres and the redevelopment and renewal of existing centres in Perth and Peel.

The subject site has been identified as a 'Neighbourhood' activity centre under the associated Local Structure Plan. The main role and typical attributes of a 'Neighbourhood' activity centre, as outlined by SPP 4.2, is as follows:

*"Neighbourhood centres are important local focal points that provide for daily to weekly household shopping needs, community facilities and a small range of other convenience services. They are also a focus for medium density housing. These centres play an important role in providing walkable access to services and facilities for local communities."*

The delivery of fast food outlets at the Hammond Park Neighbourhood Centre will provide convenience food for its catchment area, which is consistent with the intent of a neighbourhood centre under SPP 4.2.

### 4.2 Local Planning Framework

#### 4.2.1 City of Cockburn Town Planning Scheme No. 3

##### 4.2.1.1 Zoning

Under the provisions of the City of Cockburn Town Planning Scheme No. 3 ('TPS 3'), the subject site is zoned 'Development'. The objective of the 'Development' zone, as stated in TPS3, reads:

*"To provide for future residential, industrial or commercial development to be guided by a comprehensive Structure Plan prepared under the Scheme."*

Refer **Figure 5 – Town Planning Scheme No. 3 Zoning**.

A Structure Plan (WAPC Ref: SPN 0543M-3) has been prepared and approved over the subject site and designates the site as 'Local Centre'.

Refer **Figure 6 – Local Structure Plan Map**.

#### 4.2.1.2 Land Use Permissibility

The proposed development is consistent with the 'Fast Food Outlet' land use classification, which is defined within TPS 3 as follows:

**Fast Food Outlet** – means premises used for the preparation, sale and serving of food to customers in a form ready to be eaten without further preparation, primarily off the premises but does not include a lunch bar.

Condition 4 of the Stage 1 development approval dated 14 December 2023 stated:

"4. In addition to the land uses exempt from requiring development approval under Clause 61(2) of the Planning and Development (Local Planning Schemes) Regulations 2015 – Schedule 2 – Deemed Provisions, the following land uses, as defined under the City of Cockburn Town Planning Scheme No. 3 (as amended), are approved as part of this development:

- a) Fast Food Outlet (Tenancies B1.2, B1.9, B1.10, B1.11, B2 and B3)  
....." (emphasis added)

The proposed 'Fast Food Outlet' land use has therefore been approved under the Stage 1 application for Tenancies B2 and B3 (Pad Sites 1 and 2), and no further 'land use' approval is required under this Application.

#### 4.2.2 Local Structure Plan

As previously mentioned, the approved Structure Plan (WAPC Ref. SPN 0543M-3) over the subject site designates the site as 'Local Centre'. The objective of the Local Centre zone is defined within TPS3 as follows:

*"To provide for convenience retailing, local offices, health, welfare and community facilities which serve the local community, consistent with the local serving role of the centre."*

The proposed development is consistent with the designation of the site as a 'Local Centre' (noting however its function is that of a Neighbourhood Centre).

Refer **Figure 6 – Local Structure Plan Map**.

#### 4.2.3 Local Development Plan

A Local Development Plan ('LDP') was approved over the subject site on 16 August 2023. The purpose of the LDP is to guide the development of the Neighbourhood Centre and includes requirements pertaining to spatial layout, landscaping requirements, building height and setbacks. An assessment of the proposed development under the relevant provisions of the LDP can be found in Section 5.1 of this Report.

Refer **Attachment 3 – Local Development Plan**.

#### 4.2.4 Local Planning Policies

##### 4.2.4.1 Local Planning Policy 1.12 – Noise Attenuation

The City of Cockburn's Local Planning Policy 1.12 – Noise Attenuation ('LPP1.12') outlines requirements for the preparation of acoustic reports supporting planning proposals. LPP 1.12 requires an acoustic report to accompany an application for development approval for non-residential development that includes plant and equipment within 100m of noise sensitive land uses.

##### 4.2.4.2 Local Planning Policy 1.14 – Waste Management

The City of Cockburn's Local Planning Policy 1.14 – Waste Management ('LPP1.14') details requirements for waste management and minimisation to be considered in the design, construction, and management of larger



developments. In doing so, LPP 1.14 stipulates the requirement for a Waste Management Plan ('WMP') to be prepared outlining, amongst other things, details of the intended method of collection of waste and the required capacity and design of on-site waste storage areas.

#### 4.2.4.3 Local Planning Policy 3.1 – Commercial Development

The City adopted Local Planning Policy 3.1 – Commercial Development ('LPP3.1') in November 2024 with the purpose of providing a comprehensive framework for the planning and development of various commercial land uses within the City. An assessment of the proposed development against the relevant provisions of LPP3.1 are outlined in Section 5.1 of this report.

#### 4.2.4.4 Local Planning Policy 3.7 – Signs & Advertising

The City of Cockburn's Local Planning Policy 3.7 – Signs & Advertising ('LPP 3.7') applies to all advertisements as defined within the *Planning and Development (Local Planning Schemes) Regulations 2015*. LPP 3.7 provides development provisions for advertisements and serves to exempt certain advertisements from requiring development approval.

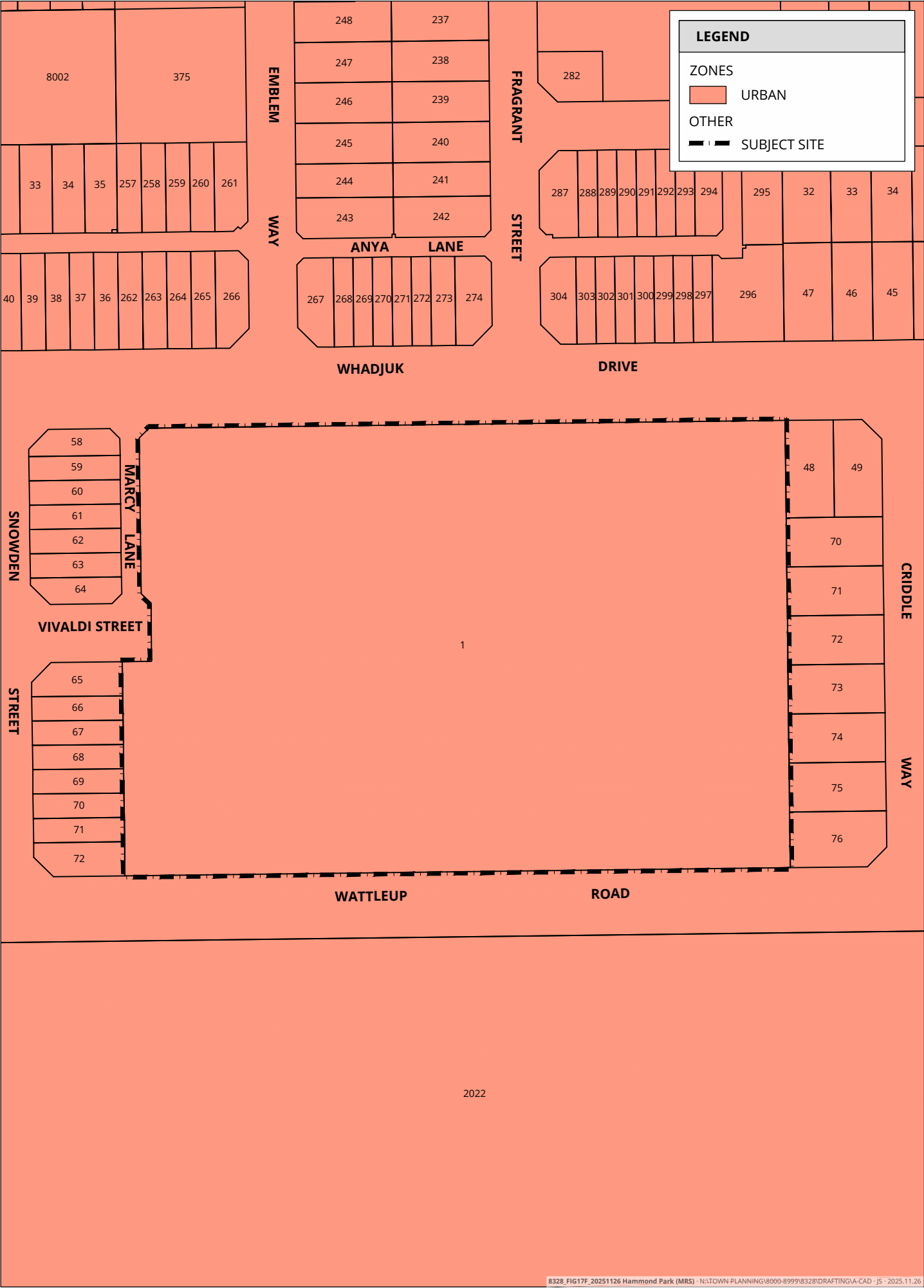
The Application proposes various advertisements, as detailed in **Attachment 2 – Development Plans**. An overview of the key assessment considerations of the proposed advertisements follows.

#### 4.2.4.5 Local Planning Policy 5.13 – Percentage for Art

The City of Cockburn's Local Planning Policy 5.13 – Percentage for Art ('LPP 5.13') requires all development proposals for commercial of a value greater than \$1 million (exclusive of GST) to set aside a minimum of one per cent (1%) of the total project cost (up to a maximum value of \$250,000) for the development of artworks on the subject land which reflect place, locality and/or community. In accordance with LPP5.13, artworks pay include:

- a) Building features and enhancements such as bicycle racks, gates, benches, lighting, fountains, playground structures or shade structures which are unique and produced by a professional artist;*
- b) Landscape art enhancements such as walkways, bridges or art features within a garden;*
- c) Murals, tiles, mosaics or bas-relief covering walls, floor and walkways;*
- d) Sculptures which can be freestanding or wall-supported in durable materials suitable for the site; and*
- e) Fibreworks, neon or glass artworks, photographs, prints and any combination of media including sound, film, and video games."*

The Stage 1 Application indicates future provisions for artwork on the site in the form of façade treatments. Any additional artwork requirements can be addressed following approval of the subject Application and in accordance with any conditional requirements.



8328\_FIG17F\_20251126 Hammond Park (MRS) - N:\TOWN-PLANNING\8000-8999\8328\DRAWING\A-CAD - JS - 2025.11.26

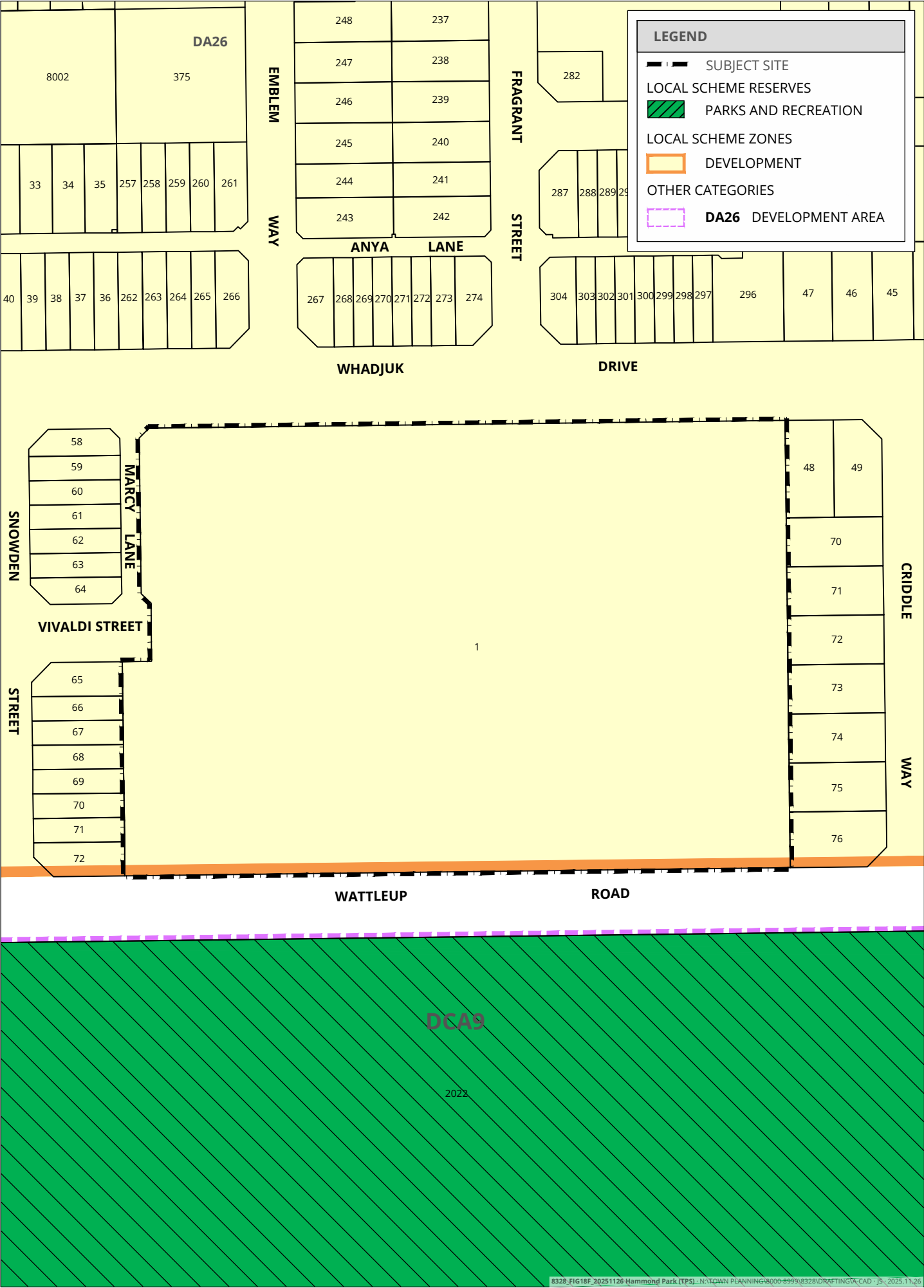


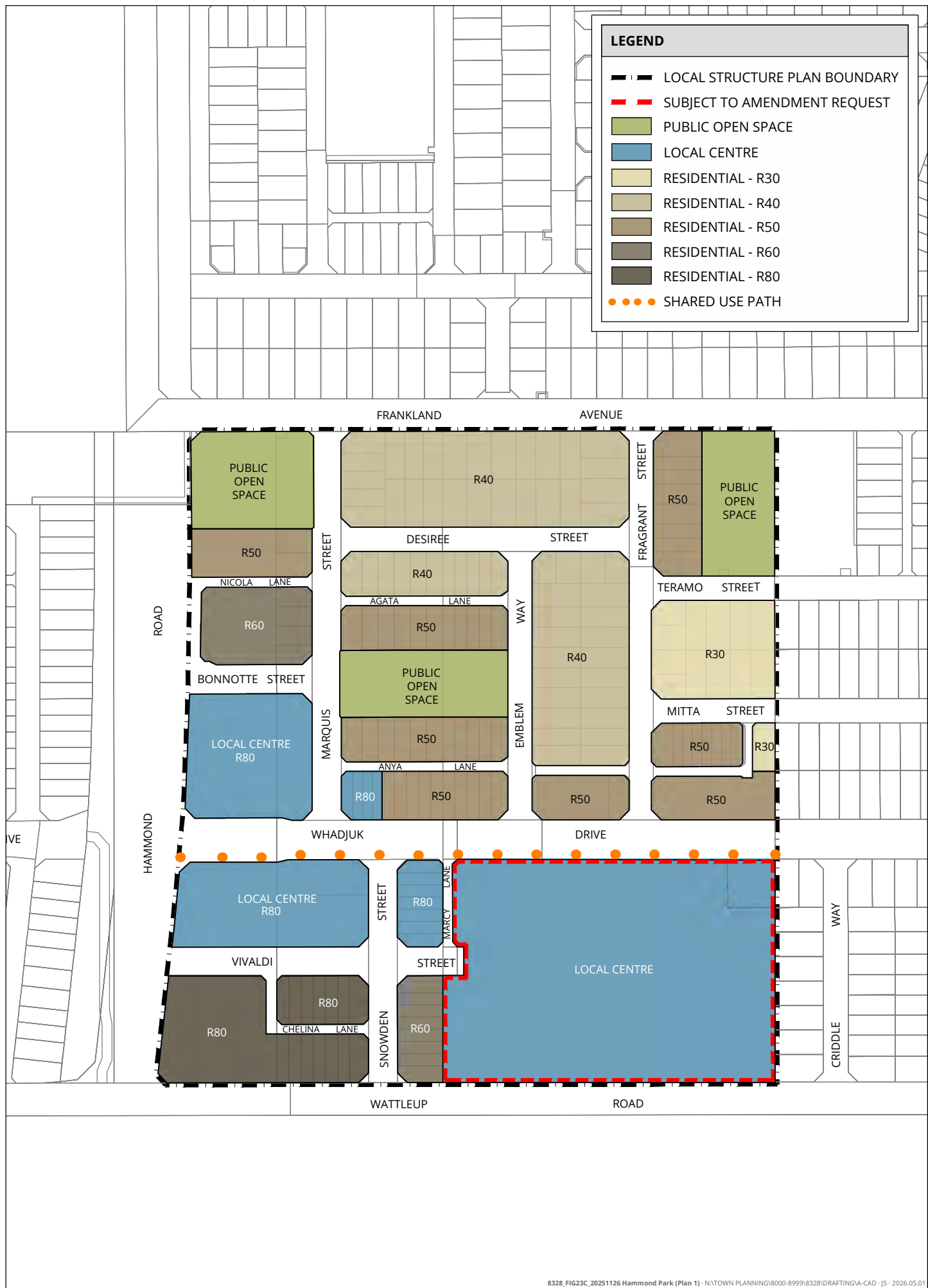
0 40m  
SCALE @ A4: 1:1500



**FIGURE 4**  
**METROPOLITAN REGION SCHEME PLAN**







0 75 m  
SCALE @ A4: 1:3000





## 5. Planning Considerations

### 5.1 Built Form

The approved LDP applicable to the subject site provides specific building height and setback requirements, as assessed below:

| Local Development Plan Provision |                                                                                                                                                                                                                      | Assessment                                                                                                                                                                                                                      |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Building Height</b>           | Buildings are permitted to a maximum height of 11m for the primary building and reduced to a maximum of 8.5m where fronting Whadjuk Drive and Wattleup Road, and where in closer proximity to adjoining residential. | The proposed Hungry Jacks building has a maximum overall height of 7m.<br>The proposed KFC building has a maximum overall height of 6.54m.<br>All aspects of the proposed comply with the maximum building height requirements. |
| <b>Setbacks</b>                  | Buildings are to be set back a minimum 6m from residential lot boundaries, increasing to a minimum of 14m where building heights increase to 11m.                                                                    | All aspects of the proposed comply with the minimum setback requirements.                                                                                                                                                       |

**Table 2: Local Development Plan Built Form Requirements**

In addition to the above, TPS 3 includes the following relevant built form provisions:

| Item                          | Standard / Requirement                                                                                                                                                                                                                                                                                                                                                                        | Assessment                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>4.9.1 Building Setback</b> |                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                              |
| a)                            | A building shall be setback from lot boundaries in accordance with the provisions of the Building Code of Australia.                                                                                                                                                                                                                                                                          | All building setbacks comply with the Building Code of Australia.                                                                                                                                                                                                                                                                                                                                                            |
| b)                            | A building shall be setback from boundaries or erected on boundaries so that the impact on the use and amenity of the adjoining buildings is minimised and the scale and bulk of the building is compatible with the streetscape.                                                                                                                                                             | The proposed development is setback approximately 60m from the existing residential to the west, and setback approximately 45m from the existing residential to the east.<br>It is considered that the development is setback appropriately to ensure that the development does not adversely impact the amenity of the existing residential, whilst ensuring the bulk of the buildings are compatible with the streetscape. |
| <b>4.9.3 Amenity</b>          |                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                              |
| b)                            | Buildings shall be designed so that they are complementary with their surroundings and adjoining development in terms of their external appearance, design, height, scale and bulk.                                                                                                                                                                                                           | The proposed development is in-keeping with the external appearance, design, height, scale and bulk of the remainder of the development within Stage 1 and 2.                                                                                                                                                                                                                                                                |
| d)                            | Advertising signs shall be –<br>(i) attached to the walls or façade of a building or structure so as not to protrude above the height of the wall of the building or the structure;<br>(ii) limited to a common pylon sign or hoarding for developments comprising more than two units, strata titled units or businesses up to a maximum of six (6) advertisements to each sign where units, | All proposed advertisements are attached to the wall or façade of a building or structure and do not protrude above the overall building.<br>In terms of pylon signs, the Stage 1 approval provided for separate pylon signs for each fast food outlet approved, separate to an overarching pylon sign for the Hammond Park Neighbourhood Centre.                                                                            |

| Item | Standard / Requirement                                                                                                                                                                                | Assessment |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
|      | strata title units or businesses exceed six (6) in number or the development comprises a service station as one component then a maximum of two pylon signs or hoardings are permitted for that site; |            |

**Table 3: TPS 3 Built Form Requirements**

As outlined above, this Application complies with all relevant built form requirements of the LDP and TPS 3 and is therefore capable of approval.

## 5.2 Parking

Table 3 of TPS 3 outlines the car, bicycle, and delivery bay parking requirements for commercial land uses. The assessment of parking is undertaken by calculating and adding together the minimum requirement of each individual land use components of a proposed development and does not factor in reciprocity between uses. The current parking requirements have been included in TPS 3 since its gazettal on 20 December 2002.

In assessing the parking requirements for the site, consideration should be given to the original assessment of the Stage 1 development, which is outlined below.

| Component                                    | Standard         |                                                                             | Requirement      | Approved Provision                                                                                                                     |
|----------------------------------------------|------------------|-----------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Shopping Centre<br>(5,404m <sup>2</sup> GLA) | Car Parking Bays | 1 : 14m <sup>2</sup> NLA for 5,000m <sup>2</sup> – 10,000m <sup>2</sup> GLA | 386 car bays     | <b>370 car bays (360 bays on-site)</b><br><b>10 delivery bays</b><br><b>39 bicycle racks (as per condition 14 of Stage 1 approval)</b> |
|                                              | Delivery Bays    | 1 : 1,000m <sup>2</sup> NLA                                                 | 6 delivery bays  |                                                                                                                                        |
|                                              | Bicycle Bays     | 1 : 200m <sup>2</sup> GLA                                                   | 27 bicycle racks |                                                                                                                                        |
| Fast Food Outlet<br>(600m <sup>2</sup> GLA)  | Car Parking Bays | 1 : 15m <sup>2</sup> GLA                                                    | 40 car bays      |                                                                                                                                        |
|                                              | Delivery Bays    | 1 : Service/Storage Area                                                    | 2 delivery bays  |                                                                                                                                        |
|                                              | Bicycle Bays     | 1 : 50m <sup>2</sup> GLA                                                    | 12 bicycle racks |                                                                                                                                        |
| TOTAL                                        | Car Parking Bays |                                                                             | 426 car bays     |                                                                                                                                        |
|                                              | Delivery Bays    |                                                                             | 8 delivery bays  |                                                                                                                                        |
|                                              | Bicycle Bays     |                                                                             | 39 bicycle racks |                                                                                                                                        |

**Table 4: TPS 3 Stage 1 Parking Assessment**

As indicated above, the approved Stage 1 development involved a shortfall of 56 car bays, a surplus of two (2) delivery bays, and compliant bicycle rack provision.

This Application proposes a reduction in gross floor area and car parking associated with the fast food outlets. The revised parking requirement and provision under this Application is outlined below.

| Component                                    | Standard         |                                                                             | Revised Requirement | Revised Provision                                                 |
|----------------------------------------------|------------------|-----------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------|
| Shopping Centre<br>(5,404m <sup>2</sup> GLA) | Car Parking Bays | 1 : 14m <sup>2</sup> NLA for 5,000m <sup>2</sup> – 10,000m <sup>2</sup> GLA | 386 car bays        | <b>365 car bays (355 bays on-site)</b><br><b>10 delivery bays</b> |
|                                              | Delivery Bays    | 1 : 1,000m <sup>2</sup> NLA                                                 | 6 delivery bays     |                                                                   |
|                                              | Bicycle Bays     | 1 : 200m <sup>2</sup> GLA                                                   | 27 bicycle racks    |                                                                   |
|                                              | Car Parking Bays | 1 :15m <sup>2</sup> GLA                                                     | <u>35 car bays</u>  |                                                                   |

| Component                                   | Standard                |                          | Revised Requirement     | Revised Provision                                                 |
|---------------------------------------------|-------------------------|--------------------------|-------------------------|-------------------------------------------------------------------|
| Fast Food Outlet<br>(520m <sup>2</sup> GLA) | Delivery Bays           | 1 : Service/Storage Area | 2 delivery bays         | <b>39 bicycle racks (as per condition 14 of Stage 1 approval)</b> |
|                                             | Bicycle Bays            | 1 : 50m <sup>2</sup> GLA | <u>11 bicycle racks</u> |                                                                   |
| <b>TOTAL</b>                                | <b>Car Parking Bays</b> |                          | <b>421 car bays</b>     |                                                                   |
|                                             | <b>Delivery Bays</b>    |                          | <b>8 delivery bays</b>  |                                                                   |
|                                             | <b>Bicycle Bays</b>     |                          | <b>38 bicycle racks</b> |                                                                   |

**Table 5: TPS 3 Stage 1 & Revised Fast Food Outlet Parking Assessment**

As indicated above, the parking requirements for the proposed fast food outlets are reduced by five (5) car parking bays and one (1) bicycle bay. It should be noted that the reduction in required car parking is offset by the same reduction in car parking provision, with a loss of five (5) car bays. On this basis, this Application does not influence the overall parking shortfall approved on the site, nor the shortfall under consideration as part of a separate Stage 2 Development Application which is currently under consideration.

## 5.3 Landscaping

Clause 4.9.2 of TPS 3 provides the landscaping requirements for commercial uses within the City. An outline and assessment of the landscaping requirements is provided below, having regard to the required and approved provision under the Stage 1 approval.

| Requirement                                                                                      | Stage 1 (Approved)  |                           | Fast Food Outlet (Under Assessment) |                             |
|--------------------------------------------------------------------------------------------------|---------------------|---------------------------|-------------------------------------|-----------------------------|
|                                                                                                  | Required            | Approved                  | Required                            | Provided                    |
| Minimum on-site provision of 10% landscaping (minimum 1.5m width and 4m <sup>2</sup> area)       | 2,780m <sup>2</sup> | 4,185m <sup>2</sup> (15%) | 2,780m <sup>2</sup>                 | 4,228m <sup>2</sup> (15.2%) |
| 1 shade tree for every 50m <sup>2</sup> of total landscaping provided                            | 84 shade trees      | 54 shade trees            | 85 shade trees                      | 54 shade trees              |
| 1 shade tree planted in the car parking area for every 10 car parking space provided on the site | 36 shade trees      | 18 shade trees            | 36 shade trees                      | 18 shade trees              |

**Table 6: Landscaping Assessment**

As indicated above, this Application increases the amount of landscaping on site by 43m<sup>2</sup> near the proposed Hungry Jack's fast food outlet, which in turn increases the shade tree planting requirement by one (1) shade tree.

In considering this, it should be noted that the Stage 2 Development Application (which is currently under consideration) proposes to reduce the overall landscaping provision to 2,860m<sup>2</sup> (10%), resulting in a reduced TPS 3 shade tree requirement of 58 shade trees. The Stage 2 Application is proposing to comply with this requirement by providing an additional four (4) shade trees (58 shade trees in total).

In light of the proposed modification to shade tree provision under the Stage 2 Application, it is considered unnecessary for an additional tree to be provided in association with the fast food outlets. Extra tree planting in the proposed additional landscaping areas will reduce visibility to the site and is therefore not supported.



## 5.4 Signage

The Application proposes a range of advertisements and therefore requires assessment against the City of Cockburn's LPP 3.7.

Several of the advertisement types proposed by the Application are exempt from the requirement to obtain development approval. This is on the basis that these advertisements comply with the 'General Development Provisions' and 'Permissible Signs and Standards' outlined in LPP 3.7. This also includes pylon signs which were approved under the Stage 1 development approval (previously referred to as signs SGN032, SGN033).

The remaining advertisements require development approval on the basis that they either (i) are a type of sign not identified within LPP 3.7; or (ii) do not comply with the 'Permissible Signs and Standards' in LPP 3.7, as outlined below.

| ID                                     | Type                   | Description                                                                                                                    | Assessment / Comment                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Hungry Jacks – Proposed Signage</b> |                        |                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                      |
| S01                                    | Pylon Sign             | Hungry Jacks (LED Illuminated) Pylon Sign (4000mm high x 3215mm wide), located near western crossover to Wattleup Road.        | Whilst the 4m-high a pylon sign for the fast food outlet was previously approved in this location through the Stage 1 development application (ref. SGN034), this Application seeks to marginally increase its approved width from 3m to 3.215m. The proposed minor increase in width is considered negligible and will not impact vehicle or pedestrian sightlines. |
| S03                                    | Undefined              | Direction Signs & Logo on Doubled-Sided Illuminated Gantry Bar Above Drive-Through Facility (Maximum 600mm high x 3200mm wide) | This sign is similar to a 'roof sign', albeit not fixed to a building and largely serves a directional function for drive-through patrons. The size and scale of the sign(s) is not excessive in size and scale and is in-keeping with the design of the development.                                                                                                |
| S04a & S04b                            | Undefined / Pylon Sign | Digital Menu & Review Board Signs (Drive-Through) (1845mm high x 1322mm wide & 1847mm high x 665mm wide)                       | Digital menu and review boards are not captured by LPP 3.7, however are akin to 'pylon signs' on the basis that they are supported by one pier and not attached to a building. The size and scale of these signs is typical of a fast food outlet and is not of a size or scale that is incompatible with the development.                                           |
| S06                                    | Awning (Above)         | Illuminated Hungry Jack's Letterset (650mm high x 6059mm wide)                                                                 | Requires development approval in accordance with Clause 4 of LPP 3.7. Notwithstanding, the sign does not exceed a maximum size of 6m <sup>2</sup> and is not located within 0.5m of either end of the external walls of the building and is therefore compliant.                                                                                                     |
| S08                                    | Wall Sign              | Painted Graphic Jack's Cafe Wall Sign (2250mm high x 4900mm wide)                                                              | The proposed wall sign is 11m <sup>2</sup> in area, therefore exceeding the maximum area of 6m <sup>2</sup> stipulated in LPP 3.7. The sign does not, however, exceed 10% of the façade, with the sign occupy approximately 7% of the façade area.                                                                                                                   |
| S09                                    | Wall Sign              | Spray Paint Graphic 'The Burgers are Better' (4660mm high x 5455mm wide)                                                       | The proposed wall sign is approximately 18m <sup>2</sup> in area, therefore exceeding the maximum area of 6m <sup>2</sup> stipulated in LPP 3.7. The sign also marginally exceeds 10% of the façade area, occupying approximately 12% of the façade.                                                                                                                 |

| ID                            | Type       | Description                                                                       | Assessment / Comment                                                                                                                                                                                                                                                                                            |
|-------------------------------|------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| S12                           | Wall Sign  | Painted Flame Grilled Logo Wall Sign (3023mm high x 3350mm wide)                  | The proposed wall sign is 10m <sup>2</sup> in area, therefore exceeding the maximum area of 6m <sup>2</sup> stipulated in LPP 3.7. The sign also marginally exceeds 10% of the façade area, occupying approximately 13% of the façade.                                                                          |
| <b>KFC – Proposed Signage</b> |            |                                                                                   |                                                                                                                                                                                                                                                                                                                 |
| SG01b                         | Pylon Sign | KFC Logo Pylon Sign (4000mm high x 2200mm wide)                                   | Whilst the 4m-high pylon sign for the fast food outlet was previously approved (ref. SGN035), in light of the proposed Car Wash Facility under the Stage 2 development application (under assessment), the pylon sign is proposed to be relocated slightly closer to Pad Site 2.                                |
| SG03                          | Undefined  | Drive-Through ‘Order Here’ Sign (425mm x 425mm)                                   | This sign largely serves a directional function for drive-through patrons. It is small in scale.                                                                                                                                                                                                                |
| SG07                          | Undefined  | Drive-Through ‘C’mon Thru’ Sign & Height Clearance Bar (300mm high x 2000mm wide) | This sign is similar to a ‘roof sign’, albeit not fixed to a building and largely serves a directional function for drive-through patrons. The size and scale of the sign is not excessive in size and scale and is in-keeping with the design of the development.                                              |
| SG14                          | Undefined  | Digital Menu Board (1760mm high x 1830mm wide)                                    | Digital menu boards are not captured by LPP 3.7, however are akin to ‘pylon signs’ on the basis that they are supported by one pier and not attached to a building. The size and scale of these signs is typical of a fast food outlet and is not of a size or scale that is incompatible with the development. |

**Table 7: Signage Assessment**

The above advertisements are considered minor in scale and/or represent typical signage for a fast food outlet development.

## 5.5 Bushfire

Bushfire risk was initially considered for the subject site through the preparation of a Bushfire Management Plan (‘BMP’) as part of the structure planning process undertaken in 2022. An Addendum to the BMP was prepared in May 2023 in support of the Stage 1 development application, which approved the land use component of the proposed fast food outlets.

The BMP and Addendum indicated that Bushfire Attack Levels (‘BAL’) ratings across the southern half of the subject site range between BAL-12.5 and BAL-19. On that basis, no formal Asset Protection Zones were required to achieve compliance with the Guidelines. In addition, the development would be served by multiple access routes, with two connections provided to Wattleup Road to the south, and one connection to the north onto Whadjuk Drive, both of which provide access in two directions. The subject site is also served by reticulated water services and a network of hydrants and therefore has access to the provision of water for firefighting purposes.

A copy of the approved BMP is provided as **Attachment 4 – Approved Bushfire Management Plan**.

## 5.6 Waste Management

The City of Cockburn's Local Planning Policy 1.14 – Waste Management ('LPP1.14') details requirements for waste management and minimisation to be considered in the design, construction, and management of larger developments. In doing so, LPP1.14 stipulates a requirement for a Waste Management Plan ('WMP') to be prepared, which details the intended method of collection of waste and the required capacity and design of on-site waste storage areas.

Talis Consultants prepared a Waste Management Plan ('WMP') in support of the Stage 1 development application, which considered construction waste, waste generation, waste storage, waste collection, and waste management for the proposed development.

The key aspects in relation to the proposed development are as follows:

- The bin storage areas associated with the standalone fast food outlets are proposed to accommodate 3 x 1,100L refuse and 3 x 1,100L recycling bins.
- Waste collection will be undertaken by a private contractor, utilising a rear loader, who will service the standalone fast food outlet being storage areas once a week (both reuse and recycling).
- Waste collection will not occur before 7am or after 7pm Monday to Saturday, or before 9am or after 7pm on Sundays and Public Holidays.
- A building manager will be engaged to manage and monitor the management of waste on the site, including compliance with the WMP.

A copy of the approved WMP is provided as **Attachment 5 – Approved Stage 1 Waste Management Plan**.

## 5.7 Delivery Management

The Stage 1 development approval was accompanied by a Delivery Management Plan ('DMP') which detailed the manner in which deliveries would be managed across the site. In the case of the fast food outlets, the DMP outlined that deliveries would be undertaken by a 12.5m-long heavy rigid vehicle, access the site via the western crossover to Wattleup Road.

The DMP originally anticipated that loading and delivery for the fast food outlets would be provided through the inner-drive through lanes of each respective building, however upon confirming the design of these sites, this Application now provides for separate loading/delivery areas next to the drive-through facility.

To minimise noise, deliveries will typically occur Monday to Saturday, 7.00am to 7.00pm, however where delivery is required outside of these hours, care will be taken to ensure that noise impacts are minimised.

A copy of the approved DMP is provided as **Attachment 6 – Approved Stage 1 Delivery Management Plan**.

## 5.8 Noise

An Environmental Noise Assessment was prepared by Lloyd George Acoustic in support of the Stage 1 development application and has been revised since that time to address conditions of approval. Refer **Attachment 7 – Environmental Noise Assessment**.

The Assessment considers any potential noise impacts on the surrounding residential development associated with the proposed development, with particular focus on the following noise sources:

- Mechanical plant (air-conditioning and refrigeration);



- Refrigerated delivery; and
- Car doors closing.

The Assessment considered the impacts of the proposed fast food outlets on the surrounding locality, having regard to proposed noise walls along the eastern and western boundaries of the site. The key findings of the Assessment included:

- For mechanical plant, exceedances during night-time periods can managed with further analysis to be undertaken during detailed design.
- Waste collection and delivery vehicle access will be subject to time restrictions as outlined in the approved Waste Management Plan and Delivery Management Plan, respectively.
- Fast food ordering speakers are to be set to a reasonable volume.
- For the proposed loading areas, noise mitigation measures to be adopted would include:
  - A requirement for any audible reversing alarms shall be turned off.
  - Any normal (non-refrigerated) delivery trucks being required to turn engines off whilst unloading.
  - No external music should be played and loud behaviour from staff should be discouraged.

The noise generated from the proposed fast food outlets is capable of achieving compliance with the *Environmental Protection (Noise) Regulations 1997* at all times, subject to implementation of the noise mitigation and management measures outlined in the Environmental Noise Assessment.

## 5.9 Traffic & Access

PTG Consulting have undertaken a review of the Transport Impact Assessment ('TIA') prepared by Uloth & Associates (July 2023) for the approved Stage 1 development, having regard to the Hungry Jack's and KFC Fast Food Outlets proposed under this Application. The purpose of the review was to quantify the additional trip generation, changes to parking requirements, and potential associated impacts. PTG Consulting have prepared a Technical Memorandum detailing its findings which is provided in support of this Application.

The key findings from this review are as follows:

- The reduction in gross floor area of the two fast food tenancies is expected to decrease the peak-hour trip generation estimates by eight (8) and six (6) vehicle trips in the AM and PM peak hour periods, respectively. The daily trips are also anticipated to decrease by 100 vehicle trips. This reduction in trip generation is expected to not have any material impact on the neighbourhood centre's surrounding road network.
- A queuing analysis estimated that the 95<sup>th</sup> percentile queue at each of the Customer Ordering Booth's (COBs) is three (3) vehicles or 18 metres, which can be sufficiently accommodated within the drive-through facilities of each fast food site.
- The proposed parking layouts of the fast food outlets were found to be compliant with the geometric requirements of *AS/NZS 2890.1:2004* and *AS/NZS 2890.6:2009*.
- The reduction in gross floor area of the fast food outlets will reduce the statutory parking requirements by one (1) car parking bay when compared to the approved TIA. It is therefore expected that the approved parking provision for the neighbourhood centre will be sufficient to meet the revised parking requirements of the fast food outlets.

- Swept path checks indicated that a 12.5m heavy rigid vehicle can adequately manoeuvre with each fast food outlet's serving / loading area.

Refer **Attachment 8 – Transport Technical Memorandum**.

## 6. Conclusion

This Application seeks development approval from the Development Assessment Panel for the development of two (2) fast food outlets at the Hammond Park Neighbourhood Centre, located on Lot 1 (No. 490) Wattleup Road, Hammond Park.

The Application and accompanying technical reports, in addition to previous reporting undertaken as part of the Hammond Park Neighbourhood Centre Stage 1 development application, demonstrate the appropriateness of the development, as follows:

- The proposed fast food outlets are consistent with the ultimate role and function of the site as a 'Neighbourhood Centre', providing local convenience amenities to serve the local community.
- The proposed 'Fast Food Outlet' land use was approved under the Stage 1 approval to accommodate the proposed development.
- The proposed development is compliant with the commercial design standards / requirements detailed within Clause 4.9 of TPS 3 and LPP 3.1.
- The proposed development is consistent with the approved LDP.
- The proposed car parking provision is adequate to service the additional development of the site as proposed by this Application.
- The proposed advertisements (signage) are consistent with the provisions of LPP 3.7 and are appropriate in the context of a Neighbourhood Centre.
- The Environmental Noise Assessment that supported the Stage 1 development application demonstrated that the proposed development is capable of complying with the *Environmental Protection (Noise) Regulations 1997*, subject to the implementation of noise mitigation and management measures.
- The development can readily accommodate and manage waste and delivery vehicles in a manner that does not compromise safety or amenity of the area.
- The accompanying Transport Technical Memorandum demonstrates that the local road network and site access points can accommodate the traffic associated with the proposed development.

On the basis of the above, it is requested that the City of Cockburn provide a favourable recommendation for the proposed development and that the Development Assessment Panel approve the proposed development at the subject site.





# ATTACHMENT 1

## Certificate of Title

WESTERN



AUSTRALIA

TITLE NUMBER

Volume

Folio

4062

584

## 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 1 ON DEPOSITED PLAN 425990

### REGISTERED PROPRIETOR: (FIRST SCHEDULE)

SUNVIEW DEVELOPMENTS PTY LTD OF CARE OF LEVEL 8 225 ST GEORGES TERRACE PERTH WA 6000  
(AF Q203918 ) REGISTERED 8/11/2024

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

1. EASEMENT BURDEN CREATED UNDER SECTION 167 P. & D. ACT FOR DRAINAGE/IRRIGATION/WATER SUPPLY/SEWERAGE PURPOSES TO WATER CORPORATION - SEE DEPOSITED PLAN 425990 AS CREATED ON DEPOSITED PLAN 414275.
2. Q203919 NOTIFICATION CONTAINS FACTORS AFFECTING THE WITHIN LAND. LODGED 8/11/2024.
3. Q203920 NOTIFICATION SECTION 165 PLANNING & DEVELOPMENT ACT 2005 LODGED 8/11/2024.

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: DP425990  
PREVIOUS TITLE: 2981-875, 4020-38, 4020-39  
PROPERTY STREET ADDRESS: 490 WATTLEUP RD, HAMMOND PARK.  
LOCAL GOVERNMENT AUTHORITY: CITY OF COCKBURN



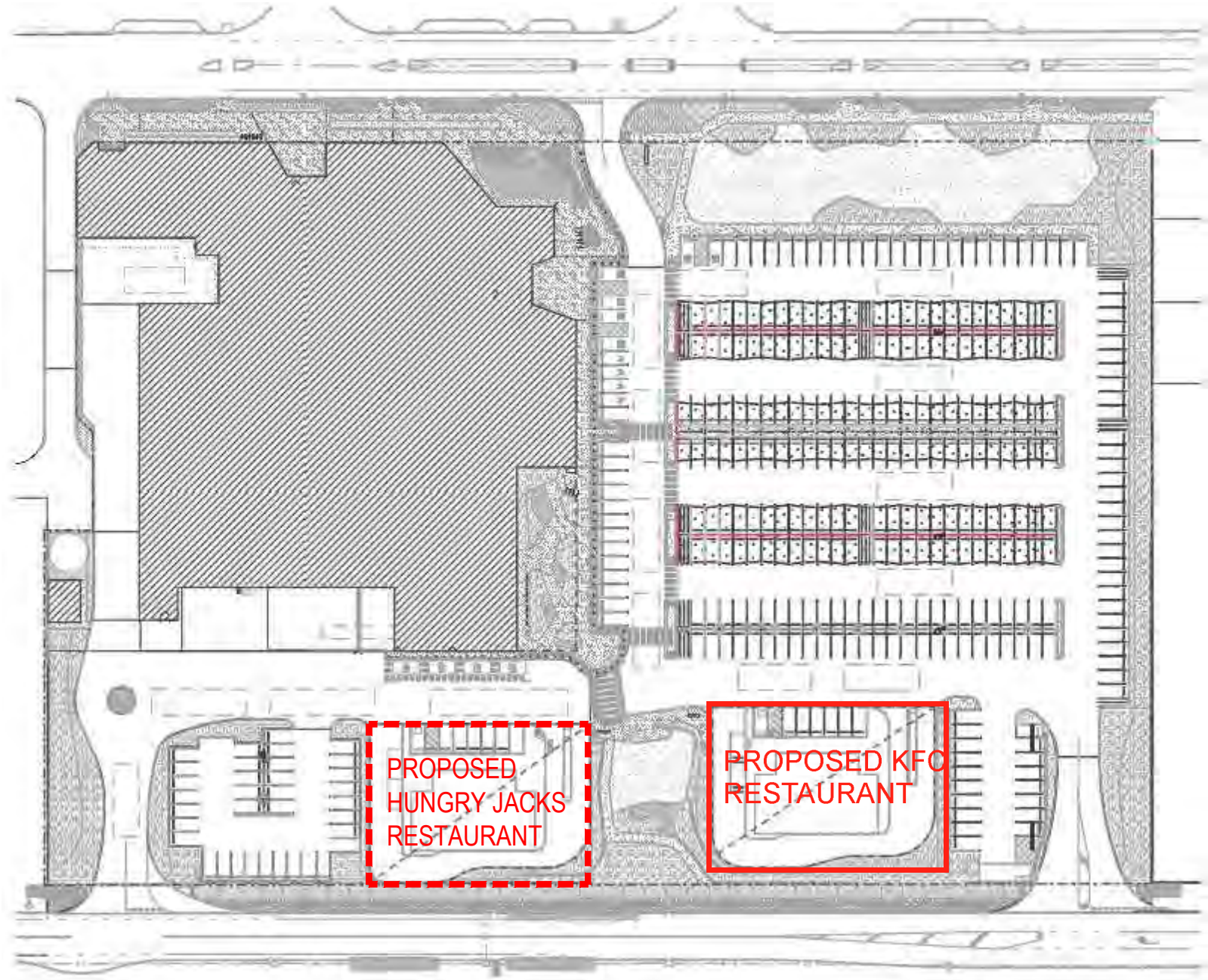
# ATTACHMENT 2

## Development Plans





HUNGRY JACK'S HAMMOND PARK  
WHADJUK DRIVE, HAMMOND PARK WA 6164



LOCATION PLAN

DRAWING LIST

- DA00 COVER PAGE
- DA01 OVERALL SITE PLAN & SIGNAGE LOCATION PLAN
- DA02 SITE PLAN & SITE SIGNAGE LOCATION PLAN
- DA03 PROPOSED FLOOR PLAN
- DA04 PROPOSED ROOF PLAN
- DA05 ELEVATIONS SHEET 1
- DA06 ELEVATIONS SHEET 2
- DA07 SIGNAGE DETAILS SHEET 1
- DA08 SIGNAGE DETAILS SHEET 2
- DA09 SIGNAGE DETAILS SHEET 3
- DA10 DRIVE-THRU ORDER STATION DETAILS
- DA11 EXTERNAL FINISHES SCHEDULE
- DA12 3D SKETCHES



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PROJECT HUNGRY JACK'S

**HAMMOND PARK SHOPPING CENTRE**

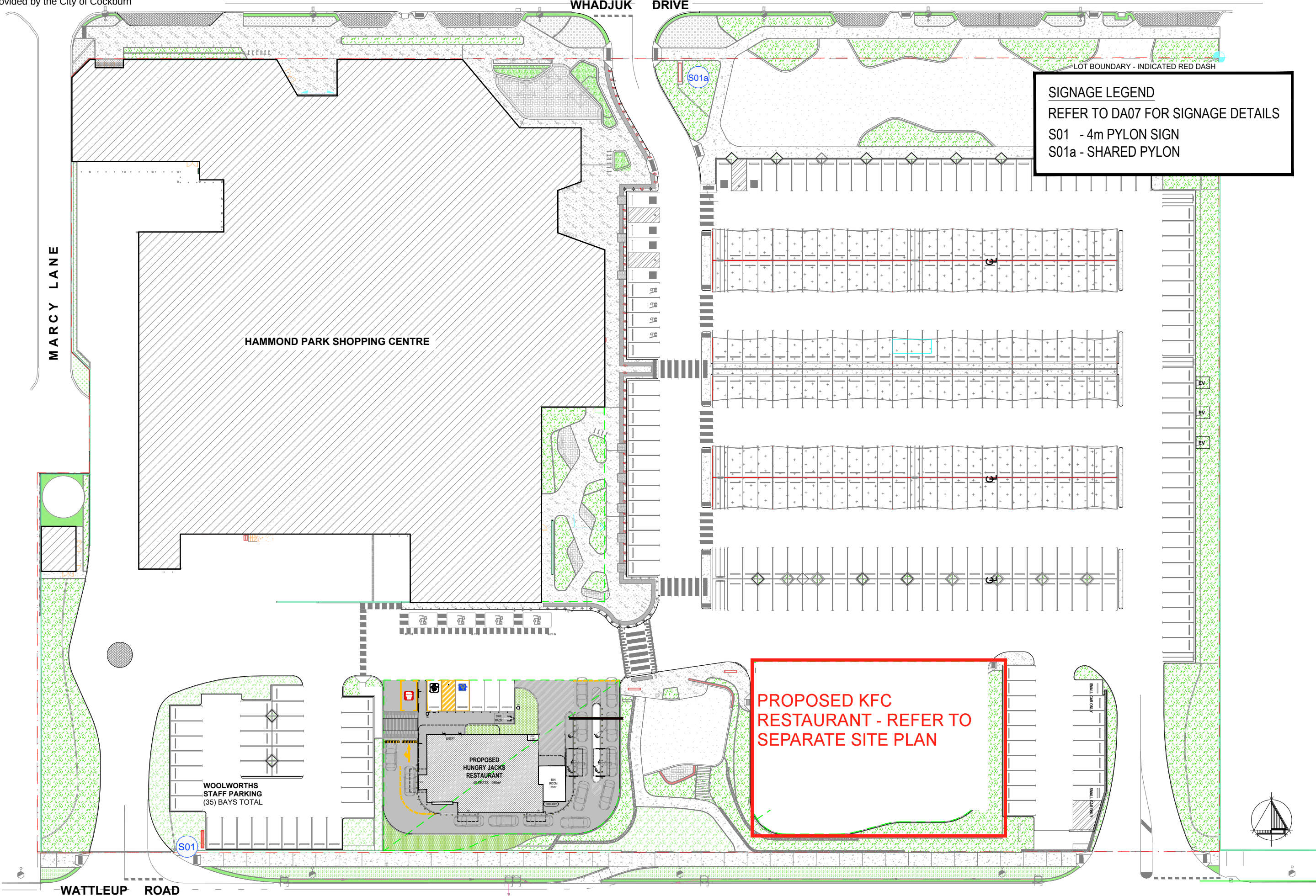
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

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|----------------------------|-------------|------------|
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| SCALE                      | DRAWING NO. | REV.       |
| NTS@A3                     | DA00        | A          |

63 WYNDHAM STREET  
ALEXANDRIA NSW 2015  
ABN 47 627 526 881  
PH : 02 8590 5185  
info@fangarchitects.com.au  
Nominated Architect: Shyan Fang (Reg 7958)







SIGNAGE LEGEND

REFER TO DA07 FOR SIGNAGE DETAILS

S01 - 4m PYLON SIGN

S01a - SHARED PYLON

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PROJECT HUNGRY JACK'S

HAMMOND PARK SHOPPING CENTRE

WHADJUK DRIVE,  
HAMMOND PARK WA 6164

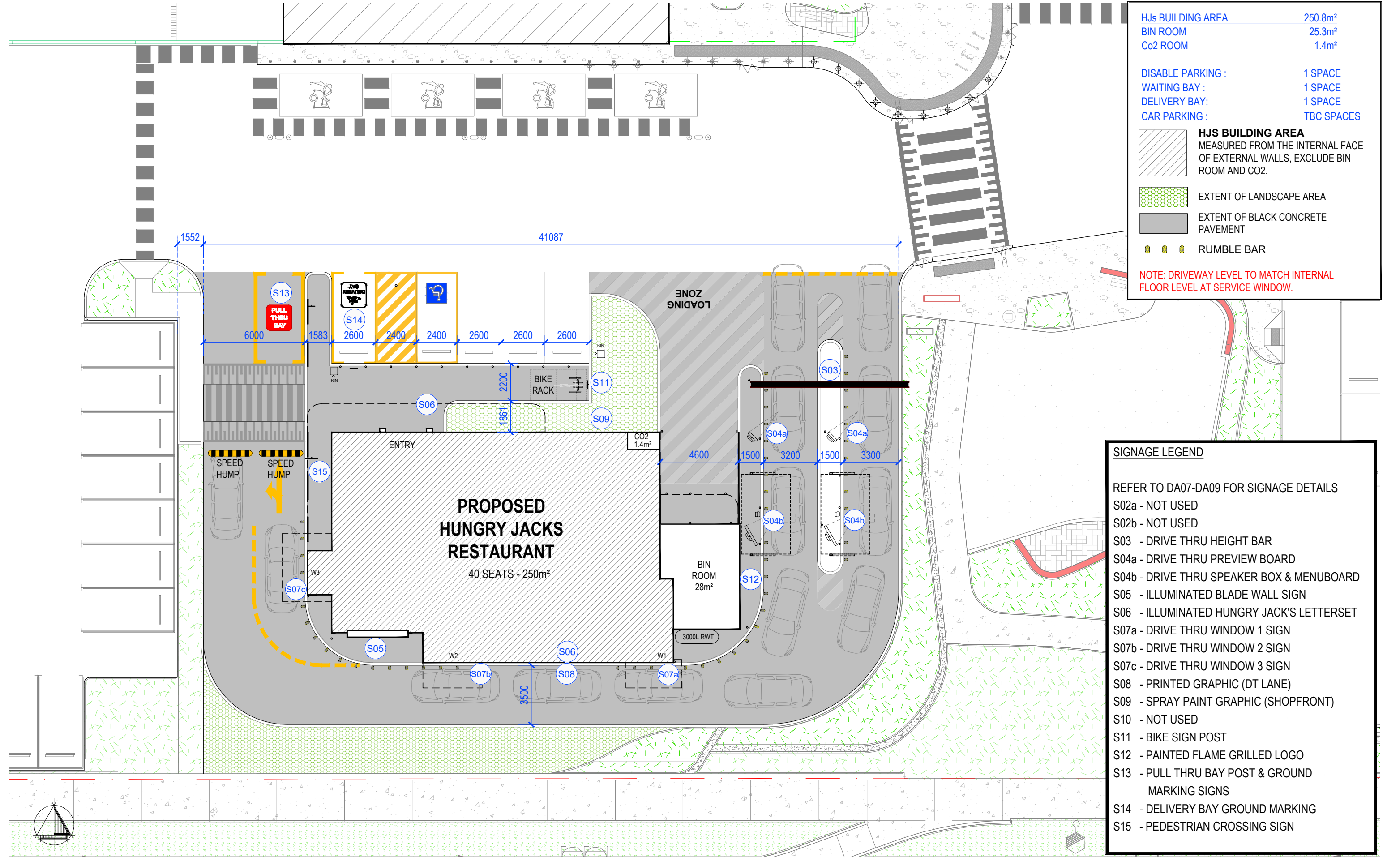
DRAWING

OVERALL SITE PLAN & SIGNAGE LOCATION PLAN

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**HAMMOND PARK SHOPPING CENTRE**  
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

DRAWING

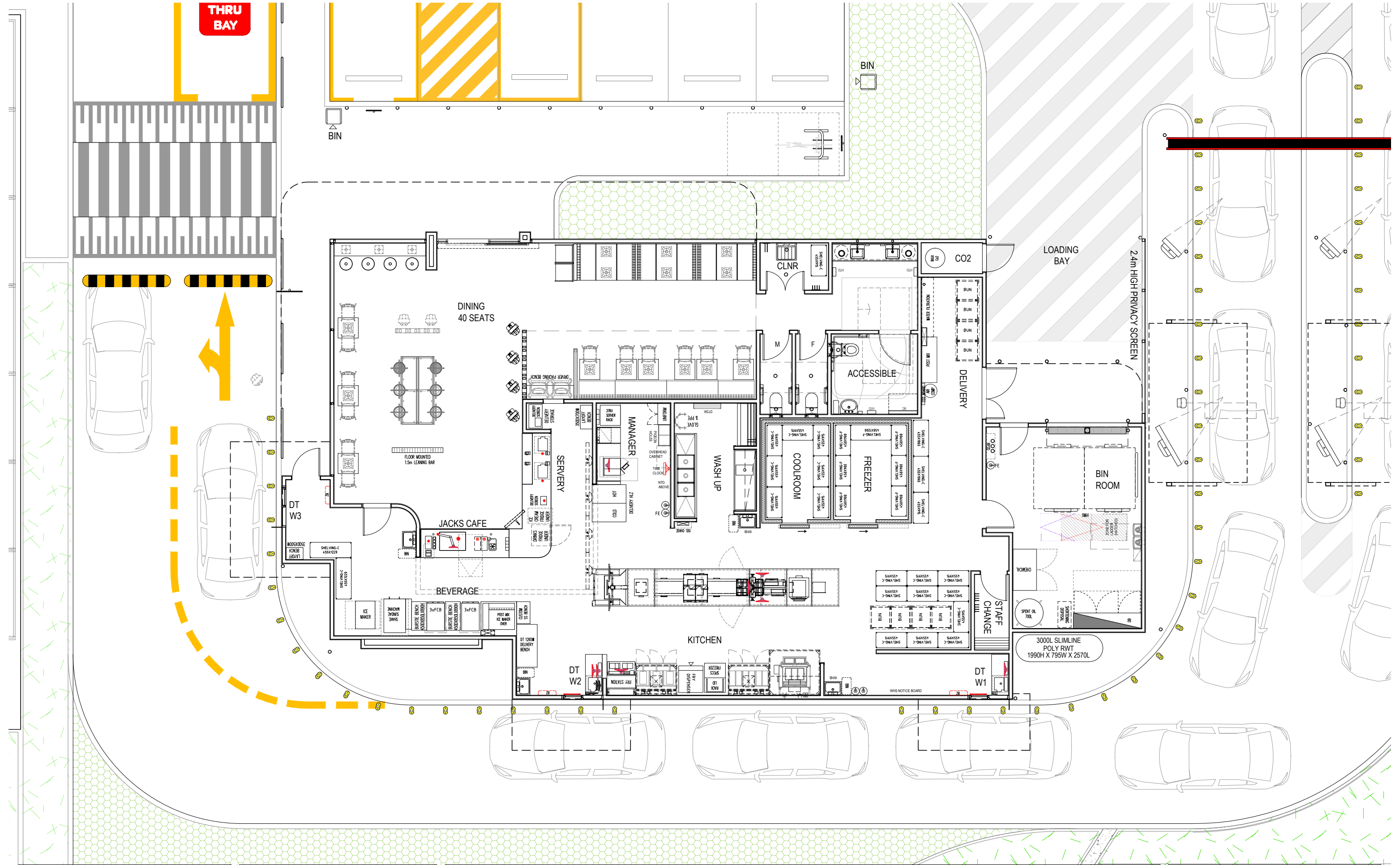
**SITE PLAN & SIGNAGE LOCATION PLAN**

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**FANG ARCHITECTS**





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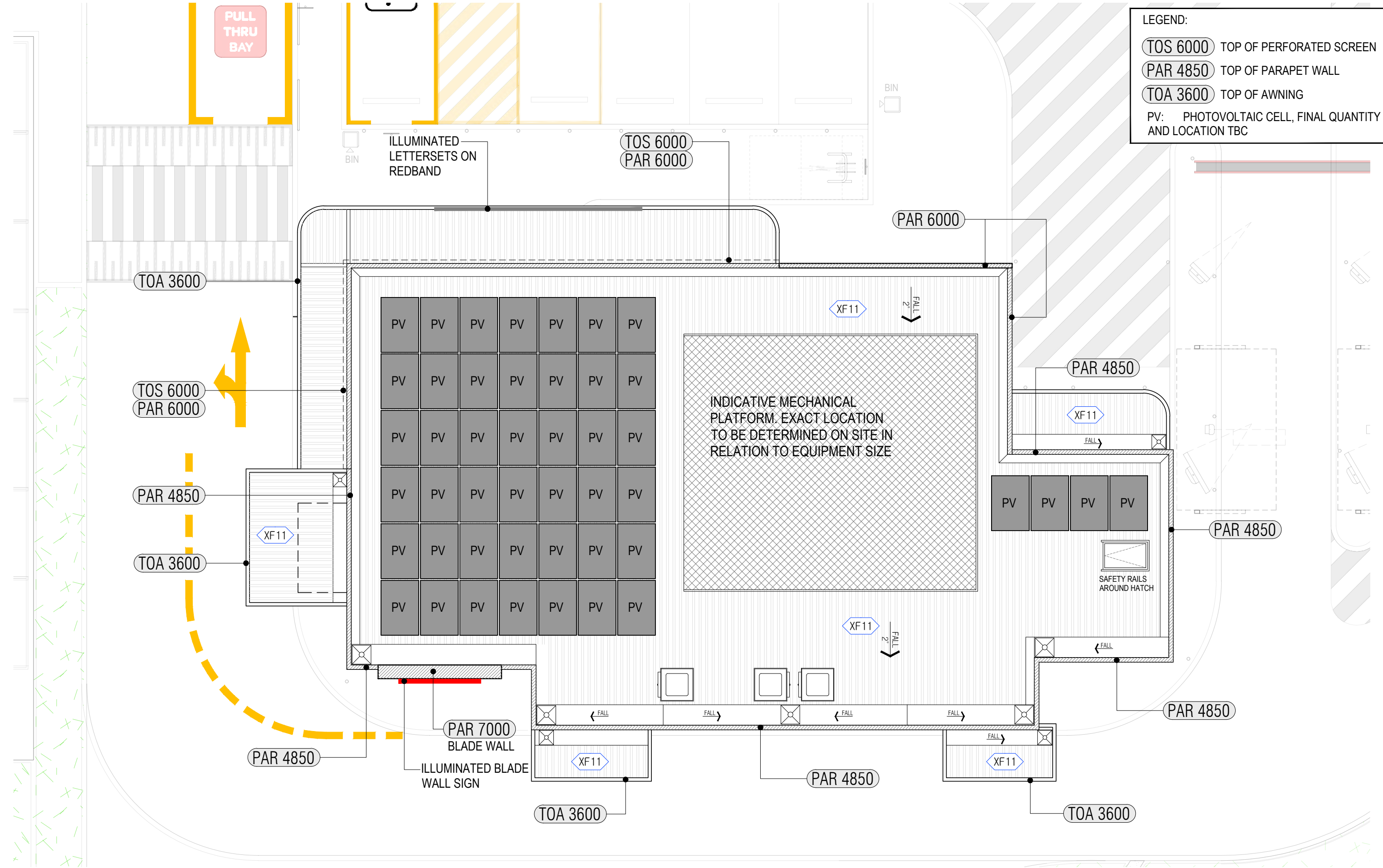
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**HAMMOND PARK SHOPPING CENTRE**  
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

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info@fangarchitects.com.au  
Nominated Architect: Shyan Fang (Reg 7958)





LEGEND:

TOS 6000 TOP OF PERFORATED SCREEN

PAR 4850 TOP OF PARAPET WALL

TOA 3600 TOP OF AWNING

PV: PHOTOVOLTAIC CELL, FINAL QUANTITY AND LOCATION TBC

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PROJECT HUNGRY JACK'S

**HAMMOND PARK SHOPPING CENTRE**

WHADJUK DRIVE,  
HAMMOND PARK WA 6164

DRAWING

**ROOF PLAN**

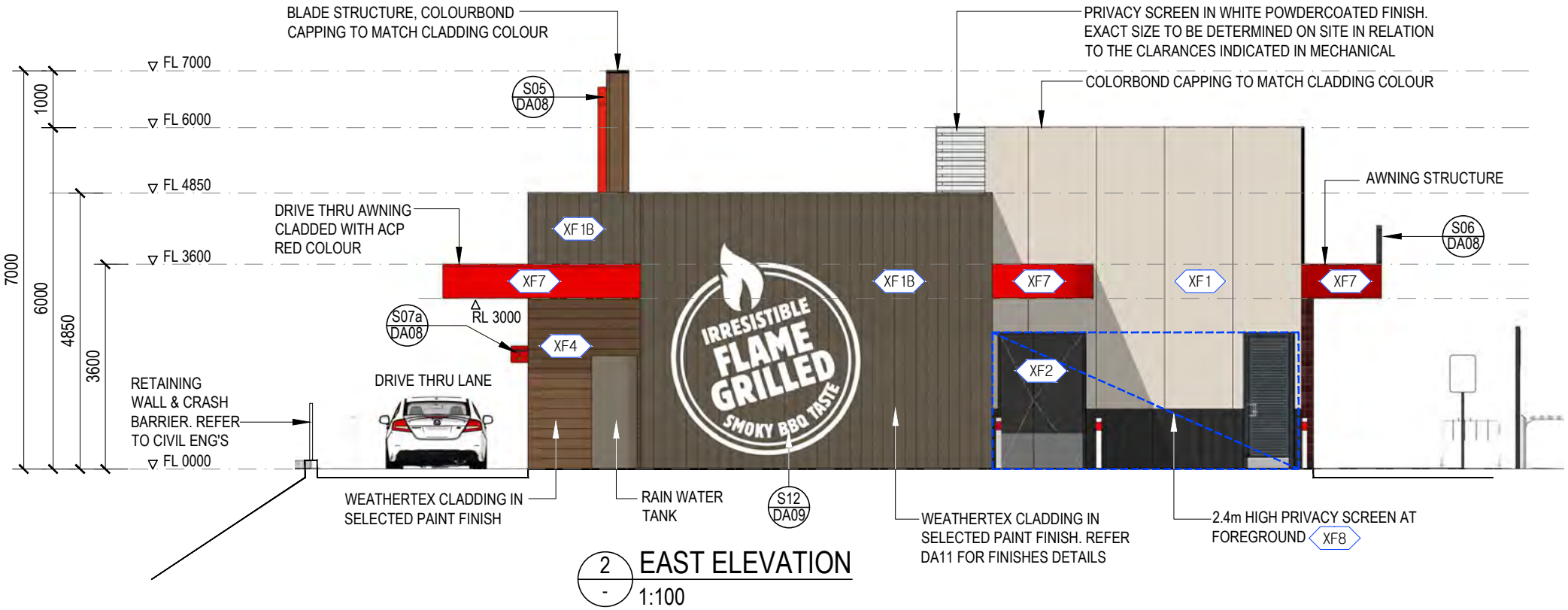
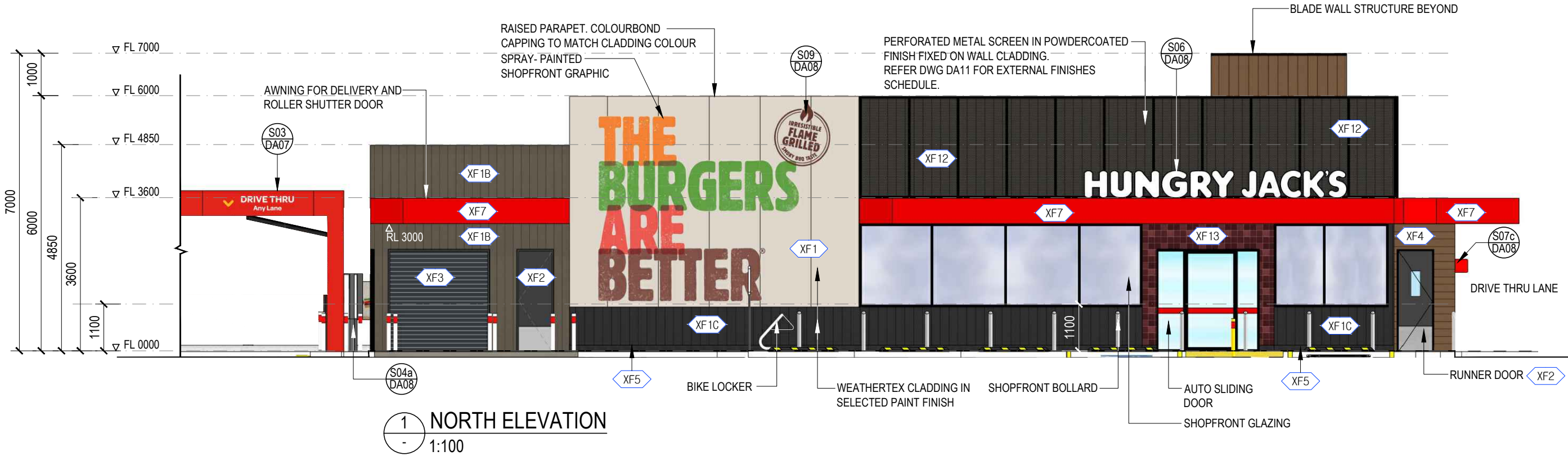
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**FA**





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PROJECT HUNGRY JACK'S

**HAMMOND PARK SHOPPING CENTRE**

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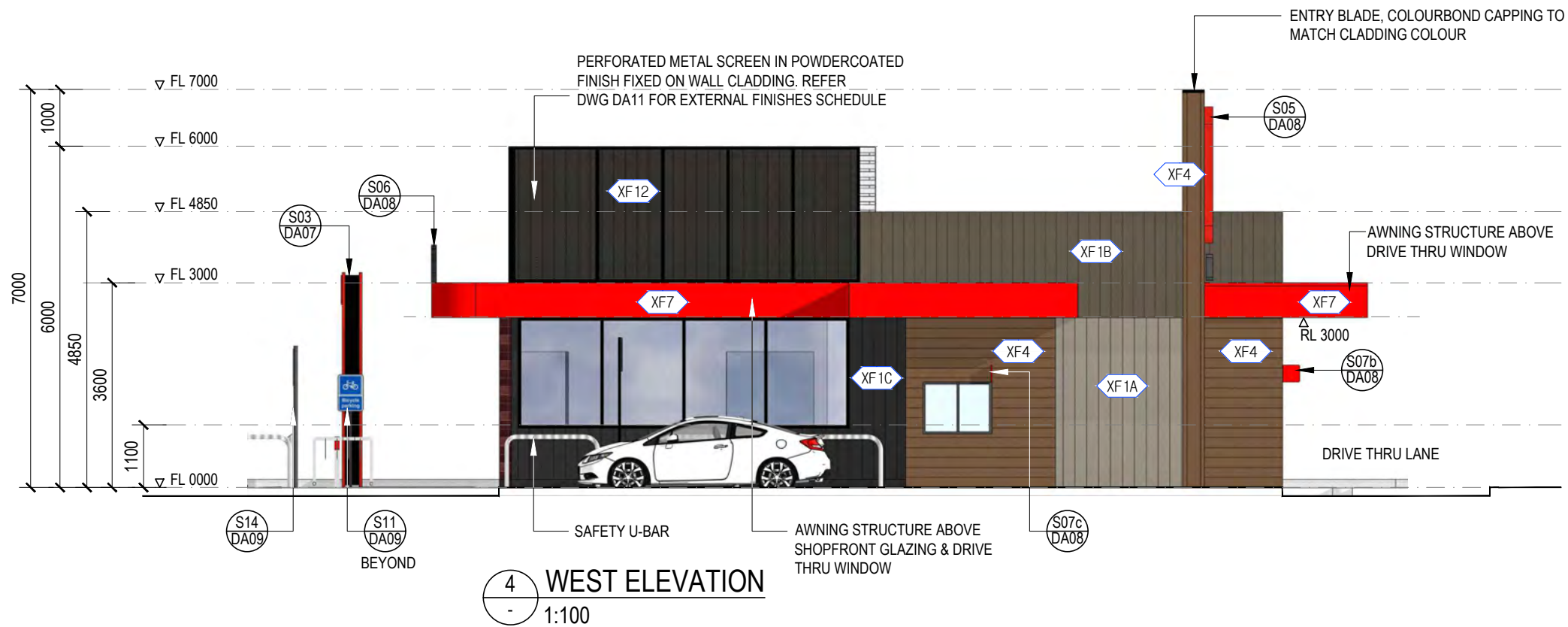
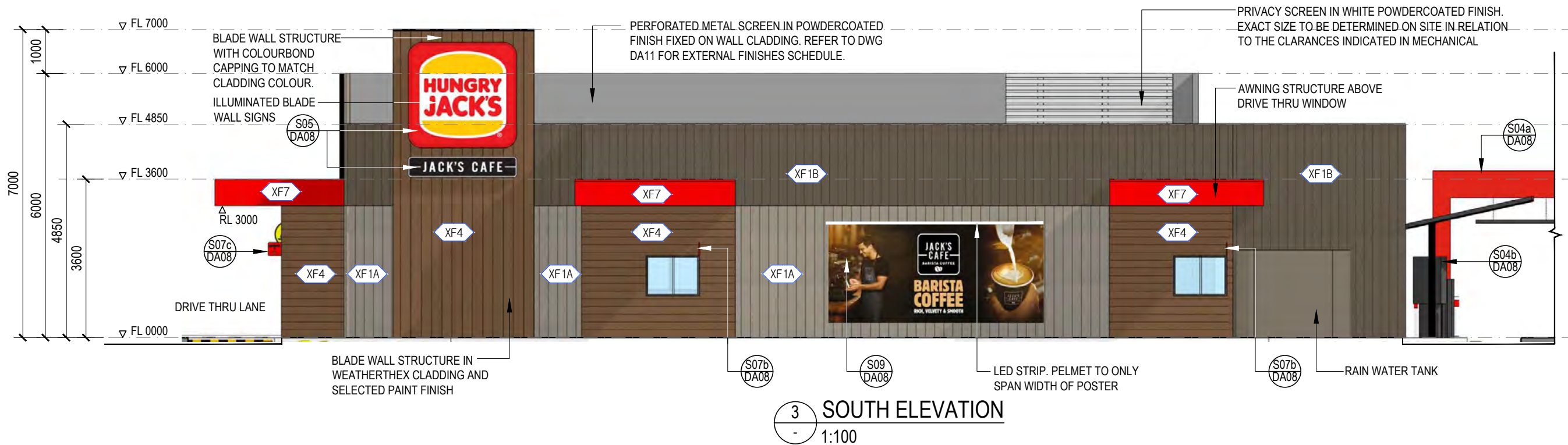
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STATUS  
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☐ TENDER  
☐ CONSTRUCTION

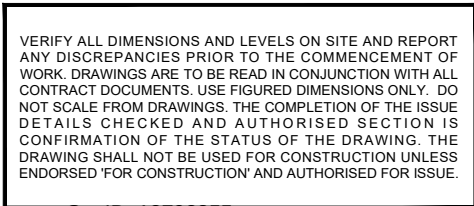
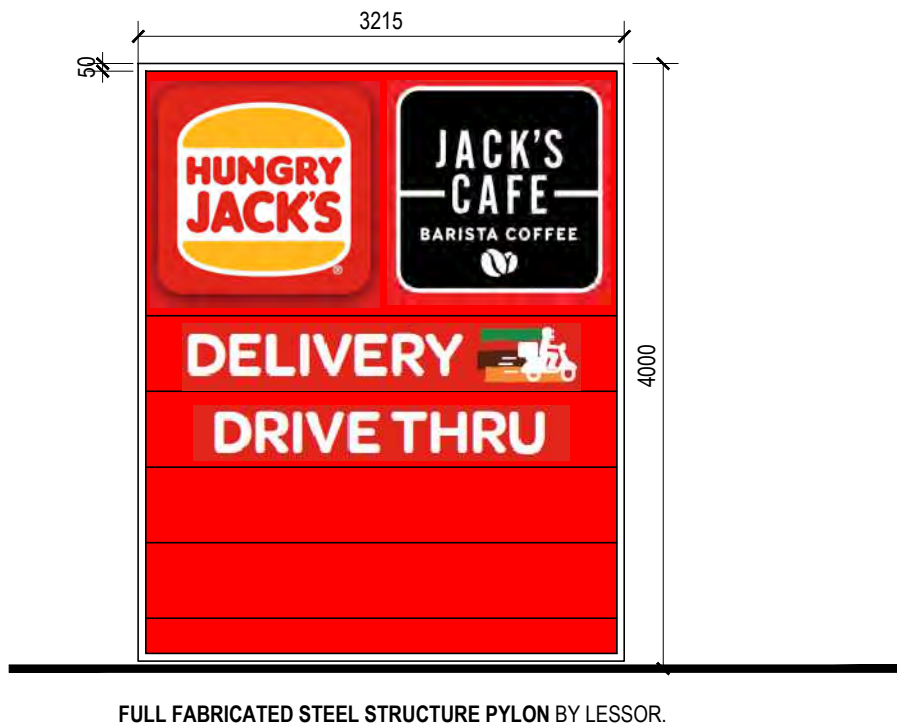
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| 1   | 19.01.26 | ISSUE FOR HJ | SF  |
| A   | 13.02.26 | ISSUE FOR DA | SF  |
|     |          |              |     |
|     |          |              |     |
|     |          |              |     |
|     |          |              |     |

PROJECT HUNGRY JACK'S  
**HAMMOND PARK SHOPPING CENTRE**  
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

| DRAWING                            |                  |        |
|------------------------------------|------------------|--------|
| <b>EXTERNAL ELEVATIONS SHEET 2</b> |                  |        |
| PROJECT NO. 240308                 | DATE MARCH 2024  |        |
| SCALE 1:100@A3                     | DRAWING NO. DA06 | REV. A |

63 WYNDHAM STREET  
ALEXANDRIA NSW 2015  
ABN 47 627 526 881  
PH : 02 8590 5185  
info@fangarchitects.com.au  
Nominated Architect: Shyan Fang (Reg 7958)





| STATUS                                  | REV | DATE     | AMENDMENT                                    | DRW |
|-----------------------------------------|-----|----------|----------------------------------------------|-----|
| <input type="radio"/> SKETCH            | 1   | 16.01.26 | ISSUE FOR REVIEW                             | JF  |
| <input checked="" type="radio"/> DA/ PP | A   | 13.02.26 | ISSUE FOR DA                                 | JF  |
| <input type="radio"/> AMENDED DA        | B   | 24.03.26 | S01 & S01a REVISED                           | SF  |
| <input type="radio"/> BA/CC             | C   | 17.04.26 | REVISED S01 & S01a, DIRECTIONAL SIGN REMOVED | SF  |
| <input type="radio"/> TENDER            |     |          |                                              |     |
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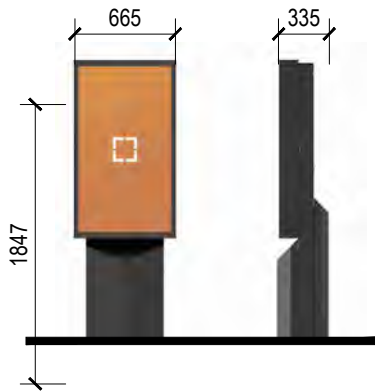
63 WYNDHAM STREET  
ALEXANDRIA NSW 2015  
ABN 47 627 526 881  
PH : 02 8590 5185  
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FANG ARCHITECTS



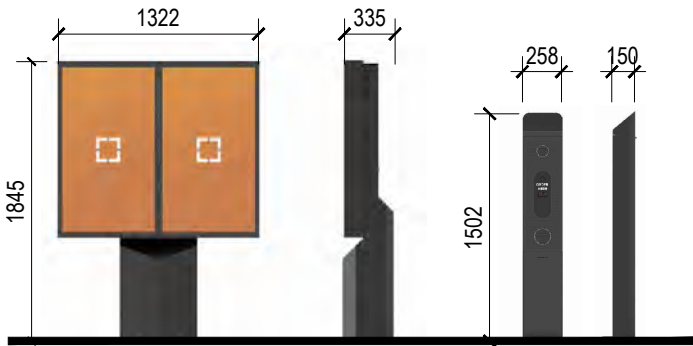
Nominated Architect: Shyan Fang (Reg 7958)





S04a DIGITAL REVIEW BOARD  
DA02 SCALE 1:50

DIGITAL DRIVE THRU PREVIEW MENUBOARD.  
SUPPLY & INSTALLATION BY HJ'S. BUILDER TO  
INSTALL FOOTINGS, UNDERGROUND CONDUITS,  
POWER AND DATA. READY FOR FIT OFF.



