



## **PART B – CITY OF WANNEROO**

**1. Declarations of Due Consideration**

**2. Disclosure of Interests**

**3. Form 1 DAP Applications**

- 3.1 Lot 9028 (100K) Constellation Entrance, Two Rocks – Proposed Service Station – DAP/25/02845

**4. Form 2 DAP Applications**

Nil.

**5. Section 31 SAT Reconsiderations**

Nil.

**Part B – Item 3.1 – LOT 9028 (100K) CONSTELLATION  
ENTRANCE, TWO ROCKS – PROPOSED SERVICE STATION**

**Form 1 – Responsible Authority Report  
(Regulation 12)**

<b>DAP Name:</b>	Metro Outer DAP
<b>Local Government Area:</b>	City of Wanneroo
<b>Applicant:</b>	Rachel Chapman – Taylor Burrell Barnett
<b>Owner:</b>	Capricorn Investment Group Pty Ltd, Yanchep Sun City Pty Ltd
<b>Value of Development:</b>	\$2.2 million
<b>Responsible Authority:</b>	City of Wanneroo
<b>Authorising Officer:</b>	Nick de Vecchis – Acting Manager Approval Services
<b>LG Reference:</b>	DA2025/15
<b>DAP File No:</b>	DAP/25/02845
<b>Application Received Date:</b>	17 January 2025
<b>Report Due Date:</b>	29 April 2025
<b>Application Statutory Process Timeframe:</b>	90 days with an additional 21 days agreed
<b>Attachment(s):</b>	<p><b>Attachment 1:</b> Development Plans  <b>Attachment 2:</b> Location Plan  <b>Attachment 3:</b> Copy of WAPC approval  158920  <b>Attachment 4:</b> Copy of WAPC approval  200603  <b>Attachment 5:</b> Copy of WAPC approval  164051  <b>Attachment 6:</b> Schedule of Submissions  <b>Attachment 7:</b> DPLH Referral Response  <b>Attachment 8:</b> City’s Response to DPLH  Referral Response  <b>Attachment 9:</b> Emissions Impact  Assessment  <b>Attachment 10:</b> Environmental Noise  Assessment  <b>Attachment 11:</b> Landscaping Concept Plan  <b>Attachment 12:</b> Traffic Impact Statement  <b>Attachment 13:</b> Sight Line Assessment</p>

## Responsible Authority Recommendation

That the Metro Outer DAP resolves to:

1. **Approve** DAP Application reference DAP/25/02845 and accompanying plans provided in **Attachment 1** 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 Wanneroo District Planning Scheme No. 2, subject to the following conditions:

### Conditions

1. This decision constitutes planning approval only and is valid for a period of four (4) years from the date of approval. If the subject development is not substantially commenced within the specified period, the approval shall lapse and be of no further effect.
2. The use of the approved **Service Station** must conform to the District Planning Scheme No. 2 definition which states:

—  
“**Service Station**: means premises other than premises used for a transport depot, panel beating, spray painting, major repairs or wrecking, that are used for

- (a) the retail sale of petroleum products, motor vehicle accessories and goods of an incidental or convenience nature; and/or
- (b) the carrying out of greasing, tyre repairs and minor mechanical repairs to motor vehicles.”

A change of use from that outlined above may require further development approval of the City.

3. The applicant/owner must ensure that all illuminated signage must have any boxing or casing in which it is enclosed constructed of incombustible materials, must not comprise of flashing, pulsating, chasing or running lights and must not have such intensity as to cause annoyance to the public or illuminate beyond the extent of the lot boundaries.
4. All signage is to be contained entirely within the lot.
5. Parking areas, driveways and points of ingress and egress must be designed and constructed in accordance with the Australian Standard for Offstreet Carparking (AS 2890) and must be drained, sealed, marked and maintained to the satisfaction of the City prior to occupation of the development.
6. Wheel stops must be provided in accordance with AS 2890 where the parking bays abut a concrete path, to the satisfaction of the City of Wanneroo.
7. The parking areas and associated access indicated on the approved plans must not be used for the purpose of storage or obstructed in any way at any time, without the prior approval of the City.

8. Prior to the lodgement of a building permit, a detailed schedule of external finishes (including materials, colour schemes and details) must be submitted and approved by the City. The development must be finished in accordance with the approved schedule.
9. A revised detailed landscaping plan for the subject site and the adjoining verges must be lodged for approval by the City prior to the submission of a building permit. The landscaping plan must detail a minimum of 8% soft landscaping across the site and include a plant legend which includes botanical and common names and plant quantities, confirmation of mulch details, and planting locations and shade trees. Planting and installation must be in accordance with the approved landscaping and reticulation plans and completed prior to occupation of the development and maintained thereafter, to the satisfaction of the City.
10. Stormwater and any other water run-off from buildings or paved areas must be collected and retained on site, in accordance with the City's specifications.
11. The development is to comply with the recommendations and assumptions of the Acoustic Report (Ref **33393-4-24303**) prepared by **Herring Storer Acoustics** dated **December 2024**. Recommended works must be completed prior to the commencement of the use.
12. An Environmental Noise Assessment from a qualified acoustic (noise) consultant must be submitted to the City following construction of the development to demonstrate that the development complies with the *Environmental (Noise) Regulations 1997* prior to an occupancy permit being issued.
13. Lighting must be installed along all driveways, pedestrian pathways, car parking areas and in all common service areas prior to the development first being occupied. Lighting must be in accordance with the Australian Standards for the Control of Obtrusive Effects of Outdoor Lighting (AS4282) and must be oriented to not overspill into nearby lots. All floodlights shall be oriented and hooded to eliminate disturbance to occupants of the surrounding properties.
14. All storage areas, external fixtures and building plant, including air conditioning units and water tanks must be located so as to minimise any visual and noise impact on surrounding landowners and screened from view from streets, public places and adjacent properties, to the satisfaction of the City of Wanneroo.
15. An Operational Management Plan for the development must be submitted to the City for approval prior to lodgement of a building permit. The Operational Management Plan must address the following:
  - a) Waste generation rates and storage practices;
  - b) Waste collection and delivery location(s);
  - c) Waste collection and delivery frequencies and times;
  - d) Waste collection and delivery procedures to ensure compliance with applicable legislation; and
  - e) Any other matter required by the City.

The development must then be operated in accordance with the Operational Management Plan, and waste collected from the site by a private contractor at the cost of the owner/occupier, to the satisfaction of the City.

16. Prior to the submission of a building permit, the proposed subject lot with an area of 2339m<sup>2</sup> as shown on Western Australian Planning Commission (WAPC) subdivision approval 200603 dated 30 October 2024 must be registered on a Deposited Plan and a Certificate of Title issued to the City, to its satisfaction.
17. The landowner/applicant contributing toward development infrastructure provisions pursuant to the City of Wanneroo District Planning Scheme No. 2 prior to submission of a building permit.
18. The crossovers are to be constructed in concrete to commercial specifications in accordance with the City's requirements.
19. Any graffiti applied to the external surfaces of the buildings must be removed, to the satisfaction of the City of Wanneroo.
20. A Construction Management Plan must be submitted for approval when an application is made for a building permit. This plan is to detail how construction will be managed to minimise disruption in the area and to adjoining landowners. The plan must address the following:
  - a) The delivery of and delivery times for materials and equipment to the site;
  - b) Storage of materials and the location and types of equipment on site;
  - c) Parking arrangements for contractors and sub-contractors;
  - d) The impact on traffic movement;
  - e) Construction times;
  - f) The relocation of public footpaths;
  - g) Measures to minimise impacts of noise and sand drift and dust from the site;
  - h) Tree protection zones to be established for trees identified to be retained in the approved landscaping plan (including any verge trees) where applicable;
  - i) The relocation/disruption of any public transport infrastructure; and
  - j) Any other matter required by the City.

The construction management plan is to be submitted to and approved by the City prior to the commencement of any development. Construction is to be implemented in accordance with the approved Construction Management Plan.

### **Advice Notes**

1. The owner/applicant is to submit the "Certification of Compliance with Development Approval Conditions" form certifying that all of the conditions specified in the approval by the Council for the development of the land have been completed in accordance with the approved plans, and the certification is to be lodged with the Council within 14 days from the date of practical completion, and applies to all of the conditions, except for those conditions relating to on-going compliance.
2. In relation to managing dust and sand drift in accordance with the Construction Management Plan condition, adequate measures to minimise any impacts of dust and sand drift from the site include all requirements as stipulated within the Department of Water and Environmental Regulation's *"A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities"*

## Details: outline of development application

Region Scheme	Metropolitan Region Scheme (MRS)
Region Scheme - Zone	Urban
Local Planning Scheme	City of Wanneroo District Planning Scheme No. 2 (DPS 2)
Local Planning Scheme - Zone	Urban Development
Structure Plan/Precinct Plan	Agreed Structure Plan No. 43 – Yanchep-Two Rocks District Structure Plan (ASP 43)
	Agreed Structure Plan No. 69 – Two Rocks (ASP 69)
Structure Plan/Precinct Plan - Land Use Designation	ASP 69: Mixed Use
Use Class and permissibility:	DPS 2: Service Station – Discretionary (D) use
	ASP 69: Service Station – Not Permitted (X) use
Lot Size:	2339m <sup>2</sup>
Existing Land Use:	Vacant land
State Heritage Register	No
Local Heritage	No
Design Review	N/A
Bushfire Prone Area	Yes
Swan River Trust Area	No

### Proposal:

The application proposes to develop a Service Station on the subject land located to the east of the intersection of Dunraven Road and Breakwater Drive comprising the following:

- A 210m<sup>2</sup> convenience store in the eastern portion of the site;
- Three (3) fuel bowsers and six (6) refuelling bays;
- One (1) air and water refill bay in the south western corner of the site;
- Nine (9) car parking bays on site, including seven standard bays, one accessible bay and one car and trailer bay;
- Access to the site via a full movement crossover to Dunraven Road;
- Incorporation of a left out only crossover to Breakwater Drive;
- A 6 metre-high pylon sign facing Breakwater Drive, and a 4 metre pylon sign facing Dunraven Road; and
- Associated wall and directional signage and landscaping.

The development plans are included as **Attachment 1**.

### Background:

#### Locality

The subject land has an area of 2339m<sup>2</sup> and is currently vacant. The site is bounded by Dunraven Road to the west, existing residential zoned land to the north, Magic Loop to the east and Breakwater Drive to the south. The site incorporates a subdivisional retaining wall along the northern boundary, resulting in a slight level difference between the subject land and the adjoining residential lots.

A location plan of the subject land is included as **Attachment 2**.

### Zoning

The subject land is zoned 'Urban Development' under the City's District Planning Scheme No. 2 (DPS 2). Agreed Structure Plan No. 69 – Two Rocks (ASP 69) zones the subject land 'Mixed Use'. The Service Station land use is a Not Permitted (X) use within the 'Mixed Use' zone. In accordance with ASP 69, the subject land is intended to accommodate mixed use and/or residential development, with the Local Centre site for the structure plan area intended to be located approximately 85 metres west of the subject land, on a site bounded by Breakwater Drive to the south and Mercury Loop Drive to the west.

### Subdivision Approvals

Subdivision approvals issued by the Western Australian Planning Commission (WAPC) over the subject land and the intended Local Centre site to the west indicate that the subject land is intended to accommodate the Local Centre site for the ASP 69 area, with the mixed use and/or residential development originally intended for the subject land to be accommodated on the original Local Centre site.

#### *WAPC 158920*

WAPC application 158920 was lodged with reference to the original Local Centre site to the west of the subject land. However, following initiation of Planning Control Area 140 which required the upgrade of Breakwater Drive as an Other Regional Road, the Local Centre could no longer viably be accommodated in its intended location due to access restrictions required to both Breakwater Drive and Mercury Drive. As a result, during assessment of WAPC subdivision approval 158920, the applicant sought written confirmation from the Department of Planning, Lands and Heritage (DPLH) for support of a modified subdivision plan, which relocated the Local Centre site from the original intended site to the subject land. The WAPC subsequently approved WAPC 158920 on 13 August 2020, with the incorporation of Condition 7 which required a restrictive covenant to be placed on the Certificate of Title of the subject land advising that the land must only be used for local centre/commercial purposes. Advice Note 2 of WAPC 158920 corresponds to Condition 7, and advises that an amendment to ASP 69 will be required to designate the subject land as a Local Centre in lieu of its existing Mixed Use zoning, and rezone the original Local Centre site as Mixed Use. A copy of WAPC subdivision approval 158920 is included as **Attachment 3**. WAPC approval 158920 was valid for a period of 4 years and expired on 13 August 2024.

#### *WAPC 200603*

WAPC 200603 was subsequently submitted to extend the approval period of WAPC 158920. WAPC 200603 was approved on 30 October 2024, with the incorporation of Condition 4 which, similar to Condition 7 of WAPC 158920, requires a restrictive covenant to be placed on the Certificate of Title of the subject lot advising that the land may only be used for local centre/commercial purposes. Advice Note 1 of WAPC 200603 corresponds to Condition 4 and effectively carries forward Advice Note 2 of WAPC approval 158920. A copy of WAPC subdivision approval 200603 is included as **Attachment 4**. The applicant has advised that the clearance for WAPC subdivision approval 200603 (including the deposited plan) is currently being progressed, with a clearance application expected to be lodged to the City by July 2025.

## *WAPC 164051*

WAPC subdivision approval 164051 dated 3 January 2024 relates to the original Local Centre site bounded by Breakwater Drive and Mercury Drive to the west of the subject land. Condition 18 of WAPC 164051 requires a restrictive covenant to be placed on the Certificate of Title of this lot advising of a restriction on the use of the land for mixed use and/or residential R40 development only. The incorporation of Condition 18 in WAPC 164051 is considered to mitigate the risk of two commercial centres being developed within the ASP 69 area when only one was intended. A copy of WAPC subdivision approval 164051 is included as **Attachment 5**.

### Amendment to ASP 69

The City notes that the intent of the abovementioned subdivision approvals was for an amendment to ASP 69 to be undertaken concurrently to rezone the subject lot and the original Local Centre site in accordance with the subdivision approvals. However, the applicant has advised that they intend to prepare a new local structure plan to replace ASP 69, to ensure a range of existing issues within ASP 69 are addressed. Noting that ASP 69 is currently due to expire in October 2025, the City is supportive of this approach, and has advised the WAPC that a 2-3 year extension to ASP 69 is suitable to enable preparation of a replacement local structure plan whilst ensuring the land remains subject to ASP 69 in the interim. The applicant has advised that the replacement local structure plan remains in the early stages of development, however consultants have been appointed and a meeting with the WAPC is scheduled for April 2025.

The implications of the abovementioned subdivision approvals and future replacement of ASP 69 are discussed in further detail in the 'Planning Assessment' section of this report in relation to the land use permissibility of the proposed Service Station on the subject land.

### **Legislation and Policy:**

#### Legislation

*Planning and Development Act 2005*

*Planning and Development (Local Planning Schemes) Regulations 2015*

Metropolitan Region Scheme (MRS)

City of Wanneroo District Planning Scheme No. 2 (DPS 2)

#### State Government Policies

Development Control Policy 5.1 Regional Roads (Vehicular Access) (DC 5.1)

State Planning Policy 3.7 – Bushfire (SPP 3.7)

#### Structure Plans/Activity Centre Plans

Agreed Structure Plan No. 43 – Yanchep-Two Rocks District Structure Plan (ASP 43)

Agreed Structure Plan No. 69 – Two Rocks (ASP 69)

#### Local Policies

Local Planning Policy 4.6 – Advertising Signs (LPP 4.6)

## Local Planning Policy 2.9 – Service Stations and Roadhouses (LPP 2.9)

### **Consultation:**

#### Public Consultation

The application was advertised for a period of 14 days in accordance with the Deemed Provisions of the *Planning and Development (Local Planning Scheme) Regulations 2015*, commencing on 6 February 2025 and concluding on 20 February 2025. Advertising was undertaken by way of notice in the local newspaper and in writing to surrounding landowners/occupiers within 200 metres of the proposed development. The development plans and all supporting documentation were also published on the City's website, and a sign was installed on site.

During the public consultation period, a total of 68 submissions were received. Of the submissions received, 40 were in support of the proposal, 27 objected to the proposal, and one submission provided comments on the proposal.

The key concerns raised in the submissions included:

- Location of the proposal being inappropriate due to proximity to existing residential land use;
- Potential impacts of increased traffic on the surrounding road network;
- Incompatibility of the design of the development with the surrounding locality;
- Concerns regarding potential impact on amenity of the locality including air and light pollution and noise; and
- The extent of signage proposed.

A summary of the submissions received, and the City's response is included as **Attachment 6**. The main issues raised during the advertising period, along with those identified by the City during the assessment process, are discussed in further detail in the 'Planning Assessment' section below.

#### Referrals/consultation with Government/Service Agencies

##### *Department of Planning, Lands and Heritage*

The application proposes access onto Breakwater Drive through a left-out crossover, which is discussed in further detail in the 'Planning Assessment' section of this report. Breakwater Drive is reserved as an Other Regional Road under the Metropolitan Region Scheme (MRS). The application was referred to DPLH for comment under Clause 66 of the Deemed Provisions of the *Planning and Development (Local Planning Scheme) Regulations 2015*, as Breakwater Drive is not included in Plan 694/6 of WAPC resolution DEL2025/4 and as such referral under this resolution is not required.

DPLH provided a referral response to the City on 20 February 2025 (**Attachment 7**) outlining that they do not object to the proposal subject to additional information being provided. In accordance with Clause 67(2)(za) of the Deemed Provisions, the City is required to have due regard to the comments provided by DPLH, as referral was undertaken under Clause 66 of the Deemed Provisions. The applicant provided additional information and modified the proposal to address the comments received by DPLH. The City is of the view that the additional information submitted satisfactorily

addresses the comments provided. The City's response to the referral response provided by DPLH is included as **Attachment 8**.

### *Public Transport Authority*

The application was referred to the Public Transport Authority (PTA) under Clause 66 of the Deemed Provisions, noting the proximity of the proposed left-out crossover to Breakwater Drive to the existing PTA bus stop number 29124. The PTA advised the City that they do not object to the proposal as the proposed crossover location does not conflict with bus stop number 29124.

### Design Review Panel Advice

Not applicable.

### **Planning Assessment:**

The proposal has been assessed against the relevant legislative requirements of the Scheme, State and Local Planning Policies, and ASP 69. The following matters have been identified as key considerations for the determination of this application:

- Zoning and Land Use Permissibility;
- Built Form;
- Amenity;
- Landscaping;
- Signage;
- Traffic and Access;
- Car Parking; and
- Waste and Deliveries.

### Zoning and Land Use Permissibility

A number of submitters raised concerns regarding the appropriateness of a Service Station on the site. As discussed in the 'Background' section above, the subject land is zoned 'Urban Development' under DPS 2 and 'Mixed Use' under ASP 69.

When considering the zoning of the site as designated in ASP 69, the proposal for a Service Station is an 'X' (Not Permitted) use on the subject land, and its approval would not be consistent with orderly and proper planning. In line with this, the City has previously advised the applicant and the WAPC that it will not support development proposed on the subject land prior to an amendment to ASP 69 being approved to rezone the land in accordance with the applicable subdivision approvals.

Notwithstanding the above, Clause 27 of the Deemed Provisions of the *Planning and Development (Local Planning Scheme) Regulations 2015* states that the decision maker is to have due regard to, but is not bound by, the provisions of a structure plan, and therefore may consider alternative land uses on a site zoned under a structure plan where the proposed land use is does not conflict with the principles of orderly and proper planning.

The City is of the view that the relevant subdivision approvals have been issued by the WAPC, and is satisfied that the applicant intends to proceed with clearance of the valid subdivision approvals, including the notification on title of the subject lot and the

preparation of a replacement structure plan for the ASP 69 area. Further, there is no condition within the valid subdivision approvals requiring ASP 69 to be amended to rezone the subject property prior to development being undertaken. For the above reasons, the proposal is considered consistent with the principles of orderly and proper planning. However, to ensure certainty regarding the titling of land and the incorporation of a restrictive covenant on the Certificate of Title of the subject lot, the City recommends the imposition of a condition requiring the subject lot to be titled prior to the submission of a building permit. With this condition imposed, and noting the background above, the proposed Service Station land use is capable of consideration on the subject land.

The proposal has therefore been considered as a 'D' (Discretionary) land use within the Urban Development zone. To assess the suitability of the proposed Service Station, the land use has been considered against the objectives of the Urban Development zone under DPS 2, which are provided below:

- *To provide an intention of future land use and a basis for more detailed structure planning in accordance with the provisions of this Scheme;*
- *To provide for a range of residential densities to encourage a variety of residential accommodation;*
- *To provide for the progressive and planned development of future urban areas for residential purposes and for commercial and other uses normally associated with residential development; and*
- *To provide an intermediate transitional zone following the lifting of an urban deferred zoning within the Metropolitan Region Scheme.*

The proposed Service Station is considered to provide a community benefit as an urban service which is appropriately located within proximity to residential areas. The proposal incorporates a single storey built form with a uniform skillion style roof design, which is consistent with the existing residential character of the area. The location of the proposed development abutting roads on three sides minimises the number of residential lots immediately abutting the development. Where possible, noise emitting areas have been located as far as practical from existing residences to reduce the impact of noise. Notwithstanding this, technical documentation provided indicates that the development can comply with the relevant legislation, licenses and guidelines relating to noise and emissions, and as such the development is not considered to adversely impact the amenity of nearby residences. Noting the above, the Service Station is considered to satisfy the objectives of the Urban Development zone and has been appropriately designed to minimise the potential impacts on adjoining residences.

**Built Form**

Submitters also raised concern regarding the interface of the proposal with the adjoining residential development to the north of the subject land. The City's Local Planning Policy 2.9 – Service Stations and Road Houses (LPP 2.9) sets out objectives to guide the development of service stations, to ensure that such land uses are appropriately located, developed to a high architectural standard and are appropriately separated from sensitive land uses. The proposed Service Station is considered to satisfy the objectives of LPP 2.9 based on the assessment below.

LPP 2.9 Objective	Comment
Ensure that service stations and roadhouses are	The proposed development is considered to provide an appropriate transition between

<p>developed to a high standard of architectural design that complements the expected standard of design in the locality.</p>	<p>Breakwater Drive and the adjoining residential area in terms of bulk and scale. The convenience store building incorporates a maximum wall height of 5 metres, while the fuel canopy is 5.5 metres in height. Both buildings incorporate a concealed roof design which is generally consistent with the existing single storey residential character of the area. Further, the setbacks of the built form comply with the requirements of DPS 2. The proposed Service Station is therefore considered to provide an appropriate standard of architectural design that reflects the expected development outcomes on the site.</p>
<p>Ensure that service stations and roadhouses are located and designed such that traffic volumes and flow generated does not unduly impact the amenity of the locality.</p>	<p>As discussed in the 'Traffic' section below, the proposal has a low to moderate impact on the local road network by way of traffic generated. The surrounding road network is capable of safely accommodating the traffic generated by the development.</p>
<p>Ensure that traffic generated does not adversely impact on road safety and efficiency of the road network.</p>	
<p>Ensure a safe interface between vehicle and pedestrian movements on and off site.</p>	<p>Pedestrian crossings are provided within the site to designate pedestrian priority. The existing pedestrian pathway will be retained within the Breakwater Drive and Dunraven Road to ensure pedestrian connectivity is maintained surrounding the site.</p>
<p>Ensure that service stations and roadhouses make a positive contribution to the streetscape.</p>	<p>The development provides articulation on all facades through use of decorative cladding, landscaping, glazing and incorporation of a tower on the convenience store building to provide a landmark feature. The inclusion of blank walls has been minimised to create visual interest. The development is therefore considered to provide a positive contribution to the streetscape.</p>
<p>Protect the amenity of sensitive land uses by ensuring they are located and designed in a way that reduces the impact of noise, light, odour and other emissions.</p>	<p>The development is appropriately separated from the adjoining residential land use to the north. The potential impacts of noise, light, fumes and visual amenity are mitigated through the technical documentation provided, as discussed further in the 'Amenity' section below.</p>

As noted above, the development has been designed to an appropriate standard and utilises architectural features to provide articulation to all facades. Moreover, the orientation of the development on the lot minimises the portion of built form adjacent to the adjoining residential properties to the north. The built form of the convenience store is predominantly oriented toward the western and southern elevations which front Dunraven Road and Breakwater Drive respectively. Pedestrian legibility is incorporated on these frontages through the inclusion of pedestrian crossings, glazing and a clearly definable entry point to the development. The fuel canopy building is

open in nature and is not considered to impose unacceptable building bulk on the adjoining residential area. The City considers that the overall design of the development is acceptable and will not detrimentally impact the amenity of the surrounding area.

### Amenity

Submitters objected to the proposal regarding the impact of the operation of the development on the amenity of the surrounding locality, including impacts from light and air pollution, health impacts and increased noise. These matters have been considered below.

### *Safety, Odour and Health*

Submitters raised concern about potential odour and health impacts associated with the proposed Service Station, and the safety risk of the development noting its proximity to existing residential development. The applicant provided an Emissions Impact Assessment (EIA) as part of the application, which is included as **Attachment 9**. The EIA confirms that the proposal will utilise Vapour Recovery Phase 1 and Phase 2 systems (VR1 and VR2) to control any odours and/or vapours emanating from the site. The VR1 system captures vapours during the refuelling of underground fuel storage tanks by fuel tankers. The VR2 system controls emissions from vehicle tanks during refuelling at petrol bowsers. The EIA confirms that with the incorporation of the VR1 and VR2 systems, odours and/or vapours from the development will not negatively impact the health of existing or future sensitive land uses within the locality.

Further, the City notes that the proponent is required to obtain a 'Dangerous Goods Site License' from the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) prior to occupation of the development to store and sell fuel from the site. The issuing of this license requires the operator to complete a risk assessment which addresses spill or leak containment; segregation of dangerous goods, control of hazardous substances; and design, construction, maintenance and location of underground storage or handling systems to reduce the risk of leaks and ensure operation poses minimal risk to people, property and the environment. As part of this licensing process, the operator must confirm that any odours and/or vapours emitted from the development do not impact sensitive land uses beyond the site boundaries. Noting the above, the City considers that the concerns regarding the safety risk of the development and the impact of odours and/or vapours will be sufficiently managed through the strict requirements imposed on the operator as part of this licensing process.

### *Noise*

Submissions were received objecting to the proposal on the basis that the noise generated by the development would negatively impact the amenity of the surrounding residential properties. An Environmental Noise Assessment (ENA) was provided with the application which is included as **Attachment 10**. The ENA concluded that the proposed development can comply with the *Environmental Protection (Noise) Regulations 1997* with the incorporation of the following operational measures:

- The air compressor being screened from the residences to the east by a colorbond fence;

- The tyre inflator beeper set to a noise level of 75 dB(A) at 1 metre from the inflator station;
- Fuel deliveries limited to the following periods:
  - 7:00am to 7:00pm Monday to Saturday; and
  - 9:00am to 7:00pm Sunday and public holidays.
- Delivery trucks with engines turned off are to utilise the northern delivery bay at any time.
- Delivery trucks with engines turned on are to utilise the southern delivery bay at any time.
- Delivery trucks using the southern delivery bay are to be driven into the bay in forward gear, with the front of the truck (engine) oriented to the east.

The City's Health Services have reviewed the ENA and concurred with its findings. Notwithstanding this, the City recommends the imposition of a condition requiring the proposal to comply with the findings and recommendations of the ENA. The City also recommends the imposition of a separate condition requiring a revised ENA to be provided following construction and prior to occupation of the development, demonstrating compliance with the *Environmental Protection (Noise) Regulations 1997*. With the incorporation of the above conditions, it is considered that the development will not result in an adverse impact on the surrounding land in terms of acoustic amenity.

### *Lighting*

Submissions were received which raised concern regarding the impact of lighting from the development on adjoining residential properties. The development is required to comply with the relevant environmental health regulations and the Australian Standards for the Control of Obtrusive Effects of Lighting (AS4282) relating to outdoor lighting. As relevant standards apply, no modification to the development is required. Notwithstanding this, the City recommends the imposition of a condition requiring outdoor lighting to be installed in accordance with AS4282 and designed to eliminate disturbance to occupants of the surrounding properties prior to occupation of the development.

### Landscaping

Landscaping requirements for the site are contained within Schedule 6 of DPS 2. The applicant has provided a concept landscaping plan as part of the application which is included as **Attachment 11**. The proposed landscaping is assessed below.

Requirement	Proposal	Compliance
Minimum 8% landscaping on the lot (186.9m <sup>2</sup> )	558m <sup>2</sup> (23.8%)	Yes
3 metre landscape strip adjacent to the street	Breakwater Drive: 0.3m	No
	Magic Loop: 8.7m	Yes
	Dunraven Road: Nil	No
1 tree per 4 car parking bays (2.75 trees)	3 trees	Yes

The proposal complies with the City's requirements for landscaping across the lot, with the total landscaped area comprising 23.8% of the site. Three shade trees are indicated in the northern portion of the site, complying with the City's requirements. Additional trees are proposed to the north of the convenience store building, adjacent

to the boundary with the adjoining residential lots. However, the proposal incorporates a variation to the 3-metre-wide landscaping strip required along the Breakwater Drive and Dunraven Road frontages.

Landscaping comprising of shrubs and mature established trees are existing within the Breakwater Drive verge, and will soften the visual impact of the reduced landscaping strip to this frontage. Further, the landscaping abutting Breakwater Drive to the east of the convenience store building exceeds the required 3 metres. The proportionate allocation of landscaping along this frontage is considered to balance the variation.

On the Dunraven Road frontage, the location of the firewood and gas cylinders to the southwest of the site reduces the width of landscaping strip to 2.3 metres. Further, the vent related to the underground fuel tanks requires a landscaping exclusion area which is situated adjacent to the western boundary of the subject lot and results in nil landscaping along the western boundary for a length of 9.7 metres. However, the reduced landscaping strip on this frontage is supported as the abovementioned structures are suitably located in the southwest of the site away from the adjoining residential development. The width of the Dunraven Road verge also provides opportunity to soften the visual impact of the reduced landscaping strip.

Notwithstanding the above, the concept landscaping plan provided is preliminary in nature and does not reflect the amended layout of the development or provide sufficient detail regarding landscaping within the Dunraven Road and Magic Loop verges. As such, it is recommended that a condition be imposed requiring a revised detailed landscaping plan to be submitted to the City for review and approval prior to the submission of a building permit.

### Signage

The proposal includes a total of 13 signs across the site, including two (2) pylon signs, two (2) directional signs and nine (9) wall signs. The signage has been assessed against the provisions of the City's LPP 4.6 below.

The wall signage incorporates a variation to LPP 4.6 due to the number of signs proposed on the fuel canopy and convenience store building, and the aggregate area of the signs which exceed the permitted 8m<sup>2</sup> area. The wall signage is integrated into the built form of the development and is equally distributed to ensure the development is provided with advertising space. The aggregate area of the signage is considered appropriate and is consistent with the realistic need for advertising for the business. Given the likely amount of passing pedestrian and vehicular traffic, the signage is supported.

The pylon signs comply with the provisions of LPP 4.6, except for the reduced setbacks of 1 metre to Breakwater Drive and Dunraven Road in lieu of the required 3 metres. It should be noted that the application originally proposed the pylon sign adjacent to Breakwater Drive to be 8 metres in height, however during assessment of the application the height was reduced to 6 metres in accordance with LPP 4.6. The pylon signs are intended to promote the development to passing pedestrian and vehicular traffic and as such the reduced setbacks are supported. The pylon signs enhance the visual appeal of the development when viewed from the adjoining streets and are not misleading or dangerous to vehicular or pedestrian traffic given that sufficient sight lines are achieved to the respective boundaries.

Noting the assessment above, the City is supportive of the proposed signage, and is of the view that the signage will not detrimentally impact the existing residential character of the locality. However, the City recommends the imposition of a condition requiring signage to be located entirely within the lot boundaries, and a condition detailing permitted signage materials and illumination requirements.

## Traffic and Access

### *Traffic Volumes*

Submitters raised concern regarding the traffic generated from the development and its impact on safety and congestion within the locality. A Traffic Impact Statement (TIS) was provided in support of the proposal (**Attachment 12**). The findings of the TIS are as follows:

- Breakwater Drive currently carries approximately 1,905 vehicles per day (VPD), and is forecasted to carry up to 30,000 VPD at its ultimate state;
- The proposed development is anticipated to generate 53 vehicle trips in the AM peak period and 67 vehicle trips in the PM peak period, with a total of 926 vehicle trips generated per day; and
- In accordance with the WAPC Transport Impact Assessment (TIA) Guidelines, an increase of peak hour trips of less than 100 is deemed to have a low to moderate impact. As such, the surrounding road network is considered to have sufficient capacity to accommodate the additional traffic generated by the proposal.

The City's Traffic Services has reviewed the TIS and are satisfied with the methodology and conclusions. While the proposal will result in an increase in traffic in the locality, sufficient capacity exists in the current road network to safely accommodate the increased volume. The traffic volumes generated and impacts on the surrounding road network are therefore considered acceptable.

### *Access*

The development proposes a left-out crossover to Breakwater Drive. WAPC subdivision approval 200603 included an access restriction along the Breakwater Drive frontage and also indicated a left-out crossover in the proposed location, as contained in **Attachment 4**.

As discussed above, the City liaised with DPLH regarding the crossover design during assessment of the application. A 70-degree alignment of the crossover to the road centreline was agreed to be sufficient in this location, despite Main Roads Guidelines generally requiring a 90-degree alignment. The City's Traffic Services concur that the design of the crossover is suitable to ensure vehicle and pedestrian safety while allowing waste and delivery vehicles to safely exit the site. A sight line assessment was provided by the applicant confirming that visibility and safety is not impacted by the crossover design, which is included as **Attachment 13**.

A concrete crossover to the development site from Dunraven Road has been approved through WAPC subdivision approval 200603. Engineering drawings for the crossover have been approved by the City, and construction is currently being undertaken.

### *Pedestrian connectivity*

The site is accessible to pedestrians via an existing pathway network along Breakwater Drive and Dunraven Road. To enhance pedestrian connectivity, the development proposes a pedestrian connection from the convenience store building entry to the existing pedestrian pathway within the Breakwater Drive verge. The City requested that the development plans be amended to indicate a safe pedestrian crossing point over the crossover proposed to Breakwater Drive. However, the applicant advised that the crossover is required to be constructed to heavy duty specifications and pedestrian priority is unable to be safely provided through line marking or reinstatement of the pedestrian pathway over the crossover. This outcome is supported by the City, as sufficient pedestrian connectivity is provided within the development, and between the development and the existing surrounding pedestrian path network.

### Car Parking

The requirement for on-site parking for the development is contained within Schedule 11 of DPS 2. An assessment of the car parking par undertaken below.

Car Parking Calculation			
Land Use	Car Parking Standards	Variable	Bays required
Service Station	5 bays per service bay, plus 7:100m2 non-service bay NLA. Up to 50% of non-service bays may be located in refuelling positions.	Service bays: 0 NLA: 210m <sup>2</sup>	15
<b>Total number of bays provided</b>			<b>15 bays</b>

The proposal includes a total of fifteen car bays on site, inclusive of seven (7) standard bays, one (1) car and trailer bay, one (1) ACROD bay and six (6) refuelling bays. The proposed car parking arrangement therefore complies with the requirements of DPS 2, and is supported.

### Waste and Deliveries

The applicant has provided an indication of the frequency of waste collection and deliveries for the development. However, the City notes that the ENA provided by the applicant contains specific operational requirements that the development must implement to ensure compliance with legislation, including the *Environmental Protection (Noise) Regulations 1997*. To ensure that deliveries and waste collection are managed appropriately, the City recommends the imposition of a condition requiring an Operational Management Plan (OMP) to be submitted and approved by the City prior to the submission of a building permit.

### **Conclusion:**

The development application for a Service Station at Lot 9026 (100K) Constellation Entrance, Two Rocks has been assessed against the relevant legislation and planning requirements. Despite the proposed land use being inconsistent with the zoning of the site as currently designated under ASP 69, the City notes that a valid subdivision approval (WAPC 200603) intends for the site to accommodate commercial

development. As such, the proposed Service Station land use has been assessed as a Discretionary ('D') land use within the Urban Development zone in accordance with DPS 2. Noting the above, the proposal is capable of approval in this location. The proposed development is generally consistent with the relevant planning requirements, notwithstanding variations sought to DPS 2, ASP 69 and LPP 4.6 as discussed in this report. The proposal is appropriately located and well designed, providing consistency with the surrounding locality, and is compatible with the existing surrounding residential area. The application is supported by technical reports which address concerns surrounding traffic, emissions and noise. It is therefore recommended that the application be approved subject to conditions.



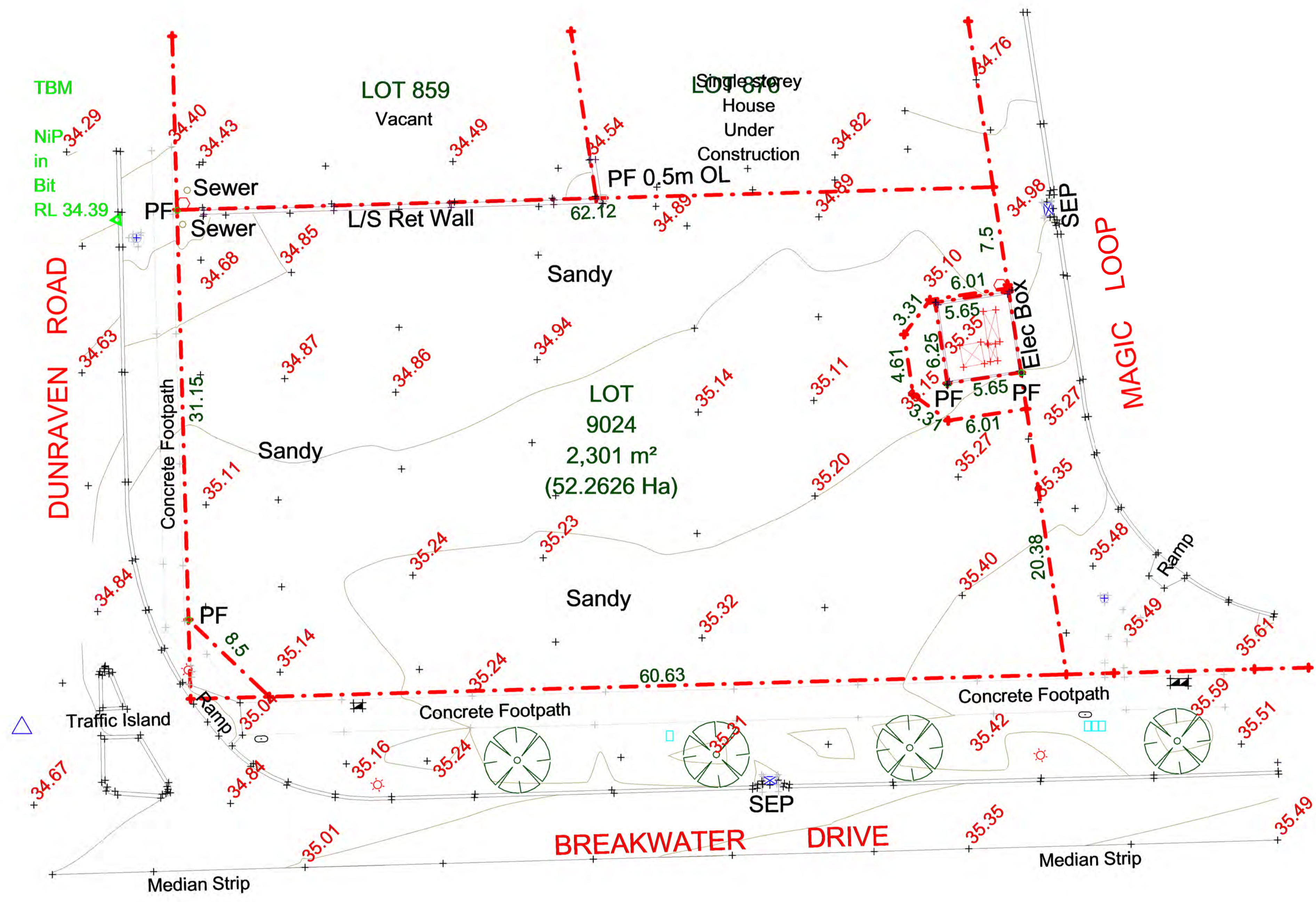
## TWO ROCKS 7-ELEVEN

859-DEV BREAKWATER DRIVE, TWO ROCKS, WA

SHEET LIST			
SHEET NUMBER	SHEET NAME	CURRENT REV. DATE	CURRENT REV.
DA00	COVER PAGE	20.11.2024	C
DA01	EXISTING SITE SURVEY	20.11.2024	C
DA02	PROPOSED SITE PLAN	20.11.2024	E
DA03	PROPOSED FLOOR PLAN - 7-ELEVEN	20.11.2024	C
DA04	PROPOSED FLOOR PLAN - FUEL CANOPY	20.11.2024	C
DA05	PROPOSED 7-ELEVEN CONVENIENCE STORE ELEVATIONS	20.11.2024	E
DA06	PROPOSED 7-ELEVEN FUEL CANOPY ELEVATIONS	20.11.2024	C
DA07	PROPOSED SIGNAGE ELEVATIONS	20.11.2024	C

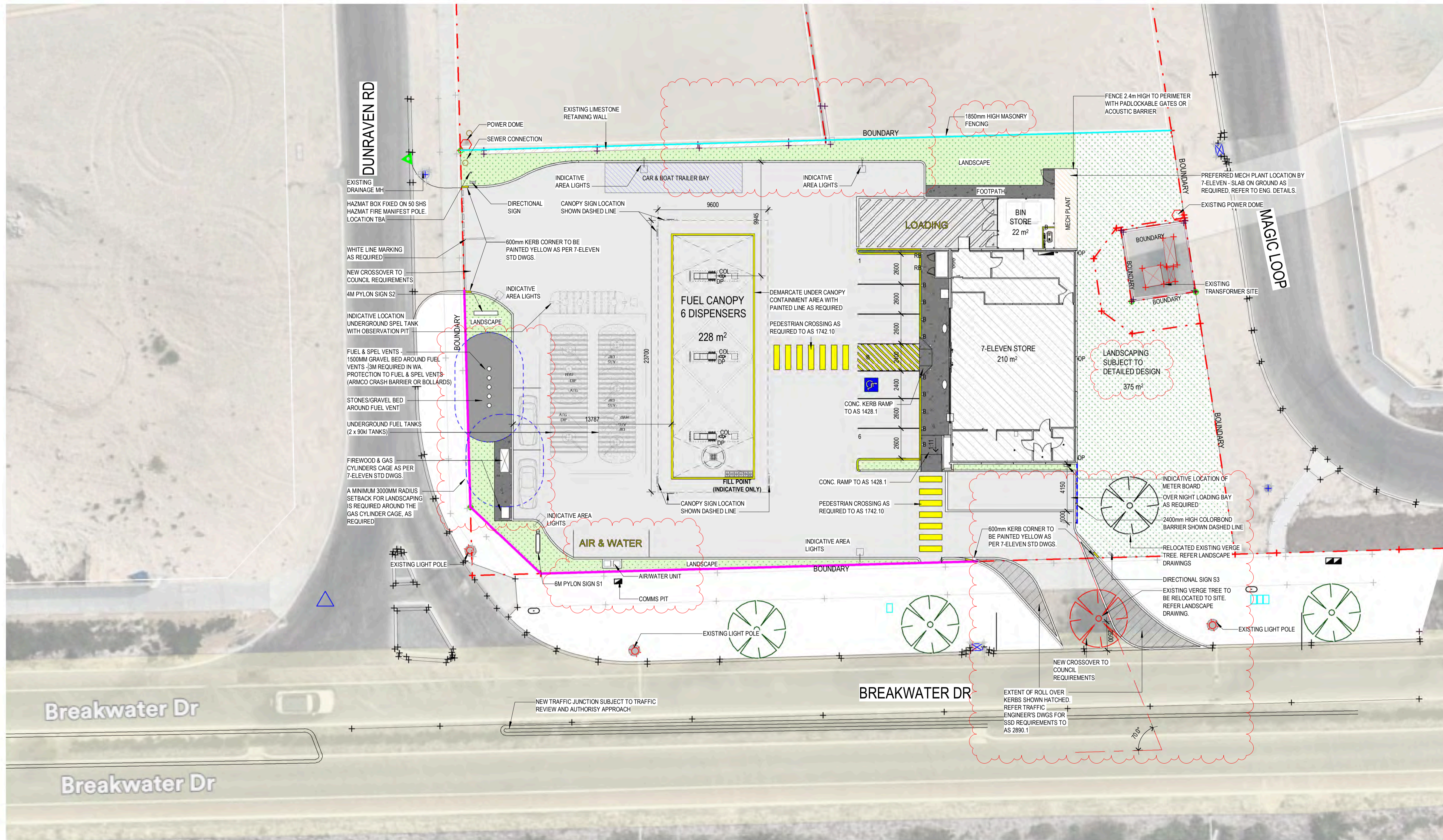
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DATE: 02.12.2024





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DATE: 02.12.2024





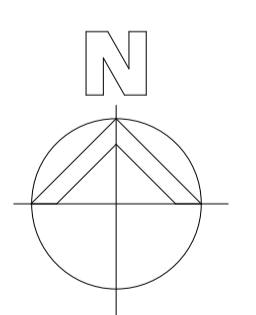
- GENERAL NOTES**
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  14. ROOF ACCESS & SAFETY SYSTEM BY DESIGN & CONSTRUCTION SPECIALIST CONTRACTORS.
  15. ALL ROOFING TO BE INSTALLED WITH ROOF SAFETY MESH BELOW.
  16. ALL BOX GUTTERS, SUMPS, DOWNPIPES & OVERFLOW TO NCC & AC STDS.
  17. INSTALL ADDITIONAL NOGGINGS/ COMPLIANT BACKING BOARDS TO SUPPORT FIXTURE & FITTINGS.
  18. WATERPROOFING MEMBRANES MUST COMPLY WITH AS 4654 PARTS 1 & 2.