S04b SPEAKER & DIGITAL MENUBOARD  
DA02 SCALE 1:50

DIGITAL DRIVE THRU PREVIEW MENUBOARD.  
SUPPLY & INSTALLATION BY HJ'S. BUILDER TO INSTALL FOOTINGS,  
UNDERGROUND CONDUITS, POWER AND DATA. READY FOR FIT OFF.



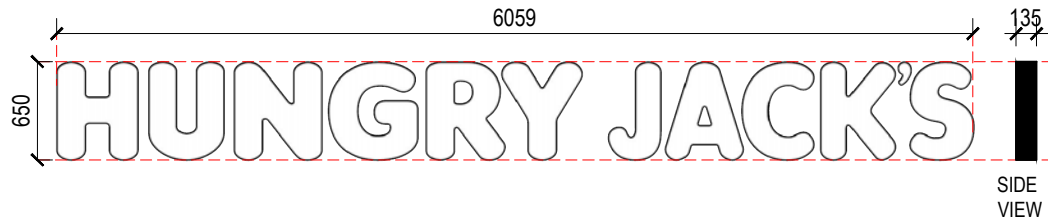
SINGLE SIDED ROUNDED BUN LOGO LIGHTBOX  
SUPPLIED BY HJ, INSTALLED BY BUILDER

S05 ILLUMINATED BLADE WALL SIGN  
DA02 SCALE 1:50



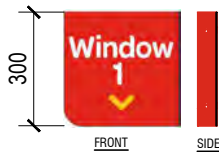
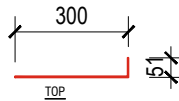
MASK AND PAINTED GRAPHICS TO EXTERNAL WALL CLADDING.  
REFER TO ELEVATIONS  
**SPRAY PAINTED BY BUILDER**

S08 SPRAY PAINT GRAPHIC (SHOPFRONT)  
DA02 SCALE 1:50

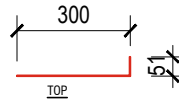


S06 ILLUMINATED HUNGRY JACK'S LETTERSET  
DA02 SCALE 1:50

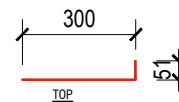
INTERNALLY ILLUMINATED OPAL ACRYLIC FACES  
WITH BLACK ALUMINUM BACKING AND RETURNS.



S07a DRIVE THRU WINDOW SIGNS  
DA01 SCALE 1:20



S07b DRIVE THRU WINDOW SIGNS  
DA01 SCALE 1:20



S07c DRIVE THRU WINDOW SIGNS  
DA01 SCALE 1:20

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| STATUS                                  | REV | DATE     | AMENDMENT        | DRW |
|-----------------------------------------|-----|----------|------------------|-----|
| <input type="radio"/> SKETCH            | 1   | 16.01.26 | ISSUE FOR REVIEW | JF  |
| <input checked="" type="radio"/> DA/ PP | A   | 13.02.26 | ISSUE FOR DA     | JF  |
| <input type="radio"/> AMENDED DA        |     |          |                  |     |
| <input type="radio"/> BA/CC             |     |          |                  |     |
| <input type="radio"/> TENDER            |     |          |                  |     |
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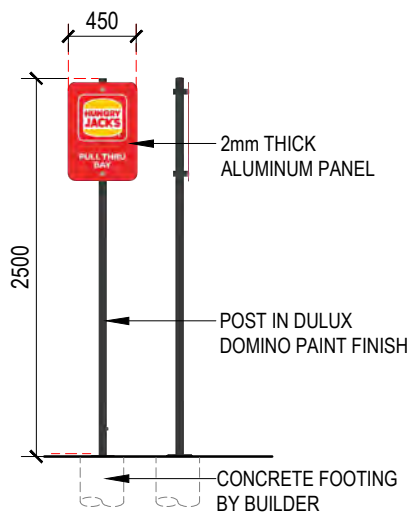
PROJECT HUNGRY JACK'S  
**HAMMOND PARK  
SHOPPING CENTRE**  
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

| DRAWING                    |                  |        |
|----------------------------|------------------|--------|
| SIGNAGE DETAILS<br>SHEET 2 |                  |        |
| PROJECT NO. 240308         | DATE MARCH 2024  |        |
| SCALE 1:50@A3              | DRAWING NO. DA08 | REV. A |

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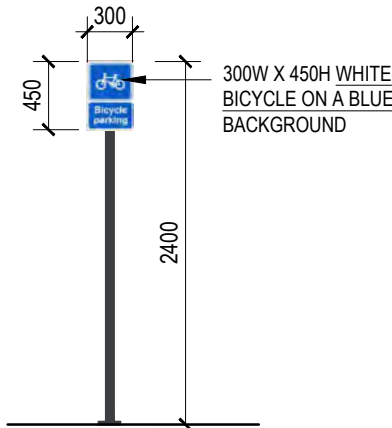




POST SIGNAGE BLOW UP



PULL THRU BAY SIGN POST  
PANEL FIXED TO POST  
SIGNAGE CONTRACTOR TO SUPPLY SIGN, POST & HARDWARE

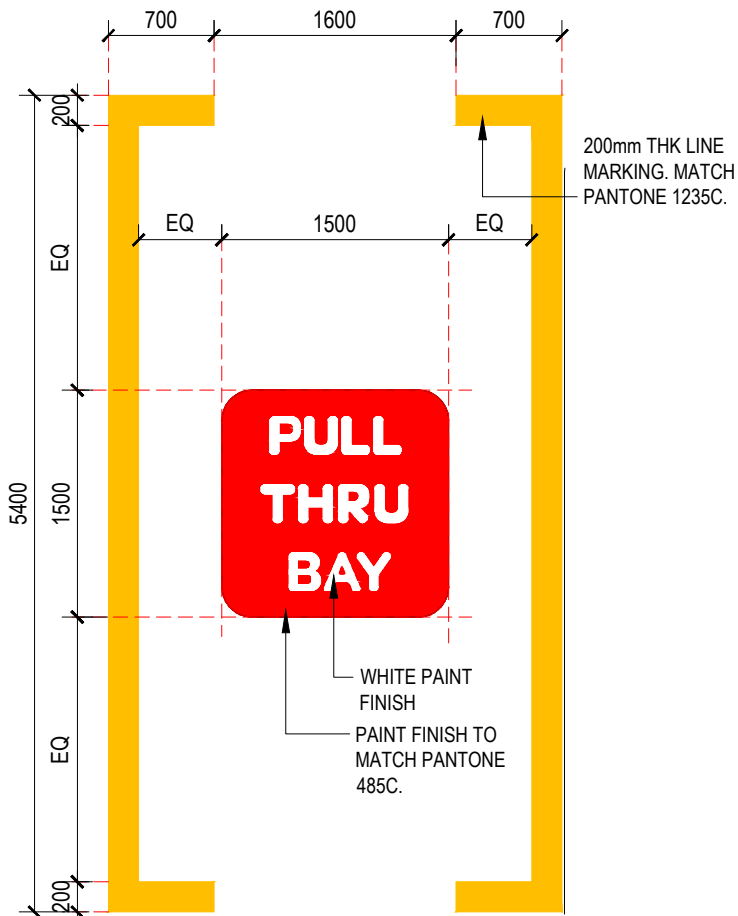


BIKE SIGN POST  
PANEL FIXED TO POST. STANDARD ROAD SIGN COMPLY WITH LOCAL ROAD AUTHORITY.  
SIGNAGE CONTRACTOR TO SUPPLY SIGN, POST AND HARDWARE, INSTALL BY BUILDER

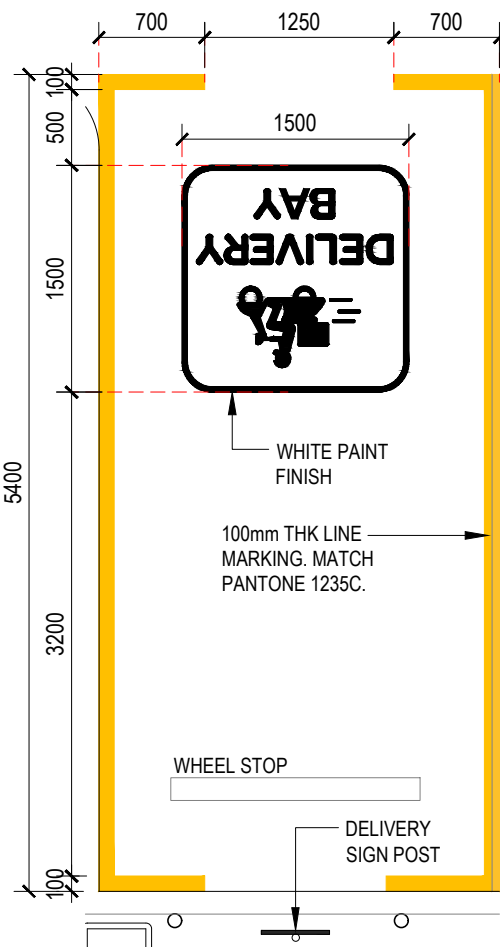
S11 BIKES SIGN POST  
DA02 SCALE 1:50



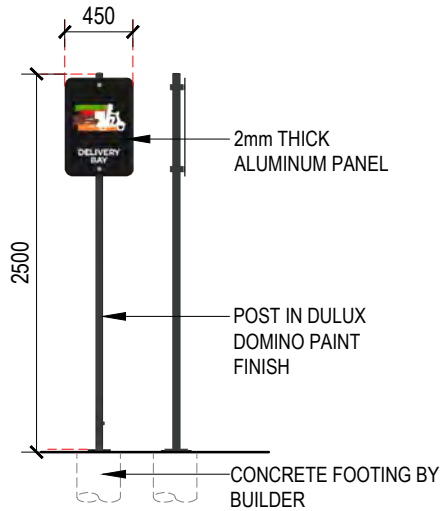
S12 PAINTED FLAME GRILLED LOGO  
DA02 SCALE 1:50  
MASK AND PAINTED SIGN TO EXTERNAL WALL CLADDING. WHITE PAINT FINISH. SPRAY PAINTED BY BUILDER



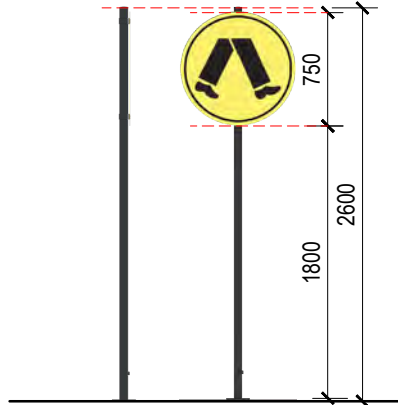
S13 PULL THRU BAY LINE MARKING & SIGN POST  
DA02 SCALE 1:50



S14 DELIVERY BAY SIGN & SIGN POST  
DA02 SCALE 1:50



DELIVERY BAY SIGN POST  
PANEL FIXED TO POST  
SIGNAGE CONTRACTOR TO SUPPLY SIGN, POST & HARDWARE



PEDESTRIAN SIGN POST  
PANEL FIXED TO POST. STANDARD ROAD SIGN COMPLY WITH LOCAL ROAD AUTHORITY.  
SIGNAGE CONTRACTOR TO SUPPLY SIGN, POST AND HARDWARE, INSTALL BY BUILDER

S15 PADESTRAIN CROSSING SIGN  
DA02 SCALE 1:50

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☐ BA/CC  
☐ TENDER  
☐ CONSTRUCTION

| REV | DATE     | AMENDMENT           | DRW |
|-----|----------|---------------------|-----|
| 1   | 16.01.26 | ISSUE FOR REVIEW    | JF  |
| A   | 13.02.26 | ISSUE FOR DA        | JF  |
| B   | 17.04.26 | BANNER POLE REMOVED | JF  |
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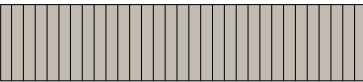
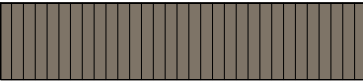
PROJECT HUNGRY JACK'S  
**HAMMOND PARK SHOPPING CENTRE**  
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

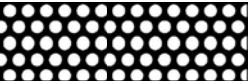
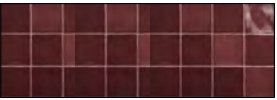
| DRAWING                           |                  |        |
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| <b>SIGNAGE DETAILS</b><br>SHEET 3 |                  |        |
| PROJECT NO. 240308                | DATE MARCH 2024  |        |
| SCALE 1:50@A3                     | DRAWING NO. DA09 | REV. B |

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Nominated Architect: Shyan Fang (Reg 7958)





| EXTERNAL FINISHES SCHEDULE                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                 |                                                                                                                                                               |                                                                           |                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| NOTE: FINISHES LEGEND & SCHEDULES ARE TO BE READ IN CONJUNCTION WITH SPECIFICATION AND CONSTRUCTION DRAWINGS - REFER TO PLANS, ELEVATION & SECTION DRAWINGS AS DETAILED. CONTRACTORS ARE TO ENSURE ALL MATERIALS ARE TO BE ORDERED IN TIME TO MEET DEADLINE AS SCHEDULED OR CONTRACTOR SHALL BEAR THE COST OF AIR FREIGHTING MATERIALS IN TO MEET DEADLINE. ANY FINISHES RE-SELECTING WILL BE CHARGED TO BUILDER AT PER HOUR RATE ON ITEMS |                                                 |                                                                                                                                                               |                                                                           |                                                                                       |
| CODE                                                                                                                                                                                                                                                                                                                                                                                                                                       | DESCRIPTION                                     | FINISH SPECIFICATION                                                                                                                                          | LOCATION                                                                  | SAMPLE PICTURE FOR REF. ONLY                                                          |
| XF1A                                                                                                                                                                                                                                                                                                                                                                                                                                       | PAINT - WEATHERTEX (WEATHERGROOVE WOODSMAN 150) | BRAND: DULUX<br>COLOUR :HEIFER (P14B2)<br>FINISH: LOW SHEEN<br>APPLY NON SACRIFICIAL ANTI GRAFFITI COATING TO WEATHERTEX                                      | EXTERIOR WALLS / FASCIA                                                   |    |
| XF1B                                                                                                                                                                                                                                                                                                                                                                                                                                       | PAINT - WEATHERTEX (WEATHERGROOVE WOODSMAN 150) | BRAND: DULUX<br>COLOUR : STRING S13B6<br>FINISH: LOW SHEEN<br>APPLY NON SACRIFICIAL ANTI GRAFFITI COATING                                                     | EXTERIOR WALLS                                                            |    |
| XF1C                                                                                                                                                                                                                                                                                                                                                                                                                                       | PAINT - WEATHERTEX (WEATHERGROOVE WOODSMAN 150) | BRAND: DULUX<br>COLOUR : DOMINO GR10<br>FINISH: LOW SHEEN<br>APPLY NON SACRIFICIAL ANTI GRAFFITI COATING                                                      | EXTERIOR WALLS                                                            |    |
| XF1                                                                                                                                                                                                                                                                                                                                                                                                                                        | PAINT - WEATHERTEX (WEATHERGROOVE SMOOTH 1200)  | BRAND: DULUX<br>COLOUR :HEIFER (P14B2)<br>FINISH: LOW SHEEN<br>APPLY NON SACRIFICIAL ANTI GRAFFITI COATING TO WEATHERTEX                                      | EXTERIOR WALLS / FASCIA                                                   |    |
| XF2                                                                                                                                                                                                                                                                                                                                                                                                                                        | PAINT - DARK GREY                               | BRAND: DULUX<br>COLOUR NAME: DOMINO GR10<br>FINISH: SEMI-GLOSS                                                                                                | WALLS GUTTERS, FASCIA & DOOR                                              |    |
| XF3                                                                                                                                                                                                                                                                                                                                                                                                                                        | POWDER COATED FINISH                            | BRAND: DULUX<br>NAME: ZEUS CHARCOAL 90087732<br>FINISH: GLOSS                                                                                                 | BIN ROOM ROLLER SHUTTER, WINDOW & DOOR FRAMES (EXCLUDE DRIVE THRU WINDOW) |   |
| XF4                                                                                                                                                                                                                                                                                                                                                                                                                                        | WALL CLADDING WEATHERTEX-SELFLOK ECOGROOVE)     | WOODSMAN 150, CONCEALED 300mm WOODSMAN OFF STUD JOINER<br>COLOUR: TAUBMAN FOX TERRIER SATIN (2 COATS) (T15 105.5) APPLY NON SACRIFICIAL ANTI GRAFFITI COATING | EXTERIOR WALLS<br>CHECK ELEVATION FOR GROOVE DIRECTION                    |  |
| XF5                                                                                                                                                                                                                                                                                                                                                                                                                                        | SKIRTING TILES                                  | BRAND: SKHEME<br>COLOUR: FORM BLACK GRIP<br>GROUT: BLACK EPOXY GROUTING<br>SIZE: 150 X 600mm                                                                  | ENTRY PORTAL & EXTERNAL WALLS.<br>REFER TO DRAWING FOR LOCATION           |  |
| XF6                                                                                                                                                                                                                                                                                                                                                                                                                                        | PAINT - WHITE COMPRESSED FIBRE CEMENT CLADDING  | BRAND: DULUX<br>COLOUR NAME: LEXICON B16<br>FINISH: LOW SHEEN                                                                                                 | EXTERIOR WALLS, SOFFITS AND CANOPY FASCIA                                 |  |
| XF7                                                                                                                                                                                                                                                                                                                                                                                                                                        | NON-COMBUSTIBLE PRE-FINISHED ALUMINUM PANELS    | BRAND: MONOCLAD<br>COLOU: RED                                                                                                                                 | AWNING                                                                    |  |
| XF8                                                                                                                                                                                                                                                                                                                                                                                                                                        | SLATTED RECYCLED PLASTIC                        | BRAND: REPLAS (RECTANGULAR PROFILES)<br>COLOUR: BLACK<br>SIZE: 1800mmX150mmX40mm SLAT<br>CONTACT : sales@ replas.com.au 1800 737 527                          | PLANT ENCLOSURE & PRIVACY SCREEN & CO2 ENCLOSURE DOOR                     |  |
| XF11                                                                                                                                                                                                                                                                                                                                                                                                                                       | POWDER COATED FINISH                            | BRAND: DULUX<br>COLOUR NAME: COLORBOND SHALE GREY C4                                                                                                          | ROOF                                                                      |  |

| CODE | DESCRIPTION                        | FINISH SPECIFICATION                                                                                                                                                                                                                                                                                                                                                                                                  | LOCATION                                               | PICTURES- REFERENCE ONLY                                                              |
|------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------|
| XF12 | PERFORATED SCREEN PANELS           | LOCKER GROUP OR EQUAL<br>(10-15mmØ @ 35mm CENTRES 40-50% OPEN AREA)<br>POWDERCOAT: DULUX DURATEC MONUMENT (SATIN)                                                                                                                                                                                                                                                                                                     | MESH STRUCTURE                                         |    |
| XF13 | WALL TILES                         | SKHEME<br>DIMENSION: 130mm X 130mm<br>COLOUR: BURGUNDY                                                                                                                                                                                                                                                                                                                                                                | ENTRY PORTAL                                           |    |
| WS   | WHEELSTOP                          | PRODUCT: REPLAS WHEETSTOPS<br>DIMENSION: 100mm X 135mm<br>LENGTH: 1650mm<br>COLOUR: BLACK WITH 4 DIAMOND REFLECTORS ON FRONT, 2 ROUND REFLECTORS ON BACK                                                                                                                                                                                                                                                              | CAR PARKING BAY<br>(REFER TO SITE PLAN FOR LOCATION)   |    |
| B1   | BOLLARD (FACING SHOPFRONT GLAZING) | BELOW GROUND 90mm STAINLESS STEEL BEVELLED TOP BOLLARD<br><br>BRAND: SAFETY XPRESS<br>CODE: SKU-BOLBG90SSB<br>WEIGHT: 22 KGS<br>MATERIAL: 304 GRADE STAINLESS STEEL<br>COLOUR: SILVER BRUSHED<br>HEIGHT: 1200mm (900mm ABOVE GROUND, 300mm BELOW GROUND)<br>DIAMETER: 90mm<br>FIXINGS: ANCHOR ROD INCLUDED AT BASE WHICH CAN BE REMOVED WHEN CORE DRILLING INTO NEW CONCRETE OR INSERTED WHEN SETTING IN NEW CONCRETE | DRIVEWAY ALONG ENTRY AND FOH GLAZING                   |    |
| B2   | HEAVY DUTY BOLLARD                 | BELOW GROUND 90mm Ø GALVANISED BOLLARD<br>COLOUR: SILVER WITH CLASS 1 RED REFLECTIVE TAPE<br>HEIGHT: 1300mm (1000mm ABOVE GROUND AND 300mm BELOW GROUND)<br>FIXING: ANCHOR ROD INCLUDED AT BASE WHICH CAN BE REMOVED WHEN CORE DRILLING INTO EXISTING CONCRETE OR INSERTED WHEN SETTING IN NEW CONCRETE                                                                                                               | LOADING AREA, DT LANES AND LPG STORAGE (IF APPLICABLE) |   |
|      | PLASTIC RUMBLE BAR                 | PRODUCT: eSAFETY SUPPLIERS<br>TYPE: 25MM PLASTIC RUMBLE BAR<br>SKU : BDD-NPS-006<br>SIZE: 120(W) X 220(L) X 25(H)mm<br><br>PH: 1300 291 700<br>EMAIL: <a href="mailto:sales@esafetysupplies.com.au">sales@esafetysupplies.com.au</a>                                                                                                                                                                                  | DT LANE KERB                                           |  |
| RWT  | 3000L RAINWATER TANK               | PRODUCT: KINGSPAN 3000L OR EQUAL<br>TYPE: SLIMLINE POLYETHYLENE TANK<br>COLOUR: TO MATCH CLOSEST BUILDING FACADE.<br><br>SOURCE BY BUILDER, TO BE REVIEWED AND CONFIRMED BY HJS PM BEFORE ORDER AND INSTALLATION                                                                                                                                                                                                      | DT LANE                                                |  |
| UB   | U-BAR DOUBLE RAIL                  | PRODUCT: TRAFFIC SAFETY SYSTEMS (TSS)<br>U-BAR DOUBLE RAIL 1.5m BELOW GROUND- GALVANISED<br>DIMENSION: 1500L x 1051H<br>DEPTH BELOW GROUND- 280mm                                                                                                                                                                                                                                                                     | RUNNER DOOR FOOTPATH TO WAITING BAY                    |  |

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STATUS

☐ SKETCH

☒ DA/ PP

☐ AMENDED DA

☐ BA/CC

☐ TENDER

☐ CONSTRUCTION

| REV | DATE     | AMENDMENT    | DRW |
|-----|----------|--------------|-----|
| 1   | 19.01.26 | ISSUE FOR HJ | SF  |
| A   | 13.02.26 | ISSUE FOR DA | JF  |
|     |          |              |     |
|     |          |              |     |
|     |          |              |     |
|     |          |              |     |

PROJECT HUNGRY JACK'S

HAMMOND PARK SHOPPING CENTRE

WHADJUK DRIVE,  
HAMMOND PARK WA 6164

DRAWING

EXTERNAL FINISHES SCHEDULE

|                    |                  |
|--------------------|------------------|
| PROJECT NO. 240308 | DATE MARCH 2024  |
| SCALE NTS @A3      | DRAWING NO. DA11 |
|                    | REV. A           |

63 WYNDHAM STREET  
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Nominated Architect: Shyan Fang (Reg 7958)

FANG ARCHITECTS



Document Set ID: 12792355  
Version: 1, Version Date: 15/07/2026

Print Date: 21 July 2026, 12:15 pm





NOTE: IMAGES FOR REFERENCE ONLY

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| STATUS                                  | REV | DATE     | AMENDMENT                           | DRW |
|-----------------------------------------|-----|----------|-------------------------------------|-----|
| <input type="radio"/> SKETCH            | 1   | 19.01.26 | ISSUE FOR HJ                        | SF  |
| <input checked="" type="radio"/> DA/ PP | A   | 16.03.26 | DA ISSUE                            | SF  |
| <input type="radio"/> AMENDED DA        | B   | 24.03.26 | RAMP AND WALKWAY REMOVED            | SF  |
| <input type="radio"/> BA/CC             | C   | 17.04.26 | DIRECTIONAL SIGN AND BANNER REMOVED | SF  |
| <input type="radio"/> TENDER            |     |          |                                     |     |
| <input type="radio"/> CONSTRUCTION      |     |          |                                     |     |

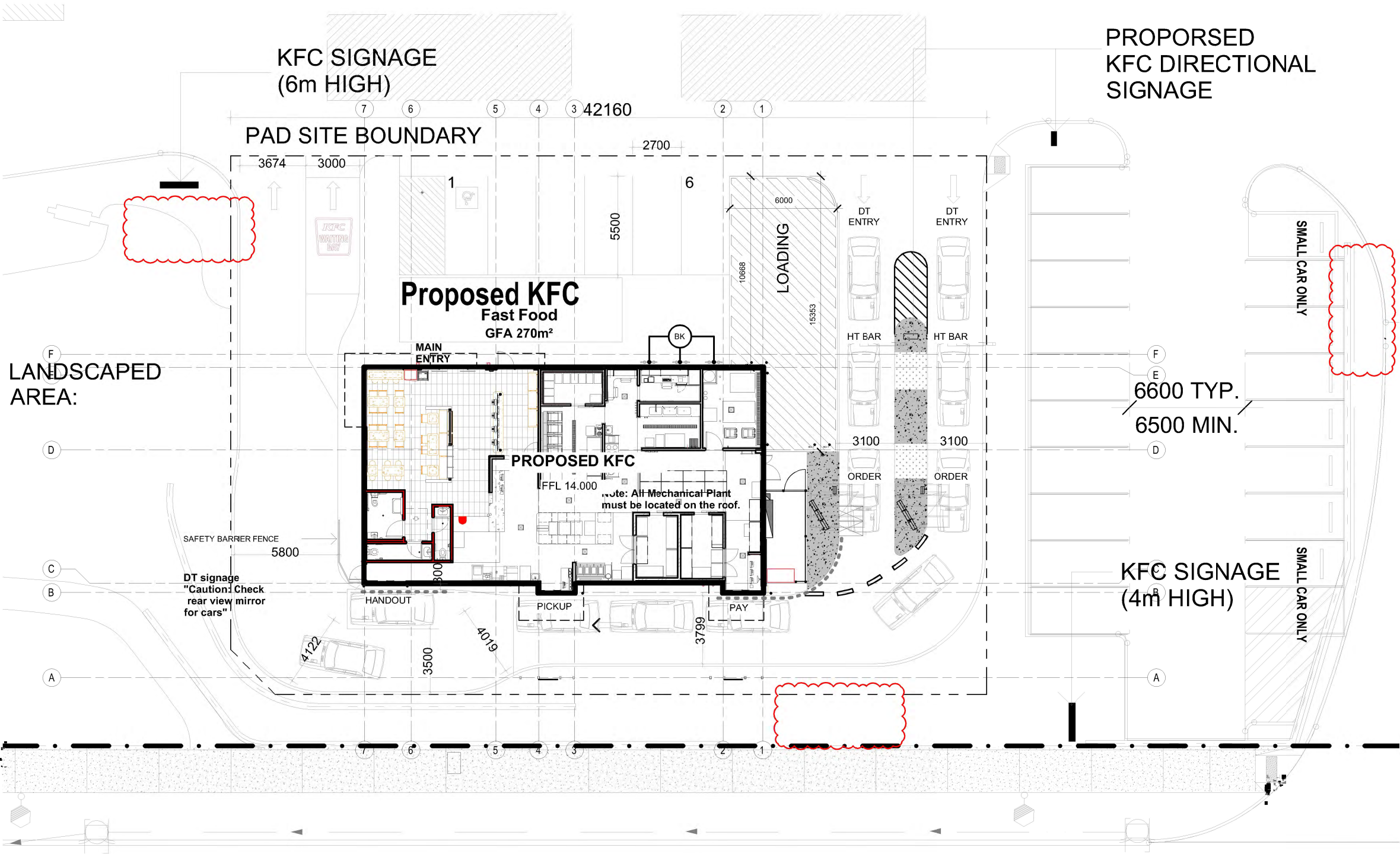
PROJECT HUNGRY JACK'S  
**HAMMOND PARK SHOPPING CENTRE**  
WHADJUK DRIVE,  
HAMMOND PARK WA 6164

| DRAWING            |             |            |
|--------------------|-------------|------------|
| 3D SKETCHES        |             |            |
| PROJECT NO. 240308 | DATE        | MARCH 2024 |
| SCALE              | DRAWING NO. | REV.       |
| NTS@A3             | DA12        | C          |

63 WYNDHAM STREET  
ALEXANDRIA NSW 2015  
ABN 47 627 526 881  
PH : 02 8590 5185  
info@fangarchitects.com.au  
Nominated Architect: Shyan Fang (Reg 7958)







1 SITE PLAN  
Scale @ A1: 1 : 125



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| Rev | Date     | Title                           |
|-----|----------|---------------------------------|
| B   | 12.08.25 | Delivery Door Added             |
| C   | 20.08.25 | Revised Ground                  |
| D   | 02.09.25 | Updated Drawings - CFL Comments |
| E   | 03.09.25 | Updated Drawings - CFL Comments |
| F   | 28.11.25 | Updated Drawings for DA         |
| G   | 18.02.26 | Signage Updated                 |



REVIEW/ FAF 01

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w: www.mandsarchitects.com.au  
ABEW Reg: 2222

CLIENTS



PROJECT

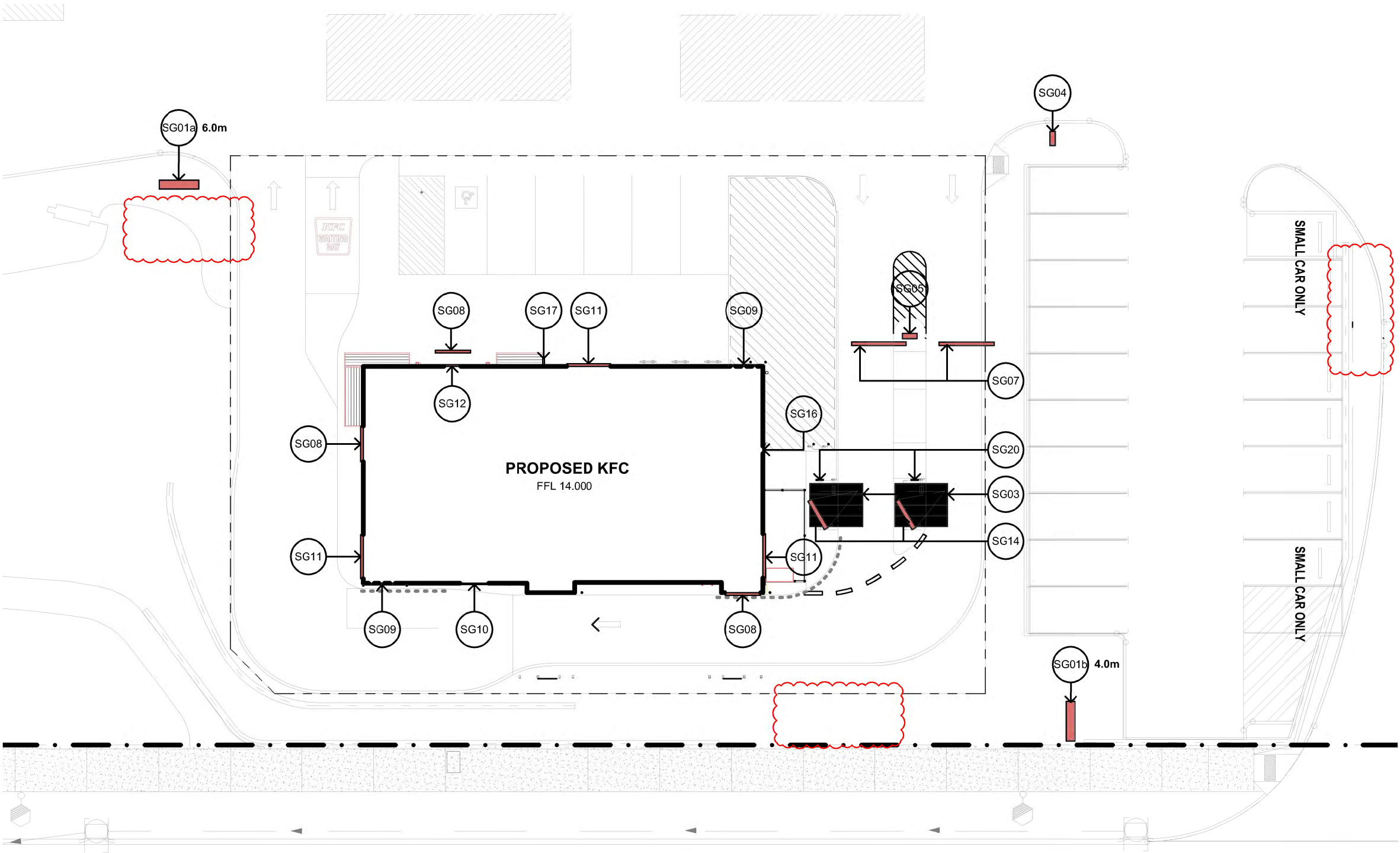
KFC  
HAMMOND PARK SHOPPING CENTRE - PAD  
SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA  
6164

DRAWING

SITE PLAN

|             |         |          |              |     |
|-------------|---------|----------|--------------|-----|
| DRAWN       | Author  | SCALE    | As indicated | A1  |
| CHECKED     | Checker | APPROVED | Approver     |     |
| DRAWING No. |         |          |              | REV |
| A0.02       |         |          |              | G   |

Print Date: 21 July 2026, 12:15 pm



1 SIGNAGE PLAN  
Scale @ A1: 1 : 125



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| Rev | Date     | Title                           |
|-----|----------|---------------------------------|
| A   | 02.08.26 | Updated Drawings - CFL/Comments |
| B   | 16.03.26 | Signage Updated                 |
|     |          |                                 |
|     |          |                                 |

| EXTERNAL SIGNAGE |                                   |
|------------------|-----------------------------------|
| Mark             | Comments                          |
| SG01a            | PYLON SIGN - 6m                   |
| SG01b            | PYLON SIGN - 4m                   |
| SG02             | BANNER SIGN                       |
| SG03             | DRIVE THRU AWNING + SPKR BOLLARD  |
| SG04             | DIRECTIONAL SIGN                  |
| SG05             | DIRECTIONAL SGN - DT ENTRY        |
| SG06             | DIRECTIONAL SGN - DT EXIT         |
| SG07             | HEIGHT BAR                        |
| SG08             | COLONELS SIGN                     |
| SG09             | STRIPE SET                        |
| SG10             | ORIGINAL RECIPE STAMP             |
| SG11             | KFC LETTERS: WHITE                |
| SG12             | KENTUCKY FRIED CHICKEN ENTRY SIGN |
| SG14             | DIGITAL MENUBOARD SIGN            |
| SG16             | NO SMOKING SIGN                   |
| SG17             | DELIVERY AREA SIGN                |
| SG20             | ORDER HERE SIGN                   |



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CLIENTS



PROJECT

KFC

HAMMOND PARK SHOPPING CENTRE - PAD  
SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA  
6164

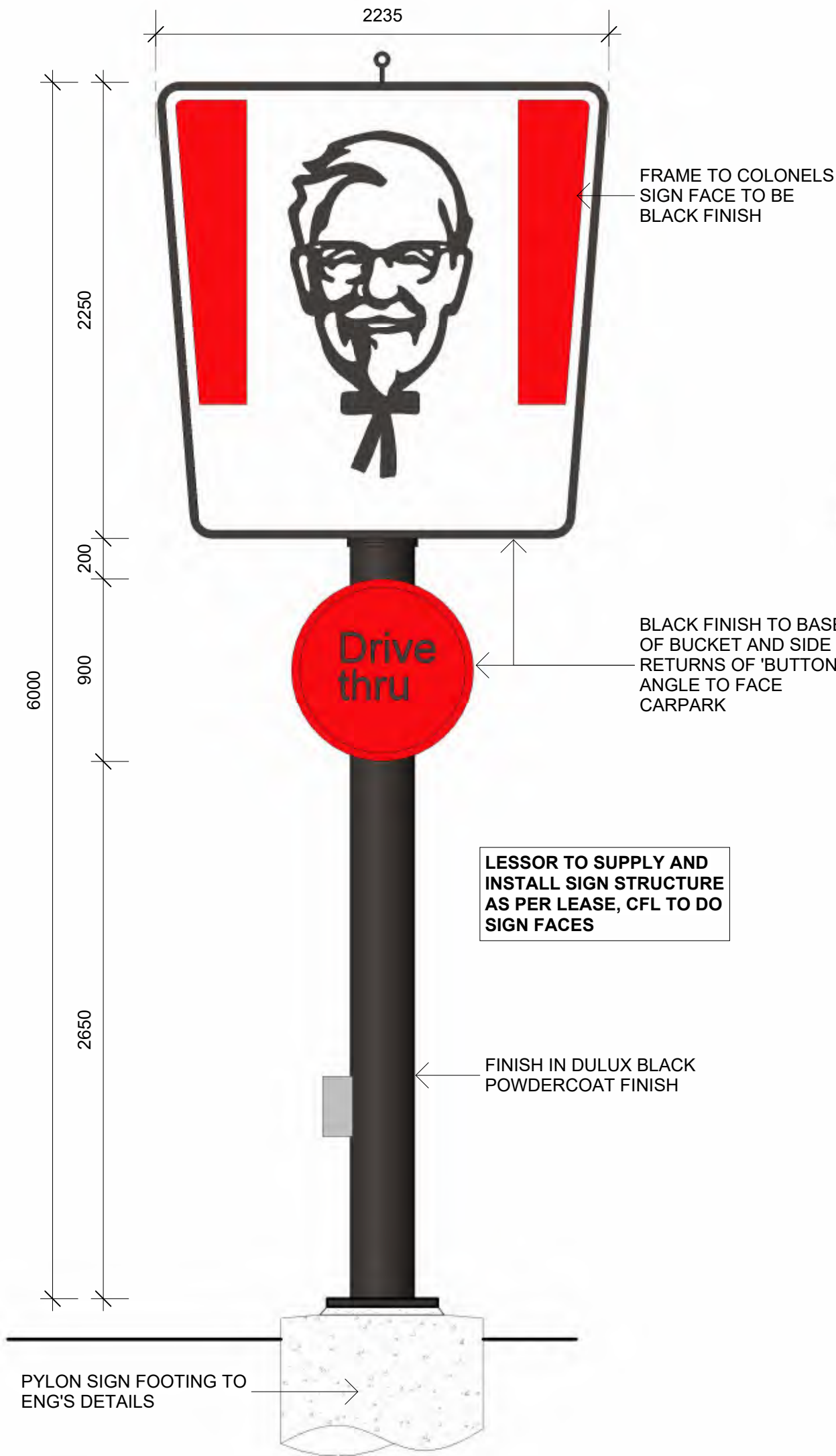
DRAWING

SITE PLAN SIGNAGE

|             |         |               |          |
|-------------|---------|---------------|----------|
| DRAWN       | Author  | SCALE 1 : 125 | @ A1     |
| CHECKED     | Checker | APPROVED      | Approver |
| DRAWING No. | REV     |               | B        |
| A0.10       |         |               |          |

Print Date: 21 July 2026, 12:15 pm

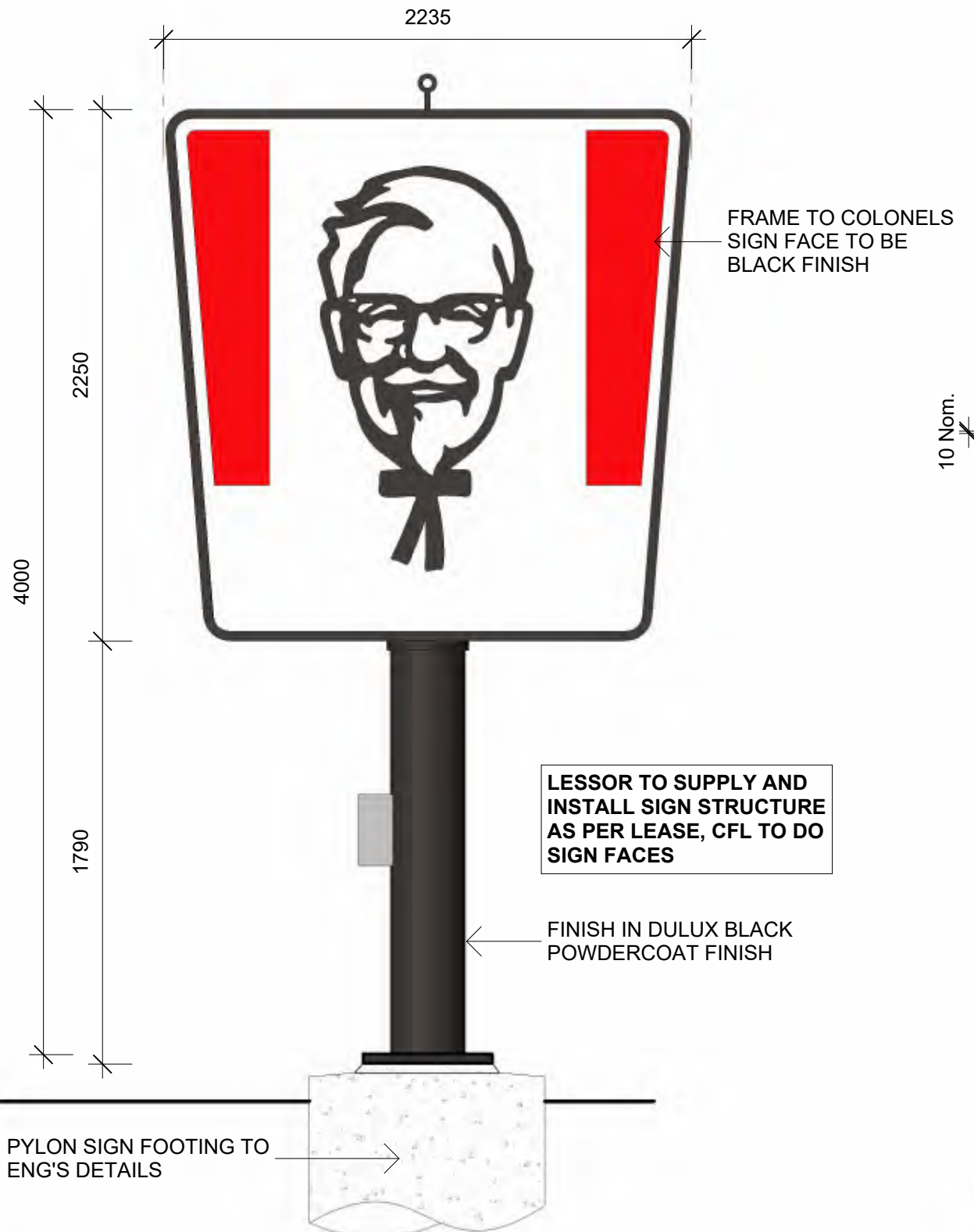




**SG01a PYLON SIGN**  
Scale @ A1: 1:25

LESSOR TO SUPPLY AND INSTALL SIGN STRUCTURE AS PER LEASE, CFL TO DO SIGN FACES

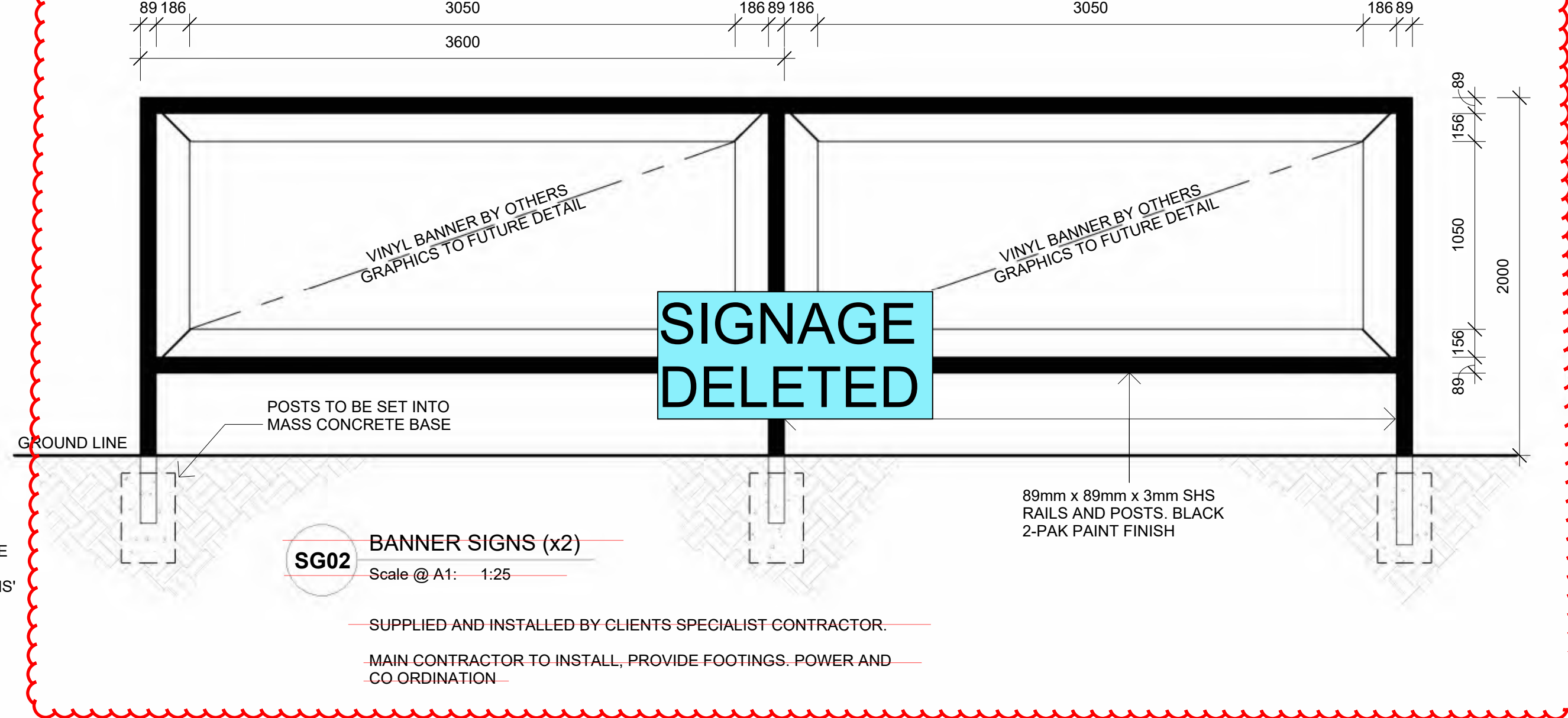
MAIN CONTRACTOR TO PROVIDE FOOTINGS, HOLD DOWN BOLTS TO STRUCTURAL DETAILS, THE PYLON POLE, POWER AND CO ORDINATION



**SG01b PYLON SIGN**  
Scale @ A1: 1:25

LESSOR TO SUPPLY AND INSTALL SIGN STRUCTURE AS PER LEASE, CFL TO DO SIGN FACES

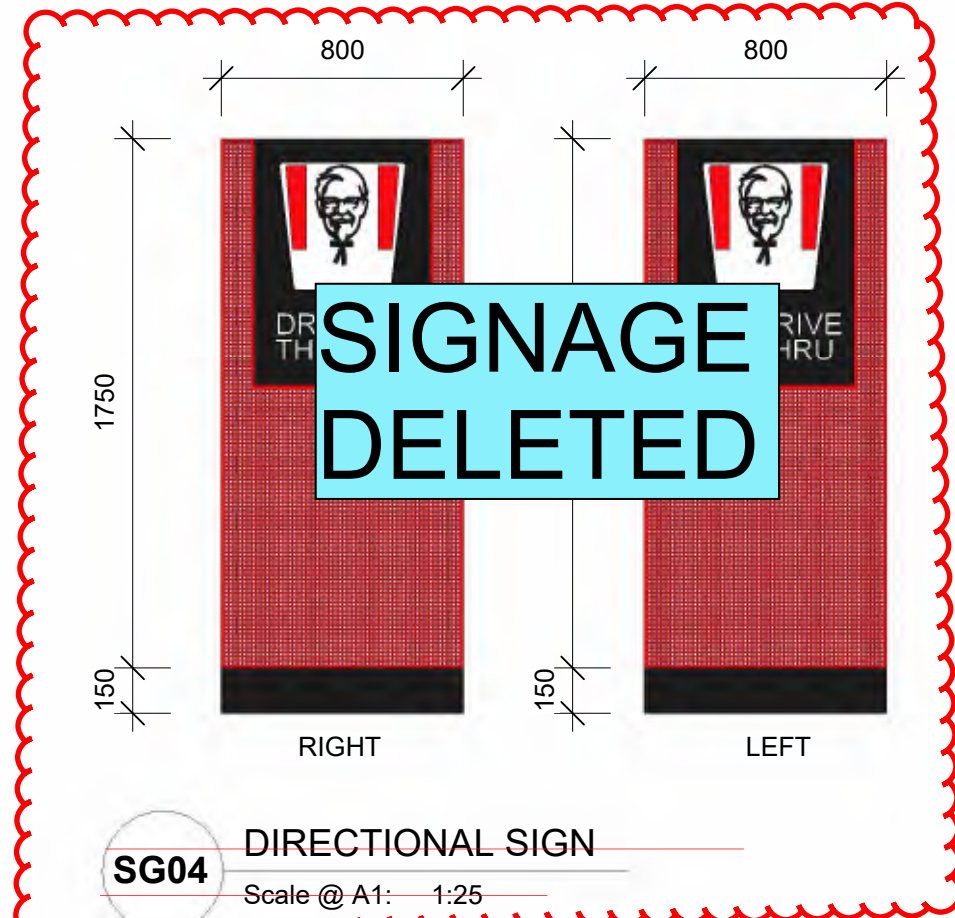
MAIN CONTRACTOR TO PROVIDE FOOTINGS, HOLD DOWN BOLTS TO STRUCTURAL DETAILS, THE PYLON POLE, POWER AND CO ORDINATION



**SG02 BANNER SIGNS (x2)**  
Scale @ A1: 1:25

SUPPLIED AND INSTALLED BY CLIENTS SPECIALIST CONTRACTOR.

MAIN CONTRACTOR TO INSTALL, PROVIDE FOOTINGS. POWER AND CO ORDINATION.



**SG04 DIRECTIONAL SIGN**  
Scale @ A1: 1:25

ILLUMINATED COLONELS PANEL

SUPPLIED BY CLIENTS SPECIALIST CONTRACTOR. EXACT TEXT AND ARROW DIRECTION TO BE CONFIRMED WITH ARCHITECT PRIOR TO FABRICATION

MAIN CONTRACTOR TO INSTALL, PROVIDE FOOTINGS, HOLDING DOWN BOLTS, POWER AND CO ORDINATION.



**SG05 DIRECTIONAL SIGN (DT Entry)**  
Scale @ A1: 1:25



**SG06 DIRECTIONAL SIGN (DT EXIT)**  
Scale @ A1: 1:25



**SG08 COLONELS SIGN**  
Scale @ A1: 1:25

ILLUMINATED

SUPPLIED AND INSTALLED BY CLIENTS SPECIALIST CONTRACTOR.

MAIN CONTRACTOR TO PROVIDE POWER AND CO ORDINATION

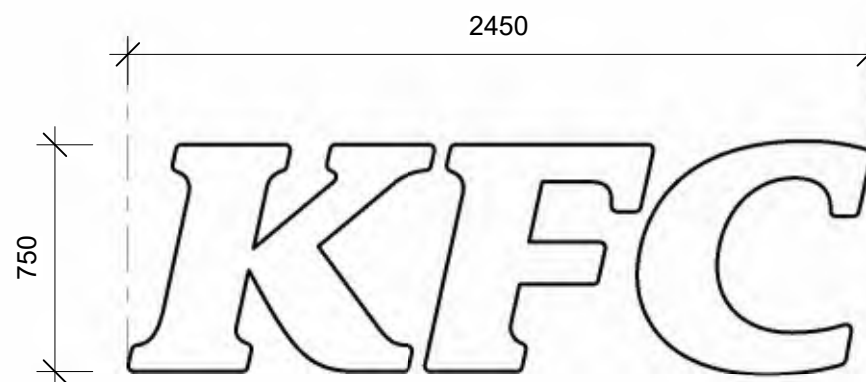


**SG10 ORIGINAL RECIPE STAMP**  
Scale @ A1: 1:25

- APPLY COLONELS STAMPSTENCIL IN LOCATION AS DOCUMENTED.

- NON ILLUMINATED.

- NOTE: BY INTERNAL GRAPHICS CONTRACTOR

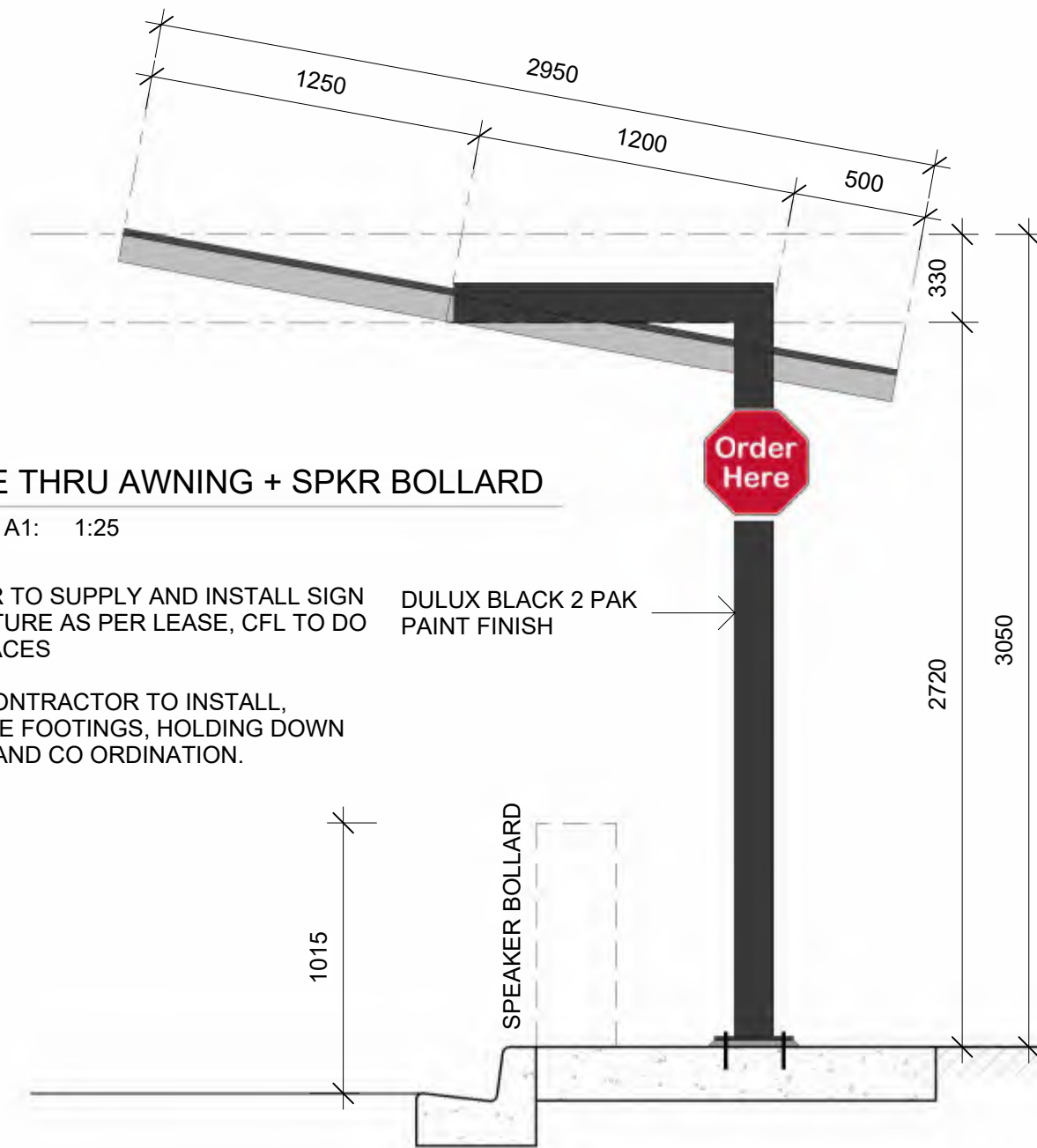


**SG11 KFC LETTERS: WHITE**  
Scale @ A1: 1:25

ILLUMINATED

SUPPLIED AND INSTALLED BY CLIENTS SPECIALIST CONTRACTOR.

MAIN CONTRACTOR TO PROVIDE POWER AND CO ORDINATION



**SG03 DRIVE THRU AWNING + SPKR BOLLARD**  
Scale @ A1: 1:25

LESSOR TO SUPPLY AND INSTALL SIGN STRUCTURE AS PER LEASE, CFL TO DO SIGN FACES

MAIN CONTRACTOR TO INSTALL, PROVIDE FOOTINGS, HOLDING DOWN BOLTS AND CO ORDINATION.

DULUX BLACK 2 PAK PAINT FINISH

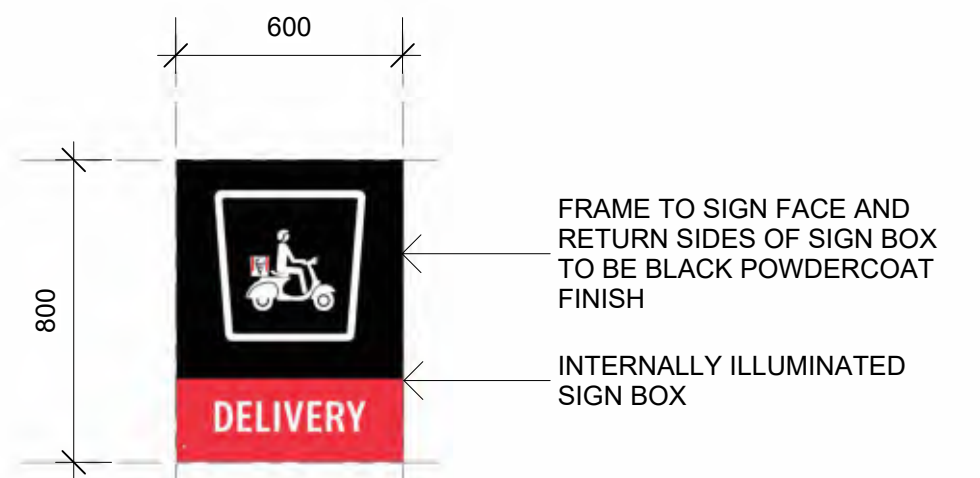


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| Rev | Date     | Title                           |
|-----|----------|---------------------------------|
| A   | 12/09/25 | Updated Drawings - CFL Comments |
| B   | 28/11/25 | Updated Drawings for DA         |
| C   | 18/03/26 | Updated Signage                 |



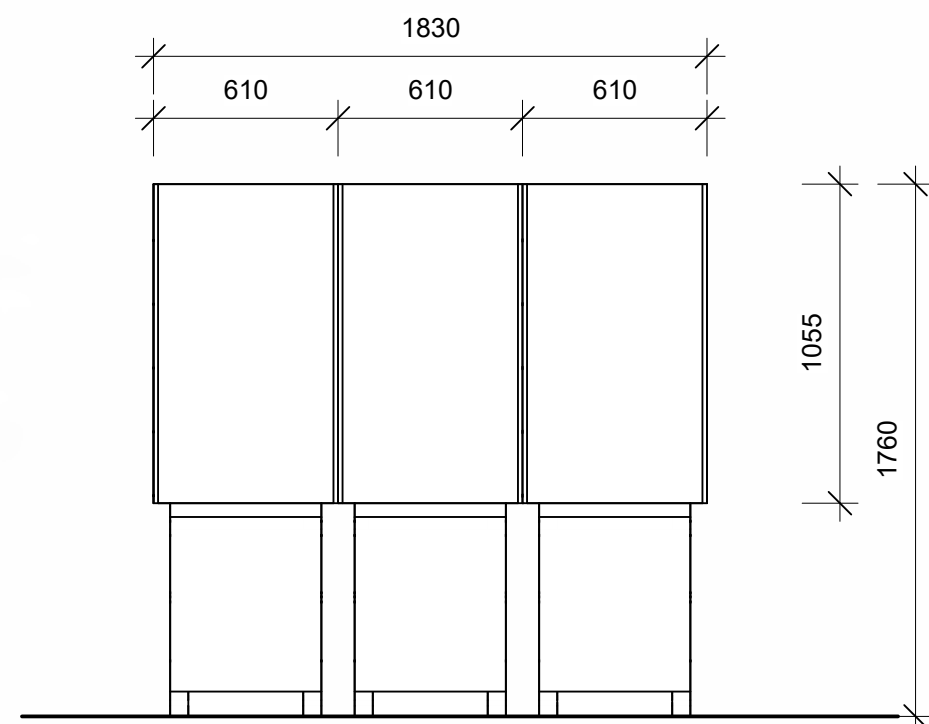
**SG17 DELIVERY AREA SIGN**  
Scale @ A1: 1:20

ILLUMINATED DOUBLE SIDED DELIVERY ICON SIDE FIXED PERPENDICULAR SIGN BOX.

50mm X 3mm FRAME SURROUND WITH REAR ILLUMINATED FLEX FACE TO BOTH SIDES. TONY WING TO PROVIDE ARTWORK FILE.

SUPPLIED AND INSTALLED BY CLIENTS SPECIALIST CONTRACTOR

MAIN CONTRACTOR TO PROVIDE POWER AND CO ORDINATION



**SG14 DIGITAL MENUBOARD**  
Scale @ A1: 1:25

ILLUMINATED DIGITAL MENU SCREENS SUPPLIED AND INSTALLED BY CLIENTS SPECIALIST CONTRACTOR.