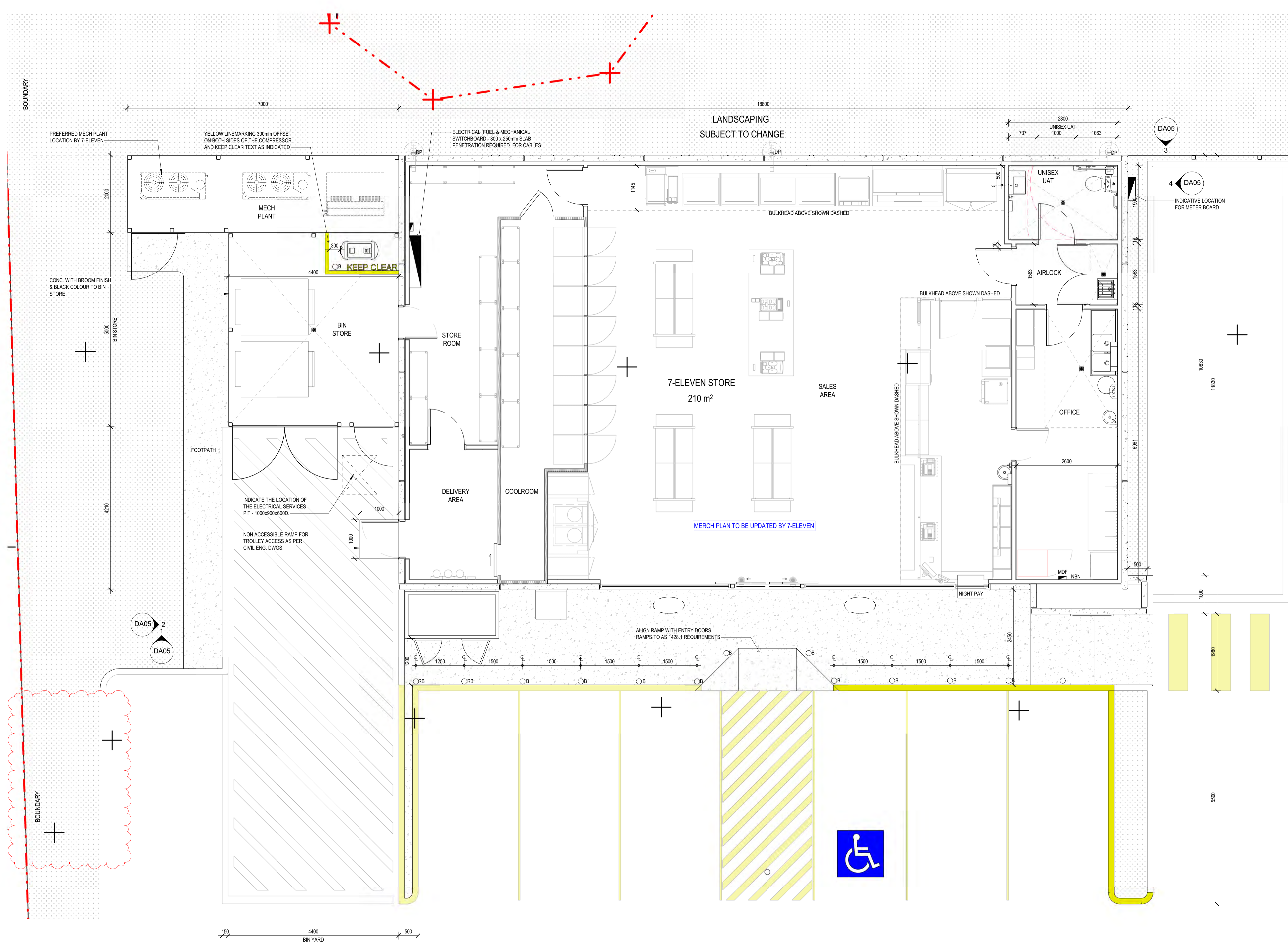
PRELIMINARY ONLY  
 PLAN SUBJECT TO PLANNING, TRAFFIC, ACOUSTIC, SURVEY AND SPECIALIST ASSESSMENT.

**LEGEND**

	BOUNDARY LINE
	NO VEHICLE ACCESS PERMITTED
	2400mm HIGH BARRIER
	EXISTING RETAINING WALL
	2100mm HIGH MASONRY FENCING
	EXISTING LIGHT POLE
	EXISTING PILLAR
	BOLLARD - AS PER 7-ELEVEN STD. DWGS.
	REMOVABLE BOLLARD - AS PER 7-ELEVEN STD. DWGS.
	DOWNPIPE AS PER 7-ELEVEN STD. DWGS.
	CANOPY COLUMN TO STRUCTURAL ENG. DWGS.

1 7 ELEVEN - SITE PLAN  
 1:200





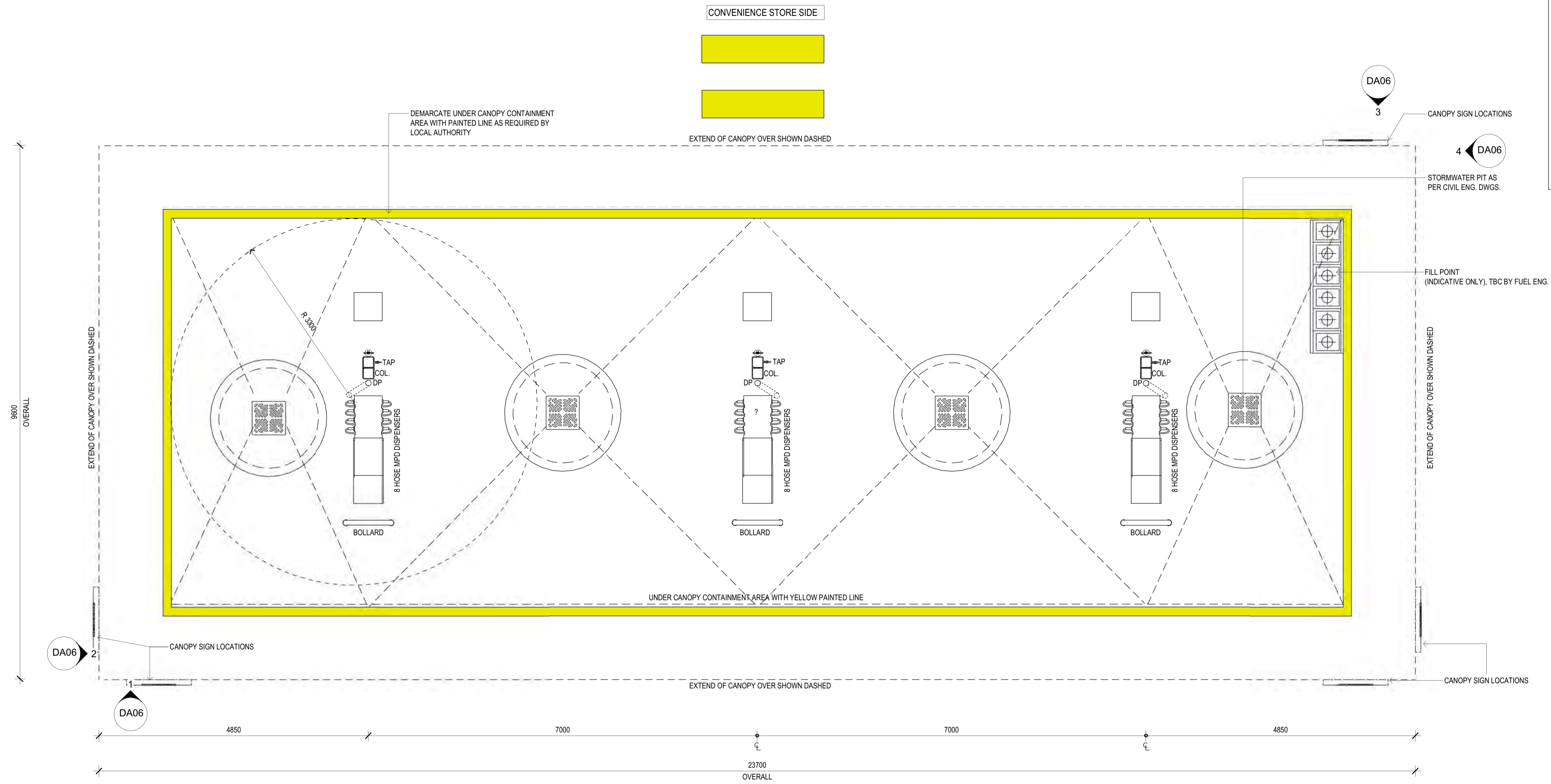
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- LEGEND**
- BOUNDARY LINE
  - NO VEHICLE ACCESS PERMITTED
  - 2400mm HIGH BARRIER
  - EXISTING RETAINING WALL
  - 2100mm HIGH MASONRY FENCING
  - EXISTING LIGHT POLE
  - EXISTING PILLAR
  - B BOLLARD - AS PER 7-ELEVEN STD. DWGS.
  - RB REMOVABLE BOLLARD - AS PER 7-ELEVEN STD. DWGS.
  - DP DOWNPIPE AS PER 7-ELEVEN STD. DWGS.
  - COL CANOPY COLUMN TO STRUCTURAL ENG. DWGS.

1 7 ELEVEN - FLOOR PLAN  
1:50

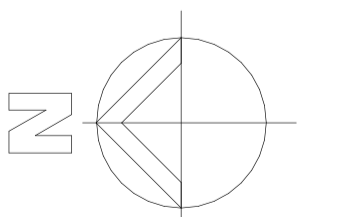
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1 7 ELEVEN - FUEL CANOPY  
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3D VIEW 1



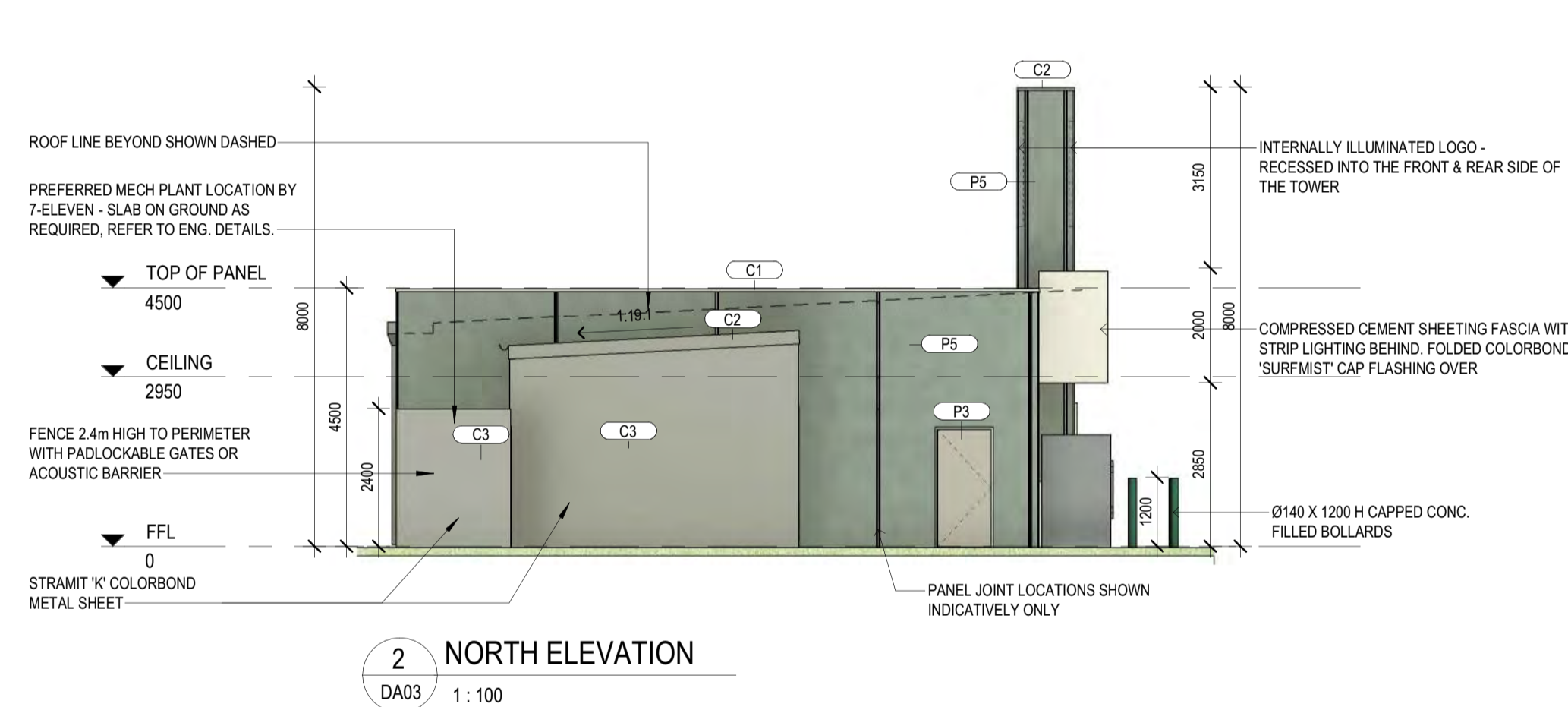
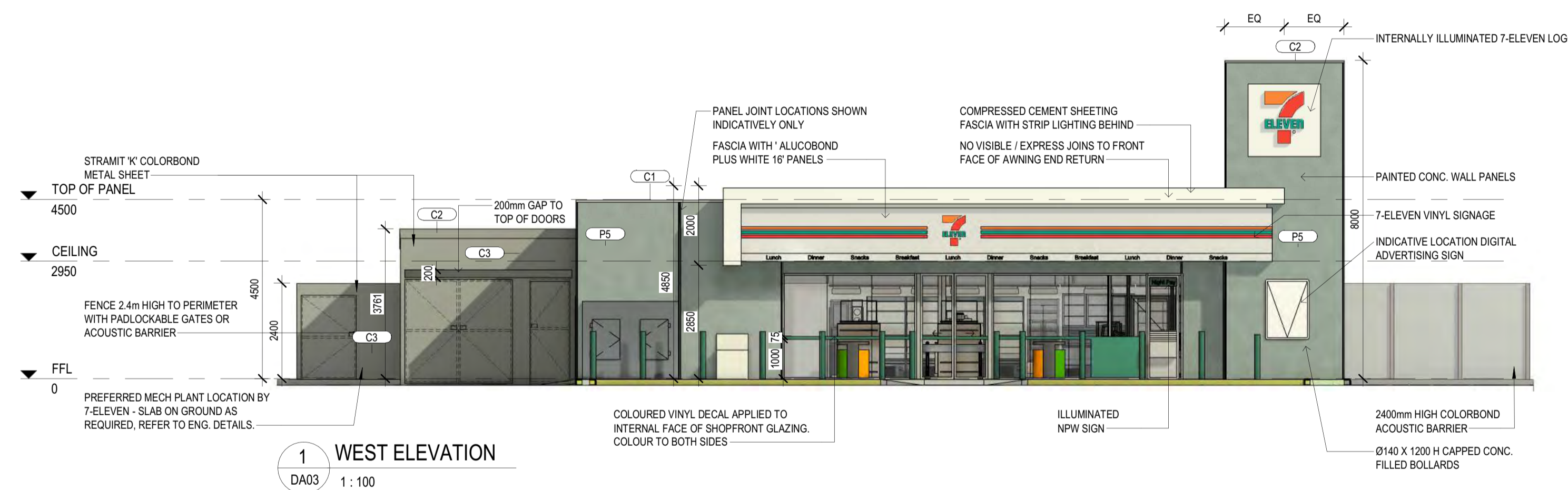
3D VIEW 2

PAINT FINISHES SCHEDULE		
CODE	FINISH SPECIFICATION	LOCATION
P1	DULUX WASH & WEAR 101 LOW SHEEN ACRYLIC COLOUR: VIVID WHITE PWH189 (AS SPECIFIED TO BE PAINTED)	INTERIOR CEILING
P2	DULUX WASH & WEAR 101 SEMI GLOSS ACRYLIC COLOUR: WHITEPOLAR HALF SW1C1	INTERIOR WALLS, FOTG ZONE INTERIOR WALL & INTERNAL WALL TO SLURFEE ZONE, FRONT AND UNDER SIDE OF FOTG BULKHEAD, SERVICE COUNTER WALLS, OFFICE DESK BACKING
P3	DULUX SUPER ENAMEL HIGH GLOSS COLOUR: COLORBOND MASON GREY S68H4	INTERIOR DOORS & ARCHITRAVES MECHANICAL PLANT DECK AND DURAGAL SCREEN, DECK HANDRAIL
P4	DULUX WEATHERSHIELD x 10 GLOSS ACRYLIC COLOUR: VIVID WHITE PWH189	7-ELEVEN VENT PIPES, PETROL CANOPY COLUMNS & DOWNPIPES
P5	DULUX WEATHERSHIELD x 10 GLOSS ACRYLIC COLOUR: SAGE MONICA (DULUX REF S69H3)	BUILDING FACADE, EXTERIOR DOOR, DOWNPIPES GUTTER, SELECTED EXTERNAL CONCRETE PANEL WALLS.
P6	DULUX WEATHERSHIELD x 10 GLOSS ACRYLIC COLOUR: BLACK	PETROL CANOPY COLUMNS AND BOLLARDS 300MM ABOVE GROUND LEVEL
P8	DULUX ROADMASTER A1 - NONSLIP COLOUR: LF YELLOW ADDITIVE: GLASS BEAD	CAR PARK LINES - FACE AND TOP OF KERB IMMEDIATELY IN FRONT OF STORE & AS NOTED ON SITE PLAN
P10	DULUX WEATHERSHIELD x 10 GLOSS ACRYLIC COLOUR: ROUSSEAU GREEN	BOLLARDS
P11	DULUX WEATHERSHIELD x 10 GLOSS ACRYLIC COLOUR: GOLDEN BANNER	BOLLARD (SHARED ZONE)
P12	DULUX ROADMASTER A1 - NONSLIP ADDITIVE: GLASS BEAD WIDTH: 300MM WIDE	CROSSOVER ENTRIES / EXITS WHERE A STOP SIGN IS REQUIRED

METAL FINISHES SCHEDULE		
CODE	FINISH SPECIFICATION	LOCATION
C1	FOLDED COLORBOND METAL FLASHING COLOUR: COLORBOND 'SURFMIST'	ROOF FLASHING & PARAPET CAPPING
C2	FOLDED COLORBOND METAL FLASHING COLOUR: COLORBOND 'WINDSPRAY'	ROOF FLASHING & PARAPET CAPPING & DOWN PIPE
C3	STRAMIT 'K' COLORBOND METAL SHEET / WALL CLADDING COLOUR: COLORBOND 'WINDSPRAY'	BIN ROOM, BIN YARD GATES, FENCING, MECH PLANT GATE
C4	STRAMIT MONOPANEL 250 COLORBOND METAL SHEET COLOUR: COLORBOND 'SURFMIST'	FUEL CANOPY & BUILDING SOFFIT LINING

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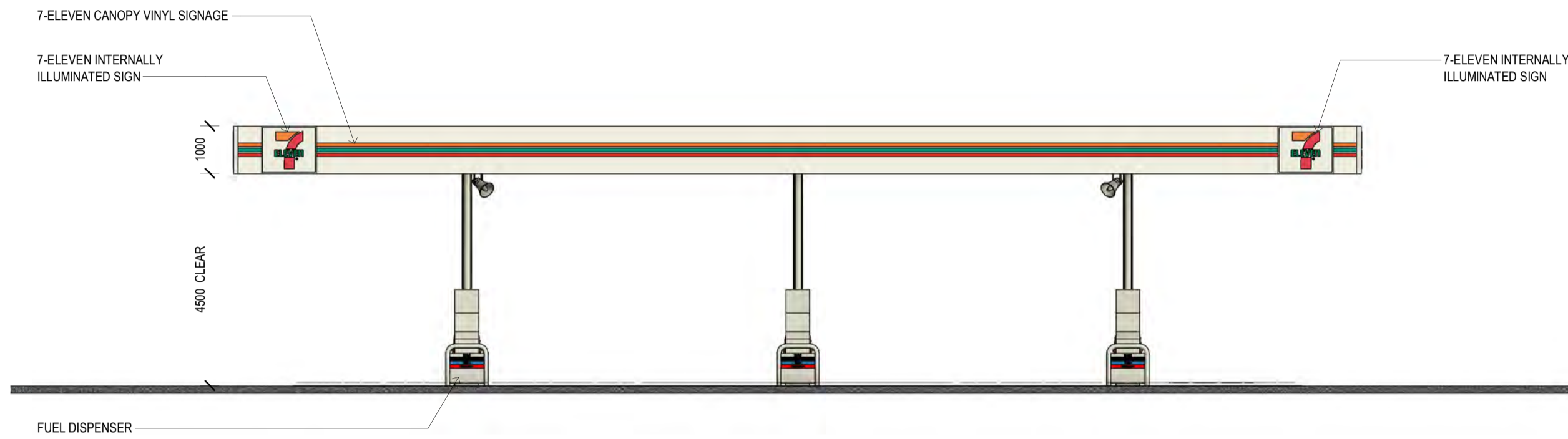


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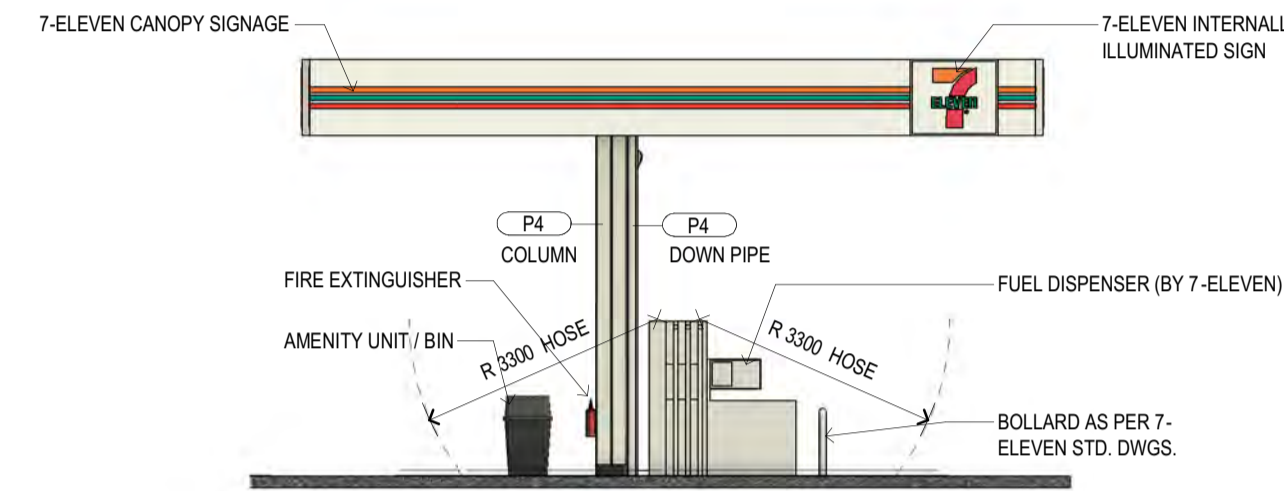


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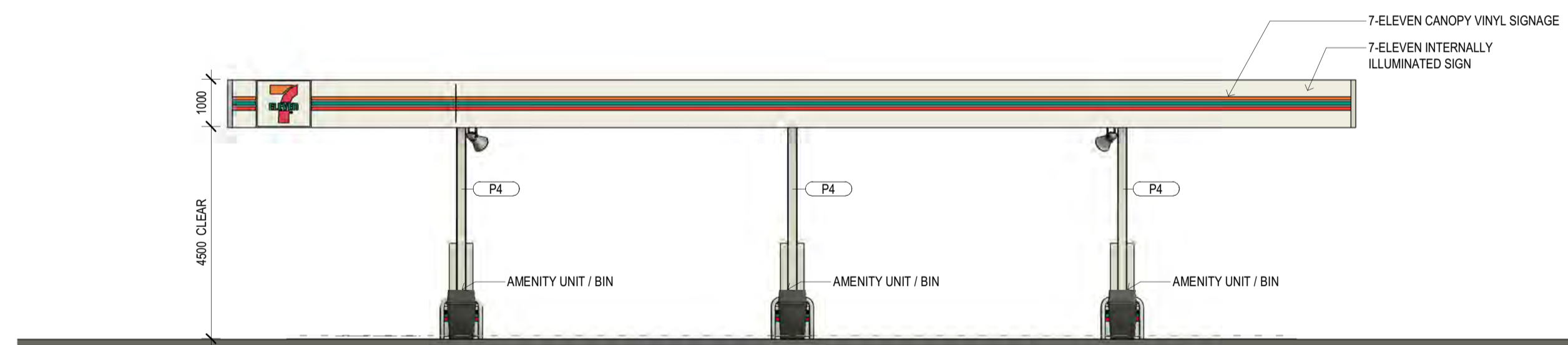
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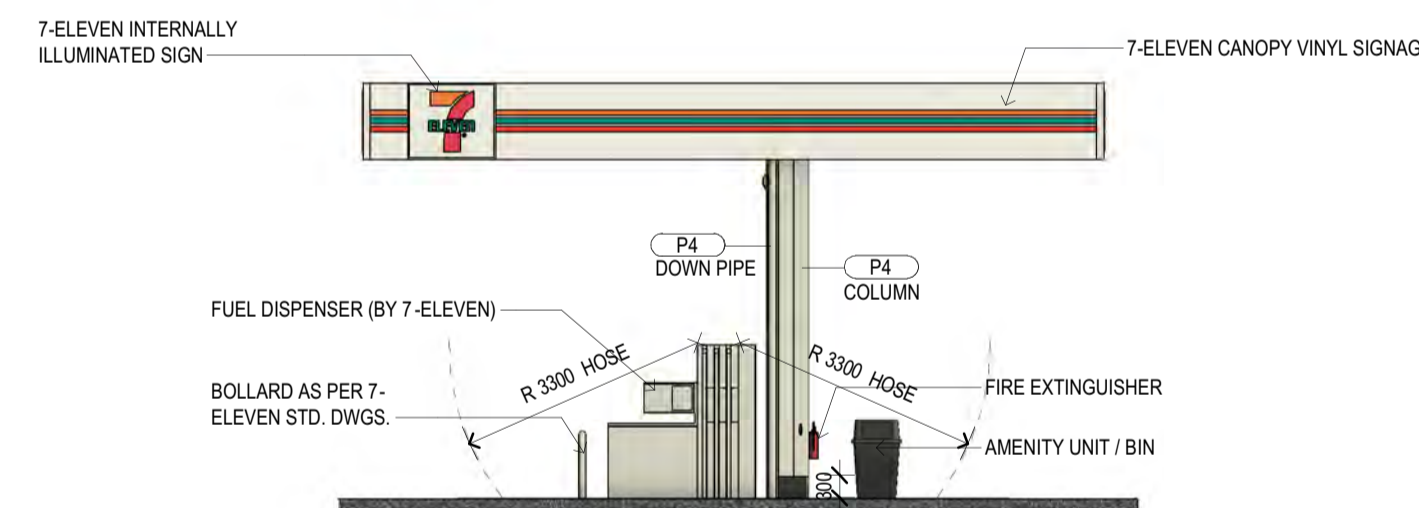
**1 FUEL CANOPY WEST ELEVATION**  
DA04 1:100



**2 FUEL CANOPY NORTH ELEVATION**  
DA04 1:100



**3 FUEL CANOPY EAST ELEVATION**  
DA04 1:100



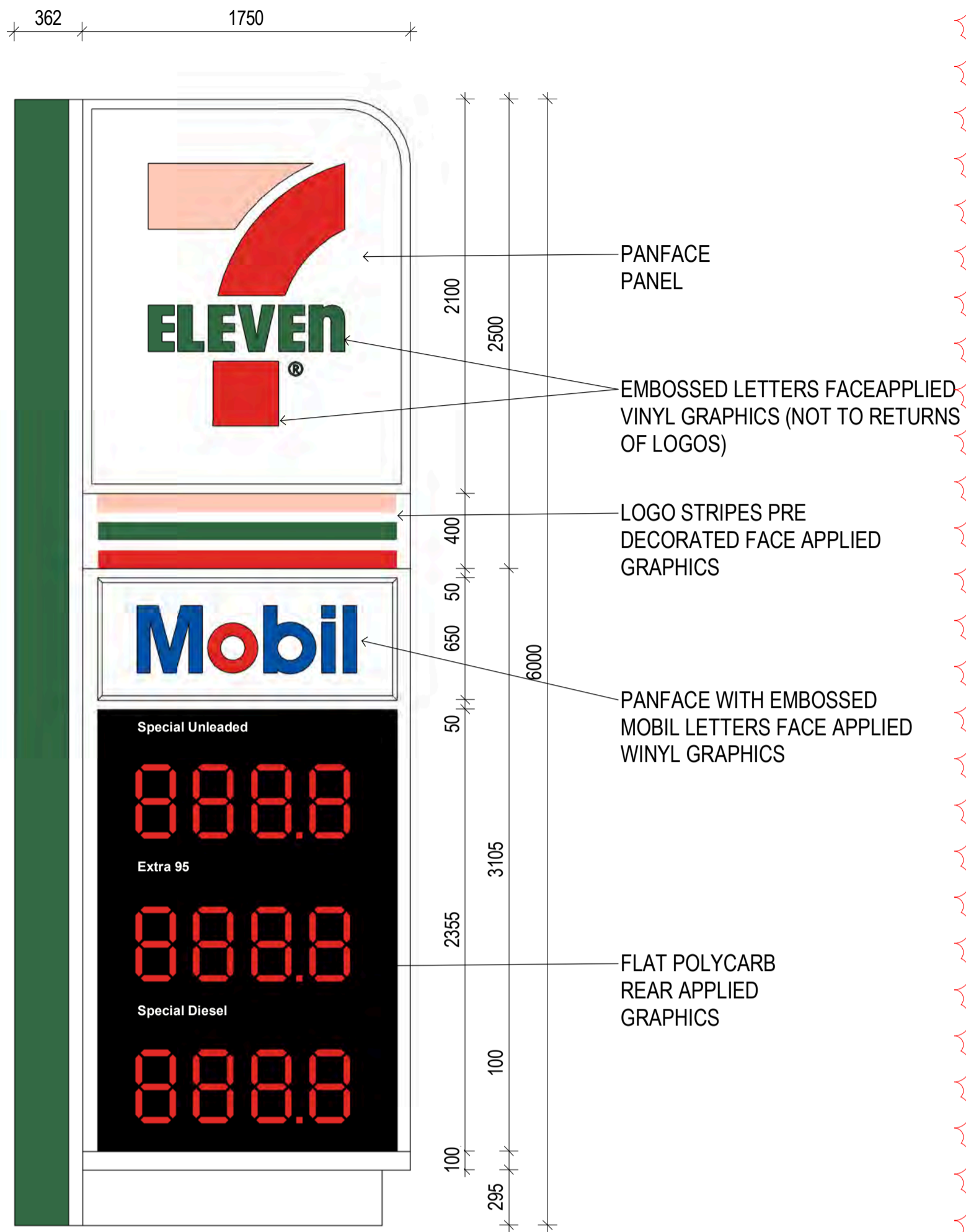
**4 FUEL CANOPY SOUTH ELEVATION**  
DA04 1:100

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P2	DULUX WASH & WEAR 101 SEMI GLOSS ACRYLIC COLOUR: WHITE POLAR HALF SW1C1	INTERIOR WALLS, FOTG ZONE, INTERIOR WALL & INTERNAL WALL TO SURFPIPE ZONE, FRONT AND UNDER SIDE OF FOTG BULKHEAD, SERVICE COUNTER WALLS, OFFICE DESK BACKING
P3	DULUX SUPER ENAMEL HIGH GLOSS COLOUR: COLORBOND MASON GREY SGBH4	INTERIOR DOORS & ARCHITRAVES MECHANICAL PLANT DECK AND DURAGAL SCREEN, DECK HANDRAIL
P4	DULUX WEATHERSHIELD x 10 GLOSS ACRYLIC COLOUR: VIVID WHITE PWH9	7-ELEVEN VENT PIPES, PETROL CANOPY COLUMNS & DOWNPIPES
P5	DULUX WEATHERSHIELD x 10 GLOSS ACRYLIC COLOUR: SAGE MONICA (DULUX REF SG913)	BUILDING FACADE, EXTERIOR DOOR, DOWNPIPES GUTTER, SELECTED EXTERNAL CONCRETE PANEL WALLS.
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P10	DULUX WEATHERSHIELD x 10 GLOSS ACRYLIC COLOUR: ROUSSEAU GREEN	BOLLARDS
P11	DULUX WEATHERSHIELD x 10 GLOSS ACRYLIC COLOUR: GOLDEN BANNER	BOLLARD (SHARED ZONE)
P12	DULUX ROADMASTER A1 - NONSLIP COLOUR: SOLID WHITE ADDITIVE: GLASS BEAD WIDTH: 300MM WIDE	CROSSOVER ENTRIES / EXITS WHERE A STOP SIGN IS REQUIRED

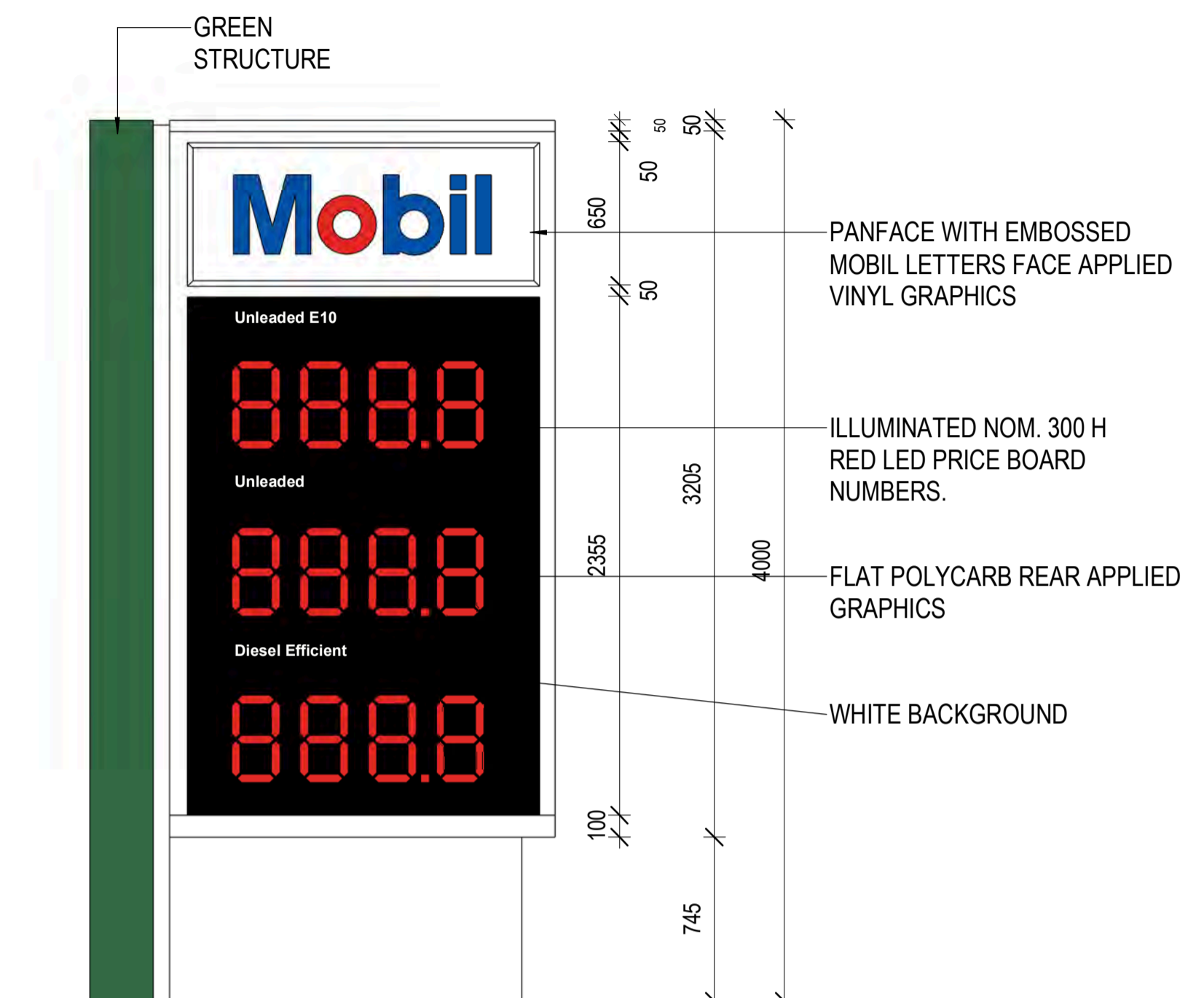
METAL FINISHES SCHEDULE		
CODE	FINISH SPECIFICATION	LOCATION
C1	FOLDED COLORBOND METAL FLASHING COLOUR: COLORBOND 'SURFMIST'	ROOF FLASHING & PARAPET CAPPING
C2	FOLDED COLORBOND METAL FLASHING COLOUR: COLORBOND 'WINDSPRAY'	ROOF FLASHING & PARAPET CAPPING & DOWN PIPE
C3	STRAMIT 'K' COLORBOND METAL SHEET / WALL CLADDING COLOUR: COLORBOND 'WINDSPRAY'	BIN ROOM, BIN YARD GATES, FENCING, MECH PLANT GATE
C4	STRAMIT MONOPANEL 250 COLORBOND METAL SHEET COLOUR: COLORBOND 'SURFMIST'	FUEL CANOPY & BUILDING SOFFIT LINING

INTERIM ISSUE ONLY  
DATE: 03.12.2024

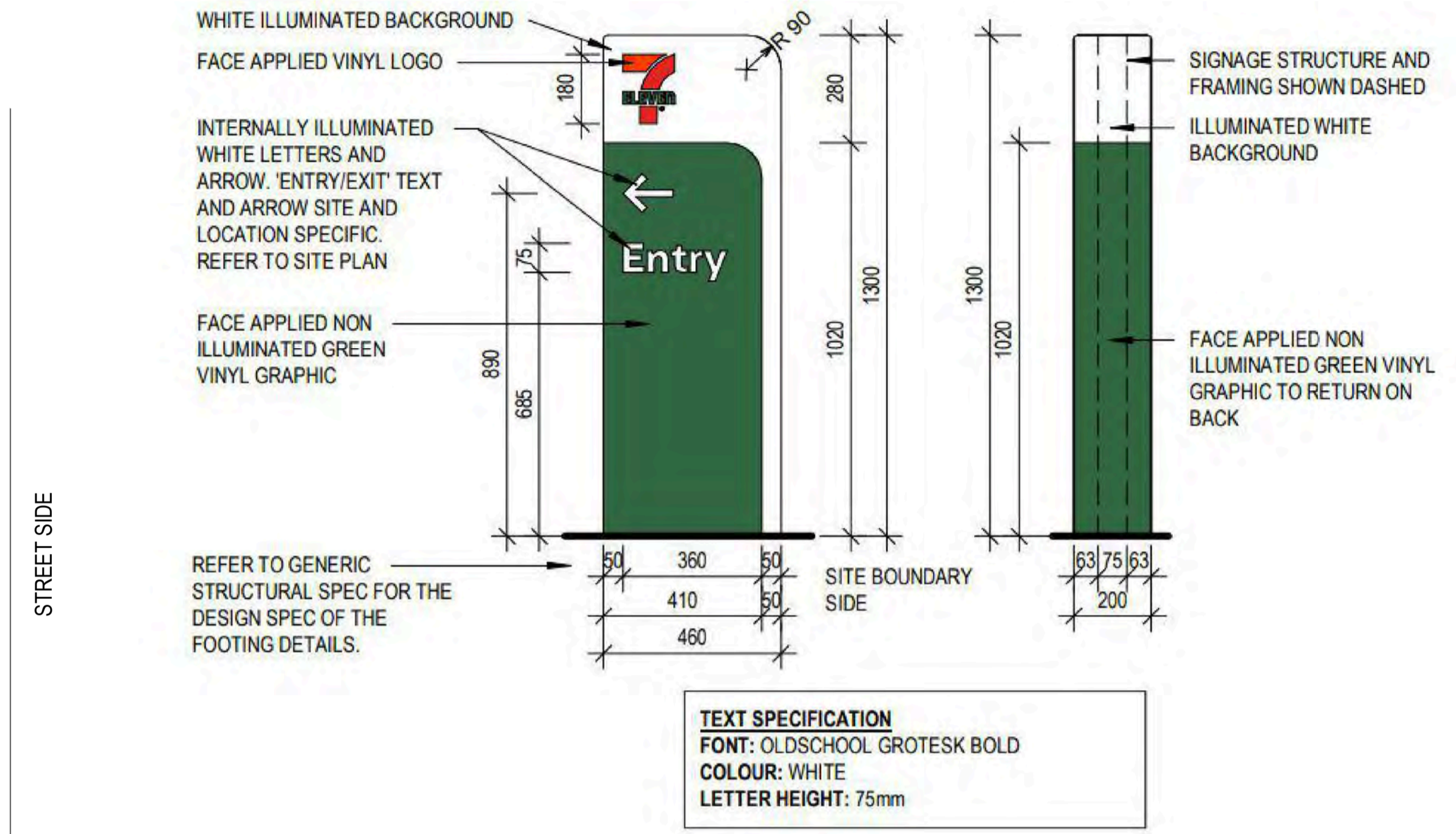




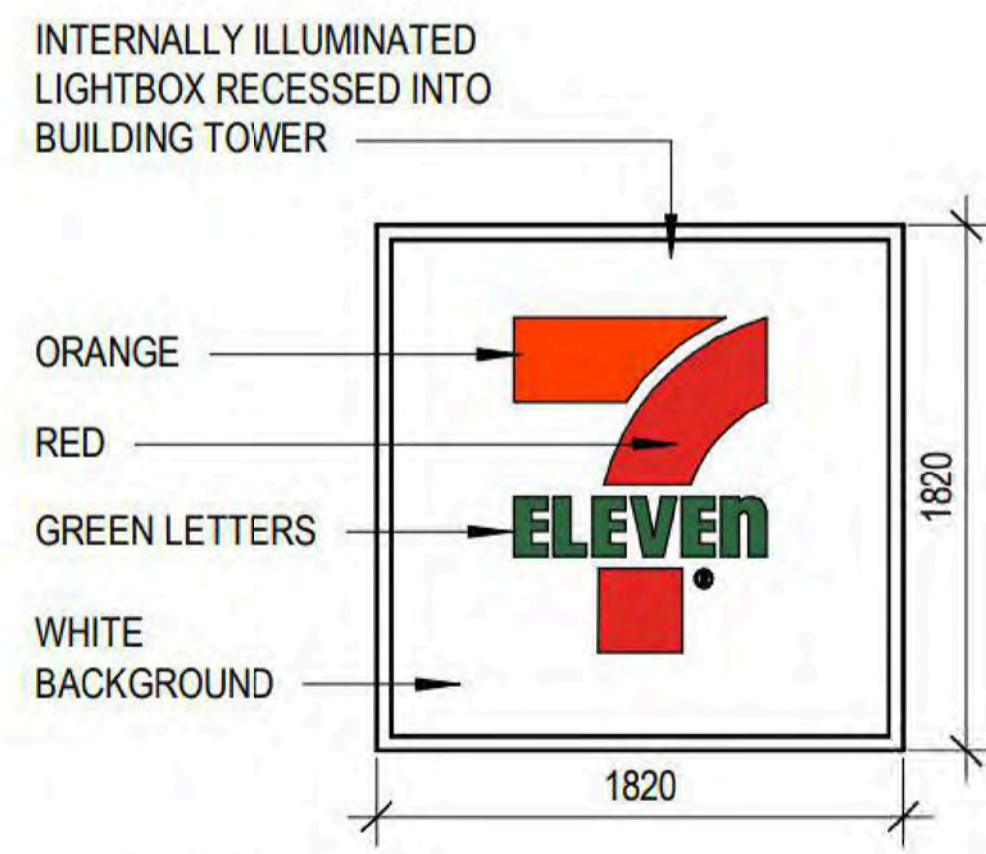
**S1 PRICE BOARD ELEVATION - 6m (WA)**



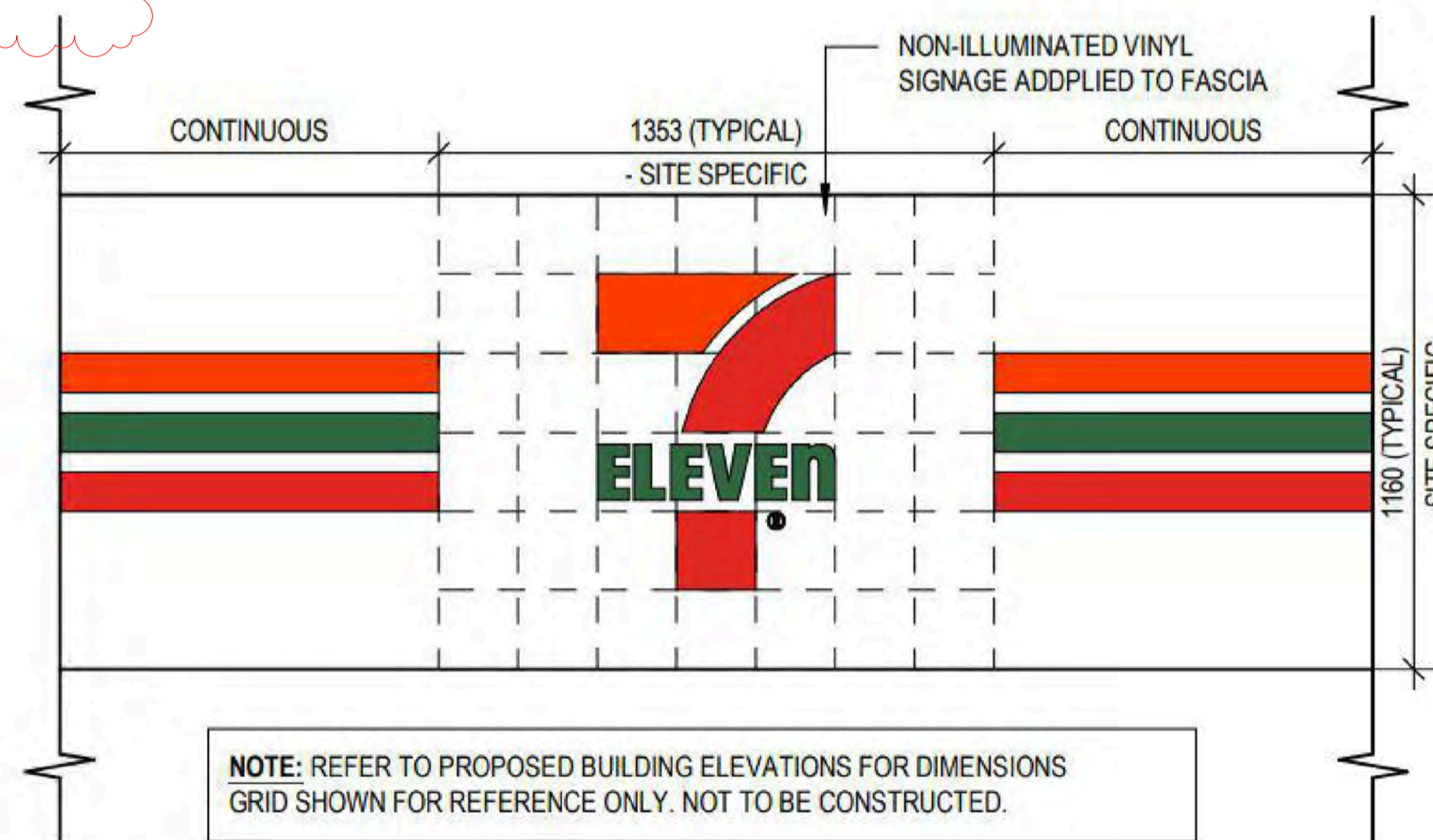
**S2 PRICE BOARD ELEVATION - 4m (WA)**



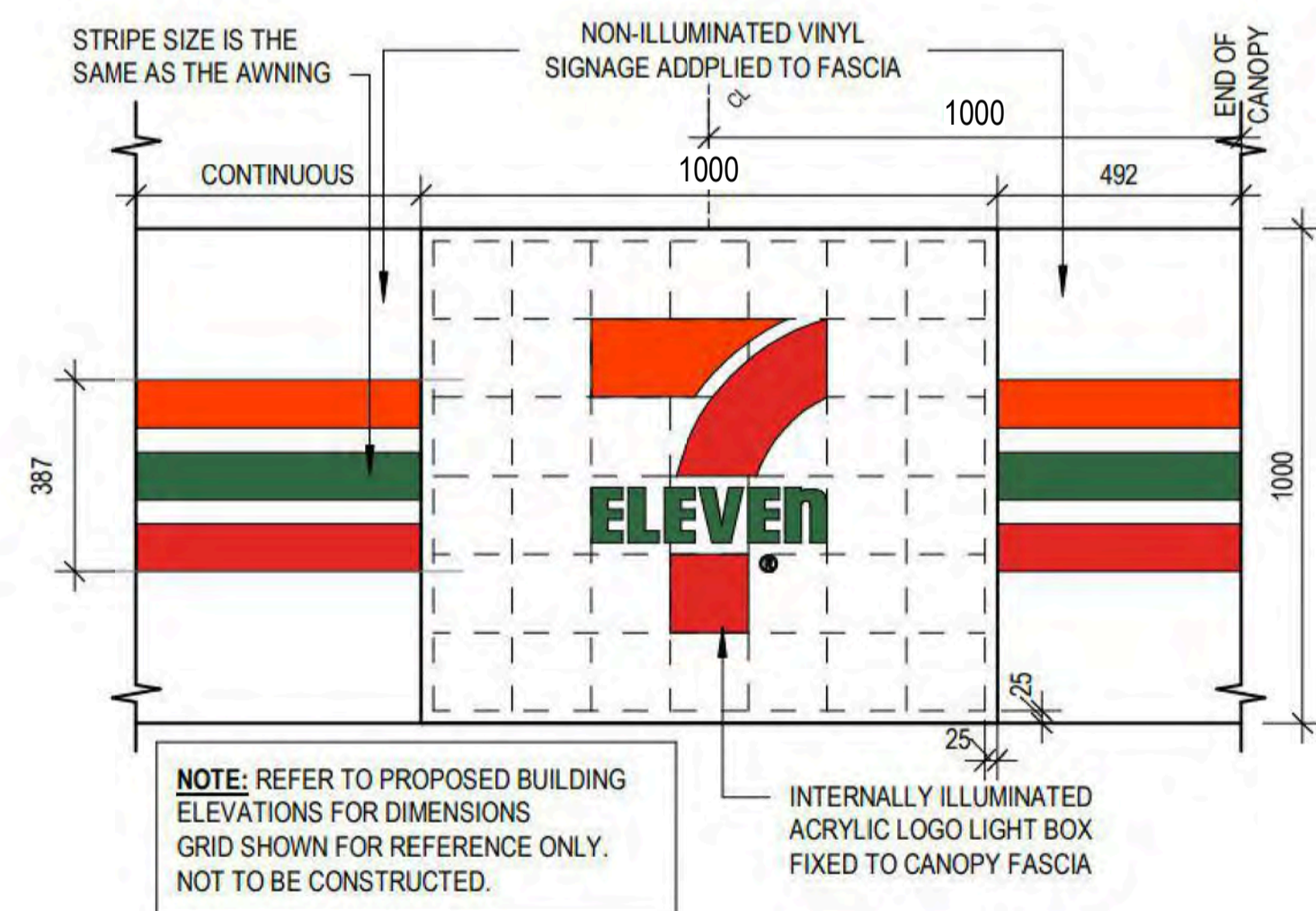
**DIRECTIONAL SIGN**



(x2 REQUIRED)  
**TOWER LOGO**



**TYPICAL BUILDING / AWNING FASCIA DETAIL**



**TYPICAL FUEL CANOPY FASCIA DETAIL**



0 20 40 60 80 m



City of Wanneroo does not warrant the accuracy of information in this publication and any person using or relying upon such information does so on the basis that City of Wanneroo shall bear no responsibility or liability whatsoever for any errors, faults, defects or omissions in this information. Based on information provided by and with the permission of the Western Australian Land Authority trading as LANDGATE.

**SUBJECT SITE**

Date: 8/04/2025	
Printed by Houden, Raelee	
Scale = 1:3000	



**Approval Subject To Condition(s)  
Freehold (Green Title) Subdivision**

**Application No** : 158920

**Planning and Development Act 2005**

Applicant	:	[REDACTED]
Owner	:	[REDACTED]
Application Receipt	:	28 January 2020

Lot Number	:	9014
Diagram / Plan	:	Deposited Plan 414270
Location	:	-
C/T Volume/Folio	:	2959/687
Street Address	:	Constellation Entrance, Two Rocks
Local Government	:	City of Wanneroo

The Western Australian Planning Commission has considered the application referred to and is prepared to endorse a deposited plan in accordance with the plan date-stamped **28 January 2020** once the condition(s) set out have been fulfilled.

This decision is valid for **three years** from the date of this advice, which includes the lodgement of the deposited plan within this period.

The deposited plan for this approval and all required written advice confirming that the requirement(s) outlined in the condition(s) have been fulfilled must be submitted by **13 August 2023** or this approval no longer will remain valid.

**Reconsideration - 28 days**

Under section 151(1) of the *Planning and Development Act 2005*, the applicant/owner may, within 28 days from the date of this decision, make a written request to the WAPC to reconsider any condition(s) imposed in its decision. One of the matters to which the WAPC



will have regard in reconsideration of its decision is whether there is compelling evidence by way of additional information or justification from the applicant/owner to warrant a reconsideration of the decision. A request for reconsideration is to be submitted to the WAPC on a Form 3A with appropriate fees. An application for reconsideration may be submitted to the WAPC prior to submission of an application for review. Form 3A and a schedule of fees are available on the WAPC website: <http://www.planning.wa.gov.au>

### **Right to apply for a review - 28 days**

Should the applicant/owner be aggrieved by this decision, there is a right to apply for a review under Part 14 section 251 of the *Planning and Development Act 2005*. The application for review must be submitted in accordance with part 2 of the *State Administrative Tribunal Rules 2004* and should be lodged within 28 days of the date of this decision to: the State Administrative Tribunal, Level 6, State Administrative Tribunal Building, 565 Hay Street, PERTH, WA 6000. It is recommended that you contact the tribunal for further details: telephone 9219 3111 or go to its website: <http://www.sat.justice.wa.gov.au>

### **Deposited plan**

The deposited plan is to be submitted to the Western Australian Land Information Authority (Landgate) for certification. Once certified, Landgate will forward it to the WAPC. In addition, the applicant/owner is responsible for submission of a Form 1C with appropriate fees to the WAPC requesting endorsement of the deposited plan. A copy of the deposited plan with confirmation of submission to Landgate is to be submitted with all required written advice confirming compliance with any condition(s) from the nominated agency/authority or local government. Form 1C and a schedule of fees are available on the WAPC website: <http://www.planning.wa.gov.au>

### **Condition(s)**

The WAPC is prepared to endorse a deposited plan in accordance with the plan submitted once the condition(s) set out have been fulfilled.

The condition(s) of this approval are to be fulfilled to the satisfaction of the WAPC.

The condition(s) must be fulfilled before submission of a copy of the deposited plan for endorsement.

The agency/authority or local government noted in brackets at the end of the condition(s) identify the body responsible for providing written advice confirming that the WAPC's requirement(s) outlined in the condition(s) have been fulfilled. The written advice of the agency/authority or local government is to be obtained by the applicant/owner. When the written advice of each identified agency/authority or local government has been obtained, it should be submitted to the WAPC with a Form 1C and appropriate fees and a copy of the deposited plan.

If there is no agency/authority or local government noted in brackets at the end of the condition(s), a written request for confirmation that the requirement(s) outlined in the



condition(s) have been fulfilled should be submitted to the WAPC, prior to lodgement of the deposited plan for endorsement.

Prior to the commencement of any subdivision works or the implementation of any condition(s) in any other way, the applicant/owner is to liaise with the nominated agency/authority or local government on the requirement(s) it considers necessary to fulfil the condition(s).

The applicant/owner is to make reasonable enquiry to the nominated agency/authority or local government to obtain confirmation that the requirement(s) of the condition(s) have been fulfilled. This may include the provision of supplementary information. In the event that the nominated agency/authority or local government will not provide its written confirmation following reasonable enquiry, the applicant/owner then may approach the WAPC for confirmation that the condition(s) have been fulfilled.

In approaching the WAPC, the applicant/owner is to provide all necessary information, including proof of reasonable enquiry to the nominated agency/authority or local government.

The condition(s) of this approval, with accompanying advice, are:

#### CONDITIONS:

1. The plan of subdivision is to be modified in accordance with the plan date stamped 7 July 2020 (attached). (*Western Australian Planning Commission*)
2. The landowner/applicant contributing towards development infrastructure provisions pursuant to the *City of Wanneroo District Planning Scheme No.2*. (Local Government)
3. The land being filled, stabilised, drained and/or graded as required to ensure that:
  - a) lots can accommodate their intended use;
  - b) finished ground levels at the boundaries of the lot(s) the subject of this approval match or otherwise coordinate with the existing and/ or proposed finished ground levels of the land abutting; and
  - c) stormwater is contained on-site, or appropriately treated and connected to the local drainage system.(Local Government)
4. Engineering drawings and specifications are to be submitted, approved, and subdivisional works undertaken in accordance with the approved plan of subdivision, engineering drawings and specifications, to ensure that those lots not fronting an existing road are provided with frontage to a constructed road(s) connected by a constructed road(s) to the local road system and such road(s) are constructed and drained at the landowner/ applicant's cost.



As an alternative, and subject to the agreement of the Local Government the Western Australian Planning Commission (WAPC) is prepared to accept the landowner/ applicant paying to the local government the cost of such road works as estimated by the local government and the local government providing formal assurance to the WAPC confirming that the works will be completed within a reasonable period as agreed by the WAPC.

(Local Government)

5. Engineering drawings and specifications are to be submitted and approved, and subdivisional works undertaken in accordance with the approved plan of subdivision, engineering drawings and specifications to ensure that:
  - a) street lighting is installed on all new subdivisional roads to the standards of the relevant licensed service provider;
  - b) roads that have been designed to connect with existing or proposed roads abutting the subject land are coordinated so the road reserve location and width connect seamlessly; and
  - c) temporary turning areas are provided to those subdivisional roads that are subject to future extension.

to the satisfaction of the Western Australian Planning Commission.

(Local Government)

6. Engineering drawings and specifications are to be submitted, approved, and subdivisional works undertaken in accordance with the approved plan of subdivision, engineering drawings and specifications, for the provision of shared path/footpath and be constructed by the landowner/applicant. The approved shared paths are to be constructed by the landowner/applicant. (Local Government)
7. A restrictive covenant, to the benefit of the City of Wanneroo pursuant to Section 129BA of the *Transfer of Land Act 1893* is to be placed on the certificate(s) of title of the proposed lot(s) advising of the existence of a restriction on the use of the land. Notice of this restriction is to be included on the diagram or plan of survey (deposited plan). The restrictive covenant is to state as follows:

*"This lot is not to be developed for any purposes other than for Local Centre/Commercial Purposes".*

(Local Government)

8. Suitable arrangements being made with the local government for the provision of vehicular crossover(s) to service the lot(s) shown on the approved plan of subdivision. (Local Government)

9. Pursuant to Section 150 of the Planning and Development Act 2005 and Division 3 of the Planning and Development Regulations 2009 a covenant preventing vehicular access onto Breakwater Drive being lodged on the certificate(s) of title of the proposed lot(s) at the full expense of the landowner/applicant. The covenant is to prevent access, to the benefit of the City of Wanneroo in accordance with the plan dated 7 July 2020 (attached) and the covenant is to specify:

*"No vehicular access is permitted to and from Breakwater Drive and Dunraven Road other than from the crossovers shown on the annotated plan dated 7 July 2020"*

(Local Government)

10. Information is to be provided to demonstrate that the measures contained in the Bushfire Management Plan, Section 3.2 Bushfire Mitigation, prepared by Strategen dated 21 July 2015 have been implemented during subdivisional works. This information should include a notice of 'Certification by Bushfire Consultant'. (Local Government)

11. A notification, pursuant to Section 165 of the Planning and Development Act 2005, is to be placed on the certificate(s) of title of the proposed lot(s) with a Bushfire Attack Level (BAL) rating of 12.5 or above, advising of the existence of a hazard or other factor. Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows:

*"This land is within a bushfire prone area as designated by an Order made by the Fire and Emergency Services Commissioner and is subject to a Bushfire Management Plan Additional planning and building requirements may apply to development on this land"*

(Western Australian Planning Commission).


12. Arrangements being made to the satisfaction of the Western Australian Planning Commission and to the specification of Western Power for the provision of an underground electricity supply to the lot(s) shown on the approved plan of subdivision. (Western Power)
13. The transfer of land as a Crown reserve free of cost to Western Power for the provision of electricity supply infrastructure. (Western Power)
14. Arrangements being made with a licensed water provider for the provision of a suitable water supply service to each of the lot(s) shown on the approved plan of subdivision. (Water Corporation)
15. Arrangements being made with the Water Corporation for the provision of a sewerage service to each of the lot(s) shown on the approved plan of subdivision. (Water Corporation)

## ADVICE

1. In regard to Condition 6, the landowner/applicant is advised that the road reserves, including the constructed carriageways, laneways, truncations, footpaths/dual use paths and car embayments, are to be generally consistent with the approved plan of subdivision.
2. In regard to Condition 7, it is advised that an amendment to *Agreed Two Rocks LSP No. 69* will be required to designate the land subject of this application to a Local Centre in lieu of the mixed use designation, and reclassify the current Local Centre for mixed use purpose.
3. In regard to Condition 12, Western Power provides only one underground point of electricity supply per freehold lot.
4. In regard to Conditions 14 and 15, the landowner/applicant shall make arrangements with the Water Corporation for the provision of the necessary services. On receipt of a request from the landowner/ applicant, a Land Development Agreement under Section 83 of the Water Services Act 2012 will be prepared by the Water Corporation to document the specific requirements for the proposed subdivision.
5. This property is on a site where records confirm there is a history of military activities that have resulted in residual UXO. A possibility exists that dangerous items of UXO may still be found on this site. Contact police if a suspicious item that may be UXO is found. Visit [www.defence.gov.au/uxo](http://www.defence.gov.au/uxo) for further information.



Western Australian Planning Commission  
13 August 2020

Enquiries : 



## **Advice to Local Government**

The Local Government is advised that an amendment to *Agreed Two Rocks LSP No. 69* will be required to designate the land subject of this application to a Local Centre in lieu of the mixed use designation, and reclassify the current Local Centre for mixed use purpose.

The relocation of the Local Centre site is supported by the WAPC as the current site designated by LSP 69 has limited access to Breakwater Drive which is a Regional Road and is subject to PCA 140, and abuts the roundabout at Mercury Avenue and Breakwater Drive intersection.

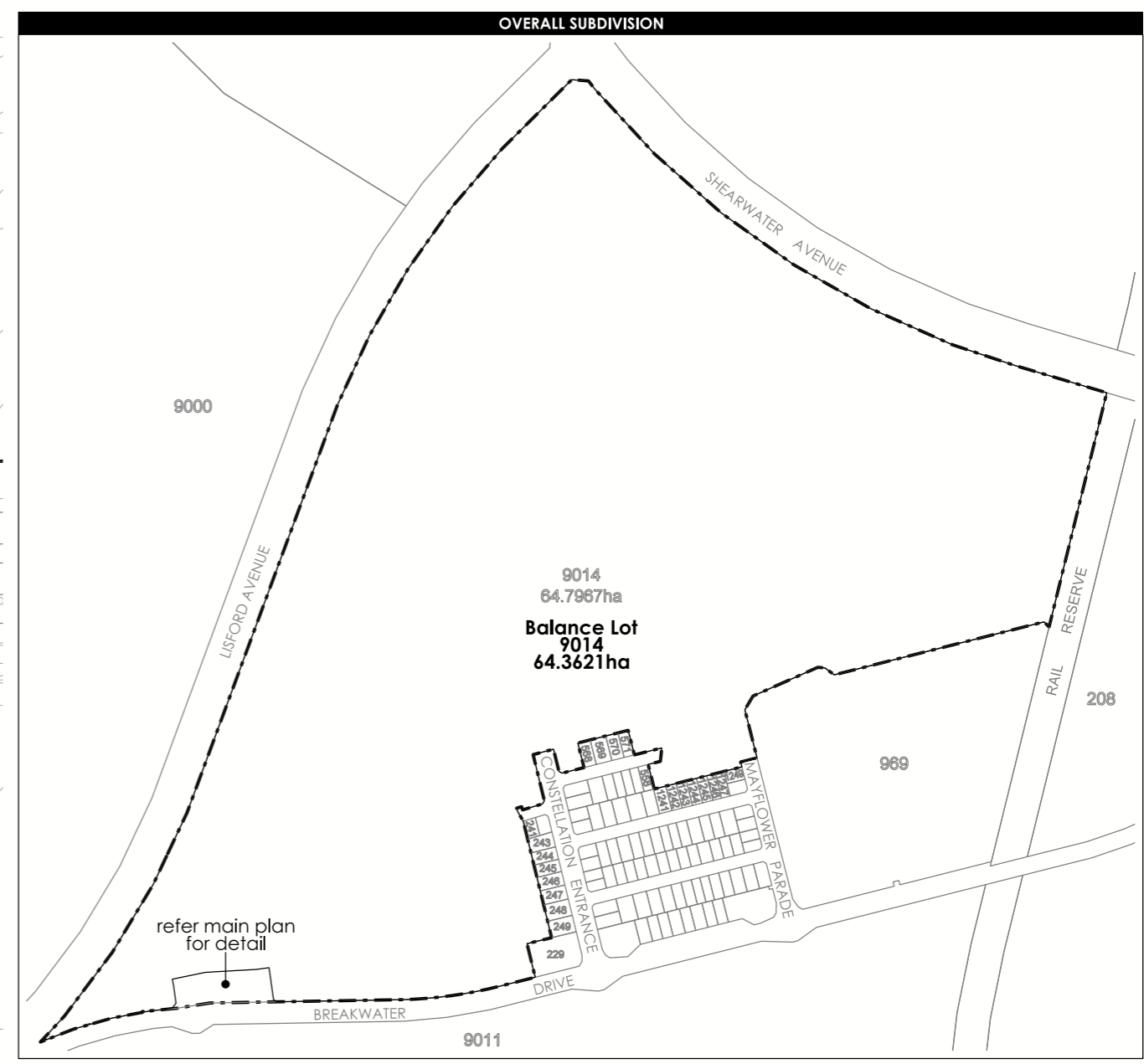
This amendment can be considered minor as per the Deemed Provisions of the *City of Wanneroo District Planning Scheme No.2*.



LEGEND  
 TOTAL APPLICATION AREA (64.7967ha)

DEPARTMENT OF PLANNING, LANDS  
AND HERITAGE

DATE: 28-Jan-2020 FILE: 158920



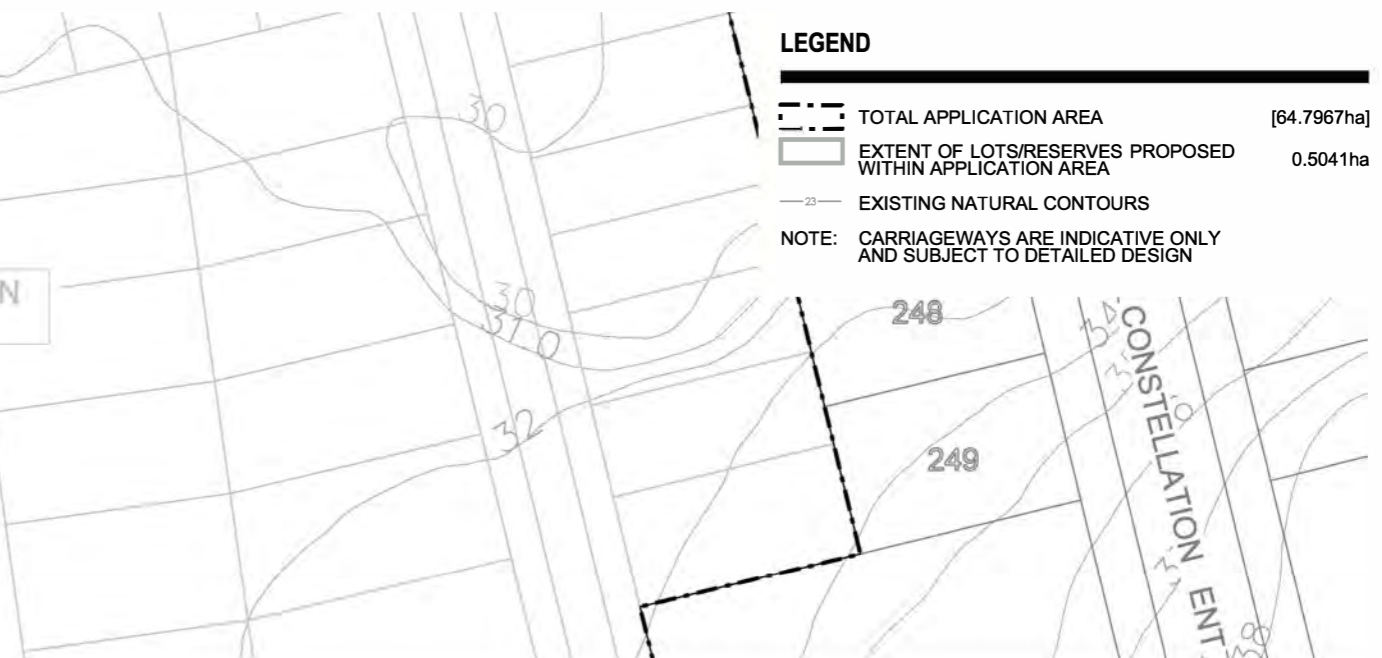
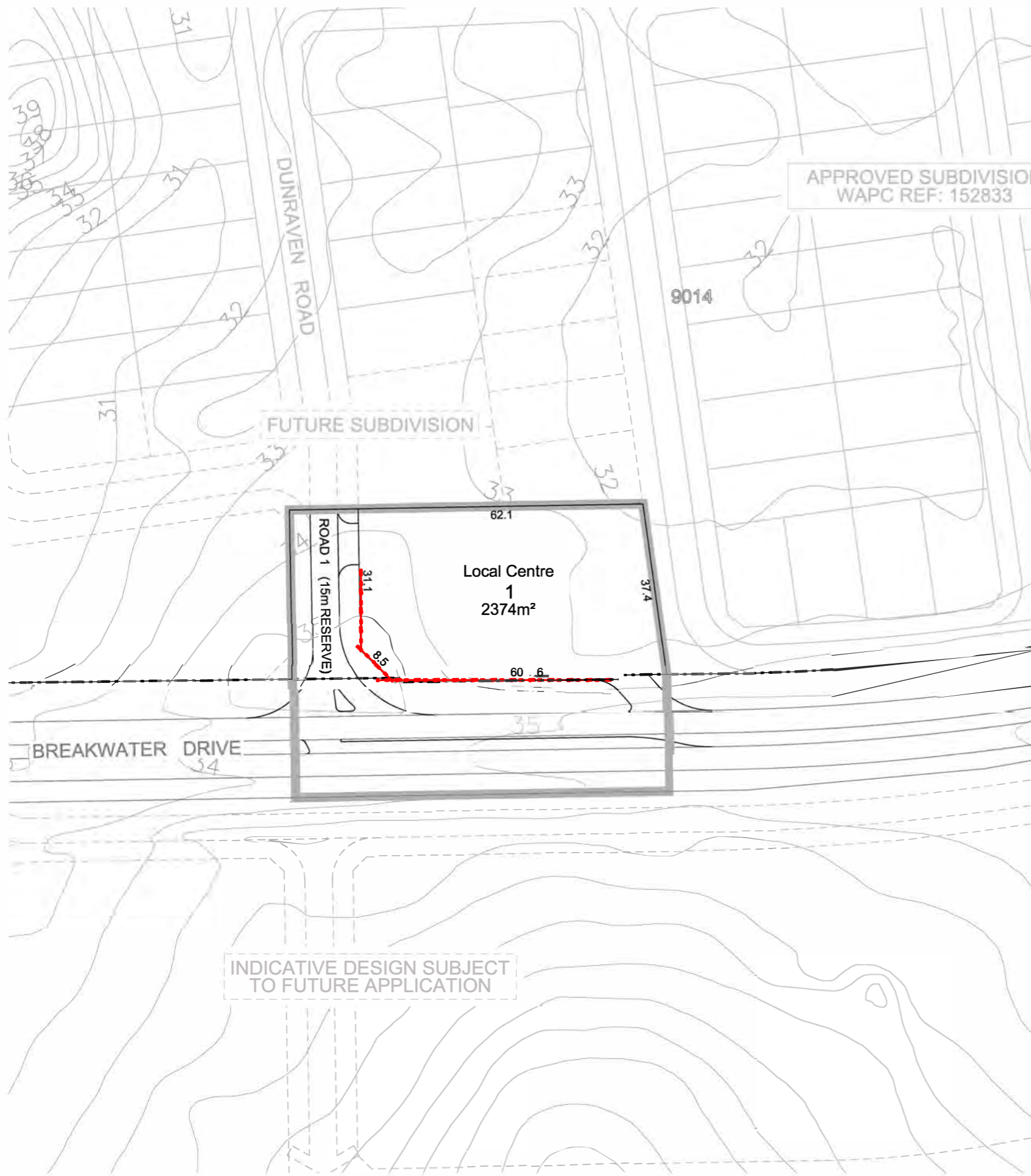
Plan of Subdivision - Freehold  
 LOT 9014 BREAKWATER DRIVE, TWO ROCKS  
 A CAPRICORN VILLAGE JOINT VENTURE PROJECT

**DRAFT**

client:	07/032/149	designed:	ME	scale:	1:1000@A3   1:500@A1	
date:	09/12/2019	checked:	PLANNER	0	10	20m
projection:	PCG 94	drawn:	BR			

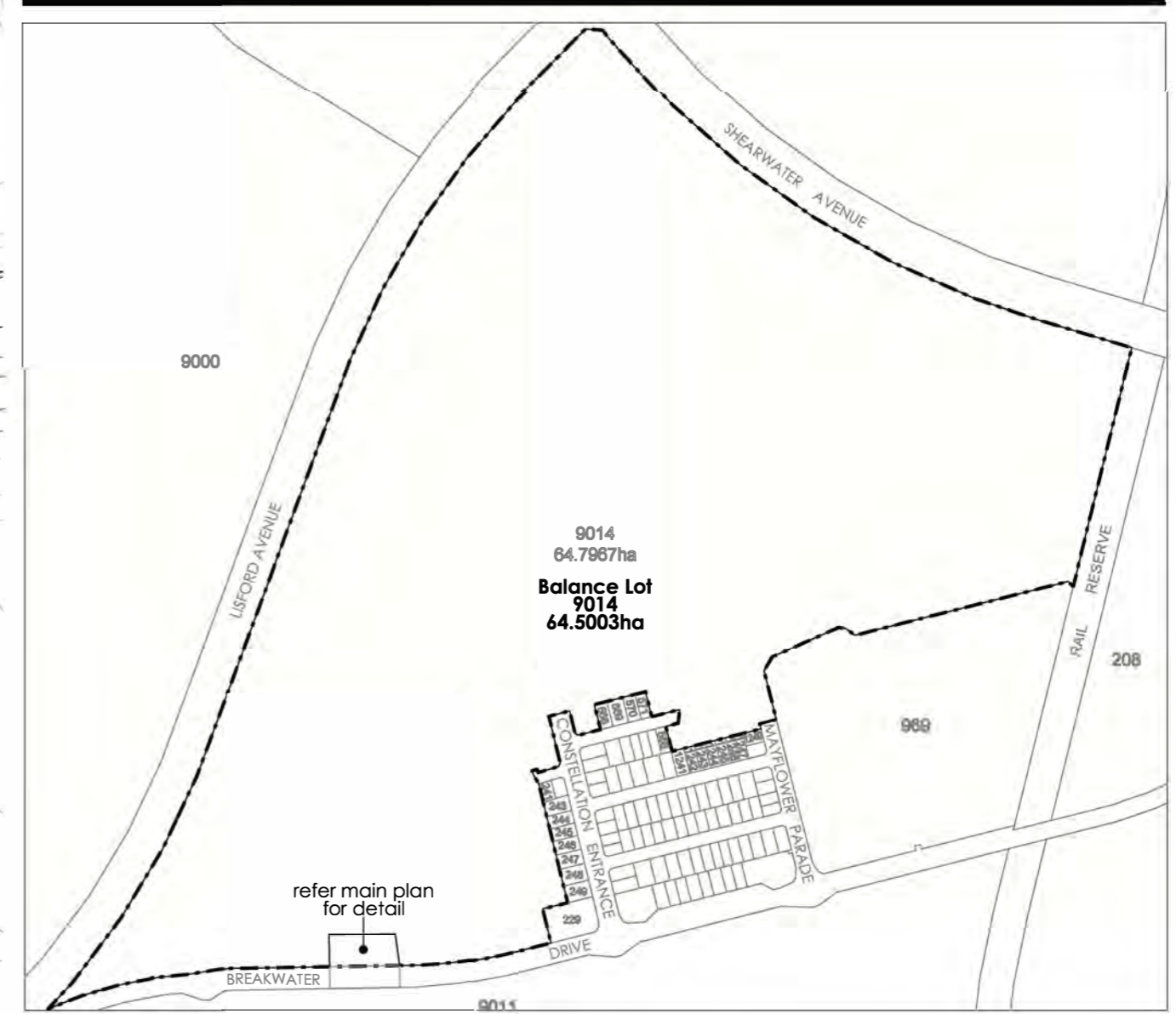
Taylor Burrell Barnett Town Planning & Design  
 Level 7, 160 St Georges Terrace, Perth WA 6000  
 p: (08) 9226 4276 e: admin@tbp.planning.com.au

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- LEGEND**
- TOTAL APPLICATION AREA [64.7967ha]
  - EXTENT OF LOTS/RESERVES PROPOSED WITHIN APPLICATION AREA 0.5041ha
  - EXISTING NATURAL CONTOURS
- NOTE: CARRIAGEWAYS ARE INDICATIVE ONLY AND SUBJECT TO DETAILED DESIGN

**OVERALL SUBDIVISION**



**Plan of Subdivision - Freehold**  
 LOT 9014 BREAKWATER DRIVE, TWO ROCKS

**DEPARTMENT OF PLANNING, LANDS AND HERITAGE**

A Capricorn Village Joint Venture Project

DATE	FILE
07-Jul-2020	158920

**DRAFT**

plan: 07/032/155  
 scale: 1:1000@A3 | 1:500@A1  
 0 10 20m

date: 06/07/2020  
 grid: PCG 94

designed: ME  
 checked: RC  
 drawn: BR

Taylor Burrell Barnett Town Planning & Design  
 Level 7, 160 St Georges Terrace, Perth WA 6000  
 e: admin@tbbplanning.com.au  
 p: (08) 9226 4276



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WAPC ref: 200603  
Date: 30 October 2024  
Enquiries: [REDACTED]

### APPROVAL OF APPLICATION WAPC REF: 200603

Reference is made to an application for the subdivision of Lot 9024 Breakwater Drive, Two Rocks.

Please be advised the Western Australian Planning Commission has approved application WAPC ref: 200603 and once the attached conditions of approval are fulfilled, is prepared to endorse a Deposited plan in accordance with the plan date-stamped 1 August 2024.

This decision is valid for three (3) years from the date of this notice. The Deposited plan must be submitted within the term of the approval, that is, by the close of business on 30 October 2027.

### CONDITION(S):

1. The plan of subdivision is to be modified in accordance with the attached plan (Attachment A) dated 24 October 2024.

(Western Australian Planning Commission)

2. The landowner/applicant contributing towards development infrastructure provisions pursuant to the *City of Wanneroo District Planning Scheme No.2*.

(City of Wanneroo)

3. The land being filled, stabilised, drained and/or graded as required to ensure that:

- a) lots can accommodate their intended use;
- b) finished ground levels at the boundaries of the lot(s) the subject of this approval match or otherwise coordinate with the existing and/ or proposed finished ground levels of the land abutting; and
- c) stormwater is contained on-site, or appropriately treated and connected to the local drainage system.

(City of Wanneroo)

4. A restrictive covenant, to the benefit of the City of Wanneroo pursuant to Section 129BA of the *Transfer of Land Act 1893* is to be placed on the certificate(s) of title of the proposed lot(s) advising of the existence of a restriction on the use of the land. Notice of this restriction is to be included on the diagram or plan of survey (deposited plan). The restrictive covenant is to state as follows:  
*"This lot is not to be developed for any purposes other than for Local Centre/Commercial Purposes"*.  
  
(City of Wanneroo)
5. Suitable arrangements being made with the local government for the provision of a vehicular crossover at Dunraven Road as shown on the approved plan of subdivision.  
  
(City of Wanneroo)
6. Pursuant to Section 150 of the Planning and Development Act 2005 and Division 3 of the Planning and Development Regulations 2009 a covenant preventing vehicular access onto Breakwater Drive being lodged on the certificate(s) of title of the proposed lot(s) at the full expense of the landowner/applicant. The covenant is to prevent access, to the benefit of the City of Wanneroo in accordance with the plan dated 1 August 2020 (attached) and the covenant is to specify:  
*"No vehicular access is permitted to and from Breakwater Drive and Dunraven Road other than from the crossovers shown on the annotated plan dated 24 October 2024"*.  
  
(City of Wanneroo)
7. Information is to be provided to demonstrate that the measures contained in the Bushfire Management Plan, Section 3 Bushfire Mitigation and Compliance, prepared by Strategen dated 21 July 2015 have been implemented during subdivisional works. This information should include a notice of 'Certification by Bushfire Consultant'.  
  
(City of Wanneroo)
8. A notification, pursuant to Section 165 of the Planning and Development Act 2005, is to be placed on the certificate(s) of title of the proposed lot(s) with a Bushfire Attack Level (BAL) rating of 12.5 or above, advising of the existence of a hazard or other factor. Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows:  
*"This land is within a bushfire prone area as designated by an Order made by the Fire and Emergency Services Commissioner and is subject to a Bushfire Management Plan Additional planning and building requirements may apply to development on this land"*  
  
(Western Australian Planning Commission)
9. Prior to the commencement of subdivision works: a) An assessment survey for UXO is to be undertaken to determine if a remediation survey is required, as this property is on a site where records confirm a history of numerous UXO finds or heavy residual fragmentation. If no evidence of UXO is found, no further action is required. b) If evidence of UXO is found, a remediation survey is to be completed to locate and remove any UXO. c) If a remediation survey is completed, a notification, pursuant to Section 165 of the Planning and Development Act 2005, is to be placed on the

certificate(s) of title of the proposed lot(s), advising of the existence of a hazard or other factor. Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows: "This land has been used by Defence for military activities. There is a history of numerous UXO finds or heavy residual fragmentation. Whilst the land has been surveyed for UXO, there is still a possibility that dangerous items of UXO may be found on this site. Contact police if a suspicious item that may be UXO is found. Visit [www.defence.gov.au/uxo](http://www.defence.gov.au/uxo) for further information".

(Department of Fire and Emergency Services)

10. Arrangements being made to the satisfaction of the Western Australian Planning Commission and to the specification of Western Power for the provision of an underground electricity supply to the lot(s) shown on the approved plan of subdivision.

(Western Power)

11. The transfer of land as a Crown reserve free of cost to Western Power for the provision of electricity supply infrastructure.

(Western Power)

12. Arrangements being made with a licensed water provider for the provision of a suitable water supply service to each of the lot(s) shown on the approved plan of subdivision.

(Water Corporation)

13. Arrangements being made with the Water Corporation for the provision of a sewerage service to each of the lot(s) shown on the approved plan of subdivision.

(Water Corporation)

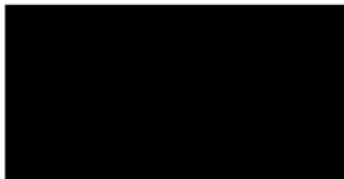
**ADVICE:**

1. In regard to Condition 4, it is advised that an amendment to Agreed Two Rocks LSP No. 69 will be required in the future to designate the land subject of this application to a Local Centre in lieu of the mixed use designation and reclassify the current Local Centre for mixed use purposes. Such an amendment can be progressed as part of the review of the structure plan which is due to expire in October 2025.
2. In regard to condition 6, the applicant is advised that the location and design of the left-out crossover to Breakwater Drive (outside of the area of the restrictive covenant) is to be approved at the DA stage.
3. The Department of Defence has established the Defence Infrastructure Panel - Environment, Heritage and Estate Engineering Services, which includes contractors for UXO and derelict explosive ordnance assessment and management. The list of UXO

contractors on the panel can be found at this link:  
[www.defence.gov.au/estatemangement/support/DEHP/WhoToEngage.asp](http://www.defence.gov.au/estatemangement/support/DEHP/WhoToEngage.asp)



4. In regard to Condition 10, Western Power provides only one underground point of electricity supply per freehold lot.
5. In regard to Condition 12 and 13, the landowner/applicant shall make arrangements with the Water Corporation for the provision of the necessary services. On receipt of a request from the landowner/ applicant, a Land Development Agreement under Section 83 of the Water Services Act 2012 will be prepared by the Water Corporation to document the specific requirements for the proposed subdivision.
6. The local government advises that measures should be undertaken to protect existing tree assets on Breakwater Drive during subdivisional works. The removal of any street trees requires approval from the local government.

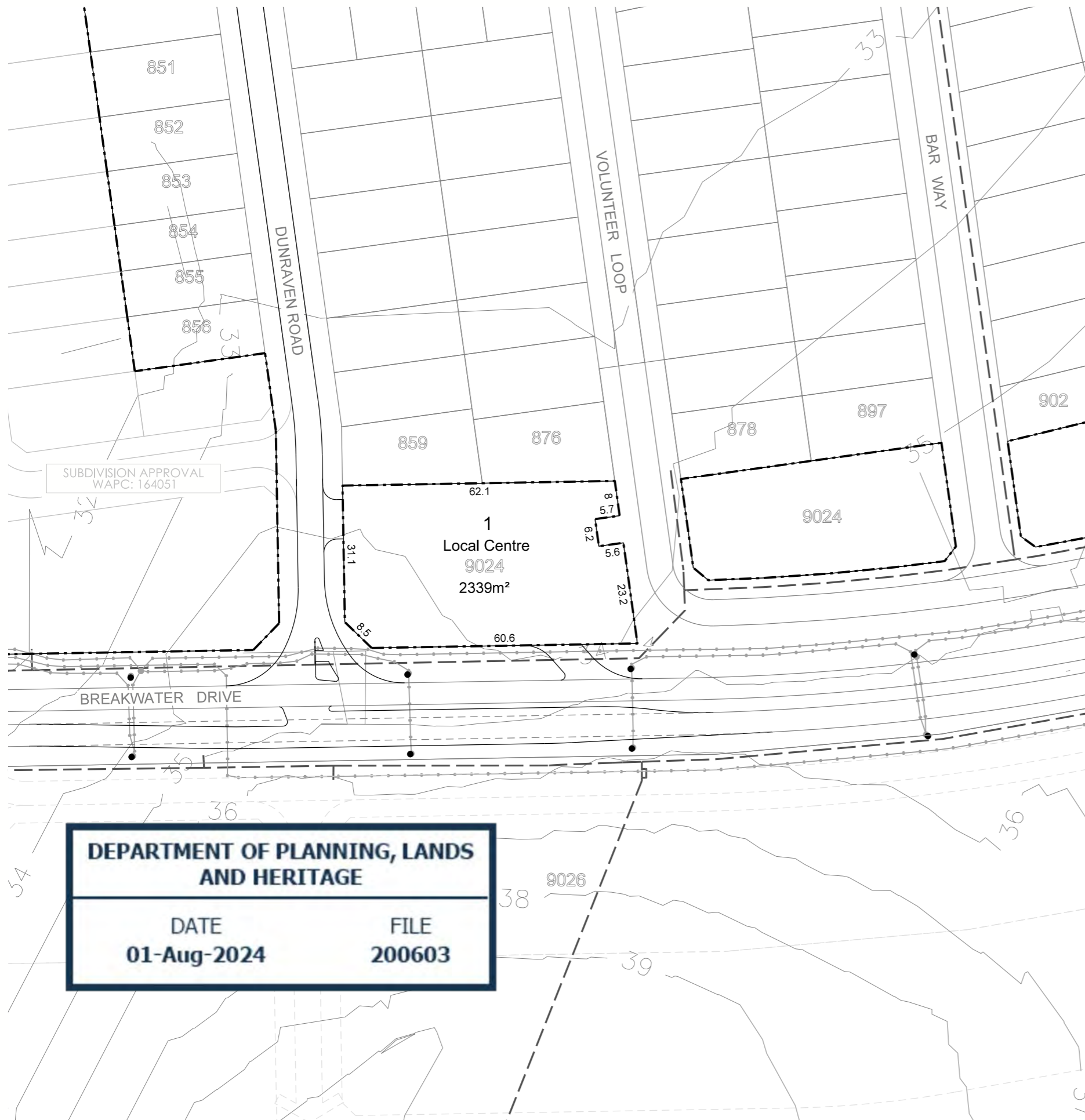
If there are any queries in regard to this application, please contact the planning officer listed at the top of this letter.



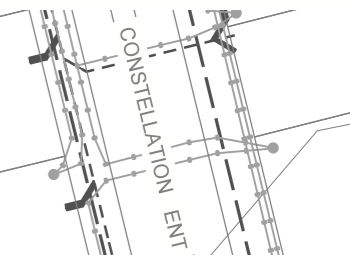
30 October 2024

**APPLICATION DETAILS**

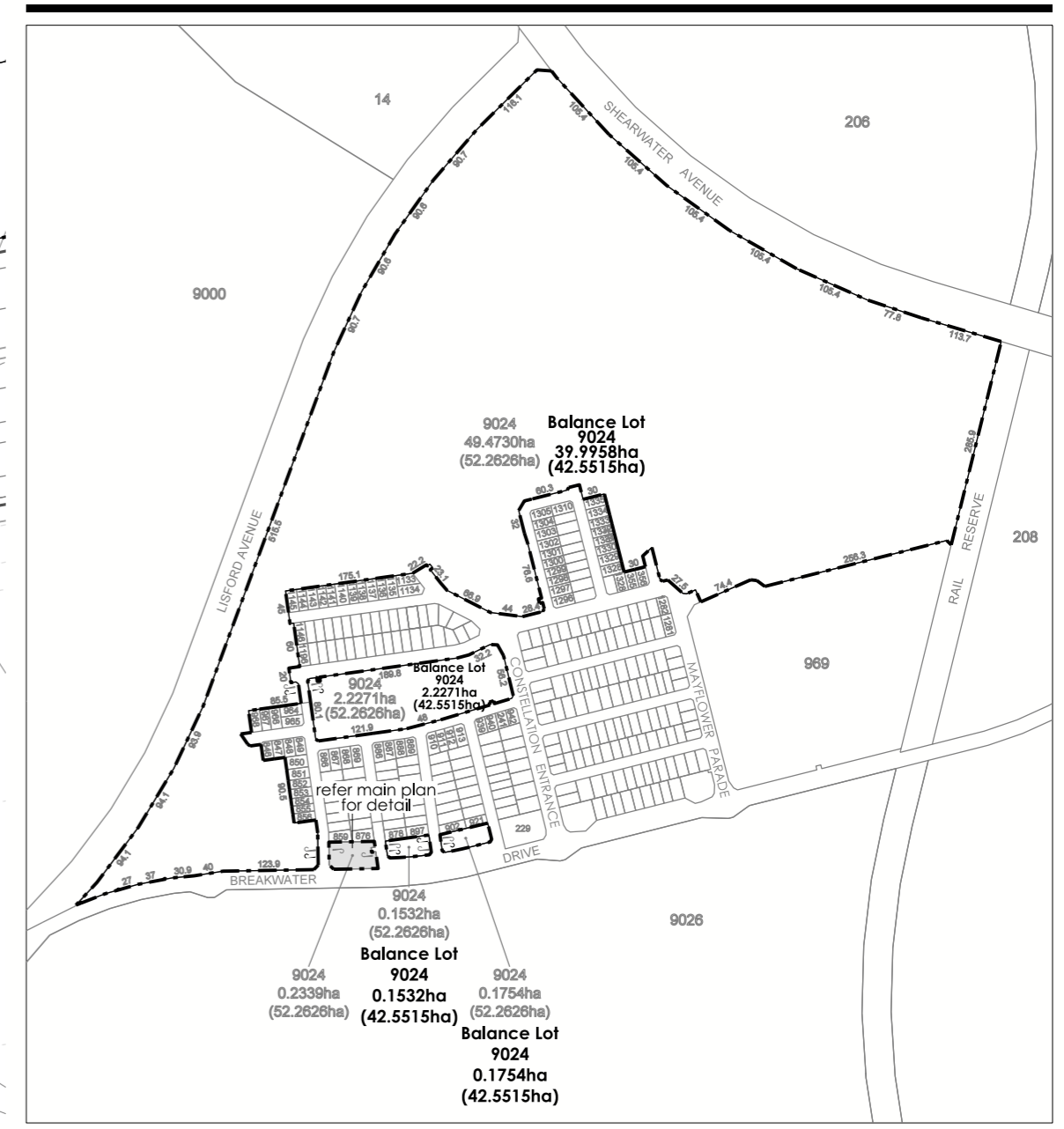
<b>Applicant</b>	
<b>Owner</b>	
<b>Application Receipt</b>	17 July 2024
<b>Lot Number</b>	9024
<b>Diagram / Plan</b>	Plan 426547 / Diagram 426547
<b>Location</b>	
<b>C/T Volume/Folio</b>	4052/433
<b>Street Address</b>	Lot 9024 Breakwater Drive, Two Rocks
<b>Local Government</b>	Wanneroo, City of



- LEGEND**
- TOTAL APPLICATION AREA (52.2626ha)
  - SERVICES
    - WATER PIPE
    - SEWER CONNECTION
    - GRAVITY PIPE
  - ELECTRICAL
    - UNDERGROUND DISTRIBUTION LINE
    - DISTRIBUTION POLE / STREETLIGHT
    - ELECTRICAL PILLAR



**OVERALL SUBDIVISION**



**Plan of Subdivision - Freehold**  
 LOT 9024 BREAKWATER DRIVE, TWO ROCKS

A Capricorn Village Joint Venture Project

**DRAFT**

plan: 07/032/155C  
 scale: 1:1000@A3 | 1:500@A1  
 0 10 20m

date: 11/07/2024  
 grid: PCG 94  
 aerial: n/a

designed: ME  
 checked: ME  
 drawn: BR

Taylor Burrell Barnett Town Planning & Design  
 Level 7, 160 St Georges Terrace, Perth WA 6000  
 e: admin@tbbplanning.com.au  
 p: (08) 9226 4276

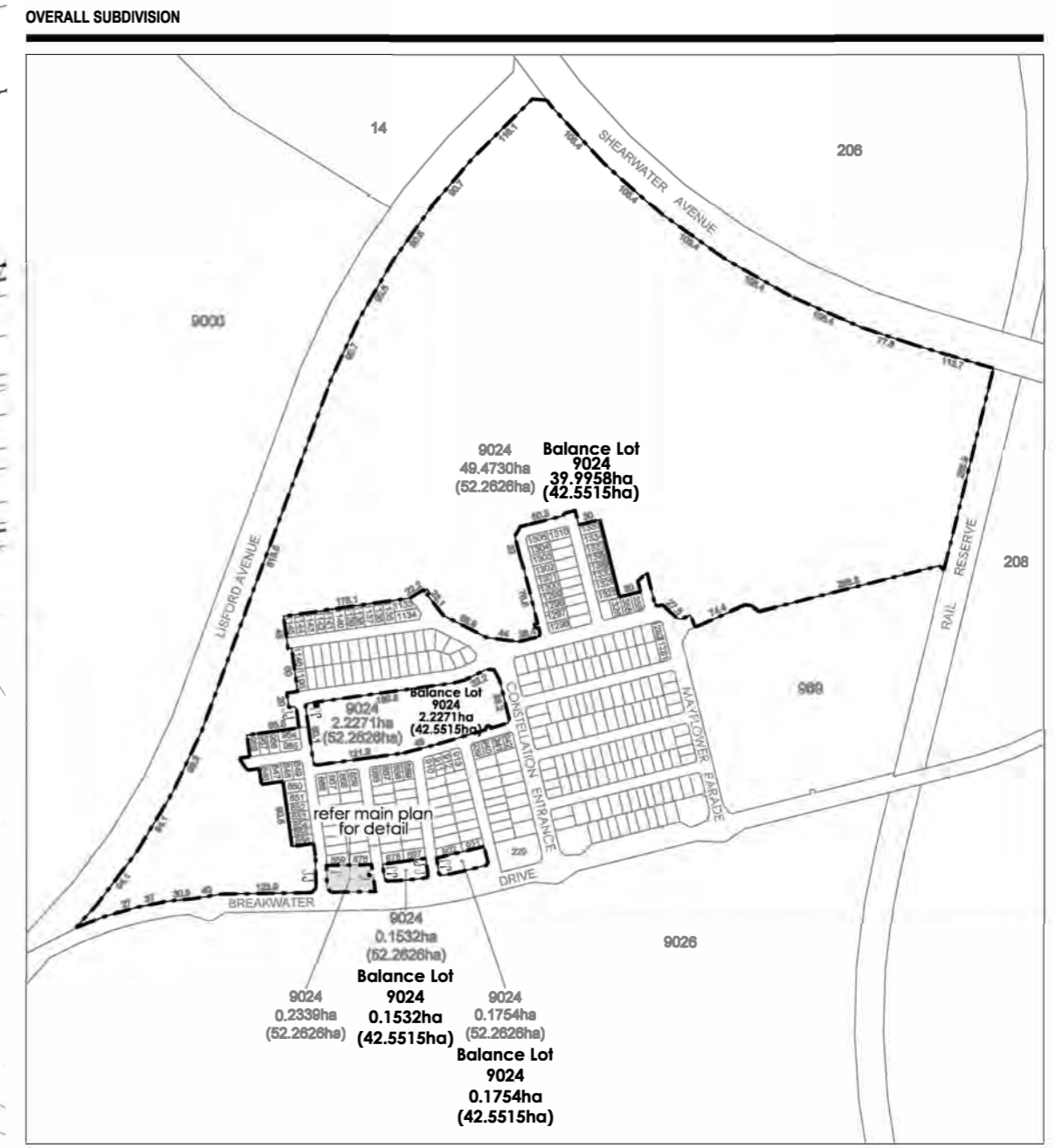
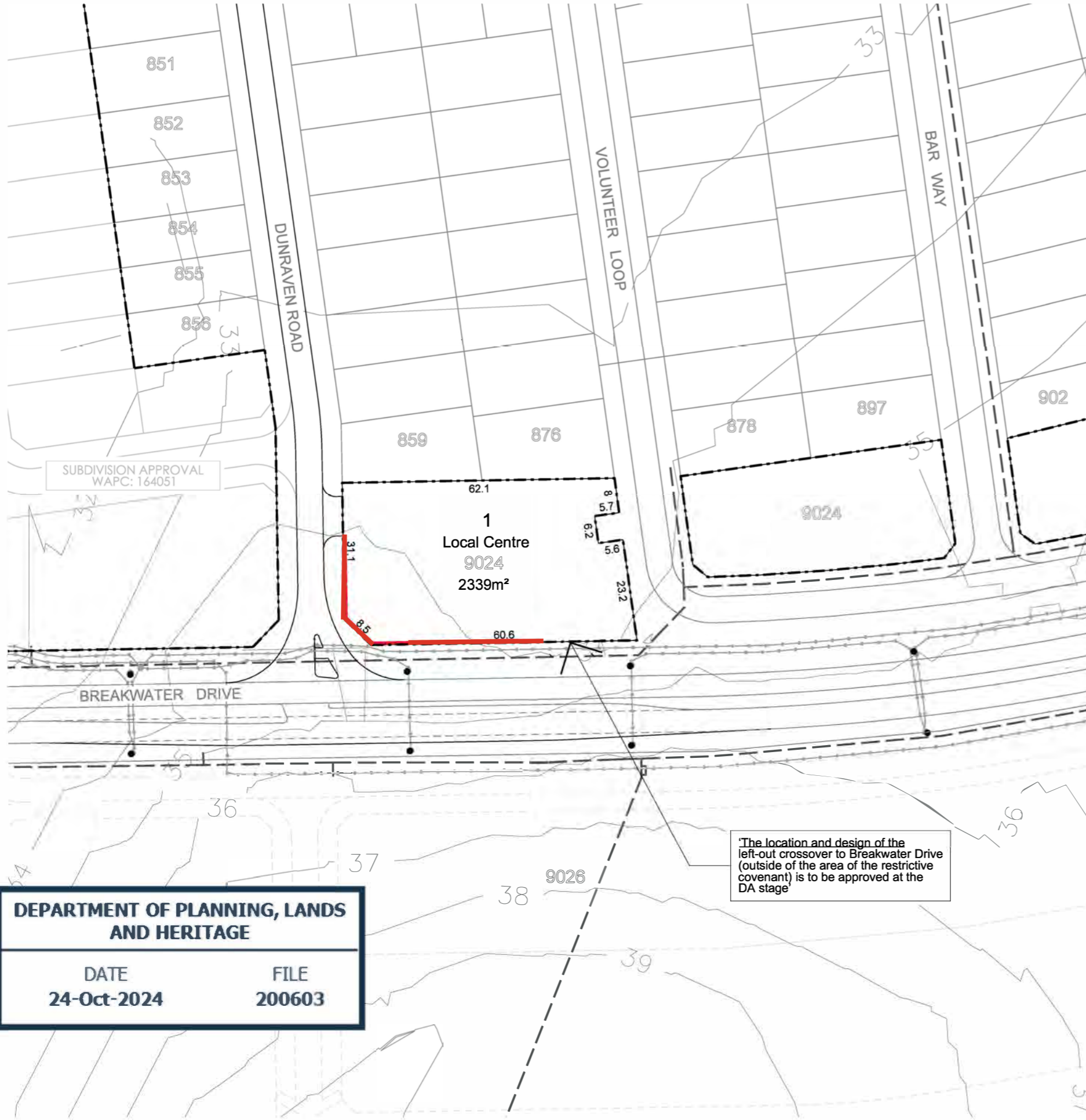
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 ALL AREAS AND DIMENSIONS DISPLAYED ARE SUBJECT TO DETAIL SURVEY.