MAIN CONTRACTOR TO PROVIDE FOOTINGS, POWER/ DATA AND CO ORDINATION



**SG16 'NO SMOKING SIGN'**  
NTS

TO COMPLY WITH AS 1319 'PROHIBITION SIGN'. CONTACT: SETON 1800 06 1173 REFER TO SIGNAGE PLAN FOR LOCATIONS

MAIN CONTRACTOR TO SUPPLY AND INSTALL.



|                      |                                   |
|----------------------|-----------------------------------|
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| M&S                  | a: PO Box 8084 Fremantle 6160, WA |
| MATTHEWS & SCAVALLI  | p: (08) 9316 0531                 |
| ARCHITECTS           | f: (08) 9316 0531                 |
|                      | w: www.mandsarchitects.com.au     |
|                      | ABEW Reg: 2222                    |

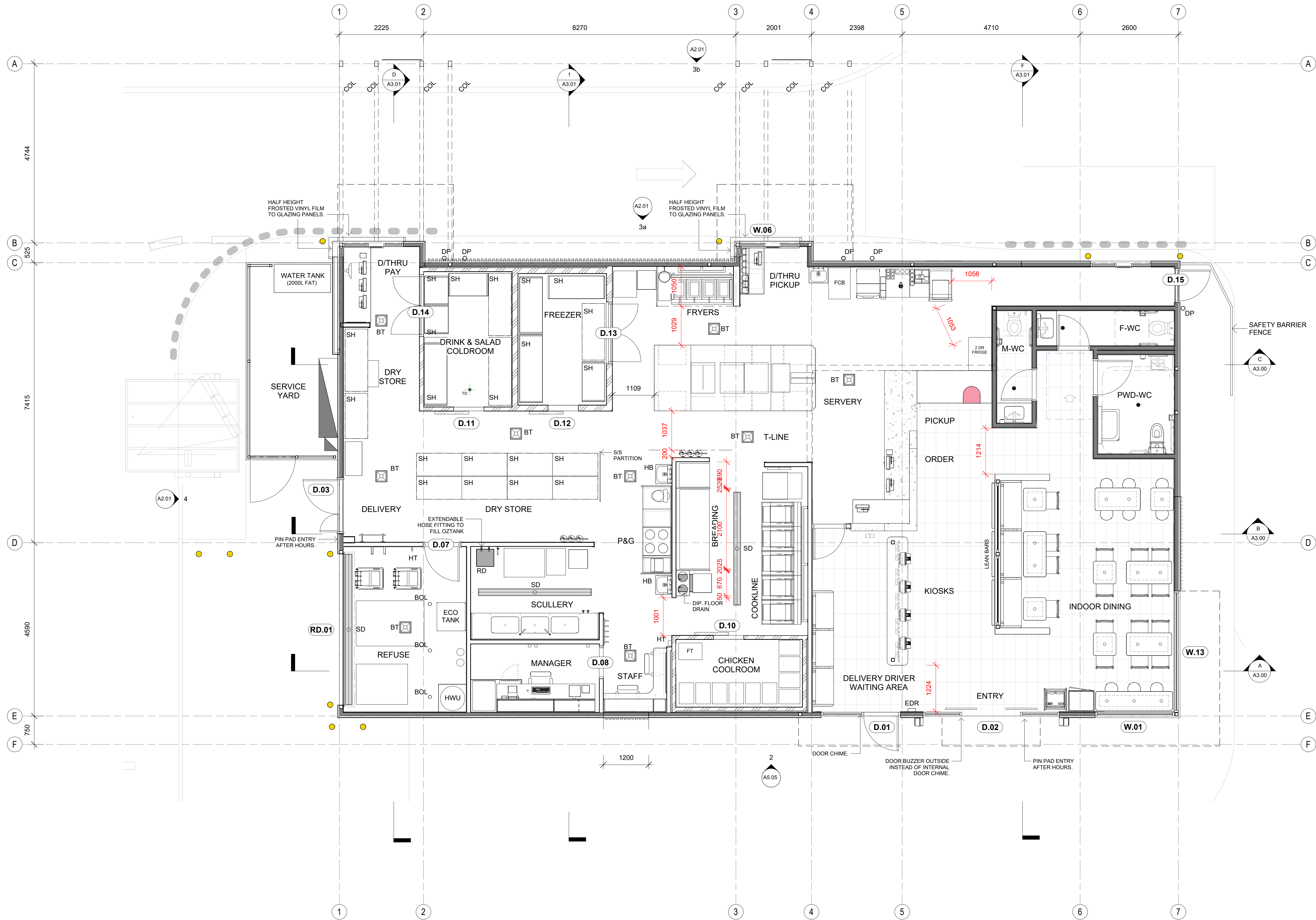
|                       |
|-----------------------|
| CLIENTS               |
| CFL                   |
| COLLINS FOODS LIMITED |

|                                                                                 |
|---------------------------------------------------------------------------------|
| PROJECT                                                                         |
| KFC                                                                             |
| HAMMOND PARK SHOPPING CENTRE - PAD SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA 6164 |

|                          |
|--------------------------|
| DRAWING                  |
| EXTERNAL SIGNAGE DETAILS |

|             |         |          |                   |
|-------------|---------|----------|-------------------|
| DRAWN       | Author  | SCALE    | As indicated @ A1 |
| CHECKED     | Checker | APPROVED | Approver          |
| DRAWING No. | REV     |          |                   |
| A0.11       | C       |          |                   |





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| Rev | Date     | Title                           |
|-----|----------|---------------------------------|
| C   | 12.08.25 | Delivery Door Added             |
| D   | 20.08.25 | Revised Ground                  |
| E   | 02.09.25 | Updated Drawings - CFL Comments |
| F   | 03.09.25 | Updated Drawings - CFL Comments |
| G   | 28.11.25 | Updated Drawings for DA         |



REVIEW/ FAF 01

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PROJECT

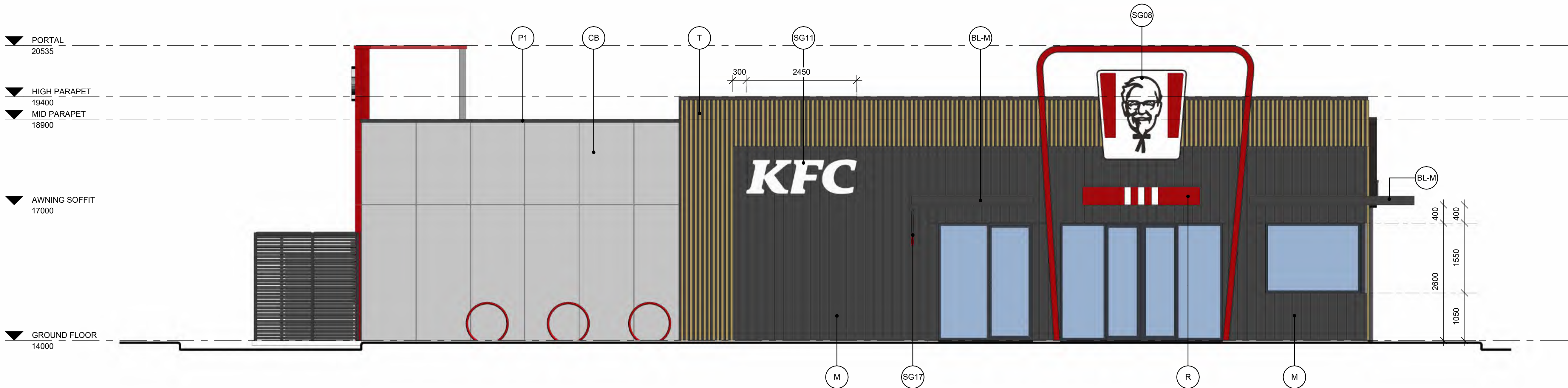
**KFC**  
HAMMOND PARK SHOPPING CENTRE - PAD  
SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA  
6164

DRAWING

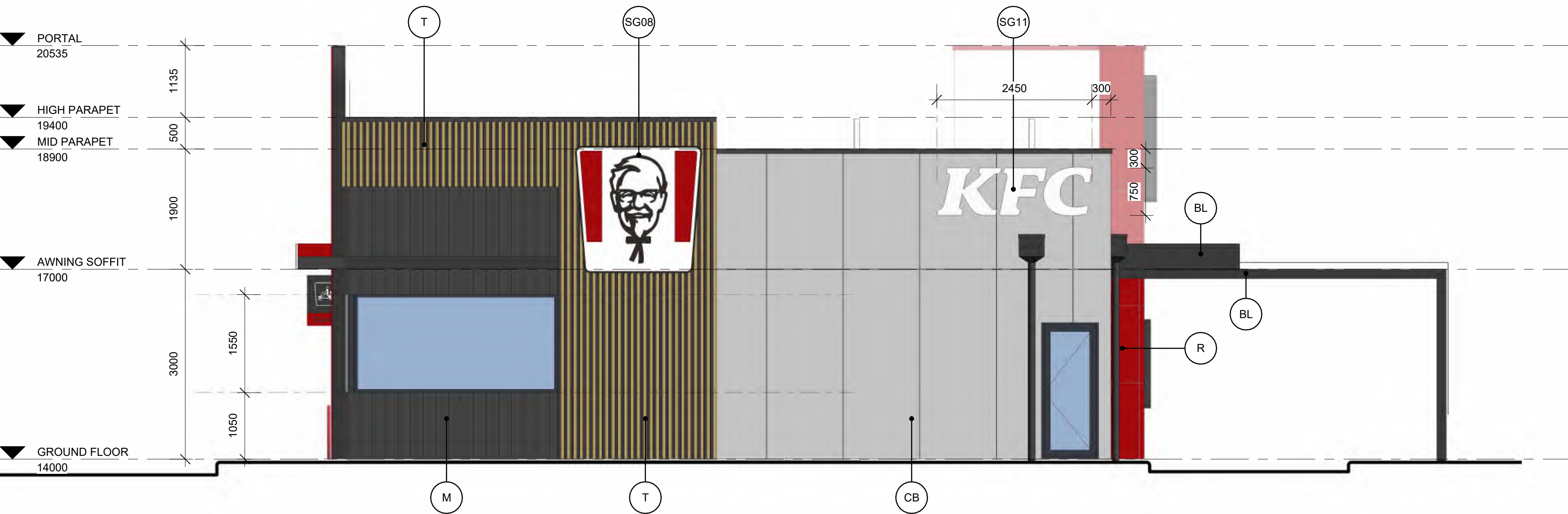
**FLOOR PLAN**

|             |         |          |          |     |    |
|-------------|---------|----------|----------|-----|----|
| DRAWN       | Author  | SCALE    | 1 : 50   | @   | A1 |
| CHECKED     | Checker | APPROVED | Approver |     |    |
| DRAWING No. |         |          |          | REV |    |
| A1.00       |         |          |          | G   |    |





1 ENTRY ELEVATION  
Scale @ A1: 1 : 50



2 FRONT ELEVATION  
Scale @ A1: 1 : 50

| SCHEDULE - EXTERNAL FINISHES |                                                                                                                                                                                                                                                             |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BL                           | KFC 'BLACK CAVIAR' - BLACK (SN4H9) DULUX WEATHERSHIELD LOWSHEEN ACRYLIC SUBSTRATE: EXPRESS JOINT EXOTEC FC CLADDING AND TOPHATS OR STEELWORK (External)                                                                                                     |
| BL-M                         | DULUX POWDERCOAT ELECTRO MONUMENT FLAT (9069171F) (External)                                                                                                                                                                                                |
| CB                           | 9MM PRE-FINISHED FIBRE CEMENT PANELS 'CEMINTEL TERRITORY QUARRY' URBAN GREY WITH FEATURE DIVOTS. FACTORY FINISH WITH CEMINSEAL. EXPRESSED NOMINAL 20MM SHADOWLINES PAINTED DULUX 'BLACK' (SG6G6) (External)                                                 |
| M                            | METAL CLADDING TO BE 'LYSAGHT LONGLINE 305' IN COLORBOND 'MONUMENT' INSTALLED ON 35MM HORIZONTAL TOPHATS (External)                                                                                                                                         |
| R                            | KFC 'RED BOX' - RED (A0639) DULUX WEATHERSHIELD LOWSHEEN ACRYLIC ON EXPRESS JOINT EXOTEC FC CLADDING AND TOPHATS.(External)                                                                                                                                 |
| T                            | 50 X 50MM ALUMINIUM TIMBER LOOK CLKIP ON BATTENS 'ALIWOOD CLIP ON' (5050C05) IN 'SNOWGUM'. TO BE INSTALLED VERTICALLY ON FIBRE CEMENT SHEETING AND TOPHATS BEHIND TO MANUFACTURERS INSTRUCTIONS. FC SHEETING TO BE PAINTED DULUX 'BLACK' (SG6G6) (External) |

| SCHEDULE - SIGNAGE |                    |
|--------------------|--------------------|
| SG08               | COLONELS SIGN      |
| SG11               | KFC LETTERS: WHITE |
| SG17               | DELIVERY AREA SIGN |

| SCHEDULE - METALWORKS |                                                                                                                        |
|-----------------------|------------------------------------------------------------------------------------------------------------------------|
| P1                    | LYSAGHT PARAPET CAPPING IN DULUX POWDERCOAT ELECTRO MONUMENT FLAT (9069171F). REFER TO DETAILS FOR WIDTHS. (Metalwork) |



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| Rev | Date     | Title                           |
|-----|----------|---------------------------------|
| A   | 18.05.25 | ISSUED FOR FAF 01 APPROVAL      |
| B   | 07.05.25 | Revised Portal Design           |
| C   | 12.08.25 | Delivery Door Added             |
| D   | 02.09.25 | Updated Drawings - CFL Comments |
| E   | 28.11.25 | Updated Drawings for DA         |

REVIEW/ FAF 01

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ABEW Reg: 2222

CLIENTS



PROJECT

KFC

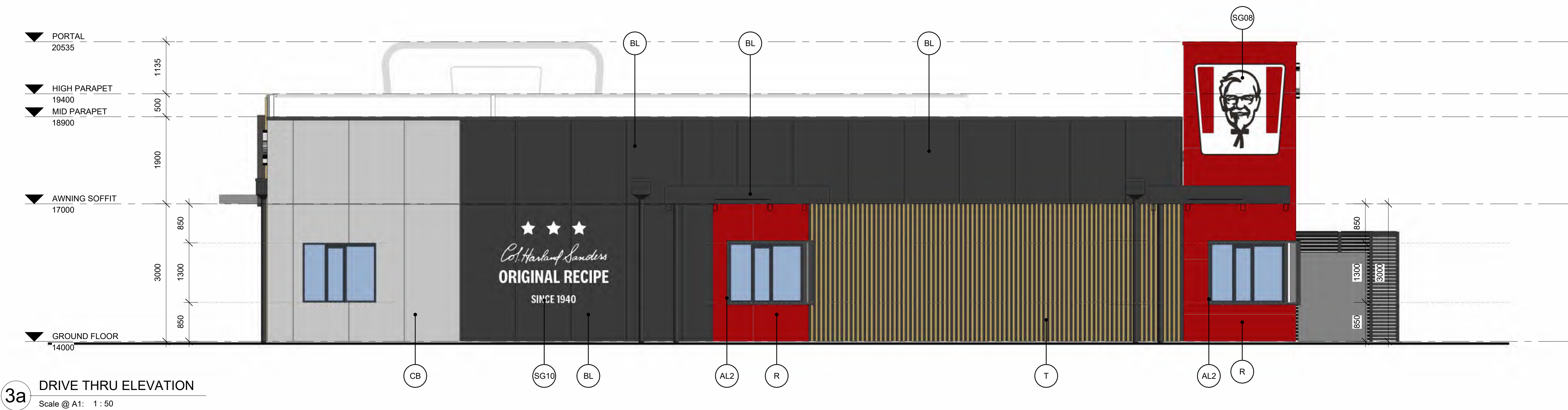
HAMMOND PARK SHOPPING CENTRE - PAD  
SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA  
6164

DRAWING

ELEVATIONS - SHEET 01

|             |         |              |          |
|-------------|---------|--------------|----------|
| DRAWN       | Author  | SCALE 1 : 50 | @ A1     |
| CHECKED     | Checker | APPROVED     | Approver |
| DRAWING No. | REV     |              | E        |
| A2.00       |         |              |          |

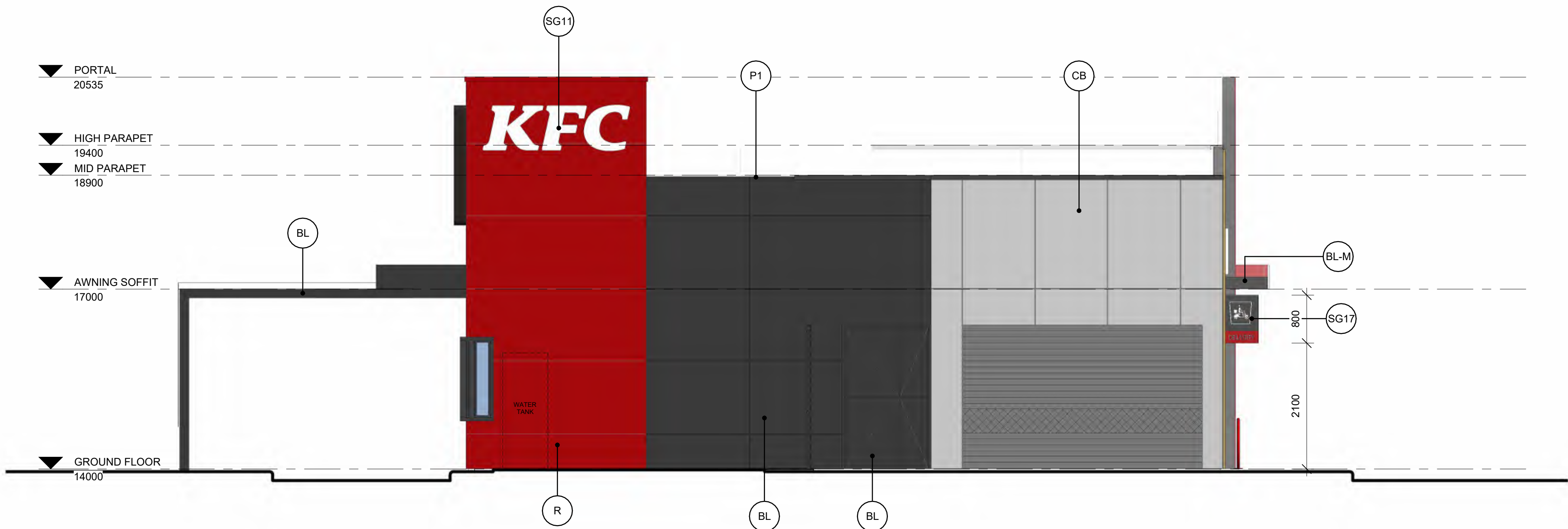




3a DRIVE THRU ELEVATION  
Scale @ A1: 1 : 50



3b DRIVE THRU ELEVATION - SCREENS AND POSTS  
Scale @ A1: 1 : 50



4 DELIVERY SIDE ELEVATION  
Scale @ A1: 1 : 50



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|-----|----------|--------------------------------|
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| B   | 07.05.25 | Revised Portal Design          |
| C   | 02.09.25 | Updated Drawings - CFLComments |
| D   | 28.11.25 | Updated Drawings for DA        |

| SCHEDULE - EXTERNAL FINISHES |                                                                                                                                                                                                                                                            |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BL                           | KFC 'BLACK CAVIAR' - BLACK (SN4H9) DULUX WEATHERSHIELD LOWSHEEN ACRYLIC SUBSTRATE, EXPRESS JOINT EXOTEC FC CLADDING AND TOPHATS OR STEELWORK (External)                                                                                                    |
| BL-M                         | DULUX POWDERCOAT ELECTRO MONUMENT FLAT (9069171F) (External)                                                                                                                                                                                               |
| CB                           | 9MM PRE-FINISHED FIBRE CEMENT PANELS 'CEMINTEL TERRITORY QUARRY'. URBAN GREY WITH FEATURE DIVOTS. FACTORY FINISH WITH CEMINSEAL EXPRESSED NOMINAL 20MM SHADOWLINES PAINTED DULUX 'BLACK' (SG6G6) (External)                                                |
| R                            | KFC 'RED BOX' - RED (A0639) DULUX WEATHERSHIELD LOWSHEEN ACRYLIC ON EXPRESS JOINT EXOTEC FC CLADDING AND TOPHATS (External)                                                                                                                                |
| T                            | 50 X 50MM ALUMINIUM TIMBER LOOK CLIP ON BATTENS 'ALIWOOD CLIP ON' (5050C0S) IN 'SNOWGUM'. TO BE INSTALLED VERTICALLY ON FIBRE CEMENT SHEETING AND TOPHATS BEHIND TO MANUFACTURERS INSTRUCTIONS. FC SHEETING TO BE PAINTED DULUX 'BLACK' (SG6G6) (External) |

| SCHEDULE - SIGNAGE |                         |
|--------------------|-------------------------|
| SG08               | COLONELS SIGN           |
| SG10               | STAMP 'ORIGINAL RECIPE' |
| SG11               | KFC LETTERS: WHITE      |
| SG17               | DELIVERY AREA SIGN      |

| SCHEDULE - METALWORKS |                                                                                                                              |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------|
| AL2                   | 150 x 50mm 'ALIWOOD' CLIP ON BOX SECTIONS IN DULUX POWDERCOAT ELECTRO MONUMENT FLAT (9069171F) MITRE ALL CORNERS (Metalwork) |
| P1                    | LYSAGHT PARAPET CAPPING IN DULUX POWDERCOAT ELECTRO MONUMENT FLAT (9069171F). REFER TO DETAILS FOR WIDTHS. (Metalwork)       |

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ABEW Reg: 2222

CLIENTS



PROJECT

KFC

HAMMOND PARK SHOPPING CENTRE - PAD SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA 6164

DRAWING

ELEVATIONS - SHEET 02

|             |         |              |          |
|-------------|---------|--------------|----------|
| DRAWN       | Author  | SCALE 1 : 50 | @ A1     |
| CHECKED     | Checker | APPROVED     | Approver |
| DRAWING No. | REV     |              | D        |
| A2.01       |         |              |          |





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ABEW Reg: 2222

CLIENTS



PROJECT

KFC  
HAMMOND PARK SHOPPING CENTRE - PAD  
SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA  
6164

DRAWING

PERSPECTIVES 01

|             |         |          |          |   |    |
|-------------|---------|----------|----------|---|----|
| DRAWN       | Author  | SCALE    | 1 : 1    | @ | A1 |
| CHECKED     | Checker | APPROVED | Approver |   |    |
| DRAWING No. |         | REV      |          |   |    |
| A2.02       |         | E        |          |   |    |





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| Rev | Date     | Title                          |
|-----|----------|--------------------------------|
| A   | 18.05.25 | ISSUED FOR FAF 01 APPROVAL     |
| B   | 07.05.25 | Revised Portal Design          |
| C   | 02.09.25 | Updated Drawings - CFLComments |
| D   | 28.11.25 | Updated Drawings for DA        |

REVIEW/ FAF 01

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CLIENTS



PROJECT

KFC  
HAMMOND PARK SHOPPING CENTRE - PAD  
SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA  
6164

DRAWING

PERSPECTIVES 02

|             |         |          |          |     |    |
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| DRAWN       | Author  | SCALE    | 1 : 1    | @   | A1 |
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|-----|----------|---------------------------------|
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CLIENTS



PROJECT

KFC

HAMMOND PARK SHOPPING CENTRE - PAD  
SITE 2, WHADJUK DRIVE, HAMMOND PARK, WA  
6164

DRAWING

INTERNAL PERSPECTIVES

|             |         |          |          |     |    |
|-------------|---------|----------|----------|-----|----|
| DRAWN       | Author  | SCALE    | 1 : 1    | @   | A1 |
| CHECKED     | Checker | APPROVED | Approver |     |    |
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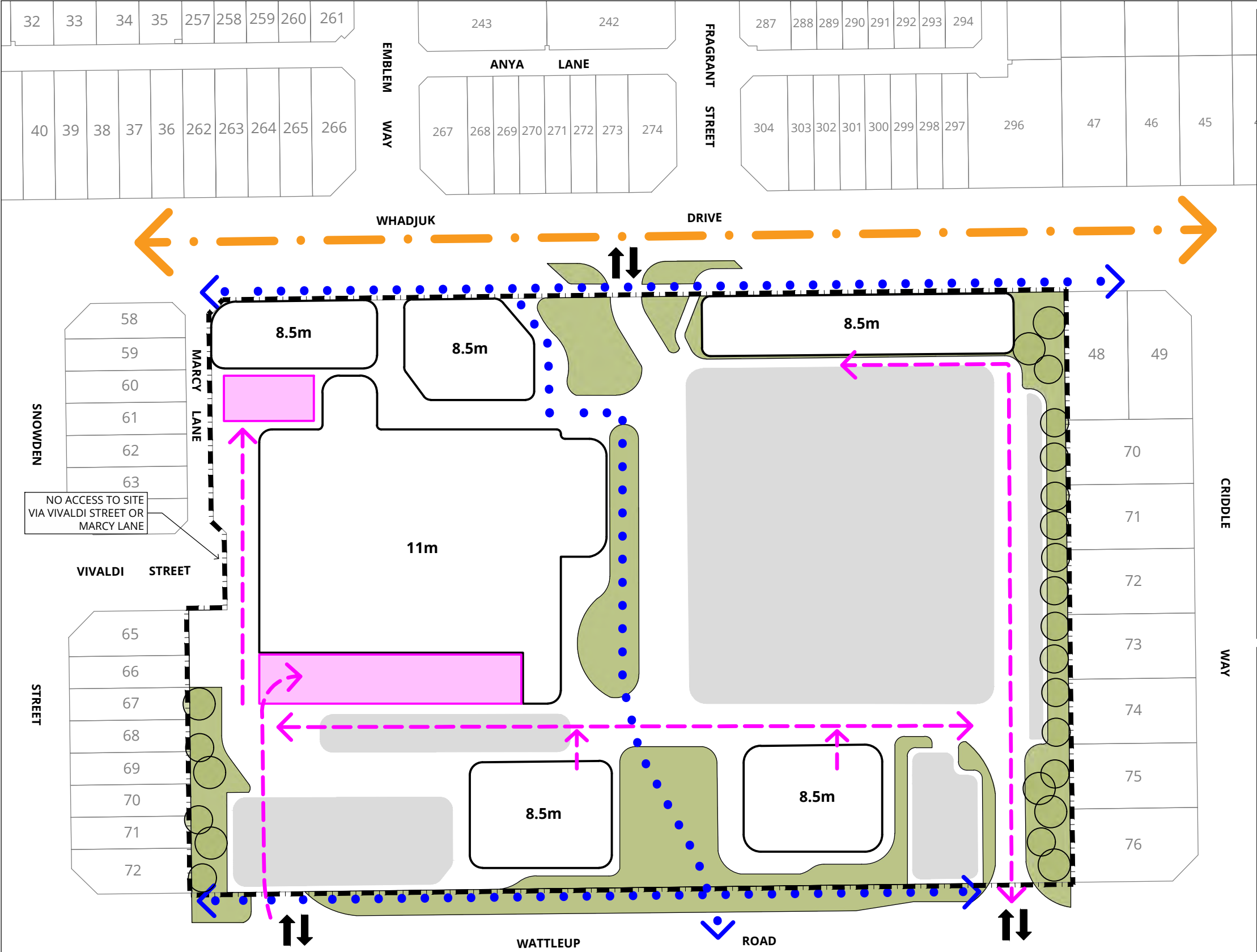




# ATTACHMENT 3

Local Development Plan





PROVISIONS

- This Local Development Plan (LDP) applies to Lots 9053 and 9043 Wattleup Road, and Lot 305 Whadjuk Drive, being the Neighbourhood Centre within the Wattle Rise Estate, Hammond Park. Unless otherwise varied or defined on this LDP, all development shall be in accordance with the City of Cockburn Town Planning Scheme No. 3 and adopted Local Planning Policies, and the approved Local Structure Plan (SPN 0543).
1. Parking and vehicular access is to be generally located as identified on this LDP.
  2. Landscaping is to be provided generally as depicted on this LDP. A Landscape Master Plan shall be prepared at the Development Application stage.
  3. A minimum 4.0m wide landscaping strip is to be provided along the eastern and western boundary, where directly abutting residential lots, generally in the location shown on the LDP.
  4. Buildings are permitted to a maximum height of 11 meters for the primary building and reduced to a maximum of 8.5m where fronting Whadjuk Drive and Wattleup Road, and where in closer proximity to adjoining residential development. Maximum building heights are to be applied generally as identified on the Local Development Plan. Building heights exclude signage, air conditioning, plant and equipment.
  5. Access and traffic management is to be addressed at Development Application stage through the preparation of a Traffic Impact Assessment.
  6. Buildings are to be set back a minimum of 6 metres from residential lot boundaries, increasing to a minimum of 14 metres where building heights increase to 11 metres.

LEGEND

- LOTS SUBJECT TO THIS LDP
- BUILDING LOCATION
- PROPOSED LANDSCAPING (HARD AND SOFT)
- PARKING ZONE
- LOADING & SERVICE AREA
- NEIGHBOURHOOD CENTRE MAIN STREET
- KEY PEDESTRIAN LINK
- INDICATIVE SERVICE DELIVERY ROUTE
- SITE ACCESS (VEHICLE)
- PROPOSED BUILDING HEIGHT (EXCLUDES SIGNAGE, AIR CONDITIONING, PLANT AND EQUIPMENT)

NOTE:

Proposed landscaping, parking, building footprints, service areas and delivery routes are subject to detailed design as part of any future Development Application(s), however shall be located generally as identified on this LDP.

LOCAL DEVELOPMENT PLAN  
LOTS 9053 AND 9043 WATTLEUP ROAD, AND LOT 305 WHADJUK DRIVE  
HAMMOND PARK



# ATTACHMENT 4

## Approved Bushfire Management Plan



**JBS&G65004-151745**

12 May 2023

Kris Kennedy

Aigle Royal

Via email: [kkennedy@aigleroyal.com.au](mailto:kkennedy@aigleroyal.com.au)

## **Bushfire Management Plan Addendum: Wattleup Road Neighbourhood Centre, Hammond Park Development Application**

### **Introduction**

Strategen-JBS&G (now JBS&G) prepared a comprehensive Bushfire Management Plan (BMP) in June 2022 to support Aigle Royal in their Structure Plan Amendment for a proposed Local Centre (R80) site within Lots 9042 and 9052 Wattleup Road and Lot 305 Whadjuk Drive, Hammond Park in the City of Cockburn. The Local Centre (R80) site was approved and the proponent has now progressed to the Development Application (DA) stage.

The proposed Wattleup Road Neighbourhood Centre DA will create one large commercial building for a supermarket and other speciality shops with supporting infrastructure, two proposed fast-food outlets, an internal road network, car parking and landscaped areas within the Local Centre (R80) site, as depicted in Figure 1. Collectively, the habitable building components of the DA are hereon referred to as the project area.

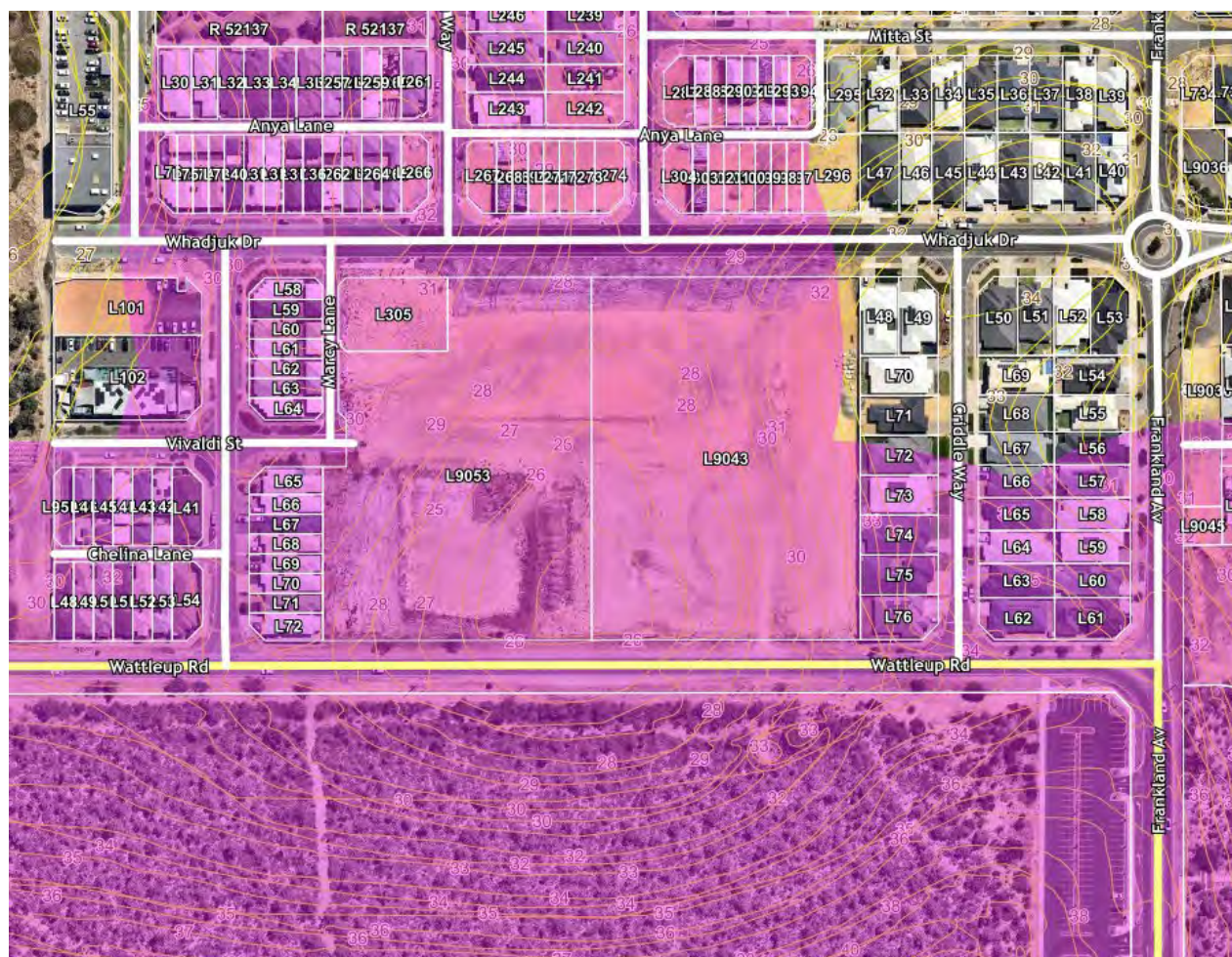
This BMP is an addendum to the previous Structure Plan Amendment BMP (Strategen-JBS&G 2022) and provides an updated bushfire assessment specific to the DA and site plan contained in Figure 1. This BMP addendum should be read in conjunction with the previous Strategen-JBS&G (2022) BMP.

This BMP addendum includes the following information:

1. A revised bushfire assessment including:
  - a. an updated Vegetation Classification and Effective Slope map (Figure 2) depicting the post-development vegetation classifications and exclusions specific to the DA project area
  - b. an updated BAL Contour map (Figure 3) specific to the DA project area and post-development vegetation conditions mapped from Item 1a above.
2. An updated assessment against the bushfire protection criteria of the Guidelines (Table 3), including updated statements of compliance against acceptable solutions to demonstrate compliance within the boundary of the development site.
3. A works program (Table 4) outlining responsibilities and timing for implementation of the bushfire management actions specific to the proposed DA.

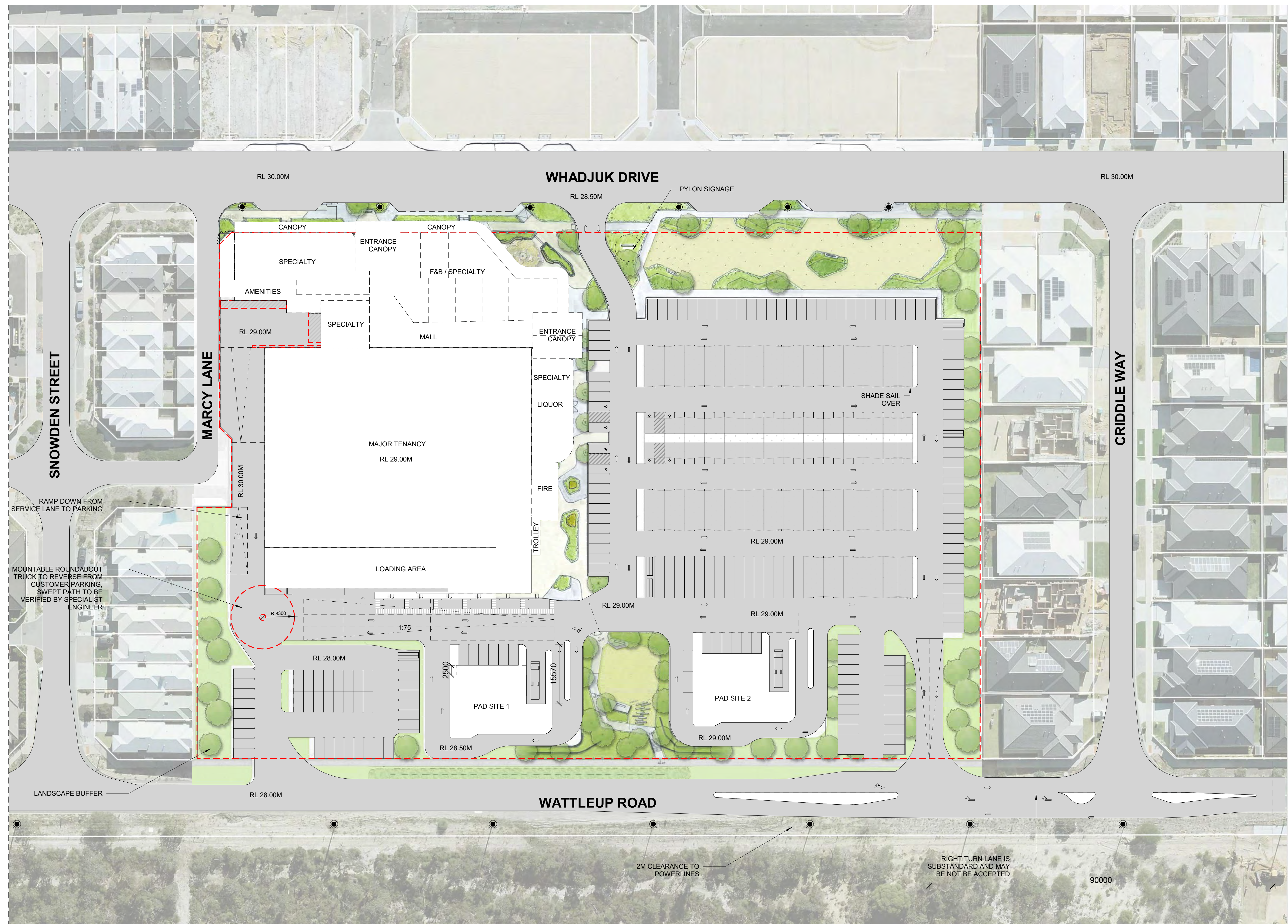
This BMP addendum has been prepared to accompany the DA for the proposed Wattleup Road Neighbourhood Centre and address requirements under Policy Measure 6.5 of *State Planning Policy 3.7 Planning in Bushfire Prone Areas* (SPP3.7; WAPC 2015) in accordance with *Guidelines for Planning in Bushfire-Prone Areas Version 1.4* (the Guidelines; WAPC 2021).

The entirety of the project area is designated as bushfire prone on the Map of Bush Fire Prone Areas (DFES 2021; Plate 1); therefore, bushfire risk considerations and BAL assessment are required to inform proposed DA design and planning application, as per requirements of Policy Measure 6.2 of SPP3.7.



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## Bushfire assessment results

### 2.1 Assessment inputs

#### 2.1.1 Vegetation classifications and exclusions

Classified vegetation and exclusions were assessed as part of the previous Strategen-JBS&G (2022) Structure Plan amendment BMP and this assessment has been updated to capture current on-ground conditions through site reassessment.

Classified vegetation and exclusions were reassessed within the project area and adjoining 150 m (the assessment area) through on-ground verification on 27 April 2023 in accordance with AS 3959-2018 *Construction of Buildings in Bushfire-Prone Areas* (AS3959; SA 2018) and the *Visual Guide for Bushfire Risk Assessment in Western Australia* (DoP 2016). Georeferenced site photos of the various classified vegetation and exclusions are contained in Appendix B. A spatial representation of the vegetation classifications and exclusions are depicted in Figure 2.

Classified vegetation within the assessment area can be summarised as follows, consistent with results from the previous Strategen-JBS&G (2022) Structure Plan amendment BMP:

- Class D scrub retained within Frankland Park to the south of Wattleup Road and in a small area to the west of the project area on adjacent rural land containing predominantly low banksia with a height of 2–6 m
- Class G grassland greater than 100 mm in height west of the project area on adjacent rural land.

Existing land occupied by buildings, roads, footpaths and carparks was assessed to be excluded from classification under Clause 2.2.3.2 (e) of AS 3959. Existing land occupied by active POS, street verges, managed gardens, maintained firebreaks and vacant residential lots was assessed to be excluded from classification under Clause 2.2.3.2 (f) of AS 3959.

All land within the project area has already been modified to a low threat state and is excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959. This exclusion will be maintained through formal construction of the development and associated landscaping (as per landscape design in Appendix A) to a permanent low threat state.

#### 2.1.2 Effective Slope

Effective slope under classified vegetation was assessed within the assessment area through on-ground verification on 27 April 2023 in accordance with AS 3959. Results were cross-referenced with DPIRD 2m contour data and are depicted in Figure 2.

Effective slope under classified vegetation was assessed to be flat/up-slope (i.e. 0 degrees) in all instances, consistent with results from the previous Strategen-JBS&G (2022) Structure Plan amendment BMP.

#### 2.1.3 Post-development inputs

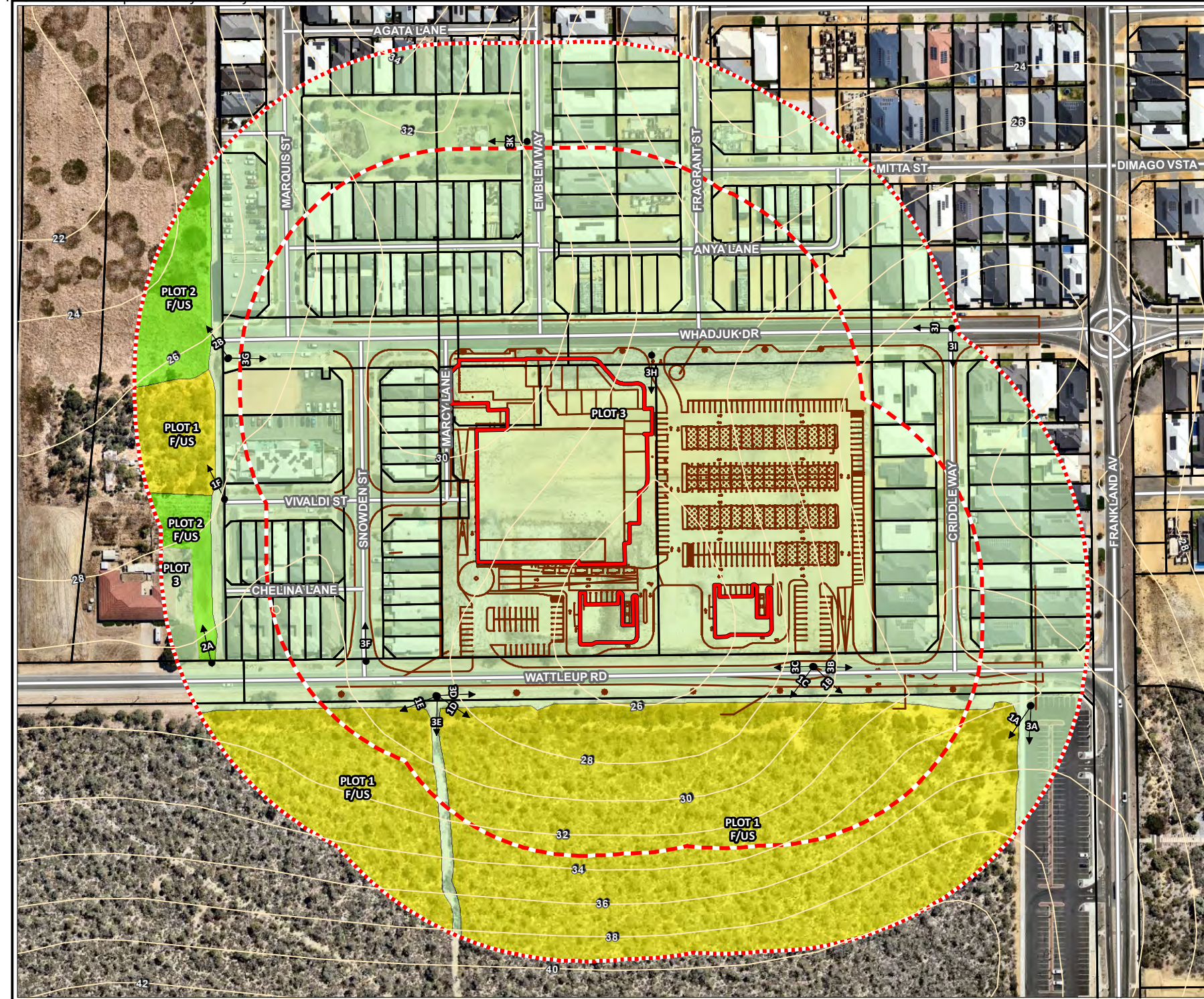
Figure 2 illustrates the anticipated post-development vegetation classifications and exclusions following completion of development works and implementation of low threat landscaping. The post-development vegetation classifications/exclusions and effective slope are summarised in Table 1.



**Table 1: Summary of post-development vegetation classifications, exclusions and effective slope**

| Vegetation plot | Vegetation classification                                            | Effective slope   | Comments                                                                                                                                                                                                   |
|-----------------|----------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1               | Class D Scrub                                                        | Flat/upslope (0°) | Vegetation with a continuous horizontal fuel profile, 2–6 m in height comprising banksia and acacia species                                                                                                |
| 2               | Class G Grassland                                                    | Flat/upslope (0°) | Unmanaged grassland greater than 100 mm in height at maturity                                                                                                                                              |
| 3               | Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f]) | N/A               | Existing non-vegetated areas including roads, buildings, car parks and footpaths; and low threat managed land including active POS, street verges, firebreaks, managed gardens and vacant residential lots |





**Legend**

- Project area
- 100m assessment area
- 150m assessment area
- Cadastral boundary
- Vegetation classification
  - Class D Scrub
  - Class G Grassland
  - Clause 2.2.3.2 (e) & (f)
- Photo point directions
- Topographic contours (mAH)
- Roads

Job No: 65004

Client: Aigle Royal

|                  |                 |
|------------------|-----------------|
| Version: A       | Date 28/04/2023 |
| Drawn By: jcrute | Checked By: ZC  |

Scale 1:2,400 at A4

Coor. Sys. GDA 1994 MGA Zone 50

**Wattleup Road Neighbourhood Centre, Hammond Park WA**

**VEGETATION CLASSIFICATION AND EFFECTIVE SLOPE**

**FIGURE 2**



## 2.2 Assessment outputs

### 2.2.1 Bushfire Attack Level (BAL) contour assessment

JBS&G has undertaken a BAL contour assessment for the project area in accordance with Method 1 of AS3959 and Appendix 3 of the Guidelines (Figure 3). The Method 1 procedure incorporates the following factors:

- state adopted FDI 80 rating
- vegetation classification
- effective slope
- distance maintained between proposed development areas and the classified vegetation.

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

The BAL contours are based on:

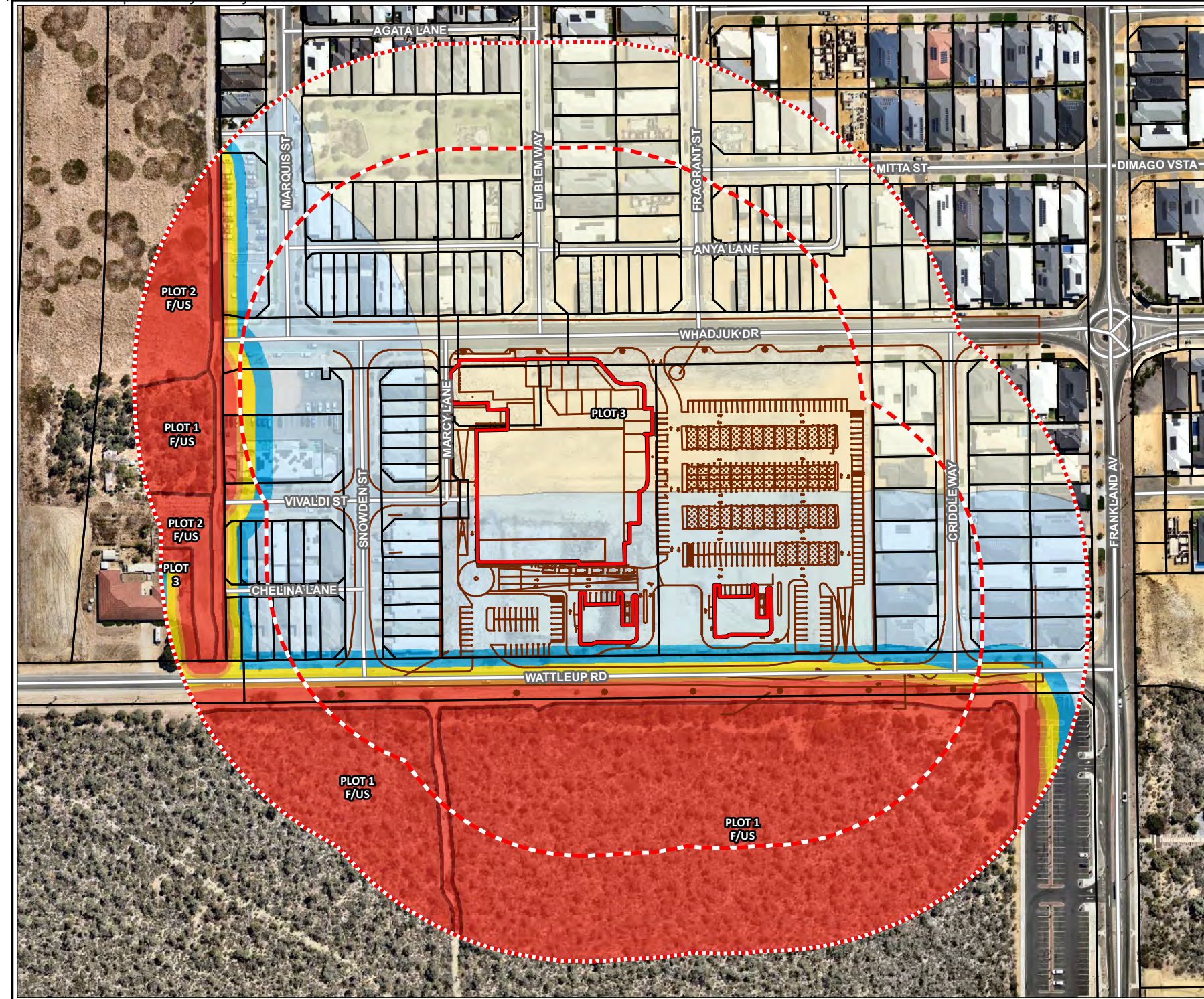
- the vegetation classifications, exclusions and effective slope observed during updated site inspection
- consideration of the on-site clearing extent, proposed low threat landscaping and resultant separation distances achieved in line with the DA site plan.

Results of the BAL contour assessment are detailed in Table 2 and illustrated in Figure 3. The determined worst case BAL impact to proposed habitable development is BAL–12.5.

**Table 2: BAL contour assessment results**

| Method 1 BAL determination |                                                                      |                   |                     |             |
|----------------------------|----------------------------------------------------------------------|-------------------|---------------------|-------------|
| Vegetation plot            | Vegetation classification                                            | Effective slope   | Separation distance | Highest BAL |
| 1                          | Class D Scrub                                                        | Flat/upslope (0°) | 28 m                | BAL–12.5    |
| 2                          | Class G Grassland                                                    | Flat/upslope (0°) | >50 m               | BAL–Low     |
| 3                          | Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f]) | N/A               | N/A                 | N/A         |





- Legend**
- Project area
  - 100m assessment area
  - 150m assessment area
  - Cadastral boundary
  - Classified vegetation
  - BAL contours
    - BAL FZ
    - BAL 40
    - BAL 29
    - BAL 19
    - BAL 12.5
    - BAL Low
  - Roads



Job No: 65004

Client: Aigle Royal

|                  |                 |
|------------------|-----------------|
| Version: A       | Date 28/04/2023 |
| Drawn By: jcrute | Checked By: ZC  |

Scale 1:2,400 at A4

0 50 100 metres

Coor. Sys. GDA 1994 MGA Zone 50

**Wattleup Road Neighbourhood Centre, Hammond Park WA**

**BAL CONTOUR MAP**

**FIGURE 3**



## 2.3 Assessment against bushfire protection criteria

### 2.3.1 Compliance with Elements 1-4

Compliance with Elements 1–4 of the bushfire protection criteria of the Guidelines (Version 1.4) is demonstrated by meeting the acceptable solutions, as detailed in Table 3.

**Table 3: Compliance with the bushfire protection criteria of the Guidelines (Elements 1–4)**

| Bushfire protection criteria        | Performance Principle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Method of compliance                                                                                                                                                                                                                                 | Statement of development compliance                                                                                                                                                                                                                                                                                                                                                          | Compliance achieved |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Acceptable solutions                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                              |                     |
| <b>Element 1: Location</b>          | <b>Performance Principle P1</b><br>The strategic planning proposal, subdivision and development application is located in an area where the bushfire hazard assessment is or will, on completion, be moderate or low, or a BAL–29 or below, and the risk can be managed. For unavoidable development in areas where BAL–40 or BAL–FZ applies, demonstrating that the risk can be managed to the satisfaction of the decision-maker.                                                                      | <b>A1.1 Development location</b><br>The strategic planning proposal, subdivision and development application is located in an area that is or will, on completion, be subject to either a moderate or low bushfire hazard level, or BAL–29 or below. | The BAL contour assessment (see Figure 3 and Table 2) demonstrates that all proposed habitable development will be located in areas of BAL-29 or lower.                                                                                                                                                                                                                                      | ✓                   |
| <b>Element 2: Siting and design</b> | <b>Performance Principle P2</b><br>The siting and design of the strategic planning proposal, subdivision or development application, including roads, paths and landscaping, is appropriate to the level of bushfire threat that applies to the site. The proposal incorporates a defensible space and significantly reduces the heat intensities at the building surface thereby minimising the bushfire risk to people, property and infrastructure, including compliance with AS 3959 if appropriate. | <b>A2.1 Asset Protection Zone</b><br>Every habitable building is surrounded by, and every proposed lot can achieve, an APZ depicted on submitted plans, which meets the requirements set out in Schedule 1.                                          | No formal Asset Protection Zones (APZs) are required to deliver BAL-29 or lower given the suitable extent of low threat separation provided between proposed habitable development and the classified vegetation extent.<br>Any on-site landscaping is to comply with the Clause 2.2.3.2 (f) provisions of AS3959 and Schedule 1 APZ Standards of the Guidelines, as outlined in Appendix C. | ✓                   |
| <b>Element 3: Vehicular access</b>  | <b>Performance Principle P3i</b><br>The design and capacity of vehicular access and egress is to provide for the community to evacuate to a suitable destination before a bushfire arrives at the site, allowing                                                                                                                                                                                                                                                                                         | <b>A3.1 Public roads</b><br><i>The minimum requirements under this acceptable solution are applicable to all proposed and existing public roads.</i><br>Public roads are to meet the minimum technical requirements in Table 6, Column 1.            | No public roads are proposed as part of the DA.                                                                                                                                                                                                                                                                                                                                              | N/A                 |

| Bushfire protection criteria | Performance Principle                                                     | Method of compliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Statement of development compliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Compliance achieved |
|------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
|                              |                                                                           | Acceptable solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                     |
|                              | emergency services personnel to attend the site and/or hazard vegetation. | The trafficable (carriageway/pavement) width is to be in accordance with the relevant class of road in the Local Government Guidelines for Subdivisional Development (IPWEA Subdivision Guidelines), Liveable Neighbourhoods, Austroad standards and/or any applicable standards for the local government area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                     |
|                              |                                                                           | <p><b>A3.2a Multiple access routes</b></p> <p>Public road access is to be provided in two different directions to at least two different suitable destinations with an all-weather surface (two-way access).</p> <p>If the public road access to the subject site is via a no-through road which cannot be avoided due to demonstrated site constraints, the road access is to be a maximum of 200 metres from the subject lot(s) boundary to an intersection where two-way access is provided.</p> <p>The no-through road may exceed 200 metres if it is demonstrated that an alternative access, including an emergency access way, cannot be provided due to site constraints and the following requirements are met:</p> <ul style="list-style-type: none"><li>• the no-through road travels towards a suitable destination; and</li><li>• the balance of the no-through road, that is greater than 200 metres from the subject site, is wholly within BAL-LOW, or is within a residential built-out area – Figure 23.</li></ul> | <p>Proposed DA design indicates multiple vehicular access connections to the surrounding public road network leading to suitable destinations with:</p> <ul style="list-style-type: none"><li>• two connections to Wattleup Road to the south, providing the option of travelling east to Kwinana Freeway and west to Rockingham Road</li><li>• one connection to the north onto Whadjuk Drive, with the option of travelling east to Barfield Road or west to Marquis Street, which leads to Hammond Road heading northwards.</li></ul> <p>This is in accordance with provisions for multiple access routes, as outlined in Appendix D.</p> | ✓                   |
|                              |                                                                           | <p><b>A3.2b Emergency access way</b></p> <p><i>Where it is demonstrated that A3.2a cannot be achieved due to site constraints, or where an alternative design option does not exist, an emergency access way can be considered as an acceptable solution.</i></p> <p>An emergency access way is to meet all the following requirements:</p> <ul style="list-style-type: none"><li>• requirements in Table 6, Column 2;</li><li>• provides a through connection to a public road;</li><li>• be no more than 500 metres in length; and</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p>N/A – The proposed DA will comply with Acceptable Solution A3.2 by providing access in two different directions to at least two different suitable destinations. In this regard, Emergency Access Ways (EAWs) are not proposed or required to provide through access to a public road.</p>                                                                                                                                                                                                                                                                                                                                                | N/A                 |



| Bushfire protection criteria | Performance Principle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Method of compliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Statement of development compliance                                             | Compliance achieved |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------|
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Acceptable solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                 |                     |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>must be signposted and if gated, gates must open the whole trafficable width and remain unlocked.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                 |                     |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p><b>A3.3 Through-roads</b></p> <p>All public roads should be through-roads. No-through roads should be avoided and should only be considered as an acceptable solution where:</p> <ul style="list-style-type: none"> <li>it is demonstrated that no alternative road layout exists due to site constraints; and</li> <li>the no-through road is a maximum length of 200 metres to an intersection providing two-way access, unless it satisfies the exemption provisions in A3.2a of this table.</li> </ul> <p>A no-through road is to meet all the following requirements:</p> <ul style="list-style-type: none"> <li>requirements of a public road (Table 6, Column 1); and</li> <li>turn-around area as shown in Figure 24.</li> </ul>                                                                                                                                                                       | N/A –applies to strategic planning proposals and subdivision applications only. | N/A                 |
|                              | <p><b>Performance Principle P3ii</b></p> <p>The design of vehicular access and egress provides:</p> <ul style="list-style-type: none"> <li>access and egress for emergency service vehicles while allowing the community to evacuate;</li> <li>a defensible space for emergency services personnel on the interface between classified vegetation and development site; and</li> <li>hazard separation between classified vegetation and the subject site to reduce the potential radiant heat that may impact a lot(s).</li> </ul> | <p><b>A3.4a Perimeter roads</b></p> <p>A perimeter road is a public road and should be provided for greenfield or infill development where 10 or more lots are being proposed (including as part of a staged subdivision) with the aim of:</p> <ul style="list-style-type: none"> <li>separating areas of classified vegetation under AS3959, which adjoin the subject site, from the proposed lot(s); and</li> <li>removing the need for battle-axe lots that back onto areas of classified vegetation.</li> </ul> <p>A perimeter road is to meet the requirements contained in Table 6, Column 1.</p> <p>A perimeter road may not be required where:</p> <ul style="list-style-type: none"> <li>the adjoining classified vegetation is Class G Grassland;</li> <li>lots are zoned for rural living or equivalent;</li> <li>it is demonstrated that it cannot be provided due to site constraints; or</li> </ul> | N/A –applies to strategic planning proposals and subdivision applications only. | N/A                 |

| Bushfire protection criteria | Performance Principle                                                                                                                                                                                                                                                                                                                                                                                                                                             | Method of compliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Statement of development compliance                                             | Compliance achieved |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------|
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Acceptable solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                 |                     |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>all lots have frontage to an existing public road.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                 |                     |
|                              | <b>Performance Principle P3iii</b><br>Vehicular access is provided which allows: <ul style="list-style-type: none"> <li>access and egress for emergency service vehicles;</li> <li>defendable space for emergency services</li> <li>personnel on the interface between classified vegetation and development; and</li> <li>hazard separation between classified vegetation and the site to reduce the potential radiant heat that may impact a lot(s).</li> </ul> | <b>A3.4b Fire service access route</b><br><i>Where proposed lots adjoin classified vegetation under AS3959, and a perimeter road is not required in accordance with A3.4a, a fire service access route can be considered as an acceptable solution to provide firefighter access, where access is not available, to the classified vegetation.</i><br>A fire service access route is to meet all the following requirements: <ul style="list-style-type: none"> <li>requirements in Table 6, Column 3;</li> <li>be through-routes with no dead-ends;</li> <li>linked to the internal road system at regular intervals, every 500 metres;</li> <li>must be signposted;</li> <li>no further than 500 metres from a public road;</li> <li>if gated, gates must open the required horizontal clearance and can be locked by the local government and/or emergency services, if keys are provided for each gate; and</li> <li>turn-around areas designed to accommodate type 3.4 fire appliances and to enable them to turn around safely every 500 metres.</li> </ul> | N/A –applies to strategic planning proposals and subdivision applications only. | N/A                 |
|                              | <b>Performance Principle P3iv</b><br>Vehicular access is provided which allows emergency service vehicles to directly access all habitable buildings and water supplies and exit the lot without entrapment.                                                                                                                                                                                                                                                      | <b>A3.5 Battle-axe access legs</b><br><i>Where it is demonstrated that a battle-axe cannot be avoided due to site constraints, it can be considered as an acceptable solution.</i><br>There are no battle-axe technical requirements where the point the battle-axe access leg joins the effective area of the lot, is less than 50 metres from a public road in a reticulated area.<br>In circumstances where the above condition is not met, or the battle-axe is in a non-reticulated water area, the battle-axe is to meet all the following requirements: <ul style="list-style-type: none"> <li>requirements in Table 6, Column 4; and</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                           | N/A –applies to subdivision applications only.                                  | N/A                 |



| Bushfire protection criteria | Performance Principle            | Method of compliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Statement of development compliance                                                                                                                                                                                                                                                                | Compliance achieved |
|------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
|                              |                                  | Acceptable solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                    |                     |
|                              |                                  | <ul style="list-style-type: none"><li>passing bays every 200 metres with a minimum length of 20 metres and a minimum additional trafficable width of two metres (i.e. the combined trafficable width of the passing bay and constructed private driveway to be a minimum six metres).</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                    |                     |
|                              |                                  | <p><b>A3.6 Private driveways</b></p> <p>There are no private driveway technical requirements where the private driveway is:</p> <ul style="list-style-type: none"><li>within a lot serviced by reticulated water;</li><li>no greater than 70 metres in length between the most distant external part of the development site and the public road measured as a hose lay; and</li><li>accessed by a public road where the road speed limit is not greater than 70 km/h.</li></ul> <p>In circumstances where all of the above conditions are not met, or the private driveway is in a non-reticulated water area, the private driveway is to meet all the following requirements:</p> <ul style="list-style-type: none"><li>requirements in Table 6, Column 4;</li><li>passing bays every 200 metres with a minimum length of 20 metres and a minimum</li><li>additional trafficable width of two metres (i.e. the combined trafficable width of the passing bay and constructed private driveway to be a minimum six metres); and</li><li>turn-around area as shown in Figure 28 and within 30 metres of the habitable building.</li></ul> | N/A - the proposed development is located within a reticulated area where roads speeds will be lower than 70 km/hr and proposed lots are of size where all future habitable development will be located within 70 m of a public road. Therefore, no private driveway technical requirements apply. | N/A                 |
| <b>Element 4: Water</b>      | No performance principle applies | <p><b>A4.1 Identification of future water supply</b></p> <p>Evidence that a reticulated or sufficient non-reticulated water supply for bushfire fighting can be provided at the subdivision and/or development application stage, in accordance with the specifications of the relevant water supply authority or the requirements of Schedule 2.</p> <p>Where the provision of a strategic water tank(s) is required a suitable area within a road reserve or a dedicated lot the location should be identified, should be</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | N/A – applies to strategic planning proposals only.                                                                                                                                                                                                                                                | N/A                 |

| Bushfire protection criteria | Performance Principle                                                                                                                                                                                                                                                                                                                                                                                                                           | Method of compliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Statement of development compliance                                                                                                                                                                                                                                                     | Compliance achieved |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Acceptable solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                         |                     |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                 | identified on the structure plan, to the satisfaction of the local government.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                         |                     |
|                              | <p><b>Performance Principle P4</b></p> <p>Provide a permanent water supply that is:</p> <ul style="list-style-type: none"><li>• sufficient and available for firefighting purposes;</li><li>• constructed from non-combustible materials (e.g. steel), or able to maintain its integrity throughout a bushfire; and</li><li>• accessible, with legal access for maintenance and re-filling by tankers and emergency service vehicles.</li></ul> | <p><b>A4.2 Provision of water for firefighting purposes</b></p> <p>Where a reticulated water supply is existing or proposed, hydrant connection(s) should be provided in accordance with the specifications of the relevant water supply authority. Where these specifications cannot be met, then the following applies:</p> <ul style="list-style-type: none"><li>• The provision of a water tank(s), in accordance with the requirements of Schedule 2; and</li></ul> <p>Where the provision of a strategic water tank(s) is applicable, then the following requirements apply:</p> <ul style="list-style-type: none"><li>• land to be ceded free of cost to the local government for the placement of the tank(s);</li><li>• the lot or road reserve where the tank is to be located is identified on the plan of subdivision;</li><li>• tank capacity, construction, and fittings, provided in accordance with the requirements of Schedule 2; and</li><li>• a strategic water tank is to be located no more than 10 minutes from the subject site (at legal road speeds).</li></ul> <p>Where a subdivision includes an existing habitable building(s) that is to be retained, a water supply should be provided to this existing habitable building(s), in accordance with the requirements listed above.</p> | <p>The surrounding public road network has already been constructed with reticulated water services and a network of hydrants in accordance with Water Corporation Design Standard 63 requirements. The proposed infrastructure will be connected to this reticulated water supply.</p> | ✓                   |



## 2.4 Responsibilities for implementation and management of the bushfire measures

Implementation of the BMP addendum applies to the developer and prospective landowners to ensure bushfire management measures are adopted and implemented on an ongoing basis. A bushfire responsibilities table is provided in Table 4 to drive implementation of all relevant bushfire management works associated with the previous Strategen-JBS&G (2022) BMP and this addendum.

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

| Implementation/management table              |                                                                                                                                                                                                 |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Developer – prior to occupation of buildings |                                                                                                                                                                                                 |
| No.                                          | Implementation action                                                                                                                                                                           |
| 1                                            | Prepare a detailed landscape plan that demonstrates the anticipated low threat exclusions throughout all on-site landscaped areas in accordance with the requirements of this BMP addendum.     |
| 2                                            | Establish the project area and on-site landscape areas to a non-vegetated/low threat state in accordance with the requirements of this BMP addendum and abovementioned detailed landscape plan. |
| 3                                            | Provide an internal private driveway network with multiple connections to the surrounding public road network in accordance with the requirements of this BMP addendum.                         |
| 4                                            | Prepare a BMP compliance report to demonstrate the relevant bushfire management measures have been implemented to deliver compliance in accordance with this BMP addendum.                      |

## 2.5 References

Department of Fire and Emergency Services (DFES) 2021, *Map of Bush Fire Prone Areas*, [Online], Government of Western Australia, available from: <https://maps.slip.wa.gov.au/landgate/bushfireprone/>, [02/05/2023].

Department of Planning (DoP) 2016, *Visual guide for bushfire risk assessment in Western Australia*, Department of Planning, Perth.

Standards Australia (SA) 2018, *Australian Standard AS 3959–2018 Construction of Buildings in Bushfire-prone Areas*, Standards Australia, Sydney.

Strategen-JBS&G 2022, *Bushfire Management Plan (Structure Plan Amendment) – Lot 9042 and 9052 Wattleup Road and Lot 305 Whadjuk Drive, Hammond Park*, report prepared for Aigle Royal, June 2022.

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

Western Australian Planning Commission (WAPC) 2021, *Guidelines for Planning in Bushfire Prone Areas*, Version 1.4 December 2021, Western Australian Planning Commission, Perth.



## Appendix A    Landscape design



- LEGEND
- 01 MAIN STREET COMMERCIAL  
REFER TO L105-L106
  - 02 CORRIDOR  
REFER TO L107
  - 03 POCKET PARK  
REFER TO L108
  - 04 GREEN BUFFER  
REFER TO L109
  - 05 TEMPORARY LANDSCAPE  
REFER TO L109

HAMMOND PARK NEIGHBOURHOOD CENTRE  
PREPARED FOR HAMES SHARLEY ARCHITECTS

MASTERPLAN  
AUGUST 2022

JOB NO. 2210601  
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## Appendix B    Vegetation plot photos and descriptions





| Plot 2                      |                                                               |
|-----------------------------|---------------------------------------------------------------|
| Vegetation classification   | Class G Grassland                                             |
| Description / justification | Unmanaged grassland greater than 100 mm in height at maturity |



Photo ID: 2a



Photo ID: 2b



| Plot 3                                                                                                                                                                                                                                                                |                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Vegetation classification</b>                                                                                                                                                                                                                                      | Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])                                                                                                                                       |
| <b>Description / justification</b>                                                                                                                                                                                                                                    | Existing non-vegetated areas including roads, buildings, car parks and footpaths; and low threat managed land including active POS, street verges, firebreaks, managed gardens and vacant residential lots |
| <div> <div>  <p><b>Photo ID: 3a</b></p> </div> <div>  <p><b>Photo ID: 3b</b></p> </div> </div>     |                                                                                                                                                                                                            |
| <div> <div>  <p><b>Photo ID: 3c</b></p> </div> <div>  <p><b>Photo ID: 3d</b></p> </div> </div>   |                                                                                                                                                                                                            |
| <div> <div>  <p><b>Photo ID: 3e</b></p> </div> <div>  <p><b>Photo ID: 3f</b></p> </div> </div> |                                                                                                                                                                                                            |



Plot 3



Photo ID: 3g



Photo ID: 3i



Photo ID: 3k



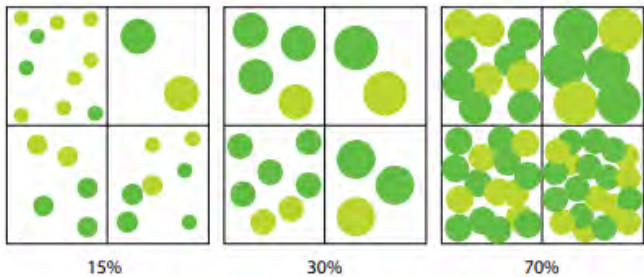
Photo ID: 3h



Photo ID: 3j

## Appendix C    APZ standards (Schedule 1 of the Guidelines)



| Schedule 1: Standards for Asset Protection Zones                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Object                                                                                                                  | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Fences within the APZ                                                                                                   | Should be constructed from non-combustible materials (for example, iron, brick, limestone, metal post and wire, or bushfire-resisting timber referenced in Appendix F of AS 3959).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Fine fuel load (Combustible, dead vegetation matter <6 millimetres in thickness)                                        | <p>Should be managed and removed on a regular basis to maintain a low threat state.</p> <p>Should be maintained at &lt;2 tonnes per hectare (on average).</p> <p>Mulches should be non-combustible such as stone, gravel or crushed mineral earth or wood mulch &gt;6 millimetres in thickness.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Trees* (>6 metres in height)                                                                                            | <p>Trunks at maturity should be a minimum distance of six metres from all elevations of the building.</p> <p>Branches at maturity should not touch or overhang a building or powerline.</p> <p>Lower branches and loose bark should be removed to a height of two metres above the ground and/or surface vegetation.</p> <p>Canopy cover within the APZ should be &lt;15 per cent of the total APZ area.</p> <p>Tree canopies at maturity should be at least five metres apart to avoid forming a continuous canopy. Stands of existing mature trees with interlocking canopies may be treated as an individual canopy provided that the total canopy cover within the APZ will not exceed 15 per cent and are not connected to the tree canopy outside the APZ.</p> <p><b>Figure 19: Tree canopy cover – ranging from 15 to 70 per cent at maturity</b></p>  <p>15%                      30%                      70%</p> |
| Shrub* and scrub* (0.5 metres to six metres in height). Shrub and scrub >6 metres in height are to be treated as trees. | <p>Should not be located under trees or within three metres of buildings.</p> <p>Should not be planted in clumps &gt;5 square metres in area.</p> <p>Clumps should be separated from each other and any exposed window or door by at least 10 metres.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Ground covers* (<0.5 metres in height. Ground covers >0.5 metres in height are to be treated as shrubs)                 | <p>Can be planted under trees but must be maintained to remove dead plant material, as prescribed in 'Fine fuel load' above.</p> <p>Can be located within two metres of a structure, but three metres from windows or doors if &gt;100 millimetres in height.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Grass                                                                                                                   | <p>Grass should be maintained at a height of 100 millimetres or less, at all times.</p> <p>Wherever possible, perennial grasses should be used and well-hydrated with regular application of wetting agents and efficient irrigation.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Defendable space                                                                                                        | Within three metres of each wall or supporting post of a habitable building, the area is kept free from vegetation, but can include ground covers, grass and non-combustible mulches as prescribed above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

### Schedule 1: Standards for Asset Protection Zones

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LP Gas Cylinders | <p>Should be located on the side of a building furthest from the likely direction of a bushfire or on the side of a building where surrounding classified vegetation is upslope, at least one metre from vulnerable parts of a building.</p> <p>The pressure relief valve should point away from the house.</p> <p>No flammable material within six metres from the front of the valve.</p> <p>Must sit on a firm, level and non-combustible base and be secured to a solid structure.</p> |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

*\* Plant flammability, landscaping design and maintenance should be considered – refer to explanatory notes*

**Source:** *Guidelines for Planning in Bushfire Prone Areas (WAPC 2021)*

### Element 2 Explanatory Notes

#### E2 Managing an Asset Protection Zone (APZ) to a low threat state

An APZ is a low fuel area maintained around a habitable building to increase the likelihood that it will survive a bushfire, by providing a defensible space and reducing the potential for direct flame contact, radiant heat exposure and ember attack.

Vegetation management within an APZ should provide defensible space and be maintained to a low threat state, in perpetuity, in accordance with the requirements outlined in Schedule 1.

The width of an APZ varies with slope and vegetation type, however it should only be as wide as needed to ensure the potential radiant heat impact of a bushfire does not exceed 29kW/m<sup>2</sup> (BAL-29), or 10kW/m<sup>2</sup> where a building is identified for use as an on-site shelter. An APZ is generally not required where a building or development site achieves 29kW/m<sup>2</sup> (BAL-29) or lower in its pre-development state (prior to any vegetation clearing or modification).

An APZ should include an area of defensible space immediately adjoining a building, that is kept free from combustible items and obstructions, within which firefighting operations can be undertaken to defend the structure. Where a lot contains a building envelope, it may not be necessary for the entire building envelope to achieve 29kW/m<sup>2</sup> (BAL-29) as this may result in significant unnecessary clearing. It is recommended that the BMP identifies that a sufficient APZ can be accommodated within the building envelope, with the development site and associated APZ to be determined at the development approval stage.

An APZ should be contained within the boundaries of the lot on which the building is situated, except in instances where it is demonstrated that the vegetation on the adjoining land is managed in a low threat state, as per cl. 2.2.3.2 of AS 3959, such as a road, managed park, rocky outcrop or a water body.

The siting of a habitable building and associated APZ should aim to minimise the clearing of vegetation. The BMP should demonstrate that the proposed APZ has minimised the unnecessary loss of vegetation or potential for conflict with landscape or environmental objectives; and complies with environmental approvals/exemptions (where necessary). A re-design or reduction in lot yield may be necessary to minimise the removal and modification of remnant vegetation.

It is recommended that development be located on flat areas or slopes less than 20 degrees (especially where classified vegetation is located downslope to a building) and away from ridge tops, crests or narrow gullies, as bushfire can spread rapidly in these areas. Circumstances where these locations may be suitable for development to occur include where the land is already cleared, and 29kW/m<sup>2</sup> (BAL-29) or lower can be achieved for the whole development site without the use of an APZ. To ensure soil stability within an APZ, vegetation removal on slopes exceeding 18 degrees is discouraged.

Fine fuel load should be maintained to less than two tonnes per hectare, however this is often a subjective assessment. Reducing fuel load levels does not necessarily require the removal of existing vegetation. A combination of methods can be utilised to reduce fuel load such as raking, weed removal, pruning, mulching and/or the removal of plant material.

A simple method to estimate fuel load is to roughly equate one tonne of fuel load per hectare as 100 grams per square metre. For example, two tonnes per hectare of leaf litter is roughly 200 grams of leaf litter per square metre and eight tonnes per hectare is roughly 800 grams. Eucalyptus leaf litter is approximately 100 grams per handful, so two handfuls of litter per square metre will roughly equate to two tonnes per hectare. Different types of fine fuel, like mulch or pine needles may be more or less than a handful, however the 100 grams per square metre rule of thumb can still be used.

The landowner or proponent is responsible for maintaining an APZ in accordance with Schedule 1 - Standards for Asset Protection Zones. Ongoing maintenance of an APZ is usually enforced through the local government firebreak notice issued under section 33 of the Bushfires Act 1954, and/or through a condition of a development approval, which requires the implementation of measures identified within a BMP.



## Schedule 1: Standards for Asset Protection Zones

A copy of the firebreak notice and Schedule 1 should be included in a BMP specifically as a how-to guide for the landowner, and to demonstrate to decision-makers that the measures outlined in the BMP to achieve the appropriate BAL rating through provision and ongoing management of an APZ, can be implemented.

### E2 Landscaping and design of an Asset Protection Zone

Landscaping, design, and maintenance of an APZ in a bushfire prone area can significantly improve the bushfire resilience of a building. An APZ should not be seen as an area entirely cleared of vegetation, but as a strategically designed space that gives holistic consideration to how existing or proposed vegetation or non-combustible features interact with, or affect the building's bushfire resilience.

A well designed APZ provides a greater level of vegetation management within the first few metres of a building with, for example, less vegetation or inclusion of non-combustible materials. The vegetation within the remainder of an APZ can increase further away from the building with carefully considered plant selection and landscaping techniques.

Strategic landscaping measures can be applied, such as replacing weeds with low flammability vegetation (refer to E2 Plant Flammability) to create horizontal and vertical separations between the retained vegetation. The accumulation of fine fuel load from different plants is an important consideration for ongoing maintenance in accordance with Schedule 1. For example, when planting ground covers under deciduous trees within an APZ, the total fine fuel load prescribed in Schedule 1 will include any dead plant material from ground covers and leaf litter from the trees.

Plant density and final structure and form of mature vegetation should be considered in the initial landscaping stages. For example, clumps of sapling shrubs planted at a density without consideration of future growth, may increase the bushfire risk as a clump will quickly grow to exceed 5m<sup>2</sup>. It should be noted that in some cases, a single shrub in a mature state may be so dense as to fill a 5m<sup>2</sup> clump alone.

The location of plants within an APZ is a key design technique. Separation of garden beds with areas of low fuel or non-combustible material, will break up fuel continuity and reduce the likelihood of a bushfire running through an APZ and subjecting a dwelling to radiant heat or direct flame contact. It is important to note, where mature trees are separated from a building by six metres, but the canopy has grown to extend or overhang a building, maintenance and pruning to remove the overhanging branches should be undertaken without the entirety of the tree being removed.

Mulches used within the APZ should be non-combustible. The use of stone, gravel, rock and crushed mineral earth is encouraged. Wood mulch >6mm in thickness may be used, however it is recommended that it is used in garden beds or areas where the moisture level is higher by regular irrigation. These materials could be sourced from non-toxic construction and demolition waste giving the added benefit of reducing the environmental impact of any 'hard landscaping' actions.

Combustible objects, plants, garden supplies such as mulches, fences made from combustible material, should be avoided within 10 metres of a building. Vines or climbing plants on pergolas, posts or beams, should be located away from vulnerable parts of the building, such as windows and doors. Non-flammable features can be used to provide hazard separation from classified vegetation, such as tennis courts, pools, lawns and driveways or paths that use inorganic mulches (gravel or crushed rock). Consider locating firewood stacks away from trees and habitable buildings.

Incorporation of landscaping features, such as masonry feature walls can provide habitable buildings with barriers to wind, radiant heat and embers. These features can include noise walls or wind breaks. Use of Appendix F of AS 3959 for bushfire resistant timber selection within areas of 29kW/m<sup>2</sup> (BAL-29) or below, or the use of non-combustible fencing materials such as iron, brick, limestone, metal post and wire is encouraged.

In addition to regular maintenance of an APZ, further bushfire protection can be provided at any time by:

ensuring gutters are free from vegetation;

installing gutter guards or plugs;

regular cleaning of underfloor spaces, or enclosing them to prevent gaps;

trimming and removing dead plants or leaf litter;

pruning climbing vegetation (such as vines) on a trellis, to ensure it does not connect to a building, particularly near windows and doors;

removing vegetation in close proximity to a water tank to ensure it is not touching the sides of a tank; and/or

following the requirements of the relevant local government section 33 fire break notice, which may include additional provisions such as locating wood piles more than 10 metres from a building.