# Attachment A

**LEGEND**

- TOTAL APPLICATION AREA (52.2626ha)
- SERVICES
  - WATER PIPE
  - SEWER CONNECTION
  - GRAVITY PIPE
- ELECTRICAL
  - UNDERGROUND DISTRIBUTION LINE
  - DISTRIBUTION POLE / STREETLIGHT
  - ELECTRICAL PILLAR



**DEPARTMENT OF PLANNING, LANDS AND HERITAGE**

DATE	FILE
24-Oct-2024	200603

**Plan of Subdivision - Freehold**  
 LOT 9024 BREAKWATER DRIVE, TWO ROCKS  
 A Capricorn Village Joint Venture Project

plan: 07/032/155D	date: 22/10/2024	designed: ME	Taylor Burrell Barnett Town Planning & Design Level 7, 160 St Georges Terrace, Perth WA 6000 e: admin@tbbplanning.com.au p: (08) 9226 4276
scale: 1:1000@A3   1:500@A1	grid: PCG 94	checked: ME	
0 10 20m	aerial: n/a	drawn: BR	
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**Approval Subject To Condition(s)  
Freehold (Green Title) Subdivision**

**Application No :** 164051

***Planning and Development Act 2005***

Applicant	:	[REDACTED]
Owner	:	[REDACTED]
Application Receipt	:	12 September 2023

Lot Number	:	9021
Diagram / Plan	:	Deposited Plan 423258
Location	:	-
C/T Volume/Folio	:	4032/192
Street Address	:	Lot 9021 Constellation Entrance, Two Rocks
Local Government	:	City of Wanneroo

The Western Australian Planning Commission has considered the application referred to and is prepared to endorse a deposited plan in accordance with the plan date-stamped **12 September 2023** once the condition(s) set out have been fulfilled.

This decision is valid for **four years** from the date of this advice, which includes the lodgement of the deposited plan within this period.

The deposited plan for this approval and all required written advice confirming that the requirement(s) outlined in the condition(s) have been fulfilled must be submitted by **03 January 2028** or this approval no longer will remain valid.

**Reconsideration - 28 days**

Under section 151(1) of the *Planning and Development Act 2005*, the applicant/owner may, within 28 days from the date of this decision, make a written request to the WAPC to reconsider any condition(s) imposed in its decision. One of the matters to which the WAPC



will have regard in reconsideration of its decision is whether there is compelling evidence by way of additional information or justification from the applicant/owner to warrant a reconsideration of the decision. A request for reconsideration is to be submitted to the WAPC on a Form 3A with appropriate fees. An application for reconsideration may be submitted to the WAPC prior to submission of an application for review. Form 3A and a schedule of fees are available on the WAPC website: <http://www.dplh.wa.gov.au>

### **Right to apply for a review - 28 days**

Should the applicant/owner be aggrieved by this decision, there is a right to apply for a review under Part 14 section 251 of the *Planning and Development Act 2005*. The application for review must be submitted in accordance with part 2 of the *State Administrative Tribunal Rules 2004* and should be lodged within 28 days of the date of this decision to: the State Administrative Tribunal, Level 6, State Administrative Tribunal Building, 565 Hay Street, PERTH, WA 6000. It is recommended that you contact the tribunal for further details: telephone 9219 3111 or go to its website: <http://www.sat.justice.wa.gov.au>

### **Deposited plan**

The deposited plan is to be submitted to the Western Australian Land Information Authority (Landgate) for certification. Once certified, Landgate will forward it to the WAPC. In addition, the applicant/owner is responsible for submission of a Form 1C with appropriate fees to the WAPC requesting endorsement of the deposited plan. A copy of the deposited plan with confirmation of submission to Landgate is to be submitted with all required written advice confirming compliance with any condition(s) from the nominated agency/authority or local government. Form 1C and a schedule of fees are available on the WAPC website: <http://www.dplh.wa.gov.au>

### **Condition(s)**

The WAPC is prepared to endorse a deposited plan in accordance with the plan submitted once the condition(s) set out have been fulfilled.

The condition(s) of this approval are to be fulfilled to the satisfaction of the WAPC.

The condition(s) must be fulfilled before submission of a copy of the deposited plan for endorsement.

The agency/authority or local government noted in brackets at the end of the condition(s) identify the body responsible for providing written advice confirming that the WAPC's requirement(s) outlined in the condition(s) have been fulfilled. The written advice of the agency/authority or local government is to be obtained by the applicant/owner. When the written advice of each identified agency/authority or local government has been obtained, it should be submitted to the WAPC with a Form 1C and appropriate fees and a copy of the deposited plan.

If there is no agency/authority or local government noted in brackets at the end of the condition(s), a written request for confirmation that the requirement(s) outlined in the



condition(s) have been fulfilled should be submitted to the WAPC, prior to lodgement of the deposited plan for endorsement.

Prior to the commencement of any subdivision works or the implementation of any condition(s) in any other way, the applicant/owner is to liaise with the nominated agency/authority or local government on the requirement(s) it considers necessary to fulfil the condition(s).

The applicant/owner is to make reasonable enquiry to the nominated agency/authority or local government to obtain confirmation that the requirement(s) of the condition(s) have been fulfilled. This may include the provision of supplementary information. In the event that the nominated agency/authority or local government will not provide its written confirmation following reasonable enquiry, the applicant/owner then may approach the WAPC for confirmation that the condition(s) have been fulfilled.

In approaching the WAPC, the applicant/owner is to provide all necessary information, including proof of reasonable enquiry to the nominated agency/authority or local government.

The condition(s) of this approval, with accompanying advice, are:

#### CONDITION(S)

1. The plan of subdivision being modified in accordance with the attached plan date stamped 22 November 2023. (Western Australian Planning Commission).
2. The landowner/applicant contributing towards development infrastructure provisions pursuant to the City of Wanneroo District Planning Scheme No. 2. (Local Government)
3. Engineering drawings and specifications are to be submitted, approved, and works undertaken in accordance with the approved engineering drawings, specifications and approved plan of subdivision, for grading and/or stabilisation of the site to ensure that:
  - a) lots can accommodate their intended use; and
  - b) finished ground levels at the boundaries of the lot(s) the subject of this approval match or otherwise coordinate with the existing and/or proposed finished ground levels of the land abutting.(Local Government)
4. Prior to the commencement of subdivisional works, an Urban Water Management Plan is to be prepared and approved, in consultation with the Department of Water and Environmental Regulation, consistent with the approved Local Water Management Strategy for Two Rocks Local Structure Plan No 69. (Local Government)



5. Engineering drawings and specifications are to be submitted and approved, and work undertaken in accordance with the approved engineering drawings and specifications and approved plan of subdivision, for the filling and/or drainage of the land, including ensuring that storm water is contained on-site, or appropriately treated and connected to the local drainage system, Engineering drawings and specifications are to be in accordance with an approved Urban Water Management Plan (UWMP) for the site, or where no UWMP exists, to the satisfaction of the Western Australian Planning Commission. (Local Government)
6. Prior to the commencement of subdivisional works, the landowner/ applicant is to provide a pre-works geotechnical report certifying that the land is physically capable of development or advising how the land is to be remediated and compacted to ensure it is capable of development: and In the event that remediation works are required, the landowner/applicant is to provide a post geotechnical report certifying that all subdivisional works have been carried out in accordance with the pre-works geotechnical report. (Local Government)
7. Prior to the commencement of subdivision works a Vegetation, Flora and Fauna Management Plan for *Two Rocks Local Structure Plan No. 69* is to be implemented to ensure the protection and management of the sites environmental assets (Local Government)
8. Measures being taken to ensure the identification and protection of any vegetation on the site worthy of retention that is not impacted by subdivisional works, prior to commencement of subdivisional works. (Local Government)
9. Engineering drawings and specifications are to be submitted, approved, and subdivisional works undertaken in accordance with the approved plan of subdivision, engineering drawings and specifications, to ensure that those lots not fronting an existing road are provided with frontage to a constructed road(s) connected by a constructed road(s) to the local road system and such road(s) are constructed and drained at the landowner/applicant's cost.

As an alternative, and subject to the agreement of the Local Government the Western Australian Planning Commission (WAPC) is prepared to accept the landowner/applicant paying to the local government the cost of such road works as estimated by the local government and the local government providing formal assurance to the WAPC confirming that the works will be completed within a reasonable period as agreed by the WAPC.

(Local Government)

10. Engineering drawings and specifications are to be submitted and approved, and subdivisional works undertaken in accordance with the approved plan of subdivision, engineering drawings and specifications to ensure that:
  - a) street lighting is installed on all new subdivisional roads to the standards of the relevant licenced service provider;



- b) roads that have been designed to connect with existing or proposed roads abutting the subject land are coordinated so that the road reserve location and width connect seamlessly;
- c) temporary turning areas are provided to those subdivisional roads that are subject to future extension; and
- d) embayment parking is provided within/abutting the proposed public open space

to the satisfaction of the Western Australian Planning Commission.

(Local Government)

- 11. Engineering drawings and specifications are to be submitted, approved, and subdivisional works undertaken in accordance with the approved plan of subdivision, engineering drawings and specifications, for the provision of shared paths through and connecting to the application area to the satisfaction of the Western Australian Planning Commission. The approved shared paths are to be constructed by the landowner/applicant. (Local Government)
- 12. All local streets within the subdivision being truncated in accordance with the Western Australian Planning Commission's Liveable Neighbourhoods policy. (Local Government)
- 13 Pursuant to Section 150 of the *Planning and Development Act 2005* and Division 3 of the *Planning and Development Regulations 2009* a covenant preventing vehicular access onto Breakwater Drive and Mercury Avenue being lodged on the certificate(s) of title of the proposed lot(s) at the full expense of the landowner/applicant. The covenant is to prevent access, to the benefit of the City of Wanneroo, in accordance with the plan date stamped 22 November 2023 (attached) and the covenant is to specify:

'No vehicular access is permitted to and from Breakwater Drive and Mercury Avenue'.

(Local Government)

- 14. Information is to be provided to demonstrate that the measures contained in Section 4; Table 4 of the Bushfire Management Plan prepared by Eco Logical Australia dated 7 September 2023 (Reference 23PER6109, Version 1) have been implemented during subdivisional works. This information should include a completed 'Certification by Bushfire Consultant' from the bushfire management plan. (Local Government)



15. A notification, pursuant to Section 165 of the *Planning and Development Act 2005* is to be placed on the certificate(s) of title of the proposed lots with a Bushfire Attack Level (BAL) rating of 12.5 or above, advising of the existence of a hazard or other factor. Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows:

*"This land is within a bushfire prone area as designated by an Order made by the Fire and Emergency Services Commissioner and is subject to a Bushfire Management Plan prepared by Eco Logical Australia dated 7 September 2023 (Reference 23PER6109, Version 1). Additional planning and building requirements may apply to development on this land".*

(Western Australian Planning Commission)

16. The proposed Lot 70 is not to be created until such time as the temporary bushfire risk presented by the adjacent land is either permanently removed or it is adequately demonstrated to the satisfaction of the commission that a bushfire attack level rating (BAL) of BAL 29 or below can be achieved for the development of the lot. (Local Government)

17. A 6-metre wide emergency access way in accordance with the approved plan of subdivision (attached) is to be provided. The provision of necessary access rights for the emergency access way:

- a) as an easement under Sections 195 and 196 of the Land Administration Act 1997 in favour of the Local Government and/or public authority for emergency fire purposes and the deed of easement to specify care and management of the easement area is by the Local Government.

(Local Government)

18. A restrictive covenant, to the benefit of the City of Wanneroo pursuant to Section 129BA of the Transfer of Land Act 1893 is to be placed on the certificate(s) of title of the proposed lot(s) advising of the existence of a restriction on the use of the land. Notice of this restriction is to be included on the diagram or plan of survey (deposited plan). The restrictive covenant is to state as follows:

*"This lot is not to be developed for any purposes other than for Mixed Use and/or R40 residential purposes".*

(Local Government)

19. Arrangements being made with a licensed electricity network operator for the provision of an underground electricity distribution system that can supply electricity to each lot shown on the approved plan of subdivision. (Western Power)

20. The transfer of land as a Crown reserve free of cost to Western Power for the provision of electricity supply infrastructure. (Western Power)

21. Arrangements being made with a licensed water provider for the provision of a suitable water supply service to each lot shown on the approved plan of subdivision. (Water Corporation)
22. Arrangements being made with the Water for the provision of a sewerage service to each lot shown on the approved plan of subdivision. (Water Corporation)
23. Prior to the commencement of subdivision works:
  - a) An assessment survey for UXO is to be undertaken to determine if a remediation survey is required, as this property is on a site where records confirm a history of numerous UXO finds or heavy residual fragmentation. If no evidence of UXO is found, no further action is required.
  - b) If evidence of UXO is found, a remediation survey is to be completed to locate and remove any UXO.
  - c) If a remediation survey is completed, a notification, pursuant to Section 165 of the Planning and Development Act 2005, is to be placed on the certificate(s) of title of the proposed lot(s), advising of the existence of a hazard or other factor. Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows:

“This land has been used by Defence for military activities. There is a history of numerous UXO finds or heavy residual fragmentation. Whilst the land has been surveyed for UXO, there is still a possibility that dangerous items of UXO may be found on this site. Contact police if a suspicious item that may be UXO is found. Visit [www.defence.gov.au/uxo](http://www.defence.gov.au/uxo) for further information”.

(Department of Fire and Emergency Services)

ADVICE:

1. Condition 4 has been imposed in accordance with *Better Urban Water Management Guidelines (WAPC 2008)*. Further guidance on the contents of urban water management plans is provided in *'Urban Water Management Plans: Guidelines for preparing and complying with subdivision conditions'* (Published by the then Department of Water 2008).
2. The landowner/applicant and the local government are advised to refer to the Institute of Public Works Engineering Australasia Local Government Guidelines for Subdivisional Development (current edition). The guidelines set out the minimum best practice requirements recommended for subdivision construction and granting clearance of engineering conditions imposed.



3. In regard to Conditions 9-11, the landowner/applicant is advised that the road reserves, including the constructed carriageways, laneways, truncations, footpaths/dual use paths and car embayments, are to be generally consistent with the approved plan of subdivision.
4. In regard to Condition 10, the landowner/applicant is advised that to achieve the dark sky principles, new street lighting is to comply with a correlated colour temperature of 3,000 kelvins or less, shielded luminaires and in accordance with AS/NZS 4282:2019 – Control of the obtrusive effects of outdoor lighting. In addition, the applicant is advised to liaise with the City with regard to traffic calming measures as part of detailed engineering drawings.
5. In regard to Condition 17, the easement is to provide for emergency access in the event of a bushfire emergency and should be constructed to the standards as outlined in the Guidelines for Planning in Bushfire Prone Areas. The easement will no longer be required once the proposed roads are connected through to the west and the balance lot is further subdivided.,
6. In regard to Condition 19, Western Power provides only one underground point of electricity supply per freehold lot.
7. In regard to Conditions 21 and 22, the landowner/applicant shall make arrangements with the Water Corporation for the provision of the necessary services. On receipt of a request from the landowner/applicant, a Land Development Agreement under Section 83 of the *Water Services Act 2012* will be prepared by the Water Corporation to document the specific requirements for the proposed subdivision.
8. The Residential Design Code Plan date stamped 28 November 2023 (attached) has been approved by the Western Australian Planning Commission and shall now form part of the *Two Rocks Agreed Structure Plan No. 69*. In accordance with the provisions of the *Two Rocks Agreed Structure Plan No. 69* any variations to the Residential Design Code Plan will require further approval from the Western Australian Planning Commission.
9. The applicant/landowner is advised that pursuant to the Commonwealth Telecommunications Act 1997 there will generally be a requirement for the installation of fibre-ready telecommunications infrastructure. Exemptions can be sought for certain types of development. Further information is available from the Australian Government Department of Infrastructure, Transport, Regional Development and Communications website at: [www.infrastructure.gov.au](http://www.infrastructure.gov.au).
10. The Department of Defence has established the Defence Infrastructure Panel – Environment, Heritage and Estate Engineering Services, which includes contractors for UXO and derelict explosive ordnance assessment and management. The list of UXO contractors on the panel can be found at this link:

[www.defence.gov.au/estatemangement/support/DEHP/WhoToEngage.asp](http://www.defence.gov.au/estatemangement/support/DEHP/WhoToEngage.asp)

11. ATCO advised the following:

- Anyone proposing to carry out construction or excavation works must contact 'Before You Dig Australia' ([www.byda.com.au](http://www.byda.com.au)) to determine the location of buried gas infrastructure. Refer to ATCO document AGA-O&M-PR24-*Additional Information for Working Around Gas Infrastructure* <https://www.atco.com/en-au/for-home/natural-gas/wa-gas-network/working-around-gas.html>
- Proposed construction and excavation works need to be managed in accordance with the ATCO document *Additional Information for Working Around Gas Infrastructure - AGA-O&M-PR24* <https://www.atco.com/en-au/for-home/natural-gas/wa-gas-network/working-around-gas.html>



Enquiries :



**LEGEND**

TOTAL APPLICATION AREA (58,2603ha)

INDICATIVE EXTENT OF SUBDIVISION WORKS

**SERVICES**

**WATER**

PIPE

**SEWER**

CONNECTION

GRAVITY PIPE

**ELECTRICAL**

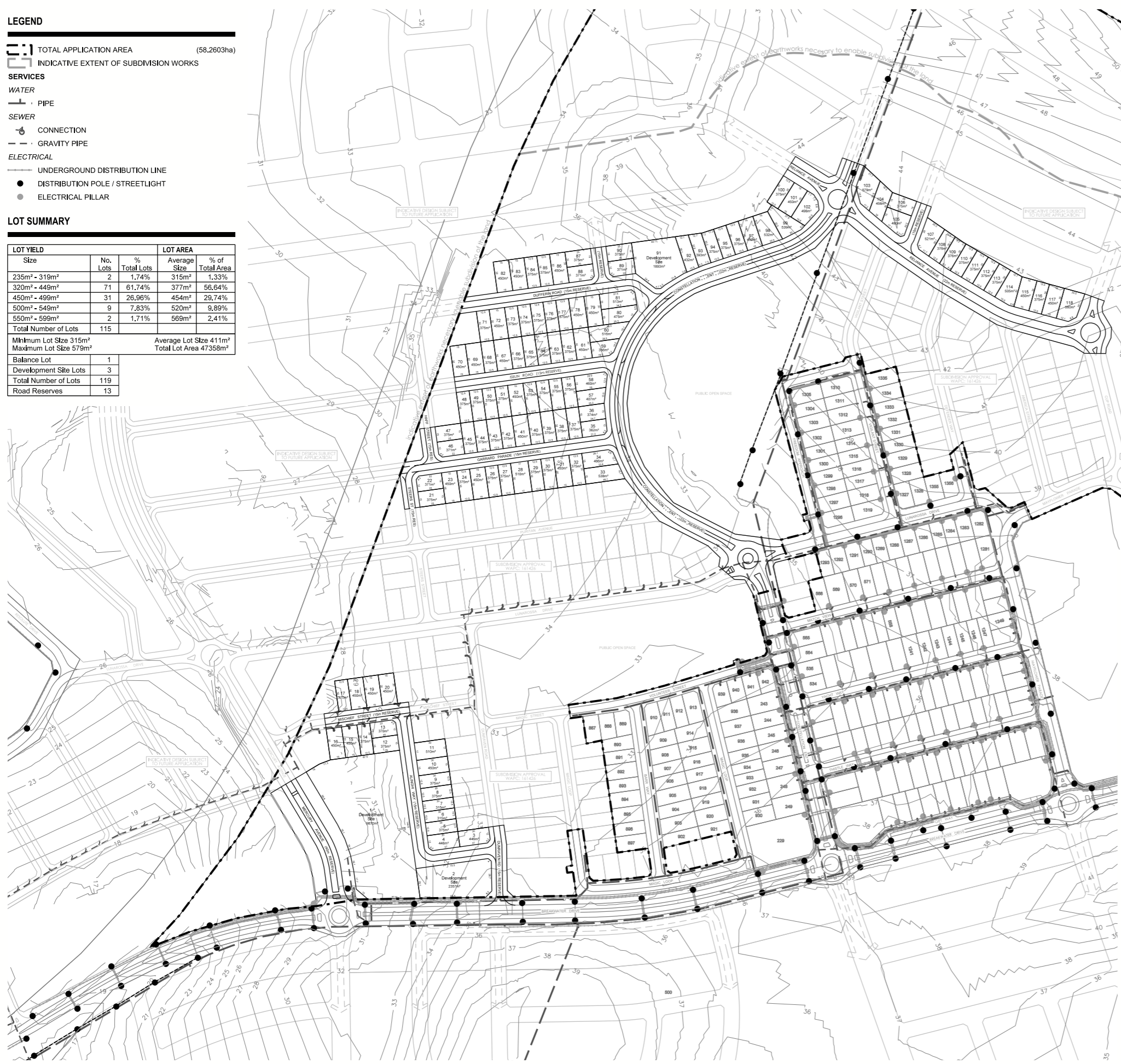
UNDERGROUND DISTRIBUTION LINE

DISTRIBUTION POLE / STREETLIGHT

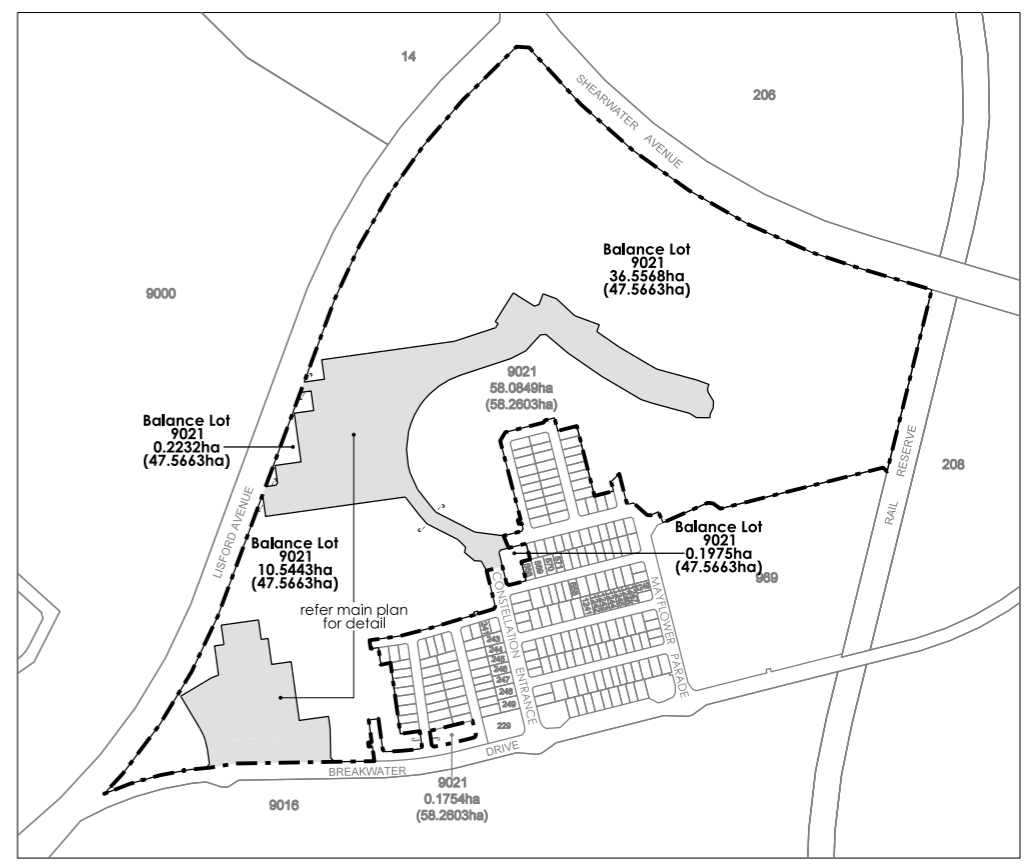
ELECTRICAL PILLAR

**LOT SUMMARY**

LOT YIELD		LOT AREA	
Size	No. Lots	% Total Lots	Average Size
235m <sup>2</sup> - 319m <sup>2</sup>	2	1.74%	315m <sup>2</sup>
320m <sup>2</sup> - 449m <sup>2</sup>	71	61.74%	377m <sup>2</sup>
450m <sup>2</sup> - 499m <sup>2</sup>	31	26.96%	454m <sup>2</sup>
500m <sup>2</sup> - 549m <sup>2</sup>	9	7.83%	520m <sup>2</sup>
550m <sup>2</sup> - 599m <sup>2</sup>	2	1.71%	569m <sup>2</sup>
Total Number of Lots		115	
Minimum Lot Size 315m <sup>2</sup>		Average Lot Size 411m <sup>2</sup>	
Maximum Lot Size 579m <sup>2</sup>		Total Lot Area 47358m <sup>2</sup>	
Balance Lot	1		
Development Site Lots	3		
Total Number of Lots	119		
Road Reserves	13		



**OVERALL SUBDIVISION**



**Plan of Subdivision - Freehold**  
**LOT 9021 BREAKWATER DRIVE, TWO ROCKS**

A Capricorn Village Joint Venture Project

**DRAFT**

plan: 07/032/173B  
 scale: 1:4000@A3 | 1:2000@A1  
 0 40 80m

date: 14/07/2023  
 grid: PCG 94  
 aerial:

designed: ME  
 checked: ME  
 drawn: JB

Taylor Burrell Barnett Town Planning & Design  
 Level 7, 160 St Georges Terrace, Perth WA 6000  
 e: admin@tbbplanning.com.au  
 p: (08) 9226 4276



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**LEGEND**

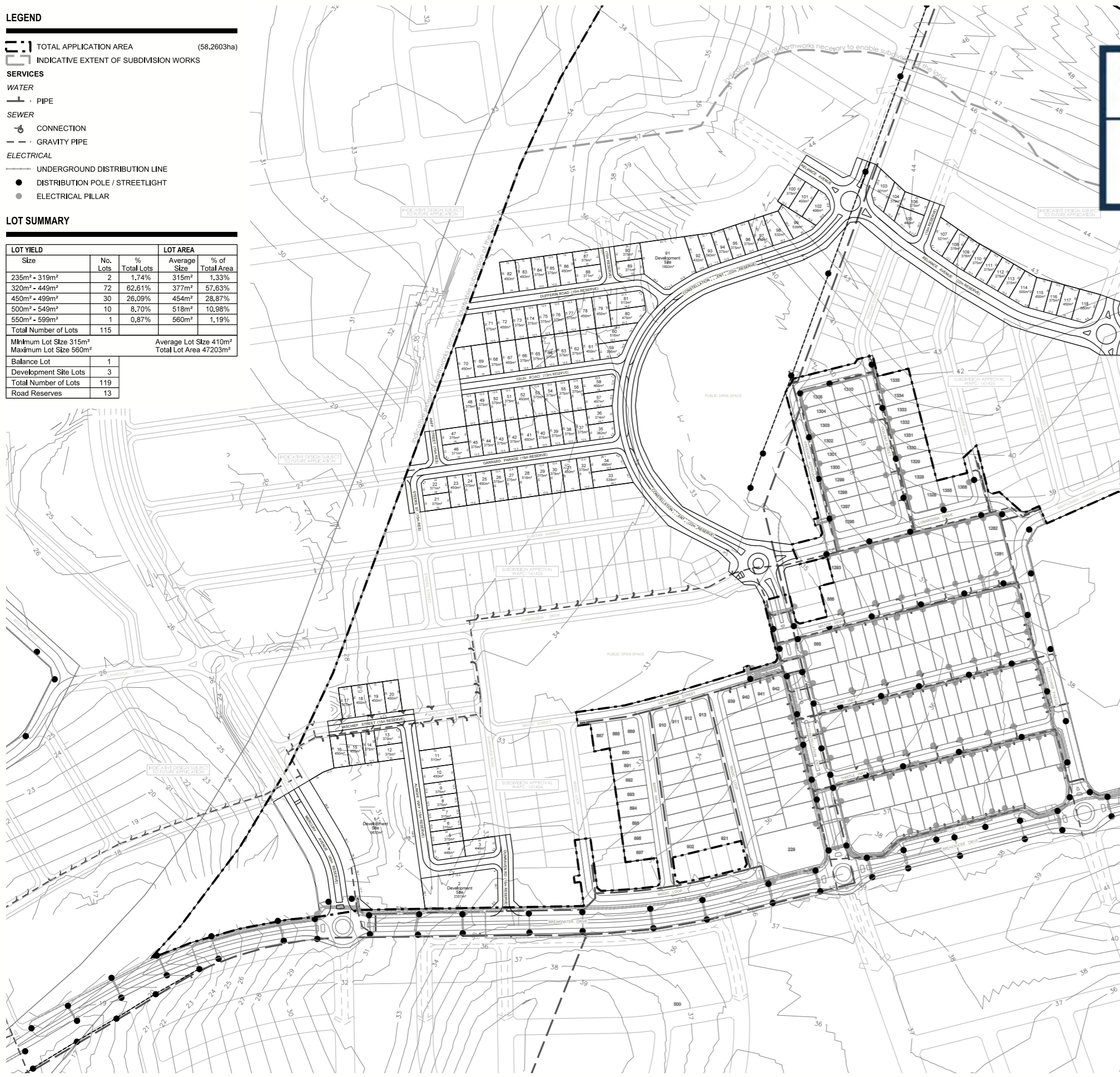
- TOTAL APPLICATION AREA (58,2603ha)
- INDICATIVE EXTENT OF SUBDIVISION WORKS
- SERVICES**
- WATER**
- PIPE
- SEWER**
- CONNECTION
- GRAVITY PIPE
- ELECTRICAL**
- UNDERGROUND DISTRIBUTION LINE
- DISTRIBUTION POLE / STREETLIGHT
- ELECTRICAL PILLAR

**LOT SUMMARY**

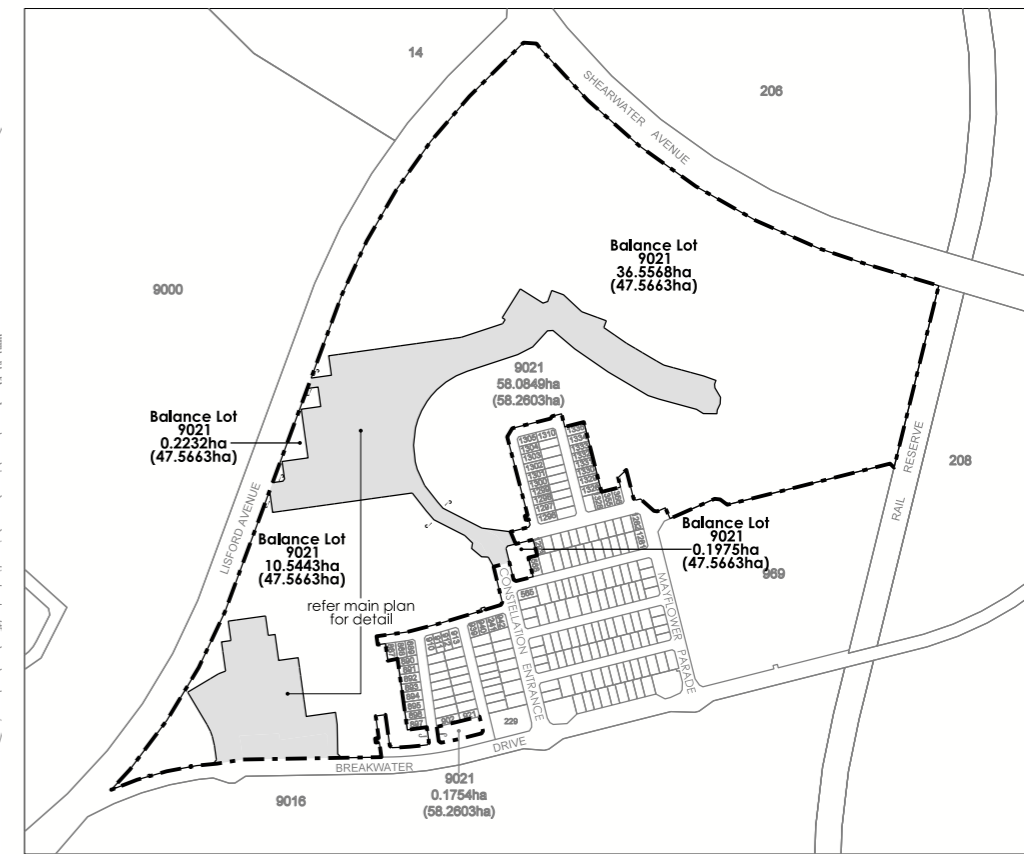
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320m <sup>2</sup> - 449m <sup>2</sup>	72	62.61%	377m <sup>2</sup>	57.63%
450m <sup>2</sup> - 499m <sup>2</sup>	30	26.09%	454m <sup>2</sup>	28.87%
500m <sup>2</sup> - 549m <sup>2</sup>	10	8.70%	518m <sup>2</sup>	10.98%
550m <sup>2</sup> - 599m <sup>2</sup>	1	0.87%	560m <sup>2</sup>	1.19%
Total Number of Lots		115		
Minimum Lot Size 315m <sup>2</sup>		Average Lot Size 410m <sup>2</sup>		
Maximum Lot Size 560m <sup>2</sup>		Total Lot Area 47203m <sup>2</sup>		
Balance Lot	1			
Development Site Lots	3			
Total Number of Lots	119			
Road Reserves	13			

**DEPARTMENT OF PLANNING, LANDS AND HERITAGE**

DATE **22-Nov-2023** FILE **164051**



**OVERALL SUBDIVISION**



**Plan of Subdivision - Freehold**  
 LOT 9021 BREAKWATER DRIVE, TWO ROCKS

A Capricorn Village Joint Venture Project

**DRAFT**

plan: 07/032/173C  
 scale: 1:4000@A3 | 1:2000@A1  
 0 40 80m

date: 22/11/2023  
 grid: PCG 94  
 aerial: n/a

designed: ME  
 checked: ME  
 drawn: MH

Taylor Burrell Barnett Town Planning & Design  
 Level 7, 160 St Georges Terrace, Perth WA 6000  
 e: admin@tbbplanning.com.au  
 p: (08) 9226 4276



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**LEGEND**

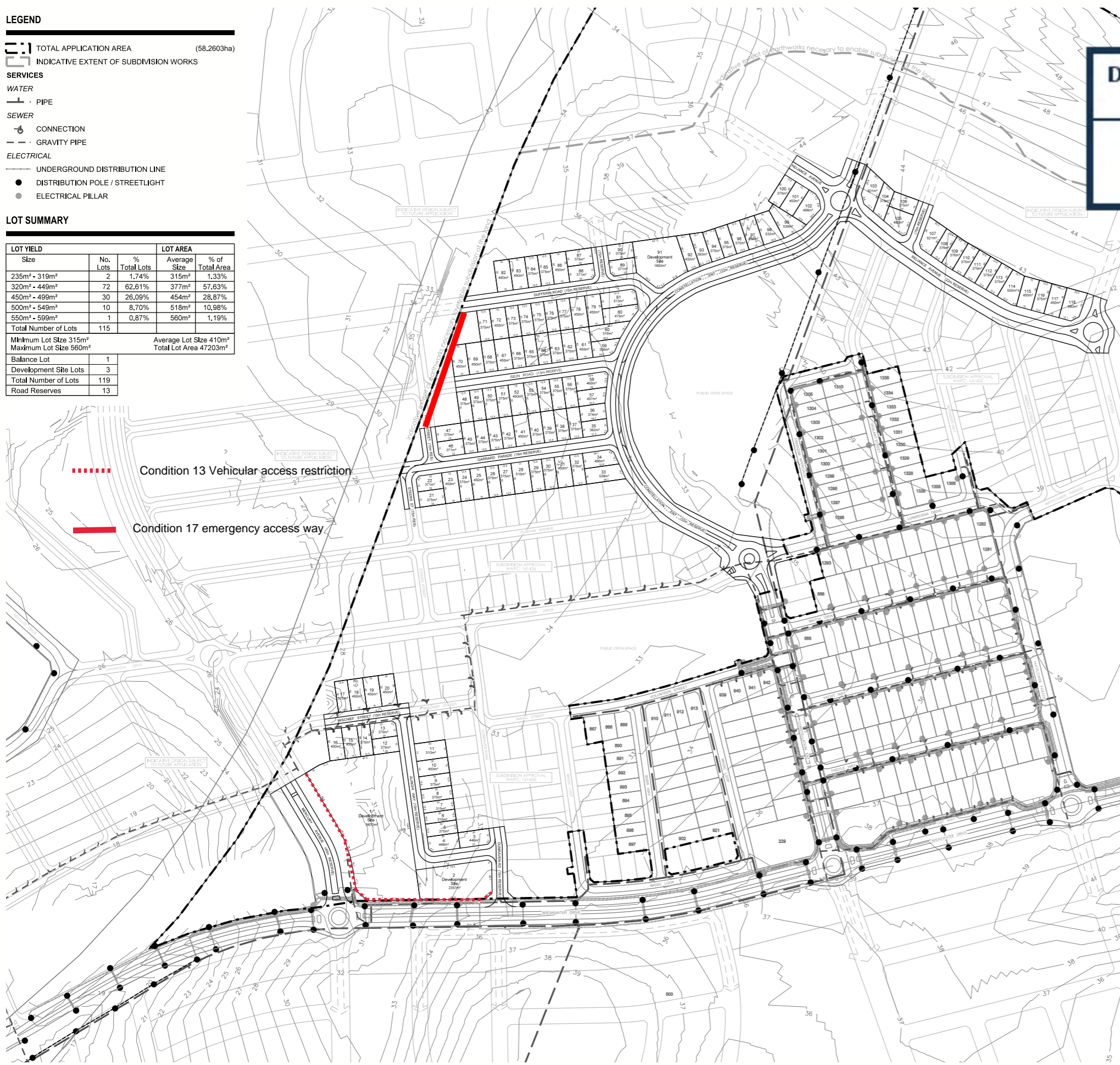
- TOTAL APPLICATION AREA (58,2603ha)
- INDICATIVE EXTENT OF SUBDIVISION WORKS
- SERVICES**
- WATER**
- PIPE
- SEWER**
- CONNECTION
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- ELECTRICAL**
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**DEPARTMENT OF PLANNING, LANDS AND HERITAGE**

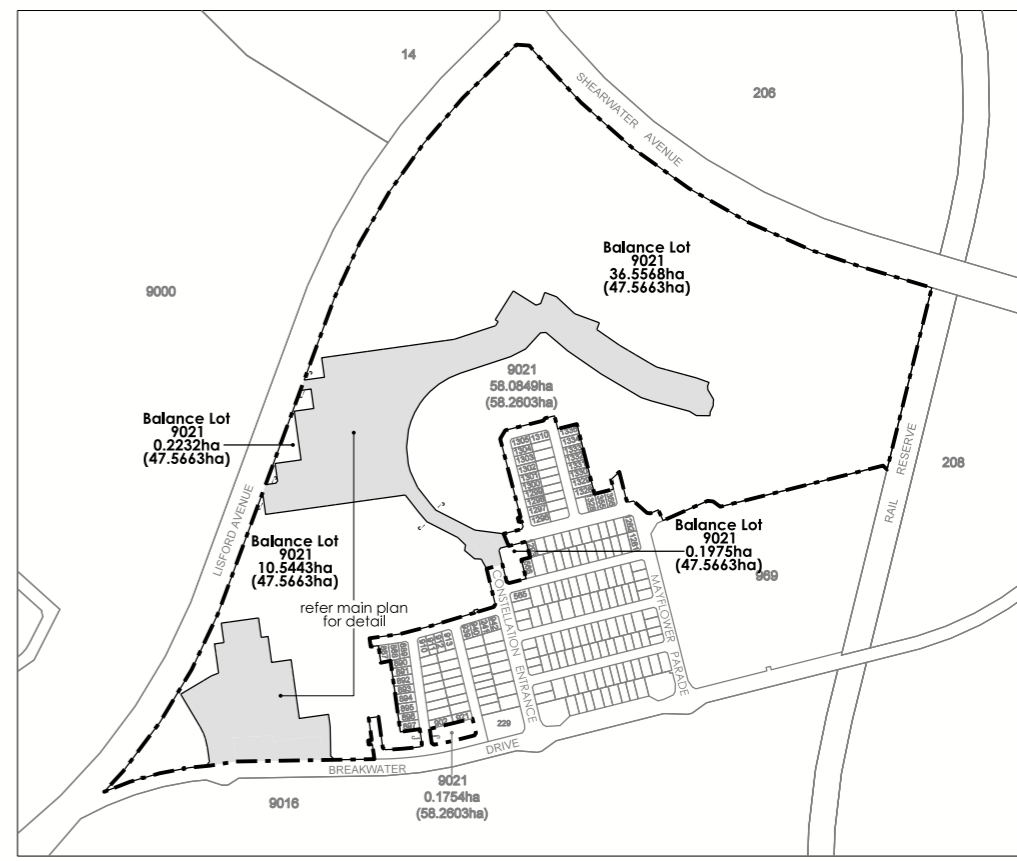
DATE **22-Nov-2023** FILE **164051**



Condition 13 Vehicular access restriction

Condition 17 emergency access way

**OVERALL SUBDIVISION**



**Plan of Subdivision - Freehold**  
LOT 9021 BREAKWATER DRIVE, TWO ROCKS

A Capricorn Village Joint Venture Project

**DRAFT**

plan: 07/032/173C  
scale: 1:4000@A3 | 1:2000@A1  
0 40 80m

date: 22/11/2023  
grid: PCG 94  
aerial: n/a





designed: ME  
checked: ME  
drawn: MH

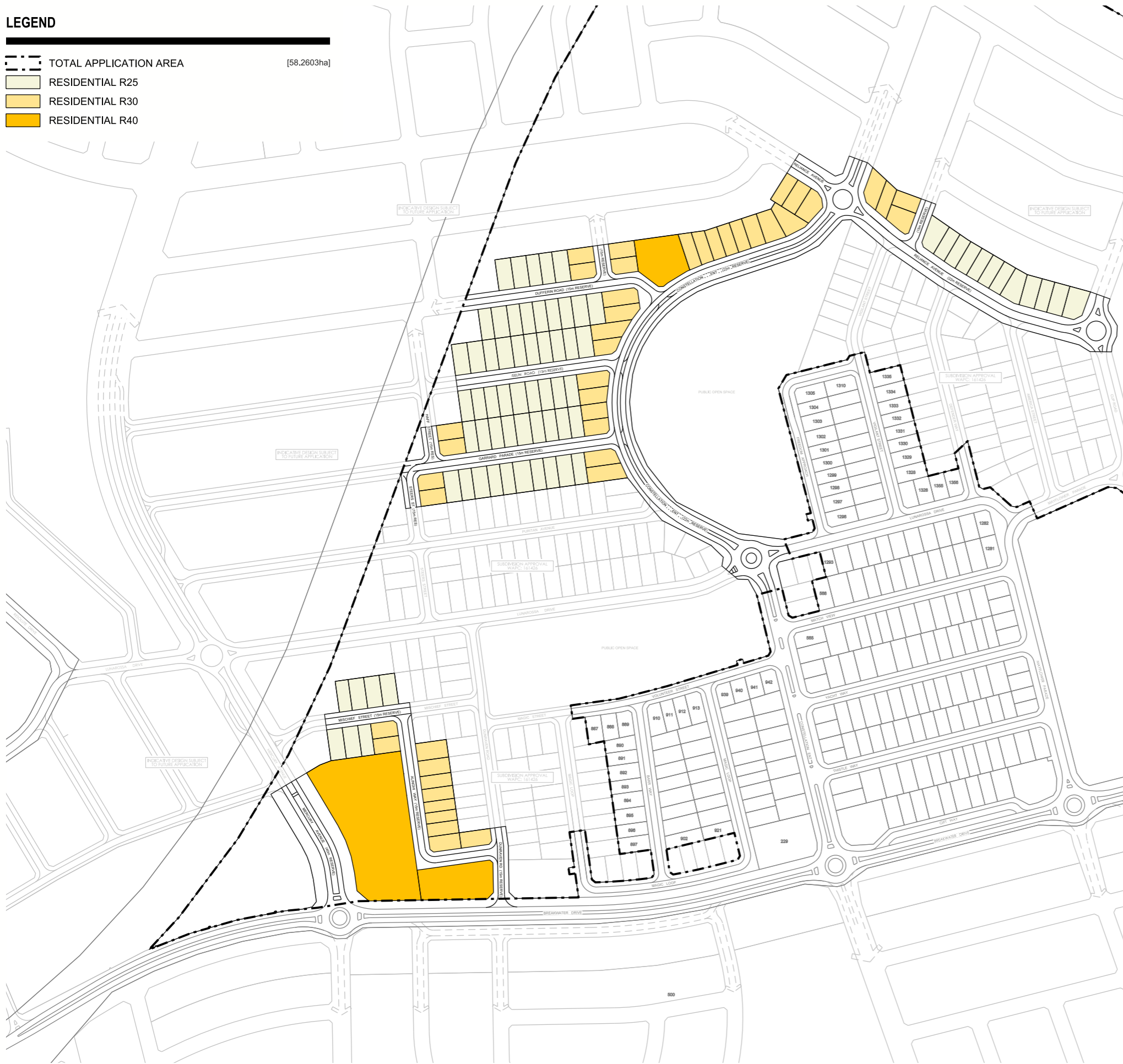
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**LEGEND**

-  TOTAL APPLICATION AREA [58.2603ha]
-  RESIDENTIAL R25
-  RESIDENTIAL R30
-  RESIDENTIAL R40

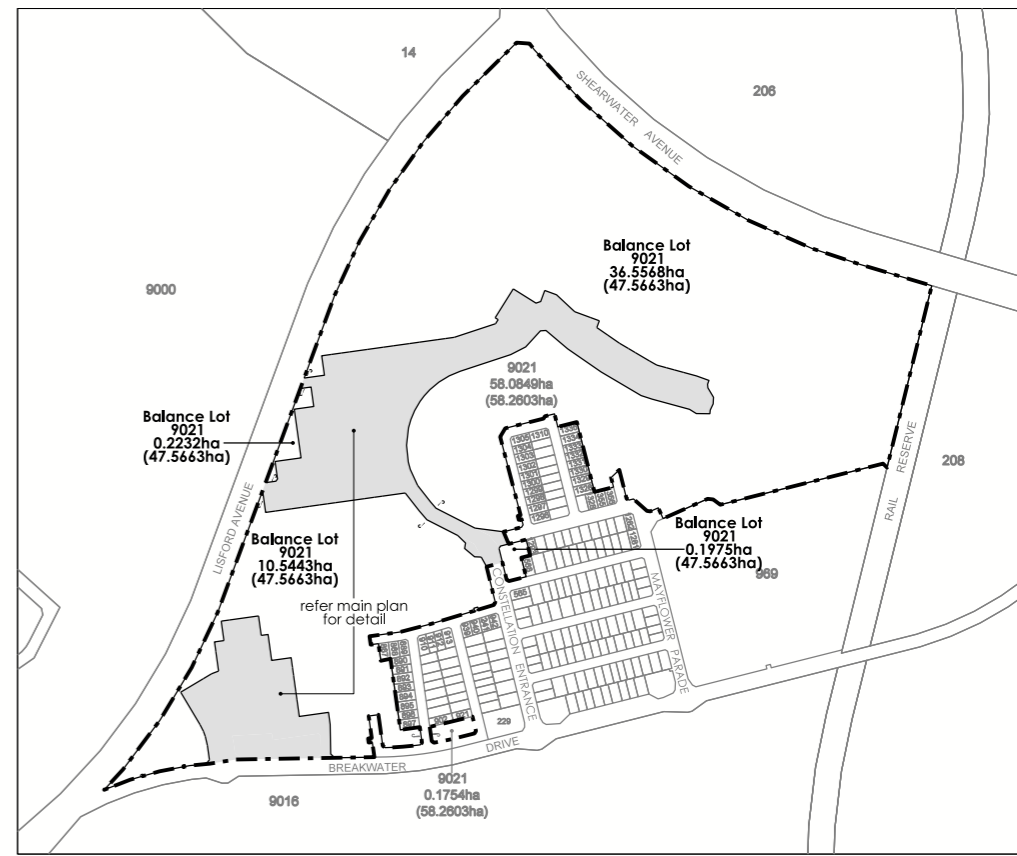


**DEPARTMENT OF PLANNING, LANDS  
AND HERITAGE**

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DATE FILE  
28-Nov-2023 164051

**OVERALL SUBDIVISION**



**Residential Density Coding Plan**  
LOT 9021 BREAKWATER DRIVE, TWO ROCKS

A Capricorn Village Joint Venture Project

plan: 07/032/179A  
scale: 1:4000@A3 | 1:2000@A1  
0 40 80m

date: 26/07/2023  
grid: PCG 94  
aerial:

designed: ME  
checked: ME  
drawn: JB

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**CITY OF WANNEROO**  
**DA2025/15 DAP - Proposed Service Station – 100K Constellation Entrance TWO ROCKS**  
**SCHEDULE OF SUBMISSIONS FOLLOWING ADVERTISING**

*(Advertising period 6 February 2025 to 20 February 2025)*

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
1	Support	1.1	Yes please it us a great spot for petrol station we really need this an more commercial infrastructure in Two Rocks no where else in what is classed as metro area do people have to travel so far.	Support noted.	No modification required.
2	Support	2.1	I support a service station for Two Rocks.	Support noted.	No modification required.
		2.2	I do not support enormous pylon signs that are lit 24/7. Two rocks is on the outskirts of the metro area and enjoys limited light pollution. Allowing large scale corporations to pollute our night sky with their logo is offensive. We know who the company is. We know where the business will be. We will drive past it and we can find it on Google maps or in car navigation. We don't need unnecessary signage.	The applicant reduced the height of the pylon sign abutting Breakwater Drive from 8 metres to 6 metres during assessment of the application, and the pylon sign facing Dunraven Road is 4 metres in height, which complies with the height requirements set out in the City's Local Planning Policy 4.6 – Advertising Signs (LPP 4.6). The City recommends the imposition of a condition requiring illumination of signage to be limited so as to not illuminate beyond the extent of the lot boundaries.	The City recommends the imposition of a condition requiring illumination of signage to be limited so as to not illuminate beyond the extent of the lot boundaries.
		2.3	We are already bombarded with mandatory road signage as it is. We will never keep the small coastal town history alive if you allow two rocks to become a 24/7 advertisement. Don't turn us into every other developing city, HELP to keep us unique in two rocks.	Refer to the City's response in 2.2 above.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
		2.4	The city should really come up with a caveat for all business wishing to set up here, no signs higher than 3m. 20% lit max at from dusk till dawn.	The City's LPP 4.6 guides the development and approval of advertising signage within the City of Wanneroo. The City recommends the imposition of a condition requiring illumination of signage to be limited so as to not illuminate beyond the extent of the lot boundaries.	The City recommends the imposition of a condition requiring illumination of signage to be limited so as to not illuminate beyond the extent of the lot boundaries.
3	Support	3.1	No comment provided.	Support noted.	No modification required.
4	Support	4.1	With the growth of Two Rocks and the popularity of the boat ramp growing it seems fitting for a fuel station to be built in the town. Providing this location has the ability to fit boats & caravans to enter for refuelling, otherwise it's pointless as these will be the main customers.	Support noted. The proposed development incorporates one trailer bay and can appropriately accommodate cars with trailers.	No modification required.
5	Support	5.1	No comment provided.	Support noted.	No modification required.
6	Support	6.1	OMG! It's been such a long struggle to get what we actually need in this area I can only say it's been a long time coming and someone AT LAST, is listening!	Support noted.	No modification required.
7	Support	7.1	Please build a service station.	Support noted. The City has assessed the application and provided a recommendation to the Metro Outer Development Assessment Panel who will determine the application. The development will be undertaken by the proponent.	No modification required.
8	Support	8.1	What we've needed for the area & also helps with bringing tourism people through	Support noted.	No modification required.
9	Support	9.1	Would be great to have a servo at Two Rocks.	Support noted.	No modification required.
10	Support	10.1	There is a big need for a fuel station in Two Rocks	Support noted.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
11	Object	11.1	I own 3 investment properties in Two Rocks. I am against a petrol station in Two Rocks, as there are 3 already in Yanchep.	The location of the proposed Service Station land use is driven by market demand. There are no provisions within the applicable planning framework which limit the number or proximity of these uses in a particular locality.	No modification required.
		11.2	With the move to Electric Vehicles, we will need petrol stations less and less. I don't think it will be nice for nearby residents to have one with the fumes and underground fuel tanks, which can leak and cause long term environmental damage.	The applicant has provided an Emissions Impact Assessment in support of the development. The City considers that the concerns regarding odour and airborne pollutants associated with the proximity of the Service Station to residential properties will be sufficiently managed through strict requirements imposed on the operator as part of the 'Dangerous Goods Site Licence' licencing process and in consideration of the EPA Guidelines. There is no evidence to suggest that the development will cause environmental damage.	No modification required.
		11.3	Wouldn't it be better (and more progressive) to have electric vehicle charging stations instead? Do something for the future? Anyway, I expect it will go ahead regardless of what I write here but at least you will know what people are thinking...	There is no requirement within the applicable planning framework for the proposed development to incorporate electric vehicle charging. Provision of this infrastructure is at the discretion of the developer/operator and is not proposed as part of this application.	No modification required.
12	Support	12.1	We NEED ONE	Support noted.	No modification required.
13	Support	13.1	I think is a perfect area for such a development, shame the other new developments in the area weren't also in the	Support noted.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			same area.		
14	Support	14.1	About time	Support noted.	No modification required.
15	Support	15.1	About time a service station was earmarked for Two Rocks. Closest is too far away if you desperately need fuel	Support noted.	No modification required.
16	Support	16.1	No comment provided.	Support noted.	No modification required.
17	Support	17.1	Two Rocks is in dire need of a fuel station.	Support noted.	No modification required.
18	Support	18.1	My daughter lives in Two Rocks and I often babysitting my grandchildren. If I need fuel I have to go past her house to Yanchep to get fuel. It would be ideal to have a fuel station in Two Rocks	Support noted.	No modification required.
19	Support	19.1	No comment provided.	Support noted.	No modification required.
20	Support	20.1	Support this but would recommend this had a car wash like the alkimos servo that has just switched to BP	Support noted. A motor vehicle wash is not proposed as part of this application. The City is required to assess the application as presented.	No modification required.
21	Support	21.1	No comment provided.	Support noted.	No modification required.
22	Support	22.1	It is about time; service station is really needed for Two Rocks.	Support noted.	No modification required.
23	Support	23.1	Finally lol...	Support noted.	No modification required.
24	Support	24.1	Two rocks needs a servo asap	Support noted.	No modification required.
25	Comments	25.1	While I applaud the proposed location of this project, it is unfortunate that the same thought process wasn't applied when choosing the location for Woolies and Maccas instead of putting them in a location that will cause unwanted congestion, noise and pollution.	Support noted.	No modification required.
		25.2	The proposed location for the servo is where the growth of Two Rocks is projected and should have been taken into consideration when planning Woolies and Maccas.	Support noted.	No modification required.
26	Support	26.1	No comment provided.	Support noted.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
27	Object	27.1	This planning is very poor. The location is a major issue.	The application has been considered as a 'D' (Discretionary) land use within the Urban Development zone. The proposal is capable of being considered on the site. This is discussed in further detail in the City's Responsible Authority Report. The applicant has provided technical reporting to address concerns relating to traffic generation, noise and emissions.	No modification required.
		27.2	There's major concerns for not only congestion but the potential danger for children walking to school along this road with congestion. There is also a park close by and with the road structure this will push more traffic down the residential streets.	The applicant has provided a Transport Impact Statement (TIS) to support the application which outlines that the traffic generated by the proposed development can be accommodated within the surrounding road network. The existing pedestrian pathway will be retained within the Breakwater Drive and Dunraven Road verges to ensure pedestrian connectivity is maintained. The application also proposes an internal pedestrian connection to achieve pedestrian connectivity between the existing path network and the convenience store building. There is no evidence to suggest the development will result in safety issues within the locality.	No modification required.
		27.3	The crime in the Atlantis state has increased recently and with a petrol station this will only increase the issues and is very concerning for residents.	Increased crime rates are not a relevant planning consideration. Criminal activity should be reported to WA police for investigation.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
		27.4	There is a need for a petrol station in two rocks, however with the anti social behaviour of four wheel drivers already in the estate the presence of the petrol station will only cause more issues. The petrol station should be put on a main road within the suburb not on a residential street with such poor planning and road structure.	Refer to the City's response in 27.1 and 27.3 above.	No modification required.
28	Object	28.1	Duplicate of submission 27.	Refer to City's responses in 27.1, 27.2, 27.3 and 27.4 above.	No modification required.
29	Support	29.1	No comment provided.	Support noted.	No modification required.
30	Object	30.1	The placement of this 24 hour service station is too near the residential properties. It definitely should not be a 24 hour station in a residential area. The noise from trucks pulling away will be very disruptive to sleeping residents. Very poor location planning.	Refer to the City's response in 11.2 and 27.1 above. In relation to noise generated by the development, the applicant provided an Environmental Noise Assessment (ENA) in support of the application outlining that the development is capable of complying with the <i>Environmental Protection (Noise) Regulations 1997</i> . The City recommends the imposition of a condition requiring the development to comply with the recommendations and assumptions of the ENA.	The City recommends the imposition of a condition requiring the development to comply with the recommendations and assumptions of the ENA.
31	Object	31.1	While Two Rocks is in need of a fuel station, the location is a poor choice and very likely to impact the amenity of nearby residents.	Refer to the City's response in 11.2, 27.1 and 30.1 above.	No modification required.
		31.2	There is already a major issue with illegal 4WDing in the area (as well as dirt bikes) and the location of the outlet will only make the undertaking of such activities even easier. It will also provide a convenient place for 4WDers to refuel, air up/down and gather, generating noise and disruption. In addition	In relation to increased anti-social activity, refer to the City's response in 27.3 above. In relation to noise generated by the development, refer to the City's response in 30.1 above.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			there will be those turning Dunraven (and others) into a 'rat run' to the nearest tracks.		
		31.3	Even disregarding this, Two Rocks residents wishing to fuel up, would have to drive to the northern extremity of the suburb and return south (also the direction most travel for work) and a more central location or in the commercial district would make far more sense. For clarity, I 4WD too, but the activity and noise at the current entrance to Dewar's Track is out of hand and neither council nor the civil contractors have been able to bring it under control.	Refer to the City's response in 27.3 above.	No modification required.
32	Support	32.1	Two Rocks has been without a petrol station for far too long & with all the new community members/families we feel the demand for one is a top priority for our area.	Support noted.	No modification required.
33	Object	33.1	Given how close constellation Park is and concern i have as a mum of the increase in traffic this will cause I am against. For a lot of young children including my own son this is one of the main parks here and I have great concern over their safety. The park isn't gated.	Refer to the City's response in 27.2 above.	No modification required.
		33.2	I also have a worry considering the recent increase in crime rates.	Refer to the City's response in 27.3 above.	No modification required.
		33.3	I think the station would be best positioned elsewhere. It would make more sense for it to be closer proximity to the new shopping centre for convenience.	Refer to the City's response in 27.1 above. The City is required to assess the application as presented.	No modification required.
34	Object	34.1	While I agree a petrol station is needed in Two Rocks having one back on to houses already being built is unfair . If it was my house and it goes ahead I would want to sell and move away. I definitely wouldn't have built there	Refer to the City's response in 27.1 above.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			knowing this was the plan.		
		34.2	Near where the Woolworths store is would be better in town centre. I walk past this spot early morning and having 24hour station I won't feel safe doing so .	The City is required to assess the application as presented. There is no evidence to suggest the development will result in safety issues within the locality.	No modification required.
35	Support	35.1	What a fantastic opportunity for all existing and new. With limited fuel options between Yanchep and further north this can bring more into the town itself. Also reduce the risk of those who live and shop local to keep the money and local jobs	Support noted.	No modification required.
36	Object	36.1	Hi, I think the proposal of a servo in Two Rocks is a great idea, growth in any form is good in ways of creating jobs for local people and infrastructure. However, I think the location is not ideal. In my personal opinion I think the servo would be better situated in the same complex area as the proposed Two Rocks Woolies site, near the IGA and the Marina. That way people using the supermarket (when built) and for those going into/out of the Marine with boats etc would be able to make better use of this over placing a 24hr servo on a residential estate, making the risk of accidents/incidents higher with young children living next to/nearby.	Refer to the City's response in 27.1 above. The City is required to assess the application as presented. There is no evidence to suggest the development will result in safety issues within the locality.	No modification required.
		36.2	Residents in this area have already experienced a higher criminal activity, property and surrounding damage and multitudes of rubbish being dumped with the 4x4's coming in to the sand dunes, which I understand will eventually not be there once the estate is developed, but is still a long way off from	Refer to the City's response in 27.3 above.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			being developed.		
37	Object	37.1	I think very little thought is going into the locations for amenities in Two Rocks. Whilst a service station may be needed in the area the location is not ideal. Its too close to houses and serves only the clients in one area of two rocks. Would it not be preferable to put something closer to Indian Ocean Rd to not only serve two rocks residents but also people travelling north or south on this road	Refer to the City's response in 27.1 above. The City is required to assess the application as presented.	No modification required.
38	Object	38.1	Terrible placement of the service station.	Refer to the City's response in 27.1 above.	No modification required.
39	Object	39.1	Poor location, support a petrol station at a better location further away from houses. Noise will be an issue.	In relation to the location of the proposal, refer to the City's response in 27.1 above. The City is required to assess the application as presented. In relation to noise, refer to the City's response in 30.1 above.	No modification required.
40	Object	40.1	I wish to object as the local residents who purchased the blocks of land nearby were not informed on purchase of their land. They should have been advised of this when they purchased the land.	The City is unable to comment on whether prospective buyers were advised of the proposed development when purchasing land. This is at the discretion of the estate developer and is not required within the applicable planning framework.	No modification required.
		40.2	The fuel station should be located nearer to the IGA.	Refer to the City's response in 27.1 above. The City is required to assess the application as presented.	No modification required.
		40.3	How would you like to have a service station next door to your home. Disgusting practice on your behalf.	Refer to the City's response in 27.1 above. The City is required to assess the application as presented.	No modification required.
41	Object	41.1	Strongly disagree on the location. Next door to residential housing? Absolutely do not see any benefit for this. Place it in a commercial area	Refer to the City's response in 27.1 above. The City is required to assess the application as presented.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			with other commercial buildings, where it would be USEFUL, how about in the town centre?!		
		41.2	This is so far out of the way for most current residents and serves no purpose other than to congest the one way road of breakwater drive and the round about adjacent.	Refer to the City's response in 27.1 above. The City is required to assess the application as presented. With regard to traffic generated by the development, refer to the City's response in 27.2 above.	No modification required.
		41.3	It will also attract degenerate and anti social behaviour well into the night. Case in point, look at Yanchep.	Refer to the City's response in 27.3 above.	No modification required.
42	Support	42.1	Two rocks needs a fuel station. As a home owner and running my business from home the convenience of access to fuel saves time i could be home.	Support noted.	No modification required.
43	Support	43.1	Two Rocks residents have to drive from their residence to Yanchep to access fuelling facilities to then drive home to Two Rocks is extremely backward in this day and age. As a resident of Yanchep, I don't understand why we have 3 Service stations within 500meters of each other and we have a suburb at the end of the city limits which has none. Surely to have a service station at the end of the city limits for people driving north to fill up before continuing on their journey would be common sense.	Support noted.	No modification required.
44	Support	44.1	No comment provided	Support noted.	No modification required.
45	Support	45.1	We have been waiting for so long for a fuel station. The amount of people stranded daily is actually shocking. I am in full favour of this going through. it's a big yes from me as a mum of 3, who has also grown up here my	Support noted.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			whole life I can definitely agree this needs to go through for all of us. It will be handy for everyone and make life alot easier for the people in surrounding suburbs like breakwater estate and even as far as gingin. My mum works in Lancelin and has to drive to Yanchep to fuel up this is so time consuming and unnecessary . It's unfair it's been this long actually. There was a time we could get fuel at the marina,And everyone who's lived here says those were the days.		
46	Object	46.1	This service station, while appreciated as a service - is far too close to pre-existing residential properties and the young children who will be growing up so close to the airborne pollutants and noise that we all realise will be created by this 24 hour business.	Refer to the City's response in 27.1 above. In relation to emissions generated by the development, refer to the City's response in 11.2 above. In relation to noise generated by the development, refer to the City's response in 30.1 above.	No modification required.
		46.2	A much better solution would be to relocate the proposed service station toward either the in-progress Woolworths site, or toward the proposed Two Rocks North town centre east of the existing Baptist college.	Refer to the City's response in 27.1 above. The City is required to assess the application as presented.	No modification required.
47	Object	47.1	We have enough people in the dunes without authorisation, to add a service station would just encourage more to illegally drive there.	Refer to the City's response in 27.3 above.	No modification required.
48	Support	48.1	Better than running out of fuel convenience at our door step don't have to fill Jerry cans from yanchep servo great for the 4wd and motorbike community	Support noted.	No modification required.
49	Support	49.1	Provides services for Two Rocks locals and gives more options for places to refuel cars, allowing residents to have more places to pick	Support noted.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			the best price from.		
50	Support	50.1	I believe that having a petrol station and convenience store is beneficial for the area. As long as it has easy access to and from, nice flow of traffic that doesn't congest the surrounding area. Also please approve a visually appealing design that will benefit the coastal suburb.	Support noted.	No modification required.
51	Object	51.1	No comment provided.	Noted.	No modification required.
52	Support	52.1	Two Rocks needs a Petrol Station, especially for boat owners. Currently have to tow the boat all the way to Yanchep.	Support noted.	No modification required.
53	Object	53.1	Do we really need a fuel station as most people fill up when leaving our beautiful little town in yanchep	The City is required to assess the application as presented. The location of the proposed Service Station land use is driven by market demand. There are no provisions within the applicable planning framework which limit the number or proximity of these uses in a particular locality.	No modification required.
54	Support	54.1	Need a local fuel station instead of a 20 minute round trip.	Support noted.	No modification required.
55	Object	55.1	Such a terrible location. It is way to close to the homes, place it near the woolies. The fuel smell will surround the houses. It is not healthy. I'm sure none of the government workers would like their bedroom to be 20 metres away from a fuel station.	Refer to the City's response in 27.1 above. With regard to emissions, refer to the City's response in 11.2 above.	No modification required.
56	Object	56.1	The foot-path on Breakwater Dr is used by many in the community for safe jogging, cycling and dog walking, it is also a common route for children or parents with children to walk to and from school (Atlantis Beach Baptist Collage and Two Rocks Primary	There is no evidence to suggest that the development will result in safety issues within the locality. The existing pedestrian pathway will be retained within the Breakwater Drive and Dunraven Road verges to ensure	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			School). The proposed station and increased vehicle traffic would make this foot-path unsafe.	pedestrian connectivity is maintained. The application also proposes an internal pedestrian connection to achieve pedestrian connectivity between the existing path network and the convenience store building.	
57	Object	57.1	Terrible location for a service station. Too many houses and children in close proximity.	Refer to the City's response in 27.1 above.	No modification required.
58	Support	58.1	We need more fuel stations heading away from Yanchep and two rocks.	Support noted.	No modification required.
59	Object	59.1	Wow, what a stupid place to put a gas station, why would you try to emulate the appalling traffic situation that you have already created at Burk gas station in Butler.	Refer to the City's response in 27.1 above. The development referenced in Butler is not relevant to this application.	No modification required.
		59.2	Why have this in a residential area, backing on to residential lots and on a corner block where people are not going to safely access and egress from the facility.	Refer to the City's response in 27.1 above. The development incorporates a full movement crossover to Dunraven Road, with vehicles able to egress the site through a left-out only crossover to Breakwater Drive. The applicant has provided a Transport Impact Statement (TIS) to support the application which outlines that the traffic generated by the proposed development can be safely accommodated within the surrounding road network. The TIS does not raise safety concerns with the proposed access arrangement, and there is no evidence to suggest the proposal will impact safety within the locality.	No modification required.
		59.3	Why wouldn't you put this in the development area of Woolies or the Tav car park (we all know that needs to be resurfaced and	Refer to the City's response in 27.1 above. The City is required to assess the application as presented.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			repaired) and it would be at the cost of the servo not the Shire.		
		59.4	Is this servo supposed to be for the use of the Two Rocks community or to attract tourists into Two Rocks, it's a 7-11 the most expensive fuel around, they are going to gouge locals.	Pricing of fuel is not relevant to the assessment of the development application and will be determined by the operator.	No modification required.
		59.5	The already increased traffic on Two Rocks road will probably see a jump in numbers and the servo is in a high congestion area, being next to schools, drs and residential streets.	Refer to the City's response in 27.2 above.	No modification required.
60	Object	60.1	Concerns over proximity to residential dwellings.	Refer to the City's responses in 11.2 and 27.1 and above.	No modification required.
		60.2	Concerns relating to position of service station - people accessing the facility will be coming from either Two Rocks Rd or Indian Ocean Dr. Approaching from Two Rocks Rd will increase traffic flow along Two Rocks Rd and through the Townsite. This will add to an already marked increase in volume of traffic.	The proposal is located on the corner of Breakwater Drive and Dunraven Road. The development incorporates a full movement crossover to Dunraven Road, with vehicles able to egress the site through a left-out only crossover to Breakwater Drive. The applicant has provided a Transport Impact Statement (TIS) to support the application which outlines that the traffic generated by the proposed development can be accommodated within the surrounding road network.	No modification required.
		60.3	Ideally service station should be closer to Indian Ocean Dr to service those travelling North.	Refer to the City's response in 27.2 above. The City is required to assess the application as presented.	No modification required.
61	Object	61.1	I think the servo is needed but should be in a different location like where iga or the new Woolworths will be	Refer to the City's response in 27.2 above. The City is required to assess the application as presented.	No modification required.
62	Object	62.1	I am firmly against the construction of a service station in such close proximity to our house on Dunraven RD (second house from	Refer to the City's response in 27.1 above.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			the proposed Service Station), as it would significantly disrupt the peaceful environment		
		62.2	With the proposed upgrade to the existing Breakwater Drive and Dunraven RD intersection it will significantly increase traffic flow, noise level and fumes from running cars on the Dunraven RD.	The upgrade to the intersection between Breakwater Drive and Dunraven Road was subject to a previous approval and is unchanged as part of this application. With regard to traffic generated by the development, refer to the City's response in 27.2 above.	No modification required.
		62.3	The development also brings potential safety concerns, and a negative impact on our property value.	There is no evidence to suggest the proposal will result in safety issues within the locality. Impact to property values is not a relevant planning objection.	No modification required.
		62.4	Exposure to exhaust gases from cars are harmful to your health, especially if you are regularly inhaling large amounts of pollution from running cars while they are waiting in line for fuel is a concern for all the close residential houses.	Refer to the City's response in 11.2 above.	No modification required.
		62.5	I don't believe that the below extract can be enforced in real life - just words on paper: "During the evening and nighttime periods, refrigerated delivery trucks that require engines running are to use the southern secondary delivery bay. Trucks using this southern secondary delivery bay must be driven in forward gear, with the front of the truck (i.e. engine) facing acoustic screen to the east."	Refer to the City's response in 30.1 above.	No modification required.
		62.6	I strongly urge the proposed DAP to reconsider the original site for the service station location as the roundabout	Refer to the City's response in 27.1 above. The City is required to assess the application as presented.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			infrastructure is already in place.		
63	Support	63.1	I believe it is necessary sooner rather than later, especially with all the future developments that will occur.	Support noted.	No modification required.
		63.2	It would be cost effective and beneficial to have a self serving car/boat wash especially with the marina in close proximity done at the same time as not to impact re-design and operational efficiency later on if it's done at the same time. Per the population prediction going forward over the next 10 years it's needed now.	Refer to the City's response in 20.1 above.	No modification required.
64	Support	64.1	No comment provided.	Support noted.	No modification required.
65	Object	65.1	I object to the proposed Service Station development on the basis of its poor design outcome, not meeting the City's specific Service Stations Local Planning Policy 2.9 and not resulting in an appropriate outcome with respect to State Planning Policy 7.0 - Design of the Built Environment.	Noted. Refer to City's responses in 65.1 to 65.10 below.	No modification required.
		65.2	Much more could be done to improve the design of the building, with active and engaging facades, particularly those that front public realm areas and roads. For example, the building is not orientated towards Breakwater Drive; and instead the side of the building is what most people will see as they drive past. This is not a good outcome for a key corner block of a new estate.	The proposal has been designed to create visual interest along the street frontages where appropriate through use of decorative elements, landmark features, landscaping, glazing and a pedestrian pathway. The development is considered to provide appropriate interaction with the adjoining streets. This is discussed in further detail in the City's Responsible Authority Report.	No modification required.
		65.3	7-Eleven has done this many times - having the main shopfront face internal, with the side of the building (blank wall) addressing the	Not relevant to this application.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			main road. See for example the poor outcome of the 7-Eleven Byford site at 25 Abernethy Road, Byford, or the 7-Eleven Wattle Grove site at 332 Hale Road, Wattle Grove, or the 7-Eleven Maddington site at 1969 Albany Highway, Maddington.		
		65.4	It is unacceptable for a new development to respond to main streets in this way. The development should have active facade to the main street, as well as to the rear in this circumstance, allowing pedestrian accessibility from Magic Loop.	The development adequately addresses the Dunraven Road frontage (which serves as the primary street) and Breakwater Drive frontages as discussed in the City's response in 65.2 above. The existing pedestrian pathway will be retained within the Breakwater Drive and Dunraven Road verges to ensure pedestrian connectivity is maintained. A pedestrian connection from the development site to Magic Loop is not required noting that the convenience store building is not oriented toward this street boundary.	No modification required.
		65.5	In terms of the City's Service Stations Policy, the following objectives are not met: "Buildings shall be of a high standard of architectural design with landmark characteristics." The building is not of a high standard of architectural design with landmark characteristics. Very little has been done, other than rolling out a standard 7-Eleven design. No additional architectural design or layout has been considered. There is an opportunity to do a lot more with the design to ensure it contributes to a quality outcome. The proposal does not conform to this policy	Refer to the City's response in 65.2 above. The development is considered to provide appropriate interaction with the adjoining streets.	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			<p>provision. There are many examples where 7-Eleven has done more to provide a better building outcome, for example 7-Eleven Booragoon, 7-Eleven Joondalup. The City should at least require a higher standard for this new development.</p>		
		65.6	<p>The next objective is not met: "The use of bold and innovative canopy structures that provide a strong architectural statement." The proposal does not provide a bold and innovative canopy structure that provides a strong architectural element. No response to this provision was provided or discussed in the report. The development simply proposes a flat canopy like many other standard service stations, and this doesn't comply with the City's policy. There are examples of other service stations, including ones that 7-Eleven operate, that have used a more bold and innovative canopy structures, such as Atlas Fuel Ascot which features a highly innovative design, United service station at Perth Airport which features a bold canopy structure, 7-Eleven Morley which has a framing structure around the perimeter. This is what the policy intends. The proposed development does not do anything more than what 7-Eleven has typically rolled out across the suburbs. It is not good enough, particularly in the time where state planning policy 7.0 is in play. It is expected that the City will bring the proposal to a design review panel to assess the 10 design principles, and I am sure the design review panel (DRP) would</p>	<p>The proposal has been designed to create visual interest along the street frontages where appropriate as discussed in the City's response in 65.2 above. Additional activation and interest to has been incorporation through use of decorative elements, landmark features, landscaping and glazing. The applicant has provided a statement against the 10 Design Principles of State Planning Policy 7.0 – Design of the Built Environment in the planning report submitted with the application, which was available online for review for the duration of the public consultation period. In accordance with the City's Local Planning Policy 4.23 – Design Review Panel (LPP 4.23), the City has the ability to apply discretion in relation to which applications are presented to the Design Review Panel (DRP) for comment. Due to the nature of this proposal, referral to the Design Review Panel was not undertaken due to the proposal being appropriately designed and located in relation to both the residential</p>	<p>The City recommends the imposition of a condition requiring the applicant to submit a detailed schedule of external finishes prior to the submission of a building envelope.</p>

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			<p>have many things to say/suggest to dramatically improve the development. The proposal is required to be assessed by the DRP, in accordance with the terms of Local Planning Policy 4.23.</p>	<p>interface and the existing and desired streetscape within the locality. This is discussed in further detail in the City's Responsible Authority Report. Notwithstanding this, the City recommends the imposition of a condition requiring the applicant to submit a detailed schedule of external finishes prior to the submission of a building envelope.</p>	
		65.7	<p>The next policy objective: "Buildings shall address the street by way of major openings and entries(plural!) so as to provide a level of passive surveillance from inside the building to adjacent streets and the public realm. The use of blank walls shall be minimised and glazing to openings shall not be obscured with signage. Where blank walls cannot be avoided, they shall be designed in such a way that they contribute to a safe and attractive street environment by</p> <ul style="list-style-type: none"> <li>- Minimising the length and height of blank walls;</li> <li>- Articulating blank walls through the creative application of complementary materials, avoiding large continuous masses of the same finish and/or the provision of appropriately integrated structural features, lighting, street furniture, artworks and/or landscaping." <p>The proposal does not address this requirement whatsoever. The site has three road frontages, and the proposed development does not have any major</p> </li></ul>	<p>The landscaping provided in the east of the development site between the convenience store and the Magic Loop boundary reduces the appearance of a blank wall and is considered appropriate in terms of providing activation to this street frontage. Further, the incorporation of landscaping adjacent to this boundary serves to screen the development from residences to the east and therefore reduces the number of residential lots which directly face the entry point to the convenience store building. In relation to activation of the Breakwater Drive frontage, this is discussed in the City's response in 65.6 above. While glazing is not provided to Breakwater Drive, activation is considered to be provided through landmark elements, painting of wall panels and the incorporation of a pedestrian pathway and landscaping. The development is</p>	<p>The City recommends the imposition of a condition requiring the applicant to submit a detailed schedule of external finishes prior to the submission of a building envelope.</p>

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			<p>openings addressing Breakwater Drive (the main road here) or Magic Loop, which the policy requires. There is an opportunity to have activation of these streets, in fact, it should not turn its back on these streets. Blank walls are not minimised; they are maximised on these sides! It is unacceptable in today's standard for a building not to address these streets and public realm areas.</p>	<p>considered to provide appropriate interaction with the adjoining streets. Notwithstanding this, the City recommends the imposition of a condition requiring the applicant to submit a detailed schedule of external finishes prior to the submission of a building envelope.</p>	
		65.8	<p>The planner's report suggests that the shopfront glazing is provided on the façade fronting the fuel forecourt area, providing a good level of passive surveillance to the site and adjoining public realm. This is not good enough. The store should have major openings and pedestrian entry from Magic Loop, and at a minimum, have some openings or windows facing Breakwater Drive. 7-Eleven should not be able to continue having blank walls facing the main roads. This is a poor planning outcome and should not be supported in its current form. Otherwise, the development will end up the same way the Byford, Maddington and Wattle Grove sites present (as referenced above) which would be a terrible outcome.</p>	<p>Refer to the City's responses in 65.1 to 65.7 above.</p>	<p>No modification required.</p>
		65.9	<p>Finally, I object to the overheight 8m pylon sign, which exceeds the City's signage policy requirement which permits 6m. 7-eleven has adopted a 6m pylon sign in other jurisdictions in response to other local government's similar standards, and no planning justification is provided other than providing better opportunity for advertising or that "pylon signs</p>	<p>The applicant has amended the plans to reduce the height of the proposed pylon sign facing Breakwater Drive from 8 metres to 6 metres, complying with the City's LPP 4.6. No further modification is required to the height of the pylon sign.</p>	<p>No modification required.</p>

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			of 8 metres are common for service station developments". There is no clear planning reason why the City should allow an over height sign simply to allow better advertising. The policy clarifies that an increase in height to 8m is only available where multiple tenancies are proposed in a single development. This is not the case here.		
		65.10	The City should not support the application in its current form. To do so would result in a poor planning outcome at a key corner location of a new estate. Much more can be done, particularly with a multi-national company operating the site. The bare minimum is being spent, and this is just not good enough. Trust that City will take these planning matters into account when undertaking assessment.	The City is required to assess the application as presented. The design of the development is considered appropriate as outlined in the City's responses in 65.1 to 65.7 above. This is discussed in further detail in the City's Responsible Authority Report.	No modification required.
66	Support	66.1	This will be a valuable asset to a rapidly growing region. Economic benefits from recreational vehicle and boat users who frequent the area. Local families having access to fuel and conveniences including staples and medication 24/7.	Support noted.	No modification required.
67	Object	67.1	As a owner occupier this fuel station is approximately 50 meters from my bedroom window.	Noted. Refer to the City's response in 27.1 above. The separation between the development and adjoining residential development is discussed in detail in the City's Responsible Authority Report.	No modification required.
		67.2	During construction and road realignment access to the our local shops will be severely impacted.	To minimise disruption during construction, the City recommends the imposition of a condition requiring a Construction Management Plan to	The City recommends the imposition of a condition requiring a Construction

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
				be prepared and approved by the City prior to the submission of a building permit which is to address issues such as traffic management. In relation to the modification to the Breakwater Drive and Dunraven Road intersection, this has been approved as part of a separate application and is currently under construction.	Management Plan to be prepared and approved by the City prior to the submission of a building permit.
		67.3	The location of this fuel station in between 2 schools and lots of kids walking too and from the schools. Will cause alot of safety issues.	There is no evidence to suggest that the proposal will result in safety issues within the locality.	No modification required.
		67.4	Alot of 4wd drivers who still use breakwater drive to access wilbilnga. And with the addition of air pump, these 4wd will now use that 24/7 to pump tires up. Causing more noise pollution.	Refer to the City's response in 27.1 above.	No modification required.
		67.5	Smells and pollution.	Refer to the City's response in 11.2 above.	No modification required.
		67.6	Two Rocks is currently experiencing lots of anti social behavior and crime. The location of this fuel station Will force more traffic to us local residents.	With regard to increased antisocial behaviour, refer to the City's response in 27.3. With regard to traffic generated by the development, refer to the City's response in 27.2 above.	No modification required.
		67.7	I belive a better suited location would be in the already shopping area, thus keeping everyone lot happier and anti social behavior to be better controlled from the already under resourced police department.	In relation to the proposed location of the development, refer to the City's response in 27.1 above. The City is required to assess the application as presented. In relation to increased antisocial behaviour, refer to the City's responses in 27.3 above.	No modification required.
68	Object	68.1	I'd like to object to the proposed service station location. It's too close to houses. It's going to be too loud and busy to be right on	In relation to the proposed location of the development, refer to the City's response in 27.1 above. In relation to	No modification required.

No.	Position	Ref	Summary of Submission	Administration Comments	Modification required?
			top of houses in the estate.	noise generated by the development, refer to the City's response in 30.1 above. In relation to traffic generated by the development, refer to the City's response in 27.2 above. The separation between the development and adjoining residential development is discussed in detail in the City's Responsible Authority Report.	
		68.2	There are a lot of other locations it could go that wouldn't be on top of the houses.	Refer to the City's response in 27.1 above. The City is required to assess the application as presented.	No modification required.
		68.3	It's in-between two schools which potentially poses more risk to children walking to and from school with more vehicle traffic.	There is no evidence to suggest that the development will cause safety issues within the locality. The existing pedestrian pathway will be retained within the Breakwater Drive and Dunraven Road verges to ensure pedestrian connectivity is maintained. The application also proposes an internal pedestrian connection to ensure pedestrian connectivity between the existing path network and the convenience store building.	No modification required.



Department of **Planning,  
Lands and Heritage**

OFFICIAL

City of Wanneroo  
Civic Centre  
23 Dundobar Road  
Wanneroo WA 6065

Your ref: DA2025/15

Our ref: [REDACTED]

Enquiries: [REDACTED]

20 February 2025

Attention: Raelee Houden

Dear Raelee,

**Re: Lot 9028 (100K) Constellation Entrance, Two Rocks, WA**

Further to your correspondence dated 6 February 2025, in accordance with the Western Australian Planning Commission (WAPC) Instrument of Delegation dated 18 January 2022, the following comments are provided. This proposal seeks approval for a service station at the above-mentioned property.

**Land Requirements**

The subject site abuts Breakwater Drive and Dunraven Road. Breakwater Drive is reserved as an Other Regional Road (ORR) in the Metropolitan Region Scheme (MRS) and Category 1 per Plan Number SP 694/7. Lot 9028 is not affected by the ORR reservation.

**Access**

The Proponent has proposed a crossover at Dunraven Road allowing full-movements and a left-out only crossover to Breakwater Drive.

In addition to the above, the Applicant has proposed a median opening at the intersection of Breakwater Drive and Dunraven Road to allow right-in movements. This proposal is in accordance with approved WAPC subdivision Reference No: 200603 (30 October 2024).

The left-out only crossover from Breakwater Drive will allow heavy vehicles to exit the development and would help the cessation of queuing within the property, Dunraven Road and potentially on Breakwater Drive.

**WAPC State Planning Policy (SPP) 5.4 Road and Rail Noise**

There is no traffic volume information available in close proximity to the development site at Main Roads WA's (MRWA) Traffic Map. As per the available MRWA's Regional Operation Model (ROM24) data, Breakwater Drive is forecast to carry up to 30,000 vehicles per day at the ultimate state (Year 2050+). However, the proposed development is not sensitive to road or rail noise. Therefore, SPP 5.4 *Road and Rail Noise* requirements and that all necessary measures, as detailed in the SPP 5.4 Implementation Guidelines are not applicable.

**Transport Impact Statement (TIS)**

The above report by Transcore, dated X, states that the service station will comprise six (6) fuelling positions and a convenience store. According to the submitted TIS, the development would generate up to 53 trips at AM Peak, 67 trips at PM peak, and 926 total daily vehicular trips. According to PM peak hour trip generation, each fuelling position would serve approximately 11.2 vehicles in an hour.

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The proposed trip generation was compared with ITE 11<sup>th</sup> edition Trip Generation Guidelines and Guide to Transport Impact Assessment from New South Wales (located at <https://standards.transport.nsw.gov.au/search-standard-specific/?id=AST%20-%200005108:2023>). ITE and NSW Guide to Transport Impact Assessment provide the following guidance for a Service Station with six fuelling positions:

1. ITE Land Use Code 945:
  - i. Weekday Peak Hour of Adjacent Street Traffic One Hour Between 7 and 9 a.m.: 96 vehicles per hour (50% entering and 50% exiting).
  - ii. Weekday Peak Hour of Adjacent Street Traffic One Hour Between 4 and 6 p.m.: 111 vehicles per hour (50% entering and 50% exiting).
  - iii. Weekday AM Peak Hour of Generator: 99 vehicles per hour (50% entering and 50% exiting).
  - iv. Weekday PM Peak Hour of Generator: 115 vehicles per hour (50% entering and 50% exiting).
  - v. Weekday: 1,591 to 1800 vehicles per day (50% entering and 50% exiting).
2. NSW Guide to Transport Impact Assessment:
  - i. AM Peak Hour: 111 vehicles per hour.
  - ii. PM Peak Hour: 134 vehicles per hour.

The proposed trip generation rates are significantly lower than the above two widely accepted sources (58% of ITE recommended trip generation at PM peak). Traffic generated at the peak hours may have a negative impact on the intersection capacity and queueing.

### **Recommendation**

The Department has no objection to the proposal on ORR planning grounds subject to the following recommendations:

1. The Applicant should review traffic generation rates in line with ITE Trip Generation Guidelines and/or NSW Guide to Transport Impact Assessment and provide more realistic trip generation due to the proposed development.
2. The Applicant should demonstrate the proposed trip distributions are logical. The Applicant is recommended to conduct traffic counts on Breakwater Drive, Dunraven Road and at the intersection of Breakwater Drive - Dunraven Road. The traffic counts and the understanding on the future housing development may help traffic distribution more rationally.
3. The Applicant should conduct a queue analysis demonstrating that there would not be any negative impact on Breakwater Drive. The queue analysis should be submitted to the Department of Planning, Land and Heritage.
4. The Applicant should provide the impacts of the development on the Intersection of Breakwater Drive - Dunraven Road. This can be demonstrated by preparing a network SIDRA Intersection model with revised trip generation and distribution, connecting the Breakwater Drive - Dunraven Road Intersection and proposed crossover at Dunraven Road. The SIDRA model should be submitted to the Road Planning Team within the Department of Planning, Land and Heritage (DPLH) for a review.
5. A layout plan showing the proposed modifications to the Intersection of Breakwater Drive - Dunraven Road should be submitted to DPLH and the City of Wanneroo. The plan should be prepared in accordance Main Roads WA's technical guidelines and relevant Austroads Guidelines.

6. Refer to Drawing # DA02, the proposed<sup>OFFICIAL</sup> Pylon sign located to the south of the crossover to/from Dunraven Road should not obstruct drivers' visibility in term of pedestrian safety.
7. Main Roads' Driveways policy states that 'driveways should be as near to 90 degrees to the road centreline as conditions will permit'. It is recommended that the left-out driveway to Breakwater Drive meet this requirement (70 degrees absolute minimum).