### Schedule 1: Standards for Asset Protection Zones

Preparation of a property prior to the bushfire season and/or in anticipation of a bushfire is beneficial even if your plan is to evacuate. As embers can travel up to several kilometres from a bushfire and fall into small spaces and crevices or land against the external walls of a building, best practice recommends that objects within the APZ are moved away from the building prior to any bushfire event. Objects may include, but are not limited to:

- door mats;
- outdoor furniture;
- potted plants;
- shade sails or umbrellas;
- plastic garbage bins;
- firewood stacks;
- flammable sculptures; and/or
- playground equipment and children's toys.

### E2 Plant flammability

There are certain plant characteristics that are known to influence flammability, such as moisture or oil content and the presence and type of bark. Plants with lower flammability properties may still burn during a bushfire event, but may be more resistant to burning and some may regenerate faster post-bushfire.

There are many terms for plant flammability that should not be confused, including:

Fire resistant – plant species that survive being burnt and will regrow after a bushfire and therefore may be highly flammable and inappropriate for a garden in areas of high bushfire risk.

Fire retardant – plants that may not burn readily or may slow the passage of a bushfire.

Fire wise – plants that have been identified and selected based on their flammability properties and linked to maintenance advice and planting location within a garden.

Although not a requirement of these Guidelines, local governments may develop their own list of fire wise or fire retardant plant species that suit the environmental characteristics of an area. When developing a recommended plant species list, local governments should consult with ecologists, land care officers or environmental authorities to ensure the plants do not present a risk to endangered ecological communities, threatened, or endangered species or their habitat.

When selecting plants, private landholders and developers should aim for plants within the APZ that have the following characteristics:

- grow in a predicted structure, shape and height;
- are open and loose branching with leaves that are thinly spread;
- have a coarse texture and low surface-area-to-volume ratio;
- will not drop large amounts of leaves or limbs, that require regular maintenance;
- have wide, flat, and thick or succulent leaves;
- trees that have bark attached tightly to their trunk or have smooth bark;
- have low amounts of oils, waxes, and resins (which will often have a strong scent when crushed);
- do not produce or hold large amounts of fine dead material in their crowns; and/or
- will not become a weed in the area.

Refer to the WAPC Bushfire and Vegetation Fact Sheet for further information on clearing and vegetation management and APZ landscaping, design and plant selection reference material.

**Source:** *Guidelines for Planning in Bushfire Prone Areas (WAPC 2021)*



## **Appendix D    Vehicular access technical requirements of the Guidelines**

## Acceptable Solution A3.2a – Multiple access routes

### Explanatory Note E3.2a

Two-way public road access is public road access from a lot in at least two different directions to two suitable destinations, and provides residents and the community, as well as emergency services, with access and egress from both the subdivision and individual habitable buildings/development in the event of a bushfire emergency. A single road provides no alternative route if the access becomes congested or is unable to be traversed due to smoke and/or fallen trees during a bushfire.

Two-way public road access applies to access/egress routes leading into a subdivision, as well as those within a subdivision. A road that loops back onto itself does not constitute the option of two different directions.

Two-way public road access should always be the first option. Where the site is not able to achieve two-way access within 200 metres of the lot boundary, due to demonstrated site or environmental constraints, the proponent should identify options for an emergency access way from the subject site to a suitable destination. Where an emergency access way cannot be provided, the proponent should demonstrate compliance with the performance principle.

Subject sites or proposed lots greater than 200 metres from an intersection, which provides two-way access, do not satisfy the requirement for two-way access unless they meet the provisions which allow for no-through roads greater than 200 metres in A3.2a.

To demonstrate compliance with the performance principle for two-way access, the bushfire planning practitioner may have regard to:

- the extent of the bushfire hazard, location and vegetation classification, the likelihood, potential severity and impact of bushfire to the subject site and the road network;
- time between fire detection and the onset of conditions in comparison to travel time for the community to evacuate to a suitable destination;
- available access route(s) travelling towards a suitable destination; and
- turn-around area for a fire appliance for no-through roads.

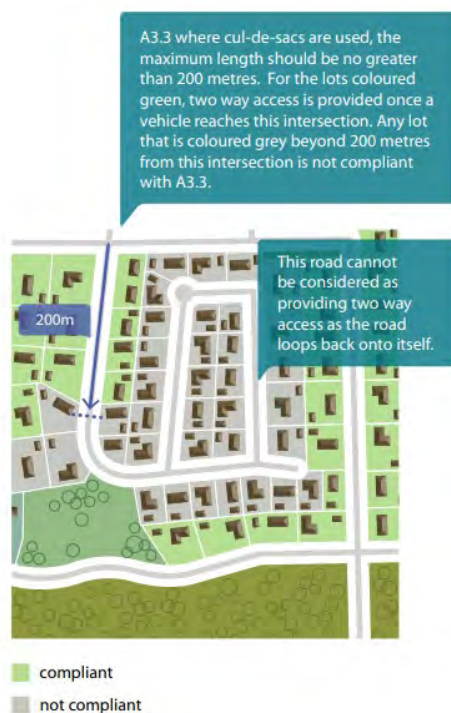


Figure 21: Example of compliant and non-compliant two-way

Source: *Guidelines for Planning in Bushfire Prone Areas* (WAPC 2021)





# ATTACHMENT 5

Approved Stage 1 Waste Management Plan



# Waste Management Plan

Whadjuk Drive, Hammond Park

Prepared for Aigle Royal Properties

19 October 2023

Project Number: TW22101



**DOCUMENT CONTROL**

| Version | Description             | Date       | Author | Reviewer | Approver |
|---------|-------------------------|------------|--------|----------|----------|
| 1.0     | First Approved Release  | 9/08/2023  | AB     | DP       | AB       |
| 2.0     | Second Approved Release | 19/10/2023 | AB     | DP       | DP       |
|         |                         |            |        |          |          |

**Approval for Release**

| Name             | Position                                      | File Reference                       |
|------------------|-----------------------------------------------|--------------------------------------|
| Dilan Patel      | Project Manager – Waste Management Consultant | TW22101-02_Waste Management Plan_2.0 |
| <b>Signature</b> |                                               |                                      |

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## Executive Summary

Aigle Royal Properties is seeking development approval for the proposed commercial development located at Whadjuk Drive, Hammond Park (the Proposal).

To satisfy the conditions of the development application the City of Cockburn (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         |
|---------------------------|---------------------|--------------|----------------|----------------------|--------------------|
| <b>Bin Storage Area 1</b> |                     |              |                |                      |                    |
| Refuse                    | 15,740              | 1,100        | Fifteen        | Once each week       | Private Contractor |
| Recycling                 | 11,778              | 1,100        | Eleven         | Once each week       | Private Contractor |
| <b>Bin Storage Area 2</b> |                     |              |                |                      |                    |
| Refuse                    | 2,835               | 1,100        | Three          | Once each week       | Private Contractor |
| Recycling                 | 2,835               | 1,100        | Three          | Once each week       | Private Contractor |
| <b>Bin Storage Area 3</b> |                     |              |                |                      |                    |
| Refuse                    | 2,835               | 1,100        | Three          | Once each week       | Private Contractor |
| Recycling                 | 2,835               | 1,100        | Three          | Once each week       | Private Contractor |

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

A building manager will oversee the relevant aspects of waste management at the Proposal.

The WMP will form part of the building management agreement and will continue to be applied in perpetuity across the life of the Proposal. Changes to this WMP may require approval by the City of Cockburn.

Should the approved Waste Management Plan fail to deliver a safe, effective and efficient waste management service, the City will liaise with the owner to review, update and approve the Waste Management Plan.



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Figure 1: Locality Plan



## 1 Introduction

Aigle Royal Properties is seeking development approval for the proposed commercial development located at Whadjuk Drive, Hammond Park (the Proposal).

To satisfy the conditions of the development application the City of Cockburn (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 Whadjuk Drive to the north, residential properties to the east, Wattleup Road to the south and Marcy Lane 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 adequately sized Bin Storage Areas, 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: Construction and Demolition Waste;
- Section 3: Waste Generation;
- Section 4: Waste Storage;
- Section 5: Waste Collection;
- Section 6: Waste Management; and
- Section 7: Conclusion.

## **2 Construction and Demolition Waste**

The below section presents the required communication and waste disposal considerations for Construction and Demolition waste generated during the Proposals development.

### **2.1 Demolition**

The Proposal is currently free of buildings and structures; therefore, any demolition works are unlikely to occur ensuring demolition waste is not generated at the Proposal.

### **2.2 Construction**

Appropriate waste management procedures that aim to reduce waste and encourage recycling of excess materials should be considered as part of the construction phase of the Proposal. The tendering of the construction of the building and the tender assessment scoring should consider applicants that have effective waste minimisation strategies.



### 3 Waste Generation

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

#### 3.1 Proposed Tenancies

The anticipated volume of refuse and recyclables is based on the floor area (m<sup>2</sup>) of the commercial tenancies at the Proposal. The Proposal consists of the following:

##### Bin Storage Area 1:

- B1.1: Specialty/Food & Beverage – 107m<sup>2</sup>;
- B1.2: Specialty/Food & Beverage – 143m<sup>2</sup>;
- B1.3: Specialty – 80m<sup>2</sup>;
- B1.4: Specialty – 80m<sup>2</sup>;
- B1.5: Specialty – 80m<sup>2</sup>;
- B1.6: Specialty – 80m<sup>2</sup>;
- B1.7: Specialty – 85m<sup>2</sup>;
- B1.8: Pharmacy – 490m<sup>2</sup>;
- B1.9: Specialty/Food & Beverage – 84m<sup>2</sup>;
- B1.10: Specialty/Food & Beverage – 84m<sup>2</sup>;
- B1.11: Specialty/Food & Beverage – 148m<sup>2</sup>; and
- Liquor – 206m<sup>2</sup>.

##### Bin Storage Area 2:

- B2: Fast Food – 270m<sup>2</sup>.

##### Bin Storage Area 3:

- B3: Fast Food – 270m<sup>2</sup>.

Note, the Supermarket has their own back of house and manages waste through their own internal processes governed by national waste collections contracts, and therefore has not been included as part of this report.

#### 3.2 Waste Generation Rates

In order to achieve an accurate projection of waste volumes for the Proposal, consideration was given to the City of Melbourne's *Guidelines for Waste Management Plans* (2021) and the City of Gosnells' *Information Sheet – Waste Collection* (2017).

It should also be noted that a conservative approach has been taken with regards to waste generation across the Proposal by overestimating the potential waste volumes for the commercial tenancies. This includes assuming seven days of operation for all tenancies. This is considered to be an over estimation as it is not uncommon for food and beverage tenancies to close operations post weekend trading therefore resulting in an over estimation of waste volumes generated.

Table 3-1 shows the waste generation rates which have been applied to the Proposal.

**Table 3-1: Waste Generation Rates**

| Tenancy Use Type          | Guideline Reference          | Refuse Generation Rate      | Recycling Generation Rate   | Floor Area Required                |
|---------------------------|------------------------------|-----------------------------|-----------------------------|------------------------------------|
| Specialty/Food & Beverage | Melbourne – Café             | 300L/100m <sup>2</sup> /day | 200L/100m <sup>2</sup> /day | 2m <sup>2</sup> /200m <sup>2</sup> |
| Specialty                 | Melbourne – Shops (non-food) | 50L/100m <sup>2</sup> /day  | 50L/100m <sup>2</sup> /day  | 2m <sup>2</sup> /200m <sup>2</sup> |
| Pharmacy                  | Melbourne – Shops (non-food) | 50L/100m <sup>2</sup> /day  | 50L/100m <sup>2</sup> /day  | 2m <sup>2</sup> /200m <sup>2</sup> |
| Liquor                    | Melbourne – Shops (non-food) | 50L/100m <sup>2</sup> /day  | 50L/100m <sup>2</sup> /day  | 2m <sup>2</sup> /200m <sup>2</sup> |
| Fast Food                 | Gosnells – Fast Food Outlet  | 150L/100m <sup>2</sup> /day | 150L/100m <sup>2</sup> /day | 1m <sup>2</sup> /100 meals served  |

### 3.3 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.

#### 3.3.1 Bin Storage Area 1

Waste generation volumes in litres per week (L/week) adopted for this waste assessment for Bin Storage Area 1 is shown in Table 3-2. It is estimated that the Specialty, Liquor and Food & Beverage tenancies at the Proposal will generate 15,740L of refuse and 11,778L of recyclables each week.

**Table 3-2: Estimated Waste Generation – Bin Storage Area 1**

| BSA1 – Commercial Tenancies | Area (m <sup>2</sup> ) | Waste Generation Rate (L/100m <sup>2</sup> /day) | Waste Generation (L/week) |
|-----------------------------|------------------------|--------------------------------------------------|---------------------------|
| <b>REFUSE</b>               |                        |                                                  |                           |
| Specialty/Food & Beverage   | 107                    | 300                                              | 2,247                     |
| Specialty/Food & Beverage   | 143                    | 300                                              | 3,003                     |
| Specialty                   | 80                     | 50                                               | 280                       |
| Specialty                   | 80                     | 50                                               | 280                       |
| Specialty                   | 80                     | 50                                               | 280                       |
| Specialty                   | 80                     | 50                                               | 280                       |
| Specialty                   | 85                     | 50                                               | 298                       |
| Pharmacy                    | 490                    | 50                                               | 1,715                     |
| Food & Beverage             | 84                     | 300                                              | 1,764                     |
| Food & Beverage             | 84                     | 300                                              | 1,764                     |
| Food & Beverage             | 148                    | 300                                              | 3,108                     |
| Liquor                      | 206                    | 50                                               | 721                       |
| <b>Total</b>                |                        |                                                  | <b>15,740</b>             |
| <b>RECYCLABLES</b>          |                        |                                                  |                           |
| Specialty/Food & Beverage   | 107                    | 200                                              | 1,498                     |
| Specialty/Food & Beverage   | 143                    | 200                                              | 2,002                     |
| Specialty                   | 80                     | 50                                               | 280                       |



| BSA1 – Commercial Tenancies | Area (m <sup>2</sup> ) | Waste Generation Rate (L/100m <sup>2</sup> /day) | Waste Generation (L/week) |
|-----------------------------|------------------------|--------------------------------------------------|---------------------------|
| Specialty                   | 80                     | 50                                               | 280                       |
| Specialty                   | 80                     | 50                                               | 280                       |
| Specialty                   | 80                     | 50                                               | 280                       |
| Specialty                   | 85                     | 50                                               | 298                       |
| Pharmacy                    | 490                    | 50                                               | 1,715                     |
| Food & Beverage             | 84                     | 200                                              | 1,176                     |
| Food & Beverage             | 84                     | 200                                              | 1,176                     |
| Food & Beverage             | 148                    | 200                                              | 2,072                     |
| Liquor                      | 206                    | 50                                               | 721                       |
| <b>Total</b>                |                        |                                                  | <b>11,778</b>             |

### 3.3.2 Bin Storage Area 2

Waste generation volumes in litres per week (L/week) adopted for this waste assessment for Bin Storage Area 2 is shown in Table 3-3. It is estimated that the Fast Food 01 at the Proposal will generate 2,835L of refuse and 2,835L of recyclables each week.

**Table 3-3: Estimated Waste Generation – Bin Storage Area 2**

| BSA2 – Commercial Tenancies | Area (m <sup>2</sup> ) | Waste Generation Rate (L/100m <sup>2</sup> /day) | Waste Generation (L/week) |
|-----------------------------|------------------------|--------------------------------------------------|---------------------------|
| <b>REFUSE</b>               |                        |                                                  |                           |
| Fast Food 01                | 270                    | 150                                              | 2,835                     |
| <b>Total</b>                |                        |                                                  | <b>2,835</b>              |
| <b>RECYCLABLES</b>          |                        |                                                  |                           |
| Fast Food 01                | 270                    | 150                                              | 2,835                     |
| <b>Total</b>                |                        |                                                  | <b>2,835</b>              |

### 3.3.3 Bin Storage Area 3

Waste generation volumes in litres per week (L/week) adopted for this waste assessment for Bin Storage Area 3 is shown in Table 3-4. It is estimated that the Fast Food 02 at the Proposal will generate 2,835L of refuse and 2,835L of recyclables each week.

**Table 3-4: Estimated Waste Generation – Bin Storage Area 3**

| BSA3 – Commercial Tenancies | Area (m <sup>2</sup> ) | Waste Generation Rate (L/100m <sup>2</sup> /day) | Waste Generation (L/week) |
|-----------------------------|------------------------|--------------------------------------------------|---------------------------|
| <b>REFUSE</b>               |                        |                                                  |                           |
| Fast Food                   | 270                    | 150                                              | 2,835                     |
| <b>Total</b>                |                        |                                                  | <b>2,835</b>              |
| <b>RECYCLABLES</b>          |                        |                                                  |                           |
| Fast Food                   | 270                    | 150                                              | 2,835                     |
| <b>Total</b>                |                        |                                                  | <b>2,835</b>              |

## 4 Waste Storage

Waste materials generated within the Proposal will be collected in the bins located in the Bin Storage Areas, as shown in Diagram 1 and Diagram 2, and discussed in the following sub-sections.

### 4.1 Internal 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.

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.

### 4.2 Bin Sizes

Table 4-1 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 4-1: Typical Bin Dimensions**

| Dimensions  | Bin Sizes |       |        |
|-------------|-----------|-------|--------|
|             | 240L      | 660L  | 1,100L |
| Depth (mm)  | 730       | 780   | 1,070  |
| Width (mm)  | 585       | 1,260 | 1,240  |
| Height (mm) | 1,060     | 1,200 | 1,300  |

Reference: SULO Bin Specification Data Sheets

### 4.3 Bin Storage Area 1 Size

To ensure sufficient area is available for storage of the bins for the Specialty, Liquor and Food & Beverage tenancies, the amount of bins required for Bin Storage Area 1 was modelled utilising the estimated waste generation in Table 3-2, bin sizes in Table 4-1 and based on collection of refuse and recyclables once each week.

Based on the results shown in Table 4-2, Bin Storage Area 1 has been sized to accommodate at least:

- Fifteen 1,100L refuse bins; and
- Eleven 1,100L recycling bins.

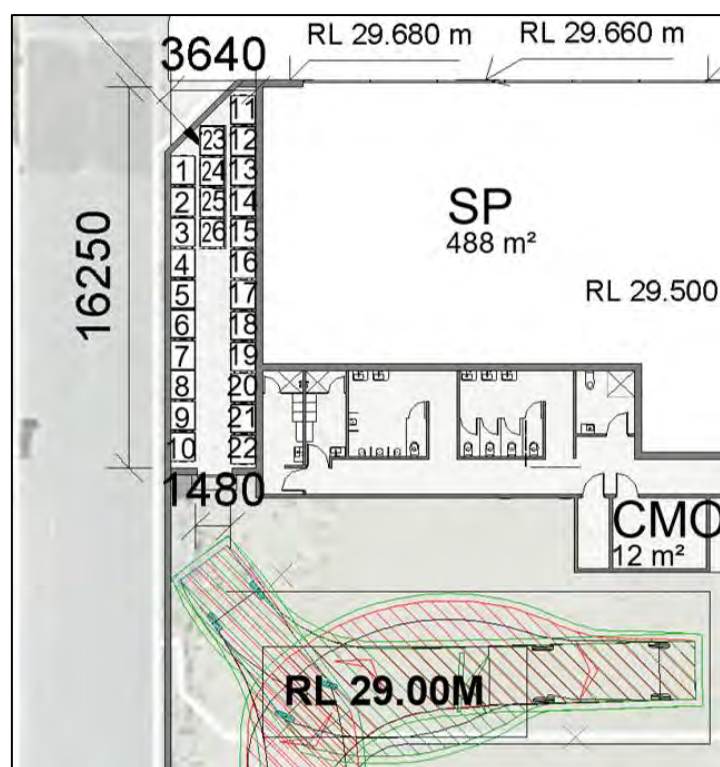
**Table 4-2: Bin Requirements for Bin Storage Area 1**

| Waste Stream | Waste Generation (L/week) | Number of Bins Required |      |        | Minimum Floor Area Required (m <sup>2</sup> ) | Floor Area Provided (m <sup>2</sup> ) |
|--------------|---------------------------|-------------------------|------|--------|-----------------------------------------------|---------------------------------------|
|              |                           | 240L                    | 660L | 1,100L |                                               |                                       |
| Refuse       | 15,740                    | 66                      | 24   | 15     | 16.67m <sup>2</sup>                           | 59.15m <sup>2</sup>                   |
| Recycling    | 11,778                    | 50                      | 18   | 11     |                                               |                                       |

The configuration of these bins within Bin Storage Area 1 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 one collection each week of refuse and recyclables.



Diagram 1: Bin Storage Area 1



#### 4.4 Bin Storage Area 2 Size

To ensure sufficient area is available for storage of the bins for the Fast Food 01 tenancy, the amount of bins required for Bin Storage Area 2 was modelled utilising the estimated waste generation in Table 3-3, bin sizes in Table 4-1 and based on collection of refuse and recyclables once each week.

Based on the results shown in Table 4-3, Bin Storage Area 2 has been sized to accommodate:

- Three 1,100L refuse bins; and
- Three 1,100L recycling bins.

Table 4-3: Bin Requirements for Bin Storage Area 2

| Waste Stream | Waste Generation (L/week) | Number of Bins Required |      |        | Minimum Floor Area Required (m <sup>2</sup> ) | Floor Area Provided (m <sup>2</sup> ) |
|--------------|---------------------------|-------------------------|------|--------|-----------------------------------------------|---------------------------------------|
|              |                           | 240L                    | 660L | 1,100L |                                               |                                       |
| Refuse       | 2,835                     | 12                      | 5    | 3      | 2m <sup>2</sup>                               | 30m <sup>2</sup>                      |
| Recycling    | 2,835                     | 12                      | 5    | 3      |                                               |                                       |

The configuration of these bins within Bin Storage Area 2 is shown in Diagram 2. It is worth noting that the number of bins and corresponding placement of bins shown in Diagram 2 represents the maximum requirements assuming one collection each week of refuse and recyclables.

## 4.5 Bin Storage Area 3 Size

To ensure sufficient area is available for storage of the bins for the Fast Food 02 tenancy, the amount of bins required for Bin Storage Area 3 was modelled utilising the estimated waste generation in Table 3-4, bin sizes in Table 4-1 and based on collection of refuse and recyclables once each week.

Based on the results shown in Table 4-4, Bin Storage Area 3 has been sized to accommodate:

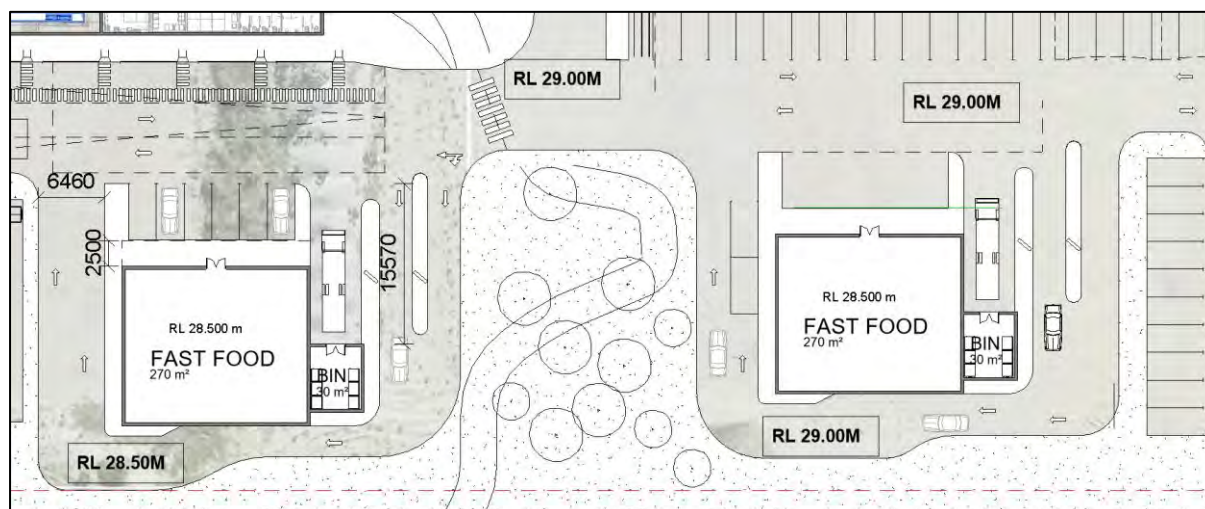
- Three 1,100L refuse bins; and
- Three 1,100L recycling bins.

**Table 4-4: Bin Requirements for Bin Storage Area 3**

| Waste Stream | Waste Generation (L/week) | Number of Bins Required |      |        | Minimum Floor Area Required (m <sup>2</sup> ) | Floor Area Provided (m <sup>2</sup> ) |
|--------------|---------------------------|-------------------------|------|--------|-----------------------------------------------|---------------------------------------|
|              |                           | 240L                    | 660L | 1,100L |                                               |                                       |
| Refuse       | 2,835                     | 12                      | 5    | 3      | 2                                             | 30                                    |
| Recycling    | 2,835                     | 12                      | 5    | 3      |                                               |                                       |

The configuration of these bins within Bin Storage Area 3 is shown in Diagram 2. It is worth noting that the number of bins and corresponding placement of bins shown in Diagram 2 represents the maximum requirements assuming one collection each week of refuse and recyclables.

**Diagram 2: Bin Storage Area 2 and 3**



## 4.6 Bin Storage Area Design

The design of the Bin Storage Areas will take into consideration the following:

- The bin presentation area or collection point will be flat, with the travel path between the bin store and collection point/vehicle clear of steps or kerbs;
- External bin stores will be surrounded by 1.8 metre high walls or fencing with a self-closing gate;
- Bin stores will be designed and erected in a manner that has regard for the design and appearance of the development of which they are a part;
- Bin stores will have 75mm concrete floors grading to a 100mm industrial floor waste (including a charged 'water-trap' connected to sewer or an approved septic system), with a hose cock to enable bins and/or the enclosure to be washed out;
- Bin store internal walls will be cement rendered (solid and impervious) to enable easy cleaning. Ceilings in bin stores shall be finished with a smooth faced, non-absorbent material capable of being easily cleaned;
- Bin store walls and ceilings will be finished or painted in a light colour;
- Bin stores will be constructed in a manner that prevents the entry of vermin;
- Bin stores will be provided with artificial lighting, sensor or switch controlled both internal/external to the room or area. All lighting in open areas is to comply with AS4282-1997 (Control of Obtrusive Outdoor Lighting);
- Bin stores will have the following signs and/or information displayed:
  - o A sign stating "NO STANDING" at the entrance to the room/area; and
  - o A clearly visible "DANGER" sign in the vicinity of the entrance to the room/area.
- Any external bin store greater than 20m<sup>2</sup> is required to be covered with a roof.

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



## 5 Waste Collection

A private waste collection contractor will service the Proposal utilising a rear loader waste collection vehicle and provide the following:

### Bin Storage Area 1:

- Fifteen 1,100L refuse bins, collected once each week; and
- Eleven 1,100L recycling bins, collected once each week.

### Bin Storage Area 2:

- Three 1,100L refuse bins, collected once each week; and
- Three 1,100L recycling bins, collected once each week.

### Bin Storage Area 3:

- Three 1,100L refuse bins, collected once each week; and
- Three 1,100L recycling bins, collected once each week.

The private contractor's rear loader waste collection vehicle will service the bins onsite, directly from the Bin Storage Areas. The private contractor's rear loader waste collection vehicle will turn into the Proposal in forward gear via Whadjuk Drive or Wattleup Road and pull up adjacent to the Bin Storage Areas for servicing.

It is proposed that servicing will be conducted outside of normal operating hours to allow the waste collection vehicle to utilise the empty carpark for manoeuvring and mitigate impacts on local traffic movements during peak traffic hours.

Private contractor's staff will ferry bins to and from the rear loader waste collection vehicle and the Bin Storage Areas 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.

Once servicing is complete the private contractor's rear loader waste collection vehicle will exit in a forward motion, turning left onto Whadjuk Drive or Wattleup Road with traffic flow.

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.

## 5.1 Bulk and Speciality Waste

Adequate space will 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. These may include items such as:

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

These materials will be removed from the Facility once sufficient volumes have been accumulated to warrant disposal. Specialty waste collection will be monitored by building management who will organise their transport to the appropriate waste facility, as required.

## 6 Waste Management

A building 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 tenants at the Proposal are made aware of this WMP and their responsibilities thereunder;
- Monitor tenant behaviour and identify requirements for further education and/or signage;
- Monitor bulk and speciality waste accumulation and assist tenants with its removal, as required;
- Regularly engage with tenants 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.



## 7 Conclusion

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

The above is achieved using:

### **Bin Storage Area 1:**

- Fifteen 1,100L refuse bins, collected once each week; and
- Eleven 1,100L recycling bins, collected once each week.

### **Bin Storage Area 2:**

- Three 1,100L refuse bins, collected once each week; and
- Three 1,100L recycling bins, collected once each week.

### **Bin Storage Area 3:**

- Three 1,100L refuse bins, collected once each week; and
- Three 1,100L recycling bins, collected once each week.

A private contractor will service the Proposal onsite, adjacent to each Bin Storage Area. The private contractor's waste collection vehicle will enter and exit the Proposal in forward gear via Whadjuk Drive or Wattleup Road.

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

This WMP will form part of the building management agreement and will continue to be applied in perpetuity across the life of the Proposal. Changes to this WMP may require approval by the City of Cockburn.

Should the approved Waste Management Plan fail to deliver a safe, effective and efficient waste management service, the City will liaise with the owner to review, update and approve the Waste Management Plan.

## Figures

Figure 1: Locality Plan







**Assets | Engineering | Environment | Noise | Spatial | Waste**

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# ATTACHMENT 6

Approved Stage 1 Delivery Management Plan

# Delivery Management Plan

Hammond Park Neighbourhood Centre

Lots 9042, 9052 & 306 Whadjuk Drive, Hammond Park



**ROWE**  
GROUP



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# 1. Introduction

This Delivery Management Plan ('DMP') has been prepared by Rowe Group on behalf of Goldenore Corporation Pty Ltd ('Client') in support of an Application for Development Approval ('Application') which proposes the development of the Hammond Park Neighbourhood Centre at Lots 9042, 9052 and 305 Whadjuk Drive, Hammond Park ('subject site').

This DMP has been prepared to outline the manner in which deliveries will be undertaken on the site.

## 1.1 Objectives & Scope

The objective of this DMP is to outline the procedures and processes that will be adopted to manage the safe and efficient delivery of goods to the subject site from all delivery vehicles. This DMP demonstrates that the proposed development has been designed to allow safe and efficient manoeuvring of all delivery vehicles at the subject site.

The scope of this DMP comprises the following:

- Section 3: Property & Development Information;
- Section 4: Management of Delivery Vehicles; and
- Section 5: Conclusion.

The DMP should be read in conjunction with the associated Transport Impact Assessment (Uloth & Associates, 22 July 2023) and the Environmental Noise Assessment (Lloyd George Acoustics, 14 June 2023).

# 2. Property & Development Information

## 2.1 Location

The subject site is situated in Hammond Park and bound by Whadjuk Drive to the north, Wattleup Road to the south, and Marcy Lane to the west. The location of the subject site is depicted in Figure 1 below.





**Figure 1: Location of Subject Site**

### 3. Proposed Development

Approval is being sought for the development of the Hammond Park Neighbourhood Centre. The proposed development will include a main retail building incorporating a 'Woolworths Supermarket', liquor store, food/beverage and speciality retail tenancies, and two (2) standalone fast food outlets, along with associated signage, access ways, parking areas and landscaping.

The Application proposes three (3) crossovers in total, with one crossover to be provided from Whadjuk Drive and two crossovers to Wattleup Road (western and eastern). All delivery vehicle access will be provided via the Wattleup Road crossovers.

The loading, delivery, and storage areas of the core shopping centre building will be provided at the western and southern sides of the building. Loading and delivery for the standalone fast food outlets will be provided through the inner drive-through lane of each respective building.

The development of the proposed Neighbourhood Centre will occur in two (2) stages, as follows:

- Stage 1: This includes the development of the supermarket, liquor store, speciality/retail stores, and two (2) standalone fast food outlets, with the first full year of operation, expected in FY2025.
- Stage 2: This will consist of the remaining speciality/retail stores focussed along Whadjuk Drive, with the first full year of operation expected in FY2030.

This DMP addresses Stage 1 development only.





## 4. Management Of Delivery Vehicles

### 4.1 Delivery Vehicle Overview

Details of the various delivery vehicles which will access and service the proposed development is outlined in Table 1 below.

| Type                | Size  | Service Area                                                            | Access                                                                            |
|---------------------|-------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Semi-Trailer        | 19.0m | Supermarket loading dock                                                | Wattleup Road Eastern Crossover (entry)<br>Wattleup Road Western Crossover (exit) |
| Heavy Rigid Vehicle | 12.5m | Supermarket loading dock<br>Specialty service yard<br>Fast food outlets | Wattleup Road Western Crossover (entry and exit)                                  |
| Small Rigid Vehicle | 6.4m  | Supermarket home delivery bay                                           | Wattleup Road Western Crossover (entry and exit)                                  |

**Table 1: Types and Sizes of Delivery Vehicles**

Please refer to the submitted Waste Management Plan in relation to waste vehicle movements.

### 4.2 Delivery Operation Hours

Deliveries will typically occur Monday to Saturday, 7:00am to 7:00pm.

### 4.3 Access And Manoeuvring

- Delivery vehicles will enter the subject site via the western crossover to Wattleup Road, with the exception of the 19.0m Semi-Trailer which will also use the eastern crossover to Wattleup Road.
- The loading, delivery, and storage areas of the core shopping centre building will be provided at the western and southern sides of the building.
- Loading and delivery for the standalone fast food outlets will be provided through the inner drive-through lane of each respective building. Given that each tenancy will have two drive-through lanes, this will not impact upon the operation of the drive-through facility.
- All assessed intersections surrounding the proposed development and access points are expected to operate well within capacity during peak periods.
- The proposed development will trigger the need for upgrades to both Whadjuk Drive and Wattleup Road, as detailed in the Transport Impact Assessment, Road Safety Audit, and Development Application Plans.



## 4.4 Noise Management

To address compliance with the *Environmental Protection (Noise) Regulations 1997*, deliveries will typically occur Monday to Saturday, 7.00am to 7.00pm. Where delivery is required outside of these hours, care will be taken to ensure that noise impacts are minimised.

In undertaking any deliveries, the following noise management measures will apply:

- Vehicles shall not be left to idle.
- Radios of vehicles shall be turned off.
- Reversing alarms shall be broadband type rather than tonal and beepers.
- Care will be taken to minimise noise during loading and unloading operations.
- External loading areas are not to have music or announcement systems, other than for emergencies.
- External contractors are to be made aware that they have a responsibility to minimise noise.

## 5. Conclusion

This DMP demonstrates that the proposed development at the subject site can readily accommodate and manage the manoeuvring and movements of all delivery vehicles in a manner that does not compromise the safety or amenity of the locality.





# ATTACHMENT 7

## Environmental Noise Assessment





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# Environmental Noise Assessment

**Proposed Hammond Park Shopping Centre, Hammond Park**

**Reference: 20075601-01I**

Prepared for:  
Aigle Royal Group



Reference: 20075601-01I

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This report has been prepared in accordance with the scope of services described in the contract or agreement between Lloyd George Acoustics Pty Ltd and the Client. The report relies upon data, surveys, measurements and results taken at or under the particular times and conditions specified herein. Any findings, conclusions or recommendations only apply to the aforementioned circumstances and no greater reliance should be assumed or drawn by the Client. Furthermore, the report has been prepared solely for use by the Client, and Lloyd George Acoustics Pty Ltd accepts no responsibility for its use by other parties.

| Date      | Rev | Description                                              | Author           | Verified     |
|-----------|-----|----------------------------------------------------------|------------------|--------------|
| 27-Nov-20 | 0   | Issued to Client                                         | Benjamin Hillion | Terry George |
| 01-Feb-21 | A   | Updated Layout                                           | Benjamin Hillion | Terry George |
| 2-Mar-22  | B   | Updated Layout                                           | Terry George     | Rob Connolly |
| 25-Mar-22 | C   | Updated with client comments                             | Terry George     | -            |
| 12-Apr-22 | D   | Final client comments                                    | Terry George     | -            |
| 24-May-22 | E   | Updated Masterplan                                       | Terry George     | -            |
| 20-Apr-23 | F   | Updated Plan                                             | Terry George     | -            |
| 14-Jun-23 | G   | Include NMP in Appendix A                                | Terry George     | -            |
| 19-Dec-23 | H   | Updated following CoC Comments                           | Terry George     | -            |
| 24-Jan-24 | I   | Updated to include refrigerated truck to NW Loading Area | Terry George     | -            |



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## 1. INTRODUCTION

This report has been prepared to consider the potential noise impacts associated with the proposed commercial development on Lots 9043 & 9053 Wattleup Road and Lot 305 Whadjuk Drive, Hammond Park - refer *Figure 1-1*.



**Figure 1-1: Subject Site Location (Source: DPLH PlanWA)**

The proposed development (refer *Figure 1-2*) is comprised of:

- Supermarket as the Major Tenancy;
- Liquor and Specialty Stores; and
- Fast Food outlets.

The main noise sources associated with such a development are from mechanical plant (air-conditioning and refrigeration), deliveries and car door closings. As the project is at Development Application (DA) Stage only, design and selections of plant has not been undertaken and therefore this assessment uses file data.

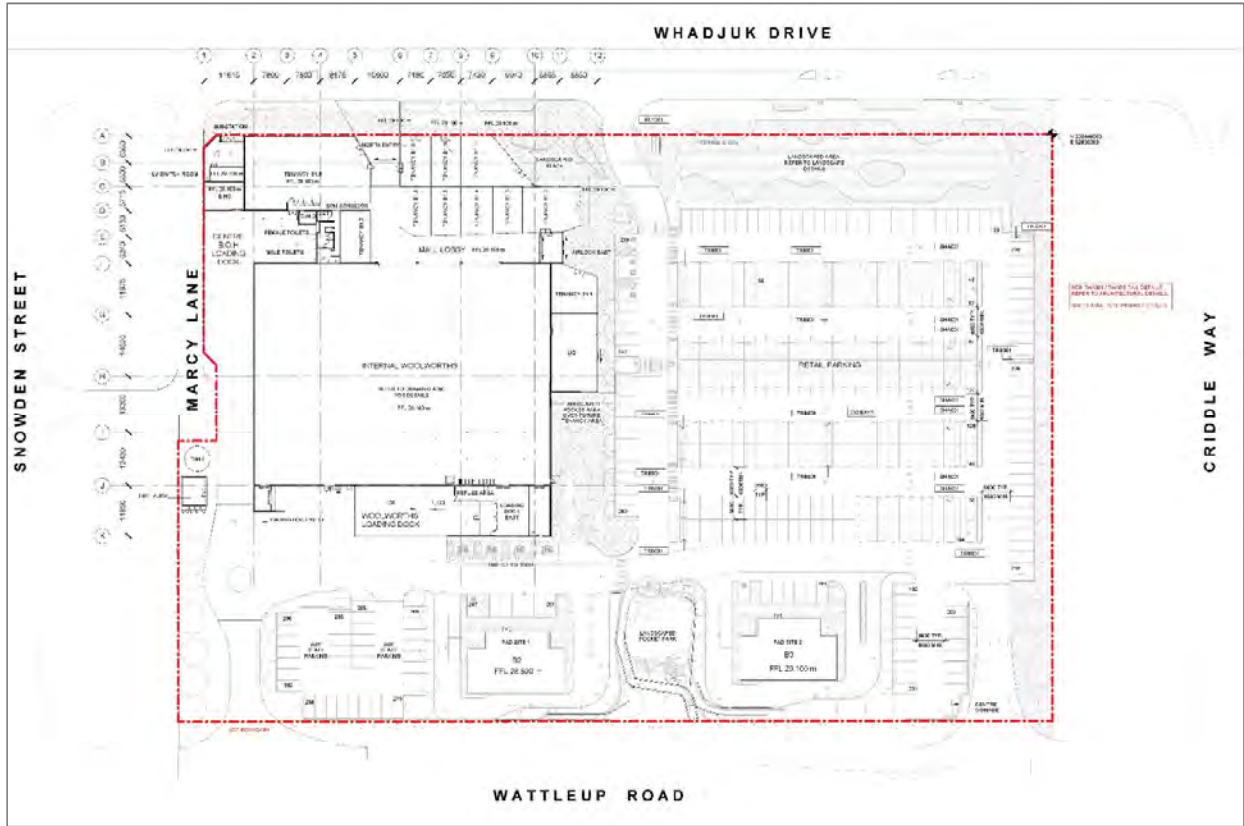


Figure 1-2: Proposed Site Plan

Surrounding the site are existing residences to the west, north and east, with Frankland Park to the south.

Appendix C contains a description of some of the terminology used throughout this report.

## 2. CRITERIA

Environmental noise in Western Australia is governed by the *Environmental Protection Act 1986*, through the *Environmental Protection (Noise) Regulations 1997* (the Regulations).

### 2.1. Regulations 7, 8 & 9

This group of regulations provide the prescribed standard for noise as follows:

***“7. Prescribed standard for noise emissions***

- (1) Noise emitted from any premises or public place when received at other premises –*
  - (a) must not cause, or significantly contribute to, a level of noise which exceeds the assigned level in respect of noise received at premises of that kind; and*
  - (b) must be free of –*
    - (i) tonality; and*
    - (ii) impulsiveness; and*
    - (iii) modulation,**when assessed under regulation 9.*
- (2) For the purposes of subregulation (1)(a), a noise emission is taken to significantly contribute to a level of noise if the noise emission ... exceeds a value which is 5 dB below the assigned level at the point of reception.”*

Tonality, impulsiveness and modulation are defined in regulation 9 (refer *Appendix C*). Under regulation 9(3), “Noise is taken to be free of the characteristics of tonality, impulsiveness and modulation if -

- (a) the characteristics cannot be reasonably and practicably removed by techniques other than attenuating the overall level of noise emission; and*
- (b) the noise emission complies with the standard prescribed under regulation 7(1)(a) after the adjustments in the table [Table 2-1] ... are made to the noise emission as measured at the point of reception.”*

**Table 2-1 Adjustments Where Characteristics Cannot Be Removed**

| Where Noise Emission is Not Music* |            |               | Where Noise Emission is Music |               |
|------------------------------------|------------|---------------|-------------------------------|---------------|
| Tonality                           | Modulation | Impulsiveness | No Impulsiveness              | Impulsiveness |
| + 5 dB                             | + 5 dB     | + 10 dB       | + 10 dB                       | + 15 dB       |

\* These adjustments are cumulative to a maximum of 15 dB.



The assigned levels (prescribed standards) for all premises are specified in regulation 8(3) and are shown in *Table 2-2*. The  $L_{A10}$  assigned level is applicable to noises present for more than 10% of a representative assessment period, generally applicable to “steady-state” noise sources. The  $L_{A1}$  is for short-term noise sources present for less than 10% and more than 1% of the time. The  $L_{Amax}$  assigned level is applicable for incidental noise sources, present for less than 1% of the time.

**Table 2-2 Baseline Assigned Levels**

| Premises Receiving Noise                                            | Time Of Day                                                                                              | Assigned Level (dB)     |                         |                         |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|-------------------------|
|                                                                     |                                                                                                          | $L_{A10}$               | $L_{A1}$                | $L_{Amax}$              |
| Noise sensitive premises: highly sensitive area <sup>1</sup>        | 0700 to 1900 hours Monday to Saturday (Day)                                                              | 45 + influencing factor | 55 + influencing factor | 65 + influencing factor |
|                                                                     | 0900 to 1900 hours Sunday and public holidays (Sunday)                                                   | 40 + influencing factor | 50 + influencing factor | 65 + influencing factor |
|                                                                     | 1900 to 2200 hours all days (Evening)                                                                    | 40 + influencing factor | 50 + influencing factor | 55 + influencing factor |
|                                                                     | 2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night) | 35 + influencing factor | 45 + influencing factor | 55 + influencing factor |
| Noise sensitive premises: any area other than highly sensitive area | All hours                                                                                                | 60                      | 75                      | 80                      |
| Commercial Premises                                                 | All hours                                                                                                | 60                      | 75                      | 80                      |
| Industrial and Utility Premises                                     | All hours                                                                                                | 65                      | 80                      | 90                      |

1. *highly sensitive area* means that area (if any) of noise sensitive premises comprising —

- (a) a building, or a part of a building, on the premises that is used for a noise sensitive purpose; and
- (b) any other part of the premises within 15 metres of that building or that part of the building.

The influencing factor (IF), in relation to noise received at noise sensitive premises, has been calculated as between 2-4 dB, as determined in *Appendix B*. *Table 2-3* shows the assigned levels including the influencing factor and transport factor at the receiving locations with the residential groupings shown in *Figure B1*.

**Table 2-3 Assigned Levels**

| Premises Receiving Noise                                                                      | Time Of Day                                                                                              | Assigned Level (dB) |                 |                   |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------|-----------------|-------------------|
|                                                                                               |                                                                                                          | L <sub>A10</sub>    | L <sub>A1</sub> | L <sub>Amax</sub> |
| +2 dB IF<br><b>R2, R3, R5</b><br>Noise sensitive premises: highly sensitive area <sup>1</sup> | 0700 to 1900 hours Monday to Saturday (Day)                                                              | 47                  | 57              | 67                |
|                                                                                               | 0900 to 1900 hours Sunday and public holidays (Sunday)                                                   | 42                  | 52              | 67                |
|                                                                                               | 1900 to 2200 hours all days (Evening)                                                                    | 42                  | 52              | 57                |
|                                                                                               | 2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night) | 37                  | 47              | 57                |
| +4 dB IF<br><b>R1, R4</b><br>Noise sensitive premises: highly sensitive area <sup>1</sup>     | 0700 to 1900 hours Monday to Saturday (Day)                                                              | 49                  | 59              | 69                |
|                                                                                               | 0900 to 1900 hours Sunday and public holidays (Sunday)                                                   | 44                  | 54              | 69                |
|                                                                                               | 1900 to 2200 hours all days (Evening)                                                                    | 44                  | 54              | 59                |
|                                                                                               | 2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night) | 39                  | 49              | 59                |

It must be noted the assigned levels above apply outside the receiving premises and at a point at least 3 metres away from any substantial reflecting surfaces.

The assigned levels are statistical levels and therefore the period over which they are determined is important. The Regulations define the Representative Assessment Period (RAP) as *“a period of time of not less than 15 minutes, and not exceeding 4 hours, determined by an inspector or authorised person to be appropriate for the assessment of a noise emission, having regard to the type and nature of the noise emission”*. An inspector or authorised person is a person appointed under Sections 87 & 88 of the *Environmental Protection Act 1986* and include Local Government Environmental Health Officers and Officers from the Department of Water Environmental Regulation. Acoustic consultants or other environmental consultants are not appointed as an inspector or authorised person. Therefore, whilst this assessment is based on a 4-hour RAP, which is assumed to be appropriate given the nature of the operations, this is to be used for guidance only.

## 2.2. Regulation 3 – Reversing Alarms

### ***“3. Regulations do not apply to certain noise emissions***

- (1) Nothing in these regulations applies to the following noise emissions –*
  - (h) Noise emissions from –*
    - (i) A reversing alarm fitted to a motor vehicle, mobile plant, or mining or earthmoving equipment;*
    - If -*
      - (iii) It is a requirement under another written law that such an alarm be fitted;*
      - (iv) It is not practicable to fit an alarm that complies with the written law under which it is required to be fitted and emits noise that complies with these regulations;”*

It is considered that any reversing alarms fitted to commercial vehicles (e.g. delivery or rubbish trucks) are not necessarily exempt under the Regulations, since they are not specifically required under another written law. That is only a safe workplace must be provided, which can be undertaken in a variety of ways.

The commonly used fixed noise output tonal reversing alarms also known as 'reversing beeper' emit, by their very nature, tonal and modulating noise at high levels. Alternative alarms such as broadband alarms are commonly used to minimise the impact.

## 2.3. Regulation 3 – Vehicle Noise

### ***“3. Regulations do not apply to certain noise emissions***

- (1) Nothing in these regulations applies to the following noise emissions –*
  - (a) Noise emissions from the propulsion and braking systems of motor vehicles operating on a road;”*

Since the development is open to the public, the car park and associated like areas are considered to be a road and therefore vehicle noise (propulsion and braking) is not strictly assessed. However, vehicle propulsion noise in the drive-through areas are considered assessable.

Vehicle door closing noise is also assessable in any parts of the car park, as this does not form part of the 'propulsion or braking' systems.

Similarly, the refrigeration units on some delivery trucks is not part of the propulsion or braking system and therefore also assessable.



## 2.4. Regulation 14A

### ***“14A. Waste Collection and Other Works***

- (i) *Regulation 7 does not apply to noise emitted in the course of carrying out class 1 works if –*
  - (a) *The works are carried out in the quietest reasonable and practicable manner; and*
  - (b) *The equipment used to carry out the works is the quietest reasonably available;*

*class 1 works means specified works carried out between -*

- (a) *0700 hours and 1900 hours on any day that is not a Sunday or a public holiday; or*
- (b) *0900 hours and 1900 hours on a Sunday or public holiday.*

*specified works means -*

- (a) *The collection of waste; or*
- (b) *The cleaning of a road or the drains for a road; or*
- (c) *The cleaning of public places, including footpaths, cycle paths, car parks and beaches;”*

In the case where specified works are to be carried out outside of class 1, a noise management plan is to be prepared and approved by the CEO.

### 3. METHODOLOGY

Computer modelling has been used to predict the noise emissions from the development to all nearby receivers. The software used was *SoundPLAN 8.2* with the CONCAWE algorithms (ISO 17534-3 improved method) selected, as they include the influence of wind and are considered appropriate given the relatively short source to receiver distances. Input data required in the model are listed below and discussed in *Section 3.1* to *Section 3.4*:

- Meteorological Information;
- Topographical data;
- Ground Absorption; and
- Source sound power levels.

#### 3.1. Meteorological Conditions

Meteorological information utilised is provided in *Table 3-1* and is considered to represent worst-case conditions for noise propagation. At wind speeds greater than those shown, sound propagation may be further enhanced, however background noise from the wind itself and from local vegetation is likely to be elevated and dominate the ambient noise levels.

**Table 3-1: Modelling Meteorological Conditions**

| Parameter                   | Day (7.00am to 7.00pm) <sup>2</sup> | Night (7.00pm to 7.00am) <sup>2</sup> |
|-----------------------------|-------------------------------------|---------------------------------------|
| Temperature (°C)            | 20                                  | 15                                    |
| Humidity (%)                | 50                                  | 50                                    |
| Wind Speed (m/s)            | 4                                   | 3                                     |
| Wind Direction <sup>1</sup> | All                                 | All                                   |
| Pasquil Stability Factor    | E                                   | F                                     |

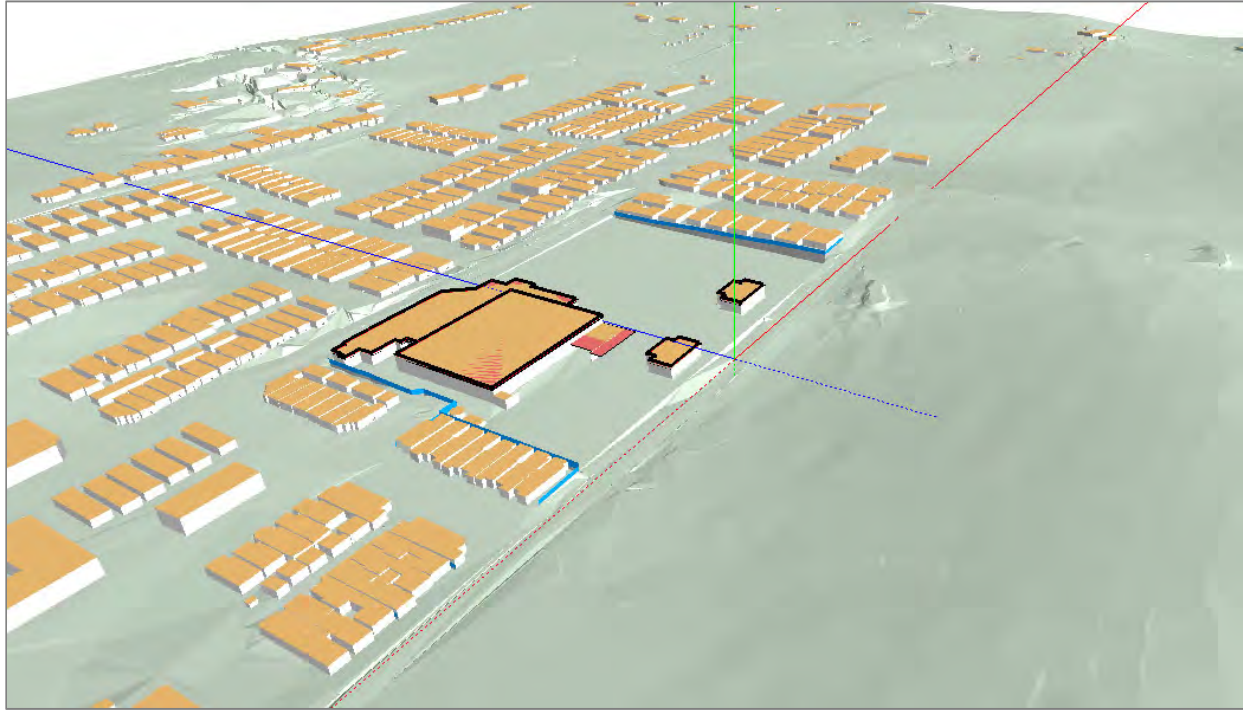
Notes:

1. The modelling package allows for all wind directions to be modelled simultaneously.
2. The conditions above are as defined in *Guideline: Assessment of Environmental Noise Emissions*; May 2021

Alternatives to the above default conditions can be used where one year of weather data is available and the analysis considers the worst 2% of the day and night for the month of the year in which the worst-case weather conditions prevail (source: *Draft Guideline on Environmental Noise for Prescribed Premises*, May 2016). In most cases, the default conditions occur for more than 2% of the time and therefore must be satisfied.

#### 3.2. Topographical Data

Topographical data was based on a combination of Landgate data on file and survey data provided by the client. This was combined with the proposed development (assumed to generally be at a level of 28.6m) to create a 3-Dimensional noise model as shown in *Figure 3-1*.



**Figure 3-1: Overview of Noise Model**

Some important items to note are:

- The site is generally lower than the surrounding residences;
- Residences to the northwest of the site on Snowden Street have access from Marcy Lane, such that their garages form a barrier to the alfresco area and habitable areas of the dwelling, with some small gaps between garages.
- From earlier analysis, boundary noise walls are proposed on part of the east side and all of the west side of the development, as shown in *Figure 3-2*. On the southwest side, the proposed wall is 3.0 metres high, predominantly required to minimise noise from the supermarket loading area. To the northwest, the proposed wall is 2.4 metres high, required for loading activities to the specialty stores, noting these will be non-refrigerated trucks only. To the southeast the proposed wall is also 2.4 metres high, required for trucks entering and exiting the eastern entrance, loading activity at the fast food and general amenity.
- All proposed wall heights are relative to the finished floor levels of the residences.
- Any proposed noise walls are to be constructed of a solid material with no gaps and having a minimum surface mass of 15 kg/m<sup>2</sup>. Such materials may be brick, limestone, concrete, sound-rated Plexiglass or combinations of these. The Plexiglass is useful above certain heights to minimise light/visual impacts.
- Where the wall is to be constructed on the development side and there is a retaining wall, the noise wall can float above the ground. The overlap from top of retaining wall to bottom of noise wall must be minimum 3 times the gap between the two. For example, if the retaining wall is 1.0-metre high and the noise wall is constructed 200mm from the retaining wall, the noise wall must start 600mm below the top of the retaining wall as a minimum, such that a 400mm gap would exist between the bottom of noise wall and the ground.





The ground absorption has been assumed to be 0.0 (0%) for the roads and 1.0 (100%) for landscaped areas, noting that 0.0 represents hard reflective surfaces such as water and 1.0 represents absorptive surfaces such as grass.

The source sound power levels used in the modelling are provided in *Table 3-2*. As the project is at DA stage, there is no information available on the specific type and number of mechanical plant items. Therefore, file data has been used from similar past projects.

| Description                              | Octave Band Centre Frequency (Hz) |     |     |     |    |    |    |    | Overall<br>dB(A) |
|------------------------------------------|-----------------------------------|-----|-----|-----|----|----|----|----|------------------|
|                                          | 63                                | 125 | 250 | 500 | 1k | 2k | 4k | 8k |                  |
| Fast Food Store (Each)                   |                                   |     |     |     |    |    |    |    |                  |
| Air-conditioning (2x condensers on roof) | 63                                | 63  | 62  | 65  | 57 | 50 | 45 | 39 | 64               |
| Toilet Exhaust Fan                       | 66                                | 64  | 62  | 59  | 52 | 49 | 46 | 40 | 60               |
| Exhaust Fan                              | 68                                | 73  | 67  | 65  | 59 | 55 | 59 | 47 | 67               |

| Description                                               | Octave Band Centre Frequency (Hz) |     |     |     |     |     |     |     | Overall dB(A) |
|-----------------------------------------------------------|-----------------------------------|-----|-----|-----|-----|-----|-----|-----|---------------|
|                                                           | 63                                | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  |               |
| Kitchen Exhaust Fan                                       | 80                                | 78  | 74  | 71  | 62  | 64  | 63  | 53  | 73            |
| Car Idling in Drive-Through                               | 81                                | 78  | 74  | 72  | 74  | 74  | 67  | 64  | 79            |
| Drive-Through loudspeaker                                 | 63                                | 64  | 66  | 77  | 80  | 73  | 57  | 42  | 82            |
| <b>Supermarket</b>                                        |                                   |     |     |     |     |     |     |     |               |
| Refrigeration Condensers (2x condensers)                  | 89                                | 90  | 85  | 83  | 83  | 78  | 71  | 68  | 87            |
| Refrigeration Compressors (Plantroom Breakout 4x louvres) | 82                                | 82  | 82  | 78  | 78  | 72  | 66  | 58  | 82            |
| Air-conditioning (3x condensers on roof)                  | 97                                | 97  | 84  | 79  | 73  | 69  | 62  | 54  | 84            |
| Toilet Exhaust Fans (2x)                                  | 66                                | 64  | 62  | 59  | 52  | 49  | 46  | 40  | 60            |
| Kitchen Exhaust Fan                                       | 78                                | 82  | 75  | 70  | 66  | 66  | 62  | 61  | 74            |
| Office Air-conditioning                                   | 64                                | 62  | 62  | 64  | 57  | 50  | 45  | 39  | 63            |
| Staff Dining/Cashier Air-conditioning                     | 61                                | 63  | 58  | 59  | 57  | 50  | 45  | 40  | 61            |
| Kitchen Supply Fan                                        | 74                                | 74  | 71  | 62  | 61  | 56  | 53  | 49  | 67            |
| <b>Specialty Stores</b>                                   |                                   |     |     |     |     |     |     |     |               |
| Air-conditioning (11 in total)                            | 63                                | 63  | 62  | 65  | 57  | 50  | 45  | 39  | 64            |
| Exhaust Fan (4 in total)                                  | 68                                | 73  | 67  | 65  | 59  | 55  | 59  | 47  | 67            |
| Toilet Exhaust Fan (4 in total)                           | 59                                | 64  | 62  | 59  | 52  | 49  | 46  | 40  | 60            |
| <b>General</b>                                            |                                   |     |     |     |     |     |     |     |               |
| Car Door Closing                                          | 71                                | 74  | 77  | 81  | 80  | 78  | 72  | 61  | 84            |
| Medium Refrigeration Delivery Truck                       | 99                                | 91  | 86  | 88  | 83  | 81  | 79  | 75  | 90            |
| Large Refrigeration Delivery Truck                        | 91                                | 84  | 97  | 95  | 97  | 96  | 90  | 81  | 101           |
| Reversing Beeper                                          | -                                 | -   | -   | -   | 98  | -   | -   | -   | 98            |
| Loading Activity (Banging)                                | 94                                | 99  | 88  | 82  | 82  | 95  | 88  | 81  | 98            |
| Large Truck (Non-Refrigerated) Idling                     | 103                               | 99  | 87  | 88  | 86  | 84  | 82  | 80  | 92            |
| Truck Start-up                                            | 108                               | 102 | 98  | 96  | 96  | 92  | 88  | 85  | 100           |
| Truck Air Brake Release                                   | 93                                | 90  | 88  | 95  | 102 | 111 | 113 | 108 | 116           |

The following is noted in relation to *Table 3-2*:

- All mechanical plant has been located on the roof of the buildings at a height of 0.5 metres for exhaust fans, and 1.0 metre for condensers and refrigeration plant;
- Parapets are initially assumed to be 1.0 metre high around proposed commercial buildings and are assumed to follow the building footprint;
- The enclosed supermarket plant room containing refrigeration compressors is initially assumed to be located mid-façade to the south of the building near the loading dock;
- Refrigeration units on trucks are modelled at 2.5 metres above ground;
- Other truck/loading noise are modelled at 0.5 metres above ground, with the exception of truck idling and start-up, modelled at 1.5 metres above ground;
- Speaker in drive-through is modelled at 1.0 metre above ground;
- Cars idling in drive through are modelled at 0.5 metres above ground;
- Car door closings are modelled at 1.0 metre above ground.

### 3.5. Noise Modelling Scenarios

A number of scenarios are modelled in order to consider the potential noise impacts from the site, noting that the modelling includes the *Figure 3-2* noise walls.

- Scenario 1 – This represents the more continuous noise during the night-time from the site, relating to refrigeration plant, air-conditioning from the supermarket and all mechanical plant from the fast food outlets, along with 5 cars idling in each fast food drive-through area. The assessable parameter is the  $L_{10}$ .
- Scenario 2 – In addition to the above equipment, noise from 11 cars in each drive-through and the two drive-through speakers are also included. This is expected to occur for less than 10% of the time during the night, such that the  $L_1$  is the applicable parameter.
- Scenario 3 – This includes Scenario 1 and also all mechanical plant associated with all stores as well as 4 cars idling in the supermarket pick up area. This is considered to be continuous noise and therefore assessed against the  $L_{10}$  parameter. As the Sunday daytime assigned level is less than Mondays to Saturdays, Sunday is used for determining compliance.
- Scenario 4 has been separated into 4 different scenarios, all considering various noises from trucks and loading operations but for different assessment parameters/criteria.
  - Scenario 4A - noise is considered to be present for 10% of the time. Noise sources include refrigerated truck in either of the supermarket loading areas and both refrigerated (forward parked) and non-refrigerated idling truck in the speciality store loading area. As part of the management of the premises, all such activity is restricted to daytime only, Mondays to Saturdays, 7.00am to 7.00pm such that it is the daytime (Monday to Saturday)  $L_{A10}$  parameter that is applicable.
  - Scenario 4B – noise is considered to be present for less than 10% of the time but more than 1% of the time. Noise sources include refrigerated truck reversing into east supermarket loading dock and specialty loading dock and refrigerated truck noise at each of the fast food restaurants. Applicable parameter is the  $L_1$  Mondays to Saturdays 7.00am to 7.00pm.
  - Scenario 4C – noise is considered to be present for less than 1% of the time such as noise associated with loading (banging), trucks reversing to the fast food tenancies and refrigerated trucks entering and exiting the site. Applicable parameter is the  $L_{max}$  Mondays to Saturdays 7.00am to 7.00pm.



- Scenario 4D – models noise from trucks considered to be part of the propulsion and braking system and therefore not considered assessable under the Regulations.
- Scenario 5 – as propulsion and braking systems are not assessable, this scenario considers noise from car door closings.

## 4. RESULTS & ASSESSMENT

Results for the noise modelling are presented in the following sections as tabular data and noise contour plots. With regard to the tabular data, the highest predicted noise level is provided for each of the five groupings of residences (refer *Figure B1*).

### 4.1. Scenario 1 – $L_{A10}$ Night

The results for Scenario 1 are presented and assessed in *Table 4-1* and *Figure 4-1*.

**Table 4-1: Scenario 1 Predicted and Assessed Night-time Noise Levels, dB  $L_{A10}$**

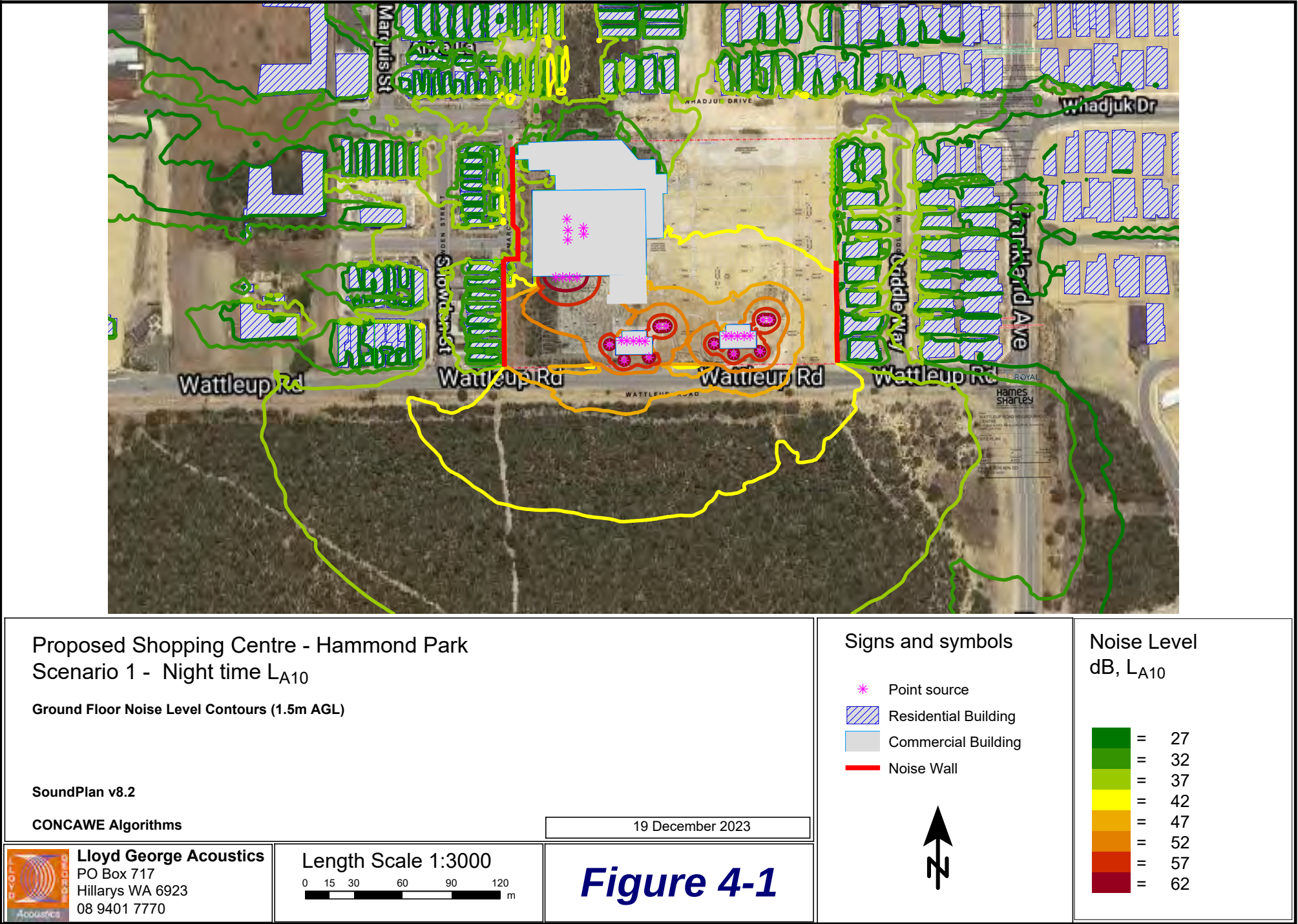
| Receiver                     | Predicted | Adjusted <sup>1</sup> | Assigned | Exceedance | Highest Source            |
|------------------------------|-----------|-----------------------|----------|------------|---------------------------|
| R1 (West) – Snowden Street   | 37        | 42                    | 39       | +3         | Supermarket AC            |
| R2 (West) Snowden Street     | 39        | 44                    | 37       | +7         | Supermarket AC            |
| R3 (North) Whadjuk Drive     | 41        | 46                    | 37       | +9         | Supermarket Refrigeration |
| R4 (East) Criddle Way        | 36        | 41                    | 39       | +2         | Supermarket Refrigeration |
| R5 (Northeast) Whadjuk Drive | 36        | 41                    | 37       | +4         | Supermarket Refrigeration |

1. Adjusted for possible tonality.

The above indicates that based on the assumed mechanical plant, possible exceedances may occur during the night. It is noted that the mechanical plant has yet to be designed such that noise must be a consideration when selecting plant, noting the following:

- All plant shall be vibration isolated to achieve minimum 95% isolation efficiency;
- All plant shall be selected taking noise levels into consideration, so that when comparing different models, the quieter units are selected;
- Selection of plant that can operate at low speed during the night (e.g. supermarket refrigeration condensers and air-conditioning);
- Acoustic screens to be incorporated around mechanical plant, particularly the supermarket refrigeration condensers and potentially air-conditioning units;
- Acoustic louvres to be incorporated in the design of the supermarket compressor plant room.

It is considered with the above, compliance during the night can be achieved.



## 4.2. Scenario 2 – L<sub>A1</sub> Night

The results for Scenario 2 are presented and assessed in *Table 4-2* and *Figure 4-2*. This Scenario is similar to Scenario 1, however includes some intermittent events (drive-through speaker and more drive-through cars) and is therefore assessed against the L<sub>1</sub> assigned night level as the most critical.

**Table 4-2: Scenario 2 Predicted and Assessed Night-time Noise Levels, dB L<sub>A1</sub>**

| Receiver                     | Predicted | Adjusted <sup>1</sup> | Assigned | Exceedance | Highest Source            |
|------------------------------|-----------|-----------------------|----------|------------|---------------------------|
| R1 (West) – Snowden Street   | 37        | 42                    | 49       | -          | Supermarket AC            |
| R2 (West) Snowden Street     | 39        | 44                    | 47       | -          | Supermarket AC            |
| R3 (North) Whadjuk Drive     | 41        | 46                    | 47       | -          | Supermarket Refrigeration |
| R4 (East) Criddle Way        | 36        | 41                    | 49       | -          | Supermarket Refrigeration |
| R5 (Northeast) Whadjuk Drive | 36        | 41                    | 47       | -          | Supermarket Refrigeration |

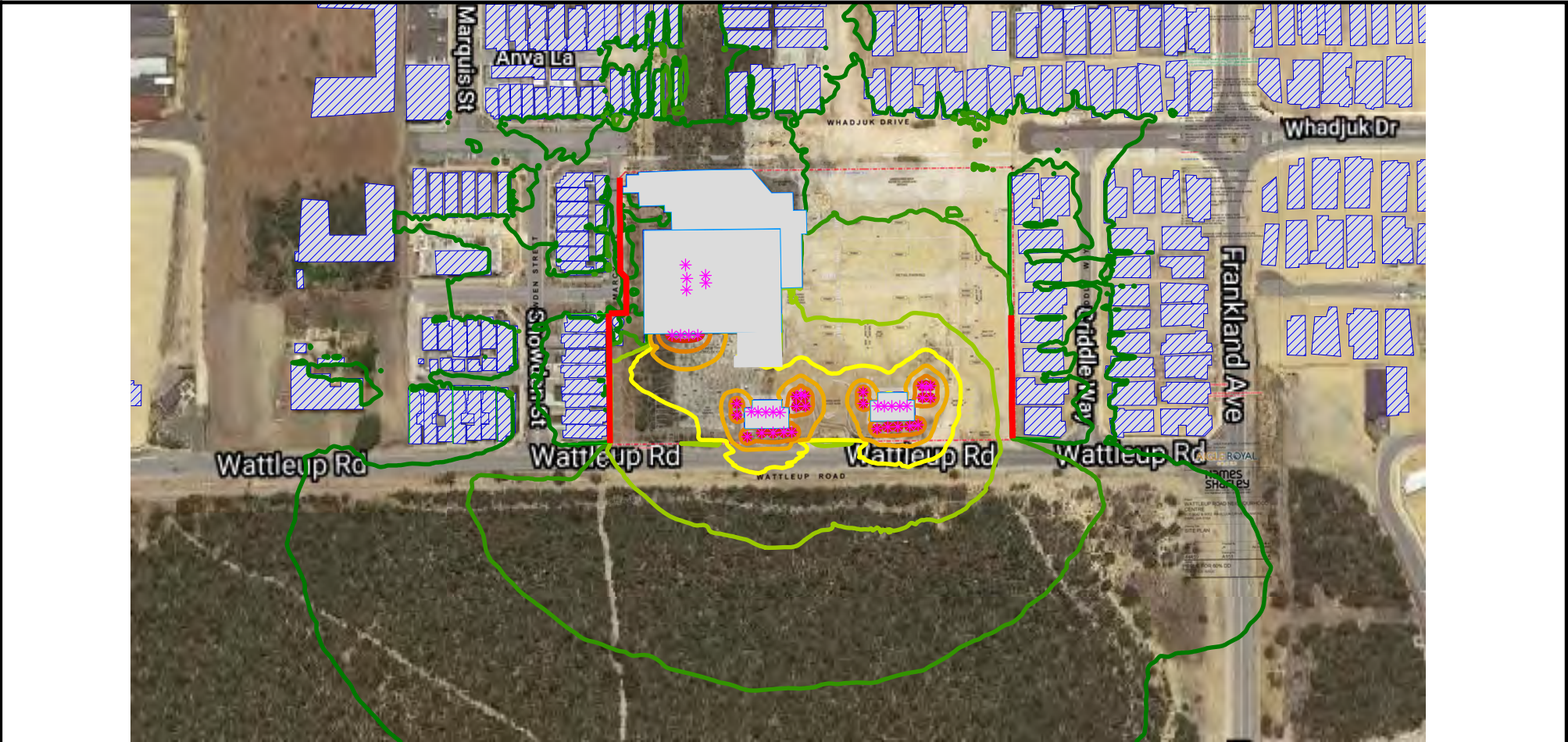
1. Adjusted for possible tonality.

The above shows no appreciable change in noise level compared to Scenario 1 and as such, Scenario 1 is more critical in terms of compliance.

Whilst the assessed noises are shown to be compliant, the following is recommended for good practice:

- Sound level from the ordering speakers of the fast food are to be minimised in noise level as far as reasonably practicable.