Thank you for your correspondence. Should you have any queries regarding this matter, please contact [REDACTED]



MRS Map

**City of Wanneroo Response to Department of Planning, Lands and Heritage (DPLH) Referral Response**

**Service Station – 100K Constellation Entrance, Two Rocks**

<b>Item</b>	<b>DPLH Recommendation</b>	<b>Administration Comments</b>
1	The Applicant should review traffic generation rates in line with ITE Trip Generation Guidelines and/or NSW Guide to Transport Impact Assessment and provide more realistic trip generation due to the proposed development.	The proponent provided additional information outlining how the relevant trip generation rates were achieved. The additional information was reviewed by the City's Traffic Services who were supportive of the modelling undertaken to achieve the trip rates. No further modification is required in relation to this aspect.
2	The Applicant should demonstrate the proposed trip distributions are logical. The Applicant is recommended to conduct traffic counts on Breakwater Drive, Dunraven Road and at the intersection of Breakwater Drive - Dunraven Road. The traffic counts and the understanding on the future housing development may help traffic distribution more rationally.	The proponent provided additional information regarding the trip distributions. The proposed trip distributions account for the future development of the residential area to the north of the development, and the modification to the intersection of Breakwater Drive and Dunraven Road. The distribution rates reflect the ultimate design of this intersection and are therefore considered to be logical and rational. The additional information was reviewed by the City's Traffic Services who were supportive of the trip distributions. No further modification is required in relation to this aspect.
3	The Applicant should conduct a queue analysis demonstrating that there would not be any negative impact on Breakwater Drive. The queue analysis should be submitted to the Department of Planning, Land and Heritage.	The City's Traffic Services concur that a queue analysis does not form part of the WAPC Transport Impact Assessment Guidelines requirements for preparation of a Transport Impact Statement (TIS). The amount of traffic expected to be generated does not require a queuing analysis for the proposed development. Notwithstanding this, the applicant provided additional information regarding the likely queuing locations for the development which are contained within Section 12 of the amended TIS. The additional information indicates that queuing will not result in a negative impact to Breakwater Drive, and was reviewed by the City's Traffic Services who concurred with the findings. No further modification is required in relation to this aspect.
4	The Applicant should provide the impacts of the development on the Intersection of Breakwater Drive - Dunraven Road. This can be demonstrated by preparing a network SIDRA Intersection model with revised trip generation and distribution, connecting the Breakwater Drive - Dunraven Road Intersection	The City's Traffic Services concur that a capacity analysis (SIDRA) does not form part of the WAPC Transport Impact Assessment Guidelines requirements for preparation of a Transport Impact Statement (TIS). The amount of traffic expected to be generated does not require a capacity analysis to be undertaken for the proposed

	and proposed crossover at Dunraven Road. The SIDRA model should be submitted to the Road Planning Team within the Department of Planning, Land and Heritage for a review.	development. No further modification is required in relation to this aspect.
5	A layout plan showing the proposed modifications to the Intersection of Breakwater Drive - Dunraven Road should be submitted to DPLH and the City of Wanneroo. The plan should be prepared in accordance Main Roads WA's technical guidelines and relevant Austroads Guidelines.	The modification to the intersection of Breakwater Drive and Dunraven Road has been previously approved through WAPC subdivision approval 200603. The modification to the intersection is currently under construction and is therefore not relevant to this application. No further modification is required in relation to this aspect.
6	Refer to Drawing # DA02, the proposed Pylon sign located to the south of the crossover to/from Dunraven Road should not obstruct drivers' visibility in term of pedestrian safety.	The proposed pylon sign located to the south of the crossover providing access to and egress from the development to Dunraven Road is located outside the 2 metre by 2.5 metre sight line area required by AS2890.1. Sufficient sight lines are therefore provided for the development. No further modification is required in relation to this aspect.
7	Main Roads' Driveways policy states that 'driveways should be as near to 90 degrees to the road centreline as conditions will permit'. It is recommended that the left-out driveway to Breakwater Drive meet this requirement (70 degrees absolute minimum)	The alignment of the crossover to Breakwater Drive was modified to achieve a 70-degree angle to the road centreline. The City's Traffic Services have reviewed the amended crossover design and are supportive of this outcome. No further modification is required in relation to this aspect.



**EMISSIONS IMPACT ASSESSMENT  
OF PROPOSED 7-ELEVEN FUEL  
SERVICE STATION**

**TWO ROCKS, WESTERN AUSTRALIA**



# Emissions Impact Assessment of Proposed 7-Eleven Fuel Service Station

Two Rocks, Western Australia

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Prepared for: Tomahawk Two Rocks Pty Ltd

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Project Ref: EAQ-24026  
December 2024

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Environment | Air Quality



Environmental & Air Quality Consulting Pty Ltd  
 PO Box 897  
 JOONDALUP DC  
 WA 6919  
 +61 (8) 6108 3760  
 +61 (0) 449 915 043  
[www.eaqconsulting.au](http://www.eaqconsulting.au)  
[jhurley@eaqconsulting.com.au](mailto:jhurley@eaqconsulting.com.au)

**Report Revision(s)**

Version(s)	Description	Date	Author(s)	Reviewer(s)
Draft_0.1	Internal Review	15.09.2024	J. Hurley	DSB
Draft_1.0	Draft Report	15.09.2024	J. Hurley	Tomahawk
Final		06.12.2024		

**Approved for Release**

Name	Position	File Reference
John Hurley	Principal Consultant	EAQ24026-Tomahawk(TwoRocks)+7-Eleven+EmissionsImpactAssessment-Final

**Signature**

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*This document presents the outcomes of a Desktop Emissions Modelling Assessment. All emissions inputs into the model were sourced from industry specific emissions’ factor publications, previous site-specific measurements, and/or from peer reviewed public domain data except where detailed otherwise herein. EAQ has not attempted to verify externally sourced data beyond its use herein. The modelling assessment has been prepared using the best available information provided by the Client and in conjunction with regulatory guidance from the appropriate regulatory jurisdiction(s). EAQ has exercised its diligence and due-care in delivering the outcomes of the assessment according to accepted assessment practices and techniques. EAQ disclaims any and all liability and responsibilities for damages of any nature, to any party, which may be caused from misapplication or misinterpretation by third parties of this assessment*



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## Executive Summary

Environmental and Air Quality Consulting Pty Ltd undertook an Air Emissions Impact Assessment of a proposed 7-Eleven Fuel Service Station.

The site scientific study addressed the short-term exposure and long-term health risks associated with vapour emissions from the Fuel Service Station. The Fuel Service Station is within an urban developed area.

The Assessment utilised industry accepted standards for estimating pollutant emission rates of primary airborne pollutants from fuel storage and refuelling activities at the Fuel Service Station and assessed these pollutant emission rates utilising conventional dispersion modelling methods to predict the concentration of primary pollutants at the nearest sensitive receiver within the locality.

The outcomes of the Assessment found that the primary pollutants of Benzene, Toluene, Ethyl benzene, Xylenes, Cyclohexane, *n*-Hexane and Styrene were predicted to have ground level concentrations lower than acceptable exposure limits set by the WA Department of Water and Environmental Regulation, National Environment Protection (Air Toxics) Measure and other relevant jurisdictional recommendations when utilising both Vapour Recovery Phase 1 (mandatory) and Vapour Recovery Phase 2 (proposed).

Based on the predicted ground level concentrations using VR1 and VR2, vapours from the Station will not negatively impact the health of the nearest existing sensitive receptors, or future sensitive land uses within the locality.

## 1 Background & Scope

Environmental & Air Quality Consulting Pty Ltd (EAQ) was engaged by Tomahawk Two Rocks Pty Ltd (Tomahawk), the proponent, to undertake an Air Emissions' Impact Assessment (the Assessment) of a proposed 7-Eleven Fuel Service Station (the Station).

The Station is to be located at the corner of Breakwater Drive and Dunraven Road, Two Rocks, Western Australia 6037.

This Assessment addresses the Stations' toxic principal chemical compounds in petrols by undertaking a desktop scientific Assessment of the short and long-term health risks associated with vapour emissions from the Station.

### 1.1 Station Assessment Scope

The Assessment of the Station was undertaken to determine the extent of offsite pollutant impacts beyond the boundary of the Site and subsequently determining the risk of health and amenity impacts for existing and future sensitive receivers and/or sensitive land uses (receptors).

The Assessment predicted ground level concentrations (GLCs) of various pollutants from vapour losses using regulatory standard dispersion modelling techniques.

The predicted GLCs were compared to the regulatory criteria for each pollutant assessed to determine if those GLCs would cause a health or amenity impact at the nearest receptor.

The model of choice was Aermid and its supporting pre- and post- processors.

Chemical vapour emission rates from the Station were developed from:

- NPI Emission Estimation Technique Manual ([NPI, 1999](#)) for Aggregated Emissions from Service Stations (Environment Australia),
- Air Toxics "Hot Spots" Program: Gasoline Service Stations Industry wide Assessment Guidelines – Toxics Committee of the California Air Pollution Control Officers Association ([CAPCOA, 1997](#)), and
- Brisbane City Council methodology for service stations (BCC, 2017).

The BCC, 2017 methodology was utilised to represent hourly throughput rates for service stations based on normal and peak traffic flows.

#### 1.1.1 Station Legislative Context

The proposed Station will not be a Prescribed Premise with regard to the WA Department of Water and Environmental Regulation (DWER).

The Western Australia (WA) Environmental Protection Authority (EPA) 2005 Guidance for the Assessment of Environmental Factors document, *Separation Distances between Industrial and Sensitive Land Uses*

recommends a buffer separation distance for Service Stations / Convenience Store Fuel Facilities and the nearest sensitive receptor as follows:

**Table 1-1: WA EPA Guidance for Separation Distances – Service Station**

50 m	Operating during normal business hours of Monday – Saturday from 0700 – 1900 hours
100 m	Freeway service stations
200 m	Service stations in operations for 24 hours daily

The EPA recommended buffers imply that where the separation distance is not met, a further scientific assessment of applicable emissions should be undertaken to support the application and thus inform the risk of health and amenity impacts at the nearest receptor.

*“Sensitive land uses include residential development, hospitals, hotels, motels, hostels, caravan parks, schools, nursing homes, childcare facilities, shopping centres, playgrounds and some public buildings. Some commercial, institutional and industrial land uses which require high levels of amenity or are sensitive to particular emissions may also be considered “sensitive land uses”. Examples include some retail outlets, offices and training centres, and some types of storage and manufacturing.”*

Importantly, there have been sweeping changes to the operational hours of service stations and retail businesses in Western Australia i.e., deregulation of hours.

### 1.1.2 Station Assessment Substances

The emission sources at the Station comprise the ventilation of the sub-terrain fuel storage tanks, and the refuelling bowsers (3 bowsers, i.e., 6 dispensers). Incidental spills can also be a source of vapour release, albeit minor. Emission sources are primarily passive vapour losses from refilling (storage tanks) and bowser refuelling processes.

Principal chemical compounds (pollutants) typically emitted from service station activities are listed in [Table 1-2](#). These compounds are part of the Total Volatile Organic Compounds (VOCs) emitted, which are assessed in the first instance, and those individual pollutant contributions are then derived based on the percentage contribution of those pollutants within the Total VOC emissions.

**Table 1-2: Assessment Substances (Pollutants)**

Benzene	Cyclohexane	Ethyl benzene	Styrene
Toluene	n-Hexane	Xylenes	

The proposed Station will comprise the following main features:

- 3 bowser ranks comprising a maximum of 6 refuelling outlets at any one time;
- The types of fuels proposed are;
  - Diesel (50 kL),
  - ULP 91 (30 kL),
  - ULP 95 (30 kL),
  - ULP 98 (70 kL),

- Bulk refuelling events will take place twice weekly, or every 3.5 days annually averaged to replenish a maximum volume of 180,000 Litres (180kL);
  - Tanker delivery of typically 1,000 Litres per minute (60,000 Litres per hour).
- The peak flow of vehicles during peak hour is anticipated at 72 based on a 3-Bowser configuration (i.e., 12 per refilling nozzle, per hour); and
- Average refuelling volume daily 46,829 Litres (based on peak hour flow of 72 cars per hour).

The above refuelling details represent a peak-hour approach which is applied across every daily peak period and assumes that vehicles volumes exhibit the same trends daily, whereas it's well understood that peak refuelling periods generally follow weekly fuel price cycles, and that peak flows typically do not occur across weekends.

### 1.1.3 Guidance for Assessing Station Impacts

The DWER prescribes maximum ambient concentrations of an array of pollutants and toxic substances. In prescribing these maximum concentrations, the DWER has referred to (among others); The National Environment Protection (Air Toxics) Measure (NEPM). These DWER, NEPM, and other jurisdictional recommendations have been adopted for this Assessment.

Importantly, the benzene exposure guidelines have been more rigorously reviewed by the Victorian (VIC) EPA and are considered more applicable to Australia-wide service station emissions.

The VIC EPA guidelines for benzene are based on an acute minimal risk level to toxic substances and have provided exposure limit recommendations for health effects from short-term exposure based on the Texas Commission on Environmental Quality ([TCEQ](#)) Air Monitoring Comparison Values, where; *“If predicted or measured airborne levels of a constituent do not exceed the comparison level, adverse health or welfare effects would not be expected to result. If ambient levels of constituents in air exceed the comparison levels, it does not necessarily indicate a problem, but rather, triggers a more in-depth review.”*

These maximum ambient concentration exposure limits are listed in [Table 1-3](#).

**Table 1-3: Assessment Criteria for Toxic Substances**

Substance	Averaging Period	Criteria Source	Maximum (ambient) concentration	
			ppm	µg/m <sup>3</sup> at 25°C
Benzene	1 hour	<a href="#">EPA VIC, 2022</a>	0.18	580
	24 hours		0.009	29
	Annual	<a href="#">NEPM 2011</a>	0.003	9.6
Toluene	24 hours	<a href="#">NEPM 2011</a>	1	3,770
	Annual		0.1	377
Ethyl benzene	1 hour	<a href="#">EPA NSW 2016</a>	1.8	8,000
	Annual	Toxikos 2011		270
Xylenes	24 hours	<a href="#">NEPM 2011</a>	0.25	1,080
	Annual		0.2	870
Cyclohexane <i>n</i> -Hexane	1 hour	<a href="#">EPA NSW 2016</a>	5	190
			0.9	3,200
Styrene	1 hour	Dept. of Health WA	70	64



## 1.2 The Site

The Site is a 7-Eleven Service Station with retail convenience included.

The Site is proposed to be located at the corner of Breakwater Drive and Dunraven Road, Two Rocks, Western Australia 6037. The Site is immediately surrounded by urban development (existing and future), with residential properties abutting the northern boundary of the Site. Residential homes are also existing or proposed to the east, west and potentially the south of the Site.

The Locality of the Site and assessed sensitive receptors, the Site design and Model depiction are illustrated in [Figure 1-1](#), [Figure 1-2](#), and [Figure 1-3](#) respectively.



**LOCALITY: Two Rocks (Western Australia)**

Tomahawk Two Rocks Pty Ltd  
 Cnr Breakwater Drive & Dunraven Road  
 PROPOSED 7-Eleven Service Station & Convenience  
 Emissions Impact Assessment



**LEGEND**

- Two Rocks Locality
- Two Rocks Boundary
- 7-Eleven Convenience Store
- Refuelling Canopy
- Vehicle Refuelling Bowsers
- 5x Storage Tanks' Ventilation
- Local Road Network

Prepared By:  
 J. Hurley  
 Reviewed By:  
 DSB  
 Released:  
 15.09.2024



**Figure 1-1: Proposed 7-Eleven Service Station Locality**

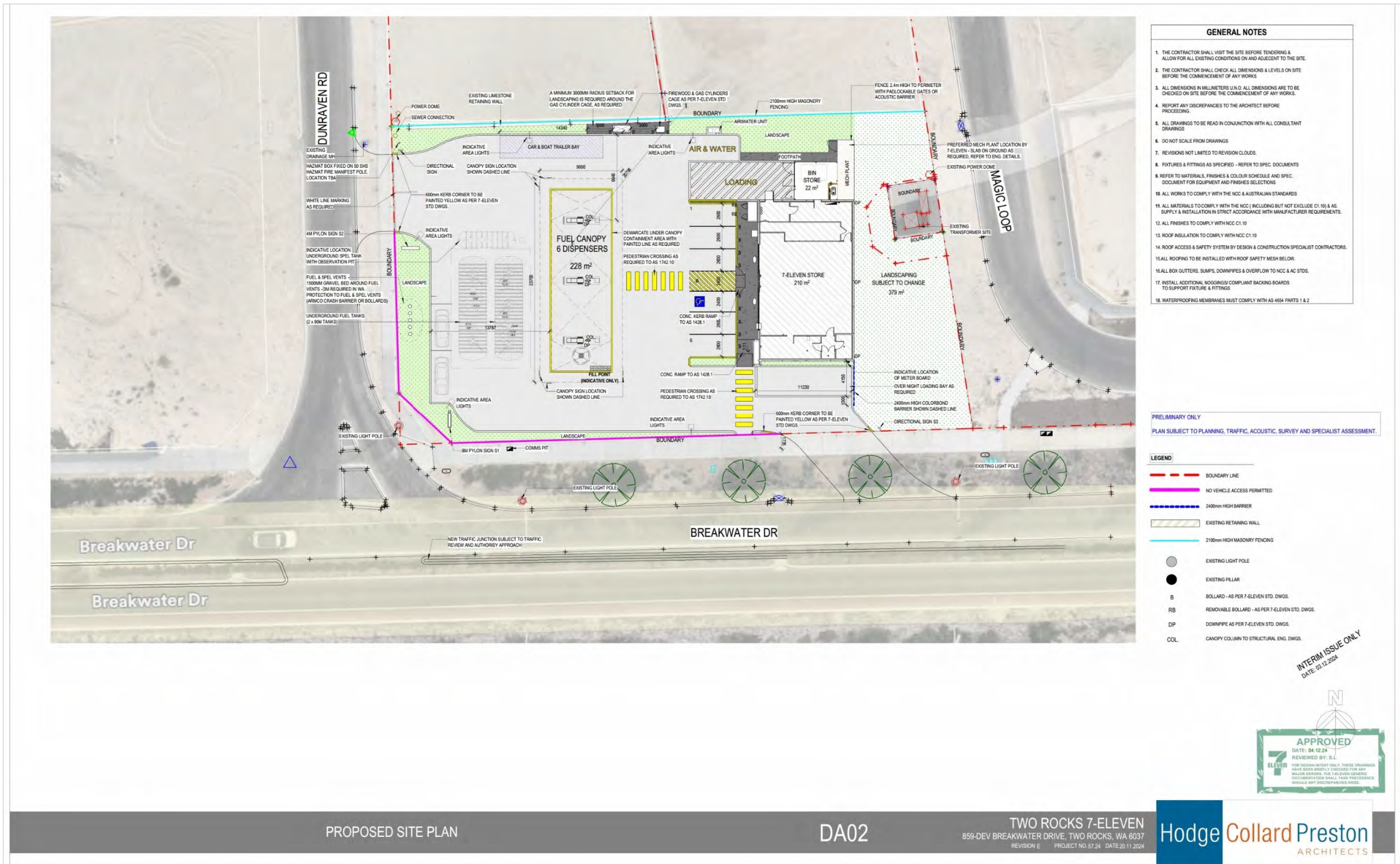


Figure 1-2: Layout of Proposed 7-Eleven Service Station (Breakwater Drive, Two Rocks)



Figure 1-3: Modelling Depiction of Emission Sources (Proposed)



## 2 Service Station Emissions Assessment

### 2.1 Station Emissions Estimation

Activities at the Station that will produce emissions are related to losses of fuels through vapourisation or spillage and subsequent vapourisation of the spill(s). These specific activities comprise:

- Submerged filling of underground storage tanks;
- Underground tank breathing losses;
- Vehicle refuelling;
- ‘Whoosh’ emissions from removal of vehicle fuel cap; and
- Fuel spills, typically at the bowser.

The Station throughputs are estimated based on like-for-like 4-bowser 7-Eleven service stations’ average throughput. 7-Eleven routinely designs its Metropolitan service stations on an interchangeable basis, that is; same fuels, same bowsers, same locality, and traffic flows etc.

There is a dearth of information within other Australian jurisdictions for estimating hourly throughputs based on typical traffic flows at metropolitan service stations, as a result the widely referenced 2017 Brisbane City Council (BCC) methodology for service stations has been used to estimate hourly emissions at the Site.

Emission estimates based on specific emission compounds ([Table 1-2](#)) were derived using the NPI, 1999 and CAPCOA, 1997 guidelines for emission estimation factors.

### 2.2 Vapour Recovery

Vapour recovery (VR) at the Site will be in place for submerged underground storage tank(s) referred to as VR1 (mandatory).

VR2 will also be installed at the refuelling bowsers. VR2 can provide at least 85% vapour recovery when refuelling vehicles.

#### 2.2.1 Department of Health Considerations

The WA Department of Health (DoH) has released a ‘Position Statement’ for service stations and proximity to sensitive land uses.

Whilst the position of the DoH is noted, there are statements within the DoH statement that cannot be reasonably justified, for example:

*“Air dispersion modelling is often presented by proponents to support their proposal. However, air dispersion modelling has a number of areas of uncertainty that cannot be verified. Furthermore, commonly used steady-state plume models also have limitations in the near field below distances of around 100m, which is the typical resolution for service stations. Dispersion modelling, therefore, should not be used as a basis for reducing separation distances from sensitive receptors”.*



And:

*“There are many examples in Perth of service stations that do not comply with the separation distance guidance and an assumption that there have been no health issues related to these. This is an invalid assumption as both acute and chronic health effects are non-specific and have many causes, and are, therefore, difficult to link directly to service station emissions. There are currently no data to support the assumption of no adverse health impacts from existing service stations built within the separation distances”.*

However:

*“Vapour recovery technology (VRT) has significantly reduced VOC emissions from service stations. Stage 1 vapour recovery (VR1) controls emissions from underground storage tanks while the tanks are being filled from road tankers. Stage 2 vapour recovery (VR2) controls emissions from vehicle tanks during refuelling at petrol bowsers. Although none of the epidemiological studies explicitly state what VR systems are used, all of them were conducted after VRT was available and, in most cases, after VR1 was mandated. However, VR2 is less likely to have been introduced during the relevant study periods. In WA, VR1 is mandated; VR2 is not and if applied might be considered a mitigating feature in relation to any application for a reduced separation distance of 100m to 50m for 24 hour service stations”.*

*“If both VR1 and VR2 technologies are in place, these may be considered as mitigating factors in relation to any application for a reduced separation distance from 100m to 50m for 24-hour service stations”.*

In consideration of the position provided by the DoH it should be noted that the separation distance guidelines by the EPA are historic and outdated, and do not reflect the contemporary environment with respect to service station, that is; service stations are no longer the typical roadhouse, corner station and/or station that is on ‘roster’ over weekends. Modern service stations are consistently designed and built to be 24 hour operations, either manned, or automated operations where the retail customer can pay for fuels at the bowser before being able to dispense them into their vehicle.

If a station is 24 hour, this does not imply that persistent throughput of vehicles will occur outside of ‘normal’ daily operational hours.

Notwithstanding the DoH’s position, Tomahawk will install VR2 technology to ensure the highest level of vapour recovery compliance.

## 2.3 Bulk Deliveries and Emissions

The estimated total daily sale of fuels, based on the peak-hour traffic flow of 72 cars at peak hour, is 46,829 Litres. As a result, the Site will receive, on average, approximately 2 bulk deliveries of fuels per 7 days, between the daily hours of 0700 hrs – 2200hrs.

Importantly, the total fuel volume per week is based on a peak hourly value of cars refuelling. The volumes of fuel dispensed for all other hours outside of the peak hour are therefore derived based on the peak hourly volume.



The actual peak hour volume is likely to be much lower than the 72 cars at peak and thus the emissions derived for this Assessment will be an overestimate of actual emissions from the Station.

The maximum volume of the bulk fuel delivery that is dispensed into the storage tanks at the Station is approximately 60,000 L. Although there are up to 2 deliveries per week of 60,000 L or less, the schedule will shift based on fuel volumes dispensed. To account for variability in daily hours where deliveries are made; the delivery of bulk fuels is modelled 1-hourly, for each day and successive hour during those delivery times. **Table 2-1** lists an example of the delivery schedule and subsequent hourly emissions trend for bulk fuel deliveries.

**Table 2-1: Example of Bulk Fuel Delivery Schedule (L/hr)**

Time (24 hrs)	Monday	Tuesday	Wednesday	Thursday	Friday
0700	60,000				
0800		60,000			
0900			60,000		
1000				60,000	
1100					60,000
1200	60,000				
1300		60,000			
1400			60,000		
1500				60,000	
1600					60,000
1700	60,000				
1800		60,000			
1900			60,000		
2000				60,000	
2100					60,000

## 2.4 VOC Emissions

Of the fuel types proposed ULP contains the higher volatile fraction compared to diesel, as such all emissions in this Assessment have been assumed as ULP. This approach is conservative. There are no Ethanol blend fuels e.g., E5, E10. The vapour composition of VOCs in petroleum fuel (NPI, 1999), are listed in [Table 2-2](#). The vapour composition of Benzene has been revised in accordance with the Australian Government’s Federal Register of Legislation, specifically the current [Fuel Quality Standards \(Petrol\) Determination 2019](#), which limits the volume of Benzene in petrol to 1% v/v maximum. Assuming a Benzene density value of 0.8765, the Benzene vapour composition (% weight) is listed in [Table 2-3](#).

**Table 2-2: Composition of Petrol (NPI, 1999)**

Species	Petrol Liquid (% weight)	Petrol Vapour (% weight)
Cyclohexane	0.2	0.06370
Ethylbenzene	2.0	0.07910
n-Hexane	3.5	1.730
Styrene	0.1	0.00282
Toluene	10.4	1.080
Xylenes	12.2	0.433



**Table 2-3: Composition of Petrol (Fuel Standards, 2019)**

Species	Petrol Liquid (% weight)	Petrol Vapour (% weight)
Benzene	1.0	0.374

The composition percentages of the compounds listed in [Table 2-2](#) and [Table 2-3](#) were applied to the modelling outcomes of the final time-averaged emission rate GLC estimates (vapour and spill vapour losses) to derive individual pollutant contributions to airborne vapour impacts at the nearest receptor.

## 2.5 Station Operational Data

**Table 2-4: Proposed Station Operating Detail**

Parameter	Operational Data
Operating hours	24 hours / 7 days per week
Tanker delivery	Maximum 60,000 L/hour
<b>Peak Daily Refuelling Volume</b>	<b>46,829 L (VR1)</b>
Storage Tanks' Vent stacks	5 x 4.5 m high
Filling Stations/Bowsers	3 x Bowsers / 6 x Grade filling points (located below full canopy) <b>(VR2)</b>
Fuel Storage	Diesel 50 kL, ULP 91 30 kL, ULP 95 30 kL, ULP 70 kL.

## 2.6 Derived Emission Factors

Emissions generated from activities at the Station have been derived based on those vapour losses published by the NPI and CAPCOA guidance. [Table 2-5](#) lists those emission factors that apply to those processes where vapour losses occur.

**Table 2-5: Emissions Factors for Service Stations**

Emission Source	NPI, 1999 mg / L throughput	CAPCOA, 1997 Lbs / 1000 Gallons throughput
<b><i>Underground Tank Filling</i></b>	-	-
Submerged Filling	880	8.4
Splash Filling	1380	-
Submerged filling with vapour balance (VR1)	40	<b>0.42</b> (50 mg/L)
Underground tank breathing losses	<b>120</b>	0.84
<b><i>Vehicle Refuelling</i></b>	-	-
Displacement Losses (uncontrolled)	1320	8.4
Displacement Losses (controlled i.e., VR 2)	132	<b>0.74</b>
<b><i>Spillages</i></b>	-	-
Uncontrolled	80	<b>0.61</b>
Controlled	-	0.41
<b><i>"Whoosh" Emissions (fuel cap removal)</i></b>	-	0.26 - <b>0.66</b>



The refuelling activities are characterised as volume emission sources. These have been assessed utilising the CAPCOA, 1997 emission factors. Vent emissions from storage tank filling has been assessed using the NPI, 1999 emission factors.

### 2.6.1 Fuel Throughput Trends

To determine the hourly throughputs of fuel dispensing for service stations in accordance with the BCC, 2017 recommendations, the hourly profile of fuel sales daily is derived using the BCC, 2017 published profiles as listed in [Table 2-6](#).

**Table 2-6: Representative Fuel Throughputs (BCC, 2017)**

Hour	Hourly Profile (%)
1	1.2
2	0.8
3	0.6
4	0.8
5	1.9
6	4.6
7	5.5
8	5.7
9	5.5
10	5.7
11	6.0
12	6.0
13	5.7
14	5.6
15	5.9
16	<b>6.2</b>
17	<b>6.2</b>
18	5.8
19	5.1
20	4.0
21	3.5
22	3.4
23	2.6
24	1.8

In [Table 2-6](#) the peak throughput hour begins at 4-5pm (1600 - 1700 hrs).

Applying the Average Daily Refuelling Volume of 46,829 L, the emission factors in [Table 2-5](#), and deriving hourly volumes based on [Table 2-6](#), the hourly Total VOC mass emission rates in grams per second (g/s) are developed.



These mass emission rates represent the combined (ALL) number of filling points (6) at any one time, and single bowser (SINGLE) operations (VR2) and are listed in [Table 2-7](#).

**Table 2-7: Factored Total VOC Emission Rates per Hour (VR2)**

Hour	Throughput % daily volume/hr	Petrol Throughput (L/hr)	% to Peak Daily Hour	ALL Bowsers Mass Emission Rate (g/s)	SINGLE Bowser Mass Emission Rate (g/s)
1	1.2	562	19.5%	0.226	0.075
2	0.8	375	13.0%	0.150	0.050
3	0.6	281	9.8%	0.113	0.038
4	0.8	375	13.0%	0.150	0.050
5	1.9	890	30.9%	0.357	0.119
6	4.6	2,154	74.8%	0.865	0.288
7	5.5	2,576	89.4%	1.034	0.345
8	5.7	2,669	92.7%	1.071	0.357
9	5.5	2,576	89.4%	1.034	0.345
10	5.7	2,669	92.7%	1.071	0.357
11	6.0	2,810	97.6%	1.128	0.376
12	6.0	2,810	97.6%	1.128	0.376
13	5.7	2,669	92.7%	1.071	0.357
14	5.6	2,622	91.1%	1.053	0.351
15	5.9	2,763	95.9%	1.109	0.370
<b>16</b>	<b>6.2</b>	<b>2,880</b>	<b>100.0%</b>	<b>1.156</b>	<b>0.385</b>
<b>17</b>	<b>6.2</b>	<b>2,880</b>	<b>100.0%</b>	<b>1.156</b>	<b>0.385</b>
18	5.8	2,716	94.3%	1.090	0.363
19	5.1	2,388	82.9%	0.959	0.320
20	4.0	1,873	65.0%	0.752	0.251
21	3.5	1,639	56.9%	0.658	0.219
22	3.4	1,592	55.3%	0.639	0.213
23	2.6	1,218	42.3%	0.489	0.163
24	1.8	843	29.3%	0.338	0.113

[Table 2-8](#) lists the emission rate for the proposed Station during bulk refuelling activities (VR1).

**Table 2-8: Proposed Site’s Bulk Storage Emissions during Bulk Refuelling (VR1)**

Emission Source	Emission Type	Peak VOC Mass Emission Rate (g/s)	Stack Diameter (m)	Emission Velocity (m/s)
Vent Stack	Bulk Filling (Vapour Balance and Breathing Losses)	0.852	0.1	0.1

[Appendix A](#) presents the summary calculations for the derived mass emission rates.

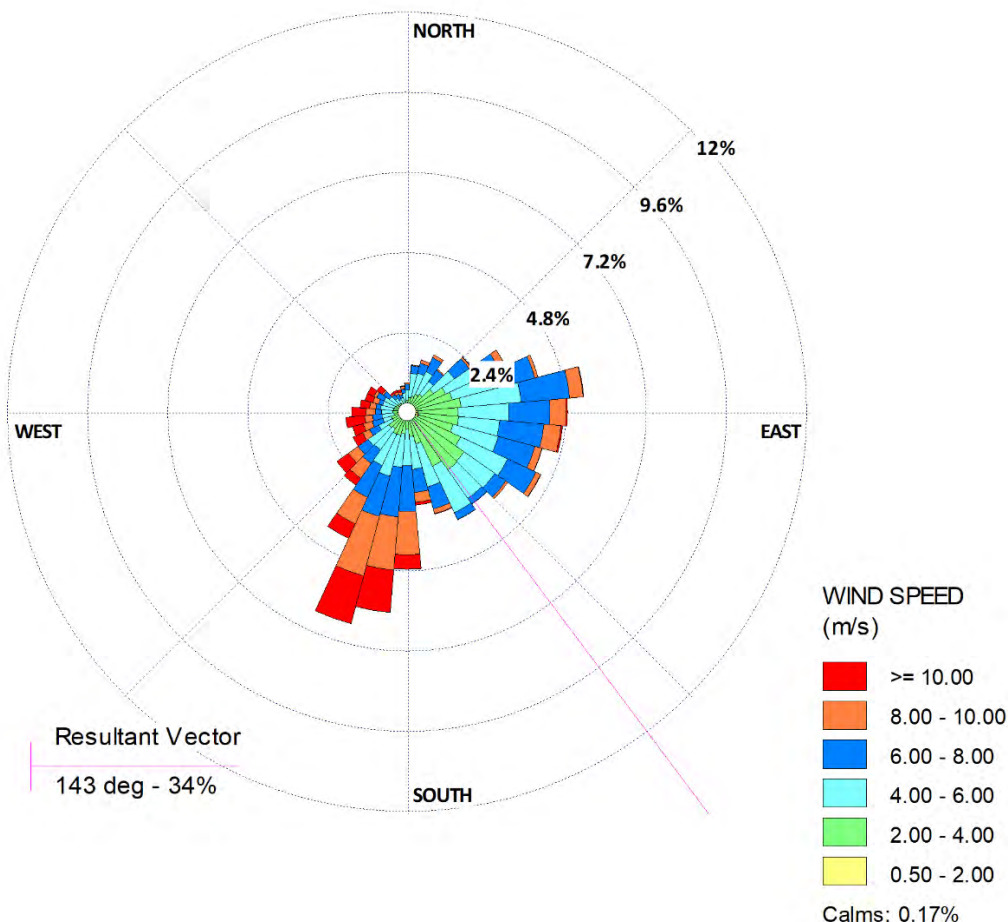
## 2.7 Aermod Dispersion Modelling Methods

### 2.7.1 Meteorology

A bi-annual 2022-2023 dataset of meteorology was developed for the locality using surface observations of wind speed and direction Ocean Reef Bureau of Meteorology (BoM) Automatic Weather Station (AWS) and CSIRO’s TAPM prognostic model for upper air characteristics. The Ocean Reef BoM AWS is approximately 32 kms south of the Station and is the only BoM AWS closest to the Station that represents coastal wind speed and direction. The next closest BoM AWS is Gingin AERO which is 26 kms inland from the coastline and does not represent the coastal meteorological characteristics of the Two Rocks locality.

Ocean Reef BoM AWS represents the nearest coastal station for wind speed and direction. The Ocean Reef BoM AWS data only records wind speed and direction, with persistent gaps in this data.

For the 2022 period, the data recovery for wind speed was 84.0%, and for direction was 84.2%. For 2023, the data recovery was 59.6% for both wind speed and direction. Data gaps were filled with TAPM data or interpolated for small gaps. All other necessary meteorological characteristics were gathered from the TAPM output for the 2022-2023 period to include the vertical temperature profile. The wind speed and direction relationship is presented in [Figure 2-1](#).



**Figure 2-1: Two Rocks Wind Speed and Direction Characteristics (2022 – 2023)**



### 2.7.2 Sensitive Receptors

Discrete sensitive receptors were placed at locations closest and surrounding the Station (refer [Figure 1-1](#)). These receptors were assessed against the vapour emissions and compared against regulatory guidelines.

### 2.7.3 Building Profile Input Program (BPIP)

Building wake effects occur for those vertical stack emissions, in this case passive ventilation of the storage tank vent. An example of the Aermid Input File is presented in [Appendix B](#).

### 2.7.4 Dispersion Modelling Limitations

By definition, air quality models can only approximate atmospheric processes. Many assumptions and simplifications are required to describe real phenomena in mathematical equations. Model uncertainties can result from:

- Simplifications and accuracy limitations related to source data;
- Extrapolation of meteorological data from selected locations to a larger region; and
- Simplifications to model physics to replicate the random nature of atmospheric dispersion processes.

Models are reasonable and reliable in estimating the maximum concentrations occurring on an average basis. That is, the maximum concentration that may occur at a given time somewhere within the model domain, as opposed to the exact concentration at a point at a given time will usually be within the  $\pm 10\%$  to  $\pm 40\%$  range (US EPA, 2003).

Typically, a model is viewed as replicating dispersion processes if it can predict within a factor of two, and if it can replicate the temporal and meteorological variations associated with monitoring data. Model predictions at a specific site and for a specific hour, however, may correlate poorly with the associated observations due to the above-indicated uncertainties. For example, an uncertainty of  $5^\circ$  to  $10^\circ$  in the measured wind direction can result in concentration errors of 20% to 70% for an individual event (US EPA, 2003).

## 2.8 Station Assessment Results & Discussion

The Assessment of the Proposed 7-Eleven Fuel Service Station has projected ground level concentrations (GLCs) at the nearest sensitive receptors (refer [Figure 1-1](#)) for assessed pollutants of BTEX (Benzene, Toluene, Ethyl benzene, Xylenes), Cyclohexane, *n*-Hexane and Styrene that are below the guideline exposure standards when employing both VR1 and VR2.

These pollutants were assessed by firstly modelling Total VOCs as a function of emission factors for fuel storage and vehicle dispensing volumes according to those methods in [Section 2](#).

Those Total VOC GLCs projected were then revised to determine the percentage mass emission rate contributions for these pollutants (refer [Table 2-2](#)).



[Table 2-9](#) lists each predicted pollutant concentration for each averaging period at those assessed sensitive receptors. These pollutant concentrations are revised based on each compound's vapour contribution to petrol VOC emissions. Additionally, these predicted pollutant concentrations reflect both VR1 and VR2 vapour recovery.

Within [Table 2-9](#) is each pollutant's respective assessment criteria, the projected GLCs from the modelling Assessment and the revised projected GLCs at the nearest sensitive receptor (refer [Figure 1-1](#)) with a Percentage of Exposure Limit Value (%). This value represents the percentage ratio of projected GLCs compared to the assessment criteria for each pollutant.

A % < 100 % shows that the projected concentration at the sensitive receptor location achieves less than the assessment criteria i.e., PASS, whereas % ≥ 100 % shows non-compliance against the assessment criteria i.e., FAIL.

The magnitude of the compliance PASS/FAIL can be readily gauged by the size of the Percentage of Exposure Limit Value (%).

- All GLC values reported for each sensitive receptor are the maximum, Rank 1 values for all averaging periods; and
- All units of concentration are in  $\mu\text{g}/\text{m}^3$  unless stated otherwise.

In reviewing the predicted GLCs for vapours from toxic chemical pollutants in [Table 2-9](#), the pollutant emissions at the nearest sensitive receptors are markedly less than the exposure limits in ambient air when employing VR1 and VR2 vapour recovery.

Based on the predicted ground level concentrations using VR1 and VR2, vapours from the Station will not negatively impact the health of the nearest existing, or future sensitive receptor, nor future sensitive land uses within the locality.

Importantly, any uncertainty in the modeling can be balanced by the very low emissions' impacts using VR2. Given the extremely low concentrations at the nearest assessed receptors, the propensity for elevated impacts that may otherwise negatively impact the receiver is unlikely given the very low concentration predicted by the model.

Given the modelling outputs have very low percentages (%) for compliance factors (CFs), any uncertainty in the modelling is balanced by the low impacts, where;

- Emissions could be more than double the modelling inputs and still not negatively impact on the existing and future sensitive receptors and/or sensitive land uses.

**Table 2-9: Proposed 7-Eleven Station - Assessment Results for GLC's of Pollutants (VR1 & VR2) @ Nearest Sensitive Receptors**

Receptor Location	Pollutant	Averaging Period	Exposure Limit (µg/m3)	Predicted GLC (µg/m³)	% of CF	Pass/Fail	Pollutant	Averaging Period	Exposure Limit (µg/m3)	Predicted GLC (µg/m³)	% of CF	Pass/Fail
met	Benzene	1-hour	580	12.34	2.13%	Pass	Benzene	24-hour	29	1.46	5.03%	Pass
nw cnr				44.25	7.63%	Pass				6.15	21.20%	Pass
ne cnr				40.42	6.97%	Pass				5.12	17.66%	Pass
se cnr				53.62	9.25%	Pass				8.51	29.33%	Pass
sw cnr				54.43	9.38%	Pass				11.01	37.98%	Pass
n urban				38.80	6.69%	Pass				4.46	15.37%	Pass
e urban				27.14	4.68%	Pass				3.07	10.58%	Pass
w r-about				4.95	0.85%	Pass				0.42	1.46%	Pass
e r-about				6.07	1.05%	Pass				0.47	1.63%	Pass
met	Benzene	Annual	9.6	0.14	1.46%	Pass	Toluene	24-hour	3,770	4.22	0.11%	Pass
nw cnr				0.98	10.23%	Pass				17.77	0.47%	Pass
ne cnr				0.36	3.79%	Pass				14.80	0.39%	Pass
se cnr				0.37	3.82%	Pass				24.58	0.65%	Pass
sw cnr				1.26	13.08%	Pass				31.82	0.84%	Pass
n urban				0.51	5.30%	Pass				12.88	0.34%	Pass
e urban				0.14	1.43%	Pass				8.86	0.24%	Pass
w r-about				0.04	0.42%	Pass				1.22	0.03%	Pass
e r-about				0.01	0.15%	Pass				1.37	0.04%	Pass
met	Toluene	Annual	377	0.40	0.11%	Pass	Ethyl benzene	1-hour	8,000	2.61	0.03%	Pass
nw cnr				2.84	0.75%	Pass				9.36	0.12%	Pass
ne cnr				1.05	0.28%	Pass				8.56	0.11%	Pass
se cnr				1.06	0.28%	Pass				11.35	0.14%	Pass
sw cnr				3.63	0.96%	Pass				11.52	0.14%	Pass
n urban				1.47	0.39%	Pass				8.21	0.10%	Pass
e urban				0.40	0.11%	Pass				5.74	0.07%	Pass
w r-about				0.12	0.03%	Pass				1.05	0.01%	Pass
e r-about				0.04	0.01%	Pass				1.28	0.02%	Pass
met	Ethyl benzene	Annual	270	0.03	0.01%	Pass	Xylenes	24-hour	1,080	1.69	0.16%	Pass
nw cnr				0.21	0.08%	Pass				7.12	0.66%	Pass
ne cnr				0.08	0.03%	Pass				5.93	0.55%	Pass
se cnr				0.08	0.03%	Pass				9.85	0.91%	Pass
sw cnr				0.27	0.10%	Pass				12.76	1.18%	Pass
n urban				0.11	0.04%	Pass				5.17	0.48%	Pass
e urban				0.03	0.01%	Pass				3.55	0.33%	Pass
w r-about				0.01	0.00%	Pass				0.49	0.05%	Pass
e r-about				0.00	0.00%	Pass				0.55	0.05%	Pass
met	Xylenes	Annual	870	0.16	0.02%	Pass	Cyclohexane	1-hour	190	2.10	1.11%	Pass
nw cnr				1.14	0.13%	Pass				7.54	3.97%	Pass
ne cnr				0.42	0.05%	Pass				6.89	3.63%	Pass
se cnr				0.43	0.05%	Pass				9.14	4.81%	Pass
sw cnr				1.46	0.17%	Pass				9.28	4.88%	Pass
n urban				0.59	0.07%	Pass				6.61	3.48%	Pass
e urban				0.16	0.02%	Pass				4.63	2.43%	Pass
w r-about				0.05	0.01%	Pass				0.84	0.44%	Pass
e r-about				0.02	0.00%	Pass				1.03	0.54%	Pass
met	n-Hexane	1-hour	3,200	57.14	1.79%	Pass	Styrene	1-hour	64	0.09	0.15%	Pass
nw cnr				204.82	6.40%	Pass				0.33	0.52%	Pass
ne cnr				187.11	5.85%	Pass				0.30	0.48%	Pass
se cnr				248.22	7.76%	Pass				0.40	0.63%	Pass
sw cnr				251.96	7.87%	Pass				0.41	0.64%	Pass
n urban				179.61	5.61%	Pass				0.29	0.46%	Pass
e urban				125.62	3.93%	Pass				0.20	0.32%	Pass
w r-about				22.92	0.72%	Pass				0.04	0.06%	Pass
e r-about				28.10	0.88%	Pass				0.05	0.07%	Pass



## **Appendix A: Vapour Emissions Calculations**

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Bowser		Number of Dispensing Nozzles	6	hour	% daily sales	% to peak hr	# cars/peak hour	Petrol Throughput (L/hr)	L/s	g/s	Final g/s	FINAL Per Bowser	Emission Source	NPI 1999	CAPCOA	CAPCOA
+VR2		Peak Hourly Volume at Bowsers (transactions x Litres per car)	2,880	1	1.2%	19.5%	15	562	0.156	0.226	0.226	0.075		mg/L throughput	Lbs/1000 Gallons throughput	mg/L throughput
		CAPCOA (Lbs/1000gallons to mg/L)	1,445 mg/L	2	0.8%	13.0%	10	375	0.104	0.150	0.150	0.050	<b>Underground Tank Filling</b>			
		CAPCOA (Lbs/1000gallons to g/L)	1.445 g/L	3	0.6%	9.8%	8	281	0.078	0.113	0.113	0.038	Submerged Filling	880	8.4	1007
		Losses (g/L)	1.445 g/L/hr	4	0.8%	13.0%	10	375	0.104	0.150	0.150	0.050	Splash Filling	1380		
		VR2 (10-15% Losses) (g/L)	1.445 g/L/hr	5	1.9%	30.9%	23	890	0.247	0.357	0.357	0.119	Submerged filling with vapour balance	40	0.42	50
		<b>ESTIMATED TOTAL DAILY (24hr) VOLUME (L)</b>	<b>46,829</b>	6	4.6%	74.8%	54	2,154	0.598	0.865	0.865	0.288	Underground tank breathing losses	120	0.84	101
		E10 Volatilisation	1.5	7	5.5%	89.4%	65	2,576	0.715	1.034	1.034	0.345	<b>Vehicle Refuelling</b>			
		E10 % of T-Volumes	0%	8	5.7%	92.7%	67	2,669	0.741	1.071	1.071	0.357	Displacement Losses (uncontrolled)	1320	8.4	1007
		E10 Fuel Ratio Factor	0	9	5.5%	89.4%	65	2,576	0.715	1.034	1.034	0.345	Displacement Losses (90% controlled e.g VRU 2)	132	0.74	89
		% of Other Fuels	100%	10	5.7%	92.7%	67	2,669	0.741	1.071	1.071	0.357	<b>Spillages</b>			
		<b>Fuel Ratio Factor</b>	<b>1.000</b>	11	6.0%	97.6%	71	2,810	0.780	1.128	1.128	0.376	Uncontrolled	80	0.61	73
				12	6.0%	97.6%	71	2,810	0.780	1.128	1.128	0.376	Controlled		0.41	49
<b>Storage Tanks</b>		Total Storage Tank Volumes	180,000 L	13	5.7%	92.7%	67	2,669	0.741	1.071	1.071	0.357	<b>"Whoosh" Emissions</b>		0.26 - 0.66	79
<b>+VR 1</b>		NPI 1999	170 mg/L	14	5.6%	91.1%	66	2,622	0.728	1.053	1.053	0.351	<b>"Whoosh" Emissions (averaged)</b>		0.46	79
			30658845.6 mg/hr	15	5.9%	95.9%	70	2,763	0.767	1.109	1.109	0.370				
			30658.846 g/hr	16	6.2%	100.0%	72	2,880	0.800	1.156	1.156	0.385				
			8.516 g/s	17	6.2%	100.0%	72	2,880	0.800	1.156	1.156	0.385				
		<b>4.5m High Vent Rate</b>	0.00393 m3/s	18	5.8%	94.3%	68	2,716	0.754	1.090	1.090	0.363				
		VR1 10% losses	0.852 g/s	19	5.1%	82.9%	60	2,388	0.663	0.959	0.959	0.320				
		<b>Final VR1 Value (per Vent)</b>	<b>0.852 g/s</b>	20	4.0%	65.0%	47	1,873	0.520	0.752	0.752	0.251				
		Annually	26860555.28 grams	21	3.5%	56.9%	41	1,639	0.455	0.658	0.658	0.219				
			26860.55528 kgs	22	3.4%	55.3%	40	1,592	0.442	0.639	0.639	0.213				
			73.59056242 kgs/day	23	2.6%	42.3%	31	1,218	0.338	0.489	0.489	0.163				
		Deliveries weekly	5.584 kgs	24	1.8%	29.3%	22	843	0.234	0.338	0.338	0.113				
		Per delivery	3.066 kg/hr		100.0%		1,182	46,829	Max	1.156	0.385					
		<b>Cars per Peak Hour</b>	<b>72</b>													
		<b>L per car on average</b>	<b>40</b>													
		Peak Volumes Dispensed	2880													
		<b>Average # Cars/hour Daily (7 days)</b>	<b>50</b>													
		Cars Daily	1182													
		Maximum Tanker Delivery Volume (kL)	180													
		Types of Fuel														
		Fuel Storage (kL)	Diesel	50												
			ULP 91	30												
			ULP 95	30												
			ULP 98	70												
		<b>Bulk Deliveries per Week</b>	<b>1.83</b>				<b>2</b>									
		Annual Sales	17,092,683													