Proposed Shopping Centre - Hammond Park  
Scenario 2 - Night time  $L_{A1}$

Ground Floor Noise Level Contours (1.5m AGL)

SoundPlan v8.2

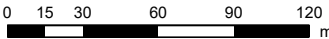
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Length Scale 1:3000

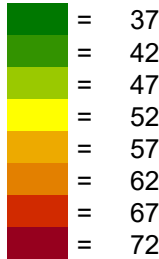


**Figure 4-2**

Signs and symbols

- \* Point source
- Residential Building
- Commercial Building
- Noise Wall

Noise Level  
dB,  $L_{A1}$



### 4.3. Scenario 3 – L<sub>A10</sub> Day

The results for Scenario 3 are presented and assessed in *Table 4-3* and *Figure 4-3*. Scenario 3 includes all mechanical plant and is assessed against the Sunday L<sub>10</sub> parameter, as this is more critical than during the day, Mondays to Saturdays by 5 dB.

**Table 4-3: Scenario 3 Predicted and Assessed Sunday Daytime Noise Levels, dB L<sub>A10</sub>**

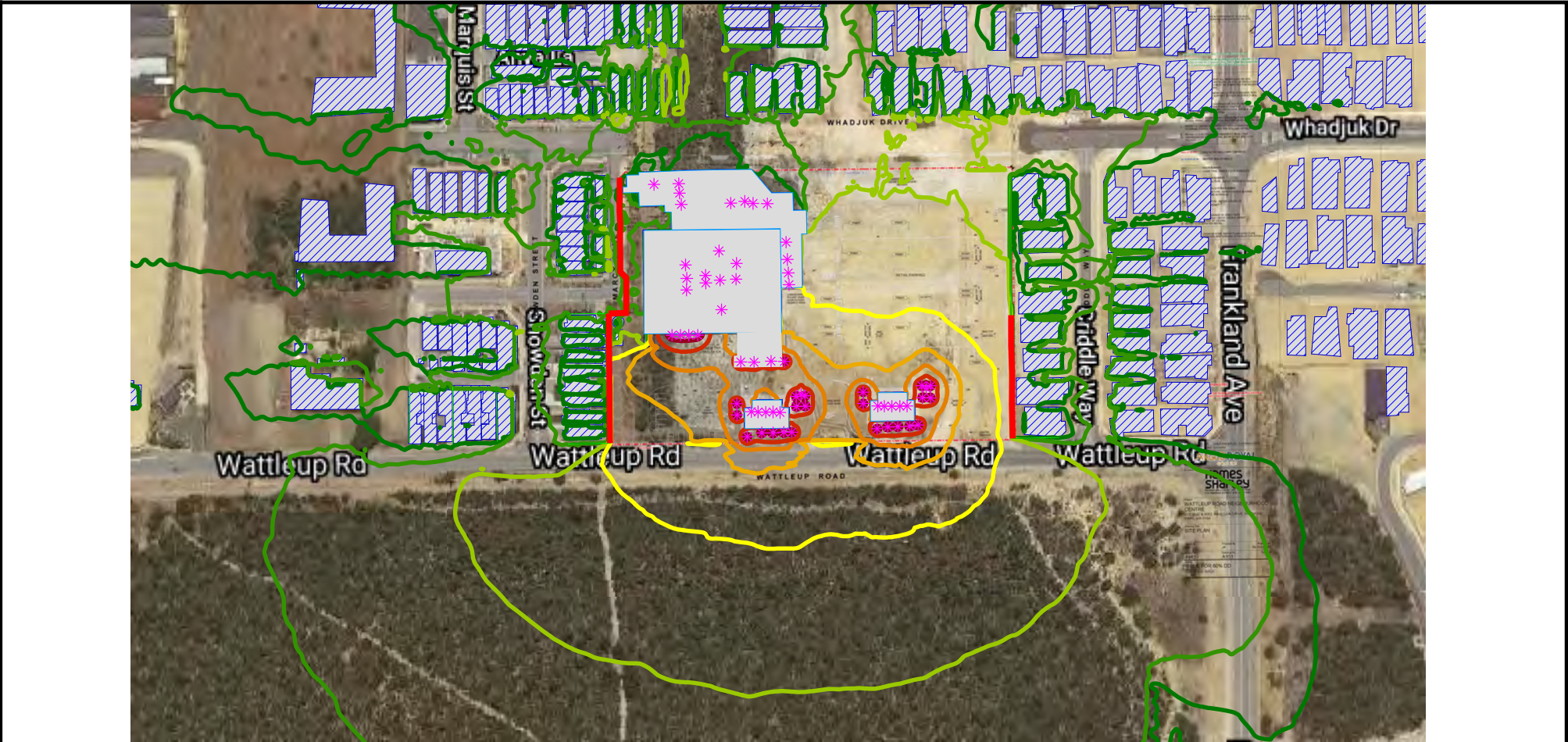
| Receiver                     | Predicted | Adjusted <sup>1</sup> | Assigned | Exceedance | Highest Source            |
|------------------------------|-----------|-----------------------|----------|------------|---------------------------|
| R1 (West) – Snowden Street   | 37        | 42                    | 44       | -          | Supermarket AC            |
| R2 (West) Snowden Street     | 39        | 44                    | 42       | 2          | Supermarket AC            |
| R3 (North) Whadjuk Drive     | 41        | 46                    | 42       | 4          | Supermarket Refrigeration |
| R4 (East) Criddle Way        | 37        | 42                    | 44       | -          | Supermarket Refrigeration |
| R5 (Northeast) Whadjuk Drive | 36        | 41                    | 42       | -          | Supermarket Refrigeration |

1. Adjusted for possible tonality.

The above shows no appreciable change in noise level compared to Scenario 1 and as such, Scenario 1 is more critical in terms of compliance.

As the assigned level Monday to Saturday 7.00am to 7.00pm is 5 dB higher than on Sundays, compliance is achieved at these times.





Proposed Shopping Centre - Hammond Park  
Scenario 3 - Daytime  $L_{A10}$

Ground Floor Noise Level Contours (1.5m AGL)

SoundPlan v8.2

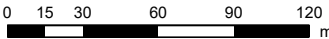
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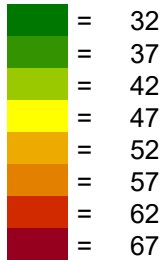


**Figure 4-3**

Signs and symbols

- \* Point source
- Residential Building
- Commercial Building
- Noise Wall

Noise Level  
dB,  $L_{A10}$





## 4.4. Scenario 4 – Truck & Loading Activities

### 4.4.1. Scenario 4A – Trucks in Main Loading Areas

The results for Scenario 4A are presented and assessed in *Table 4-4* and *Figure 4-4*, showing the worst-case predicted noise from each of the 3 trucks, noting both trucks at the supermarket loading docks are assumed to be refrigerated, whilst that at the specialty store is non-refrigerated.

**Table 4-4: Scenario 4A Predicted and Assessed Daytime Noise Levels, dB  $L_{A10}$**

| Receiver                     | Predicted | Adjusted <sup>1</sup> | Assigned | Exceedance | Highest Source        |
|------------------------------|-----------|-----------------------|----------|------------|-----------------------|
| R1 (West) – Snowden Street   | 43        | 48                    | 49       | -          | Supermarket East Dock |
| R2 (West) Snowden Street     | 40        | 45                    | 47       | -          | Specialty Dock        |
| R3 (North) Whadjuk Drive     | 31        | 36                    | 47       | -          | Supermarket East Dock |
| R4 (East) Criddle Way        | 34        | 39                    | 49       | -          | Supermarket East Dock |
| R5 (Northeast) Whadjuk Drive | 30        | 35                    | 47       | -          | Supermarket East Dock |

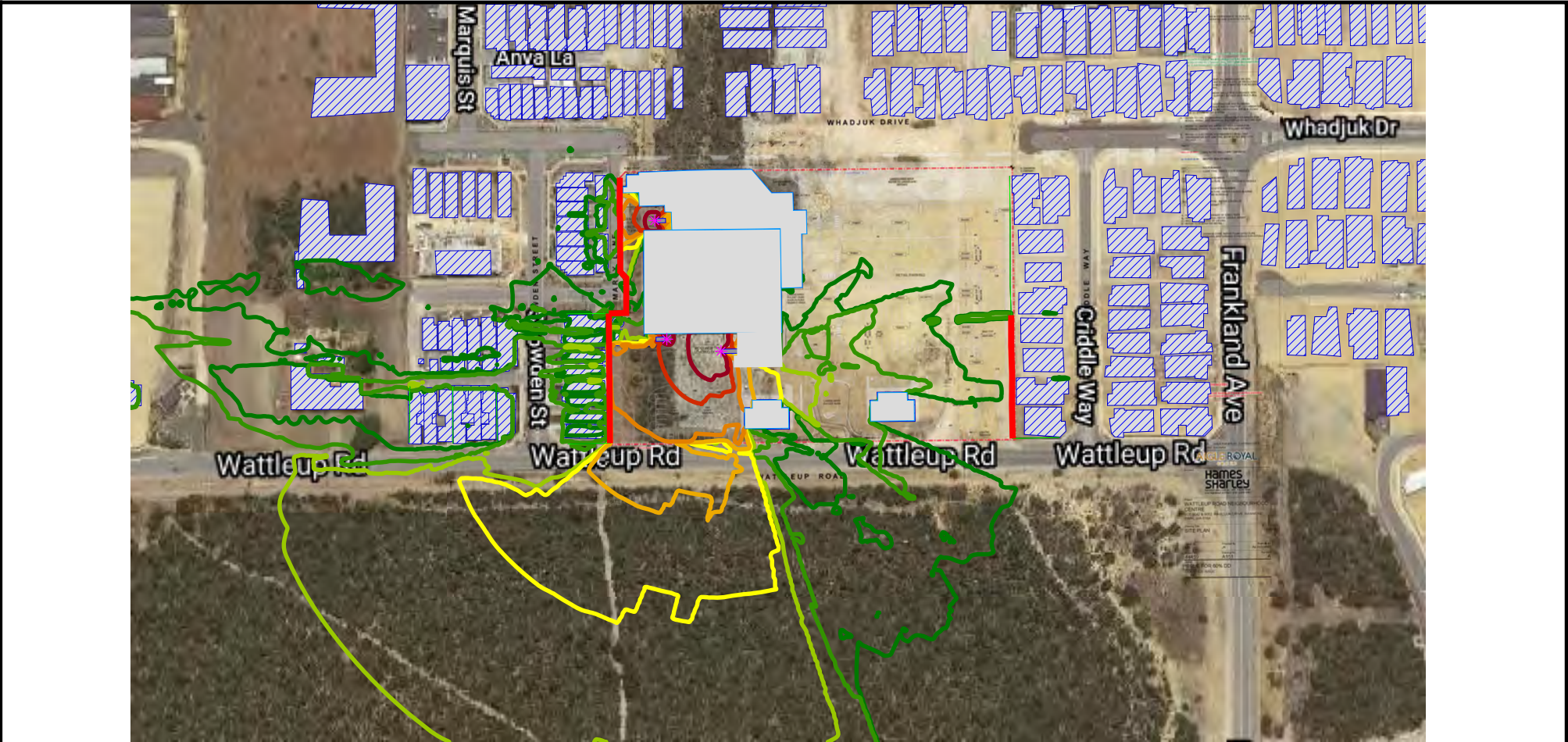
1. Adjusted for possible tonality.

The above shows compliance is achieved Mondays to Saturdays 7.00am to 7.00pm, noting any refrigerated vehicle accessing the Specialty Store Loading is to be forward parked, facing east so that the refrigeration unit is shielded from the residences by the truck body.

As the assessment is against the  $L_{A10}$  criteria, the  $L_{A1}$  criteria during the night is the same value. This means should a truck arrive outside of the nominated delivery hours, compliance could be achieved provided the noise occurs for less than 10% of the time (24-minutes in a 4-hour period) although this should not be encouraged.

Other than the restricted delivery times, the following is recommended for good practice:

- Trucks to be turned off when parked for unloading;
- Windows to trucks shall be closed when entering the site;
- Radios of trucks shall be turned off during loading activities.



Proposed Shopping Centre - Hammond Park  
Scenario 4A - Daytime  $L_{A10}$

Ground Floor Noise Level Contours (1.5m AGL)

SoundPlan v8.2

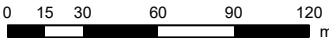
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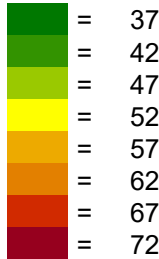


**Figure 4-4**

Signs and symbols

- \* Point source
- Residential Building
- Commercial Building
- Noise Wall
- Truck Body

Noise Level  
dB,  $L_{A10}$



#### 4.4.2. Scenario 4B – Intermittent Truck Noise

The results for Scenario 4B are presented and assessed in *Table 4-5* and *Figure 4-5*, showing the worst-case predicted noise from each of the trucks. Noise sources are refrigerated delivery trucks at fast food, where the delivery time is expected to be shorter than that for the supermarket. Reversing alarms for trucks at the speciality dock and supermarket dock are also included as these may sound for longer durations.

**Table 4-5: Scenario 4B Predicted and Assessed Daytime Noise Levels, dB L<sub>A1</sub>**

| Receiver                     | Predicted | Adjusted <sup>1</sup> | Assigned | Exceedance | Highest Source               |
|------------------------------|-----------|-----------------------|----------|------------|------------------------------|
| R1 (West) – Snowden Street   | 36        | 46                    | 59       | -          | Reversing Beeper Supermarket |
| R2 (West) Snowden Street     | 45        | 55                    | 57       | -          | Reversing Beeper Specialty   |
| R3 (North) Whadjuk Drive     | 38        | 48                    | 57       | -          | Reversing Beeper Specialty   |
| R4 (East) Criddle Way        | 40        | 45                    | 59       | -          | Fast Food Refrigerated Truck |
| R5 (Northeast) Whadjuk Drive | 36        | 41                    | 57       | -          | Fast Food Refrigerated Truck |

1. Where noise is from refrigerated truck, adjusted for possible tonality (+ 5 dB). Where noise is from reversing beeper, noise is adjusted for tonality and modulation (+ 10 dB)

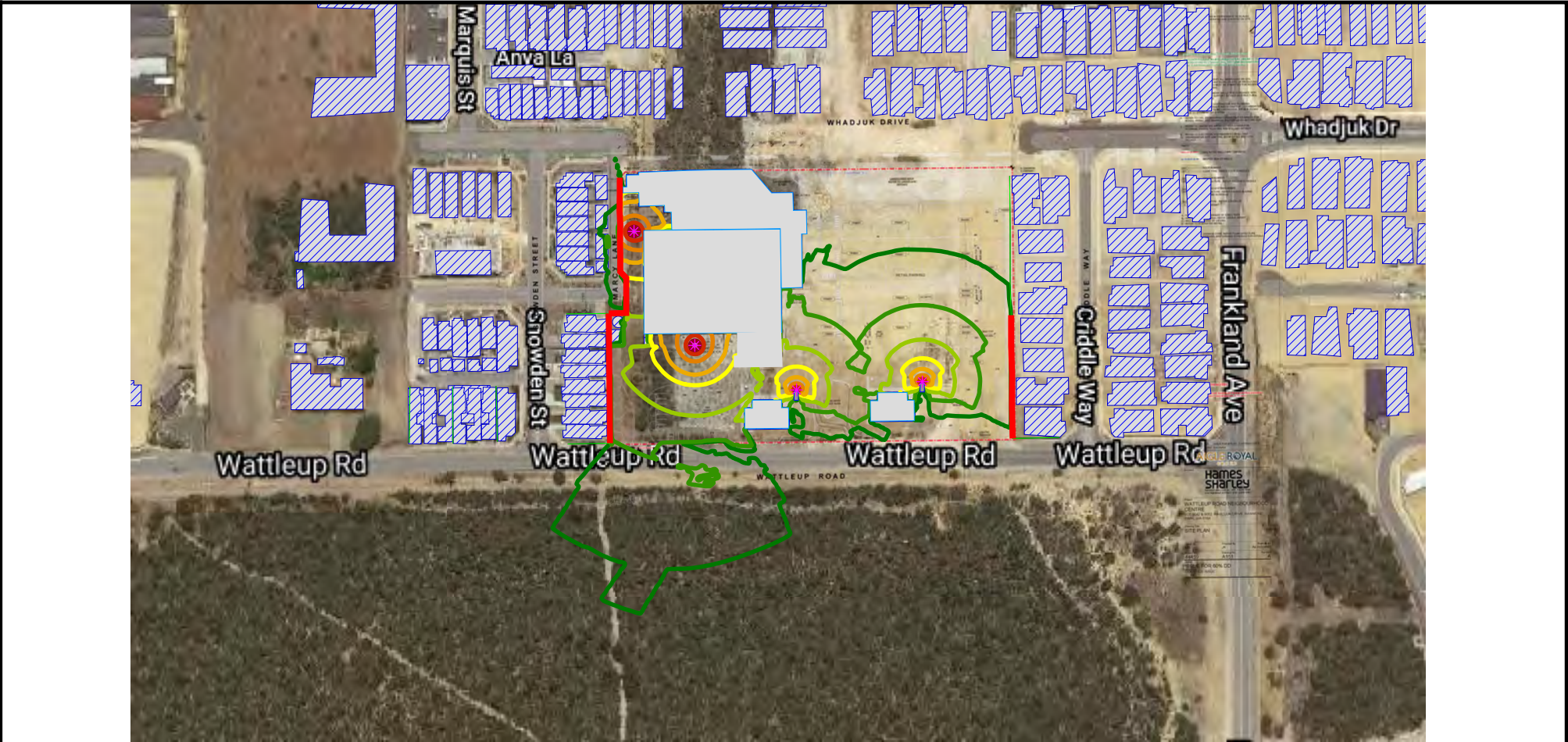
The above shows compliance is achieved Mondays to Saturdays 7.00am to 7.00pm.

This also shows that fast food refrigerated trucks would comply with the L<sub>A10</sub> criteria, in the event the delivery time exceeded 24-minutes in a 4-hour period.

Whilst the assessed noises are shown to be compliant at the specified time, the following is recommended for good practice:

- Broadband alarms are to fitted to their vehicles.





Proposed Shopping Centre - Hammond Park  
Scenario 4B - Daytime  $L_{A1}$

Ground Floor Noise Level Contours (1.5m AGL)

SoundPlan v8.2

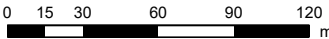
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Length Scale 1:3000

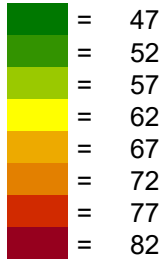


**Figure 4-5**

Signs and symbols

- \* Point source
- Residential Building
- Commercial Building
- Noise Wall
- Truck Body

Noise Level  
dB,  $L_{A1}$



#### 4.4.3. Scenario 4C – Shorter Term Truck Noise

The results for Scenario 4C are presented and assessed in *Table 4-6* and *Figure 4-6*, showing the worst-case predicted noise from each of the trucks. This scenario includes reversing alarms for the fast food trucks, which are likely required for only a short time. Also included is noise from loading activities (banging) and refrigerated trucks moving in the car park noting the large refrigerated trucks enter the east driveway and exit via the west driveway. Also to reverse into the east loading dock, the large refrigerated truck will be briefly positioned to the far west, near the pump room.

**Table 4-6: Scenario 4C Predicted and Assessed Daytime Noise Levels, dB  $L_{Amax}$**

| Receiver                     | Predicted | Adjusted <sup>1</sup> | Assigned | Exceedance | Highest Source                                        |
|------------------------------|-----------|-----------------------|----------|------------|-------------------------------------------------------|
| R1 (West) – Snowden Street   | 54        | 59                    | 69       | -          | Refrigerated Truck Near Roundabout Prior to Reversing |
| R2 (West) Snowden Street     | 49        | 54                    | 67       | -          | Refrigerated Truck Near Roundabout Prior to Reversing |
| R3 (North) Whadjuk Drive     | 47        | 57                    | 67       | -          | Fast Food Loading Noise                               |
| R4 (East) Criddle Way        | 52        | 57                    | 69       | -          | Large Refrigerated Truck Entering Site                |
| R5 (Northeast) Whadjuk Drive | 48        | 53                    | 67       | -          | Large Refrigerated Truck Entering Site                |

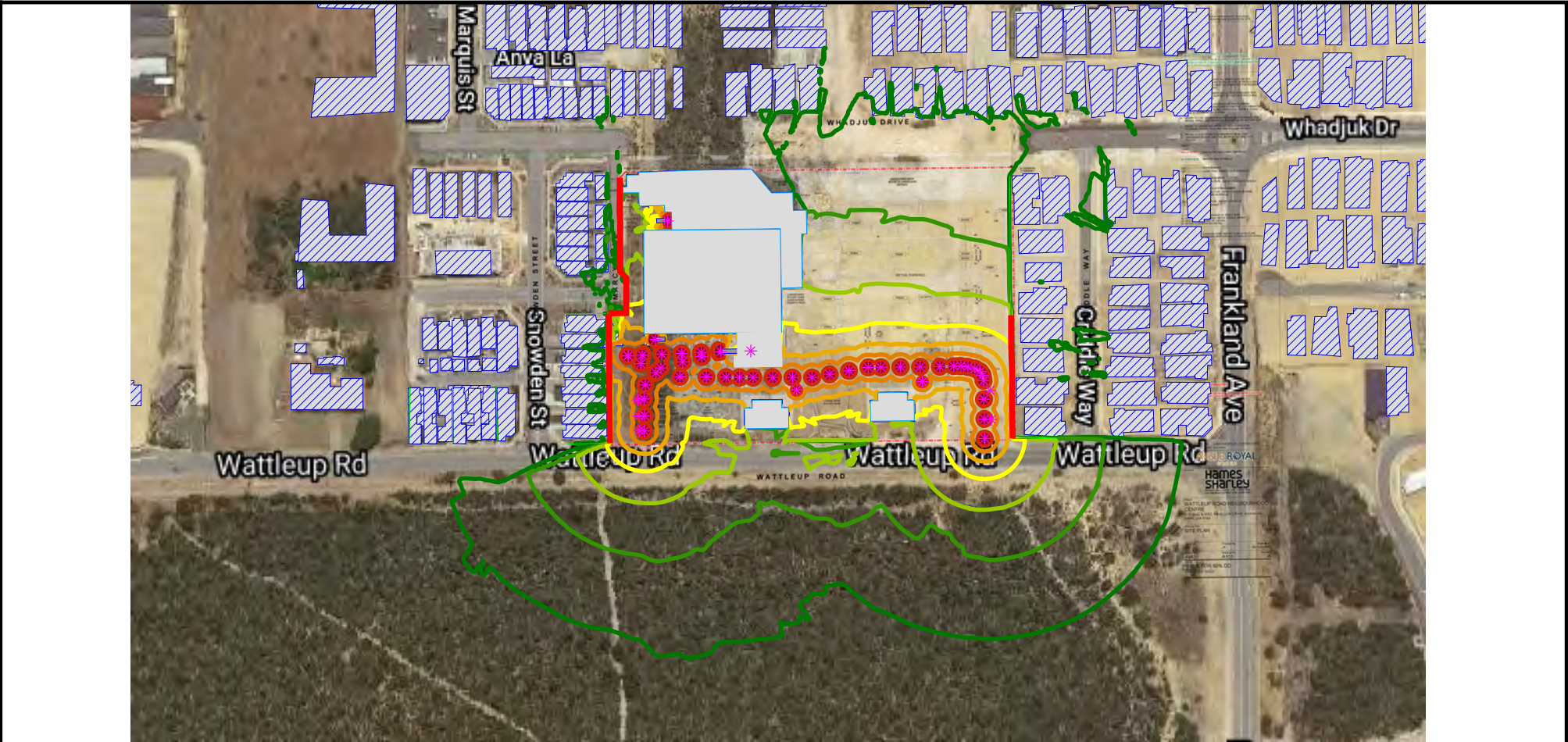
1. Where noise is from refrigerated truck, adjusted for possible tonality (+ 5 dB). Where noise is from loading activities, this is adjusted for impulsiveness (+ 10 dB)

The above shows compliance is achieved Mondays to Saturdays 7.00am to 7.00pm. This also shows that compliance is achieved with the  $L_{A1}$  criteria, should the noise be present for more than 1% of the time but still less than 10% of the time.

Whilst the assessed noises are shown to be compliant at the specified time, the following is recommended for good practice:

- Signage to be placed in loading dock areas advising to minimise noise emissions;
- Truck drivers to be advised of good driving techniques on the site and surrounding areas to minimise noise;
- Goods be handled carefully when unloading to minimise noise.





Proposed Shopping Centre - Hammond Park  
Scenario 4C - Daytime  $L_{Amax}$

Ground Floor Noise Level Contours (1.5m AGL)

SoundPlan v8.2

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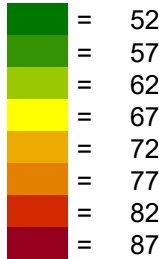
0 15 30 60 90 120 m

**Figure 4-6**

Signs and symbols

- \* Point source
-  Residential Building
-  Commercial Building
-  Noise Wall
-  Truck Body

Noise Level  
dB,  $L_{Amax}$





#### 4.4.4. Scenario 4D – Propulsion and Braking Systems

As per *Section 2.3*, noise from the propulsion and braking system of motor vehicles are not assessed against the assigned levels. *Table 4-7* provides the predicted noise levels for information purposes for a truck start-up as well as truck air brake noise that may occur. All of these are modelled in each of the loading bay areas. As the noises are not assessable, no adjustments are applied for intrusive characteristics.

**Table 4-7: Scenario 4D Predicted and Assessed Daytime Noise Levels, dB  $L_{Amax}$**

| Receiver                     | Truck Start | Truck Air Brake | Highest Source                  |
|------------------------------|-------------|-----------------|---------------------------------|
| R1 (West) – Snowden Street   | 42          | 57              | Truck in Supermarket East Dock. |
| R2 (West) Snowden Street     | 52          | 63              | Truck in Specialty Store Dock.  |
| R3 (North) Whadjuk Drive     | 48          | 67              | Fast Food Loading Area.         |
| R4 (East) Criddle Way        | 45          | 60              | Fast Food Loading Area.         |
| R5 (Northeast) Whadjuk Drive | 42          | 57              | Fast Food Loading Area.         |

#### 4.5. Scenario 5 – Car Door Closings

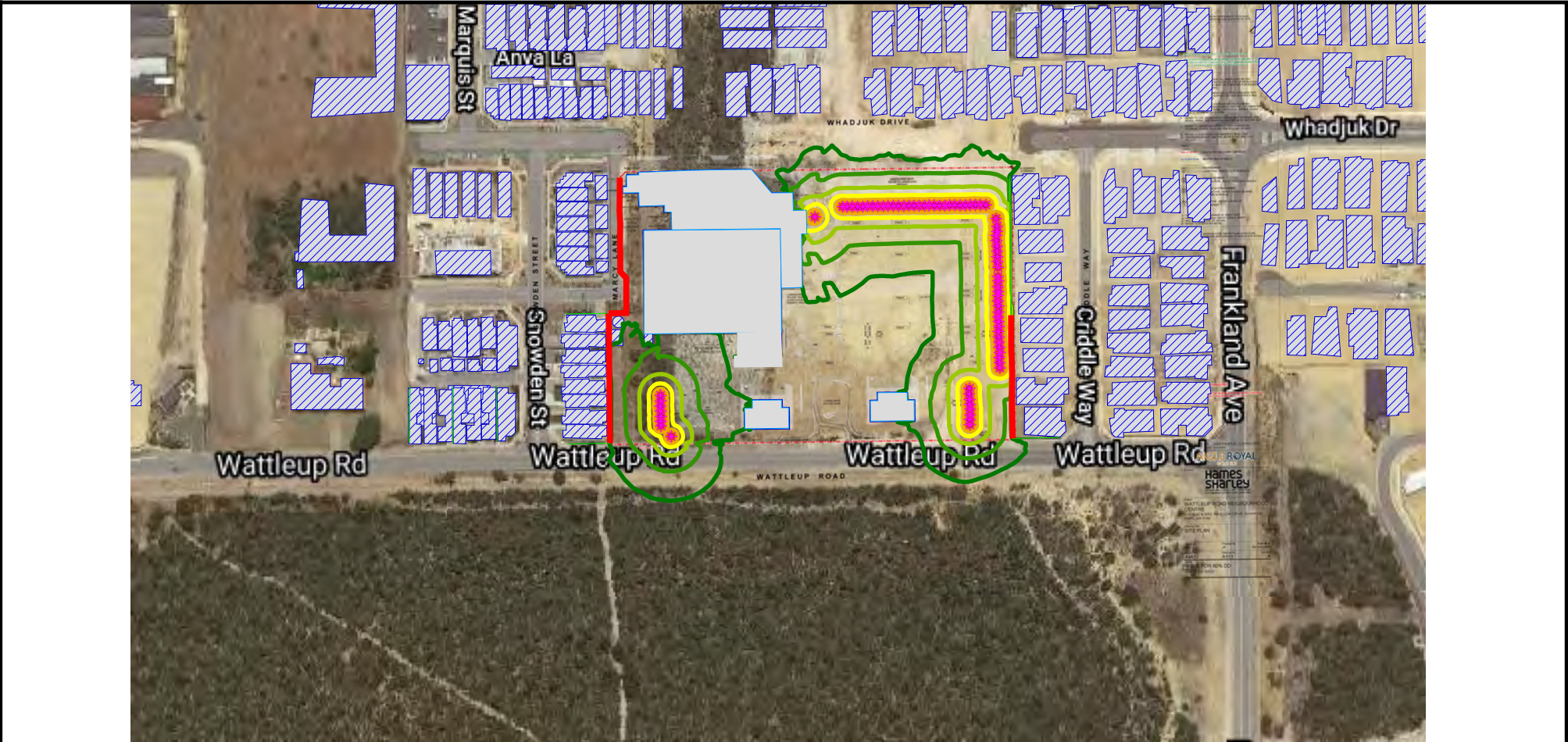
The results for Scenario 5 are presented and assessed in *Table 4-8* and *Figure 4-7*. Assessment is provided against the night-time  $L_{Amax}$ , although this is considered conservative, as the bays closest to the boundary are more likely to be daytime use.

**Table 4-8: Scenario 5 Predicted and Assessed Night-time Noise Levels, dB  $L_{Amax}$**

| Receiver                     | Predicted | Adjusted <sup>1</sup> | Assigned | Exceedance |
|------------------------------|-----------|-----------------------|----------|------------|
| R1 (West) – Snowden Street   | 29        | 39                    | 59       | -          |
| R2 (West) Snowden Street     | 28        | 38                    | 57       | -          |
| R3 (North) Whadjuk Drive     | 43        | 53                    | 57       | -          |
| R4 (East) Criddle Way        | 41        | 51                    | 59       | -          |
| R5 (Northeast) Whadjuk Drive | 44        | 54                    | 57       | -          |

1. Adjusted for possible impulsiveness.

The above shows no appreciable change in noise level compared to Scenario 1 and as such, Scenario 1 is more critical in terms of compliance.



Proposed Shopping Centre - Hammond Park  
Scenario 5 - Night-time  $L_{Amax}$

Ground Floor Noise Level Contours (1.5m AGL)

SoundPlan v8.2

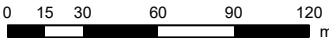
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Length Scale 1:3000

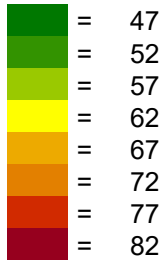


**Figure 4-7**

Signs and symbols

- \* Point source
- Residential Building
- Commercial Building
- Noise Wall

Noise Level  
dB,  $L_{Amax}$



---

## 5. FIRE PUMP ROOM

Under emergency operation, fire pump plant noise emissions are exempt from the Noise Regulations. However, fire pump plant is subject to mandatory routine maintenance operations, which is considered as a noise emission source, requiring some degree of noise attenuation.

Where fire pump equipment is left untreated, the combination of diesel pumps, combustion engine exhaust muffler and water flow noise through piping and valve systems can generate significant levels of noise (in excess of 100 dB(A)) potentially causing significant disturbance to residents during testing.

The fire pump room is located on the western boundary and therefore in close proximity to #12-16 Snowden Street. As such, the following is required:

- Purchase an acoustically treated Fire Pump such as a Class 1 Enviropac enclosure (<https://alliedpumps.com.au/product/commercial/fire-protection-systems/enviropac-sound-attenuation-fire-pump-system/>);
- External doorset shall be minimum 50mm thick, solid timber core doors with full perimeter (Raven RP47 & RP10 or equivalent), bottom (Raven RP38 or equivalent) and astragal seals (Raven RP16 and RP10 or equivalent);
- The bounding wall and roof construction is to be minimum 150mm thick concrete. The underside of the concrete roof shall be lined with minimum 50mm thick, 48 kg/m<sup>3</sup> insulation. Where the insulation must be covered, this can be perforated foil or acoustically equivalent;
- Vibration isolation mounts to the pump set itself as well as any pipework and ductwork to avoid the transference of structure borne noise. Mounts, hangers and the like are to be selected by the mount supplier, achieving 97% isolation efficiency.
- Any openings required for ventilation purposes are to be on the east side and acoustically treated to ensure compliance with the *Environmental Protection (Noise) Regulations 1997*.
- Maintenance testing for such emergency equipment shall be scheduled for weekdays daytime only.



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## 6. RECOMMENDATIONS

The noise modelling indicates mechanical plant will need to be carefully designed to take into consideration noise emissions, particularly plant that will operate during the night (after 10.00pm) such as any refrigeration units and potentially the supermarket air-conditioning. The exceedances are however considered manageable considering the following:

- All plant shall be vibration isolated to achieve minimum 95% isolation efficiency;
- All plant shall be selected taking noise levels into consideration, so that when comparing different models, the quieter units are selected;
- Selection of plant that can operate at low speed during the night (e.g. supermarket refrigeration condensers and air-conditioning);
- Acoustic screens to be incorporated around mechanical plant, particularly the supermarket refrigeration condensers and potentially air-conditioning units;
- Acoustic louvres to be incorporated in the design of the supermarket compressor plant room.

Noise from designed mechanical plant will be subject to further analysis by a suitably qualified acoustical consultant.

With regard to trucks, the noise is predominantly managed by restricting delivery times to 7.00am to 7.00pm Mondays to Saturdays and this has been documented in the Delivery Management Plan prepared by Rowe Group. In addition, refrigerated trucks accessing the Specialty Store Loading must be forward parked facing east.

The minimum boundary noise walls required are shown in *Figure 3-2*. On the southwest side, the proposed wall is 3.0 metres high. To the northwest, the proposed wall is 2.4 metres high and to the southeast the proposed wall is also 2.4 metres high. With regards to these walls:

- All proposed wall heights are relative to the finished floor levels of the residences.
- Any proposed noise walls are to be constructed of a solid material with no gaps and having a minimum surface mass of 15 kg/m<sup>2</sup>. Such materials may be brick, limestone, concrete, sound-rated Plexiglass or combinations of these. The Plexiglass is useful above certain heights to minimise light/visual impacts.
- Where the wall is to be constructed on the development side and there is a retaining wall, the noise wall can float above the ground. The overlap from top of retaining wall to bottom of noise wall must be minimum 3 times the gap between the two. For example, if the retaining wall is 1.0-metre high and the noise wall is constructed 200mm from the retaining wall, the noise wall must start 600mm below the top of the retaining wall as a minimum, such that a 400mm gap (or less) would exist between the bottom of noise wall and the ground.

Whilst the fire pump is for emergency reasons, the testing for maintenance purposes can still result in significant noise emissions such that *Section 5* outlines specific requirements for this building and equipment.

In addition to this assessment, *Appendix A* provides noise minimisation items that shall be adopted in the Centre Management's Operational Management Plan.

**Appendix A – Noise Management Plan**

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Whilst a noise assessment has been undertaken and boundary walls constructed as a result, noise from the site must still be managed in order to comply with the prescribed standards of the *Environmental Protection (Noise) Regulations 1997*.

The following are to be considered within the Centre Management's Operational Management Plan, in relation to noise.

- Each tenant is to be made aware as part of their leasing agreement that they have an obligation to comply with the prescribed standards of the *Environmental Protection (Noise) Regulations 1997* to adjoining tenants and surrounding residences.
- All plant and equipment is to be maintained in good working order in order to minimise noise emissions. Any manufacturer's noise suppression parts are to be replaced following any maintenance.
- Maintenance testing for such emergency equipment shall be scheduled for weekdays daytime only.
- Waste collection shall occur 7.00am to 7.00pm Mondays to Saturdays (excluding public holidays) and 9.00am to 7.00pm Sundays and public holidays.
- Deliveries shall be scheduled for different days and spaced out on the same day as far as practicable.
- Delivery vehicles shall operate Monday to Saturday, 7.00am to 7.00pm.
  - Signage to be placed in loading dock areas advising to minimise noise emissions;
  - Vehicles shall not be left to idle;
  - Radios of vehicles shall be turned off;
  - Reversing alarms shall be broadband type rather than tonal, beepers, whilst still maintaining a safe workplace;
  - Windows to trucks shall be closed when entering the site;
  - Care shall be taken to minimise noise during loading and unloading operations;
  - Truck drivers to be advised of good driving techniques on the site and surrounding areas to minimise noise.
- Refrigerated trucks accessing the Specialty Store Loading must be forward parked facing east.
- External loading areas are not to have music or announcements systems, other than for emergencies.
- Tenants shall have a buy quiet policy. That is, when purchasing new plant/equipment and comparing multiple models, sound levels shall be taken into consideration.
- Fast Food ordering speakers shall be at a reasonable volume.
- External contractors are to be made aware that they also have a responsibility to minimise noise.
- Centre Management is to maintain a Complaint Log to include:
  - Name of complainant;
  - Address of complainant;
  - Contact details of complainant;
  - Details of the complaint; and
  - How the complaint was resolved.



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## Appendix B – Influencing Factor Calculation

The assigned levels combine a baseline assigned level with an influencing factor, with the latter increasing the assigned level on the basis of the existence of significant roads and commercial or industrial zoned land within an inner circle (100 metre radius) and an outer circle (450 metre radius) of the noise sensitive premises. The calculation for the influencing factor is:

$$= \frac{1}{10} (\% \text{ Type A}_{100} + \% \text{ Type A}_{450}) + \frac{1}{20} (\% \text{ Type B}_{100} + \% \text{ Type B}_{450})$$

where :

% Type A<sub>100</sub> = the percentage of industrial land within  
a 100m radius of the premises receiving the noise

%TypeA<sub>450</sub> = the percentage of industrial land within  
a 450m radius of the premises receiving the noise

% Type B<sub>100</sub> = the percentage of commercial land within  
a 100m radius of the premises receiving the noise

%TypeB<sub>450</sub> = the percentage of commercial land within  
a 450m radius of the premises receiving the noise

+ Transport Factor (maximum of 6 dB)

= 2 for each secondary road (6,000 to 15,000 vpd) within 100m

= 2 for a major road (> 15,000 vpd) within 450m

= 6 for a major road within 100m

The nearest noise sensitive premises are identified on *Figure B-1* as:

- R1 – #2 - #20 Snowden Street
- R2 - #22 - #30 Snowden Street
- R3 – Whadjuk Drive Residences
- R4 - #1 - #13 Criddle Way
- R5 - #67 - #69 Whadjuk Drive

Each of the closest residences obtains a + 2 dB influencing factor due to the commercial nature of the proposed development. From a traffic count obtained from Main Roads WA, this shows in October 2020, 5,755 vehicles per day used Wattleup Road (west of Frankland Avenue) and 6,508 vehicles per day used Frankland Avenue (south of Wattleup Road). To be considered a secondary road, there is to be 6,000 vehicles per day. With the introduction of the shopping centre, as well as general growth in the area, traffic volumes on Wattleup Road are expected to exceed 6,000 vpd. As such, residences within 100 metres of Wattleup Road also receive a + 2 dB traffic factor.



**Figure B-1: Identification of Residential Groupings**

Table B-1 combines the percentage land types and Transport Factor to calculate the influencing factor.

**Table B-1: Influencing Factor Calculation, dB**

| Receiver   | Industrial Land | Commercial Land | Transport Factor | Total |
|------------|-----------------|-----------------|------------------|-------|
| R1, R4     | 0.0             | 2.0             | 2.0              | 4     |
| R2, R3, R5 | 0.0             | 2.0             | 0.0              | 2     |

The influencing factor calculated in Table B-1 is combined with those baseline assigned levels of Table 2-2, resulting in the project assigned levels provided in Table 2-3.



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## Appendix C – Terminology

The following is an explanation of the terminology used throughout this report:

- **Decibel (dB)**

The decibel is the unit that describes the sound pressure levels of a noise source. It is a logarithmic scale referenced to the threshold of hearing.

- **A-Weighting**

An A-weighted noise level has been filtered in such a way as to represent the way in which the human ear perceives sound. This weighting reflects the fact that the human ear is not as sensitive to lower frequencies as it is to higher frequencies. An A-weighted sound level is described as  $L_A$ , dB.

- **Sound Power Level ( $L_w$ )**

Under normal conditions, a given sound source will radiate the same amount of energy, irrespective of its surroundings, being the sound power level. This is similar to a 1kW electric heater always radiating 1kW of heat. The sound power level of a noise source cannot be directly measured using a sound level meter but is calculated based on measured sound pressure level at known distances. Noise modelling incorporates source sound power levels as part of the input data.

- **Sound Pressure Level ( $L_p$ )**

The sound pressure level of a noise source is dependent upon its surroundings, being influenced by distance, ground absorption, topography, meteorological conditions etc. and is what the human ear actually hears. Using the electric heater analogy above, the heat will vary depending upon where the heater is located, just as the sound pressure level will vary depending on the surroundings. Noise modelling predicts the sound pressure level from the sound power levels taking into account ground absorption, barrier effects, distance etc.

- **$L_{ASlow}$**

This is the noise level in decibels, obtained using the A-frequency weighting and the S (slow) time weighting. Unless assessing modulation, all measurements use the slow time weighting characteristic.

- **$L_{AFast}$**

This is the noise level in decibels, obtained using the A-frequency weighting and the F (fast) time weighting. This is used when assessing the presence of modulation.

- **$L_{APeak}$**

This is the greatest absolute instantaneous sound pressure level in decibels using the A-frequency weighting.

- **$L_{Amax}$**

An  $L_{Amax}$  level is the maximum A-weighted noise level during a particular measurement.

- **$L_{A1}$**

The  $L_{A1}$  level is the A-weighted noise level exceeded for 1 percent of the measurement period and is considered to represent the average of the maximum noise levels measured.

- **$L_{A10}$**

The  $L_{A10}$  level is the A-weighted noise level exceeded for 10 percent of the measurement period and is considered to represent the “intrusive” noise level.

- **$L_{A90}$**

The  $L_{A90}$  level is the A-weighted noise level exceeded for 90 percent of the measurement period and is considered to represent the “background” noise level.

- **$L_{Aeq}$**

The equivalent steady state A-weighted sound level (“equal energy”) in decibels which, in a specified time period, contains the same acoustic energy as the time-varying level during the same period. It is considered to represent the “average” noise level.

- **One-Third-Octave Band**

Means a band of frequencies spanning one-third of an octave and having a centre frequency between 25 Hz and 20000 Hz inclusive.

- **Representative Assessment Period**

Means a period of time not less than 15 minutes, and not exceeding four hours, determined by an inspector or authorised person to be appropriate for the assessment of a noise emission, having regard to the type and nature of the noise emission.

- **$L_{Amax}$  assigned level**

Means an assigned level, which, measured as a  $L_{ASlow}$  value, is not to be exceeded at any time.

- **$L_{A1}$  assigned level**

Means an assigned level, which, measured as a  $L_{ASlow}$  value, is not to be exceeded for more than 1 percent of the representative assessment period.

- **$L_{A10}$  assigned level**

Means an assigned level, which, measured as a  $L_{ASlow}$  value, is not to be exceeded for more than 10 percent of the representative assessment period.



- **Tonal Noise**

A tonal noise source can be described as a source that has a distinctive noise emission in one or more frequencies. An example would be whining or droning. The quantitative definition of tonality is:

- the presence in the noise emission of tonal characteristics where the difference between -
  - (a) the A-weighted sound pressure level in any one-third octave band; and
  - (b) the arithmetic average of the A-weighted sound pressure levels in the 2 adjacent one-third octave bands,

is greater than 3 dB when the sound pressure levels are determined as  $L_{Aeq,T}$  levels where the time period T is greater than 10% of the representative assessment period, or greater than 8 dB at any time when the sound pressure levels are determined as  $L_{A\ slow}$  levels.

This is relatively common in most noise sources.

- **Modulating Noise**

A modulating source is regular, cyclic and audible and is present for at least 10% of the measurement period. The quantitative definition of modulation is:

- a variation in the emission of noise that —
  - (a) is more than 3 dB  $L_{A\ Fast}$  or is more than 3 dB  $L_{A\ Fast}$  in any one-third octave band; and
  - (b) is present for at least 10% of the representative assessment period; and
  - (c) is regular, cyclic and audible.

- **Impulsive Noise**

An impulsive noise source has a short-term banging, clunking or explosive sound. The quantitative definition of impulsiveness means:

- a variation in the emission of a noise where the difference between  $L_{Apeak}$  and  $L_{Amax}$  is more than 15 dB when determined for a single representative event.

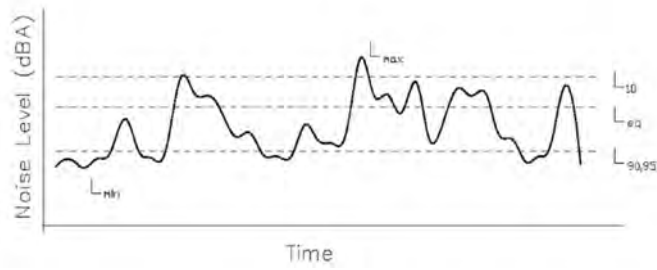
- **Major Road**

Is a road with an estimated average daily traffic count of more than 15,000 vehicles.

- **Secondary / Minor Road**

Is a road with an estimated average daily traffic count of between 6,000 and 15,000 vehicles.

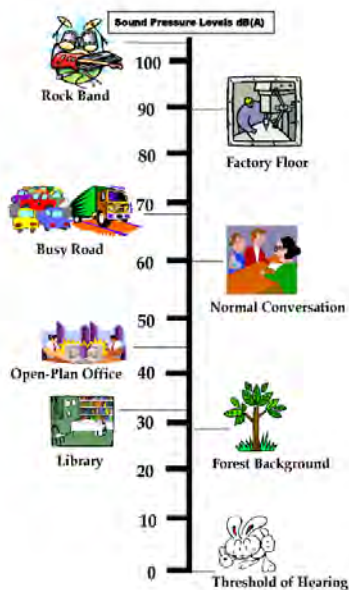
- Chart of Noise Level Descriptors



- Austrroads Vehicle Class

| VEHICLE CLASSIFICATION SYSTEM |                                                                       |
|-------------------------------|-----------------------------------------------------------------------|
| AUSTRROADS                    |                                                                       |
| CLASS                         | VEHICLE                                                               |
| 1                             | Light Vehicle<br>Car, Van, Minivan, Light Truck, Motorcycle           |
| 2                             | Light Vehicle<br>Trailer, Container, Boat                             |
| 3                             | Heavy Vehicle<br>Two axle truck or bus<br>7.5 tonnes                  |
| 4                             | Heavy Vehicle<br>Three axle truck or bus<br>7.5 tonnes, 3 axle group  |
| 5                             | Heavy Vehicle<br>Four axle truck<br>7.5 tonnes, 3 axle group          |
| 6                             | Heavy Vehicle<br>Five axle articulated<br>7.5 tonnes, 3 axle group    |
| 7                             | Heavy Vehicle<br>Six axle articulated<br>7.5 tonnes, 3 axle group     |
| 8                             | Heavy Vehicle<br>Seven axle articulated<br>7.5 tonnes, 3 axle group   |
| 9                             | Heavy Vehicle<br>Eight axle articulated<br>7.5 tonnes, 3 axle group   |
| 10                            | Heavy Vehicle<br>Double axle truck or bus<br>7.5 tonnes, 3 axle group |
| 11                            | Heavy Vehicle<br>Double axle truck<br>7.5 tonnes, 3 axle group        |
| 12                            | Heavy Vehicle<br>Triple axle truck<br>7.5 tonnes, 3 axle group        |

- Typical Noise Levels





# ATTACHMENT 8

## Transport Technical Memorandum



# Technical Memorandum

|             |                                                                                       |             |                       |
|-------------|---------------------------------------------------------------------------------------|-------------|-----------------------|
| Subject     | Proposed Modifications to Stage 1 Hammond Park Neighbourhood Centre – Traffic Impacts |             |                       |
| Client      | Aigle Royal Developments                                                              | Project No. | PTG/03759             |
| Date        | 13/05/2026                                                                            | Revision    | B                     |
| Prepared by | SC                                                                                    | Discipline  | Traffic and Transport |
| Reviewed by | AW                                                                                    | Office      | Perth                 |

## 1.1 Background

PTG Consulting Pty Ltd (PTG) has been commissioned by Aigle Royal Developments to prepare a technical memorandum to support a proposed modification to the approved Stage 1 of the Hammond Park Neighbourhood Centre.

This technical memorandum compares the approved DA site plans (as documented in the *Wattleup Road Neighbourhood Centre, Hammond Park TIA, dated 25 July 2023*) with the proposed modified Stage 1 site plans, and quantifies the resulting changes to the trip generation, parking requirements and potential impacts associated with these changes.

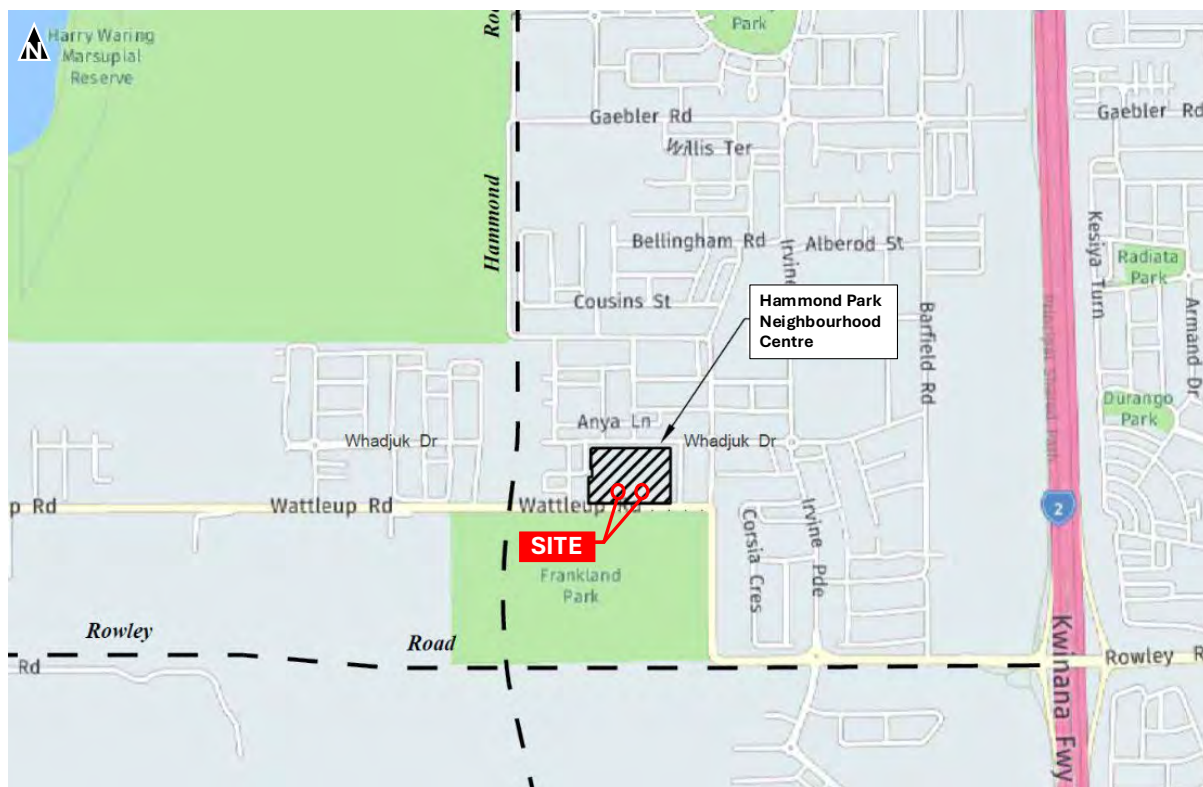
## 1.2 Proposed Modifications

The proposed modifications to the Stage 1 layout primarily relates to the sizes of the two fast food venues outlined in **Figure 1** and located towards the southern boundary of the site (near Wattleup Road).

**Figure 2** shows the approved DA site plan as documented in the *Wattleup Road Neighbourhood Centre, Hammond Park TIA, dated 25 July 2023*. In the approved DA site plan for the neighbourhood centre, the fast food outlets are labelled as 'B2' and 'B3' and have an Net Leasable Area (NLA) of 300m<sup>2</sup> each. It is noted that the TIA assumed a NLA to Gross Floor Area (GFA) ratio of 90%, resulting in a combined 540m<sup>2</sup> GFA for the fast food outlets.

# Technical Memorandum

Figure 1 Site Location

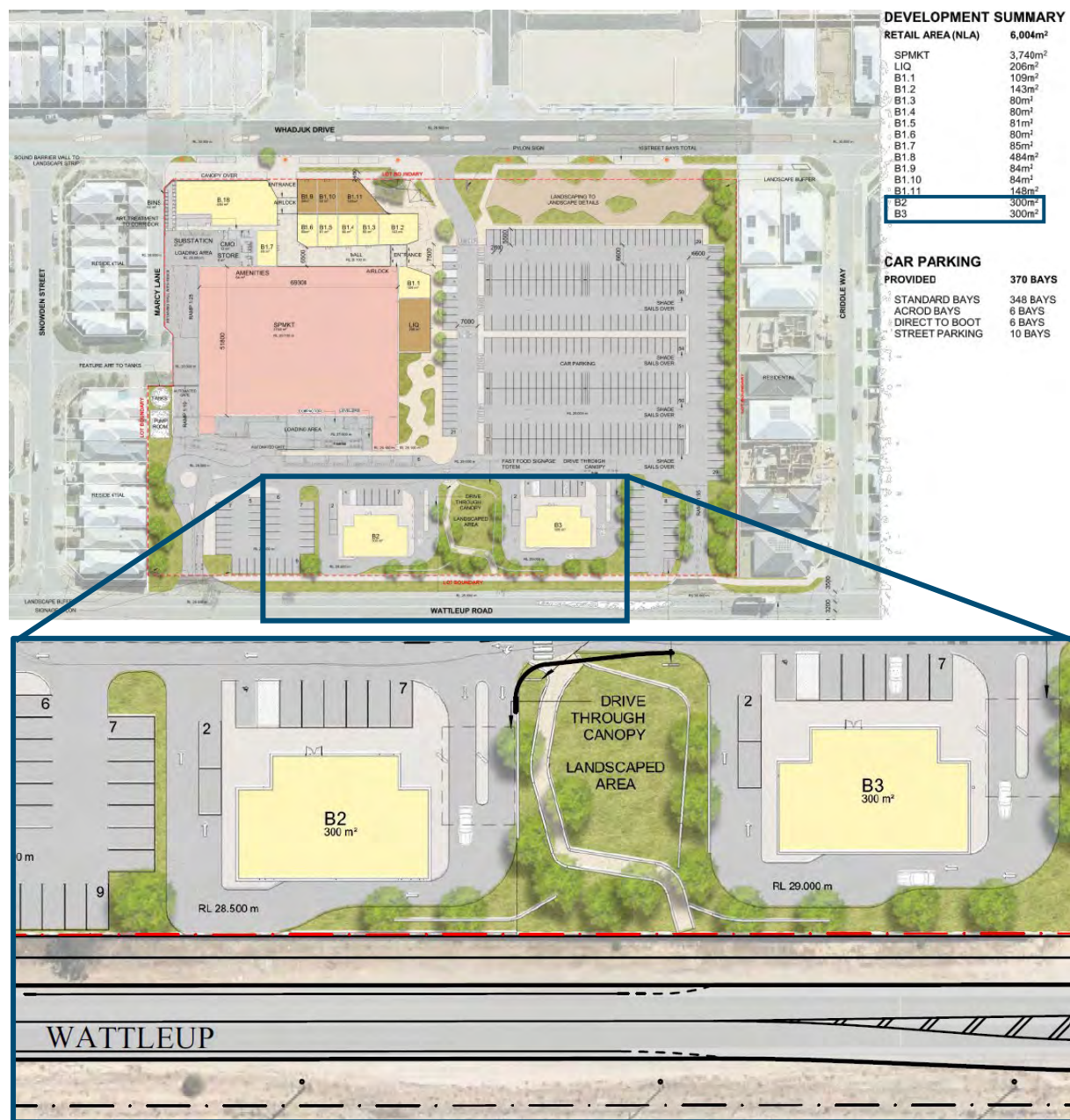


Source: Wattleup Road Neighbourhood Centre, Hammond Park TIA, dated 25 July 2023



# Technical Memorandum

Figure 2 Approved DA Site Plan (As per TIA)



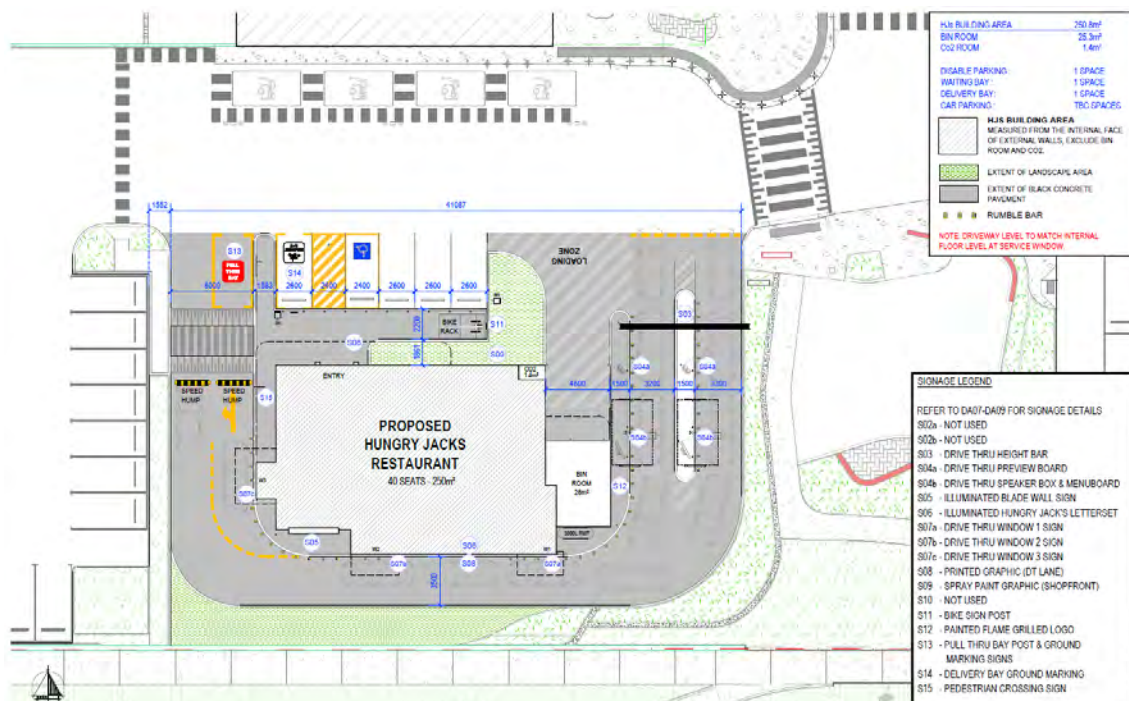
Source: Wattleup Road Neighbourhood Centre, Hammond Park TIA, dated 25 July 2023



# Technical Memorandum

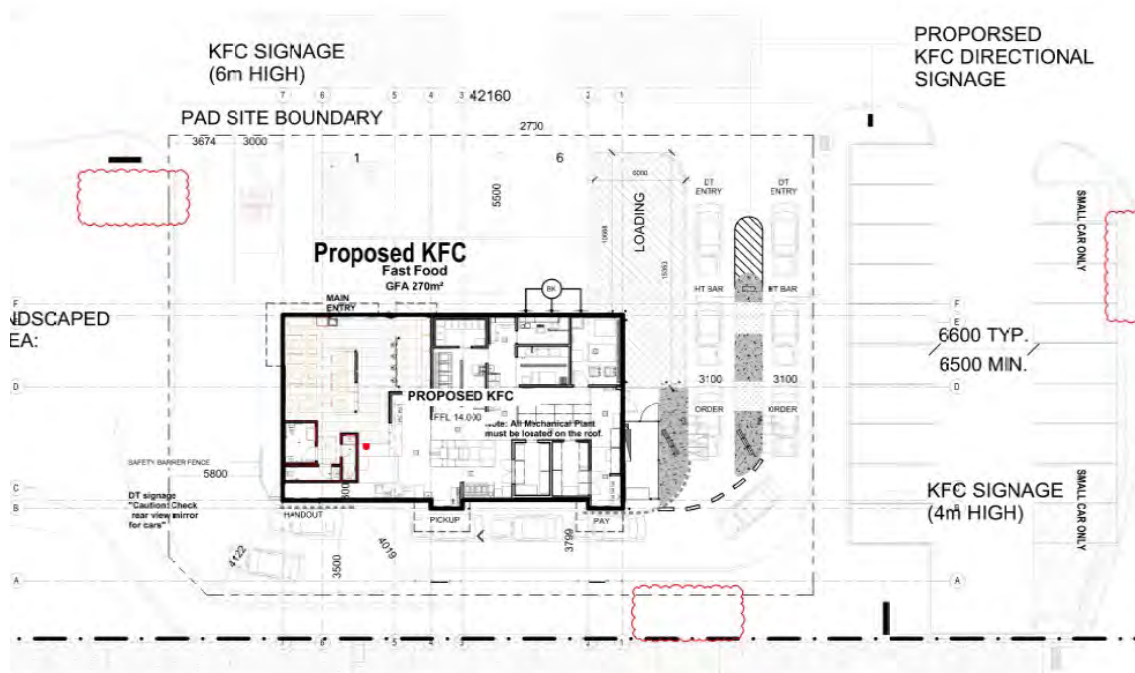
Figure 3 and Figure 4 show the proposed modified layouts for the fast-food outlets.

Figure 3 Proposed 'B2' Site Plan



Source: Fang Architects (Rev C, dated 17 April 2026)

Figure 4 Proposed 'B3' Site Plan



Source: Matthews & Scavalli Architects (Rev G, dated 18 March 2026)

# Technical Memorandum

The proposed land use details for each fast-food site are summarised in **Table 1**.

*Table 1 Approved and Proposed Modified Site Layouts*

| Issue                 | Approved TIA                                                                                                              | Proposed Modified Site Layouts                                                                                                                                          |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>GFA</b>            | B2: 270m <sup>2</sup><br>B3: 270m <sup>2</sup><br><b>Total (combined): 540m<sup>2</sup></b>                               | B2: 250m <sup>2</sup><br>B3: 270m <sup>2</sup><br><b>Total (combined): 520m<sup>2</sup></b>                                                                             |
| <b>Parking Supply</b> | B2: 7 parking bays, 2 waiting bays<br>B3: 7 parking bays, 2 waiting bays<br><b>Total: 14 parking bays, 4 waiting bays</b> | B2: 5 parking bays (including 1 ACROD bay), 1 waiting bay<br>B3: 6 parking bays (including 1 ACROD bay), 1 waiting bay<br><b>Total: 11 parking bays, 2 waiting bays</b> |

# Technical Memorandum

## 2 TRIP GENERATION

The trip generation estimates for the fast food outlets were compared between the approved TIA and the proposed new plans. The approved TIA report adopted the trip generation and distribution rates from the ITE Trip Generation Manual, and this report will similarly adopt these rates to estimate the net trip generation of the fast food outlets. The adopted trip generation and distribution rates are summarised in **Table 1** and **Table 2**, respectively, while the net trip generation estimates are provided in **Table 3**.

*Table 2 Adopted Trip Generation Rates*

| Land Use                                       | Source  | Trip Generation Rate |                  |                   |
|------------------------------------------------|---------|----------------------|------------------|-------------------|
|                                                |         | AM Peak              | PM Peak          | Daily             |
| Fast food restaurant with drive through window | ITE 934 | 47.96 per 100sqm     | 35.56 per 100sqm | 503.70 per 100sqm |

*Table 3 Adopted Trip Distribution Rates*

| Land Use                                       | Source  | Trip Distribution Rates |        |       |        |          |           |
|------------------------------------------------|---------|-------------------------|--------|-------|--------|----------|-----------|
|                                                |         | AM In                   | AM Out | PM In | PM Out | Daily In | Daily Out |
| Fast food restaurant with drive through window | ITE 934 | 51%                     | 49%    | 52%   | 48%    | 50%      | 50%       |

*Table 4 Net Trip Generation*

| Land Use               | Yield                 | AM Peak   |     | PM Peak   |     | Daily       |      |
|------------------------|-----------------------|-----------|-----|-----------|-----|-------------|------|
|                        |                       | IN        | OUT | IN        | OUT | IN          | OUT  |
| Fast Food Outlets      |                       |           |     |           |     |             |      |
| Approved Stage 1 TIA   | 540m <sup>2</sup> GFA | 132       | 127 | 100       | 92  | 1360        | 1360 |
|                        |                       | 259       |     | 192       |     | 2720        |      |
| Revised Stage 1 Yields | 520m <sup>2</sup> GFA | 128       | 123 | 97        | 89  | 1310        | 1310 |
|                        |                       | 251       |     | 186       |     | 2620        |      |
| Net Trip Generation    |                       | -4        | -4  | -3        | -3  | -50         | -50  |
|                        |                       | <b>-8</b> |     | <b>-6</b> |     | <b>-100</b> |      |

The 20m<sup>2</sup> difference between the approved and proposed fast food tenancy yield is expected to reduce the peak-hour trip generation by 8 and 6 vehicle trips in the AM and PM peak hour periods, respectively. The daily trips are also anticipated to decrease by 100 vehicle trips.



# Technical Memorandum

## 3 QUEUEING ANALYSIS

A queue length analysis was undertaken to assess the provision of storage for vehicles within the drive through lanes. For this analysis, an M/M/1 queueing model was adopted for each Customer Ordering Booth (COB). *Austrroads Guide to Traffic Management Part 2 Section 4* considers an elementary queueing system such as the M/M/1 queueing model, which is a single-server queue model that can be used to approximate simple systems.

The following assumptions were adopted for this assessment:

- » As KFC venues do not serve breakfast items, the worst-case period in terms of queueing at the drive-through facilities is during the AM peak for the Hungry Jacks store, where a total of 62 vehicles per hour (vph) is estimated to arrive.
- » A 10% walk-in trade and 60% split between drive-through and dine-in ratio (typical for fast food chains) was applied to the arrival rate to make the model conservative, resulting to a net arrival rate of 34 vph.
- » The assumed ordering time for each vehicle is assumed to be 1 minute (60 seconds) per vehicle, resulting in each COB's service rate to be 60vph. Given that two (2) COBs are proposed for each site, the total service rate is estimated to be 120vph,
- » Vehicles arrive randomly following Poisson's probability distribution and service time is exponentially distributed, and
- » The queue is serviced on a first come, first served basis.

The queue length usually adopted for robust analysis is the 95th percentile queue. The resulting queue length in this assessment is **3 vehicles or 18 metres** per COB and is anticipated to not be exceeded 95% of the time. Based on the queue estimation model, it can be concluded that under typical peak-hour conditions that the queue backing from each COB can be accommodated within the site with no impact on other internal driveways and the neighbourhood centre's surrounding road network.

# Technical Memorandum

## 4 PARKING CHECKS

### 4.1 Parking Compliance

The on-site car parking provision for both proposed fast food outlets were checked against its compliance with the parking geometric requirements specified within AS/NZS 2890.1:2004 – *Parking Facilities: Off-street Car Parking* and AS/NZS 2890.6:2009 – *Parking Facilities: Off-street Parking for People with Disabilities*.

The review found no statutory issues and that geometric requirements for the proposed car parking layouts on both fast food sites are adequately met.

### 4.2 Parking Requirements and Provisions

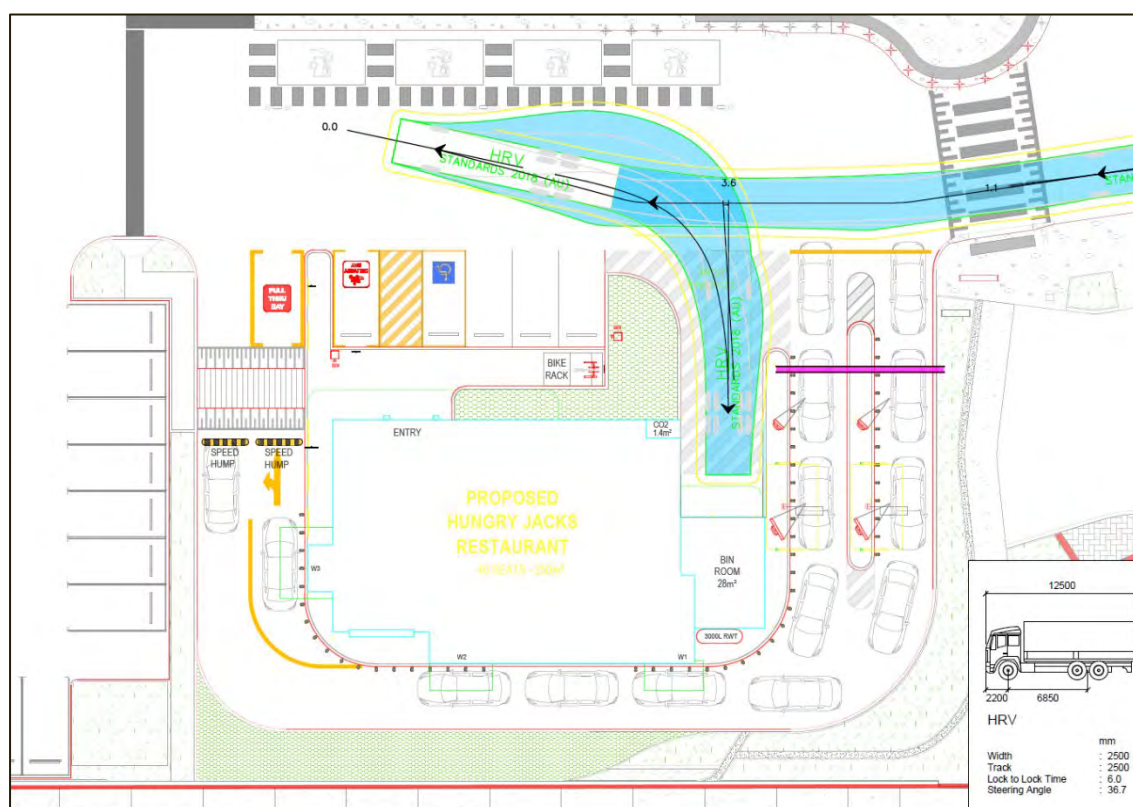
Refer to Rowe Group development application report.

# Technical Memorandum

## 5 SWEPT PATH CHECKS

Swept path assessments were conducted to assess the capacity of the proposed parking layouts of each fast food site to accommodate service vehicles that will traverse within the neighbourhood centre. 12.5m trucks (i.e., HRV) are anticipated for commercial deliveries and is expected to be the largest vehicle to traverse the sites. The swept paths will illustrate each site's capacity to accommodate the design vehicle's manoeuvres (in and out movements) within the designated servicing/loading areas. The swept path diagrams are presented in **Figure 5** to **Figure 8**.

Figure 5 Hungry Jacks Site - Swept Paths for 12.5m Truck (HRV) - Ingress





# Technical Memorandum

Figure 6 Hungry Jacks – Swept Paths for 12.5m Truck (HRV) – Egress

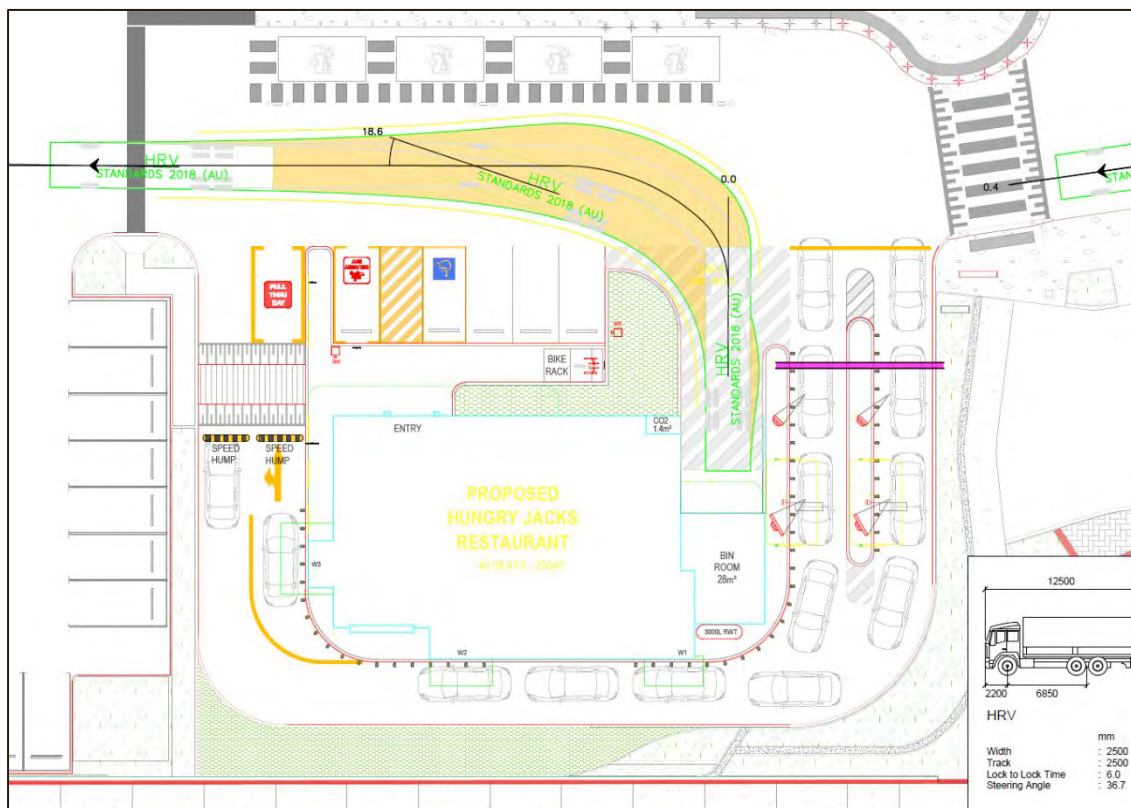
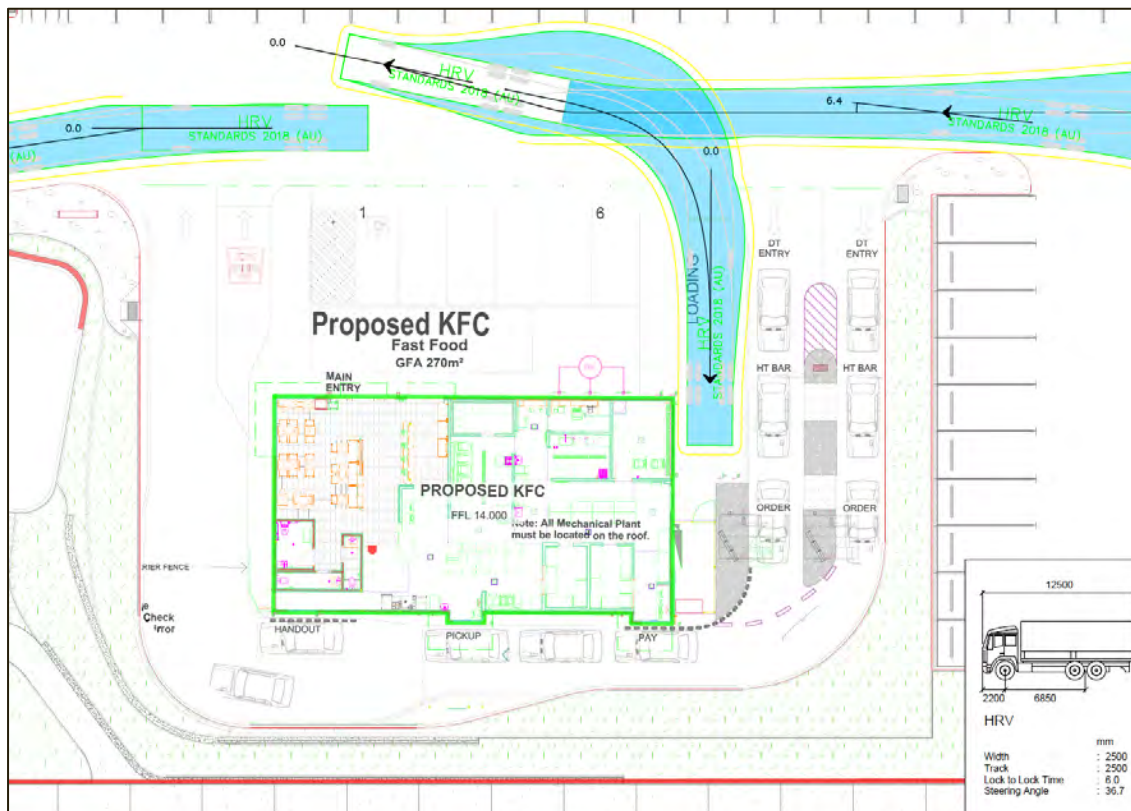
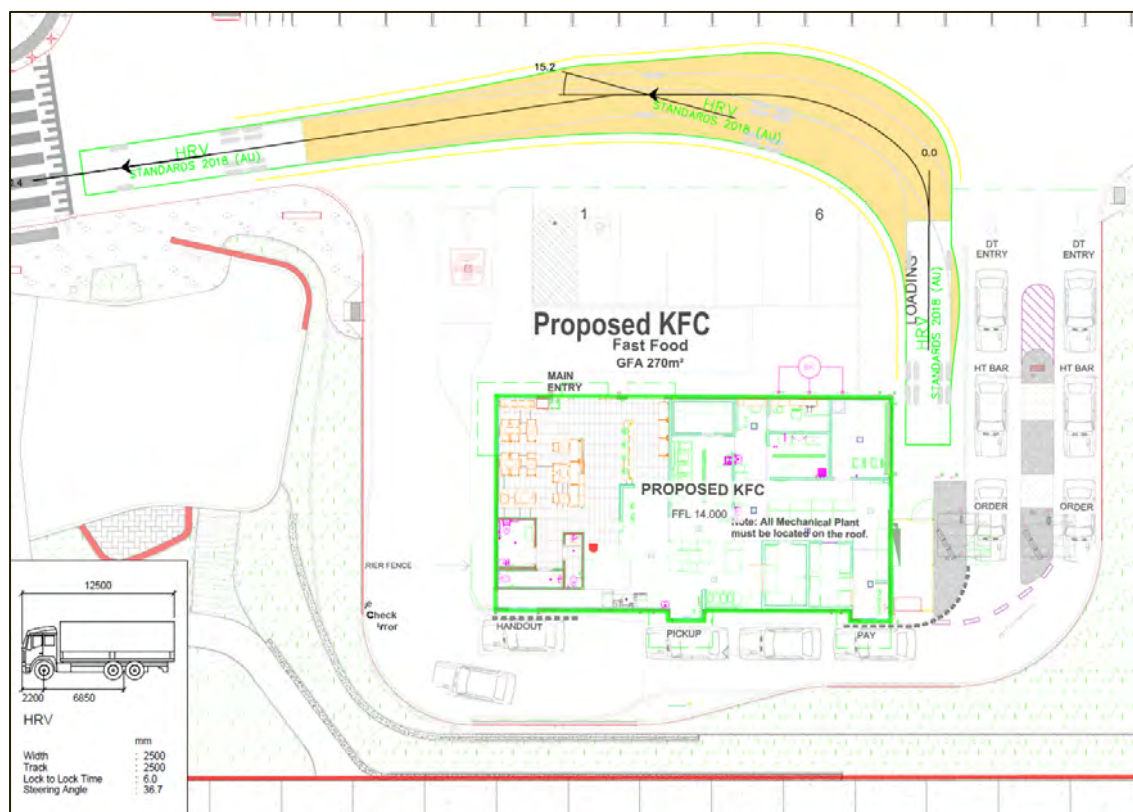


Figure 7 KFC – Swept Paths for 12.5m Truck (HRV) – Ingress



# Technical Memorandum

Figure 8 KFC – Swept Paths for 12.5m Truck (HRV) – Egress



As shown in **Figure 5** to **Figure 8**, no swept path issues were identified for the 12.5m truck within the designated servicing/loading areas for each site. Given that the chosen design vehicle (12.5m truck) can be accommodated on both fast food sites, it is expected that waste trucks (usually 10.0m in length) will also be able to turn in and out of the servicing areas without issue.



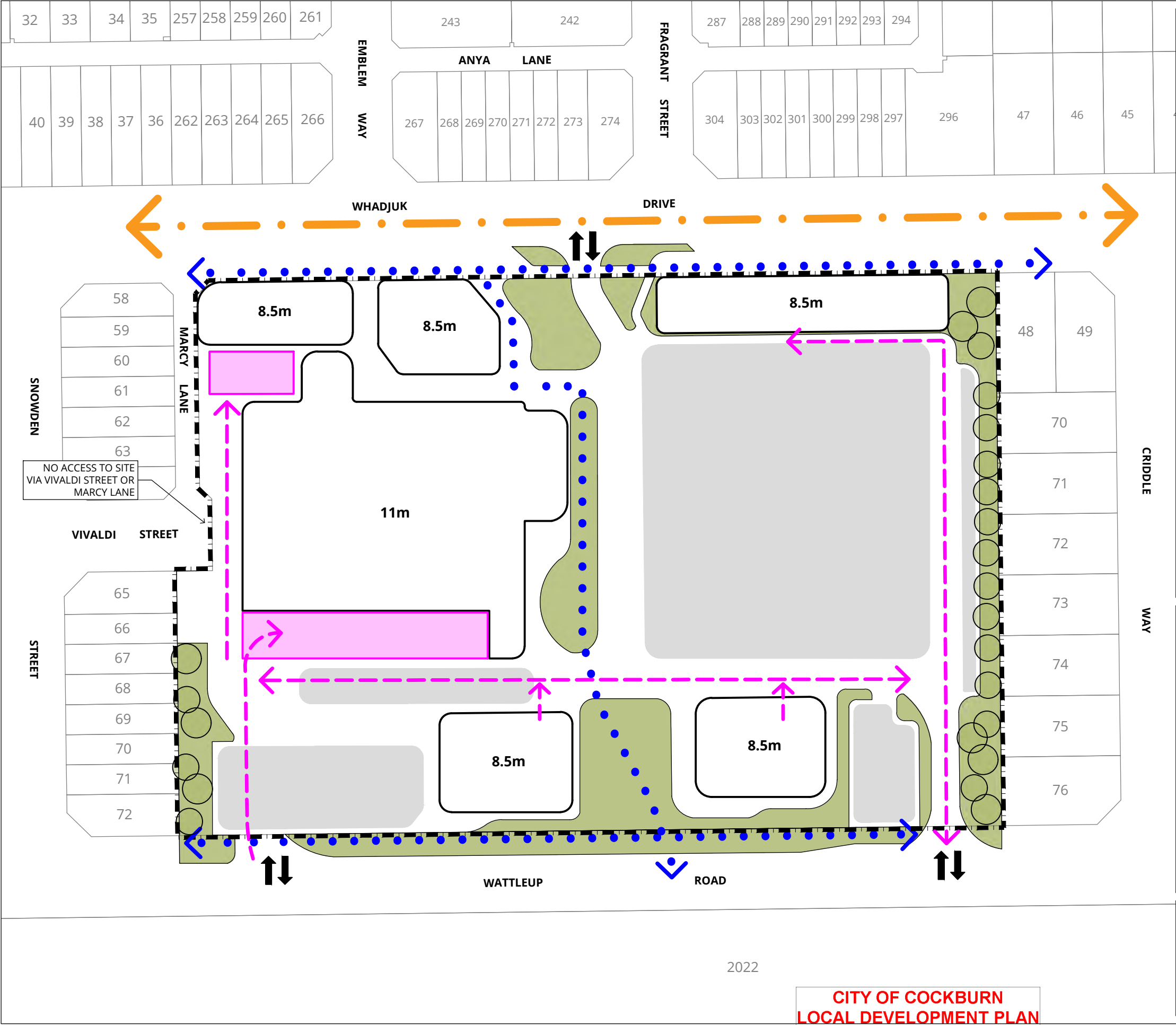
# Technical Memorandum

## 6 SUMMARY

The proposed two (2) fast food outlets within the Hammond Park Neighbourhood Centre were assessed in this report in terms of their impact on the surrounding road network, potential queueing issues, parking compliance and requirements, and swept paths. The following are summarised:

- » The reduction in gross floor area of the two fast food tenancies is expected to reduce the peak-hour trip generation estimates by 8 and 6 vehicle trips in the AM and PM peak hour periods, respectively. The daily trips are also anticipated to decrease by 100 vehicle trips. This reduction in trip generation is expected to not have any material impact on the neighbourhood centre's surrounding road network.
- » The queueing analysis estimated that the 95<sup>th</sup> percentile queue at each of the COBs is 3 vehicles or 18 metres, which can be sufficiently accommodated within the drive through facilities of each fast food site.
- » The proposed parking layouts of the fast food sites were found to be compliant with the geometric requirements of AS/NZS 2890.1:2004 and AS/NZS 2890.6:2009.
- » Swept path checks indicated that a 12.5m truck (HRV) can adequately manoeuvre within each fast food site's servicing/loading area.





**PROVISIONS**

This Local Development Plan (LDP) applies to Lots 9053 and 9043 Wattleup Road, and Lot 305 Whadjuk Drive, being the Neighbourhood Centre within the Wattle Rise Estate, Hammond Park. Unless otherwise varied or defined on this LDP, all development shall be in accordance with the City of Cockburn Town Planning Scheme No. 3 and adopted Local Planning Policies, and the approved Local Structure Plan (SPN 0543).

- Parking and vehicular access is to be generally located as identified on this LDP.
- Landscaping is to be provided generally as depicted on this LDP. A Landscape Master Plan shall be prepared at the Development Application stage.
- A minimum 4.0m wide landscaping strip is to be provided along the eastern and western boundary, where directly abutting residential lots, generally in the location shown on the LDP.
- Buildings are permitted to a maximum height of 11 meters for the primary building and reduced to a maximum of 8.5m where fronting Whadjuk Drive and Wattleup Road, and where in closer proximity to adjoining residential development. Maximum building heights are to be applied generally as identified on the Local Development Plan. Building heights exclude signage, air conditioning, plant and equipment.
- Access and traffic management is to be addressed at Development Application stage through the preparation of a Traffic Impact Assessment.
- Buildings are to be set back a minimum of 6 metres from residential lot boundaries, increasing to a minimum of 14 metres where building heights increase to 11 metres.

**LEGEND**

- LOTS SUBJECT TO THIS LDP
- BUILDING LOCATION
- PROPOSED LANDSCAPING (HARD AND SOFT)
- PARKING ZONE
- LOADING & SERVICE AREA
- NEIGHBOURHOOD CENTRE MAIN STREET
- KEY PEDESTRIAN LINK
- INDICATIVE SERVICE DELIVERY ROUTE
- SITE ACCESS (VEHICLE)
- PROPOSED BUILDING HEIGHT (EXCLUDES SIGNAGE, AIR CONDITIONING, PLANT AND EQUIPMENT)

**NOTE:**

Proposed landscaping, parking, building footprints, service areas and delivery routes are subject to detailed design as part of any future Development Application(s), however shall be located generally as identified on this LDP.

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**LOCAL DEVELOPMENT PLAN**  
LOTS 9053 AND 9043 WATTLEUP ROAD, AND LOT 305 WHADJUK DRIVE  
HAMMOND PARK

**CITY OF COCKBURN  
LOCAL DEVELOPMENT PLAN**

**APPROVED**  
  
**17 Aug 2023**  
**File Ref: LDP23/10**  
**Plan 1 of 1**



DRAWN: JS  
DATE CREATED: 2023.07.06  
PROJECTION: MGA50 GDA94  
CADASTRE: LANDGATE  
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# ATTACHMENT 4

## Approved Bushfire Management Plan

**JBS&G65004-151745**

12 May 2023

Kris Kennedy

Aigle Royal

Via email: [kkennedy@aigleroyal.com.au](mailto:kkennedy@aigleroyal.com.au)

## **Bushfire Management Plan Addendum: Wattleup Road Neighbourhood Centre, Hammond Park Development Application**

### **Introduction**

Strategen-JBS&G (now JBS&G) prepared a comprehensive Bushfire Management Plan (BMP) in June 2022 to support Aigle Royal in their Structure Plan Amendment for a proposed Local Centre (R80) site within Lots 9042 and 9052 Wattleup Road and Lot 305 Whadjuk Drive, Hammond Park in the City of Cockburn. The Local Centre (R80) site was approved and the proponent has now progressed to the Development Application (DA) stage.

The proposed Wattleup Road Neighbourhood Centre DA will create one large commercial building for a supermarket and other speciality shops with supporting infrastructure, two proposed fast-food outlets, an internal road network, car parking and landscaped areas within the Local Centre (R80) site, as depicted in Figure 1. Collectively, the habitable building components of the DA are hereon referred to as the project area.

This BMP is an addendum to the previous Structure Plan Amendment BMP (Strategen-JBS&G 2022) and provides an updated bushfire assessment specific to the DA and site plan contained in Figure 1. This BMP addendum should be read in conjunction with the previous Strategen-JBS&G (2022) BMP.

This BMP addendum includes the following information:

1. A revised bushfire assessment including:
  - a. an updated Vegetation Classification and Effective Slope map (Figure 2) depicting the post-development vegetation classifications and exclusions specific to the DA project area
  - b. an updated BAL Contour map (Figure 3) specific to the DA project area and post-development vegetation conditions mapped from Item 1a above.
2. An updated assessment against the bushfire protection criteria of the Guidelines (Table 3), including updated statements of compliance against acceptable solutions to demonstrate compliance within the boundary of the development site.
3. A works program (Table 4) outlining responsibilities and timing for implementation of the bushfire management actions specific to the proposed DA.

This BMP addendum has been prepared to accompany the DA for the proposed Wattleup Road Neighbourhood Centre and address requirements under Policy Measure 6.5 of *State Planning Policy 3.7 Planning in Bushfire Prone Areas* (SPP3.7; WAPC 2015) in accordance with *Guidelines for Planning in Bushfire-Prone Areas Version 1.4* (the Guidelines; WAPC 2021).

The entirety of the project area is designated as bushfire prone on the Map of Bush Fire Prone Areas (DFES 2021; Plate 1); therefore, bushfire risk considerations and BAL assessment are required to inform proposed DA design and planning application, as per requirements of Policy Measure 6.2 of SPP3.7.



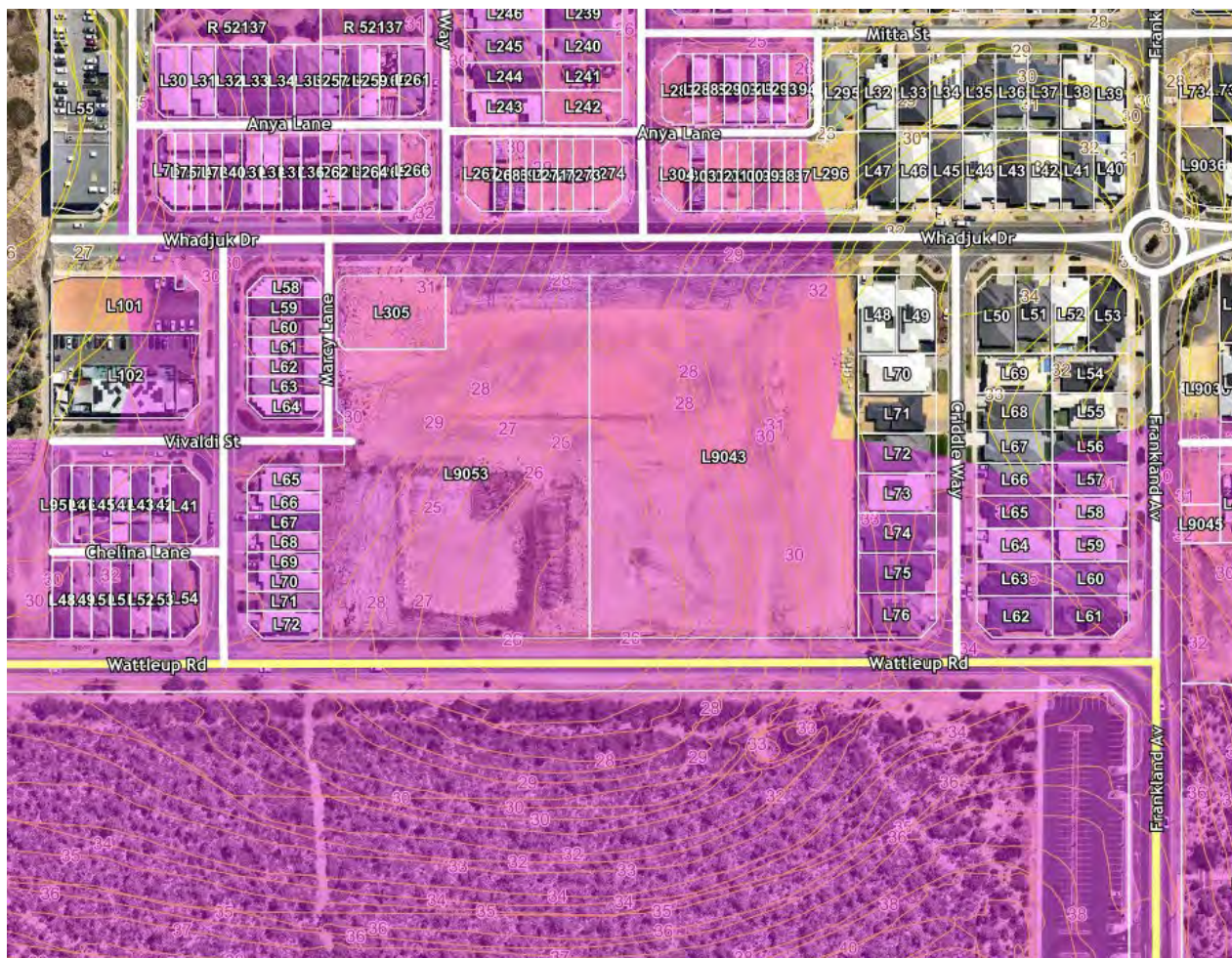
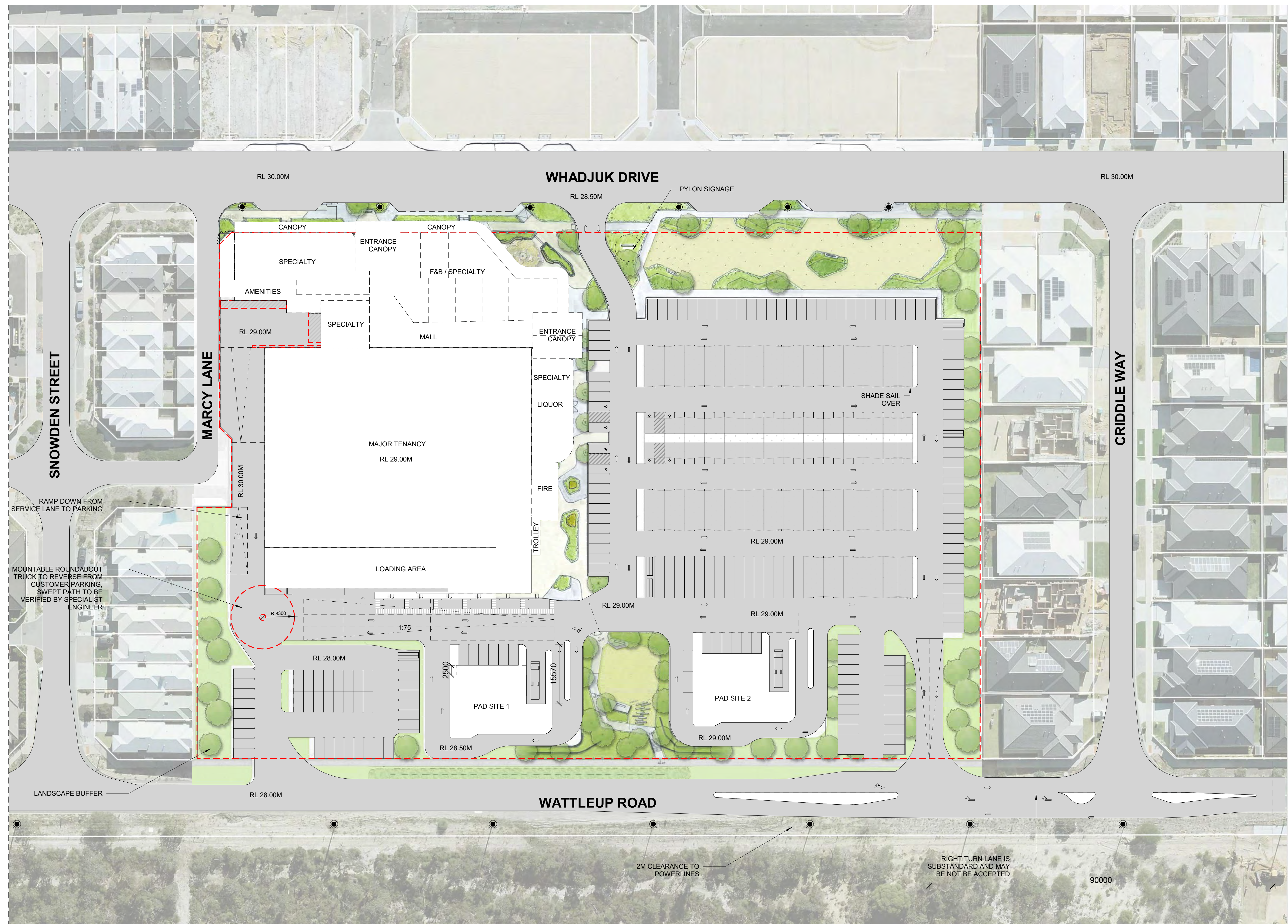


Plate 1: Bushfire prone area designation







## Bushfire assessment results

### 2.1 Assessment inputs

#### 2.1.1 Vegetation classifications and exclusions

Classified vegetation and exclusions were assessed as part of the previous Strategen-JBS&G (2022) Structure Plan amendment BMP and this assessment has been updated to capture current on-ground conditions through site reassessment.

Classified vegetation and exclusions were reassessed within the project area and adjoining 150 m (the assessment area) through on-ground verification on 27 April 2023 in accordance with AS 3959-2018 *Construction of Buildings in Bushfire-Prone Areas* (AS3959; SA 2018) and the *Visual Guide for Bushfire Risk Assessment in Western Australia* (DoP 2016). Georeferenced site photos of the various classified vegetation and exclusions are contained in Appendix B. A spatial representation of the vegetation classifications and exclusions are depicted in Figure 2.

Classified vegetation within the assessment area can be summarised as follows, consistent with results from the previous Strategen-JBS&G (2022) Structure Plan amendment BMP:

- Class D scrub retained within Frankland Park to the south of Wattleup Road and in a small area to the west of the project area on adjacent rural land containing predominantly low banksia with a height of 2–6 m
- Class G grassland greater than 100 mm in height west of the project area on adjacent rural land.

Existing land occupied by buildings, roads, footpaths and carparks was assessed to be excluded from classification under Clause 2.2.3.2 (e) of AS 3959. Existing land occupied by active POS, street verges, managed gardens, maintained firebreaks and vacant residential lots was assessed to be excluded from classification under Clause 2.2.3.2 (f) of AS 3959.

All land within the project area has already been modified to a low threat state and is excluded from classification under Clauses 2.2.3.2 (e) and (f) of AS 3959. This exclusion will be maintained through formal construction of the development and associated landscaping (as per landscape design in Appendix A) to a permanent low threat state.

#### 2.1.2 Effective Slope

Effective slope under classified vegetation was assessed within the assessment area through on-ground verification on 27 April 2023 in accordance with AS 3959. Results were cross-referenced with DPIRD 2m contour data and are depicted in Figure 2.

Effective slope under classified vegetation was assessed to be flat/up-slope (i.e. 0 degrees) in all instances, consistent with results from the previous Strategen-JBS&G (2022) Structure Plan amendment BMP.

#### 2.1.3 Post-development inputs

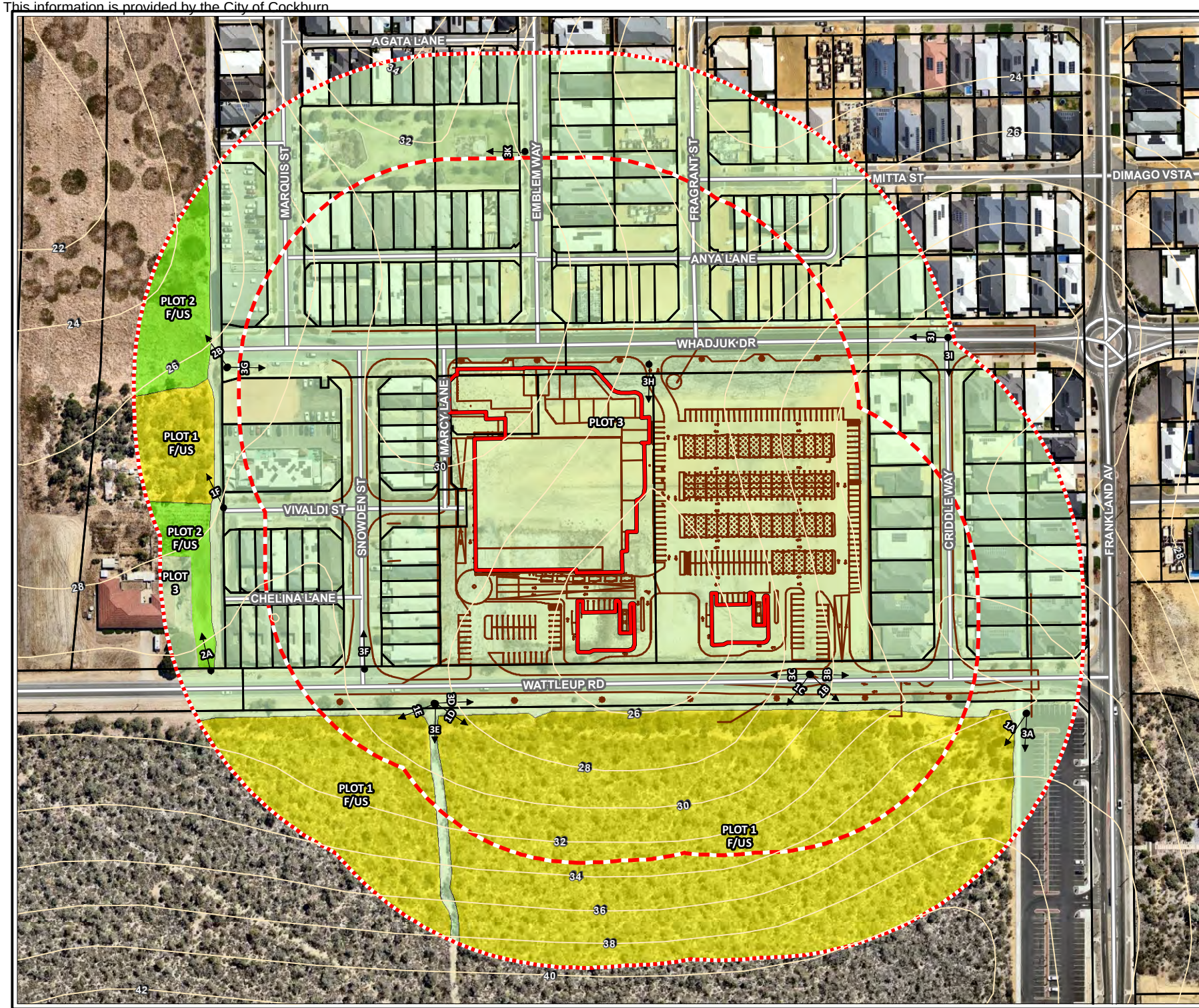
Figure 2 illustrates the anticipated post-development vegetation classifications and exclusions following completion of development works and implementation of low threat landscaping. The post-development vegetation classifications/exclusions and effective slope are summarised in Table 1.



**Table 1: Summary of post-development vegetation classifications, exclusions and effective slope**

| Vegetation plot | Vegetation classification                                            | Effective slope   | Comments                                                                                                                                                                                                   |
|-----------------|----------------------------------------------------------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1               | Class D Scrub                                                        | Flat/upslope (0°) | Vegetation with a continuous horizontal fuel profile, 2–6 m in height comprising banksia and acacia species                                                                                                |
| 2               | Class G Grassland                                                    | Flat/upslope (0°) | Unmanaged grassland greater than 100 mm in height at maturity                                                                                                                                              |
| 3               | Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f]) | N/A               | Existing non-vegetated areas including roads, buildings, car parks and footpaths; and low threat managed land including active POS, street verges, firebreaks, managed gardens and vacant residential lots |





### Legend

- 
- Project area  
 100m assessment area  
 150m assessment area  
 Cadastral boundary  
**Vegetation classification**  
 Class D Scrub  
 Class G Grassland  
 Clause 2.2.3.2 (e) & (f)  
 Photo point directions  
 Topographic contours (mAHD)  
 Roads



Job No: 65004

Client: Aigle Royal

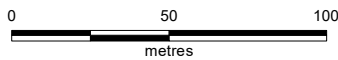
Version: A

Date 28/04/2023

Drawn By: jcrute

Checked By: ZC

Scale 1:2,400 at A4



Coor. Sys. GDA 1994 MGA Zone 50

**Wattleup Road  
Neighbourhood Centre,  
Hammond Park WA**

### VEGETATION CLASSIFICATION AND EFFECTIVE SLOPE

FIGURE 2



## 2.2 Assessment outputs

### 2.2.1 Bushfire Attack Level (BAL) contour assessment

JBS&G has undertaken a BAL contour assessment for the project area in accordance with Method 1 of AS3959 and Appendix 3 of the Guidelines (Figure 3). The Method 1 procedure incorporates the following factors:

- state adopted FDI 80 rating
- vegetation classification
- effective slope
- distance maintained between proposed development areas and the classified vegetation.

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

The BAL contours are based on:

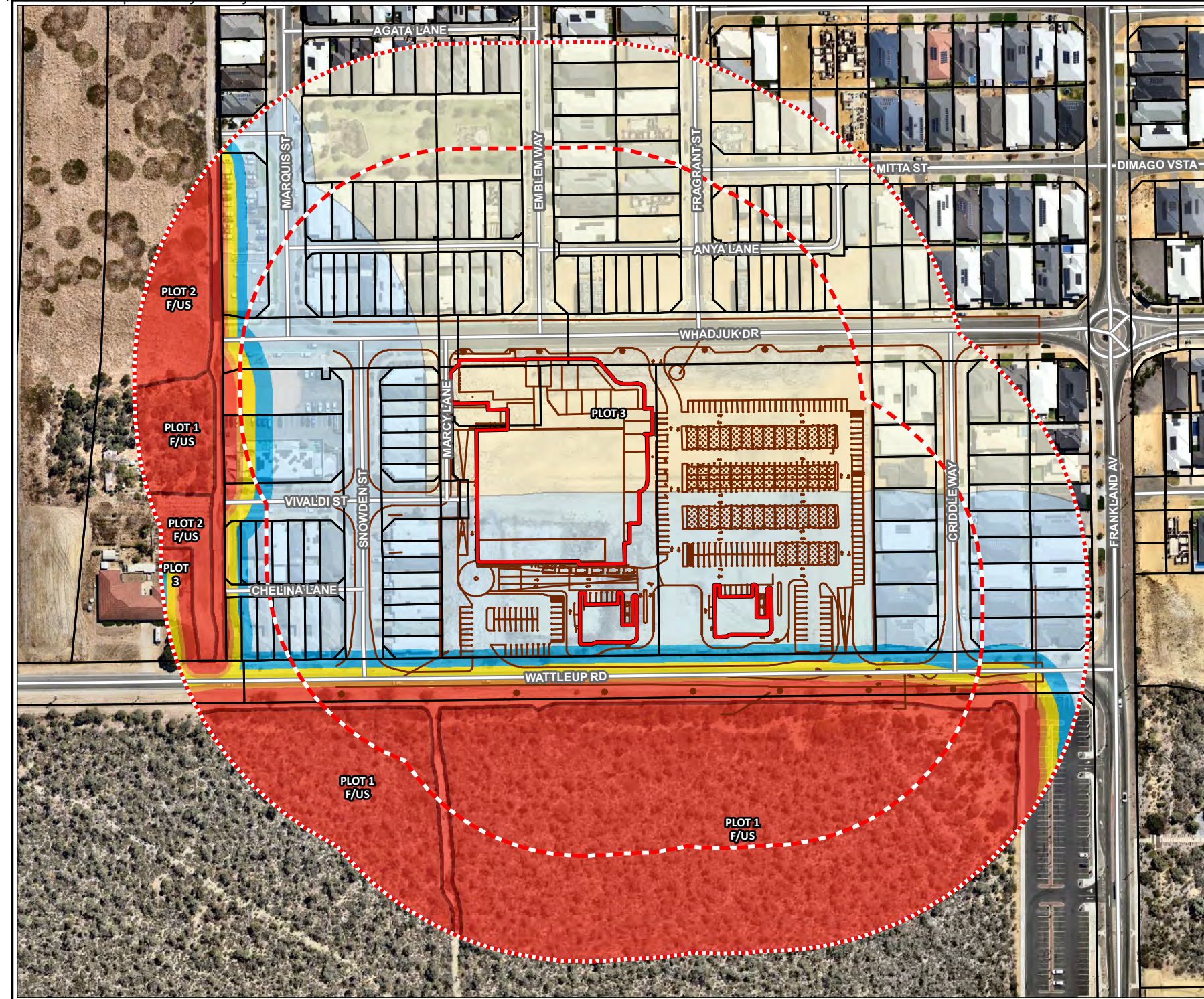
- the vegetation classifications, exclusions and effective slope observed during updated site inspection
- consideration of the on-site clearing extent, proposed low threat landscaping and resultant separation distances achieved in line with the DA site plan.

Results of the BAL contour assessment are detailed in Table 2 and illustrated in Figure 3. The determined worst case BAL impact to proposed habitable development is BAL-12.5.

**Table 2: BAL contour assessment results**

| Method 1 BAL determination |                                                                      |                   |                     |             |
|----------------------------|----------------------------------------------------------------------|-------------------|---------------------|-------------|
| Vegetation plot            | Vegetation classification                                            | Effective slope   | Separation distance | Highest BAL |
| 1                          | Class D Scrub                                                        | Flat/upslope (0°) | 28 m                | BAL-12.5    |
| 2                          | Class G Grassland                                                    | Flat/upslope (0°) | >50 m               | BAL-Low     |
| 3                          | Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f]) | N/A               | N/A                 | N/A         |





**Legend**

- Project area
- 100m assessment area
- 150m assessment area
- Cadastral boundary
- Classified vegetation
- BAL contours
  - BAL FZ
  - BAL 40
  - BAL 29
  - BAL 19
  - BAL 12.5
  - BAL Low
- Roads



Job No: 65004

Client: Aigle Royal

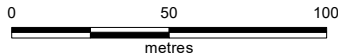
Version: A

Date 28/04/2023

Drawn By: jcrute

Checked By: ZC

Scale 1:2,400 at A4



Coor. Sys. GDA 1994 MGA Zone 50

**Wattleup Road  
Neighbourhood Centre,  
Hammond Park WA**

**BAL CONTOUR MAP**

**FIGURE 3**



## 2.3 Assessment against bushfire protection criteria

### 2.3.1 Compliance with Elements 1-4

Compliance with Elements 1–4 of the bushfire protection criteria of the Guidelines (Version 1.4) is demonstrated by meeting the acceptable solutions, as detailed in Table 3.

**Table 3: Compliance with the bushfire protection criteria of the Guidelines (Elements 1–4)**

| Bushfire protection criteria        | Performance Principle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Method of compliance                                                                                                                                                                                                                                 | Statement of development compliance                                                                                                                                                                                                                                                                                                                                                          | Compliance achieved |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Acceptable solutions                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                              |                     |
| <b>Element 1: Location</b>          | <b>Performance Principle P1</b><br>The strategic planning proposal, subdivision and development application is located in an area where the bushfire hazard assessment is or will, on completion, be moderate or low, or a BAL–29 or below, and the risk can be managed. For unavoidable development in areas where BAL–40 or BAL–FZ applies, demonstrating that the risk can be managed to the satisfaction of the decision-maker.                                                                      | <b>A1.1 Development location</b><br>The strategic planning proposal, subdivision and development application is located in an area that is or will, on completion, be subject to either a moderate or low bushfire hazard level, or BAL–29 or below. | The BAL contour assessment (see Figure 3 and Table 2) demonstrates that all proposed habitable development will be located in areas of BAL-29 or lower.                                                                                                                                                                                                                                      | ✓                   |
| <b>Element 2: Siting and design</b> | <b>Performance Principle P2</b><br>The siting and design of the strategic planning proposal, subdivision or development application, including roads, paths and landscaping, is appropriate to the level of bushfire threat that applies to the site. The proposal incorporates a defensible space and significantly reduces the heat intensities at the building surface thereby minimising the bushfire risk to people, property and infrastructure, including compliance with AS 3959 if appropriate. | <b>A2.1 Asset Protection Zone</b><br>Every habitable building is surrounded by, and every proposed lot can achieve, an APZ depicted on submitted plans, which meets the requirements set out in Schedule 1.                                          | No formal Asset Protection Zones (APZs) are required to deliver BAL-29 or lower given the suitable extent of low threat separation provided between proposed habitable development and the classified vegetation extent.<br>Any on-site landscaping is to comply with the Clause 2.2.3.2 (f) provisions of AS3959 and Schedule 1 APZ Standards of the Guidelines, as outlined in Appendix C. | ✓                   |
| <b>Element 3: Vehicular access</b>  | <b>Performance Principle P3i</b><br>The design and capacity of vehicular access and egress is to provide for the community to evacuate to a suitable destination before a bushfire arrives at the site, allowing                                                                                                                                                                                                                                                                                         | <b>A3.1 Public roads</b><br><i>The minimum requirements under this acceptable solution are applicable to all proposed and existing public roads.</i><br>Public roads are to meet the minimum technical requirements in Table 6, Column 1.            | No public roads are proposed as part of the DA.                                                                                                                                                                                                                                                                                                                                              | N/A                 |

| Bushfire protection criteria | Performance Principle                                                     | Method of compliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Statement of development compliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Compliance achieved |
|------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
|                              |                                                                           | Acceptable solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                     |
|                              | emergency services personnel to attend the site and/or hazard vegetation. | The trafficable (carriageway/pavement) width is to be in accordance with the relevant class of road in the Local Government Guidelines for Subdivisional Development (IPWEA Subdivision Guidelines), Liveable Neighbourhoods, Austroad standards and/or any applicable standards for the local government area.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                     |
|                              |                                                                           | <p><b>A3.2a Multiple access routes</b></p> <p>Public road access is to be provided in two different directions to at least two different suitable destinations with an all-weather surface (two-way access).</p> <p>If the public road access to the subject site is via a no-through road which cannot be avoided due to demonstrated site constraints, the road access is to be a maximum of 200 metres from the subject lot(s) boundary to an intersection where two-way access is provided.</p> <p>The no-through road may exceed 200 metres if it is demonstrated that an alternative access, including an emergency access way, cannot be provided due to site constraints and the following requirements are met:</p> <ul style="list-style-type: none"> <li>the no-through road travels towards a suitable destination; and</li> <li>the balance of the no-through road, that is greater than 200 metres from the subject site, is wholly within BAL-LOW, or is within a residential built-out area – Figure 23.</li> </ul> | <p>Proposed DA design indicates multiple vehicular access connections to the surrounding public road network leading to suitable destinations with:</p> <ul style="list-style-type: none"> <li>two connections to Wattleup Road to the south, providing the option of travelling east to Kwinana Freeway and west to Rockingham Road</li> <li>one connection to the north onto Whadjuk Drive, with the option of travelling east to Barfield Road or west to Marquis Street, which leads to Hammond Road heading northwards.</li> </ul> <p>This is in accordance with provisions for multiple access routes, as outlined in Appendix D.</p> | ✓                   |
|                              |                                                                           | <p><b>A3.2b Emergency access way</b></p> <p><i>Where it is demonstrated that A3.2a cannot be achieved due to site constraints, or where an alternative design option does not exist, an emergency access way can be considered as an acceptable solution.</i></p> <p>An emergency access way is to meet all the following requirements:</p> <ul style="list-style-type: none"> <li>requirements in Table 6, Column 2;</li> <li>provides a through connection to a public road;</li> <li>be no more than 500 metres in length; and</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <p>N/A – The proposed DA will comply with Acceptable Solution A3.2 by providing access in two different directions to at least two different suitable destinations. In this regard, Emergency Access Ways (EAWs) are not proposed or required to provide through access to a public road.</p>                                                                                                                                                                                                                                                                                                                                               | N/A                 |



| Bushfire protection criteria | Performance Principle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Method of compliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Statement of development compliance                                             | Compliance achieved |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------|
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Acceptable solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                 |                     |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>must be signposted and if gated, gates must open the whole trafficable width and remain unlocked.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                 |                     |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p><b>A3.3 Through-roads</b></p> <p>All public roads should be through-roads. No-through roads should be avoided and should only be considered as an acceptable solution where:</p> <ul style="list-style-type: none"> <li>it is demonstrated that no alternative road layout exists due to site constraints; and</li> <li>the no-through road is a maximum length of 200 metres to an intersection providing two-way access, unless it satisfies the exemption provisions in A3.2a of this table.</li> </ul> <p>A no-through road is to meet all the following requirements:</p> <ul style="list-style-type: none"> <li>requirements of a public road (Table 6, Column 1); and</li> <li>turn-around area as shown in Figure 24.</li> </ul>                                                                                                                                                                       | N/A –applies to strategic planning proposals and subdivision applications only. | N/A                 |
|                              | <p><b>Performance Principle P3ii</b></p> <p>The design of vehicular access and egress provides:</p> <ul style="list-style-type: none"> <li>access and egress for emergency service vehicles while allowing the community to evacuate;</li> <li>a defensible space for emergency services personnel on the interface between classified vegetation and development site; and</li> <li>hazard separation between classified vegetation and the subject site to reduce the potential radiant heat that may impact a lot(s).</li> </ul> | <p><b>A3.4a Perimeter roads</b></p> <p>A perimeter road is a public road and should be provided for greenfield or infill development where 10 or more lots are being proposed (including as part of a staged subdivision) with the aim of:</p> <ul style="list-style-type: none"> <li>separating areas of classified vegetation under AS3959, which adjoin the subject site, from the proposed lot(s); and</li> <li>removing the need for battle-axe lots that back onto areas of classified vegetation.</li> </ul> <p>A perimeter road is to meet the requirements contained in Table 6, Column 1.</p> <p>A perimeter road may not be required where:</p> <ul style="list-style-type: none"> <li>the adjoining classified vegetation is Class G Grassland;</li> <li>lots are zoned for rural living or equivalent;</li> <li>it is demonstrated that it cannot be provided due to site constraints; or</li> </ul> | N/A –applies to strategic planning proposals and subdivision applications only. | N/A                 |

| Bushfire protection criteria | Performance Principle                                                                                                                                                                                                                                                                                                                                                                                                                                             | Method of compliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Statement of development compliance                                             | Compliance achieved |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------|
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Acceptable solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                 |                     |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>all lots have frontage to an existing public road.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                 |                     |
|                              | <b>Performance Principle P3iii</b><br>Vehicular access is provided which allows: <ul style="list-style-type: none"> <li>access and egress for emergency service vehicles;</li> <li>defendable space for emergency services</li> <li>personnel on the interface between classified vegetation and development; and</li> <li>hazard separation between classified vegetation and the site to reduce the potential radiant heat that may impact a lot(s).</li> </ul> | <b>A3.4b Fire service access route</b><br><i>Where proposed lots adjoin classified vegetation under AS3959, and a perimeter road is not required in accordance with A3.4a, a fire service access route can be considered as an acceptable solution to provide firefighter access, where access is not available, to the classified vegetation.</i><br>A fire service access route is to meet all the following requirements: <ul style="list-style-type: none"> <li>requirements in Table 6, Column 3;</li> <li>be through-routes with no dead-ends;</li> <li>linked to the internal road system at regular intervals, every 500 metres;</li> <li>must be signposted;</li> <li>no further than 500 metres from a public road;</li> <li>if gated, gates must open the required horizontal clearance and can be locked by the local government and/or emergency services, if keys are provided for each gate; and</li> <li>turn-around areas designed to accommodate type 3.4 fire appliances and to enable them to turn around safely every 500 metres.</li> </ul> | N/A –applies to strategic planning proposals and subdivision applications only. | N/A                 |
|                              | <b>Performance Principle P3iv</b><br>Vehicular access is provided which allows emergency service vehicles to directly access all habitable buildings and water supplies and exit the lot without entrapment.                                                                                                                                                                                                                                                      | <b>A3.5 Battle-axe access legs</b><br><i>Where it is demonstrated that a battle-axe cannot be avoided due to site constraints, it can be considered as an acceptable solution.</i><br>There are no battle-axe technical requirements where the point the battle-axe access leg joins the effective area of the lot, is less than 50 metres from a public road in a reticulated area.<br>In circumstances where the above condition is not met, or the battle-axe is in a non-reticulated water area, the battle-axe is to meet all the following requirements: <ul style="list-style-type: none"> <li>requirements in Table 6, Column 4; and</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                           | N/A –applies to subdivision applications only.                                  | N/A                 |

| Bushfire protection criteria | Performance Principle            | Method of compliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Statement of development compliance                                                                                                                                                                                                                                                                       | Compliance achieved |
|------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
|                              |                                  | Acceptable solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                           |                     |
|                              |                                  | <ul style="list-style-type: none"><li>passing bays every 200 metres with a minimum length of 20 metres and a minimum additional trafficable width of two metres (i.e. the combined trafficable width of the passing bay and constructed private driveway to be a minimum six metres).</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                           |                     |
|                              |                                  | <p><b>A3.6 Private driveways</b></p> <p>There are no private driveway technical requirements where the private driveway is:</p> <ul style="list-style-type: none"><li>within a lot serviced by reticulated water;</li><li>no greater than 70 metres in length between the most distant external part of the development site and the public road measured as a hose lay; and</li><li>accessed by a public road where the road speed limit is not greater than 70 km/h.</li></ul> <p>In circumstances where all of the above conditions are not met, or the private driveway is in a non-reticulated water area, the private driveway is to meet all the following requirements:</p> <ul style="list-style-type: none"><li>requirements in Table 6, Column 4;</li><li>passing bays every 200 metres with a minimum length of 20 metres and a minimum</li><li>additional trafficable width of two metres (i.e. the combined trafficable width of the passing bay and constructed private driveway to be a minimum six metres); and</li><li>turn-around area as shown in Figure 28 and within 30 metres of the habitable building.</li></ul> | <p>N/A - the proposed development is located within a reticulated area where roads speeds will be lower than 70 km/hr and proposed lots are of size where all future habitable development will be located within 70 m of a public road. Therefore, no private driveway technical requirements apply.</p> | <p>N/A</p>          |
| <b>Element 4: Water</b>      | No performance principle applies | <p><b>A4.1 Identification of future water supply</b></p> <p>Evidence that a reticulated or sufficient non-reticulated water supply for bushfire fighting can be provided at the subdivision and/or development application stage, in accordance with the specifications of the relevant water supply authority or the requirements of Schedule 2.</p> <p>Where the provision of a strategic water tank(s) is required a suitable area within a road reserve or a dedicated lot the location should be identified, should be</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <p>N/A – applies to strategic planning proposals only.</p>                                                                                                                                                                                                                                                | <p>N/A</p>          |



| Bushfire protection criteria | Performance Principle                                                                                                                                                                                                                                                                                                                                                                                                                           | Method of compliance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Statement of development compliance                                                                                                                                                                                                                                                     | Compliance achieved |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Acceptable solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                         |                     |
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                 | identified on the structure plan, to the satisfaction of the local government.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                         |                     |
|                              | <p><b>Performance Principle P4</b></p> <p>Provide a permanent water supply that is:</p> <ul style="list-style-type: none"><li>• sufficient and available for firefighting purposes;</li><li>• constructed from non-combustible materials (e.g. steel), or able to maintain its integrity throughout a bushfire; and</li><li>• accessible, with legal access for maintenance and re-filling by tankers and emergency service vehicles.</li></ul> | <p><b>A4.2 Provision of water for firefighting purposes</b></p> <p>Where a reticulated water supply is existing or proposed, hydrant connection(s) should be provided in accordance with the specifications of the relevant water supply authority. Where these specifications cannot be met, then the following applies:</p> <ul style="list-style-type: none"><li>• The provision of a water tank(s), in accordance with the requirements of Schedule 2; and</li></ul> <p>Where the provision of a strategic water tank(s) is applicable, then the following requirements apply:</p> <ul style="list-style-type: none"><li>• land to be ceded free of cost to the local government for the placement of the tank(s);</li><li>• the lot or road reserve where the tank is to be located is identified on the plan of subdivision;</li><li>• tank capacity, construction, and fittings, provided in accordance with the requirements of Schedule 2; and</li><li>• a strategic water tank is to be located no more than 10 minutes from the subject site (at legal road speeds).</li></ul> <p>Where a subdivision includes an existing habitable building(s) that is to be retained, a water supply should be provided to this existing habitable building(s), in accordance with the requirements listed above.</p> | <p>The surrounding public road network has already been constructed with reticulated water services and a network of hydrants in accordance with Water Corporation Design Standard 63 requirements. The proposed infrastructure will be connected to this reticulated water supply.</p> | ✓                   |

## 2.4 Responsibilities for implementation and management of the bushfire measures

Implementation of the BMP addendum applies to the developer and prospective landowners to ensure bushfire management measures are adopted and implemented on an ongoing basis. A bushfire responsibilities table is provided in Table 4 to drive implementation of all relevant bushfire management works associated with the previous Strategen-JBS&G (2022) BMP and this addendum.

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

| Implementation/management table              |                                                                                                                                                                                                 |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Developer – prior to occupation of buildings |                                                                                                                                                                                                 |
| No.                                          | Implementation action                                                                                                                                                                           |
| 1                                            | Prepare a detailed landscape plan that demonstrates the anticipated low threat exclusions throughout all on-site landscaped areas in accordance with the requirements of this BMP addendum.     |
| 2                                            | Establish the project area and on-site landscape areas to a non-vegetated/low threat state in accordance with the requirements of this BMP addendum and abovementioned detailed landscape plan. |
| 3                                            | Provide an internal private driveway network with multiple connections to the surrounding public road network in accordance with the requirements of this BMP addendum.                         |
| 4                                            | Prepare a BMP compliance report to demonstrate the relevant bushfire management measures have been implemented to deliver compliance in accordance with this BMP addendum.                      |

## 2.5 References

Department of Fire and Emergency Services (DFES) 2021, *Map of Bush Fire Prone Areas*, [Online], Government of Western Australia, available from: <https://maps.slip.wa.gov.au/landgate/bushfireprone/>, [02/05/2023].

Department of Planning (DoP) 2016, *Visual guide for bushfire risk assessment in Western Australia*, Department of Planning, Perth.

Standards Australia (SA) 2018, *Australian Standard AS 3959–2018 Construction of Buildings in Bushfire-prone Areas*, Standards Australia, Sydney.

Strategen-JBS&G 2022, *Bushfire Management Plan (Structure Plan Amendment) – Lot 9042 and 9052 Wattleup Road and Lot 305 Whadjuk Drive, Hammond Park*, report prepared for Aigle Royal, June 2022.

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

Western Australian Planning Commission (WAPC) 2021, *Guidelines for Planning in Bushfire Prone Areas*, Version 1.4 December 2021, Western Australian Planning Commission, Perth.



## Appendix A    Landscape design



LEGEND

- 01 MAIN STREET COMMERCIAL  
REFER TO L105-L106
- 02 CORRIDOR  
REFER TO L107
- 03 POCKET PARK  
REFER TO L108
- 04 GREEN BUFFER
- 05 TEMPORARY LANDSCAPE  
REFER TO L109

HAMMOND PARK NEIGHBOURHOOD CENTRE  
PREPARED FOR HAMES SHARLEY ARCHITECTS

MASTERPLAN  
AUGUST 2022

JOB NO. 2210601 C1.104  
1:500 @ A1

REV A

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## Appendix B    Vegetation plot photos and descriptions



| Plot 1                                                                                                                                                                                                         |                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Vegetation classification</b>                                                                                                                                                                               | Class D Scrub                                                                                                                                                                                                   |
| <b>Description / justification</b>                                                                                                                                                                             | Vegetation with a continuous horizontal fuel profile, 2–6 m in height comprising banksia and acacia species                                                                                                     |
|  <p>BRG: 59°NE (T) POS: -32.177286, 115.847223 ±64 m ALT: 15 m</p> <p>27 Apr 2023, 10:10:07 am</p> <p><b>Photo ID: 1a</b></p> |  <p>BRG: 142°SE (T) POS: -32.177145, 115.845576 ±4 m ALT: 3 m</p> <p>27 Apr 2023, 10:26:34 am</p> <p><b>Photo ID: 1b</b></p>  |
|  <p>BRG: 180°S (T) POS: -32.177141, 115.845559 ±4 m ALT: 4 m</p> <p>27 Apr 2023, 10:26:43 am</p> <p><b>Photo ID: 1c</b></p>  |  <p>BRG: 261°W (T) POS: -32.177262, 115.844197 ±4 m ALT: 2 m</p> <p>27 Apr 2023, 10:29:15 am</p> <p><b>Photo ID: 1d</b></p>  |
|  <p>BRG: 13°N (T) POS: -32.17729, 115.844195 ±4 m ALT: 2 m</p> <p>27 Apr 2023, 10:29:32 am</p> <p><b>Photo ID: 1e</b></p>   |  <p>BRG: 206°S (T) POS: -32.176388, 115.843165 ±4 m ALT: 5 m</p> <p>27 Apr 2023, 10:38:19 am</p> <p><b>Photo ID: 1f</b></p> |



| Plot 2                      |                                                               |
|-----------------------------|---------------------------------------------------------------|
| Vegetation classification   | Class G Grassland                                             |
| Description / justification | Unmanaged grassland greater than 100 mm in height at maturity |



Photo ID: 2a



Photo ID: 2b



| Plot 3                                                                                                                                                                                                                                                                |                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Vegetation classification</b>                                                                                                                                                                                                                                      | Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])                                                                                                                                       |
| <b>Description / justification</b>                                                                                                                                                                                                                                    | Existing non-vegetated areas including roads, buildings, car parks and footpaths; and low threat managed land including active POS, street verges, firebreaks, managed gardens and vacant residential lots |
| <div> <div>  <p><b>Photo ID: 3a</b></p> </div> <div>  <p><b>Photo ID: 3b</b></p> </div> </div>     |                                                                                                                                                                                                            |
| <div> <div>  <p><b>Photo ID: 3c</b></p> </div> <div>  <p><b>Photo ID: 3d</b></p> </div> </div>   |                                                                                                                                                                                                            |
| <div> <div>  <p><b>Photo ID: 3e</b></p> </div> <div>  <p><b>Photo ID: 3f</b></p> </div> </div> |                                                                                                                                                                                                            |



Plot 3



Photo ID: 3g



Photo ID: 3i



Photo ID: 3k

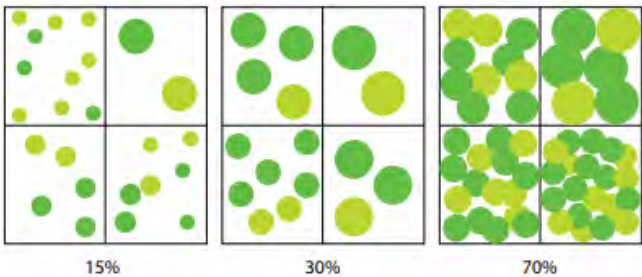


Photo ID: 3h



Photo ID: 3j

## Appendix C    APZ standards (Schedule 1 of the Guidelines)

| Schedule 1: Standards for Asset Protection Zones                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Object                                                                                                                  | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Fences within the APZ                                                                                                   | Should be constructed from non-combustible materials (for example, iron, brick, limestone, metal post and wire, or bushfire-resisting timber referenced in Appendix F of AS 3959).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Fine fuel load (Combustible, dead vegetation matter <6 millimetres in thickness)                                        | <p>Should be managed and removed on a regular basis to maintain a low threat state.</p> <p>Should be maintained at &lt;2 tonnes per hectare (on average).</p> <p>Mulches should be non-combustible such as stone, gravel or crushed mineral earth or wood mulch &gt;6 millimetres in thickness.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Trees* (>6 metres in height)                                                                                            | <p>Trunks at maturity should be a minimum distance of six metres from all elevations of the building.</p> <p>Branches at maturity should not touch or overhang a building or powerline.</p> <p>Lower branches and loose bark should be removed to a height of two metres above the ground and/or surface vegetation.</p> <p>Canopy cover within the APZ should be &lt;15 per cent of the total APZ area.</p> <p>Tree canopies at maturity should be at least five metres apart to avoid forming a continuous canopy. Stands of existing mature trees with interlocking canopies may be treated as an individual canopy provided that the total canopy cover within the APZ will not exceed 15 per cent and are not connected to the tree canopy outside the APZ.</p> <p><b>Figure 19: Tree canopy cover – ranging from 15 to 70 per cent at maturity</b></p>  <p>15%                      30%                      70%</p> |
| Shrub* and scrub* (0.5 metres to six metres in height). Shrub and scrub >6 metres in height are to be treated as trees. | <p>Should not be located under trees or within three metres of buildings.</p> <p>Should not be planted in clumps &gt;5 square metres in area.</p> <p>Clumps should be separated from each other and any exposed window or door by at least 10 metres.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Ground covers* (<0.5 metres in height. Ground covers >0.5 metres in height are to be treated as shrubs)                 | <p>Can be planted under trees but must be maintained to remove dead plant material, as prescribed in 'Fine fuel load' above.</p> <p>Can be located within two metres of a structure, but three metres from windows or doors if &gt;100 millimetres in height.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Grass                                                                                                                   | <p>Grass should be maintained at a height of 100 millimetres or less, at all times.</p> <p>Wherever possible, perennial grasses should be used and well-hydrated with regular application of wetting agents and efficient irrigation.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Defendable space                                                                                                        | Within three metres of each wall or supporting post of a habitable building, the area is kept free from vegetation, but can include ground covers, grass and non-combustible mulches as prescribed above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |



### Schedule 1: Standards for Asset Protection Zones

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LP Gas Cylinders | <p>Should be located on the side of a building furthest from the likely direction of a bushfire or on the side of a building where surrounding classified vegetation is upslope, at least one metre from vulnerable parts of a building.</p> <p>The pressure relief valve should point away from the house.</p> <p>No flammable material within six metres from the front of the valve.</p> <p>Must sit on a firm, level and non-combustible base and be secured to a solid structure.</p> |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

*\* Plant flammability, landscaping design and maintenance should be considered – refer to explanatory notes*

**Source:** *Guidelines for Planning in Bushfire Prone Areas (WAPC 2021)*

### Element 2 Explanatory Notes

#### E2 Managing an Asset Protection Zone (APZ) to a low threat state

An APZ is a low fuel area maintained around a habitable building to increase the likelihood that it will survive a bushfire, by providing a defensible space and reducing the potential for direct flame contact, radiant heat exposure and ember attack.

Vegetation management within an APZ should provide defensible space and be maintained to a low threat state, in perpetuity, in accordance with the requirements outlined in Schedule 1.

The width of an APZ varies with slope and vegetation type, however it should only be as wide as needed to ensure the potential radiant heat impact of a bushfire does not exceed 29kW/m<sup>2</sup> (BAL-29), or 10kW/m<sup>2</sup> where a building is identified for use as an on-site shelter. An APZ is generally not required where a building or development site achieves 29kW/m<sup>2</sup> (BAL-29) or lower in its pre-development state (prior to any vegetation clearing or modification).

An APZ should include an area of defensible space immediately adjoining a building, that is kept free from combustible items and obstructions, within which firefighting operations can be undertaken to defend the structure. Where a lot contains a building envelope, it may not be necessary for the entire building envelope to achieve 29kW/m<sup>2</sup> (BAL-29) as this may result in significant unnecessary clearing. It is recommended that the BMP identifies that a sufficient APZ can be accommodated within the building envelope, with the development site and associated APZ to be determined at the development approval stage.

An APZ should be contained within the boundaries of the lot on which the building is situated, except in instances where it is demonstrated that the vegetation on the adjoining land is managed in a low threat state, as per cl. 2.2.3.2 of AS 3959, such as a road, managed park, rocky outcrop or a water body.

The siting of a habitable building and associated APZ should aim to minimise the clearing of vegetation. The BMP should demonstrate that the proposed APZ has minimised the unnecessary loss of vegetation or potential for conflict with landscape or environmental objectives; and complies with environmental approvals/exemptions (where necessary). A re-design or reduction in lot yield may be necessary to minimise the removal and modification of remnant vegetation.

It is recommended that development be located on flat areas or slopes less than 20 degrees (especially where classified vegetation is located downslope to a building) and away from ridge tops, crests or narrow gullies, as bushfire can spread rapidly in these areas. Circumstances where these locations may be suitable for development to occur include where the land is already cleared, and 29kW/m<sup>2</sup> (BAL-29) or lower can be achieved for the whole development site without the use of an APZ. To ensure soil stability within an APZ, vegetation removal on slopes exceeding 18 degrees is discouraged.

Fine fuel load should be maintained to less than two tonnes per hectare, however this is often a subjective assessment. Reducing fuel load levels does not necessarily require the removal of existing vegetation. A combination of methods can be utilised to reduce fuel load such as raking, weed removal, pruning, mulching and/or the removal of plant material.

A simple method to estimate fuel load is to roughly equate one tonne of fuel load per hectare as 100 grams per square metre. For example, two tonnes per hectare of leaf litter is roughly 200 grams of leaf litter per square metre and eight tonnes per hectare is roughly 800 grams. Eucalyptus leaf litter is approximately 100 grams per handful, so two handfuls of litter per square metre will roughly equate to two tonnes per hectare. Different types of fine fuel, like mulch or pine needles may be more or less than a handful, however the 100 grams per square metre rule of thumb can still be used.

The landowner or proponent is responsible for maintaining an APZ in accordance with Schedule 1 - Standards for Asset Protection Zones. Ongoing maintenance of an APZ is usually enforced through the local government firebreak notice issued under section 33 of the Bushfires Act 1954, and/or through a condition of a development approval, which requires the implementation of measures identified within a BMP.

## Schedule 1: Standards for Asset Protection Zones

A copy of the firebreak notice and Schedule 1 should be included in a BMP specifically as a how-to guide for the landowner, and to demonstrate to decision-makers that the measures outlined in the BMP to achieve the appropriate BAL rating through provision and ongoing management of an APZ, can be implemented.

### E2 Landscaping and design of an Asset Protection Zone

Landscaping, design, and maintenance of an APZ in a bushfire prone area can significantly improve the bushfire resilience of a building. An APZ should not be seen as an area entirely cleared of vegetation, but as a strategically designed space that gives holistic consideration to how existing or proposed vegetation or non-combustible features interact with, or affect the building's bushfire resilience.

A well designed APZ provides a greater level of vegetation management within the first few metres of a building with, for example, less vegetation or inclusion of non-combustible materials. The vegetation within the remainder of an APZ can increase further away from the building with carefully considered plant selection and landscaping techniques.

Strategic landscaping measures can be applied, such as replacing weeds with low flammability vegetation (refer to E2 Plant Flammability) to create horizontal and vertical separations between the retained vegetation. The accumulation of fine fuel load from different plants is an important consideration for ongoing maintenance in accordance with Schedule 1. For example, when planting ground covers under deciduous trees within an APZ, the total fine fuel load prescribed in Schedule 1 will include any dead plant material from ground covers and leaf litter from the trees.

Plant density and final structure and form of mature vegetation should be considered in the initial landscaping stages. For example, clumps of sapling shrubs planted at a density without consideration of future growth, may increase the bushfire risk as a clump will quickly grow to exceed 5m<sup>2</sup>. It should be noted that in some cases, a single shrub in a mature state may be so dense as to fill a 5m<sup>2</sup> clump alone.

The location of plants within an APZ is a key design technique. Separation of garden beds with areas of low fuel or non-combustible material, will break up fuel continuity and reduce the likelihood of a bushfire running through an APZ and subjecting a dwelling to radiant heat or direct flame contact. It is important to note, where mature trees are separated from a building by six metres, but the canopy has grown to extend or overhang a building, maintenance and pruning to remove the overhanging branches should be undertaken without the entirety of the tree being removed.

Mulches used within the APZ should be non-combustible. The use of stone, gravel, rock and crushed mineral earth is encouraged. Wood mulch >6mm in thickness may be used, however it is recommended that it is used in garden beds or areas where the moisture level is higher by regular irrigation. These materials could be sourced from non-toxic construction and demolition waste giving the added benefit of reducing the environmental impact of any 'hard landscaping' actions.

Combustible objects, plants, garden supplies such as mulches, fences made from combustible material, should be avoided within 10 metres of a building. Vines or climbing plants on pergolas, posts or beams, should be located away from vulnerable parts of the building, such as windows and doors. Non-flammable features can be used to provide hazard separation from classified vegetation, such as tennis courts, pools, lawns and driveways or paths that use inorganic mulches (gravel or crushed rock). Consider locating firewood stacks away from trees and habitable buildings.

Incorporation of landscaping features, such as masonry feature walls can provide habitable buildings with barriers to wind, radiant heat and embers. These features can include noise walls or wind breaks. Use of Appendix F of AS 3959 for bushfire resistant timber selection within areas of 29kW/m<sup>2</sup> (BAL-29) or below, or the use of non-combustible fencing materials such as iron, brick, limestone, metal post and wire is encouraged.

In addition to regular maintenance of an APZ, further bushfire protection can be provided at any time by:

- ensuring gutters are free from vegetation;

- installing gutter guards or plugs;

- regular cleaning of underfloor spaces, or enclosing them to prevent gaps;

- trimming and removing dead plants or leaf litter;

- pruning climbing vegetation (such as vines) on a trellis, to ensure it does not connect to a building, particularly near windows and doors;

- removing vegetation in close proximity to a water tank to ensure it is not touching the sides of a tank; and/or

- following the requirements of the relevant local government section 33 fire break notice, which may include additional provisions such as locating wood piles more than 10 metres from a building.

### Schedule 1: Standards for Asset Protection Zones

Preparation of a property prior to the bushfire season and/or in anticipation of a bushfire is beneficial even if your plan is to evacuate. As embers can travel up to several kilometres from a bushfire and fall into small spaces and crevices or land against the external walls of a building, best practice recommends that objects within the APZ are moved away from the building prior to any bushfire event. Objects may include, but are not limited to:

- door mats;
- outdoor furniture;
- potted plants;
- shade sails or umbrellas;
- plastic garbage bins;
- firewood stacks;
- flammable sculptures; and/or
- playground equipment and children's toys.

### E2 Plant flammability

There are certain plant characteristics that are known to influence flammability, such as moisture or oil content and the presence and type of bark. Plants with lower flammability properties may still burn during a bushfire event, but may be more resistant to burning and some may regenerate faster post-bushfire.

There are many terms for plant flammability that should not be confused, including:

Fire resistant – plant species that survive being burnt and will regrow after a bushfire and therefore may be highly flammable and inappropriate for a garden in areas of high bushfire risk.

Fire retardant – plants that may not burn readily or may slow the passage of a bushfire.

Fire wise – plants that have been identified and selected based on their flammability properties and linked to maintenance advice and planting location within a garden.

Although not a requirement of these Guidelines, local governments may develop their own list of fire wise or fire retardant plant species that suit the environmental characteristics of an area. When developing a recommended plant species list, local governments should consult with ecologists, land care officers or environmental authorities to ensure the plants do not present a risk to endangered ecological communities, threatened, or endangered species or their habitat.

When selecting plants, private landholders and developers should aim for plants within the APZ that have the following characteristics:

- grow in a predicted structure, shape and height;
- are open and loose branching with leaves that are thinly spread;
- have a coarse texture and low surface-area-to-volume ratio;
- will not drop large amounts of leaves or limbs, that require regular maintenance;
- have wide, flat, and thick or succulent leaves;
- trees that have bark attached tightly to their trunk or have smooth bark;
- have low amounts of oils, waxes, and resins (which will often have a strong scent when crushed);
- do not produce or hold large amounts of fine dead material in their crowns; and/or
- will not become a weed in the area.

Refer to the WAPC Bushfire and Vegetation Fact Sheet for further information on clearing and vegetation management and APZ landscaping, design and plant selection reference material.

**Source:** *Guidelines for Planning in Bushfire Prone Areas (WAPC 2021)*



## **Appendix D    Vehicular access technical requirements of the Guidelines**

## Acceptable Solution A3.2a – Multiple access routes

### Explanatory Note E3.2a

Two-way public road access is public road access from a lot in at least two different directions to two suitable destinations, and provides residents and the community, as well as emergency services, with access and egress from both the subdivision and individual habitable buildings/development in the event of a bushfire emergency. A single road provides no alternative route if the access becomes congested or is unable to be traversed due to smoke and/or fallen trees during a bushfire.

Two-way public road access applies to access/egress routes leading into a subdivision, as well as those within a subdivision. A road that loops back onto itself does not constitute the option of two different directions.

Two-way public road access should always be the first option. Where the site is not able to achieve two-way access within 200 metres of the lot boundary, due to demonstrated site or environmental constraints, the proponent should identify options for an emergency access way from the subject site to a suitable destination. Where an emergency access way cannot be provided, the proponent should demonstrate compliance with the performance principle.

Subject sites or proposed lots greater than 200 metres from an intersection, which provides two-way access, do not satisfy the requirement for two-way access unless they meet the provisions which allow for no-through roads greater than 200 metres in A3.2a.

To demonstrate compliance with the performance principle for two-way access, the bushfire planning practitioner may have regard to:

- the extent of the bushfire hazard, location and vegetation classification, the likelihood, potential severity and impact of bushfire to the subject site and the road network;
- time between fire detection and the onset of conditions in comparison to travel time for the community to evacuate to a suitable destination;
- available access route(s) travelling towards a suitable destination; and
- turn-around area for a fire appliance for no-through roads.

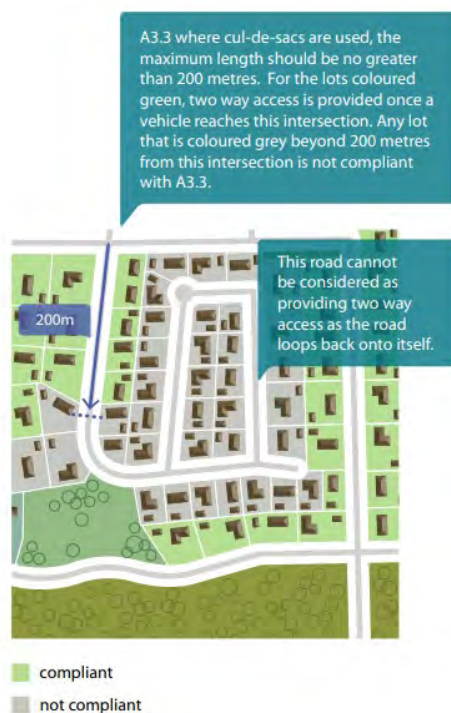


Figure 21: Example of compliant and non-compliant two-way

Source: *Guidelines for Planning in Bushfire Prone Areas* (WAPC 2021)



# ATTACHMENT 5

Approved Stage 1 Waste Management Plan





# Waste Management Plan

Whadjuk Drive, Hammond Park

Prepared for Aigle Royal Properties

19 October 2023

Project Number: TW22101

**DOCUMENT CONTROL**

| Version | Description             | Date       | Author | Reviewer | Approver |
|---------|-------------------------|------------|--------|----------|----------|
| 1.0     | First Approved Release  | 9/08/2023  | AB     | DP       | AB       |
| 2.0     | Second Approved Release | 19/10/2023 | AB     | DP       | DP       |
|         |                         |            |        |          |          |

**Approval for Release**

| Name             | Position                                      | File Reference                       |
|------------------|-----------------------------------------------|--------------------------------------|
| Dilan Patel      | Project Manager – Waste Management Consultant | TW22101-02_Waste Management Plan_2.0 |
| <b>Signature</b> |                                               |                                      |

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## Executive Summary

Aigle Royal Properties is seeking development approval for the proposed commercial development located at Whadjuk Drive, Hammond Park (the Proposal).