## **Appendix B: AERMOD Input File & BPIP**

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```

1  **
2  *****
3  **
4  ** AERMOD Input Produced by:
5  ** AERMOD View Ver. 12.0.0
6  ** Lakes Environmental Software Inc.
7  ** Date: 16/09/2024
8  ** File: D:\MyAERMOD\24026\24026.inp
9  **
10 *****
11 **
12 **
13 *****
14 ** AERMOD Control Pathway
15 *****
16 **
17 **
18 CO STARTING
19 TITLEONE D:\MyAERMOD\24026
20 TITLETWO 7-Eleven Development (Service Station)
21 MODELOPT DEFAULT CONC
22 AVERTIME 1 24 ANNUAL
23 POLLUTID VOC
24 RUNORNOT RUN
25 ERRORFIL 24026.err
26 CO FINISHED
27 **
28 *****
29 ** AERMOD Source Pathway
30 *****
31 **
32 **
33 SO STARTING
34 ** Source Location **
35 ** Source ID - Type - X Coord. - Y Coord. **
36 LOCATION BOWS1 VOLUME 366786.359 6515123.132 37.070
37 ** DESCRSRC Bowser 1
38 LOCATION BOWS2 VOLUME 366786.333 6515130.138 36.780
39 ** DESCRSRC Bowser 2
40 LOCATION BOWS3 VOLUME 366786.326 6515137.275 36.550
41 ** DESCRSRC Bowser 3
42 LOCATION STCK0 POINTCAP 366768.181 6515129.482 37.020
43 ** DESCRSRC Tank Breather
44 LOCATION STCK1 POINTCAP 366768.180 6515129.578 37.010
45 ** DESCRSRC Tank Breather
46 LOCATION STCK2 POINTCAP 366768.175 6515129.678 37.010
47 ** DESCRSRC Tank Breather
48 LOCATION STCK3 POINTCAP 366768.178 6515129.778 37.010
49 ** DESCRSRC Tank Breather
50 LOCATION STCK4 POINTCAP 366768.177 6515129.878 37.000
51 ** DESCRSRC Tank Breather
52 ** Source Parameters **
53 SRCPARAM BOWS1 1.0 1.000 1.395 2.233
54 SRCPARAM BOWS2 1.0 1.000 1.395 2.233
55 SRCPARAM BOWS3 1.0 1.000 1.395 2.233
56 SRCPARAM STCK0 1.0 4.500 0.000 0.5 0.1
57 SRCPARAM STCK1 0.0 4.500 0.000 0.5 0.1
58 SRCPARAM STCK2 0.0 4.500 0.000 0.5 0.1
59 SRCPARAM STCK3 0.0 4.500 0.000 0.5 0.1
60 SRCPARAM STCK4 0.0 4.500 0.000 0.5 0.1
61
62 ** Building Downwash **
63 BUILDHGT STCK0 0.00 0.00 0.00 0.00 0.00 0.00
64 BUILDHGT STCK0 0.00 0.00 0.00 0.00 0.00 0.00
65 BUILDHGT STCK0 0.00 0.00 0.00 0.00 0.00 0.00
66 BUILDHGT STCK0 0.00 0.00 0.00 0.00 0.00 0.00
67 BUILDHGT STCK0 0.00 0.00 0.00 0.00 0.00 0.00
68 BUILDHGT STCK0 0.00 0.00 0.00 0.00 0.00 0.00
69
70 BUILDHGT STCK1 0.00 0.00 0.00 0.00 0.00 0.00
71 BUILDHGT STCK1 0.00 0.00 0.00 0.00 0.00 0.00
72 BUILDHGT STCK1 0.00 0.00 0.00 0.00 0.00 0.00
73 BUILDHGT STCK1 0.00 0.00 0.00 0.00 0.00 0.00

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220	YBADJ	STCK2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
221	YBADJ	STCK2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
222	YBADJ	STCK2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
223									
224	YBADJ	STCK3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225	YBADJ	STCK3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
226	YBADJ	STCK3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
227	YBADJ	STCK3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
228	YBADJ	STCK3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
229	YBADJ	STCK3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
230									
231	YBADJ	STCK4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
232	YBADJ	STCK4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
233	YBADJ	STCK4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
234	YBADJ	STCK4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
235	YBADJ	STCK4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
236	YBADJ	STCK4	0.00	0.00	0.00	0.00	0.00	0.00	0.00

237  
238

\*\* Variable Emissions Type: "By Hour / Seven Days (HRDOW7)"

\*\* Variable Emission Scenario: "Vent (1)"

241	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.0	0.0	0.852	0.0	0.0
242	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.852	0.0	0.0	0.0	0.852
243	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
244	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.852	0.0
245	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.0	0.852	0.0	0.0	0.0
246	EMISFACT	STCK0	HRDOW7	0.852	0.0	0.0	0.0	0.0	0.0	0.0
247	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.852
248	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.0	0.0	0.852	0.0	0.0
249	EMISFACT	STCK0	HRDOW7	0.0	0.852	0.0	0.0	0.0	0.0	0.0
250	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
251	EMISFACT	STCK0	HRDOW7	0.852	0.0	0.0	0.0	0.0	0.852	0.0
252	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.852	0.0	0.0	0.0	0.0
253	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
254	EMISFACT	STCK0	HRDOW7	0.0	0.852	0.0	0.0	0.0	0.852	0.0
255	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.0	0.852	0.0	0.0	0.0
256	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
257	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
258	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
259	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
261	EMISFACT	STCK0	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
262	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.0	0.0	0.852	0.0	0.0
263	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.852	0.0	0.0	0.0	0.852
264	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
265	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.852	0.0
266	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.0	0.852	0.0	0.0	0.0
267	EMISFACT	STCK1	HRDOW7	0.852	0.0	0.0	0.0	0.0	0.0	0.0
268	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.852
269	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.0	0.0	0.852	0.0	0.0
270	EMISFACT	STCK1	HRDOW7	0.0	0.852	0.0	0.0	0.0	0.0	0.0
271	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
272	EMISFACT	STCK1	HRDOW7	0.852	0.0	0.0	0.0	0.0	0.852	0.0
273	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.852	0.0	0.0	0.0	0.0
274	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
275	EMISFACT	STCK1	HRDOW7	0.0	0.852	0.0	0.0	0.0	0.852	0.0
276	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.0	0.852	0.0	0.0	0.0
277	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
278	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
279	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
280	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
281	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
282	EMISFACT	STCK1	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
283	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.0	0.0	0.852	0.0	0.0
284	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.852	0.0	0.0	0.0	0.852
285	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
286	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.852	0.0
287	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.0	0.852	0.0	0.0	0.0
288	EMISFACT	STCK2	HRDOW7	0.852	0.0	0.0	0.0	0.0	0.0	0.0
289	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.852
290	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.0	0.0	0.852	0.0	0.0
291	EMISFACT	STCK2	HRDOW7	0.0	0.852	0.0	0.0	0.0	0.0	0.0
292	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0

293	EMISFACT	STCK2	HRDOW7	0.852	0.0	0.0	0.0	0.0	0.852	0.0	0.0
294	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.852	0.0	0.0	0.0	0.0	0.0
295	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
296	EMISFACT	STCK2	HRDOW7	0.0	0.852	0.0	0.0	0.0	0.0	0.852	0.0
297	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.0	0.852	0.0	0.0	0.0	0.0
298	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
299	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
300	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
301	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
302	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
303	EMISFACT	STCK2	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
304	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.852	0.0	0.0
305	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.852	0.0	0.0	0.0	0.0	0.852
306	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
307	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.852	0.0
308	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.0	0.852	0.0	0.0	0.0	0.0
309	EMISFACT	STCK3	HRDOW7	0.852	0.0	0.0	0.0	0.0	0.0	0.0	0.0
310	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.852
311	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.0	0.0	0.852	0.0	0.0	0.0
312	EMISFACT	STCK3	HRDOW7	0.0	0.852	0.0	0.0	0.0	0.0	0.0	0.0
313	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
314	EMISFACT	STCK3	HRDOW7	0.852	0.0	0.0	0.0	0.0	0.852	0.0	0.0
315	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.852	0.0	0.0	0.0	0.0	0.0
316	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
317	EMISFACT	STCK3	HRDOW7	0.0	0.852	0.0	0.0	0.0	0.0	0.852	0.0
318	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.0	0.852	0.0	0.0	0.0	0.0
319	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
321	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
322	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
323	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
324	EMISFACT	STCK3	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
325	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.852	0.0	0.0
326	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.852	0.0	0.0	0.0	0.0	0.852
327	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
328	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.852	0.0
329	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.0	0.852	0.0	0.0	0.0	0.0
330	EMISFACT	STCK4	HRDOW7	0.852	0.0	0.0	0.0	0.0	0.0	0.0	0.0
331	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.852
332	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.0	0.0	0.852	0.0	0.0	0.0
333	EMISFACT	STCK4	HRDOW7	0.0	0.852	0.0	0.0	0.0	0.0	0.0	0.0
334	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
335	EMISFACT	STCK4	HRDOW7	0.852	0.0	0.0	0.0	0.0	0.852	0.0	0.0
336	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.852	0.0	0.0	0.0	0.0	0.0
337	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
338	EMISFACT	STCK4	HRDOW7	0.0	0.852	0.0	0.0	0.0	0.0	0.852	0.0
339	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.0	0.852	0.0	0.0	0.0	0.0
340	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
341	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
342	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
343	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
344	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
345	EMISFACT	STCK4	HRDOW7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

346

347 \*\* Variable Emissions Type: "By Hour-of-Day (HROFDY)"

348 \*\* Variable Emission Scenario: "Scenario 1 (4)"

349	EMISFACT	BOWS1	HROFDY	0.075	0.05	0.038	0.05	0.119	0.288		
350	EMISFACT	BOWS1	HROFDY	0.345	0.357	0.345	0.357	0.376	0.376		
351	EMISFACT	BOWS1	HROFDY	0.357	0.351	0.37	0.385	0.385	0.363		
352	EMISFACT	BOWS1	HROFDY	0.32	0.251	0.219	0.213	0.163	0.113		
353	EMISFACT	BOWS2	HROFDY	0.075	0.05	0.038	0.05	0.119	0.288		
354	EMISFACT	BOWS2	HROFDY	0.345	0.357	0.345	0.357	0.376	0.376		
355	EMISFACT	BOWS2	HROFDY	0.357	0.351	0.37	0.385	0.385	0.363		
356	EMISFACT	BOWS2	HROFDY	0.32	0.251	0.219	0.213	0.163	0.113		
357	EMISFACT	BOWS3	HROFDY	0.075	0.05	0.038	0.05	0.119	0.288		
358	EMISFACT	BOWS3	HROFDY	0.345	0.357	0.345	0.357	0.376	0.376		
359	EMISFACT	BOWS3	HROFDY	0.357	0.351	0.37	0.385	0.385	0.363		
360	EMISFACT	BOWS3	HROFDY	0.32	0.251	0.219	0.213	0.163	0.113		
361	SRCGROUP	bowser	BOWS1	BOWS2	BOWS3						
362	SRCGROUP	vents	STCK0	STCK1	STCK2	STCK3	STCK4				
363	SRCGROUP	ALL									