To satisfy the conditions of the development application the City of Cockburn (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         |
|---------------------------|---------------------|--------------|----------------|----------------------|--------------------|
| <b>Bin Storage Area 1</b> |                     |              |                |                      |                    |
| Refuse                    | 15,740              | 1,100        | Fifteen        | Once each week       | Private Contractor |
| Recycling                 | 11,778              | 1,100        | Eleven         | Once each week       | Private Contractor |
| <b>Bin Storage Area 2</b> |                     |              |                |                      |                    |
| Refuse                    | 2,835               | 1,100        | Three          | Once each week       | Private Contractor |
| Recycling                 | 2,835               | 1,100        | Three          | Once each week       | Private Contractor |
| <b>Bin Storage Area 3</b> |                     |              |                |                      |                    |
| Refuse                    | 2,835               | 1,100        | Three          | Once each week       | Private Contractor |
| Recycling                 | 2,835               | 1,100        | Three          | Once each week       | Private Contractor |

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

A building manager will oversee the relevant aspects of waste management at the Proposal.

The WMP will form part of the building management agreement and will continue to be applied in perpetuity across the life of the Proposal. Changes to this WMP may require approval by the City of Cockburn.

Should the approved Waste Management Plan fail to deliver a safe, effective and efficient waste management service, the City will liaise with the owner to review, update and approve the Waste Management Plan.



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Figure 1: Locality Plan

## 1 Introduction

Aigle Royal Properties is seeking development approval for the proposed commercial development located at Whadjuk Drive, Hammond Park (the Proposal).

To satisfy the conditions of the development application the City of Cockburn (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 Whadjuk Drive to the north, residential properties to the east, Wattleup Road to the south and Marcy Lane 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 adequately sized Bin Storage Areas, 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: Construction and Demolition Waste;
- Section 3: Waste Generation;
- Section 4: Waste Storage;
- Section 5: Waste Collection;
- Section 6: Waste Management; and
- Section 7: Conclusion.



## **2 Construction and Demolition Waste**

The below section presents the required communication and waste disposal considerations for Construction and Demolition waste generated during the Proposals development.

### **2.1 Demolition**

The Proposal is currently free of buildings and structures; therefore, any demolition works are unlikely to occur ensuring demolition waste is not generated at the Proposal.

### **2.2 Construction**

Appropriate waste management procedures that aim to reduce waste and encourage recycling of excess materials should be considered as part of the construction phase of the Proposal. The tendering of the construction of the building and the tender assessment scoring should consider applicants that have effective waste minimisation strategies.

### 3 Waste Generation

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

#### 3.1 Proposed Tenancies

The anticipated volume of refuse and recyclables is based on the floor area (m<sup>2</sup>) of the commercial tenancies at the Proposal. The Proposal consists of the following:

##### Bin Storage Area 1:

- B1.1: Specialty/Food & Beverage – 107m<sup>2</sup>;
- B1.2: Specialty/Food & Beverage – 143m<sup>2</sup>;
- B1.3: Specialty – 80m<sup>2</sup>;
- B1.4: Specialty – 80m<sup>2</sup>;
- B1.5: Specialty – 80m<sup>2</sup>;
- B1.6: Specialty – 80m<sup>2</sup>;
- B1.7: Specialty – 85m<sup>2</sup>;
- B1.8: Pharmacy – 490m<sup>2</sup>;
- B1.9: Specialty/Food & Beverage – 84m<sup>2</sup>;
- B1.10: Specialty/Food & Beverage – 84m<sup>2</sup>;
- B1.11: Specialty/Food & Beverage – 148m<sup>2</sup>; and
- Liquor – 206m<sup>2</sup>.

##### Bin Storage Area 2:

- B2: Fast Food – 270m<sup>2</sup>.

##### Bin Storage Area 3:

- B3: Fast Food – 270m<sup>2</sup>.

Note, the Supermarket has their own back of house and manages waste through their own internal processes governed by national waste collections contracts, and therefore has not been included as part of this report.

#### 3.2 Waste Generation Rates

In order to achieve an accurate projection of waste volumes for the Proposal, consideration was given to the City of Melbourne's *Guidelines for Waste Management Plans* (2021) and the City of Gosnells' *Information Sheet – Waste Collection* (2017).

It should also be noted that a conservative approach has been taken with regards to waste generation across the Proposal by overestimating the potential waste volumes for the commercial tenancies. This includes assuming seven days of operation for all tenancies. This is considered to be an over estimation as it is not uncommon for food and beverage tenancies to close operations post weekend trading therefore resulting in an over estimation of waste volumes generated.

Table 3-1 shows the waste generation rates which have been applied to the Proposal.

**Table 3-1: Waste Generation Rates**

| Tenancy Use Type          | Guideline Reference          | Refuse Generation Rate      | Recycling Generation Rate   | Floor Area Required                |
|---------------------------|------------------------------|-----------------------------|-----------------------------|------------------------------------|
| Specialty/Food & Beverage | Melbourne – Café             | 300L/100m <sup>2</sup> /day | 200L/100m <sup>2</sup> /day | 2m <sup>2</sup> /200m <sup>2</sup> |
| Specialty                 | Melbourne – Shops (non-food) | 50L/100m <sup>2</sup> /day  | 50L/100m <sup>2</sup> /day  | 2m <sup>2</sup> /200m <sup>2</sup> |
| Pharmacy                  | Melbourne – Shops (non-food) | 50L/100m <sup>2</sup> /day  | 50L/100m <sup>2</sup> /day  | 2m <sup>2</sup> /200m <sup>2</sup> |
| Liquor                    | Melbourne – Shops (non-food) | 50L/100m <sup>2</sup> /day  | 50L/100m <sup>2</sup> /day  | 2m <sup>2</sup> /200m <sup>2</sup> |
| Fast Food                 | Gosnells – Fast Food Outlet  | 150L/100m <sup>2</sup> /day | 150L/100m <sup>2</sup> /day | 1m <sup>2</sup> /100 meals served  |

### 3.3 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.

#### 3.3.1 Bin Storage Area 1

Waste generation volumes in litres per week (L/week) adopted for this waste assessment for Bin Storage Area 1 is shown in Table 3-2. It is estimated that the Specialty, Liquor and Food & Beverage tenancies at the Proposal will generate 15,740L of refuse and 11,778L of recyclables each week.

**Table 3-2: Estimated Waste Generation – Bin Storage Area 1**

| BSA1 – Commercial Tenancies | Area (m <sup>2</sup> ) | Waste Generation Rate (L/100m <sup>2</sup> /day) | Waste Generation (L/week) |
|-----------------------------|------------------------|--------------------------------------------------|---------------------------|
| <b>REFUSE</b>               |                        |                                                  |                           |
| Specialty/Food & Beverage   | 107                    | 300                                              | 2,247                     |
| Specialty/Food & Beverage   | 143                    | 300                                              | 3,003                     |
| Specialty                   | 80                     | 50                                               | 280                       |
| Specialty                   | 80                     | 50                                               | 280                       |
| Specialty                   | 80                     | 50                                               | 280                       |
| Specialty                   | 80                     | 50                                               | 280                       |
| Specialty                   | 85                     | 50                                               | 298                       |
| Pharmacy                    | 490                    | 50                                               | 1,715                     |
| Food & Beverage             | 84                     | 300                                              | 1,764                     |
| Food & Beverage             | 84                     | 300                                              | 1,764                     |
| Food & Beverage             | 148                    | 300                                              | 3,108                     |
| Liquor                      | 206                    | 50                                               | 721                       |
| <b>Total</b>                |                        |                                                  | <b>15,740</b>             |
| <b>RECYCLABLES</b>          |                        |                                                  |                           |
| Specialty/Food & Beverage   | 107                    | 200                                              | 1,498                     |
| Specialty/Food & Beverage   | 143                    | 200                                              | 2,002                     |
| Specialty                   | 80                     | 50                                               | 280                       |



| BSA1 – Commercial Tenancies | Area (m <sup>2</sup> ) | Waste Generation Rate (L/100m <sup>2</sup> /day) | Waste Generation (L/week) |
|-----------------------------|------------------------|--------------------------------------------------|---------------------------|
| Specialty                   | 80                     | 50                                               | 280                       |
| Specialty                   | 80                     | 50                                               | 280                       |
| Specialty                   | 80                     | 50                                               | 280                       |
| Specialty                   | 85                     | 50                                               | 298                       |
| Pharmacy                    | 490                    | 50                                               | 1,715                     |
| Food & Beverage             | 84                     | 200                                              | 1,176                     |
| Food & Beverage             | 84                     | 200                                              | 1,176                     |
| Food & Beverage             | 148                    | 200                                              | 2,072                     |
| Liquor                      | 206                    | 50                                               | 721                       |
| <b>Total</b>                |                        |                                                  | <b>11,778</b>             |

### 3.3.2 Bin Storage Area 2

Waste generation volumes in litres per week (L/week) adopted for this waste assessment for Bin Storage Area 2 is shown in Table 3-3. It is estimated that the Fast Food 01 at the Proposal will generate 2,835L of refuse and 2,835L of recyclables each week.

**Table 3-3: Estimated Waste Generation – Bin Storage Area 2**

| BSA2 – Commercial Tenancies | Area (m <sup>2</sup> ) | Waste Generation Rate (L/100m <sup>2</sup> /day) | Waste Generation (L/week) |
|-----------------------------|------------------------|--------------------------------------------------|---------------------------|
| <b>REFUSE</b>               |                        |                                                  |                           |
| Fast Food 01                | 270                    | 150                                              | 2,835                     |
| <b>Total</b>                |                        |                                                  | <b>2,835</b>              |
| <b>RECYCLABLES</b>          |                        |                                                  |                           |
| Fast Food 01                | 270                    | 150                                              | 2,835                     |
| <b>Total</b>                |                        |                                                  | <b>2,835</b>              |

### 3.3.3 Bin Storage Area 3

Waste generation volumes in litres per week (L/week) adopted for this waste assessment for Bin Storage Area 3 is shown in Table 3-4. It is estimated that the Fast Food 02 at the Proposal will generate 2,835L of refuse and 2,835L of recyclables each week.

**Table 3-4: Estimated Waste Generation – Bin Storage Area 3**

| BSA3 – Commercial Tenancies | Area (m <sup>2</sup> ) | Waste Generation Rate (L/100m <sup>2</sup> /day) | Waste Generation (L/week) |
|-----------------------------|------------------------|--------------------------------------------------|---------------------------|
| <b>REFUSE</b>               |                        |                                                  |                           |
| Fast Food                   | 270                    | 150                                              | 2,835                     |
| <b>Total</b>                |                        |                                                  | <b>2,835</b>              |
| <b>RECYCLABLES</b>          |                        |                                                  |                           |
| Fast Food                   | 270                    | 150                                              | 2,835                     |
| <b>Total</b>                |                        |                                                  | <b>2,835</b>              |

## 4 Waste Storage

Waste materials generated within the Proposal will be collected in the bins located in the Bin Storage Areas, as shown in Diagram 1 and Diagram 2, and discussed in the following sub-sections.

### 4.1 Internal 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.

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.

### 4.2 Bin Sizes

Table 4-1 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 4-1: Typical Bin Dimensions**

| Dimensions  | Bin Sizes |       |        |
|-------------|-----------|-------|--------|
|             | 240L      | 660L  | 1,100L |
| Depth (mm)  | 730       | 780   | 1,070  |
| Width (mm)  | 585       | 1,260 | 1,240  |
| Height (mm) | 1,060     | 1,200 | 1,300  |

Reference: SULO Bin Specification Data Sheets

### 4.3 Bin Storage Area 1 Size

To ensure sufficient area is available for storage of the bins for the Specialty, Liquor and Food & Beverage tenancies, the amount of bins required for Bin Storage Area 1 was modelled utilising the estimated waste generation in Table 3-2, bin sizes in Table 4-1 and based on collection of refuse and recyclables once each week.

Based on the results shown in Table 4-2, Bin Storage Area 1 has been sized to accommodate at least:

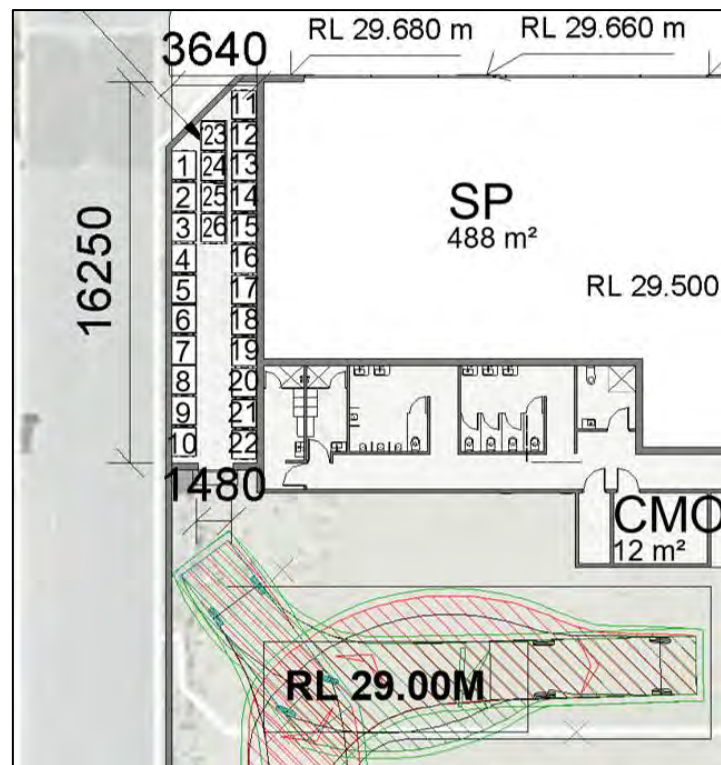
- Fifteen 1,100L refuse bins; and
- Eleven 1,100L recycling bins.

**Table 4-2: Bin Requirements for Bin Storage Area 1**

| Waste Stream | Waste Generation (L/week) | Number of Bins Required |      |        | Minimum Floor Area Required (m <sup>2</sup> ) | Floor Area Provided (m <sup>2</sup> ) |
|--------------|---------------------------|-------------------------|------|--------|-----------------------------------------------|---------------------------------------|
|              |                           | 240L                    | 660L | 1,100L |                                               |                                       |
| Refuse       | 15,740                    | 66                      | 24   | 15     | 16.67m <sup>2</sup>                           | 59.15m <sup>2</sup>                   |
| Recycling    | 11,778                    | 50                      | 18   | 11     |                                               |                                       |

The configuration of these bins within Bin Storage Area 1 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 one collection each week of refuse and recyclables.

Diagram 1: Bin Storage Area 1



#### 4.4 Bin Storage Area 2 Size

To ensure sufficient area is available for storage of the bins for the Fast Food 01 tenancy, the amount of bins required for Bin Storage Area 2 was modelled utilising the estimated waste generation in Table 3-3, bin sizes in Table 4-1 and based on collection of refuse and recyclables once each week.

Based on the results shown in Table 4-3, Bin Storage Area 2 has been sized to accommodate:

- Three 1,100L refuse bins; and
- Three 1,100L recycling bins.

Table 4-3: Bin Requirements for Bin Storage Area 2

| Waste Stream | Waste Generation (L/week) | Number of Bins Required |      |        | Minimum Floor Area Required (m <sup>2</sup> ) | Floor Area Provided (m <sup>2</sup> ) |
|--------------|---------------------------|-------------------------|------|--------|-----------------------------------------------|---------------------------------------|
|              |                           | 240L                    | 660L | 1,100L |                                               |                                       |
| Refuse       | 2,835                     | 12                      | 5    | 3      | 2m <sup>2</sup>                               | 30m <sup>2</sup>                      |
| Recycling    | 2,835                     | 12                      | 5    | 3      |                                               |                                       |

The configuration of these bins within Bin Storage Area 2 is shown in Diagram 2. It is worth noting that the number of bins and corresponding placement of bins shown in Diagram 2 represents the maximum requirements assuming one collection each week of refuse and recyclables.



## 4.5 Bin Storage Area 3 Size

To ensure sufficient area is available for storage of the bins for the Fast Food 02 tenancy, the amount of bins required for Bin Storage Area 3 was modelled utilising the estimated waste generation in Table 3-4, bin sizes in Table 4-1 and based on collection of refuse and recyclables once each week.

Based on the results shown in Table 4-4, Bin Storage Area 3 has been sized to accommodate:

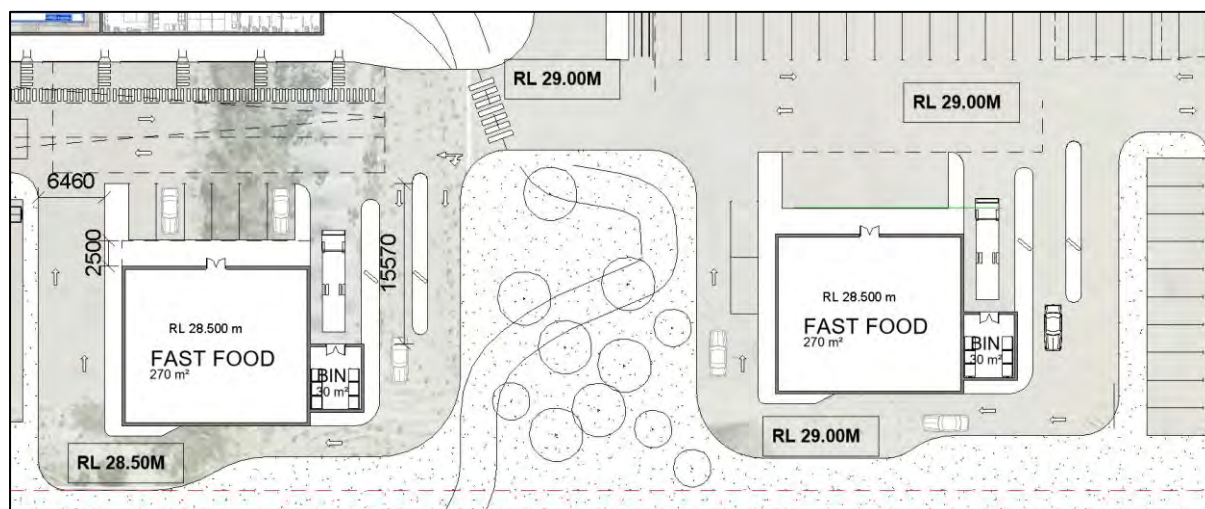
- Three 1,100L refuse bins; and
- Three 1,100L recycling bins.

**Table 4-4: Bin Requirements for Bin Storage Area 3**

| Waste Stream | Waste Generation (L/week) | Number of Bins Required |      |        | Minimum Floor Area Required (m <sup>2</sup> ) | Floor Area Provided (m <sup>2</sup> ) |
|--------------|---------------------------|-------------------------|------|--------|-----------------------------------------------|---------------------------------------|
|              |                           | 240L                    | 660L | 1,100L |                                               |                                       |
| Refuse       | 2,835                     | 12                      | 5    | 3      | 2                                             | 30                                    |
| Recycling    | 2,835                     | 12                      | 5    | 3      |                                               |                                       |

The configuration of these bins within Bin Storage Area 3 is shown in Diagram 2. It is worth noting that the number of bins and corresponding placement of bins shown in Diagram 2 represents the maximum requirements assuming one collection each week of refuse and recyclables.

**Diagram 2: Bin Storage Area 2 and 3**



## 4.6 Bin Storage Area Design

The design of the Bin Storage Areas will take into consideration the following:

- The bin presentation area or collection point will be flat, with the travel path between the bin store and collection point/vehicle clear of steps or kerbs;
- External bin stores will be surrounded by 1.8 metre high walls or fencing with a self-closing gate;
- Bin stores will be designed and erected in a manner that has regard for the design and appearance of the development of which they are a part;
- Bin stores will have 75mm concrete floors grading to a 100mm industrial floor waste (including a charged 'water-trap' connected to sewer or an approved septic system), with a hose cock to enable bins and/or the enclosure to be washed out;
- Bin store internal walls will be cement rendered (solid and impervious) to enable easy cleaning. Ceilings in bin stores shall be finished with a smooth faced, non-absorbent material capable of being easily cleaned;
- Bin store walls and ceilings will be finished or painted in a light colour;
- Bin stores will be constructed in a manner that prevents the entry of vermin;
- Bin stores will be provided with artificial lighting, sensor or switch controlled both internal/external to the room or area. All lighting in open areas is to comply with AS4282-1997 (Control of Obtrusive Outdoor Lighting);
- Bin stores will have the following signs and/or information displayed:
  - o A sign stating "NO STANDING" at the entrance to the room/area; and
  - o A clearly visible "DANGER" sign in the vicinity of the entrance to the room/area.
- Any external bin store greater than 20m<sup>2</sup> is required to be covered with a roof.

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

## 5 Waste Collection

A private waste collection contractor will service the Proposal utilising a rear loader waste collection vehicle and provide the following:

### Bin Storage Area 1:

- Fifteen 1,100L refuse bins, collected once each week; and
- Eleven 1,100L recycling bins, collected once each week.

### Bin Storage Area 2:

- Three 1,100L refuse bins, collected once each week; and
- Three 1,100L recycling bins, collected once each week.

### Bin Storage Area 3:

- Three 1,100L refuse bins, collected once each week; and
- Three 1,100L recycling bins, collected once each week.

The private contractor's rear loader waste collection vehicle will service the bins onsite, directly from the Bin Storage Areas. The private contractor's rear loader waste collection vehicle will turn into the Proposal in forward gear via Whadjuk Drive or Wattleup Road and pull up adjacent to the Bin Storage Areas for servicing.

It is proposed that servicing will be conducted outside of normal operating hours to allow the waste collection vehicle to utilise the empty carpark for manoeuvring and mitigate impacts on local traffic movements during peak traffic hours.

Private contractor's staff will ferry bins to and from the rear loader waste collection vehicle and the Bin Storage Areas 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.

Once servicing is complete the private contractor's rear loader waste collection vehicle will exit in a forward motion, turning left onto Whadjuk Drive or Wattleup Road with traffic flow.

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.



## 5.1 Bulk and Speciality Waste

Adequate space will 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. These may include items such as:

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

These materials will be removed from the Facility once sufficient volumes have been accumulated to warrant disposal. Specialty waste collection will be monitored by building management who will organise their transport to the appropriate waste facility, as required.

## 6 Waste Management

A building 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 tenants at the Proposal are made aware of this WMP and their responsibilities thereunder;
- Monitor tenant behaviour and identify requirements for further education and/or signage;
- Monitor bulk and speciality waste accumulation and assist tenants with its removal, as required;
- Regularly engage with tenants 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.

## 7 Conclusion

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

The above is achieved using:

### **Bin Storage Area 1:**

- Fifteen 1,100L refuse bins, collected once each week; and
- Eleven 1,100L recycling bins, collected once each week.

### **Bin Storage Area 2:**

- Three 1,100L refuse bins, collected once each week; and
- Three 1,100L recycling bins, collected once each week.

### **Bin Storage Area 3:**

- Three 1,100L refuse bins, collected once each week; and
- Three 1,100L recycling bins, collected once each week.

A private contractor will service the Proposal onsite, adjacent to each Bin Storage Area. The private contractor's waste collection vehicle will enter and exit the Proposal in forward gear via Whadjuk Drive or Wattleup Road.

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

This WMP will form part of the building management agreement and will continue to be applied in perpetuity across the life of the Proposal. Changes to this WMP may require approval by the City of Cockburn.

Should the approved Waste Management Plan fail to deliver a safe, effective and efficient waste management service, the City will liaise with the owner to review, update and approve the Waste Management Plan.



## Figures

Figure 1: Locality Plan





**Assets | Engineering | Environment | Noise | Spatial | Waste**

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# ATTACHMENT 6

Approved Stage 1 Delivery Management Plan

# Delivery Management Plan

Hammond Park Neighbourhood Centre

Lots 9042, 9052 & 306 Whadjuk Drive, Hammond Park



**ROWE**  
GROUP

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# 1. Introduction

This Delivery Management Plan ('DMP') has been prepared by Rowe Group on behalf of Goldenore Corporation Pty Ltd ('Client') in support of an Application for Development Approval ('Application') which proposes the development of the Hammond Park Neighbourhood Centre at Lots 9042, 9052 and 305 Whadjuk Drive, Hammond Park ('subject site').

This DMP has been prepared to outline the manner in which deliveries will be undertaken on the site.

## 1.1 Objectives & Scope

The objective of this DMP is to outline the procedures and processes that will be adopted to manage the safe and efficient delivery of goods to the subject site from all delivery vehicles. This DMP demonstrates that the proposed development has been designed to allow safe and efficient manoeuvring of all delivery vehicles at the subject site.

The scope of this DMP comprises the following:

- Section 3: Property & Development Information;
- Section 4: Management of Delivery Vehicles; and
- Section 5: Conclusion.

The DMP should be read in conjunction with the associated Transport Impact Assessment (Uloth & Associates, 22 July 2023) and the Environmental Noise Assessment (Lloyd George Acoustics, 14 June 2023).

# 2. Property & Development Information

## 2.1 Location

The subject site is situated in Hammond Park and bound by Whadjuk Drive to the north, Wattleup Road to the south, and Marcy Lane to the west. The location of the subject site is depicted in Figure 1 below.





**Figure 1: Location of Subject Site**

### 3. Proposed Development

Approval is being sought for the development of the Hammond Park Neighbourhood Centre. The proposed development will include a main retail building incorporating a 'Woolworths Supermarket', liquor store, food/beverage and speciality retail tenancies, and two (2) standalone fast food outlets, along with associated signage, access ways, parking areas and landscaping.

The Application proposes three (3) crossovers in total, with one crossover to be provided from Whadjuk Drive and two crossovers to Wattleup Road (western and eastern). All delivery vehicle access will be provided via the Wattleup Road crossovers.

The loading, delivery, and storage areas of the core shopping centre building will be provided at the western and southern sides of the building. Loading and delivery for the standalone fast food outlets will be provided through the inner drive-through lane of each respective building.

The development of the proposed Neighbourhood Centre will occur in two (2) stages, as follows:

- Stage 1: This includes the development of the supermarket, liquor store, speciality/retail stores, and two (2) standalone fast food outlets, with the first full year of operation, expected in FY2025.
- Stage 2: This will consist of the remaining speciality/retail stores focussed along Whadjuk Drive, with the first full year of operation expected in FY2030.

This DMP addresses Stage 1 development only.

## 4. Management Of Delivery Vehicles

### 4.1 Delivery Vehicle Overview

Details of the various delivery vehicles which will access and service the proposed development is outlined in Table 1 below.

| Type                | Size  | Service Area                                                            | Access                                                                            |
|---------------------|-------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Semi-Trailer        | 19.0m | Supermarket loading dock                                                | Wattleup Road Eastern Crossover (entry)<br>Wattleup Road Western Crossover (exit) |
| Heavy Rigid Vehicle | 12.5m | Supermarket loading dock<br>Specialty service yard<br>Fast food outlets | Wattleup Road Western Crossover (entry and exit)                                  |
| Small Rigid Vehicle | 6.4m  | Supermarket home delivery bay                                           | Wattleup Road Western Crossover (entry and exit)                                  |

**Table 1: Types and Sizes of Delivery Vehicles**

Please refer to the submitted Waste Management Plan in relation to waste vehicle movements.

### 4.2 Delivery Operation Hours

Deliveries will typically occur Monday to Saturday, 7:00am to 7:00pm.

### 4.3 Access And Manoeuvring

- Delivery vehicles will enter the subject site via the western crossover to Wattleup Road, with the exception of the 19.0m Semi-Trailer which will also use the eastern crossover to Wattleup Road.
- The loading, delivery, and storage areas of the core shopping centre building will be provided at the western and southern sides of the building.
- Loading and delivery for the standalone fast food outlets will be provided through the inner drive-through lane of each respective building. Given that each tenancy will have two drive-through lanes, this will not impact upon the operation of the drive-through facility.
- All assessed intersections surrounding the proposed development and access points are expected to operate well within capacity during peak periods.
- The proposed development will trigger the need for upgrades to both Whadjuk Drive and Wattleup Road, as detailed in the Transport Impact Assessment, Road Safety Audit, and Development Application Plans.





## 4.4 Noise Management

To address compliance with the *Environmental Protection (Noise) Regulations 1997*, deliveries will typically occur Monday to Saturday, 7.00am to 7.00pm. Where delivery is required outside of these hours, care will be taken to ensure that noise impacts are minimised.

In undertaking any deliveries, the following noise management measures will apply:

- Vehicles shall not be left to idle.
- Radios of vehicles shall be turned off.
- Reversing alarms shall be broadband type rather than tonal and beepers.
- Care will be taken to minimise noise during loading and unloading operations.
- External loading areas are not to have music or announcement systems, other than for emergencies.
- External contractors are to be made aware that they have a responsibility to minimise noise.

## 5. Conclusion

This DMP demonstrates that the proposed development at the subject site can readily accommodate and manage the manoeuvring and movements of all delivery vehicles in a manner that does not compromise the safety or amenity of the locality.





# ATTACHMENT 7

## Environmental Noise Assessment



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# Environmental Noise Assessment

**Proposed Hammond Park Shopping Centre, Hammond Park**

**Reference: 20075601-01I**

Prepared for:  
Aigle Royal Group





Reference: 20075601-01I

|                                                                                                                                                                              |                                                                      |                                                                          |                                                                        |                                                                                  |
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This report has been prepared in accordance with the scope of services described in the contract or agreement between Lloyd George Acoustics Pty Ltd and the Client. The report relies upon data, surveys, measurements and results taken at or under the particular times and conditions specified herein. Any findings, conclusions or recommendations only apply to the aforementioned circumstances and no greater reliance should be assumed or drawn by the Client. Furthermore, the report has been prepared solely for use by the Client, and Lloyd George Acoustics Pty Ltd accepts no responsibility for its use by other parties.

| Date      | Rev | Description                                              | Author           | Verified     |
|-----------|-----|----------------------------------------------------------|------------------|--------------|
| 27-Nov-20 | 0   | Issued to Client                                         | Benjamin Hillion | Terry George |
| 01-Feb-21 | A   | Updated Layout                                           | Benjamin Hillion | Terry George |
| 2-Mar-22  | B   | Updated Layout                                           | Terry George     | Rob Connolly |
| 25-Mar-22 | C   | Updated with client comments                             | Terry George     | -            |
| 12-Apr-22 | D   | Final client comments                                    | Terry George     | -            |
| 24-May-22 | E   | Updated Masterplan                                       | Terry George     | -            |
| 20-Apr-23 | F   | Updated Plan                                             | Terry George     | -            |
| 14-Jun-23 | G   | Include NMP in Appendix A                                | Terry George     | -            |
| 19-Dec-23 | H   | Updated following CoC Comments                           | Terry George     | -            |
| 24-Jan-24 | I   | Updated to include refrigerated truck to NW Loading Area | Terry George     | -            |

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## 1. INTRODUCTION

This report has been prepared to consider the potential noise impacts associated with the proposed commercial development on Lots 9043 & 9053 Wattleup Road and Lot 305 Whadjuk Drive, Hammond Park - refer *Figure 1-1*.



**Figure 1-1: Subject Site Location (Source: DPLH PlanWA)**

The proposed development (refer *Figure 1-2*) is comprised of:

- Supermarket as the Major Tenancy;
- Liquor and Specialty Stores; and
- Fast Food outlets.

The main noise sources associated with such a development are from mechanical plant (air-conditioning and refrigeration), deliveries and car door closings. As the project is at Development Application (DA) Stage only, design and selections of plant has not been undertaken and therefore this assessment uses file data.



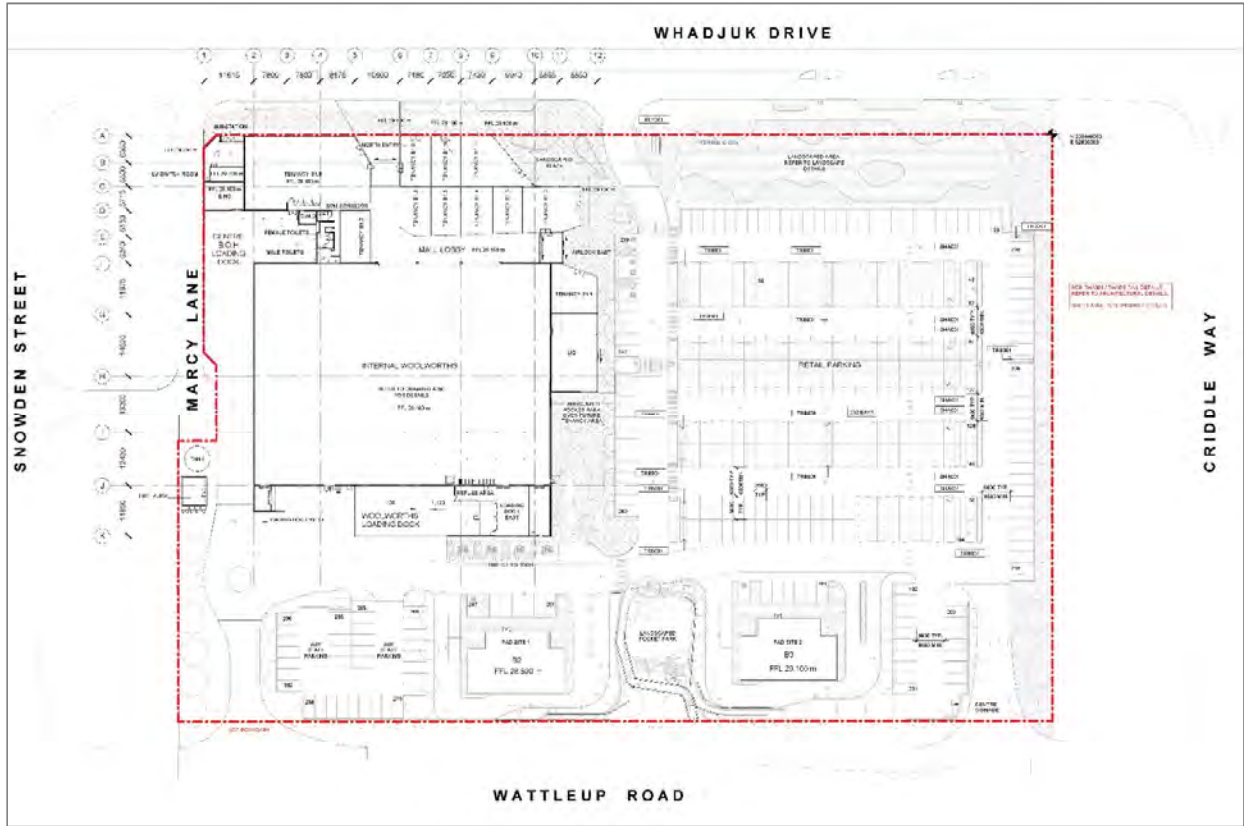


Figure 1-2: Proposed Site Plan

Surrounding the site are existing residences to the west, north and east, with Frankland Park to the south.

Appendix C contains a description of some of the terminology used throughout this report.

## 2. CRITERIA

Environmental noise in Western Australia is governed by the *Environmental Protection Act 1986*, through the *Environmental Protection (Noise) Regulations 1997* (the Regulations).

### 2.1. Regulations 7, 8 & 9

This group of regulations provide the prescribed standard for noise as follows:

***“7. Prescribed standard for noise emissions***

- (1) Noise emitted from any premises or public place when received at other premises –*
  - (a) must not cause, or significantly contribute to, a level of noise which exceeds the assigned level in respect of noise received at premises of that kind; and*
  - (b) must be free of –*
    - (i) tonality; and*
    - (ii) impulsiveness; and*
    - (iii) modulation,**when assessed under regulation 9.*
- (2) For the purposes of subregulation (1)(a), a noise emission is taken to significantly contribute to a level of noise if the noise emission ... exceeds a value which is 5 dB below the assigned level at the point of reception.”*

Tonality, impulsiveness and modulation are defined in regulation 9 (refer *Appendix C*). Under regulation 9(3), “Noise is taken to be free of the characteristics of tonality, impulsiveness and modulation if -

- (a) the characteristics cannot be reasonably and practicably removed by techniques other than attenuating the overall level of noise emission; and*
- (b) the noise emission complies with the standard prescribed under regulation 7(1)(a) after the adjustments in the table [Table 2-1] ... are made to the noise emission as measured at the point of reception.”*

**Table 2-1 Adjustments Where Characteristics Cannot Be Removed**

| Where Noise Emission is Not Music* |            |               | Where Noise Emission is Music |               |
|------------------------------------|------------|---------------|-------------------------------|---------------|
| Tonality                           | Modulation | Impulsiveness | No Impulsiveness              | Impulsiveness |
| + 5 dB                             | + 5 dB     | + 10 dB       | + 10 dB                       | + 15 dB       |

\* These adjustments are cumulative to a maximum of 15 dB.

The assigned levels (prescribed standards) for all premises are specified in regulation 8(3) and are shown in *Table 2-2*. The  $L_{A10}$  assigned level is applicable to noises present for more than 10% of a representative assessment period, generally applicable to “steady-state” noise sources. The  $L_{A1}$  is for short-term noise sources present for less than 10% and more than 1% of the time. The  $L_{Amax}$  assigned level is applicable for incidental noise sources, present for less than 1% of the time.

**Table 2-2 Baseline Assigned Levels**

| Premises Receiving Noise                                            | Time Of Day                                                                                              | Assigned Level (dB)     |                         |                         |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------|-------------------------|-------------------------|
|                                                                     |                                                                                                          | $L_{A10}$               | $L_{A1}$                | $L_{Amax}$              |
| Noise sensitive premises: highly sensitive area <sup>1</sup>        | 0700 to 1900 hours Monday to Saturday (Day)                                                              | 45 + influencing factor | 55 + influencing factor | 65 + influencing factor |
|                                                                     | 0900 to 1900 hours Sunday and public holidays (Sunday)                                                   | 40 + influencing factor | 50 + influencing factor | 65 + influencing factor |
|                                                                     | 1900 to 2200 hours all days (Evening)                                                                    | 40 + influencing factor | 50 + influencing factor | 55 + influencing factor |
|                                                                     | 2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night) | 35 + influencing factor | 45 + influencing factor | 55 + influencing factor |
| Noise sensitive premises: any area other than highly sensitive area | All hours                                                                                                | 60                      | 75                      | 80                      |
| Commercial Premises                                                 | All hours                                                                                                | 60                      | 75                      | 80                      |
| Industrial and Utility Premises                                     | All hours                                                                                                | 65                      | 80                      | 90                      |

1. *highly sensitive area* means that area (if any) of noise sensitive premises comprising —

- (a) a building, or a part of a building, on the premises that is used for a noise sensitive purpose; and
- (b) any other part of the premises within 15 metres of that building or that part of the building.

The influencing factor (IF), in relation to noise received at noise sensitive premises, has been calculated as between 2-4 dB, as determined in *Appendix B*. *Table 2-3* shows the assigned levels including the influencing factor and transport factor at the receiving locations with the residential groupings shown in *Figure B1*.



**Table 2-3 Assigned Levels**

| Premises Receiving Noise                                                                      | Time Of Day                                                                                              | Assigned Level (dB) |                 |                   |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------|-----------------|-------------------|
|                                                                                               |                                                                                                          | L <sub>A10</sub>    | L <sub>A1</sub> | L <sub>Amax</sub> |
| +2 dB IF<br><b>R2, R3, R5</b><br>Noise sensitive premises: highly sensitive area <sup>1</sup> | 0700 to 1900 hours Monday to Saturday (Day)                                                              | 47                  | 57              | 67                |
|                                                                                               | 0900 to 1900 hours Sunday and public holidays (Sunday)                                                   | 42                  | 52              | 67                |
|                                                                                               | 1900 to 2200 hours all days (Evening)                                                                    | 42                  | 52              | 57                |
|                                                                                               | 2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night) | 37                  | 47              | 57                |
| +4 dB IF<br><b>R1, R4</b><br>Noise sensitive premises: highly sensitive area <sup>1</sup>     | 0700 to 1900 hours Monday to Saturday (Day)                                                              | 49                  | 59              | 69                |
|                                                                                               | 0900 to 1900 hours Sunday and public holidays (Sunday)                                                   | 44                  | 54              | 69                |
|                                                                                               | 1900 to 2200 hours all days (Evening)                                                                    | 44                  | 54              | 59                |
|                                                                                               | 2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and public holidays (Night) | 39                  | 49              | 59                |

It must be noted the assigned levels above apply outside the receiving premises and at a point at least 3 metres away from any substantial reflecting surfaces.

The assigned levels are statistical levels and therefore the period over which they are determined is important. The Regulations define the Representative Assessment Period (RAP) as *“a period of time of not less than 15 minutes, and not exceeding 4 hours, determined by an inspector or authorised person to be appropriate for the assessment of a noise emission, having regard to the type and nature of the noise emission”*. An inspector or authorised person is a person appointed under Sections 87 & 88 of the *Environmental Protection Act 1986* and include Local Government Environmental Health Officers and Officers from the Department of Water Environmental Regulation. Acoustic consultants or other environmental consultants are not appointed as an inspector or authorised person. Therefore, whilst this assessment is based on a 4-hour RAP, which is assumed to be appropriate given the nature of the operations, this is to be used for guidance only.

## 2.2. Regulation 3 – Reversing Alarms

### ***“3. Regulations do not apply to certain noise emissions***

- (1) Nothing in these regulations applies to the following noise emissions –*
  - (h) Noise emissions from –*
    - (i) A reversing alarm fitted to a motor vehicle, mobile plant, or mining or earthmoving equipment;*
  - If -*
    - (iii) It is a requirement under another written law that such an alarm be fitted;*
    - (iv) It is not practicable to fit an alarm that complies with the written law under which it is required to be fitted and emits noise that complies with these regulations;”*

It is considered that any reversing alarms fitted to commercial vehicles (e.g. delivery or rubbish trucks) are not necessarily exempt under the Regulations, since they are not specifically required under another written law. That is only a safe workplace must be provided, which can be undertaken in a variety of ways.

The commonly used fixed noise output tonal reversing alarms also known as 'reversing beeper' emit, by their very nature, tonal and modulating noise at high levels. Alternative alarms such as broadband alarms are commonly used to minimise the impact.

## 2.3. Regulation 3 – Vehicle Noise

### ***“3. Regulations do not apply to certain noise emissions***

- (1) Nothing in these regulations applies to the following noise emissions –*
  - (a) Noise emissions from the propulsion and braking systems of motor vehicles operating on a road;”*

Since the development is open to the public, the car park and associated like areas are considered to be a road and therefore vehicle noise (propulsion and braking) is not strictly assessed. However, vehicle propulsion noise in the drive-through areas are considered assessable.

Vehicle door closing noise is also assessable in any parts of the car park, as this does not form part of the 'propulsion or braking' systems.

Similarly, the refrigeration units on some delivery trucks is not part of the propulsion or braking system and therefore also assessable.

## 2.4. Regulation 14A

### ***“14A. Waste Collection and Other Works***

- (i) *Regulation 7 does not apply to noise emitted in the course of carrying out class 1 works if –*
  - (a) *The works are carried out in the quietest reasonable and practicable manner; and*
  - (b) *The equipment used to carry out the works is the quietest reasonably available;*

*class 1 works means specified works carried out between -*

- (a) *0700 hours and 1900 hours on any day that is not a Sunday or a public holiday; or*
- (b) *0900 hours and 1900 hours on a Sunday or public holiday.*

*specified works means -*

- (a) *The collection of waste; or*
- (b) *The cleaning of a road or the drains for a road; or*
- (c) *The cleaning of public places, including footpaths, cycle paths, car parks and beaches;”*

In the case where specified works are to be carried out outside of class 1, a noise management plan is to be prepared and approved by the CEO.



### 3. METHODOLOGY

Computer modelling has been used to predict the noise emissions from the development to all nearby receivers. The software used was *SoundPLAN 8.2* with the CONCAWE algorithms (ISO 17534-3 improved method) selected, as they include the influence of wind and are considered appropriate given the relatively short source to receiver distances. Input data required in the model are listed below and discussed in *Section 3.1* to *Section 3.4*:

- Meteorological Information;
- Topographical data;
- Ground Absorption; and
- Source sound power levels.

#### 3.1. Meteorological Conditions

Meteorological information utilised is provided in *Table 3-1* and is considered to represent worst-case conditions for noise propagation. At wind speeds greater than those shown, sound propagation may be further enhanced, however background noise from the wind itself and from local vegetation is likely to be elevated and dominate the ambient noise levels.

**Table 3-1: Modelling Meteorological Conditions**

| Parameter                   | Day (7.00am to 7.00pm) <sup>2</sup> | Night (7.00pm to 7.00am) <sup>2</sup> |
|-----------------------------|-------------------------------------|---------------------------------------|
| Temperature (°C)            | 20                                  | 15                                    |
| Humidity (%)                | 50                                  | 50                                    |
| Wind Speed (m/s)            | 4                                   | 3                                     |
| Wind Direction <sup>1</sup> | All                                 | All                                   |
| Pasquil Stability Factor    | E                                   | F                                     |

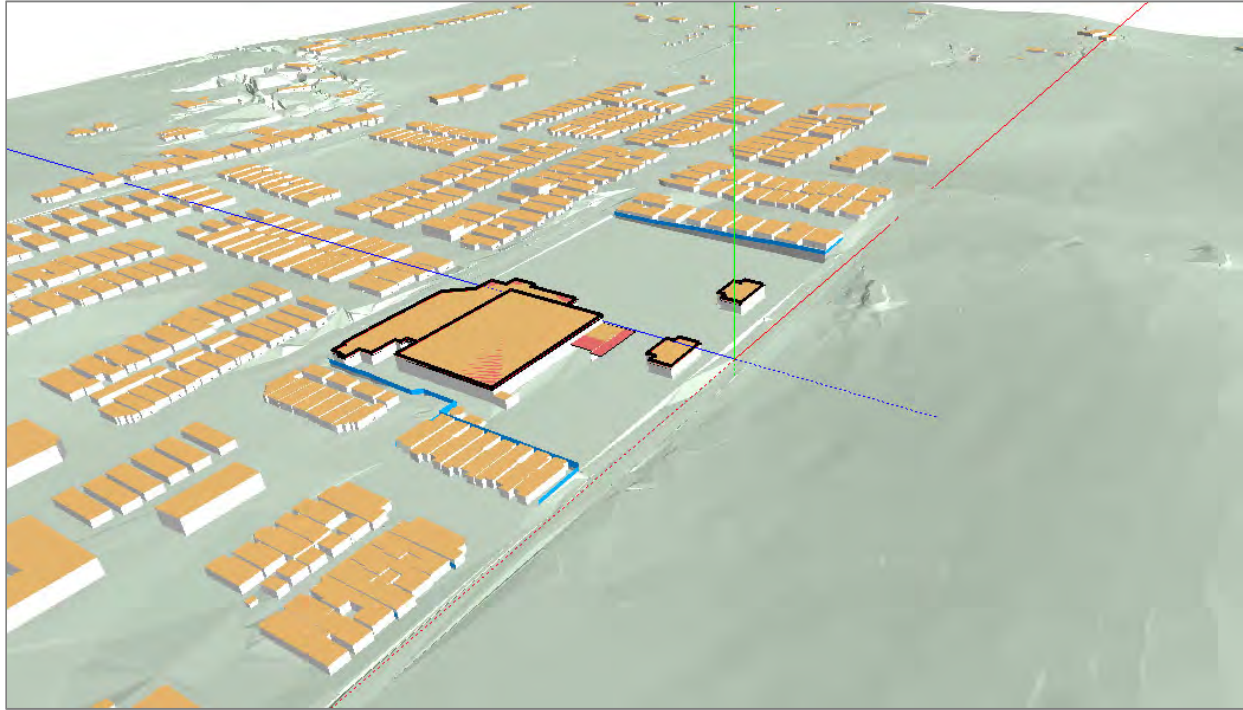
Notes:

1. The modelling package allows for all wind directions to be modelled simultaneously.
2. The conditions above are as defined in *Guideline: Assessment of Environmental Noise Emissions*; May 2021

Alternatives to the above default conditions can be used where one year of weather data is available and the analysis considers the worst 2% of the day and night for the month of the year in which the worst-case weather conditions prevail (source: *Draft Guideline on Environmental Noise for Prescribed Premises*, May 2016). In most cases, the default conditions occur for more than 2% of the time and therefore must be satisfied.

#### 3.2. Topographical Data

Topographical data was based on a combination of Landgate data on file and survey data provided by the client. This was combined with the proposed development (assumed to generally be at a level of 28.6m) to create a 3-Dimensional noise model as shown in *Figure 3-1*.



**Figure 3-1: Overview of Noise Model**

Some important items to note are:

- The site is generally lower than the surrounding residences;
- Residences to the northwest of the site on Snowden Street have access from Marcy Lane, such that their garages form a barrier to the alfresco area and habitable areas of the dwelling, with some small gaps between garages.
- From earlier analysis, boundary noise walls are proposed on part of the east side and all of the west side of the development, as shown in *Figure 3-2*. On the southwest side, the proposed wall is 3.0 metres high, predominantly required to minimise noise from the supermarket loading area. To the northwest, the proposed wall is 2.4 metres high, required for loading activities to the specialty stores, noting these will be non-refrigerated trucks only. To the southeast the proposed wall is also 2.4 metres high, required for trucks entering and exiting the eastern entrance, loading activity at the fast food and general amenity.
- All proposed wall heights are relative to the finished floor levels of the residences.
- Any proposed noise walls are to be constructed of a solid material with no gaps and having a minimum surface mass of 15 kg/m<sup>2</sup>. Such materials may be brick, limestone, concrete, sound-rated Plexiglass or combinations of these. The Plexiglass is useful above certain heights to minimise light/visual impacts.
- Where the wall is to be constructed on the development side and there is a retaining wall, the noise wall can float above the ground. The overlap from top of retaining wall to bottom of noise wall must be minimum 3 times the gap between the two. For example, if the retaining wall is 1.0-metre high and the noise wall is constructed 200mm from the retaining wall, the noise wall must start 600mm below the top of the retaining wall as a minimum, such that a 400mm gap would exist between the bottom of noise wall and the ground.



The ground absorption has been assumed to be 0.0 (0%) for the roads and 1.0 (100%) for landscaped areas, noting that 0.0 represents hard reflective surfaces such as water and 1.0 represents absorptive surfaces such as grass.

The source sound power levels used in the modelling are provided in *Table 3-2*. As the project is at DA stage, there is no information available on the specific type and number of mechanical plant items. Therefore, file data has been used from similar past projects.

| Description                              | Octave Band Centre Frequency (Hz) |     |     |     |    |    |    |    | Overall<br>dB(A) |
|------------------------------------------|-----------------------------------|-----|-----|-----|----|----|----|----|------------------|
|                                          | 63                                | 125 | 250 | 500 | 1k | 2k | 4k | 8k |                  |
| Fast Food Store (Each)                   |                                   |     |     |     |    |    |    |    |                  |
| Air-conditioning (2x condensers on roof) | 63                                | 63  | 62  | 65  | 57 | 50 | 45 | 39 | 64               |
| Toilet Exhaust Fan                       | 66                                | 64  | 62  | 59  | 52 | 49 | 46 | 40 | 60               |
| Exhaust Fan                              | 68                                | 73  | 67  | 65  | 59 | 55 | 59 | 47 | 67               |



| Description                                               | Octave Band Centre Frequency (Hz) |     |     |     |     |     |     |     | Overall dB(A) |
|-----------------------------------------------------------|-----------------------------------|-----|-----|-----|-----|-----|-----|-----|---------------|
|                                                           | 63                                | 125 | 250 | 500 | 1k  | 2k  | 4k  | 8k  |               |
| Kitchen Exhaust Fan                                       | 80                                | 78  | 74  | 71  | 62  | 64  | 63  | 53  | 73            |
| Car Idling in Drive-Through                               | 81                                | 78  | 74  | 72  | 74  | 74  | 67  | 64  | 79            |
| Drive-Through loudspeaker                                 | 63                                | 64  | 66  | 77  | 80  | 73  | 57  | 42  | 82            |
| <b>Supermarket</b>                                        |                                   |     |     |     |     |     |     |     |               |
| Refrigeration Condensers (2x condensers)                  | 89                                | 90  | 85  | 83  | 83  | 78  | 71  | 68  | 87            |
| Refrigeration Compressors (Plantroom Breakout 4x louvres) | 82                                | 82  | 82  | 78  | 78  | 72  | 66  | 58  | 82            |
| Air-conditioning (3x condensers on roof)                  | 97                                | 97  | 84  | 79  | 73  | 69  | 62  | 54  | 84            |
| Toilet Exhaust Fans (2x)                                  | 66                                | 64  | 62  | 59  | 52  | 49  | 46  | 40  | 60            |
| Kitchen Exhaust Fan                                       | 78                                | 82  | 75  | 70  | 66  | 66  | 62  | 61  | 74            |
| Office Air-conditioning                                   | 64                                | 62  | 62  | 64  | 57  | 50  | 45  | 39  | 63            |
| Staff Dining/Cashier Air-conditioning                     | 61                                | 63  | 58  | 59  | 57  | 50  | 45  | 40  | 61            |
| Kitchen Supply Fan                                        | 74                                | 74  | 71  | 62  | 61  | 56  | 53  | 49  | 67            |
| <b>Specialty Stores</b>                                   |                                   |     |     |     |     |     |     |     |               |
| Air-conditioning (11 in total)                            | 63                                | 63  | 62  | 65  | 57  | 50  | 45  | 39  | 64            |
| Exhaust Fan (4 in total)                                  | 68                                | 73  | 67  | 65  | 59  | 55  | 59  | 47  | 67            |
| Toilet Exhaust Fan (4 in total)                           | 59                                | 64  | 62  | 59  | 52  | 49  | 46  | 40  | 60            |
| <b>General</b>                                            |                                   |     |     |     |     |     |     |     |               |
| Car Door Closing                                          | 71                                | 74  | 77  | 81  | 80  | 78  | 72  | 61  | 84            |
| Medium Refrigeration Delivery Truck                       | 99                                | 91  | 86  | 88  | 83  | 81  | 79  | 75  | 90            |
| Large Refrigeration Delivery Truck                        | 91                                | 84  | 97  | 95  | 97  | 96  | 90  | 81  | 101           |
| Reversing Beeper                                          | -                                 | -   | -   | -   | 98  | -   | -   | -   | 98            |
| Loading Activity (Banging)                                | 94                                | 99  | 88  | 82  | 82  | 95  | 88  | 81  | 98            |
| Large Truck (Non-Refrigerated) Idling                     | 103                               | 99  | 87  | 88  | 86  | 84  | 82  | 80  | 92            |
| Truck Start-up                                            | 108                               | 102 | 98  | 96  | 96  | 92  | 88  | 85  | 100           |
| Truck Air Brake Release                                   | 93                                | 90  | 88  | 95  | 102 | 111 | 113 | 108 | 116           |

The following is noted in relation to *Table 3-2*:

- All mechanical plant has been located on the roof of the buildings at a height of 0.5 metres for exhaust fans, and 1.0 metre for condensers and refrigeration plant;
- Parapets are initially assumed to be 1.0 metre high around proposed commercial buildings and are assumed to follow the building footprint;
- The enclosed supermarket plant room containing refrigeration compressors is initially assumed to be located mid-façade to the south of the building near the loading dock;
- Refrigeration units on trucks are modelled at 2.5 metres above ground;
- Other truck/loading noise are modelled at 0.5 metres above ground, with the exception of truck idling and start-up, modelled at 1.5 metres above ground;
- Speaker in drive-through is modelled at 1.0 metre above ground;
- Cars idling in drive through are modelled at 0.5 metres above ground;
- Car door closings are modelled at 1.0 metre above ground.

### 3.5. Noise Modelling Scenarios

A number of scenarios are modelled in order to consider the potential noise impacts from the site, noting that the modelling includes the *Figure 3-2* noise walls.

- Scenario 1 – This represents the more continuous noise during the night-time from the site, relating to refrigeration plant, air-conditioning from the supermarket and all mechanical plant from the fast food outlets, along with 5 cars idling in each fast food drive-through area. The assessable parameter is the  $L_{10}$ .
- Scenario 2 – In addition to the above equipment, noise from 11 cars in each drive-through and the two drive-through speakers are also included. This is expected to occur for less than 10% of the time during the night, such that the  $L_1$  is the applicable parameter.
- Scenario 3 – This includes Scenario 1 and also all mechanical plant associated with all stores as well as 4 cars idling in the supermarket pick up area. This is considered to be continuous noise and therefore assessed against the  $L_{10}$  parameter. As the Sunday daytime assigned level is less than Mondays to Saturdays, Sunday is used for determining compliance.
- Scenario 4 has been separated into 4 different scenarios, all considering various noises from trucks and loading operations but for different assessment parameters/criteria.
  - Scenario 4A - noise is considered to be present for 10% of the time. Noise sources include refrigerated truck in either of the supermarket loading areas and both refrigerated (forward parked) and non-refrigerated idling truck in the speciality store loading area. As part of the management of the premises, all such activity is restricted to daytime only, Mondays to Saturdays, 7.00am to 7.00pm such that it is the daytime (Monday to Saturday)  $L_{A10}$  parameter that is applicable.
  - Scenario 4B – noise is considered to be present for less than 10% of the time but more than 1% of the time. Noise sources include refrigerated truck reversing into east supermarket loading dock and specialty loading dock and refrigerated truck noise at each of the fast food restaurants. Applicable parameter is the  $L_1$  Mondays to Saturdays 7.00am to 7.00pm.
  - Scenario 4C – noise is considered to be present for less than 1% of the time such as noise associated with loading (banging), trucks reversing to the fast food tenancies and refrigerated trucks entering and exiting the site. Applicable parameter is the  $L_{max}$  Mondays to Saturdays 7.00am to 7.00pm.

- Scenario 4D – models noise from trucks considered to be part of the propulsion and braking system and therefore not considered assessable under the Regulations.
- Scenario 5 – as propulsion and braking systems are not assessable, this scenario considers noise from car door closings.

## 4. RESULTS & ASSESSMENT

Results for the noise modelling are presented in the following sections as tabular data and noise contour plots. With regard to the tabular data, the highest predicted noise level is provided for each of the five groupings of residences (refer *Figure B1*).

### 4.1. Scenario 1 – $L_{A10}$ Night

The results for Scenario 1 are presented and assessed in *Table 4-1* and *Figure 4-1*.

**Table 4-1: Scenario 1 Predicted and Assessed Night-time Noise Levels, dB  $L_{A10}$**

| Receiver                     | Predicted | Adjusted <sup>1</sup> | Assigned | Exceedance | Highest Source            |
|------------------------------|-----------|-----------------------|----------|------------|---------------------------|
| R1 (West) – Snowden Street   | 37        | 42                    | 39       | +3         | Supermarket AC            |
| R2 (West) Snowden Street     | 39        | 44                    | 37       | +7         | Supermarket AC            |
| R3 (North) Whadjuk Drive     | 41        | 46                    | 37       | +9         | Supermarket Refrigeration |
| R4 (East) Criddle Way        | 36        | 41                    | 39       | +2         | Supermarket Refrigeration |
| R5 (Northeast) Whadjuk Drive | 36        | 41                    | 37       | +4         | Supermarket Refrigeration |

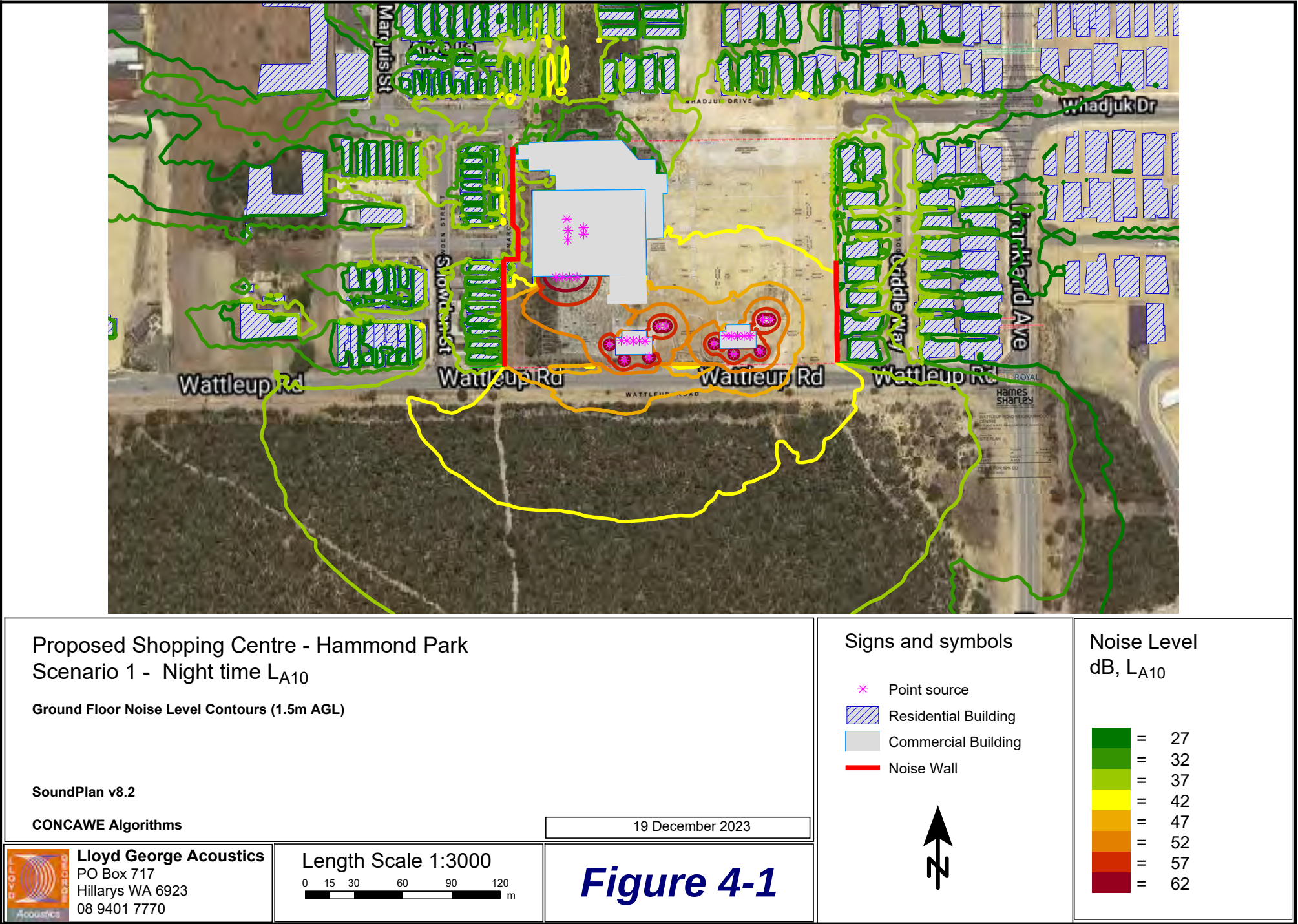
1. Adjusted for possible tonality.

The above indicates that based on the assumed mechanical plant, possible exceedances may occur during the night. It is noted that the mechanical plant has yet to be designed such that noise must be a consideration when selecting plant, noting the following:

- All plant shall be vibration isolated to achieve minimum 95% isolation efficiency;
- All plant shall be selected taking noise levels into consideration, so that when comparing different models, the quieter units are selected;
- Selection of plant that can operate at low speed during the night (e.g. supermarket refrigeration condensers and air-conditioning);
- Acoustic screens to be incorporated around mechanical plant, particularly the supermarket refrigeration condensers and potentially air-conditioning units;
- Acoustic louvres to be incorporated in the design of the supermarket compressor plant room.

It is considered with the above, compliance during the night can be achieved.





## 4.2. Scenario 2 – L<sub>A1</sub> Night

The results for Scenario 2 are presented and assessed in *Table 4-2* and *Figure 4-2*. This Scenario is similar to Scenario 1, however includes some intermittent events (drive-through speaker and more drive-through cars) and is therefore assessed against the L<sub>1</sub> assigned night level as the most critical.

**Table 4-2: Scenario 2 Predicted and Assessed Night-time Noise Levels, dB L<sub>A1</sub>**

| Receiver                     | Predicted | Adjusted <sup>1</sup> | Assigned | Exceedance | Highest Source            |
|------------------------------|-----------|-----------------------|----------|------------|---------------------------|
| R1 (West) – Snowden Street   | 37        | 42                    | 49       | -          | Supermarket AC            |
| R2 (West) Snowden Street     | 39        | 44                    | 47       | -          | Supermarket AC            |
| R3 (North) Whadjuk Drive     | 41        | 46                    | 47       | -          | Supermarket Refrigeration |
| R4 (East) Criddle Way        | 36        | 41                    | 49       | -          | Supermarket Refrigeration |
| R5 (Northeast) Whadjuk Drive | 36        | 41                    | 47       | -          | Supermarket Refrigeration |

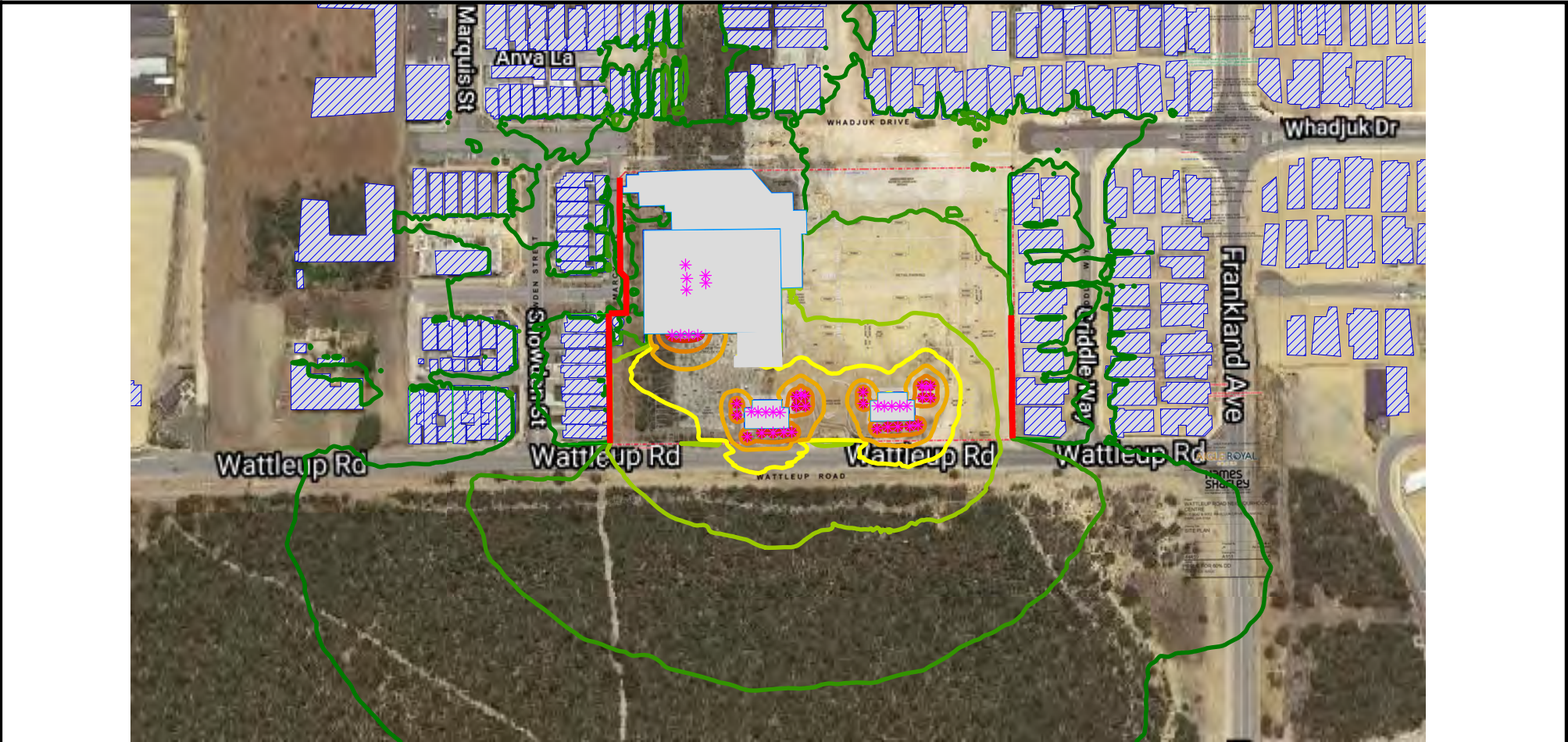
1. Adjusted for possible tonality.

The above shows no appreciable change in noise level compared to Scenario 1 and as such, Scenario 1 is more critical in terms of compliance.

Whilst the assessed noises are shown to be compliant, the following is recommended for good practice:

- Sound level from the ordering speakers of the fast food are to be minimised in noise level as far as reasonably practicable.





Proposed Shopping Centre - Hammond Park  
Scenario 2 - Night time  $L_{A1}$

Ground Floor Noise Level Contours (1.5m AGL)

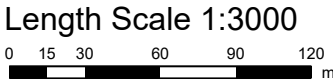
SoundPlan v8.2

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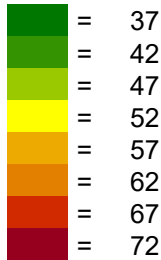


**Figure 4-2**

Signs and symbols

- \* Point source
-  Residential Building
-  Commercial Building
-  Noise Wall

Noise Level  
dB,  $L_{A1}$





### 4.3. Scenario 3 – L<sub>A10</sub> Day

The results for Scenario 3 are presented and assessed in *Table 4-3* and *Figure 4-3*. Scenario 3 includes all mechanical plant and is assessed against the Sunday L<sub>10</sub> parameter, as this is more critical than during the day, Mondays to Saturdays by 5 dB.

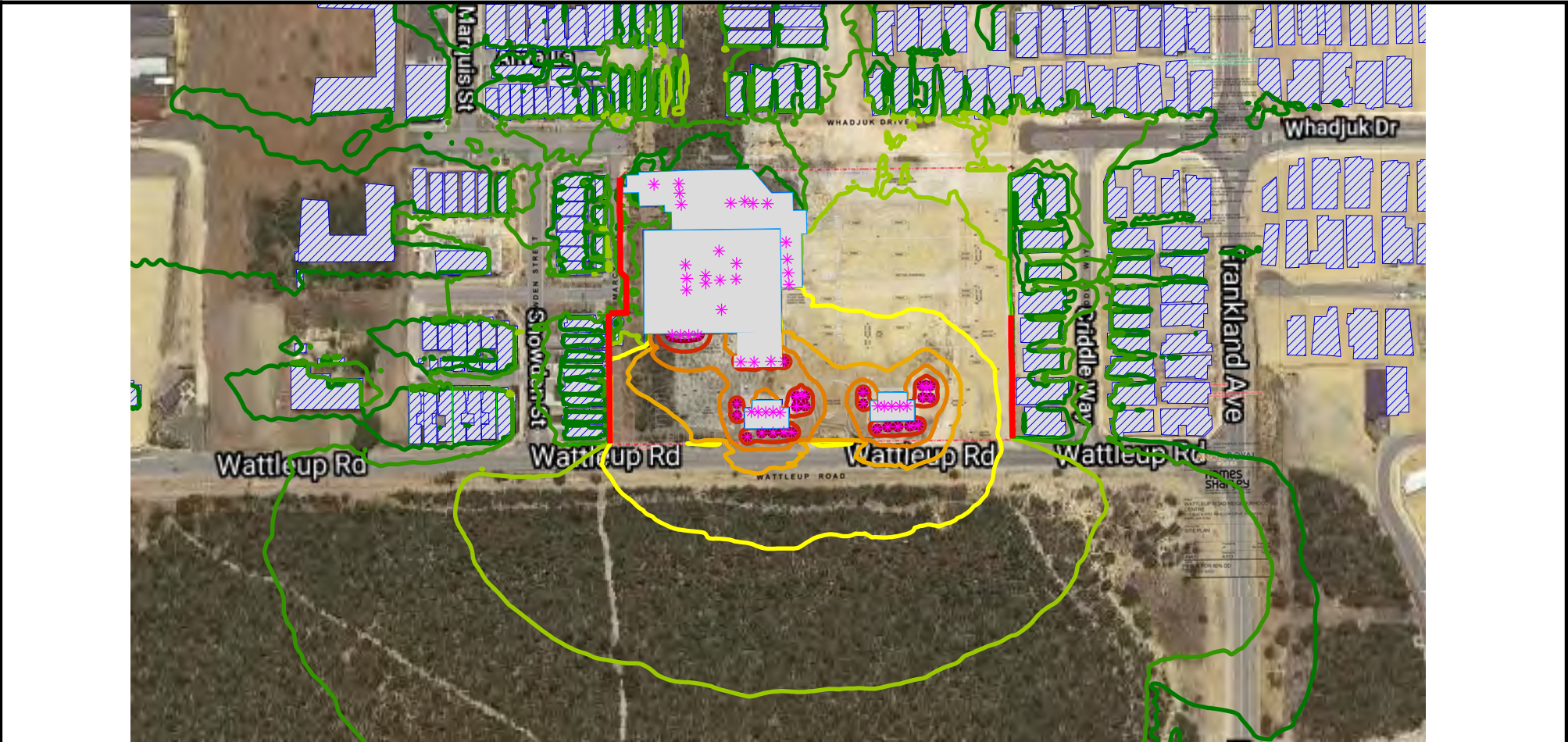
**Table 4-3: Scenario 3 Predicted and Assessed Sunday Daytime Noise Levels, dB L<sub>A10</sub>**

| Receiver                     | Predicted | Adjusted <sup>1</sup> | Assigned | Exceedance | Highest Source            |
|------------------------------|-----------|-----------------------|----------|------------|---------------------------|
| R1 (West) – Snowden Street   | 37        | 42                    | 44       | -          | Supermarket AC            |
| R2 (West) Snowden Street     | 39        | 44                    | 42       | 2          | Supermarket AC            |
| R3 (North) Whadjuk Drive     | 41        | 46                    | 42       | 4          | Supermarket Refrigeration |
| R4 (East) Criddle Way        | 37        | 42                    | 44       | -          | Supermarket Refrigeration |
| R5 (Northeast) Whadjuk Drive | 36        | 41                    | 42       | -          | Supermarket Refrigeration |

1. Adjusted for possible tonality.

The above shows no appreciable change in noise level compared to Scenario 1 and as such, Scenario 1 is more critical in terms of compliance.

As the assigned level Monday to Saturday 7.00am to 7.00pm is 5 dB higher than on Sundays, compliance is achieved at these times.



Proposed Shopping Centre - Hammond Park  
Scenario 3 - Daytime  $L_{A10}$

Ground Floor Noise Level Contours (1.5m AGL)

SoundPlan v8.2

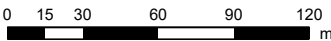
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Length Scale 1:3000

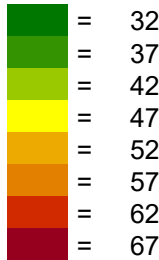


**Figure 4-3**

Signs and symbols

- \* Point source
- Residential Building
- Commercial Building
- Noise Wall

Noise Level  
dB,  $L_{A10}$



## 4.4. Scenario 4 – Truck & Loading Activities

### 4.4.1. Scenario 4A – Trucks in Main Loading Areas

The results for Scenario 4A are presented and assessed in *Table 4-4* and *Figure 4-4*, showing the worst-case predicted noise from each of the 3 trucks, noting both trucks at the supermarket loading docks are assumed to be refrigerated, whilst that at the specialty store is non-refrigerated.

**Table 4-4: Scenario 4A Predicted and Assessed Daytime Noise Levels, dB  $L_{A10}$**

| Receiver                     | Predicted | Adjusted <sup>1</sup> | Assigned | Exceedance | Highest Source        |
|------------------------------|-----------|-----------------------|----------|------------|-----------------------|
| R1 (West) – Snowden Street   | 43        | 48                    | 49       | -          | Supermarket East Dock |
| R2 (West) Snowden Street     | 40        | 45                    | 47       | -          | Specialty Dock        |
| R3 (North) Whadjuk Drive     | 31        | 36                    | 47       | -          | Supermarket East Dock |
| R4 (East) Criddle Way        | 34        | 39                    | 49       | -          | Supermarket East Dock |
| R5 (Northeast) Whadjuk Drive | 30        | 35                    | 47       | -          | Supermarket East Dock |

1. Adjusted for possible tonality.

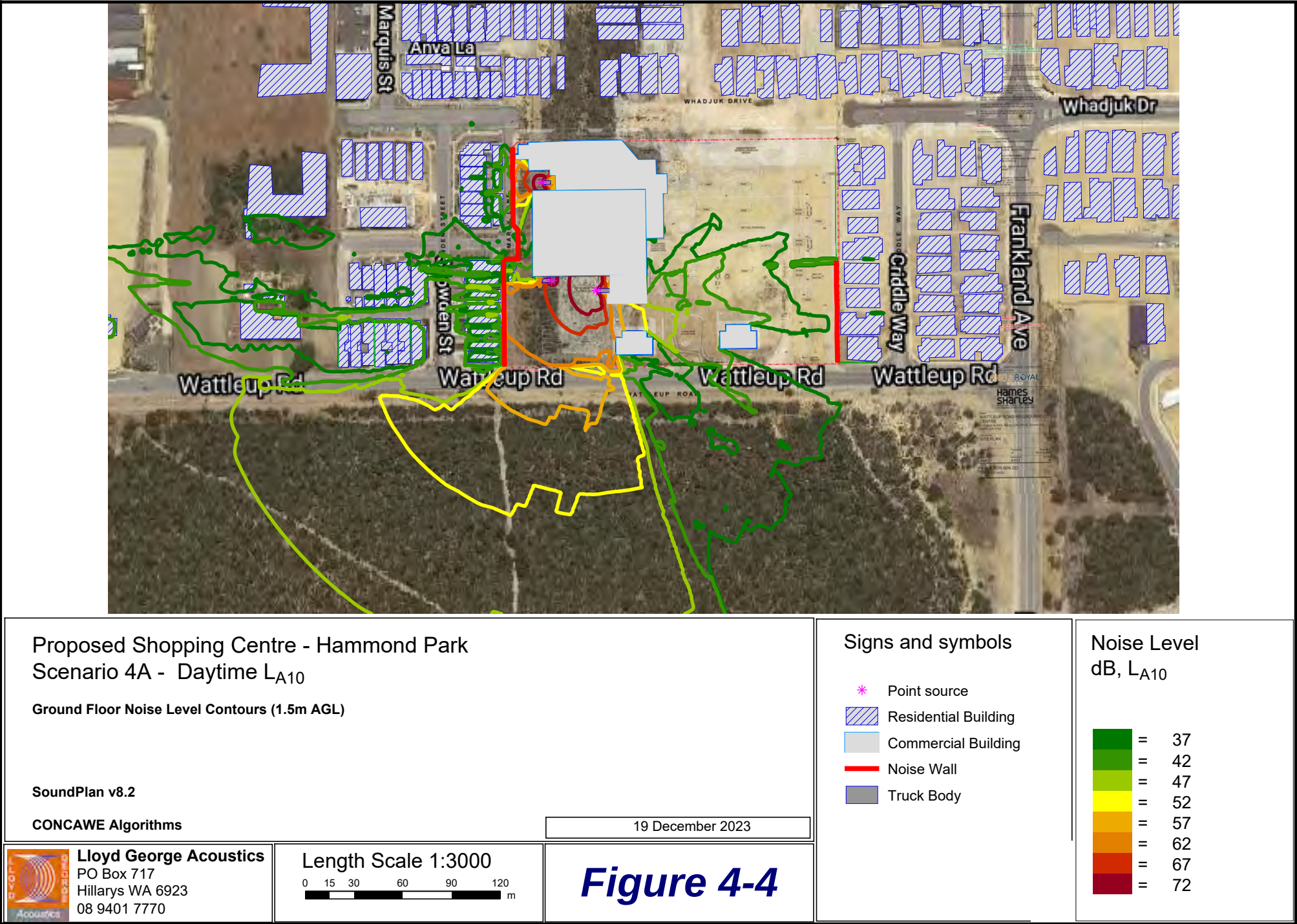
The above shows compliance is achieved Mondays to Saturdays 7.00am to 7.00pm, noting any refrigerated vehicle accessing the Specialty Store Loading is to be forward parked, facing east so that the refrigeration unit is shielded from the residences by the truck body.

As the assessment is against the  $L_{A10}$  criteria, the  $L_{A1}$  criteria during the night is the same value. This means should a truck arrive outside of the nominated delivery hours, compliance could be achieved provided the noise occurs for less than 10% of the time (24-minutes in a 4-hour period) although this should not be encouraged.

Other than the restricted delivery times, the following is recommended for good practice:

- Trucks to be turned off when parked for unloading;
- Windows to trucks shall be closed when entering the site;
- Radios of trucks shall be turned off during loading activities.





#### 4.4.2. Scenario 4B – Intermittent Truck Noise

The results for Scenario 4B are presented and assessed in *Table 4-5* and *Figure 4-5*, showing the worst-case predicted noise from each of the trucks. Noise sources are refrigerated delivery trucks at fast food, where the delivery time is expected to be shorter than that for the supermarket. Reversing alarms for trucks at the speciality dock and supermarket dock are also included as these may sound for longer durations.

**Table 4-5: Scenario 4B Predicted and Assessed Daytime Noise Levels, dB L<sub>A1</sub>**

| Receiver                     | Predicted | Adjusted <sup>1</sup> | Assigned | Exceedance | Highest Source               |
|------------------------------|-----------|-----------------------|----------|------------|------------------------------|
| R1 (West) – Snowden Street   | 36        | 46                    | 59       | -          | Reversing Beeper Supermarket |
| R2 (West) Snowden Street     | 45        | 55                    | 57       | -          | Reversing Beeper Specialty   |
| R3 (North) Whadjuk Drive     | 38        | 48                    | 57       | -          | Reversing Beeper Specialty   |
| R4 (East) Criddle Way        | 40        | 45                    | 59       | -          | Fast Food Refrigerated Truck |
| R5 (Northeast) Whadjuk Drive | 36        | 41                    | 57       | -          | Fast Food Refrigerated Truck |

1. Where noise is from refrigerated truck, adjusted for possible tonality (+ 5 dB). Where noise is from reversing beeper, noise is adjusted for tonality and modulation (+ 10 dB)

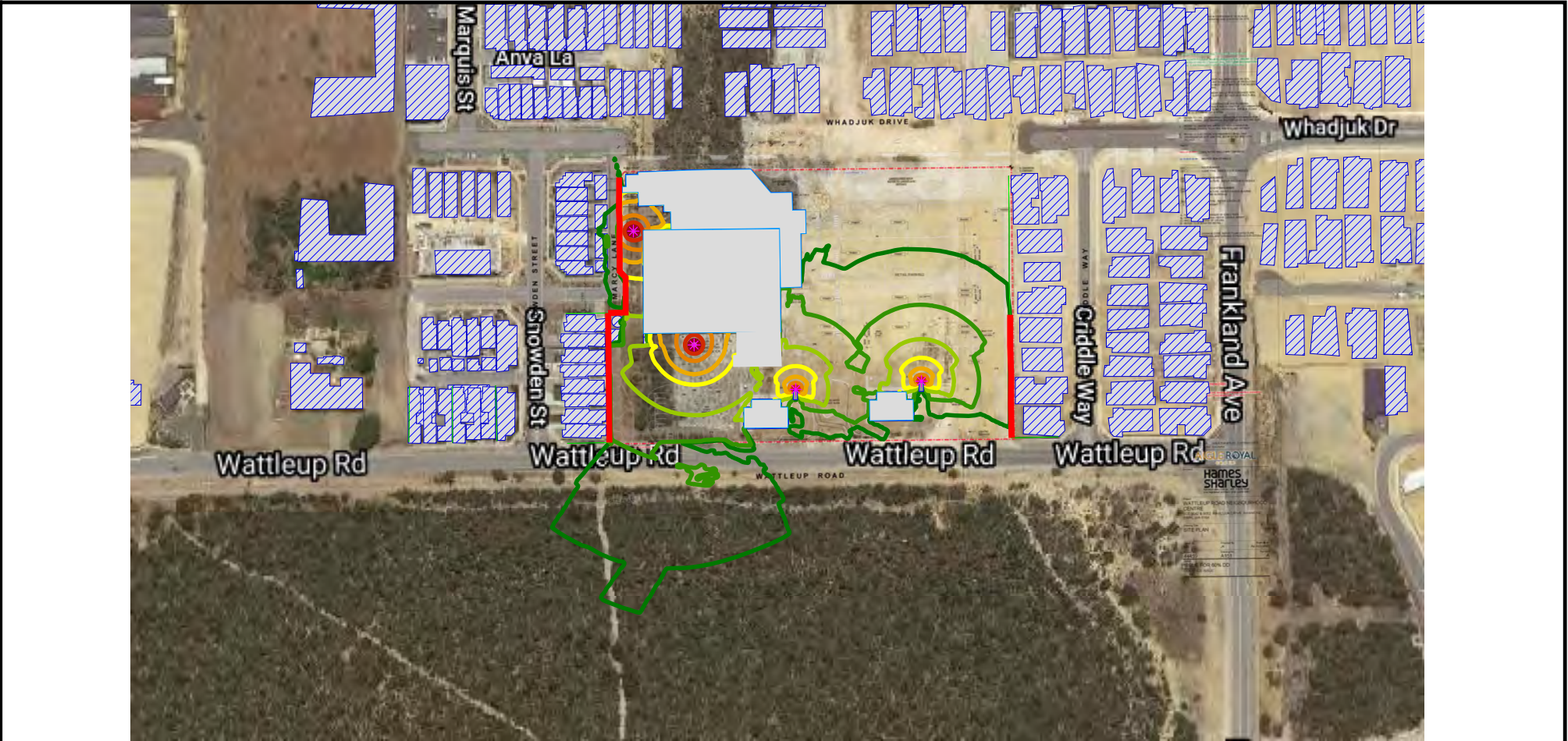
The above shows compliance is achieved Mondays to Saturdays 7.00am to 7.00pm.

This also shows that fast food refrigerated trucks would comply with the L<sub>A10</sub> criteria, in the event the delivery time exceeded 24-minutes in a 4-hour period.

Whilst the assessed noises are shown to be compliant at the specified time, the following is recommended for good practice:

- Broadband alarms are to fitted to their vehicles.





Proposed Shopping Centre - Hammond Park  
Scenario 4B - Daytime  $L_{A1}$

Ground Floor Noise Level Contours (1.5m AGL)

SoundPlan v8.2

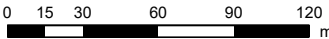
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Length Scale 1:3000

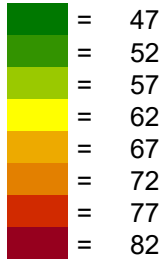


**Figure 4-5**

Signs and symbols

- \* Point source
- Residential Building
- Commercial Building
- Noise Wall
- Truck Body

Noise Level  
dB,  $L_{A1}$





#### 4.4.3. Scenario 4C – Shorter Term Truck Noise

The results for Scenario 4C are presented and assessed in *Table 4-6* and *Figure 4-6*, showing the worst-case predicted noise from each of the trucks. This scenario includes reversing alarms for the fast food trucks, which are likely required for only a short time. Also included is noise from loading activities (banging) and refrigerated trucks moving in the car park noting the large refrigerated trucks enter the east driveway and exit via the west driveway. Also to reverse into the east loading dock, the large refrigerated truck will be briefly positioned to the far west, near the pump room.

**Table 4-6: Scenario 4C Predicted and Assessed Daytime Noise Levels, dB  $L_{Amax}$**

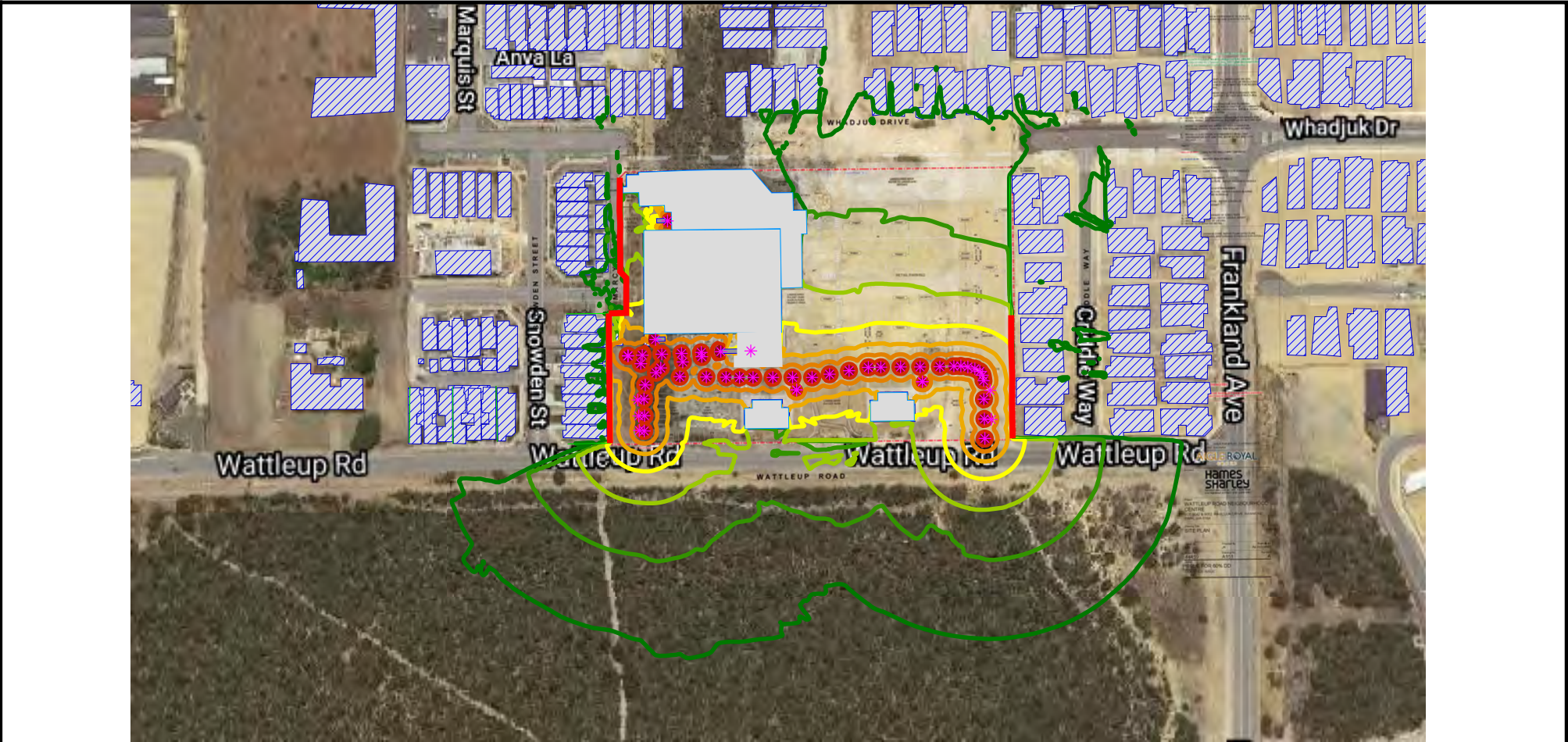
| Receiver                     | Predicted | Adjusted <sup>1</sup> | Assigned | Exceedance | Highest Source                                        |
|------------------------------|-----------|-----------------------|----------|------------|-------------------------------------------------------|
| R1 (West) – Snowden Street   | 54        | 59                    | 69       | -          | Refrigerated Truck Near Roundabout Prior to Reversing |
| R2 (West) Snowden Street     | 49        | 54                    | 67       | -          | Refrigerated Truck Near Roundabout Prior to Reversing |
| R3 (North) Whadjuk Drive     | 47        | 57                    | 67       | -          | Fast Food Loading Noise                               |
| R4 (East) Criddle Way        | 52        | 57                    | 69       | -          | Large Refrigerated Truck Entering Site                |
| R5 (Northeast) Whadjuk Drive | 48        | 53                    | 67       | -          | Large Refrigerated Truck Entering Site                |

1. Where noise is from refrigerated truck, adjusted for possible tonality (+ 5 dB). Where noise is from loading activities, this is adjusted for impulsiveness (+ 10 dB)

The above shows compliance is achieved Mondays to Saturdays 7.00am to 7.00pm. This also shows that compliance is achieved with the  $L_{A1}$  criteria, should the noise be present for more than 1% of the time but still less than 10% of the time.

Whilst the assessed noises are shown to be compliant at the specified time, the following is recommended for good practice:

- Signage to be placed in loading dock areas advising to minimise noise emissions;
- Truck drivers to be advised of good driving techniques on the site and surrounding areas to minimise noise;
- Goods be handled carefully when unloading to minimise noise.



Proposed Shopping Centre - Hammond Park  
Scenario 4C - Daytime  $L_{Amax}$

Ground Floor Noise Level Contours (1.5m AGL)

SoundPlan v8.2

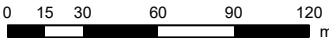
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Length Scale 1:3000

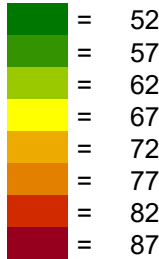


**Figure 4-6**

Signs and symbols

- \* Point source
- Residential Building
- Commercial Building
- Noise Wall
- Truck Body

Noise Level  
dB,  $L_{Amax}$



#### 4.4.4. Scenario 4D – Propulsion and Braking Systems

As per *Section 2.3*, noise from the propulsion and braking system of motor vehicles are not assessed against the assigned levels. *Table 4-7* provides the predicted noise levels for information purposes for a truck start-up as well as truck air brake noise that may occur. All of these are modelled in each of the loading bay areas. As the noises are not assessable, no adjustments are applied for intrusive characteristics.

**Table 4-7: Scenario 4D Predicted and Assessed Daytime Noise Levels, dB  $L_{Amax}$**

| Receiver                     | Truck Start | Truck Air Brake | Highest Source                  |
|------------------------------|-------------|-----------------|---------------------------------|
| R1 (West) – Snowden Street   | 42          | 57              | Truck in Supermarket East Dock. |
| R2 (West) Snowden Street     | 52          | 63              | Truck in Specialty Store Dock.  |
| R3 (North) Whadjuk Drive     | 48          | 67              | Fast Food Loading Area.         |
| R4 (East) Criddle Way        | 45          | 60              | Fast Food Loading Area.         |
| R5 (Northeast) Whadjuk Drive | 42          | 57              | Fast Food Loading Area.         |

#### 4.5. Scenario 5 – Car Door Closings

The results for Scenario 5 are presented and assessed in *Table 4-8* and *Figure 4-7*. Assessment is provided against the night-time  $L_{Amax}$ , although this is considered conservative, as the bays closest to the boundary are more likely to be daytime use.

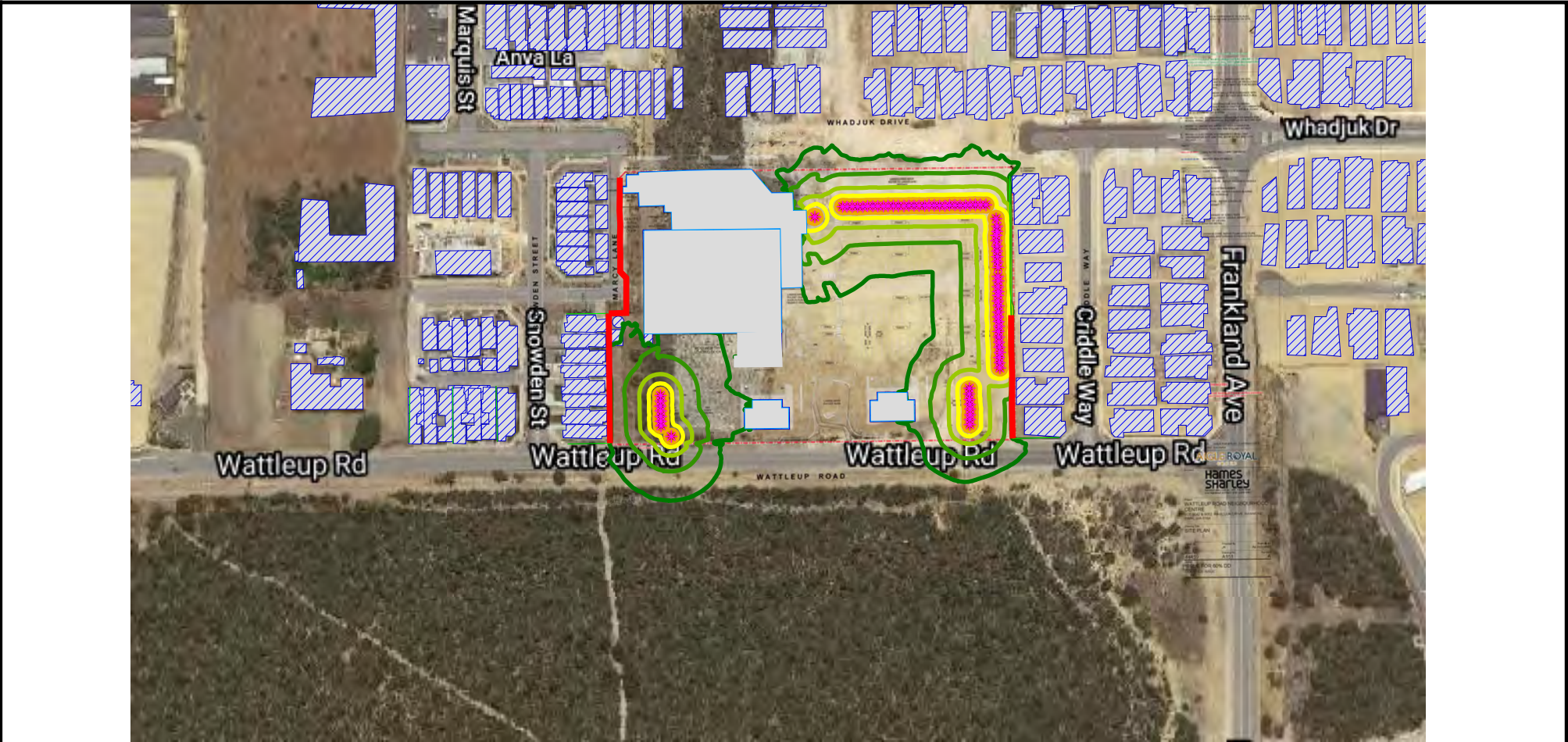
**Table 4-8: Scenario 5 Predicted and Assessed Night-time Noise Levels, dB  $L_{Amax}$**

| Receiver                     | Predicted | Adjusted <sup>1</sup> | Assigned | Exceedance |
|------------------------------|-----------|-----------------------|----------|------------|
| R1 (West) – Snowden Street   | 29        | 39                    | 59       | -          |
| R2 (West) Snowden Street     | 28        | 38                    | 57       | -          |
| R3 (North) Whadjuk Drive     | 43        | 53                    | 57       | -          |
| R4 (East) Criddle Way        | 41        | 51                    | 59       | -          |
| R5 (Northeast) Whadjuk Drive | 44        | 54                    | 57       | -          |

1. Adjusted for possible impulsiveness.

The above shows no appreciable change in noise level compared to Scenario 1 and as such, Scenario 1 is more critical in terms of compliance.





Proposed Shopping Centre - Hammond Park  
Scenario 5 - Night-time L<sub>Amax</sub>

Ground Floor Noise Level Contours (1.5m AGL)

SoundPlan v8.2

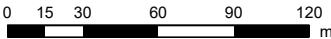
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Length Scale 1:3000

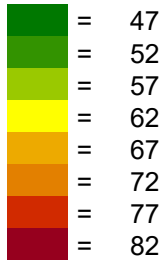


**Figure 4-7**

Signs and symbols

- \* Point source
- Residential Building
- Commercial Building
- Noise Wall

Noise Level  
dB, L<sub>Amax</sub>



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## 5. FIRE PUMP ROOM

Under emergency operation, fire pump plant noise emissions are exempt from the Noise Regulations. However, fire pump plant is subject to mandatory routine maintenance operations, which is considered as a noise emission source, requiring some degree of noise attenuation.

Where fire pump equipment is left untreated, the combination of diesel pumps, combustion engine exhaust muffler and water flow noise through piping and valve systems can generate significant levels of noise (in excess of 100 dB(A)) potentially causing significant disturbance to residents during testing.

The fire pump room is located on the western boundary and therefore in close proximity to #12-16 Snowden Street. As such, the following is required:

- Purchase an acoustically treated Fire Pump such as a Class 1 Enviropac enclosure (<https://alliedpumps.com.au/product/commercial/fire-protection-systems/enviropac-sound-attenuation-fire-pump-system/>);
- External doorset shall be minimum 50mm thick, solid timber core doors with full perimeter (Raven RP47 & RP10 or equivalent), bottom (Raven RP38 or equivalent) and astragal seals (Raven RP16 and RP10 or equivalent);
- The bounding wall and roof construction is to be minimum 150mm thick concrete. The underside of the concrete roof shall be lined with minimum 50mm thick, 48 kg/m<sup>3</sup> insulation. Where the insulation must be covered, this can be perforated foil or acoustically equivalent;
- Vibration isolation mounts to the pump set itself as well as any pipework and ductwork to avoid the transference of structure borne noise. Mounts, hangers and the like are to be selected by the mount supplier, achieving 97% isolation efficiency.
- Any openings required for ventilation purposes are to be on the east side and acoustically treated to ensure compliance with the *Environmental Protection (Noise) Regulations 1997*.
- Maintenance testing for such emergency equipment shall be scheduled for weekdays daytime only.

---

## 6. RECOMMENDATIONS

The noise modelling indicates mechanical plant will need to be carefully designed to take into consideration noise emissions, particularly plant that will operate during the night (after 10.00pm) such as any refrigeration units and potentially the supermarket air-conditioning. The exceedances are however considered manageable considering the following:

- All plant shall be vibration isolated to achieve minimum 95% isolation efficiency;
- All plant shall be selected taking noise levels into consideration, so that when comparing different models, the quieter units are selected;
- Selection of plant that can operate at low speed during the night (e.g. supermarket refrigeration condensers and air-conditioning);
- Acoustic screens to be incorporated around mechanical plant, particularly the supermarket refrigeration condensers and potentially air-conditioning units;
- Acoustic louvres to be incorporated in the design of the supermarket compressor plant room.

Noise from designed mechanical plant will be subject to further analysis by a suitably qualified acoustical consultant.

With regard to trucks, the noise is predominantly managed by restricting delivery times to 7.00am to 7.00pm Mondays to Saturdays and this has been documented in the Delivery Management Plan prepared by Rowe Group. In addition, refrigerated trucks accessing the Specialty Store Loading must be forward parked facing east.

The minimum boundary noise walls required are shown in *Figure 3-2*. On the southwest side, the proposed wall is 3.0 metres high. To the northwest, the proposed wall is 2.4 metres high and to the southeast the proposed wall is also 2.4 metres high. With regards to these walls:

- All proposed wall heights are relative to the finished floor levels of the residences.
- Any proposed noise walls are to be constructed of a solid material with no gaps and having a minimum surface mass of 15 kg/m<sup>2</sup>. Such materials may be brick, limestone, concrete, sound-rated Plexiglass or combinations of these. The Plexiglass is useful above certain heights to minimise light/visual impacts.
- Where the wall is to be constructed on the development side and there is a retaining wall, the noise wall can float above the ground. The overlap from top of retaining wall to bottom of noise wall must be minimum 3 times the gap between the two. For example, if the retaining wall is 1.0-metre high and the noise wall is constructed 200mm from the retaining wall, the noise wall must start 600mm below the top of the retaining wall as a minimum, such that a 400mm gap (or less) would exist between the bottom of noise wall and the ground.

Whilst the fire pump is for emergency reasons, the testing for maintenance purposes can still result in significant noise emissions such that *Section 5* outlines specific requirements for this building and equipment.

In addition to this assessment, *Appendix A* provides noise minimisation items that shall be adopted in the Centre Management's Operational Management Plan.



**Appendix A – Noise Management Plan**

Whilst a noise assessment has been undertaken and boundary walls constructed as a result, noise from the site must still be managed in order to comply with the prescribed standards of the *Environmental Protection (Noise) Regulations 1997*.

The following are to be considered within the Centre Management's Operational Management Plan, in relation to noise.

- Each tenant is to be made aware as part of their leasing agreement that they have an obligation to comply with the prescribed standards of the *Environmental Protection (Noise) Regulations 1997* to adjoining tenants and surrounding residences.
- All plant and equipment is to be maintained in good working order in order to minimise noise emissions. Any manufacturer's noise suppression parts are to be replaced following any maintenance.
- Maintenance testing for such emergency equipment shall be scheduled for weekdays daytime only.
- Waste collection shall occur 7.00am to 7.00pm Mondays to Saturdays (excluding public holidays) and 9.00am to 7.00pm Sundays and public holidays.
- Deliveries shall be scheduled for different days and spaced out on the same day as far as practicable.
- Delivery vehicles shall operate Monday to Saturday, 7.00am to 7.00pm.
  - Signage to be placed in loading dock areas advising to minimise noise emissions;
  - Vehicles shall not be left to idle;
  - Radios of vehicles shall be turned off;
  - Reversing alarms shall be broadband type rather than tonal, beepers, whilst still maintaining a safe workplace;
  - Windows to trucks shall be closed when entering the site;
  - Care shall be taken to minimise noise during loading and unloading operations;
  - Truck drivers to be advised of good driving techniques on the site and surrounding areas to minimise noise.
- Refrigerated trucks accessing the Specialty Store Loading must be forward parked facing east.
- External loading areas are not to have music or announcements systems, other than for emergencies.
- Tenants shall have a buy quiet policy. That is, when purchasing new plant/equipment and comparing multiple models, sound levels shall be taken into consideration.
- Fast Food ordering speakers shall be at a reasonable volume.
- External contractors are to be made aware that they also have a responsibility to minimise noise.
- Centre Management is to maintain a Complaint Log to include:
  - Name of complainant;
  - Address of complainant;
  - Contact details of complainant;
  - Details of the complaint; and
  - How the complaint was resolved.

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## Appendix B – Influencing Factor Calculation



The assigned levels combine a baseline assigned level with an influencing factor, with the latter increasing the assigned level on the basis of the existence of significant roads and commercial or industrial zoned land within an inner circle (100 metre radius) and an outer circle (450 metre radius) of the noise sensitive premises. The calculation for the influencing factor is:

$$= \frac{1}{10} (\% \text{ Type A}_{100} + \% \text{ Type A}_{450}) + \frac{1}{20} (\% \text{ Type B}_{100} + \% \text{ Type B}_{450})$$

where :

% Type A<sub>100</sub> = the percentage of industrial land within  
a 100m radius of the premises receiving the noise

% Type A<sub>450</sub> = the percentage of industrial land within  
a 450m radius of the premises receiving the noise

% Type B<sub>100</sub> = the percentage of commercial land within  
a 100m radius of the premises receiving the noise

% Type B<sub>450</sub> = the percentage of commercial land within  
a 450m radius of the premises receiving the noise

+ Transport Factor (maximum of 6 dB)

= 2 for each secondary road (6,000 to 15,000 vpd) within 100m

= 2 for a major road (> 15,000 vpd) within 450m

= 6 for a major road within 100m

The nearest noise sensitive premises are identified on *Figure B-1* as:

- R1 – #2 - #20 Snowden Street
- R2 - #22 - #30 Snowden Street
- R3 – Whadjuk Drive Residences
- R4 - #1 - #13 Criddle Way
- R5 - #67 - #69 Whadjuk Drive

Each of the closest residences obtains a + 2 dB influencing factor due to the commercial nature of the proposed development. From a traffic count obtained from Main Roads WA, this shows in October 2020, 5,755 vehicles per day used Wattleup Road (west of Frankland Avenue) and 6,508 vehicles per day used Frankland Avenue (south of Wattleup Road). To be considered a secondary road, there is to be 6,000 vehicles per day. With the introduction of the shopping centre, as well as general growth in the area, traffic volumes on Wattleup Road are expected to exceed 6,000 vpd. As such, residences within 100 metres of Wattleup Road also receive a + 2 dB traffic factor.



**Figure B-1: Identification of Residential Groupings**

Table B-1 combines the percentage land types and Transport Factor to calculate the influencing factor.

**Table B-1: Influencing Factor Calculation, dB**

| Receiver   | Industrial Land | Commercial Land | Transport Factor | Total |
|------------|-----------------|-----------------|------------------|-------|
| R1, R4     | 0.0             | 2.0             | 2.0              | 4     |
| R2, R3, R5 | 0.0             | 2.0             | 0.0              | 2     |

The influencing factor calculated in Table B-1 is combined with those baseline assigned levels of Table 2-2, resulting in the project assigned levels provided in Table 2-3.

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## Appendix C – Terminology



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The following is an explanation of the terminology used throughout this report:

- **Decibel (dB)**

The decibel is the unit that describes the sound pressure levels of a noise source. It is a logarithmic scale referenced to the threshold of hearing.

- **A-Weighting**

An A-weighted noise level has been filtered in such a way as to represent the way in which the human ear perceives sound. This weighting reflects the fact that the human ear is not as sensitive to lower frequencies as it is to higher frequencies. An A-weighted sound level is described as  $L_A$ , dB.

- **Sound Power Level ( $L_w$ )**

Under normal conditions, a given sound source will radiate the same amount of energy, irrespective of its surroundings, being the sound power level. This is similar to a 1kW electric heater always radiating 1kW of heat. The sound power level of a noise source cannot be directly measured using a sound level meter but is calculated based on measured sound pressure level at known distances. Noise modelling incorporates source sound power levels as part of the input data.

- **Sound Pressure Level ( $L_p$ )**

The sound pressure level of a noise source is dependent upon its surroundings, being influenced by distance, ground absorption, topography, meteorological conditions etc. and is what the human ear actually hears. Using the electric heater analogy above, the heat will vary depending upon where the heater is located, just as the sound pressure level will vary depending on the surroundings. Noise modelling predicts the sound pressure level from the sound power levels taking into account ground absorption, barrier effects, distance etc.

- **$L_{ASlow}$**

This is the noise level in decibels, obtained using the A-frequency weighting and the S (slow) time weighting. Unless assessing modulation, all measurements use the slow time weighting characteristic.

- **$L_{AFast}$**

This is the noise level in decibels, obtained using the A-frequency weighting and the F (fast) time weighting. This is used when assessing the presence of modulation.

- **$L_{APeak}$**

This is the greatest absolute instantaneous sound pressure level in decibels using the A-frequency weighting.

- **$L_{Amax}$**

An  $L_{Amax}$  level is the maximum A-weighted noise level during a particular measurement.

- **$L_{A1}$**

The  $L_{A1}$  level is the A-weighted noise level exceeded for 1 percent of the measurement period and is considered to represent the average of the maximum noise levels measured.

- **$L_{A10}$**

The  $L_{A10}$  level is the A-weighted noise level exceeded for 10 percent of the measurement period and is considered to represent the “intrusive” noise level.

- **$L_{A90}$**

The  $L_{A90}$  level is the A-weighted noise level exceeded for 90 percent of the measurement period and is considered to represent the “background” noise level.

- **$L_{Aeq}$**

The equivalent steady state A-weighted sound level (“equal energy”) in decibels which, in a specified time period, contains the same acoustic energy as the time-varying level during the same period. It is considered to represent the “average” noise level.

- **One-Third-Octave Band**

Means a band of frequencies spanning one-third of an octave and having a centre frequency between 25 Hz and 20000 Hz inclusive.

- **Representative Assessment Period**

Means a period of time not less than 15 minutes, and not exceeding four hours, determined by an inspector or authorised person to be appropriate for the assessment of a noise emission, having regard to the type and nature of the noise emission.

- **$L_{Amax}$  assigned level**

Means an assigned level, which, measured as a  $L_{ASlow}$  value, is not to be exceeded at any time.

- **$L_{A1}$  assigned level**

Means an assigned level, which, measured as a  $L_{ASlow}$  value, is not to be exceeded for more than 1 percent of the representative assessment period.

- **$L_{A10}$  assigned level**

Means an assigned level, which, measured as a  $L_{ASlow}$  value, is not to be exceeded for more than 10 percent of the representative assessment period.

- **Tonal Noise**

A tonal noise source can be described as a source that has a distinctive noise emission in one or more frequencies. An example would be whining or droning. The quantitative definition of tonality is:

- the presence in the noise emission of tonal characteristics where the difference between -
  - (a) the A-weighted sound pressure level in any one-third octave band; and
  - (b) the arithmetic average of the A-weighted sound pressure levels in the 2 adjacent one-third octave bands,

is greater than 3 dB when the sound pressure levels are determined as  $L_{Aeq,T}$  levels where the time period T is greater than 10% of the representative assessment period, or greater than 8 dB at any time when the sound pressure levels are determined as  $L_{A\ slow}$  levels.

This is relatively common in most noise sources.

- **Modulating Noise**

A modulating source is regular, cyclic and audible and is present for at least 10% of the measurement period. The quantitative definition of modulation is:

- a variation in the emission of noise that —
  - (a) is more than 3 dB  $L_{A\ Fast}$  or is more than 3 dB  $L_{A\ Fast}$  in any one-third octave band; and
  - (b) is present for at least 10% of the representative assessment period; and
  - (c) is regular, cyclic and audible.

- **Impulsive Noise**

An impulsive noise source has a short-term banging, clunking or explosive sound. The quantitative definition of impulsiveness means:

- a variation in the emission of a noise where the difference between  $L_{Apeak}$  and  $L_{Amax}$  is more than 15 dB when determined for a single representative event.

- **Major Road**

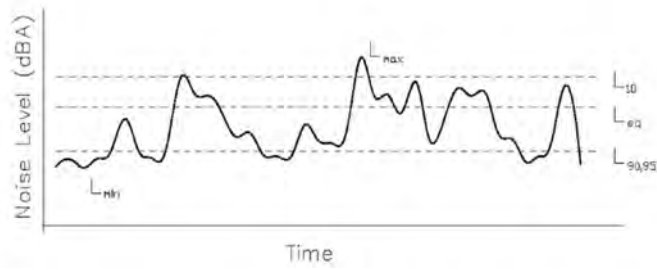
Is a road with an estimated average daily traffic count of more than 15,000 vehicles.

- **Secondary / Minor Road**

Is a road with an estimated average daily traffic count of between 6,000 and 15,000 vehicles.



- Chart of Noise Level Descriptors



- Austrroads Vehicle Class

| VEHICLE CLASSIFICATION SYSTEM<br>AUSTRROADS |                                                              |  |
|---------------------------------------------|--------------------------------------------------------------|--|
| <b>LIGHT VEHICLES</b>                       |                                                              |  |
| 1                                           | Light Car, Van, Minivan, 2WD, 3WD, 4WD, Motorcycles          |  |
| 2                                           | Light, Towable Trailer, Caravan, Boat                        |  |
| <b>HEAVY VEHICLES</b>                       |                                                              |  |
| 3                                           | Two axle truck or bus, 12 tonnes                             |  |
| 4                                           | Three axle truck or bus, 12 tonnes, 3 axle group             |  |
| 5                                           | Four axle truck or bus, 12 tonnes, 3 axle group              |  |
| 6                                           | Five axle articulated, 12 tonnes, 3 axle group               |  |
| 7                                           | Six axle articulated, 12 tonnes, 3 axle group                |  |
| 8                                           | Five axle articulated, 12 tonnes, 3 axle group               |  |
| 9                                           | Six axle articulated, 12 tonnes, 3 axle group                |  |
| <b>LONG VEHICLES AND ROAD TRAINS</b>        |                                                              |  |
| 10                                          | Eight axle articulated truck or bus, 12 tonnes, 3 axle group |  |
| 11                                          | Double road train, 12 tonnes, 3 axle group                   |  |
| 12                                          | Single road train, 12 tonnes, 3 axle group                   |  |

- Typical Noise Levels





# ATTACHMENT 8

## Transport Technical Memorandum

# Technical Memorandum

|             |                                                                                       |             |                       |
|-------------|---------------------------------------------------------------------------------------|-------------|-----------------------|
| Subject     | Proposed Modifications to Stage 1 Hammond Park Neighbourhood Centre – Traffic Impacts |             |                       |
| Client      | Aigle Royal Developments                                                              | Project No. | PTG/03759             |
| Date        | 13/05/2026                                                                            | Revision    | B                     |
| Prepared by | SC                                                                                    | Discipline  | Traffic and Transport |
| Reviewed by | AW                                                                                    | Office      | Perth                 |

## 1.1 Background

PTG Consulting Pty Ltd (PTG) has been commissioned by Aigle Royal Developments to prepare a technical memorandum to support a proposed modification to the approved Stage 1 of the Hammond Park Neighbourhood Centre.

This technical memorandum compares the approved DA site plans (as documented in the *Wattleup Road Neighbourhood Centre, Hammond Park TIA, dated 25 July 2023*) with the proposed modified Stage 1 site plans, and quantifies the resulting changes to the trip generation, parking requirements and potential impacts associated with these changes.

## 1.2 Proposed Modifications

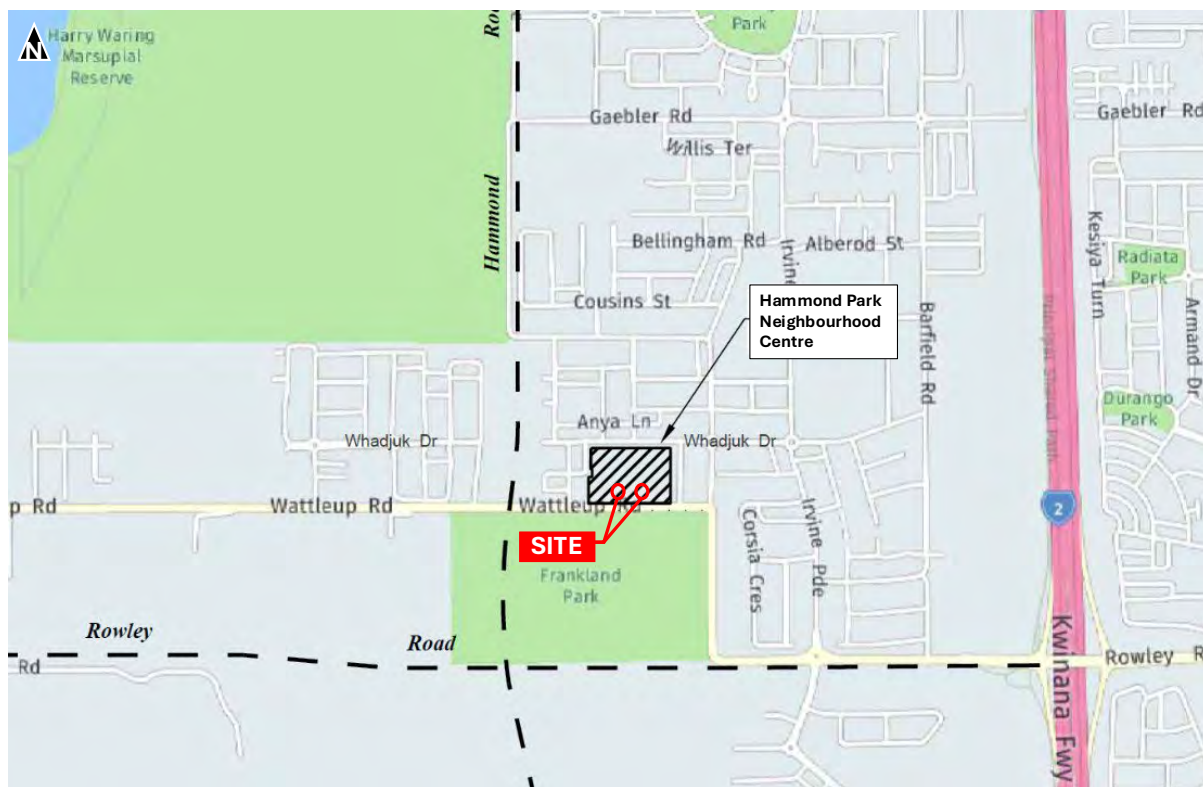
The proposed modifications to the Stage 1 layout primarily relates to the sizes of the two fast food venues outlined in **Figure 1** and located towards the southern boundary of the site (near Wattleup Road).

**Figure 2** shows the approved DA site plan as documented in the *Wattleup Road Neighbourhood Centre, Hammond Park TIA, dated 25 July 2023*. In the approved DA site plan for the neighbourhood centre, the fast food outlets are labelled as 'B2' and 'B3' and have an Net Leasable Area (NLA) of 300m<sup>2</sup> each. It is noted that the TIA assumed a NLA to Gross Floor Area (GFA) ratio of 90%, resulting in a combined 540m<sup>2</sup> GFA for the fast food outlets.



# Technical Memorandum

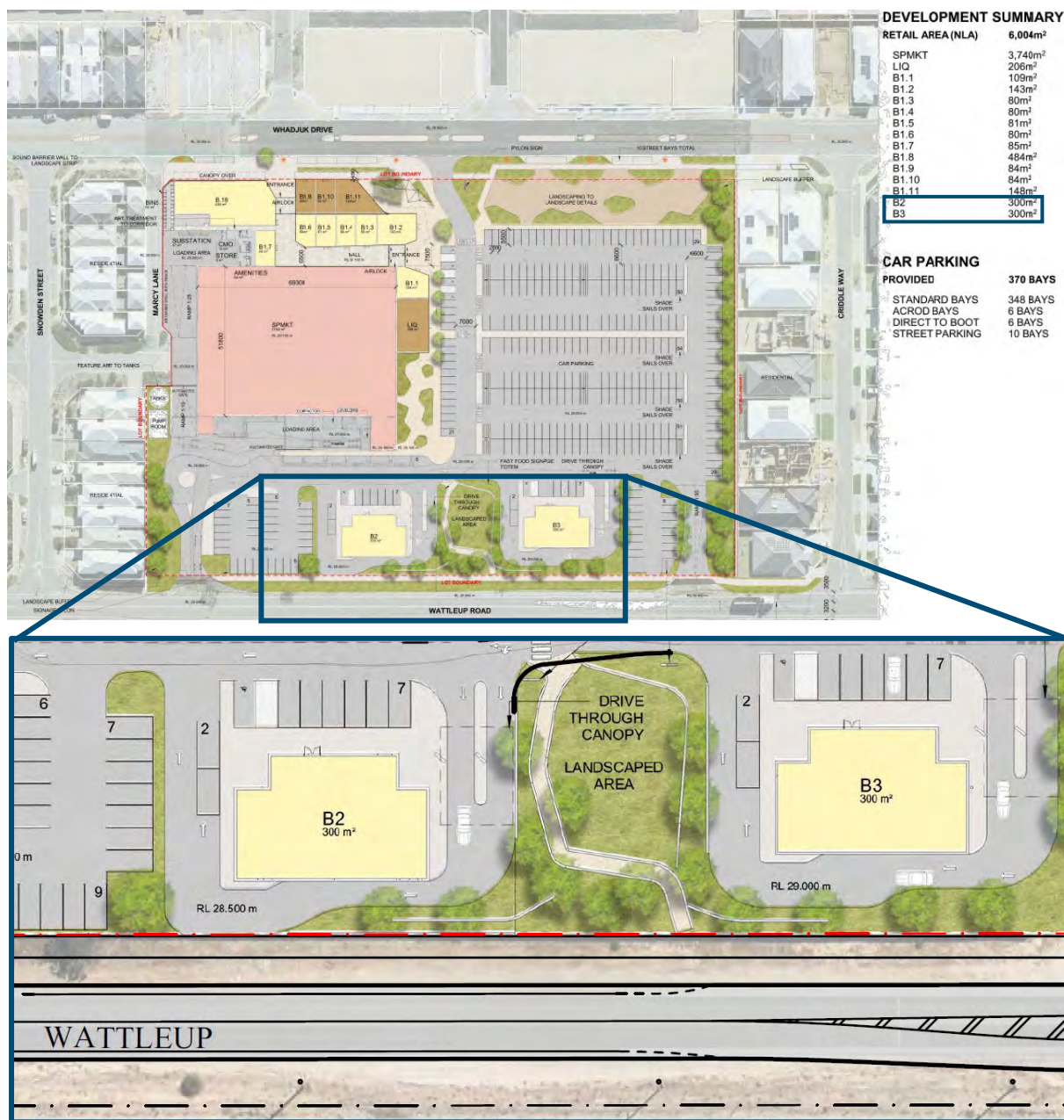
Figure 1 Site Location



Source: Wattleup Road Neighbourhood Centre, Hammond Park TIA, dated 25 July 2023

# Technical Memorandum

Figure 2 Approved DA Site Plan (As per TIA)



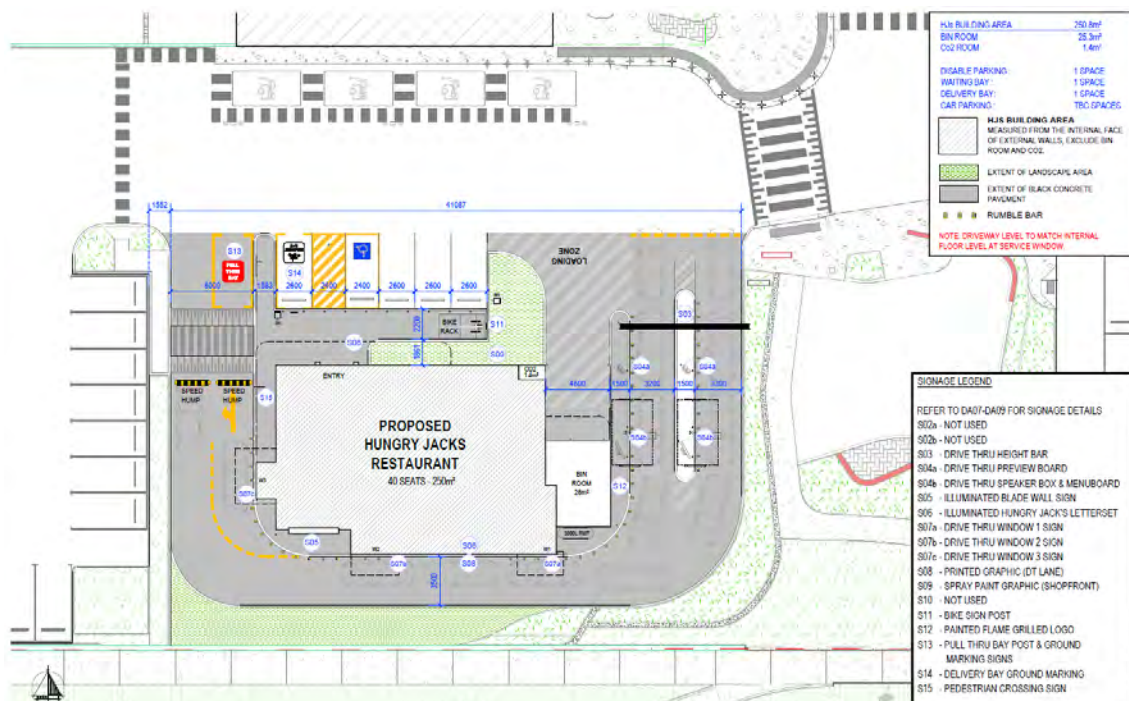
Source: Wattleup Road Neighbourhood Centre, Hammond Park TIA, dated 25 July 2023



# Technical Memorandum

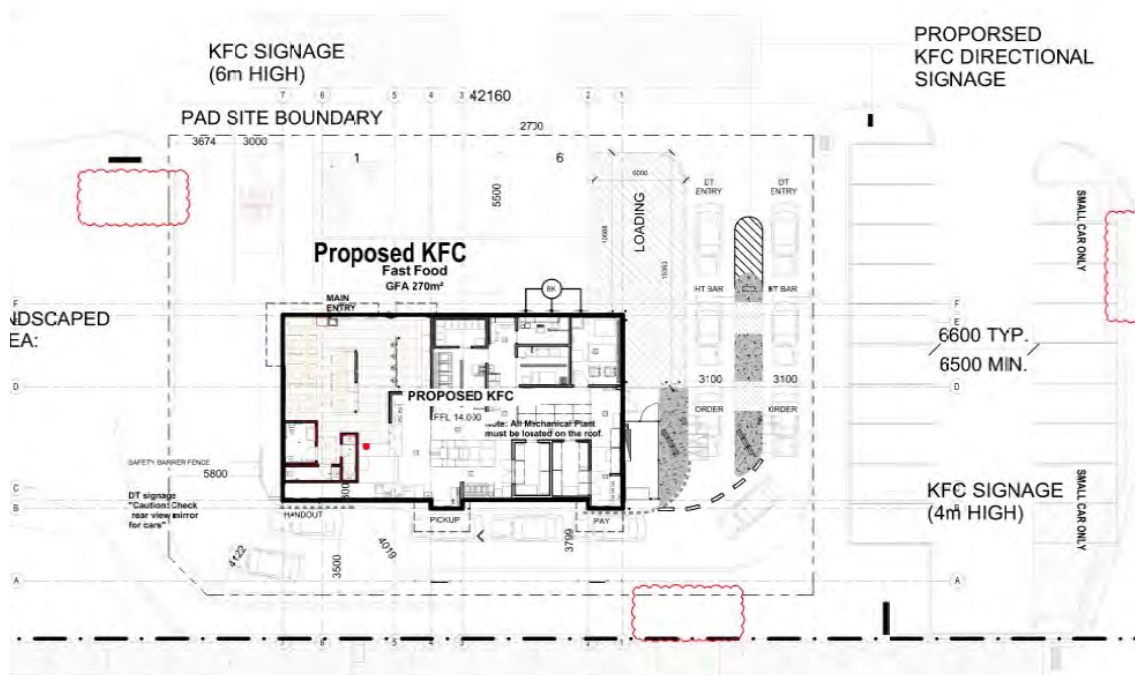
Figure 3 and Figure 4 show the proposed modified layouts for the fast-food outlets.

Figure 3 Proposed 'B2' Site Plan



Source: Fang Architects (Rev C, dated 17 April 2026)

Figure 4 Proposed 'B3' Site Plan



Source: Matthews & Scavalli Architects (Rev G, dated 18 March 2026)



# Technical Memorandum

The proposed land use details for each fast-food site are summarised in **Table 1**.

*Table 1 Approved and Proposed Modified Site Layouts*

| Issue                 | Approved TIA                                                                                                              | Proposed Modified Site Layouts                                                                                                                                          |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>GFA</b>            | B2: 270m <sup>2</sup><br>B3: 270m <sup>2</sup><br><b>Total (combined): 540m<sup>2</sup></b>                               | B2: 250m <sup>2</sup><br>B3: 270m <sup>2</sup><br><b>Total (combined): 520m<sup>2</sup></b>                                                                             |
| <b>Parking Supply</b> | B2: 7 parking bays, 2 waiting bays<br>B3: 7 parking bays, 2 waiting bays<br><b>Total: 14 parking bays, 4 waiting bays</b> | B2: 5 parking bays (including 1 ACROD bay), 1 waiting bay<br>B3: 6 parking bays (including 1 ACROD bay), 1 waiting bay<br><b>Total: 11 parking bays, 2 waiting bays</b> |

# Technical Memorandum

## 2 TRIP GENERATION

The trip generation estimates for the fast food outlets were compared between the approved TIA and the proposed new plans. The approved TIA report adopted the trip generation and distribution rates from the ITE Trip Generation Manual, and this report will similarly adopt these rates to estimate the net trip generation of the fast food outlets. The adopted trip generation and distribution rates are summarised in **Table 1** and **Table 2**, respectively, while the net trip generation estimates are provided in **Table 3**.

*Table 2 Adopted Trip Generation Rates*

| Land Use                                       | Source  | Trip Generation Rate |                  |                   |
|------------------------------------------------|---------|----------------------|------------------|-------------------|
|                                                |         | AM Peak              | PM Peak          | Daily             |
| Fast food restaurant with drive through window | ITE 934 | 47.96 per 100sqm     | 35.56 per 100sqm | 503.70 per 100sqm |

*Table 3 Adopted Trip Distribution Rates*

| Land Use                                       | Source  | Trip Distribution Rates |        |       |        |          |           |
|------------------------------------------------|---------|-------------------------|--------|-------|--------|----------|-----------|
|                                                |         | AM In                   | AM Out | PM In | PM Out | Daily In | Daily Out |
| Fast food restaurant with drive through window | ITE 934 | 51%                     | 49%    | 52%   | 48%    | 50%      | 50%       |

*Table 4 Net Trip Generation*

| Land Use               | Yield                 | AM Peak   |     | PM Peak   |     | Daily       |      |
|------------------------|-----------------------|-----------|-----|-----------|-----|-------------|------|
|                        |                       | IN        | OUT | IN        | OUT | IN          | OUT  |
| Fast Food Outlets      |                       |           |     |           |     |             |      |
| Approved Stage 1 TIA   | 540m <sup>2</sup> GFA | 132       | 127 | 100       | 92  | 1360        | 1360 |
|                        |                       | 259       |     | 192       |     | 2720        |      |
| Revised Stage 1 Yields | 520m <sup>2</sup> GFA | 128       | 123 | 97        | 89  | 1310        | 1310 |
|                        |                       | 251       |     | 186       |     | 2620        |      |
| Net Trip Generation    |                       | -4        | -4  | -3        | -3  | -50         | -50  |
|                        |                       | <b>-8</b> |     | <b>-6</b> |     | <b>-100</b> |      |

The 20m<sup>2</sup> difference between the approved and proposed fast food tenancy yield is expected to reduce the peak-hour trip generation by 8 and 6 vehicle trips in the AM and PM peak hour periods, respectively. The daily trips are also anticipated to decrease by 100 vehicle trips.

# Technical Memorandum

## 3 QUEUEING ANALYSIS

A queue length analysis was undertaken to assess the provision of storage for vehicles within the drive through lanes. For this analysis, an M/M/1 queueing model was adopted for each Customer Ordering Booth (COB). *Austrroads Guide to Traffic Management Part 2 Section 4* considers an elementary queueing system such as the M/M/1 queueing model, which is a single-server queue model that can be used to approximate simple systems.

The following assumptions were adopted for this assessment:

- » As KFC venues do not serve breakfast items, the worst-case period in terms of queueing at the drive-through facilities is during the AM peak for the Hungry Jacks store, where a total of 62 vehicles per hour (vph) is estimated to arrive.
- » A 10% walk-in trade and 60% split between drive-through and dine-in ratio (typical for fast food chains) was applied to the arrival rate to make the model conservative, resulting to a net arrival rate of 34 vph.
- » The assumed ordering time for each vehicle is assumed to be 1 minute (60 seconds) per vehicle, resulting in each COB's service rate to be 60vph. Given that two (2) COBs are proposed for each site, the total service rate is estimated to be 120vph,
- » Vehicles arrive randomly following Poisson's probability distribution and service time is exponentially distributed, and
- » The queue is serviced on a first come, first served basis.

The queue length usually adopted for robust analysis is the 95th percentile queue. The resulting queue length in this assessment is **3 vehicles or 18 metres** per COB and is anticipated to not be exceeded 95% of the time. Based on the queue estimation model, it can be concluded that under typical peak-hour conditions that the queue backing from each COB can be accommodated within the site with no impact on other internal driveways and the neighbourhood centre's surrounding road network.



# Technical Memorandum

## 4 PARKING CHECKS

### 4.1 Parking Compliance

The on-site car parking provision for both proposed fast food outlets were checked against its compliance with the parking geometric requirements specified within AS/NZS 2890.1:2004 – *Parking Facilities: Off-street Car Parking* and AS/NZS 2890.6:2009 – *Parking Facilities: Off-street Parking for People with Disabilities*.

The review found no statutory issues and that geometric requirements for the proposed car parking layouts on both fast food sites are adequately met.

### 4.2 Parking Requirements and Provisions

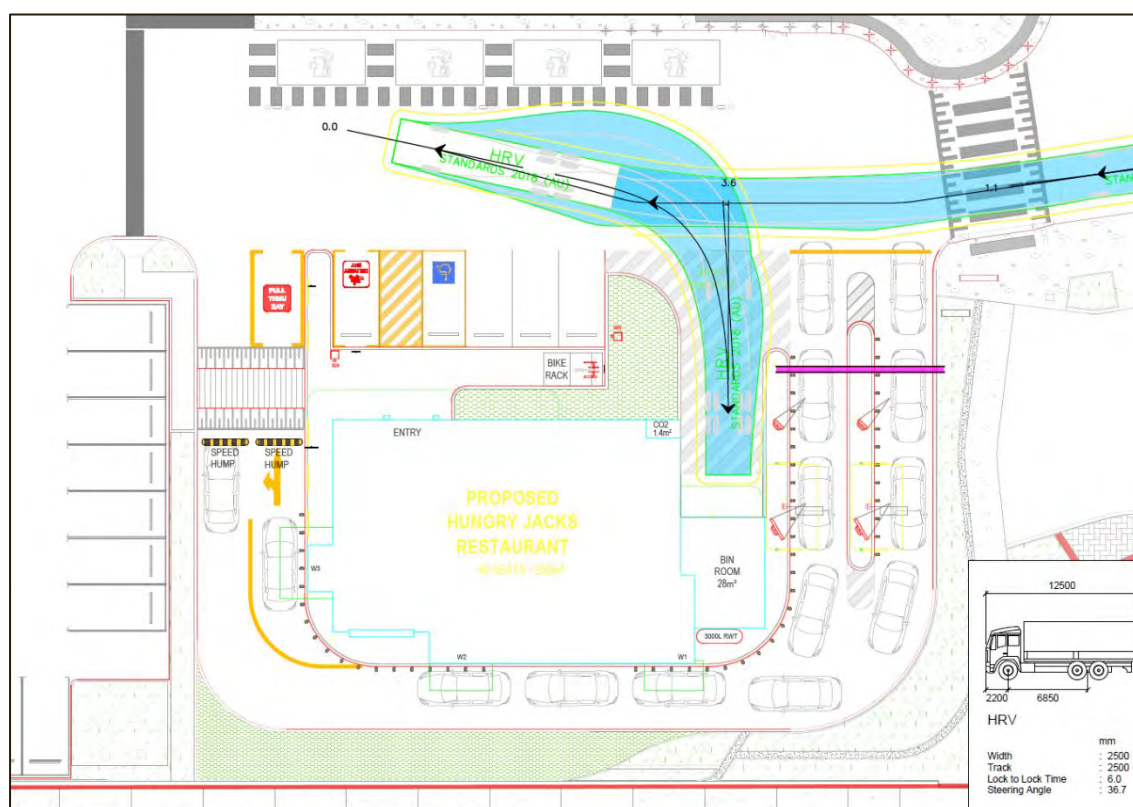
Refer to Rowe Group development application report.

# Technical Memorandum

## 5 SWEEP PATH CHECKS

Swept path assessments were conducted to assess the capacity of the proposed parking layouts of each fast food site to accommodate service vehicles that will traverse within the neighbourhood centre. 12.5m trucks (i.e., HRV) are anticipated for commercial deliveries and is expected to be the largest vehicle to traverse the sites. The swept paths will illustrate each site's capacity to accommodate the design vehicle's manoeuvres (in and out movements) within the designated servicing/loading areas. The swept path diagrams are presented in **Figure 5** to **Figure 8**.

Figure 5 Hungry Jacks Site - Swept Paths for 12.5m Truck (HRV) - Ingress





# Technical Memorandum

Figure 6 Hungry Jacks – Swept Paths for 12.5m Truck (HRV) – Egress

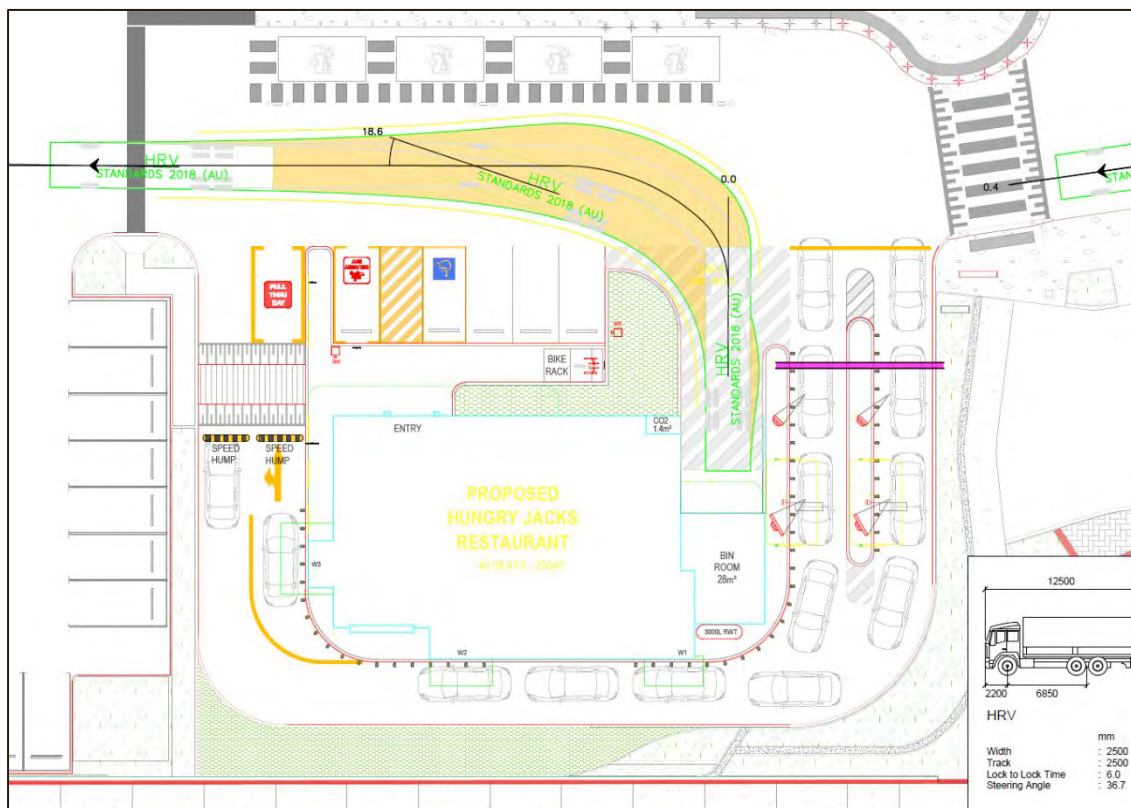
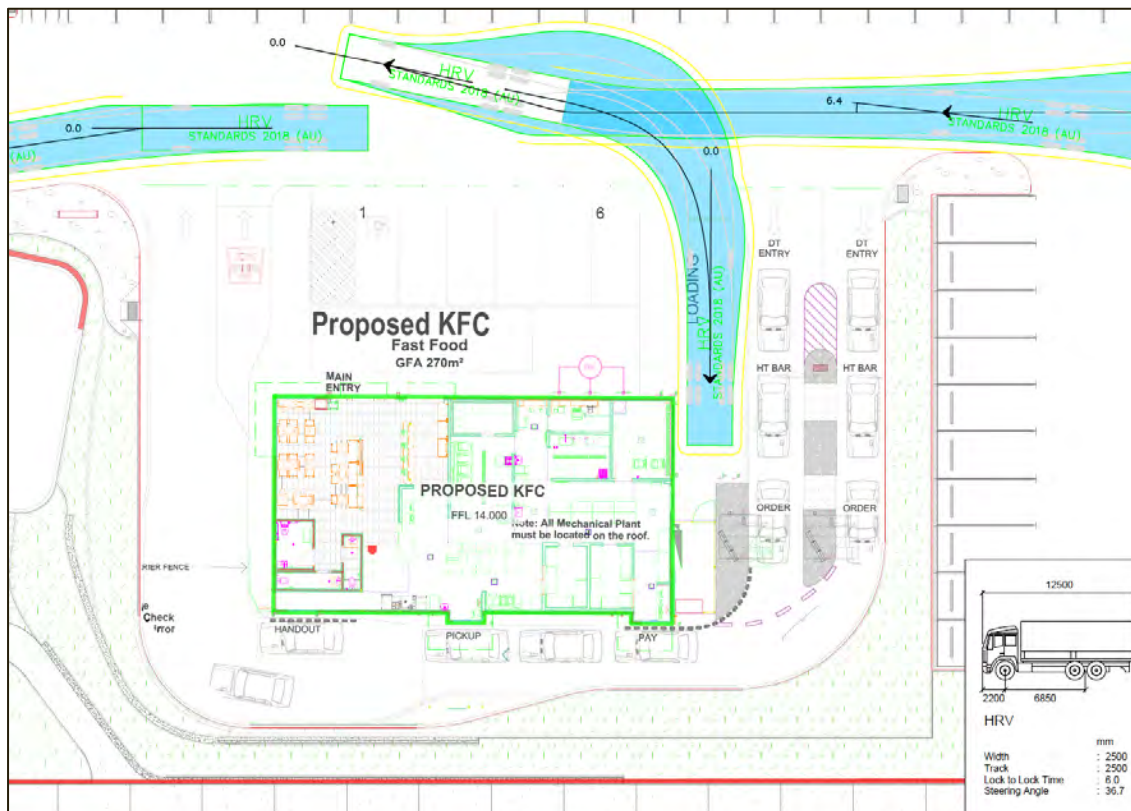


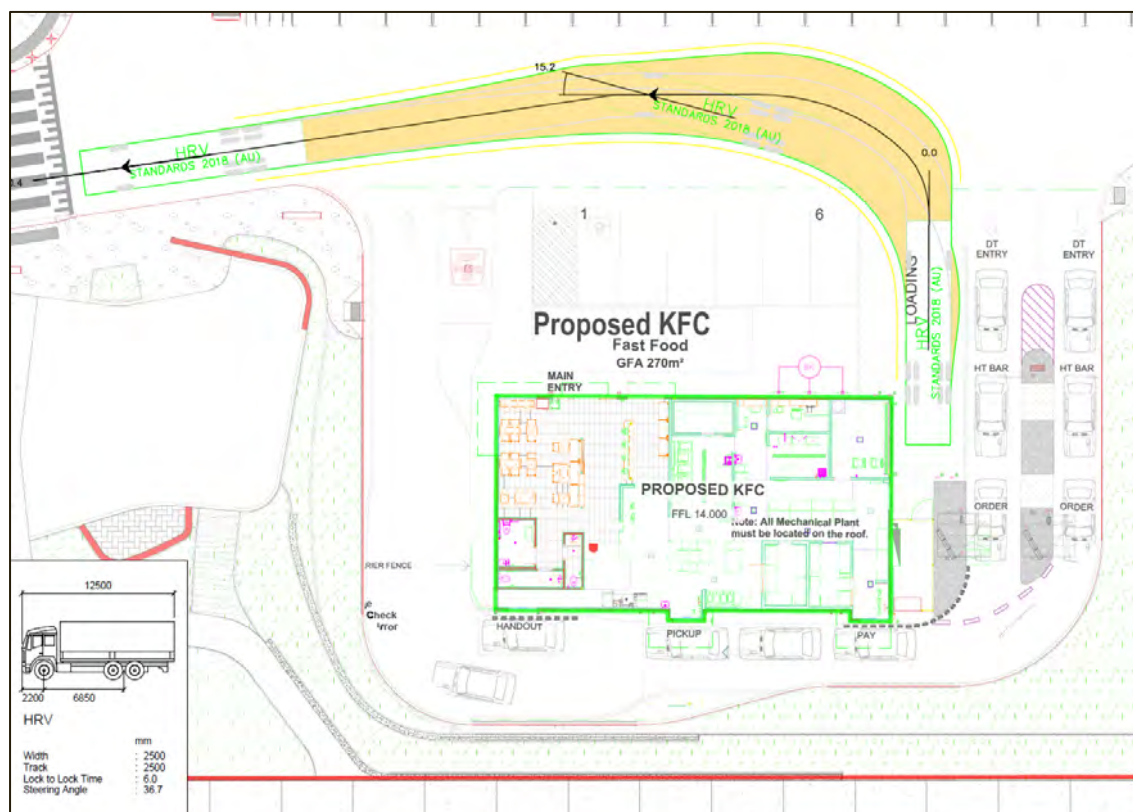
Figure 7 KFC – Swept Paths for 12.5m Truck (HRV) – Ingress





# Technical Memorandum

Figure 8 KFC – Swept Paths for 12.5m Truck (HRV) – Egress



As shown in **Figure 5** to **Figure 8**, no swept path issues were identified for the 12.5m truck within the designated servicing/loading areas for each site. Given that the chosen design vehicle (12.5m truck) can be accommodated on both fast food sites, it is expected that waste trucks (usually 10.0m in length) will also be able to turn in and out of the servicing areas without issue.

# Technical Memorandum

## 6 SUMMARY

The proposed two (2) fast food outlets within the Hammond Park Neighbourhood Centre were assessed in this report in terms of their impact on the surrounding road network, potential queueing issues, parking compliance and requirements, and swept paths. The following are summarised:

- » The reduction in gross floor area of the two fast food tenancies is expected to reduce the peak-hour trip generation estimates by 8 and 6 vehicle trips in the AM and PM peak hour periods, respectively. The daily trips are also anticipated to decrease by 100 vehicle trips. This reduction in trip generation is expected to not have any material impact on the neighbourhood centre's surrounding road network.
- » The queueing analysis estimated that the 95<sup>th</sup> percentile queue at each of the COBs is 3 vehicles or 18 metres, which can be sufficiently accommodated within the drive through facilities of each fast food site.
- » The proposed parking layouts of the fast food sites were found to be compliant with the geometric requirements of AS/NZS 2890.1:2004 and AS/NZS 2890.6:2009.
- » Swept path checks indicated that a 12.5m truck (HRV) can adequately manoeuvre within each fast food site's servicing/loading area.

## **PART C – OTHER BUSINESS**

- 1. State Administrative Tribunal Applications and Supreme Court Appeals**
- 2. Meeting Closure**