364 SO FINISHED

365 \*\*

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367 ** AERMOD Receptor Pathway
368 *****
369 **
370 **
371 RE STARTING
372   INCLUDED 24026.rou
373 RE FINISHED
374 **
375 *****
376 ** AERMOD Meteorology Pathway
377 *****
378 **
379 **
380 ME STARTING
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382   SURFFILE 24026.SFC
383 ** Profile File Path: D:\MyAERMOD\24026\
384   PROFFILE 24026.PFL
385   SURFDATA 0 2022
386   UAIRDATA 0 2022
387   SITEDATA 0 2022
388   PROFBASE 34.98 METERS
389 ME FINISHED
390 **
391 *****
392 ** AERMOD Output Pathway
393 *****
394 **
395 **
396 OU STARTING
397   RECTABLE ALLAVE 1ST
398   RECTABLE 1 1ST
399   RECTABLE 24 1ST
400   MAXTABLE 1 100
401 ** Auto-Generated Plotfiles
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403   PLOTFILE 24 ALL 1ST D:\MyAERMOD\24026\24026.AD\24H1GALL.PLT 32
404   PLOTFILE 1 bowsers 1ST D:\MyAERMOD\24026\24026.AD\01H1G001.PLT 33
405   PLOTFILE 24 bowsers 1ST D:\MyAERMOD\24026\24026.AD\24H1G001.PLT 34
406   PLOTFILE 1 vents 1ST D:\MyAERMOD\24026\24026.AD\01H1G002.PLT 35
407   PLOTFILE 24 vents 1ST D:\MyAERMOD\24026\24026.AD\24H1G002.PLT 36
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415 ** Project Parameters
416 *****
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418 ** DESCPTN  UTM: Universal Transverse Mercator
419 ** DATUM    World Geodetic System 1984
420 ** DTMRGN  Global Definition
421 ** UNITS    m
422 ** ZONE     -50
423 ** ZONEINX  0
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425
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6 'BLD_1' 1 37.04 '7-ELEVEN STORE'
7 4 5.50
8 366815.98 6515121.18
9 366805.98 6515121.18
10 366805.98 6515142.18
11 366815.98 6515142.18
12 'BLD_2' 1 36.97
13 4 2.40
14 366765.30 6515150.18
15 366765.29 6515150.38
16 366826.62 6515154.67
17 366826.63 6515154.47
18 'BLD_3' 1 35.25
19 4 2.40
20 366815.77 6515142.19
21 366815.77 6515153.64
22 366815.97 6515153.64
23 366815.97 6515142.19
24 5
25 'STCK0' 37.02 4.50 366768.18 6515129.48 'Tank
Breather'
26 'STCK1' 37.01 4.50 366768.18 6515129.58 'Tank
Breather'
27 'STCK2' 37.01 4.50 366768.17 6515129.68 'Tank
Breather'
28 'STCK3' 37.01 4.50 366768.18 6515129.78 'Tank
Breather'
29 'STCK4' 37.00 4.50 366768.18 6515129.88 'Tank
Breather'
30

```



PROPOSED DEVELOPMENT

**859-DEV BREAKWATER DRIVE  
TWO ROCKS**

**ENVIRONMENTAL ACOUSTIC ASSESSMENT**

MARCH 2025

OUR REFERENCE: 33393-6-24303



DOCUMENT CONTROL PAGE

**ENVIRONMENTAL ACOUSTIC ASSESSMENT  
PROPOSED 7-ELEVEN  
TWO ROCKS**

Job No: 24303

Document Reference: 33393-6-24303

FOR

**TOMAHAWK PROPERTY**

**DOCUMENT INFORMATION**

<b>Author:</b>	Tim Reynolds	<b>Checked By:</b>	George Watts
<b>Date of Issue:</b>	24 September 2024		

**REVISION HISTORY**

Revision	Description	Date	Author	Checked
1	Modification to Delivery Truck Operations	11/11/24	TR	N/A
2	Updated Plans	04/12/24	TR	N/A
4	Revision following TBB feedback	19/12/24	GW	PLD
5	Relocated Tyre Air Inflator	26/03/25	TR	N/A
6	Text Corrections	27/03/25	TR	N/A

**DOCUMENT DISTRIBUTION**

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1	6	Taylor Burnell Barnett Attn: Melanie Cox Email : Melanie@tbbplanning.com.au		✓

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## APPENDICES

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## 1. INTRODUCTION

Herring Storer Acoustics were commissioned by Planning Solutions on behalf of Dandu Corporation Pty Ltd to undertake an acoustic assessment of noise emissions associated with the proposed 7-Eleven to be located at 859-DEV Breakwater Drive, Two Rocks.

This report assesses noise emissions from the premises with regards to compliance with the requirements of the *Environmental Protection (Noise) Regulations 1997*. It is understood that the development consists of a service station, therefore, noise sources considered as part of this assessment include :

- Mechanical Services;
- Tyre Inflator beeper;
- Delivery Truck; and
- Car and truck doors closing.

We note that from recent information received from the DWER, the bitumised area would be considered as a road, thus noise relating to the “propulsion and braking” of motor vehicles is exempt from the *Environmental Protection (Noise) Regulations 1997*. We note that these noise sources, as listed below, are rarely critical in the determination of compliance.

We understand that the bulk storage tanks are gravity feed. Thus, there is no noise associated with the activity and an assessment is not required.

For reference, the plans of the proposed development are attached in Appendix A.

## 2. SUMMARY

As the service station would be open 24 hours per day, noise received at the neighbouring noise (highly) sensitive premises from the development needs to comply with the appropriate assigned noise levels for the night period.

Noise from the mechanical services and air compressor, that would occur for more than 10% of the time, hence noise received at the neighbouring premises needs to comply with the assigned  $L_{A10}$  noise levels.

With regards to delivery trucks, we note the with regards to refrigerated trucks, we understand that as the truck make a round of deliveries, the delivery trucks need to run the refrigeration during deliveries. Under these circumstances, noise received at the neighbouring residences from delivery trucks would need to comply with the assigned  $L_{A10}$  noise level. Thus, to comply, these deliveries would need to occur at the alternative location on the southern side of the convenience store. Additionally, a barrier to the residences to the east would be required.

Note : For the alternative location to the south of the convenience store, the truck needs to be driven forward into the space, with the engine to the barrier.

Noise received at the neighbouring residences from the refuelling truck has been assessed to comply with the regulatory requirements during the day and evening (including Sundays and Public Holidays) periods, but would exceed during the night period.

Noise from car doors closing have also been assessed to comply with the regulatory criteria at all times.

Finally, with regards to the tyre inflator deeper, to comply at all time the volume needs to be set at a maximum of 70 dB(A) at 1metre from the unit.

Thus, noise emissions from the proposed development, would be deemed to comply with the requirements of the *Environmental Protection (Noise) Regulations 1997*, with the inclusion of the following:

- The air compressor to be screened from the neighbouring residences to the east. Based on the noise reduction required to be achieved by the screen, in this case a colourbond fence would be sufficient;
- The tyre inflator beeper is set to a noise level of 70 dB(A) at 1 metre from the inflator station;
- The fuel deliveries are limited to the following periods:

Day period	-	0700 - 1900 hours Monday to Saturday;
Sunday / Public Holiday Day period	-	0900 - 1900 hours Sunday and Public Holidays.
- Delivery trucks with engines turned off, to use the northern delivery bay at any time of day/night.
- Delivery trucks with engines running to use the southern delivery bay, at any time of the day/night.
- Additionally, trucks using the southern delivery bay are to be driven in forward, with the front of the truck (ie engine) to the east.

For information, we note that the boundary fence to the north needs to be constructed of a material with a minimum density of 15kg/m<sup>2</sup>.

### 3. CRITERIA

The allowable noise level for noise sensitive premises in the vicinity of the proposed Facility site is prescribed by the *Environmental Protection (Noise) Regulations 1997*. Regulations 7 and 8 stipulate maximum allowable external noise levels or assigned noise levels that can be received at a premise from another premises. For residential premises, this noise level is determined by the calculation of an influencing factor, which is then added to the base levels shown below. The influencing factor is calculated for the usage of land within two circles, having radii of 100m and 450m from the premises of concern. The base noise levels for residential premises and the assigned noise levels for industrial premises are listed in Table 3.1.

**TABLE 3.1 - BASELINE ASSIGNED OUTDOOR NOISE LEVEL**

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L <sub>A10</sub>	L <sub>A1</sub>	L <sub>Amax</sub>
Noise sensitive premises: highly sensitive area	0700 - 1900 hours Monday to Saturday (Day)	45 + IF	55 + IF	65 + IF
	0900 - 1900 hours Sunday and Public Holidays (Sunday / Public Holiday Day)	40 + IF	50 + IF	65 + IF
	1900 - 2200 hours all days (Evening)	40 + IF	50 + IF	55 + IF
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays (Night)	35 + IF	45 + IF	55 + IF

Note: L<sub>A10</sub> is the noise level exceeded for 10% of the time.  
 L<sub>A1</sub> is the noise level exceeded for 1% of the time.  
 L<sub>Amax</sub> is the maximum noise level.  
 IF is the influencing factor.

It is a requirement that received noise be free of annoying characteristics (tonality, modulation and impulsiveness), defined below as per Regulation 9.

**“impulsiveness”** means a variation in the emission of a noise where the difference between L<sub>Apeak</sub> and L<sub>Amax(Slow)</sub> is more than 15 dB when determined for a single representative event;

**“modulation”** means a variation in the emission of noise that –

- (a) is more than 3 dB L<sub>Afast</sub> or is more than 3 dB L<sub>Afast</sub> in any one-third octave band;
- (b) is present for more at least 10% of the representative assessment period; and
- (c) is regular, cyclic and audible;

**“tonality”** means 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<sub>Aeq,T</sub> 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<sub>ASlow</sub> levels.

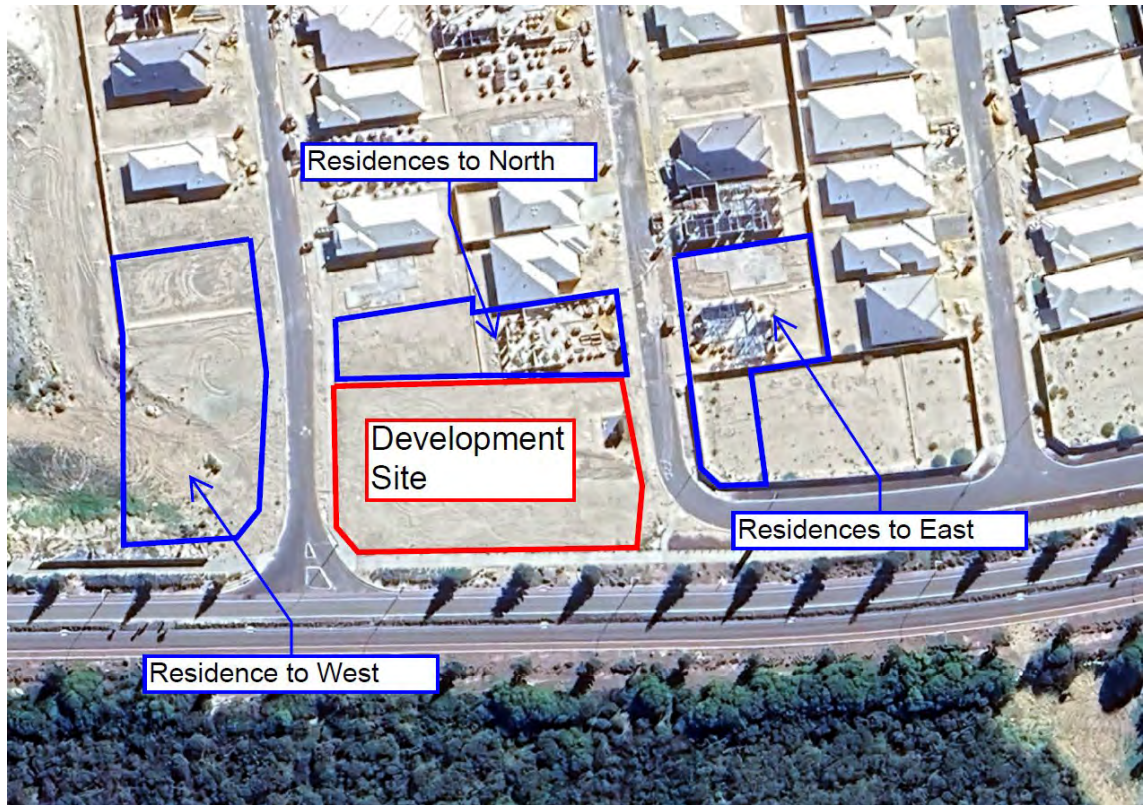
Where the noise emission is not music, if the above characteristics exist and cannot be practicably removed, then any measured level is adjusted according to Table 3.2 below.

**TABLE 3.2 - ADJUSTMENTS TO MEASURED LEVELS**

Where <b>tonality</b> is present	Where <b>modulation</b> is present	Where <b>impulsiveness</b> is present
+5 dB(A)	+5 dB(A)	+10 dB(A)

Note: These adjustments are cumulative to a maximum of 15 dB.

For this development, the closest residential premises of concern are located, as shown on Figure 3.1 below.



**FIGURE 3.1 – AREA AROUND PROPOSED DEVELOPMENT**

At the above neighbouring residences, the Influencing Factor has been determined to be +0 dB. Thus, the assigned noise levels for these residences are as listed in Table 3.3.

**TABLE 3.3 - ASSIGNED OUTDOOR NOISE LEVEL**

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L <sub>A</sub> 10	L <sub>A</sub> 1	L <sub>A</sub> max
Noise sensitive premises : Highly sensitive area	0700 - 1900 hours Monday to Saturday	45	55	65
	0900 - 1900 hours Sunday and Public Holidays	40	50	65
	1900 - 2200 hours all days	40	50	55
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays	35	45	55

Note: L<sub>A10</sub> is the noise level exceeded for 10% of the time.  
 L<sub>A1</sub> is the noise level exceeded for 1% of the time.  
 L<sub>Amax</sub> is the maximum noise level.

#### 4. MODELLING

Modelling of the noise propagation from the proposed development was carried out using an environmental noise modelling computer program, “SoundPlan”. Calculations were carried out using the EPA worst case weather conditions as stated in the Environmental Protection Authority’s “Draft Guidance for Assessment of Environmental Factors No.8 - Environmental Noise”.

Noise emissions from the development, include:

- Mechanical services;
- Air compressor;
- Tyre inflator beep indicator;
- Doors closing for both cars and trucks; and
- Delivery trucks.

The calculations were based in the sound power levels listed in Table 4.1.

**TABLE 4.1 – GENERAL SOUND POWER LEVELS**

Item of Equipment	Sound Power Level, (dB(A))
Car Door	83
Refuelling Truck	93
Delivery Truck	84
Air Conditioning Condensing Units	2 at 67
Air compressor	75
Tyre Inflator Beeper	88

The above noise sources need to comply with the following assigned noise levels :

L <sub>A10</sub>	-	Mechanical services.
L <sub>A1</sub>	-	Refrigerated trucks, Air compressor.
L <sub>AMax</sub>	-	Tyre inflator beeper; car door closing.

With regards to noise emissions, the following are noted:

- 1 Noise associated with the mechanical services does not take into account any diversity of operation. Such diversity would occur during the night period. Thus, this is a conservative assessment. At this stage of the project, the mechanical service has not been design. Therefore, the noise sources have been based on designs used for the same or similar tenancies.
- 2 As shown on the site plan attached in appendix A, the boundary fence to the north being 1850mm high. We note that to act as a noise barrier, in this case the boundary fence needs to have a minimum density of 15kg/m<sup>2</sup>.
- 3 The mechanical services would be located within the yard located on the north east corner of the development. We note that the noise modelling excludes any screening or barriers.
- 4 We understand that the air compressor would be located within the yard located on the north east corner of the development. We note that the noise modelling includes a screen in front (east) to barrier / screen the air compressor from the residences to eh east.
- 5 We note that the refrigeration units would be power take-off units (PTU's), which run of the vehicle engine. Thus, the refrigeration units do not operate when the vehicle engine is turned off. However, we understand that to provide fresh produce everyday, a delivery during the night period is required. Additionally, as the as the delivery trucks visit other site on a delivery run, the refrigeration unit and hence the engine would remain running during a delivery. Preliminary modelling indicated that although the noise received at the neighbouring residence from a truck located within the delivery bay would comply at all times with the engine turned off (ie needing to comply with the L<sub>A1</sub> criteria), with the engine running, compliance would only be achieved during the day period, having to comply with the assigned L<sub>A10</sub> criteria. Thus, to allow deliveries at other times, it is proposed to have a secondary delivery location located on the southern side of the convenience storer. This location would also have a barrier, as shown on drawings attached in Appendix A. Noting that the trucks would need to drive forward into this location, (ie engine to the east behind the screen).

## 5. RESULTS

Calculations were undertaken to all the residences noted on Figure 3.1. However, to simplify the assessment, only the noise received at the worst case location has been listed in Table 5.1.

**TABLE 5.1 – WORST CASE CALCULATED NOISE LEVELS**

Item	Calculated Noise Levels (dB(A))						
	Mechanical services	Air Compressor	Fuel Truck	Delivery Truck		Car Door	Tyre Inflator
				Northern Location	Southern Location		
Residences to North	26	26	47	43	20	43	33
Residences to East	28	16	41	28	25	27	30
Residences to West	5	7	49	41	28	44	47

[ ] Includes +10 dB(A) penalty for impulsiveness.

Noise emissions from the noise sources would need to comply with the following criteria :

- $L_{A10}$  - Mechanical service, air compressor and delivery trucks with engines running during deliveries at the southern delivery bay.
- $L_{A1}$  - Refuelling truck; and delivery trucks with engines turned off during deliveries at the northern delivery bay.
- $L_{Amax}$  - Tyre inflator beeper; car doors closing.

## 6. ASSESSMENT

The following provided the acoustic assessment for the noise sources requiring compliance, as listed in Table 5.1.

### 6.1 $L_{A10}$ NOISE EMISSION – MECHANICAL SERVICES

Noise emissions from the mechanical services would be steady state and would operate for the majority of time. Hence noise received from the mechanical services needs to comply with the assigned  $L_{A10}$  noise level.

Although, at the calculated noise level, the noise received at the neighbouring residences from the mechanical services is unlikely to be tonal, but to be conservative, the +5 dB(A) penalty for tonality has been applied to the calculated noise level associated with the mechanical services. Table 6.1 lists the characteristics that should be included in the assessable noise level.

**TABLE 6.1 – APPLICABLE ADJUSTMENTS AND ASSESSABLE  $L_{A10}$  NOISE LEVELS, dB(A)**  
**MECHANICAL SERVICES**

Location	Calculated Noise Level, dB(A)	Applicable Adjustments to Measured Noise Levels, dB(A)			Assessable Noise Level, dB(A)
		Where Noise Emission is NOT music			
		Tonality	Modulation	Impulsiveness	
Residences to North	26	+5	-	-	31
Residences to East	28	+5	-	-	33
Residences to West	5	+5	-	-	10

Table 6.2 shows the applicable Assigned Noise Levels, and assessable noise level emissions associated for the scenarios associated with the mechanical services.

**TABLE 6.2 – ASSESSMENT OF L<sub>A10</sub> NOISE LEVEL EMISSIONS  
MECHANICAL SERVICES**

Location	Assessable Noise Level, dB(A)	Applicable Times of Day	Applicable Assigned L <sub>A10</sub> Noise Level (dB)	Exceedance to Assigned Noise Level (dB)
Residences to North	31	Night Period	35	Complies
Residences to East	33	Night Period	35	Complies
Residences to West	10	Night Period	35	Complies

## 6.2 L<sub>A10</sub> NOISE EMISSION – AIR COMPRESSOR

Noise emissions from the air compressor would be steady state and would at times operate for more than 10% of the time. Hence, noise received from the mechanical services needs to comply with the assigned L<sub>A10</sub> noise level.

Again, at the calculated noise level, the noise received at the neighbouring residences from the air compressor is unlikely to be tonal, but to be conservative, the +5 dB(A) penalty for tonality has been applied to the calculated noise level associated with the air compressor. Table 6.3 lists the characteristics that should be included in the assessable noise level.

**TABLE 6.3 – APPLICABLE ADJUSTMENTS AND ASSESSABLE L<sub>A10</sub> NOISE LEVELS, dB(A)  
AIR COMPRESSOR**

Location	Calculated Noise Level, dB(A)	Applicable Adjustments to Measured Noise Levels, dB(A)			Assessable Noise Level, dB(A)
		Where Noise Emission is NOT music			
		Tonality	Modulation	Impulsiveness	
Residences to North	26	+5	-	-	31
Residences to East	16	+5	-	-	21
Residences to West	7	+5	-	-	12

Table 6.4 shows the applicable Assigned Noise Levels, and assessable noise level emissions associated for the scenarios associated with the air compressor.

**TABLE 6.4 – ASSESSMENT OF L<sub>A10</sub> NOISE LEVEL EMISSIONS  
AIR COMPRESSOR**

Location	Assessable Noise Level, dB(A)	Applicable Times of Day	Applicable Assigned L <sub>A10</sub> Noise Level (dB)	Exceedance to Assigned Noise Level (dB)
Residences to North	31	Night Period	35	Complies
Residences to East	21	Night Period	35	Complies
Residences to West	12	Night Period	35	Complies

Note : Given the calculated noise levels the total combined noise of the mechanical services and air compressor would also comply with the assigned L<sub>A10</sub> noise levels at all times.

### 6.3 L<sub>A10</sub> NOISE EMISSION – DELIVERY TRUCKS (ENGINES RUNNING) SOUTHERN BAY

Noise emissions from delivery trucks needs to comply with the assigned L<sub>A10</sub> noise level with the engine running during delivery within the southern delivery bay.

With the engines operating, noise received at the neighbouring residences could be tonal. Thus, to be conservative, the +5 dB(A) penalty for tonality has been applied to the calculated noise level associated with a delivery truck (engine running) within the southern delivery bay. Table 6.5 lists the characteristics that should be included in the assessable noise level.

**TABLE 6.5 – APPLICABLE ADJUSTMENTS AND ASSESSABLE L<sub>A10</sub> NOISE LEVELS, dB(A)  
DELIVERY TRUCKS (SOUTHERN DELIVERY BAY WITH ENGINES RUNNING)**

Location	Calculated Noise Level, dB(A)	Applicable Adjustments to Measured Noise Levels, dB(A)			Assessable Noise Level, dB(A)
		Where Noise Emission is NOT music			
		Tonality	Modulation	Impulsiveness	
Residences to North	20	+5	-	-	25
Residences to East	25	+5	-	-	30
Residences to West	28	+5	-	-	33

Table 6.6 shows the applicable Assigned Noise Levels, and assessable noise level emissions associated for the scenarios associated with delivery truck (engine running) within the southern delivery bay.

**TABLE 6.6 – ASSESSMENT OF L<sub>A10</sub> NOISE LEVEL EMISSIONS  
DELIVERY TRUCKS (SOUTHERN DELIVERY BAY WITH ENGINES RUNNING)**

Location	Assessable Noise Level, dB(A)	Applicable Times of Day	Applicable Assigned L <sub>A1</sub> Noise Level (dB)	Exceedance to Assigned Noise Level (dB)
Residences to North	25	Day Period	45	Complies
		Sunday / Public Holiday Day Period	40	Complies
		Evening Period	40	Complies
		Night Period	35	Complies
Residences to East	30	Day Period	45	Complies
		Sunday / Public Holiday Day Period	40	Complies
		Evening Period	40	Complies
		Night Period	35	Complies
Residences to West	33	Day Period	45	Complies
		Sunday / Public Holiday Day Period	40	Complies
		Evening Period	40	Complies
		Night Period	35	Complies

### 6.4 L<sub>A1</sub> NOISE EMISSION – FUEL TRUCK

Noise emissions from refuelling trucks needs to comply with the assigned L<sub>A1</sub> noise level.

Based on the definitions of tonality, noise emissions from truck movements, being an L<sub>A1</sub> and present for less than 10% of the time, would not be considered tonal. Thus, no penalties would be applicable.

Table 6.7 shows the applicable Assigned Noise Levels, and assessable noise level emissions associated for the scenarios associated with the refuelling truck.

**TABLE 6.7 – ASSESSMENT OF L<sub>A1</sub> NOISE LEVEL EMISSIONS  
 REFUELLING TRUCK**

Location	Assessable Noise Level, dB(A)	Applicable Times of Day	Applicable Assigned L <sub>A1</sub> Noise Level (dB)	Exceedance to Assigned Noise Level (dB)
Residences to North	47	Day Period	55	Complies
		Sunday / Public Holiday Day Period	50	Complies
		Evening Period	50	Complies
		Night Period	45	+2
Residences to East	41	Day Period	55	Complies
		Sunday / Public Holiday Day Period	50	Complies
		Evening Period	50	Complies
		Night Period	45	Complies
Residences to West	49	Day Period	55	Complies
		Sunday / Public Holiday Day Period	50	Complies
		Evening Period	50	Complies
		Night Period	45	+4

6.5 L<sub>A1</sub> NOISE EMISSION – DELIVERY TRUCKS (ENGINES TURNED OFF) NORTHERN BAY

Noise emissions from delivery trucks with the engines turned off, need to comply with the assigned L<sub>A1</sub> noise level with the engine turned off during deliveries.

Based on the definitions of tonality, noise emissions from truck deliveries where the engine is turn off, being an L<sub>A1</sub> and present for less than 10% of the time, would not be considered tonal. Thus, no penalties would be applicable.

Table 6.8 shows the applicable Assigned Noise Levels, and assessable noise level emissions associated with truck deliveries within the northern bay, where the engine can be turned off.

**TABLE 6.8 – ASSESSMENT OF L<sub>A1</sub> NOISE LEVEL EMISSIONS  
 DELIVERY TRUCKS – ENGINE OFF DURING DELIVERY**

Location	Assessable Noise Level, dB(A)	Applicable Times of Day	Applicable Assigned L <sub>A1</sub> Noise Level (dB)	Exceedance to Assigned Noise Level (dB)
Residences to North	43	Day Period	55	Complies
		Sunday / Public Holiday Day Period	50	Complies
		Evening Period	50	Complies
		Night Period	45	Complies
Residences to East	28	Day Period	55	Complies
		Sunday / Public Holiday Day Period	50	Complies
		Evening Period	50	Complies
		Night Period	45	Complies
Residences to West	41	Day Period	55	Complies
		Sunday / Public Holiday Day Period	50	Complies
		Evening Period	50	Complies
		Night Period	45	Complies

## 6.6 L<sub>AMAX</sub> NOISE EMISSION – TYRE INFLATOR BEEP

Noise emissions from tyre inflator beep indicator needs to comply with the assigned L<sub>AMax</sub> noise level.

Noise associated with the closing of a tyre inflator beep indicator could be both tonal and impulsive. Thus, to be conservative, both the +5 dB(A) penalty for tonality and the +10 dB(A) penalty for impulsiveness have been applied.

Table 6.9 list the characteristics that should be included and the assessable noise levels and the assessable noise level for tyre inflator beep indicator.

**TABLE 6.9 – APPLICABLE ADJUSTMENTS AND ASSESSABLE L<sub>AMAX</sub> NOISE LEVELS, dB(A)  
TYRE INFLATOR INDICATOR**

Locations	Calculated Noise Level, dB(A)	Applicable Adjustments to Measured Noise Levels, dB(A)			Assessable Noise Level, dB(A)
		Where Noise Emission is NOT music			
		Tonality	Modulation	Impulsiveness	
Residences to North	33	+5	-	+10	48
Residences to East	30	+5	-	+10	45
Residences to West	47	+5	-	+10	62

Table 6.10 shows the applicable Assigned Noise Levels, and assessable noise level emissions associated for the scenarios associated with the tyre inflator indicator.

**TABLE 6.10 – ASSESSMENT OF L<sub>AMAX</sub> NOISE LEVEL EMISSIONS  
TYRE INFLATOR INDICATOR**

Location	Assessable Noise Level, dB(A)	Applicable Times of Day	Applicable Assigned L <sub>AMax</sub> Noise Level (dB)	Exceedance to Assigned Noise Level (dB)
Residences to North	48	Day Period	65	Complies
		Sunday / Public Holiday Day Period	65	Complies
		Evening Period	55	Complies
		Night Period	55	Complies
Residences to East	45	Day Period	65	Complies
		Sunday / Public Holiday Day Period	65	Complies
		Evening Period	55	Complies
		Night Period	55	Complies
Residences to West	62	Day Period	65	Complies
		Sunday / Public Holiday Day Period	65	Complies
		Evening Period	55	+7
		Night Period	55	+7

We note that the volume associated with the tyre inflator beeper is adjustable. Thus, based on the above assessment, the noise associated with the tyre inflator beeper needs to be set to 70 dB(A) at 1 metre, to achieve compliance with the regulations.

## 6.7 L<sub>AMAX</sub> NOISE EMISSION – CAR DOOR

Noise emissions from a car door closing on site need to comply with the assigned L<sub>AMax</sub> noise level.

Noise associated with the closing of a car door could be impulsive and to be conservative, a +10 dB(A) penalty for impulsiveness would be applied.

Table 6.11 list the characteristics that should be included and the assessable noise levels and the assessable noise level for car doors closing.

**TABLE 6.11 – APPLICABLE ADJUSTMENTS AND ASSESSABLE L<sub>AMAX</sub> NOISE LEVELS, dB(A)**  
**CAR DOOR**

Locations	Calculated Noise Level, dB(A)	Applicable Adjustments to Measured Noise Levels, dB(A)			Assessable Noise Level, dB(A)
		Where Noise Emission is NOT music			
		Tonality	Modulation	Impulsiveness	
Residences to North	43	-	-	+10	53
Residences to East	27	-	-	+10	37
Residences to West	44	-	-	+10	54

Table 6.12 shows the applicable Assigned Noise Levels, and assessable noise level emissions associated for the scenarios associated with the car doors closing.

**TABLE 6.12 – ASSESSMENT OF L<sub>AMAX</sub> NOISE LEVEL EMISSIONS**  
**CAR DOOR**

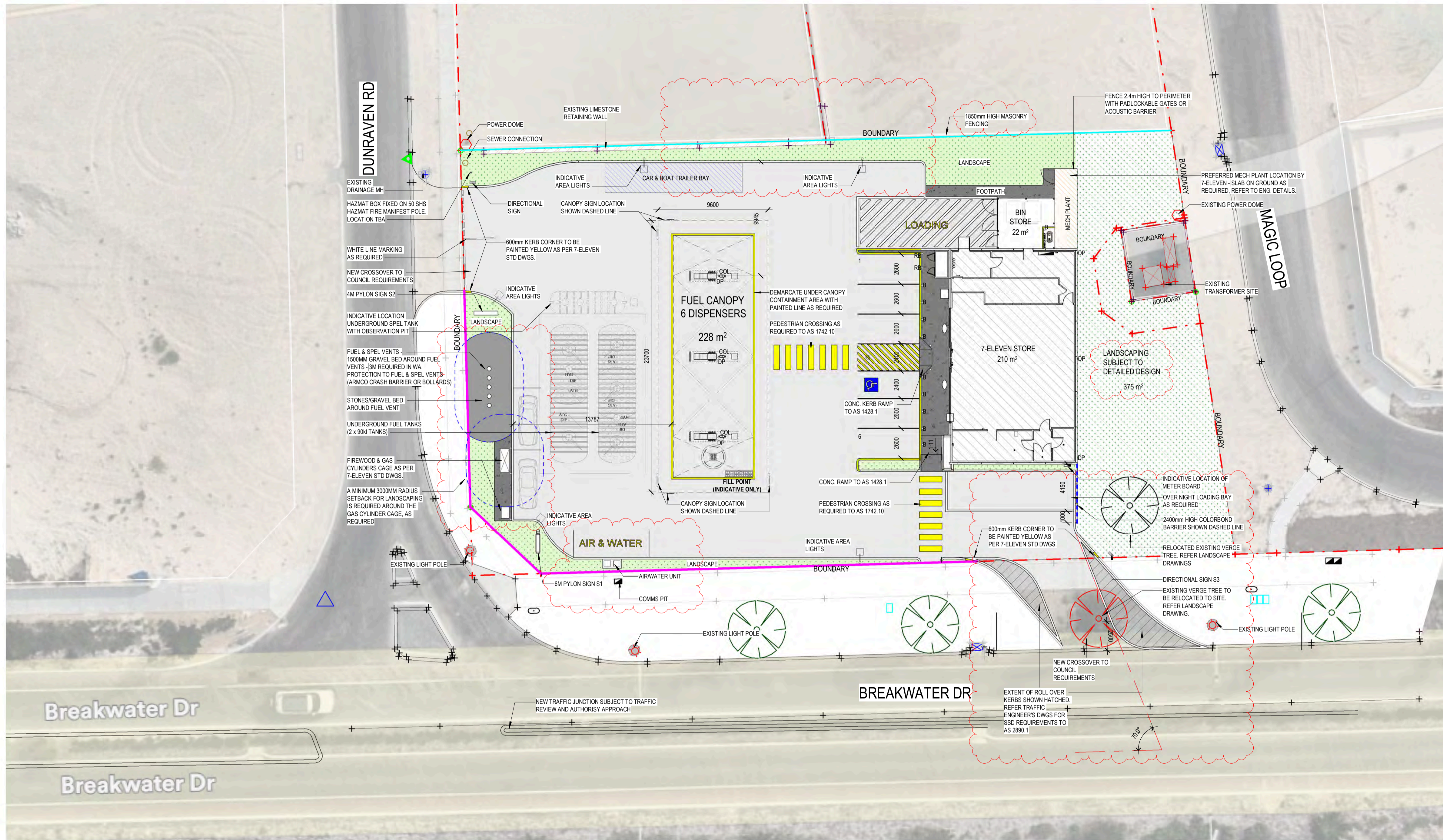
Location	Assessable Noise Level, dB(A)	Applicable Times of Day	Applicable Assigned L <sub>AMax</sub> Noise Level (dB)	Exceedance to Assigned Noise Level (dB)
Residences to North	53	Day Period	65	Complies
		Sunday / Public Holiday Day Period	65	Complies
		Evening Period	55	Complies
		Night Period	55	Complies
Residences to East	37	Day Period	65	Complies
		Sunday / Public Holiday Day Period	65	Complies
		Evening Period	55	Complies
		Night Period	55	Complies
Residences to West	54	Day Period	65	Complies
		Sunday / Public Holiday Day Period	65	Complies
		Evening Period	55	Complies
		Night Period	55	Complies

From the above assessments, it can be seen that noise received at the neighbouring residences, even using a conservative analysis, complies with the requirements of the *Environmental Protection (Noise) Regulations 1997*, provided :

- the air compressor to be screened from the neighbouring residences to the east. Based on the noise reduction required to be achieved by the screen, in this case a colourbond fence would be sufficient;
- the tyre inflator beeper is set to a noise level of 70 dB(A) at 1 metre from the inflator station;
- the fuel deliveries are limited to the following periods:
  - Day period - 0700 - 1900 hours Monday to Saturday;
  - Sunday / Public Holiday Day period - 0900 - 1900 hours Sunday and Public Holidays.
- Delivery trucks with engines turned off, to use the northern delivery bay at any time of day/night.
- Delivery trucks with engines running to use the southern delivery bay, at any time of the day/night.
- Additionally, trucks using the southern delivery bay are to be driven in forward, with the front of the truck (ie engine) to the east.

# **APPENDIX A**

## PLAN



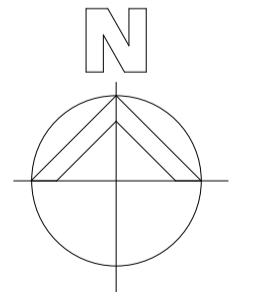
- GENERAL NOTES**
1. THE CONTRACTOR SHALL VISIT THE SITE BEFORE TENDERING & ALLOW FOR ALL EXISTING CONDITIONS ON AND ADJACENT TO THE SITE.
  2. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS & LEVELS ON SITE BEFORE THE COMMENCEMENT OF ANY WORKS.
  3. ALL DIMENSIONS IN MILLIMETERS U.N.O. ALL DIMENSIONS ARE TO BE CHECKED ON SITE BEFORE THE COMMENCEMENT OF ANY WORKS.
  4. REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING.
  5. ALL DRAWINGS TO BE READ IN CONJUNCTION WITH ALL CONSULTANT DRAWINGS.
  6. DO NOT SCALE FROM DRAWINGS.
  7. REVISIONS NOT LIMITED TO REVISION CLOUDS.
  8. FIXTURES & FITTINGS AS SPECIFIED - REFER TO SPEC. DOCUMENTS.
  9. REFER TO MATERIALS, FINISHES & COLOUR SCHEDULE AND SPEC. DOCUMENT FOR EQUIPMENT AND FINISHES SELECTIONS.
  10. ALL WORKS TO COMPLY WITH THE NCC & AUSTRALIAN STANDARDS.
  11. ALL MATERIALS TO COMPLY WITH THE NCC (INCLUDING BUT NOT EXCLUDE C1.10) & AS. SUPPLY & INSTALLATION IN STRICT ACCORDANCE WITH MANUFACTURER REQUIREMENTS.
  12. ALL FINISHES TO COMPLY WITH NCC C1.10.
  13. ROOF INSULATION TO COMPLY WITH NCC C1.10.
  14. ROOF ACCESS & SAFETY SYSTEM BY DESIGN & CONSTRUCTION SPECIALIST CONTRACTORS.
  15. ALL ROOFING TO BE INSTALLED WITH ROOF SAFETY MESH BELOW.
  16. ALL BOX GUTTERS, SUMPS, DOWNPIPES & OVERFLOW TO NCC & AC STDS.
  17. INSTALL ADDITIONAL NOGGINGS/ COMPLIANT BACKING BOARDS TO SUPPORT FIXTURE & FITTINGS.
  18. WATERPROOFING MEMBRANES MUST COMPLY WITH AS 4654 PARTS 1 & 2.

PRELIMINARY ONLY  
 PLAN SUBJECT TO PLANNING, TRAFFIC, ACOUSTIC, SURVEY AND SPECIALIST ASSESSMENT.

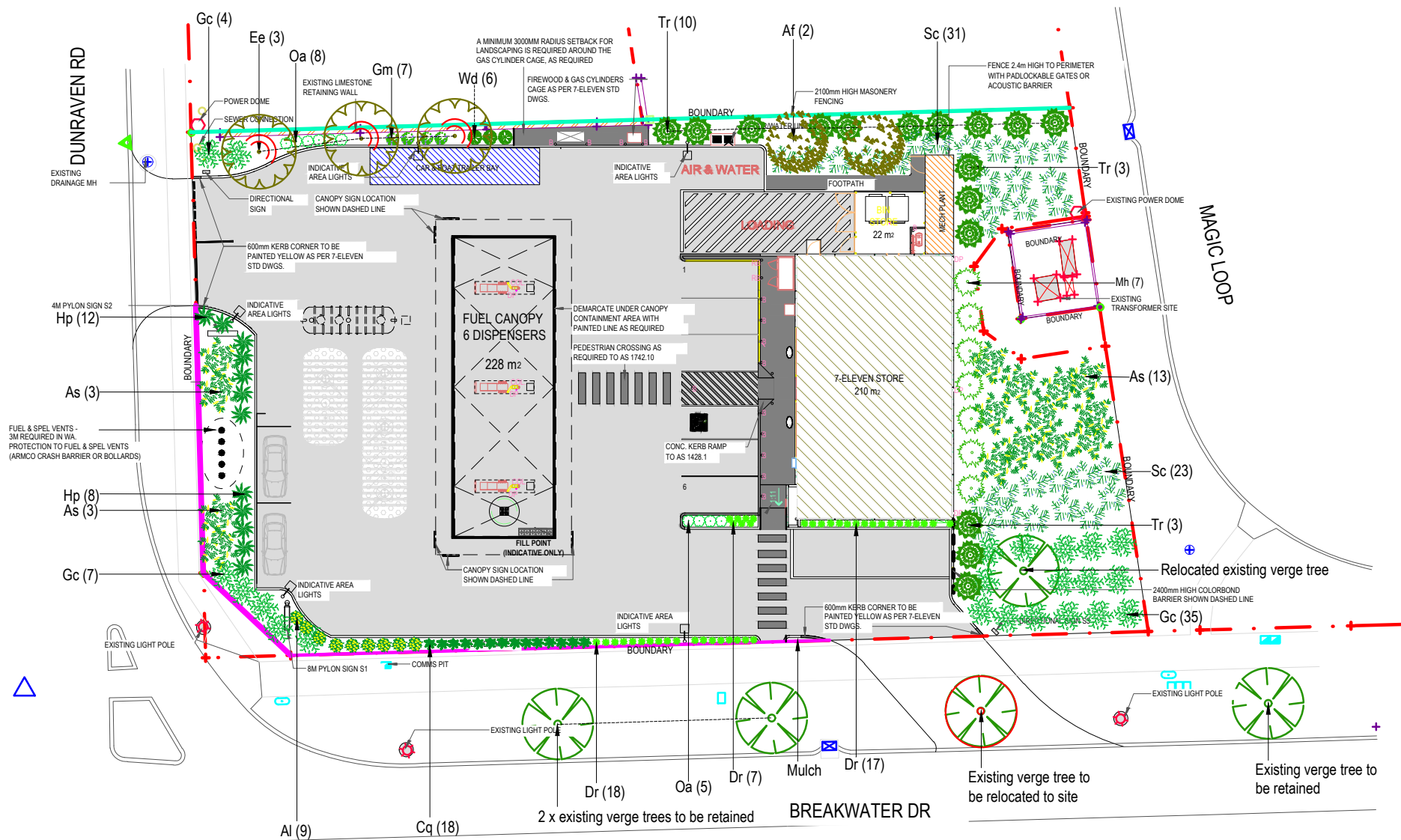
**LEGEND**

	BOUNDARY LINE
	NO VEHICLE ACCESS PERMITTED
	2400mm HIGH BARRIER
	EXISTING RETAINING WALL
	2100mm HIGH MASONRY FENCING
	EXISTING LIGHT POLE
	EXISTING PILLAR
	BOLLARD - AS PER 7-ELEVEN STD. DWGS.
	REMOVABLE BOLLARD - AS PER 7-ELEVEN STD. DWGS.
	DOWNPIPE AS PER 7-ELEVEN STD. DWGS.
	CANOPY COLUMN TO STRUCTURAL ENG. DWGS.

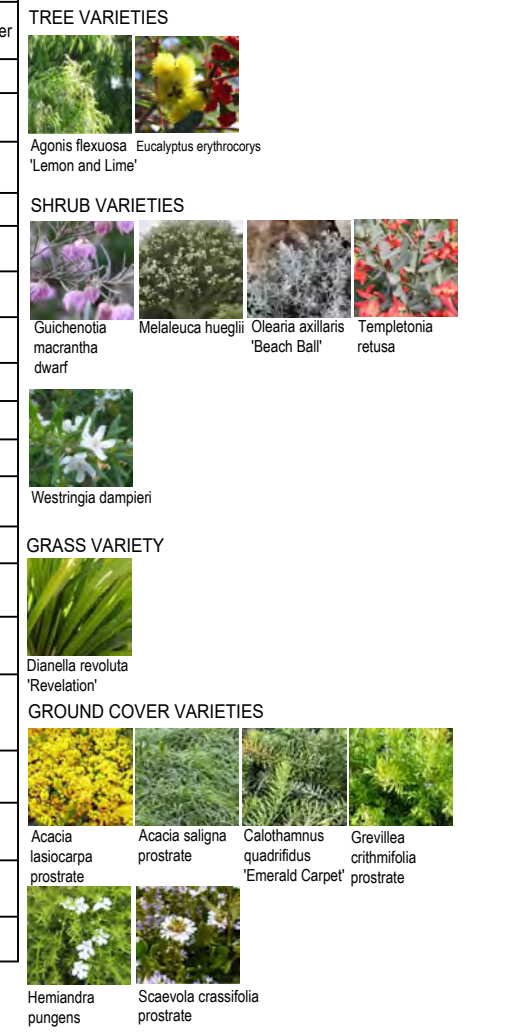
1 7 ELEVEN - SITE PLAN  
 1:200



THIS PLAN MUST BE PRINTED IN BEST QUALITY COLOUR PRINT



PLANT SCHEDULE AND SYMBOL LEGEND						
Symbol	Code on plan	Botanic Name	Mature height x width	Minimum installation size	Planting density m²	Number
<b>TREES</b>						
	Af	Agonis flexuosa 'Lemon and Lime'	5m x 4m	35 Litre	Per symbol	2
	Ee	Eucalyptus erythrocorys	3-6m x 5m	35 Litre	Per symbol	3
<b>SHRUBS</b>						
	Gm	Guichenotia macrantha dwarf	80cm x 1m	14cm	2	7
	Mh	Melaleuca huegii	4m x 2m	14cm	Per symbol	7
	Oa	Olearia axillaris 'Beach Ball'	40cm x 80cm	13cm	2	13
	Tr	Templetonia retusa	2m x 2m	14cm	Per symbol	16
	Wd	Westringia dampieri	1.5m x 1m	14cm	2	6
<b>GRASSES</b>						
	Dr	Dianella revoluta 'Revelation'	50cm x 50cm	13cm	Per symbol	42
<b>GROUND COVER</b>						
	Al	Acacia lasiocarpa prostrate	50cm x 1m	13cm	1	9
	As	Acacia saligna prostrate	30cm x 3m	13cm	0.25	19
	Cq	Calothamnus quadrifidus 'Emerald Carpet'	20cm x 80cm	14cm	2	18
	Gc	Grevillea crithmifolia prostrate	30cm x 2m	13cm	0.5	46
	Hp	Hemiantra pungens 'Alba'	30cm x 1.5m	13cm	1	20
	Sc	Scaevola crassifolia prostrate	50cm x 2m	13cm	0.5	54
<b>TOTAL PLANTS</b>						<b>262</b>



## INSTALLATION SPECIFICATIONS

### 1. TREE AND PLANT SUPPLY AND PLANTING

#### 1.1 PLANT MATERIAL

- ALL PLANT STOCK SUPPLIED BY CONTRACTOR SHALL BE OF THE SPECIES AND SIZES AS THOSE ON THE PLANT SCHEDULE. SHOULD THERE BE ANY DIFFICULTIES IN SOURCING PLANTS, THE CONTRACTOR SHALL RECOMMEND SIMILAR SUITABLE SUBSTITUTE SPECIES AND/OR SIZES TO THOSE SHOWN ON THE DRAWINGS. NO SUBSTITUTIONS SHALL TAKE PLACE WITHOUT WRITTEN APPROVAL BY THE SUPERINTENDENT.
- GREENLIFE MUST BE WELL KEPT: DELIVERED TO SITE ON DAY OF INSTALLATION, OUT OF FULL SUN, AWAY FROM ANIMALS AND PESTS AND ROOTS NOT ALLOWED TO DRY OUT AND SHALL:
  - BE TRUE TO SPECIES, SUBSPECIES AND VARIETY
  - BE IN FIRST CLASS CONDITION AND HEALTHY
  - BE OF GOOD FORM CONSISTENT WITH SPECIES AND VARIETY
  - AND BE PLANTED AS PER THE INSTRUCTIONS BELOW.

#### 1.2 GENERAL PLANTING INSTRUCTIONS

- SETTING OUT OF WORKS WHERE UNDERGROUND SERVICES, MANHOLES, CABLE PITS, KERBING, PAVING AND OTHER OBSTRUCTIONS OCCUR, PLANT CLEAR OF SUCH SERVICES AND OBSTRUCTIONS AND PROTECT THEM FROM DAMAGE BY MACHINES AND EQUIPMENT.
- REMOVE ALL PLANTS FROM THEIR CONTAINERS, IN SUCH A MANNER AS TO DO AS LITTLE DISTURBANCE AS POSSIBLE TO THE ROOTS. WHERE NECESSARY, GENTLY TEASE OUT ROOT-BALLS BEFORE PLANTING. PLACE TREES, SHRUBS AND PLANTS IN HOLES IN A STRAIGHT, UPRIGHT POSITION AND BACKFILL LEVEL WITH TOP OF ROOTBALL. COMPACT SOIL BY HAND.
- REFER DETAILS 'TYPICAL TREE PLANTING' AND 'TYPICAL SHRUB PLANTING'.
- A ROOT BARRIER SHALL BE INSTALLED FOR ALL TREES.

#### 1.3 SOIL CONDITIONER

- AFTER SITE WORKS AND BEFORE PLANTING, SUPPLY AND INSTALL SOIL CONDITIONER TO ALL PLANTING AREAS.
- PRIOR TO PLACEMENT ENSURE ALL BASE MATERIAL IS CLEAN, FREE DRAINING AND FREE OF ALL BUILDER'S RUBBLE, RUBBISH, DELETERIOUS MATERIAL AND CONTAMINATION. ALL AREAS CONTAMINATED BY THE BUILDER OR OTHERS SHALL BE REMOVED AND REPLACE WITH CLEAN FILL SAND TO THE APPROVAL OF THE SUPERINTENDENT.
- PLACE SOIL CONDITIONER TO A DEPTH OF 15MM OVER THE FULL EXTENT OF AREAS TO BE

CONDITIONED. ROTARY-HOE OR SPADE DIG WHERE NECESSARY, SOIL CONDITIONER INTO EXISTING SITE SOIL TO A DEPTH OF 80MM TO PRODUCE A FULLY HOMOGENEOUS MIX. REMOVE ALL RUBBLE OR OTHER EXTRANEUS AND DELETERIOUS MATTER EXPOSED AS A RESULT OF CULTIVATION, INCLUDING ANY BASE COURSE MATERIAL.

- SOIL CONDITIONER SHALL COMPLY WITH AS4454 COMPOSTS, SOIL CONDITIONERS AND MULCHES.

#### 1.4 FERTILISING

- AFTER PLANTING AND AT TIME OF BACK FILLING ALL PLANTS ARE TO RECEIVE APPROVED PROPRIETARY ITEM OF EIGHT TO NINE MONTH SLOW-RELEASE FERTILISER SUITABLE FOR AUSTRALIAN NATIVE PLANTS.
- FERTILISER TO BE APPLIED IN BACKFILL (BELOW GROUND) DURING PLANTING AT THE MANUFACTURERS' RECOMMENDED RATE FOR THE RELATIVE PLANT SIZE, AND AT A MINIMUM RATE AS FOLLOWS:
  - 30 - 35 LITRE POT SIZE PLANTS TO HAVE FORTY GRAMS
  - 13CM - 14CM POT SIZE PLANTS TO HAVE TEN GRAMS

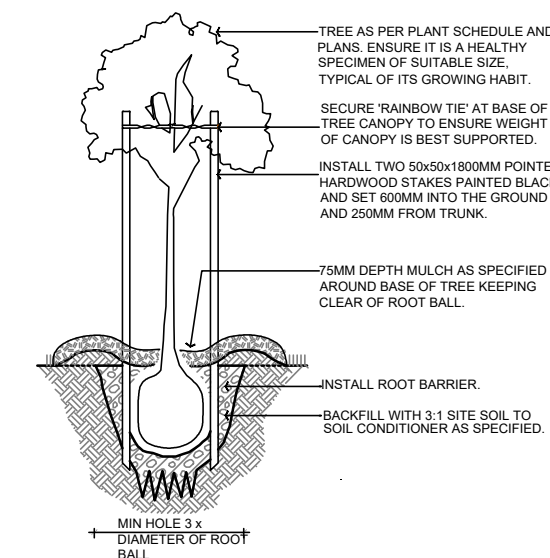
#### 2. MULCH

- ALL GARDEN BEDS TO BE MULCHED TO A MINIMUM DEPTH OF 75MM, KEEPING MULCH CLEAR OF PLANT STEMS.
- ALL MULCH SHALL MEET AUSTRALIAN STANDARD 4454-2012.
- MULCH SHALL BE CHUNKY PINE BARK WOOD CHIPS.
- MULCH IS TO BE COMPLETELY FREE OF ALL NOXIOUS WEEDS, SEEDS AND FUNGUS, INSECT PESTS AND OTHER DELETERIOUS MATERIAL.
- TIDY AND GRADE MULCH AFTER APPLICATION, FINISHING 20MM BELOW SURROUNDING HARD SURFACES.

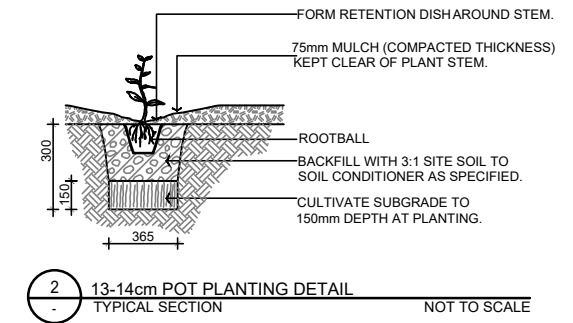
#### 3. IRRIGATION

- INSTALL AN IRRIGATION SYSTEM INCLUDING TREE BUBBLERS FOR SITE TREES.
- CONTROLLER TO BE AUTOMATIC SYSTEM WITH RAIN SENSOR. LOCATION TO BE CONFIRMED ON SITE.
- THE CONTRACTOR IS RESPONSIBLE FOR LAYOUT DESIGN AND INSTALLATION OF IRRIGATION SYSTEM.
- WATER OVER SPRAY ONTO BUILDINGS AND PATHS SHALL NOT OCCUR.
- AT TIME OF COMPLETION THE IRRIGATION SYSTEM SHALL BE FULLY AUTOMATED, WORKING EFFICIENTLY AND EFFECTIVELY AND WATERING TIMES PROGRAMMED.

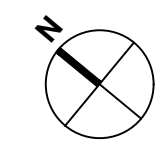
## TYPICAL DRAWINGS



1 TREE PLANTING DETAIL  
TYPICAL SECTION NOT TO SCALE



2 13-14cm POT PLANTING DETAIL  
TYPICAL SECTION NOT TO SCALE



D	DEVELOPMENT APPLICATION	AC	06.12.2024
C	DEVELOPMENT APPLICATION	AC	26.11.2024
B	DEVELOPMENT APPLICATION	AC	21.11.2024
A	DEVELOPMENT APPLICATION	AC	15.11.2024
<b>revision/issue description</b>		<b>drawn date</b>	
project TWO ROCKS 7-ELEVEN		description LANDSCAPE PLAN	
859-DEV BREAKWATER DRIVE, TWO ROCKS		URBAN RETREAT GARDEN DESIGN	
COMMERCIAL AND RESIDENTIAL LANDSCAPE DESIGN		www.urbanretreatgardens.com.au 0438 926 313	
1:400		sheet no 24298	
@ A3		rev no 3	



# Proposed Service Station, Lot 9024 Breakwater Drive, Two Rocks

## Transport Impact Statement

**PREPARED FOR:**  
Tomahawk Two Rocks Pty Ltd  
December 2024

## Document history and status

Author	Revision	Approved by	Date approved	Revision type
Vladimir Baltic	r01	B Bordbar	13/09/2024	Final
Vladimir Baltic	r01a	B Bordbar	9/12/2024	1 <sup>st</sup> Revision
Vladimir Baltic	r01b	B Bordbar	11/12/2024	2 <sup>nd</sup> Revision
Vladimir Baltic	r01c	B Bordbar	26/03/2025	3 <sup>rd</sup> Revision

**File name:** t24.158.vb.r01c.docx

**Author:** Vladimir Baltic

**Project manager:** Behnam Bordbar

**Client:** Tomahawk Two Rocks Pty Ltd

**Project:** Lot 9024 Breakwater Drive, Two Rocks

**Document revision:** r01c

**Project number:** t24.158

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# 1 Introduction

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This Transport Impact Statement (TIS) has been prepared by Transcore on behalf of Tomahawk Two Rocks Pty Ltd with regard to a proposed 7-Eleven service station and convenience store to be located at Lot 9024 Breakwater Drive, Two Rocks in the City of Wanneroo.

The subject site (approximately 2,315m<sup>2</sup> on size), is located at the northeast corner of the existing Breakwater Drive/Dunraven Road intersection. The site is bordered by Breakwater Drive along the southern side, Dunraven Road along the western side and existing residential dwellings to the immediate north. It is generally situated about 1.3km east of the Two Rocks marina. Refer **Figure 1** for more details. The subject site is presently vacant.



**Figure 1: Location of the subject site**

The Transport Impact Assessment Guidelines (WAPC, Vol 4 – Individual Developments, August 2016) state: “A Transport Impact Statement is required for those developments that would be likely to generate moderate volumes of traffic<sup>1</sup> and therefore would have a moderate overall impact on the surrounding land uses and transport networks”.

---

<sup>1</sup> Between 10 and 100 vehicular trips per hour

**Section 6** of Transcore’s report provides details of the estimated trip generation for the proposed development. Accordingly, as the total peak hour vehicular trips are estimated to be less than 100 trips, a *Transport Impact Statement* is deemed appropriate for this development.

Key issues that will be addressed in this report include the traffic generation and distribution of the proposed development and access and egress movement patterns.

## 2 Development Proposal

---

The development proposal contemplates construction of a new 7-Eleven service station with associated convenience store and on-site parking. Specifically, the development proposal entails construction of service station with six fuelling spaces under the fuel canopy and associated convenience building of 210m<sup>2</sup> GFA. Refer site plan attached in **Appendix A** for more details.

A total of six parking bays, inclusive of one ACROD bay, will be provided adjacent to the service station convenience store building with another two at the western end of the site, adjacent to Dunraven Road frontage. Additionally, one air & water bay will also be provided at the northern side of the site, adjacent to the loading/service bay.

A separate service yard (loading bay) is proposed at the northern side of the service station building, designed to accommodate (up to) a 8.8m MRV with a secondary (night time delivery only) loading bay at the southern side of convenience store capable of accommodating up to 12.0m HRV.

## 3 Vehicle Access and Parking

---

### 3.1 Access

The proposed service station will be served by the two-point crossover system, as follows:

- A full-movement crossover on Dunraven Road at the western side of the site, approximately 30m north of the Breakwater Drive intersection; and,
- A left-out only crossover on Breakwater Drive at the southeast corner of the site, approximately 50m east of the Dunraven Road intersection.

It should be noted that as part of the proposed development a median break on Breakwater Drive is proposed to facilitate right-turn ins at the intersection with Dunraven Road.

### 3.2 Parking

The on-site car parking provision for the proposed service station comprises six car bays (including one ACROD bay) next to the convenience store and two bays along the Dunraven Road frontage. The ACROD bay is conveniently located adjacent to the entry into the convenience store.

In addition, an air&water bay is also provided at the southwestern corner of the site.

It is understood that the parking supply meets the requirements of the proposed development.

## 4 Provision for Service Vehicles

---

A service yard (loading bay) is proposed at the northern side of the service station building, designed to accommodate (up to) a 8.8m MRV rigid truck for regular convenience store deliveries and waste collection.

A service/delivery vehicle will access the site via Dunraven Road crossover and reverse into the loading bay. After the loading/unloading operations have been completed, the vehicle will continue to travel in forward gear and exit the site via the same crossover or the left-out only crossover on Breakwater Drive.

In addition, a dedicated over night loading bay for special deliveries (specific products only) is also proposed at the southern side of the service station building, designed to accommodate (up to) a 12.0m HRV rigid trucks. This bay will only be used for over night deliveries and as such will be occupied occasionally and during periods of very low level of on-site traffic activity. As such, the proposed loading bay is not anticipated to have any practical impact on regular daily internal site traffic movements.

The delivery of fuel will be undertaken using a typical 17.0m fuel tanker which will enter the site via Dunraven Road crossover, access the fill points south of the canopy, and exit the site via the left-out only Breakwater Drive crossover. The fuel tanker would only ever need to move in the forward gear and will only access the site 2-3 times per week.

As it is usually the practice, fuel delivery to metropolitan stations will be scheduled outside peak service station business activity and road network peak periods in order to minimise the potential conflict with patron's traffic movements within the site.

The relevant turn path plans for 17.0m fuel tankers, 8.8m and 12.0m service vehicles are presented in **Appendix B**.

## 5 Hours of Operation

---

The proposed service station operating hours are 24/7 as it is the case with most metropolitan service stations.

# 6 Daily Traffic Volumes and Vehicle Types

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## 6.1 Trip Generation

Based on the feedback received from a number of Western Australia service station operators that the trip rates published in the *Institute of Transportation Engineers 11<sup>th</sup> Edition Trip Generation Guidelines* (an US trip generation source) significantly overestimate the actual patronage numbers, Transcore undertook its own extensive traffic surveys during 2022. At this time a total of 15 service stations were surveyed, in order to establish accurate local traffic generation rates for this type of land use in Western Australia. All of the sites selected entailed different operators in order to ensure robust data with high level of confidence.

The surveys were undertaken during Mondays, Tuesdays and Wednesdays in order to include trade activity during the discounted fuel days as well as to ensure a conservative approach.

The following sites were surveyed for the purpose of the study:

- 7-Eleven, 194 Great Eastern Hwy, Ascot WA
- Ampol, 204 Great Eastern Hwy, Ascot WA
- BP, 1 Canham Way, Greenwood WA
- BP, 88 Gilbertson Road, Kardinya WA
- BP, 848 Canning Hwy, Applecross WA
- Coles Express, 73A Frobisher Street, Osborne Park WA
- Puma, 58 Montana Crescent, Alkimos WA
- Ampol 3, Morwell Street, Yanchep WA
- Liberty, 2341 Albany Highway, Gosnells WA
- 7-Eleven, 931 Wanneroo Road, Wanneroo WA
- 7-Eleven, 13 Lakes Road, Greenfield WA
- Shell, 582 Stirling Highway, Mosman WA
- Puma, Cnr Johnson Street & Helena Street, Guildford WA
- United, 2 Feilman Drive, Leda WA
- United, 101 Terrier Place, Southern River WA

The daily trip rate was established using the relationship between the established two peak hour periods and the total daily trips based on the same ratio applied for the relevant *ITE 11<sup>th</sup> Edition* trip rates for 945 – *Gasoline/Service Station with Convenience Market* land use.

Accordingly, it is estimated that the development would generate approximately **926** total daily vehicular trips (both inbound and outbound) with approximately **53** and **67** trips (inbound and outbound) during a weekday morning and afternoon peak hours, respectively.

The traffic distribution detailed in **Table 1** was based on the following directional split assumptions for peak hour periods:

- Midday peak split estimated as 51%/42% for inbound/outbound trips; and,
- Late afternoon peak split estimated as 52%/48% inbound/outbound trips.

**Table 1: Peak hour trips for the development**

Peak Period	Direction	Traffic Split	Total Peak Hour Trips
AM Peak	Inbound	27	53 trips
	Outbound	26	
PM Peak	Inbound	34	67 trips
	Outbound	33	

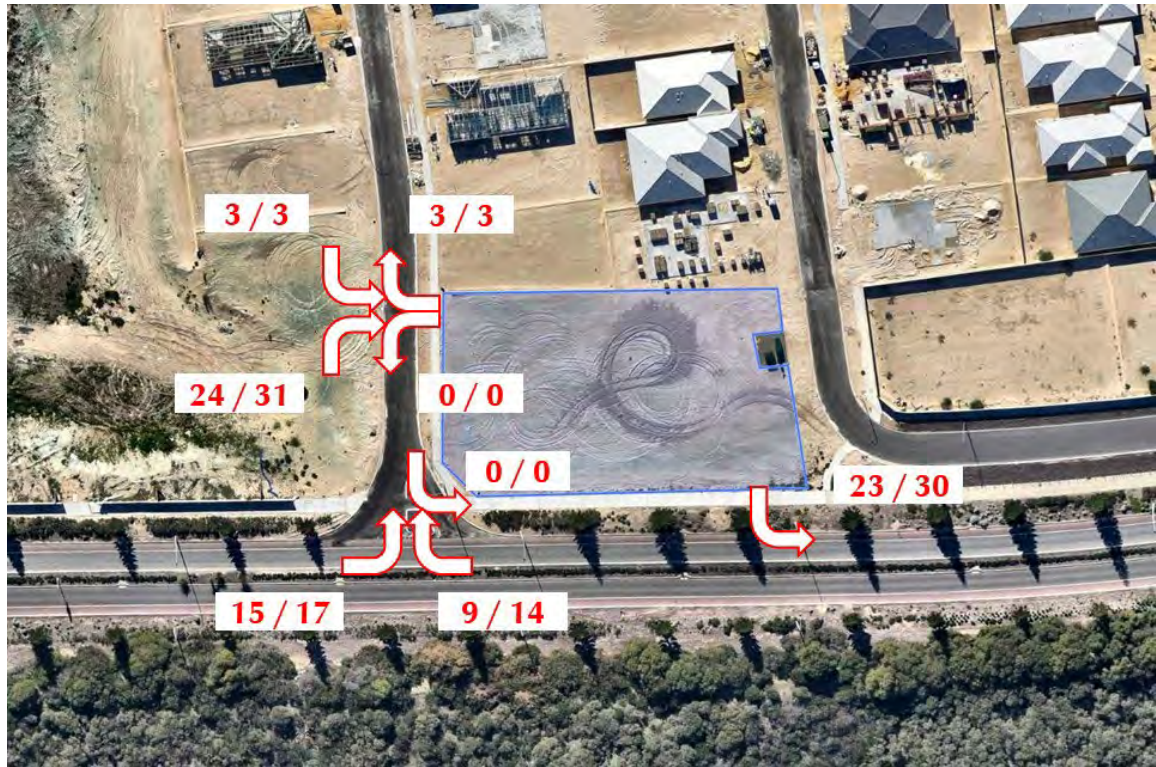
Trips associated with the proposed development also comprise a significant portion of passing-trade trips (and diverted trips) which are trips already present on the road network. Applying a passing trade factor of 65% in line with the *ITE Trip Generation Handbook* recommendations, the estimated net AM peak and PM peak hour traffic increase as a result of the proposed development is estimated to be in order of 19vph and 23vph, respectively.

## 6.2 Trip Distribution

Considering the available access and egress routes to and from the site and the mostly pass-by trade nature of the development, the anticipated directional trip distribution of the development-generated traffic is as follows:

- A total of 10% of traffic to/from the Dunraven Road north direction;
- A total of 55% of traffic to/from the Breakwater Drive west direction;
- A total of 35% of traffic to/from the Breakwater Drive east direction;

The anticipated directional distribution of development-generated trips is illustrated in **Figure 2**.



**Figure 2. Estimated traffic movements for the subject development – midday peak/evening peak trips**

It should be noted however that the assumed trip distribution accounts for further development of the residential area to the north of the site and the planned modification of the Breakwater Drive/Dunraven Road intersection from its current left-in/left-out format to a left-in/right-in/left-out format. Refer **Section 11** for more details.

### 6.3 Impact on Surrounding Roads

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

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

It is clear that the traffic increase from the proposed service station would be notably lower than the critical threshold (100vph per lane). As detailed in **Appendix C**, the

proposed development will not increase traffic on any lanes on the surrounding road network by more than 100vph, therefore the impact of the development traffic on the surrounding road network will not be significant and no further detailed assessments are warranted in accordance with WAPC guidelines.

## 7 Traffic Management on Frontage Streets

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**Breakwater Drive** (eastern extension of Lisford Avenue), at this locality, is constructed as a single-carriageway, boulevard-style road, with a shared path along the northern side. Section east of Damepattie Drive is classified as a *Regional Distributor* in the Main Roads WA *Functional Road Hierarchy* document.

Breakwater Drive is covered by an *Other Regional Road* reservation (also known as *Blue Roads*) in the Metropolitan Region Scheme with the ultimate planning authority for this road being WAPC but its care and control is vested with the Local Authority.

Breakwater Drive in the immediate vicinity of the subject site operates under a speed limit regime of 60km/h

**Dunraven Road** is a recently constructed single-carriageway, two-lane road with a 6.0m wide trafficable width. Footpath is in place on the eastern side of the road to facilitate pedestrian traffic.

According to the approved structure plan for the area, Dunraven Road is intended to be classified as an *Access Street*.

Dunraven Road is a local road under care and control of City of Wanneroo.

Breakwater Drive and Dunraven Road currently form a left-in/left-out intersection with a median strip along Breakwater Drive. However, this is proposed to change with the planned modification of the intersection to a left-in/right-in/left-out format in line with the subdivision approval (refer **Section 11**). A new right-turn pocket on Breakwater Drive will be constructed to facilitate the planned intersection modification.

### 7.1 Existing Traffic Volume on Roads

According to the latest available traffic count data sourced from Main Roads WA, Breakwater Drive (west of Wanneroo Road) carried about 1,905vpd in 2023/24. Heavy vehicles represented approximately 9.1% of the total traffic mix.

## 8 Public Transport Access

Available nearby public transport services are shown in **Figure 3**. Existing bus route No. 498 (Yanchep Train Station to Atlantis Beach Baptist College) runs along Lisford Avenue/Breakwater Drive terminating about 1km east of the site. Bus service No. 498 provides 20min service during weekday peak periods and hourly service during the rest of the day, on weekends and public holidays.

The closest pair of bus stops is located on Breakwater Drive immediately adjacent to the site. These stops are easily accessible via the existing footpath network.

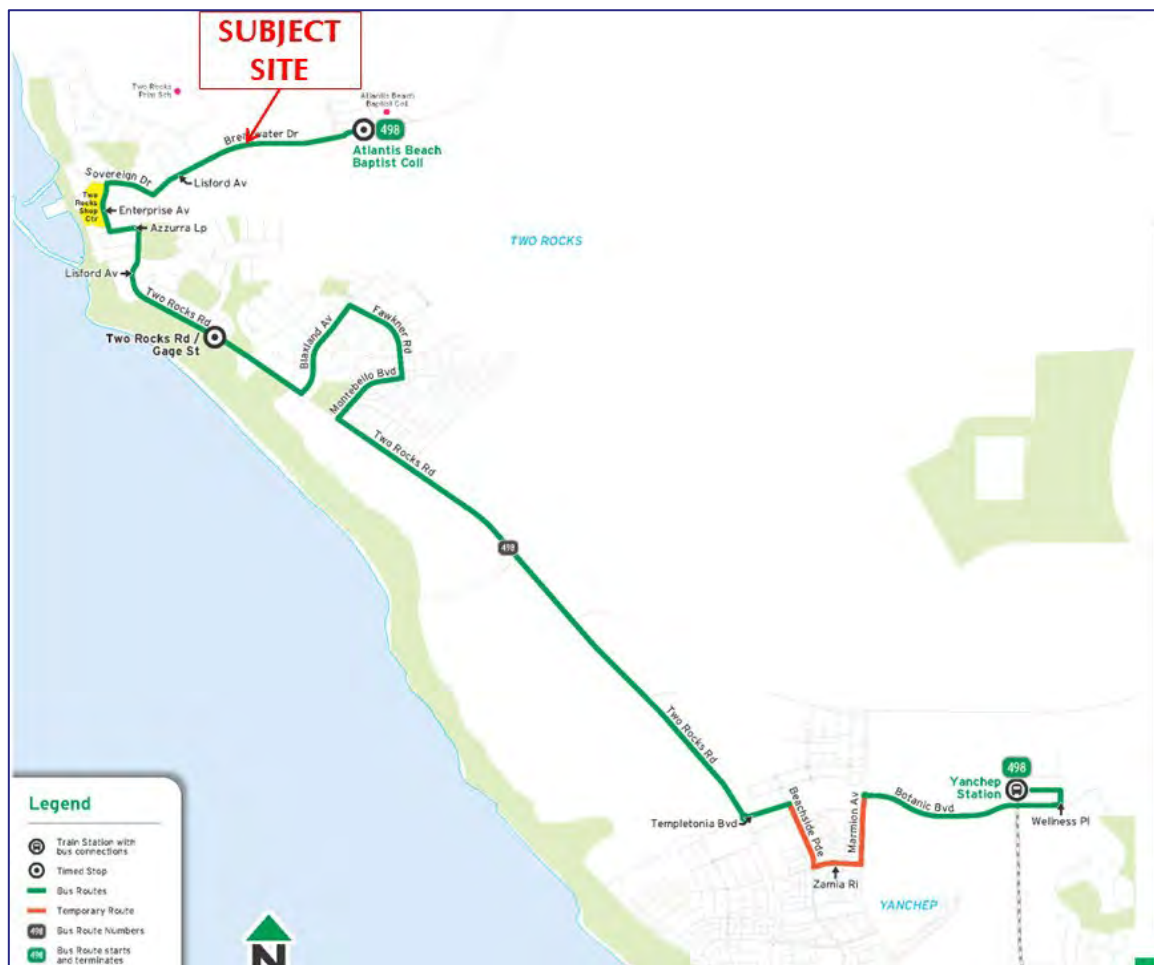


Figure 3: Existing bus services (source: TransPerth)

## 9 Pedestrian Access

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Pedestrian access to the subject site is available directly from Breakwater Drive and Dunraven Road via the existing footpaths. Marked walkways provide direct access to the convenience store from the two adjacent roads.

Pedestrian crossing opportunity on adjacent roads is available at Breakwater Drive/Dunraven Road intersection immediately adjacent to the site.

# 10 Cyclist Access

The subject site has direct cycle access to the local bike path network via the existing shared path which is in place along the northern side of Breakwater Drive, which connects to a system of roads classified as “good road riding environment” in the locality. Breakwater Drive also features on-street bike lanes.

For more details, refer Perth’s Bicycle Network map illustrated in **Figure 4**.



**Figure 4: Extract from Perth Bicycle Network (Department of Transport)**

# 11 Site Specific Issues

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The existing Breakwater Drive/Dunraven Road intersection is proposed to be modified from its current left-in/left-out format to a left-in/right-in/left-out format, in line with the most recent subdivision approval from 30 October 2024 (WAPC ref: 200603) including the Letter of Correction from 4 November 2024 and the deposited plan for Lot 9024 Breakwater Drive Two Rocks (refer **Appendix C**).

A new right-turn pocket on Breakwater Drive will be constructed at the existing intersection to facilitate the planned modification. The proposed development left-out only crossover on Breakwater Drive is also in line with the 2020 approved subdivision.

Accordingly, the proposed development plan reflects the ultimate Breakwater Drive/Dunraven Road intersection layout including the approved Breakwater Drive left-out only crossover.

## 12 Safety Issues

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The service station site layout was designed to provide stacking capacity area to the west of the canopy for site patrons during periods of higher than typical peak weekday business activity, such as cheap fuel days.

The proposed service station accommodates six petrol-filling positions which is generally considered to be a smaller size operation. Hence, the proposed development is not expected to generate significant amount of trade or cause excessive queueing at the fuel canopy.

The site layout and centrally positioned fuel canopy provide a significant stacking space between the bowsers and the site crossover, capable of accommodating up to 14 or more vehicles (minimum of two vehicles behind each fuel filling position).

Even if such unlikely stacking scenario occurs customers have sufficient space available on either side of the canopy to bypass the queue and temporary park in the on-site parking bays until fuel filling position is vacated.

Accordingly, it is expected that site will continue to operate efficiently and safely even during periods of higher than average peak activity periods.

No other specific safety issues have been identified for the proposed development.

## 13 Conclusions

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This Transport Impact Statement (TIS) has been prepared by Transcore on behalf of Tomahawk Two Rocks Pty Ltd with regard to a proposed 7-Eleven service station and convenience store to be located at Lot 9024 Breakwater Drive, Two Rocks in the City of Wanneroo.

The subject site is located at the northeast corner of the existing Breakwater Drive/Dunraven Road intersection and is currently vacant.

The development proposal contemplates construction of a new 7-Eleven service station with six petrol-filling positions and associated convenience store with on-site parking.

The proposed service station will be served by the two-point crossover system, which comprises a full-movement crossover on Dunraven Road and a left-out only crossover on Breakwater Drive. The proposed left-out only crossover on Breakwater Drive is in line with the approved subdivision. Also, as part of the proposed development and in line with the same subdivision approval, it is proposed to upgrade the existing left-in/left-out intersection of Breakwater Drive and Dunraven Road to facilitate additional right-in movements from Breakwater Drive.

It is estimated that the proposed development would generate **926** total daily vehicular trips (both inbound and outbound) with approximately **53** and **67** trips (inbound and outbound) during a weekday morning and afternoon peak hours, respectively.

Allowing for a significant portion of passing-trade trips generated by service stations, the estimated net AM peak and PM peak hour traffic increase is estimated to be in order of 19vph and 23vpd, respectively.

Thus, the traffic generation of the proposed development is relatively low and therefore the impact of proposed development on the surrounding road network will not be significant.

Deliveries and waste collection activities will be accommodated from within the site. It is proposed that servicing be conducted outside of the peak operating hours of the proposed service station. Turn path analysis undertaken for 8.8m and 12.0m MRV and HRV service vehicles including 17.0m tankers shows satisfactory access, egress, and circulation within the site.

The site features good coverage by the existing pedestrian and bike path network with convenient access to the public transport services.

It is concluded that the findings of this Transport Impact Statement are supportive of the proposed development.

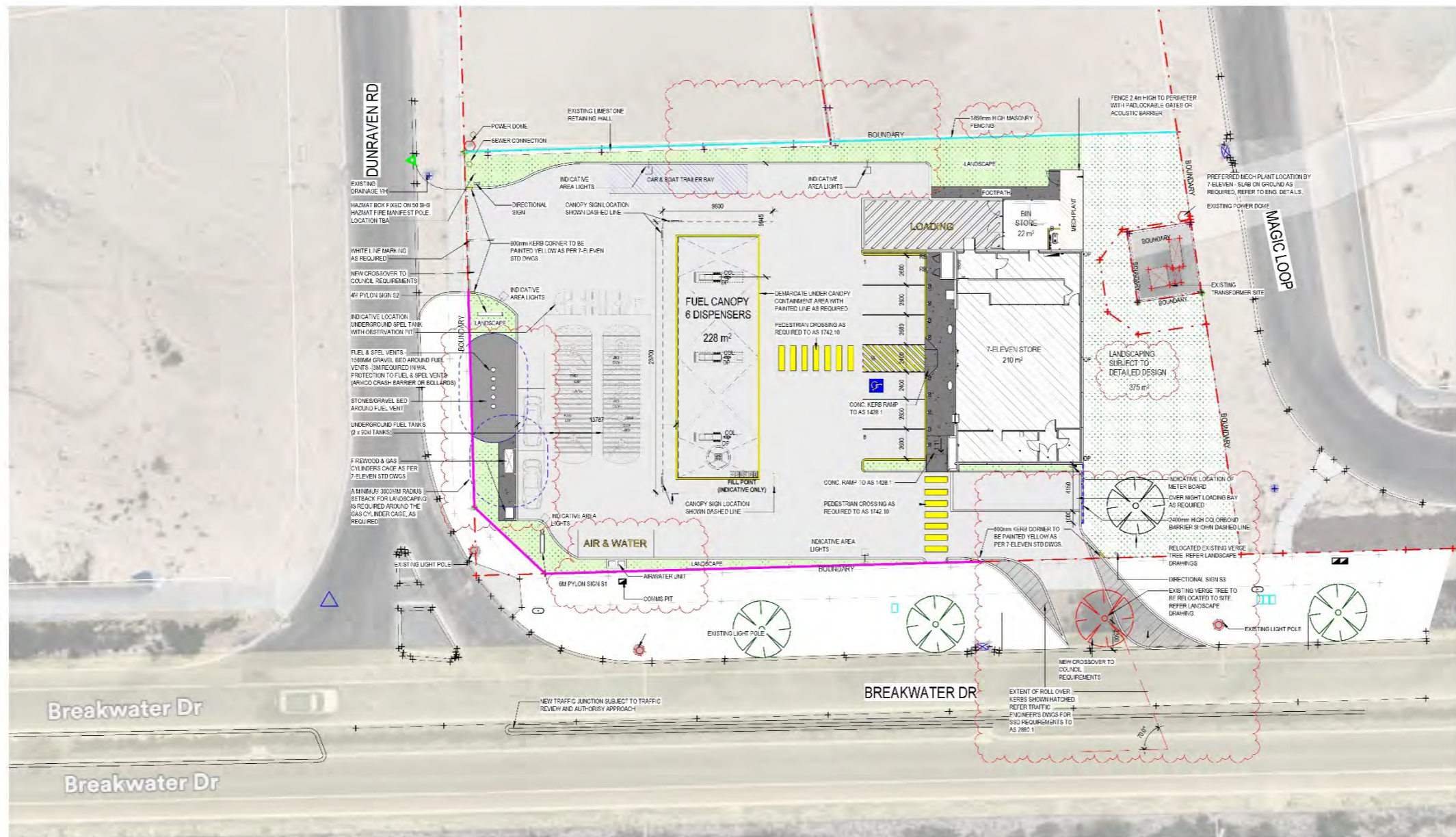
# Appendix A

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## PROPOSED DEVELOPMENT PLAN



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- ### GENERAL NOTES
1. THE CONTRACTOR SHALL VISIT THE SITE BEFORE TENDERING & ALLOW FOR ALL EXISTING CONDITIONS OR AND ADJACENT TO THE SITE.
  2. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS & LEVELS ON SITE BEFORE THE COMMENCEMENT OF ANY WORKS.
  3. ALL DIMENSIONS IN MILLIMETERS UNLESS ALL DIMENSIONS ARE TO BE CHECKED ON SITE BEFORE THE COMMENCEMENT OF ANY WORKS.
  4. REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING.
  5. ALL DRAWINGS TO BE READ IN CONJUNCTION WITH ALL CONSULTANT DRAWINGS.
  6. DO NOT SCALE FROM DRAWINGS.
  7. REVISIONS NOT LIMITED TO REVISION CLOUDS.
  8. FIXTURES & FITTINGS AS SPEC'ED - REFER TO SPEC. DOCUMENTS.
  9. REFER TO MATERIALS, FINISHES & COLOUR SCHEDULE AND SPEC. DOCUMENT FOR EQUIPMENT AND FINISHES SELECTIONS.
  10. ALL WORKS TO COMPLY WITH THE NCC & AUSTRALIAN STANDARDS.
  11. ALL MATERIALS TO COMPLY WITH THE NCC (INCLUDING BUT NOT EXCLUDE C1 10) & AS SUPPLY & INSTALLATION IN STRICT ACCORDANCE WITH MANUFACTURER REQUIREMENTS.
  12. ALL FINISHES TO COMPLY WITH NCC C1 10.
  13. ROOF INSULATION TO COMPLY WITH NCC C1 10.
  14. ROOF ACCESS & SAFETY SYSTEM BY DESIGN & CONSTRUCTION SPECIALIST CONTRACTORS.
  15. ALL ROOFING TO BE INSTALLED WITH ROOF SAFETY MESH BELOW.
  16. ALL BOX GUTTERS, SUMPS, DOWNPIPES & OVERFLOW TO NCC & AC STDS.
  17. INSTALL ADDITIONAL MOOSINGS/COMPLY BACKING BOARDS TO SUPPORT FIXTURES & FITTINGS.
  18. WATERPROOFING MEMBRANES MUST COMPLY WITH AS 4854 PARTS 1 & 2.

PRELIMINARY ONLY  
 PLAN SUBJECT TO PLANNING, TRAFFIC, ACOUSTIC, SURVEY AND SPECIALIST ASSESSMENT.

- ### LEGEND
- BOUNDARY LINE
  - NO VEHICLE ACCESS PERMITTED
  - 2000mm HIGH BARRIER
  - EXISTING RETAINING WALL
  - 2100mm HIGH MASONRY FENCING
  - EXISTING LIGHT POLE
  - EXISTING PILLAR
  - BOLLARD - AS PER 7-ELEVEN STD. DWGS.
  - REMOVABLE BOLLARD - AS PER 7-ELEVEN STD. DWGS.
  - DOWNPIPE AS PER 7-ELEVEN STD. DWGS.
  - COL. CANOPY COLUMN TO STRUCTURAL ENG. DWGS.

1 7-ELEVEN - SITE PLAN  
 1:200



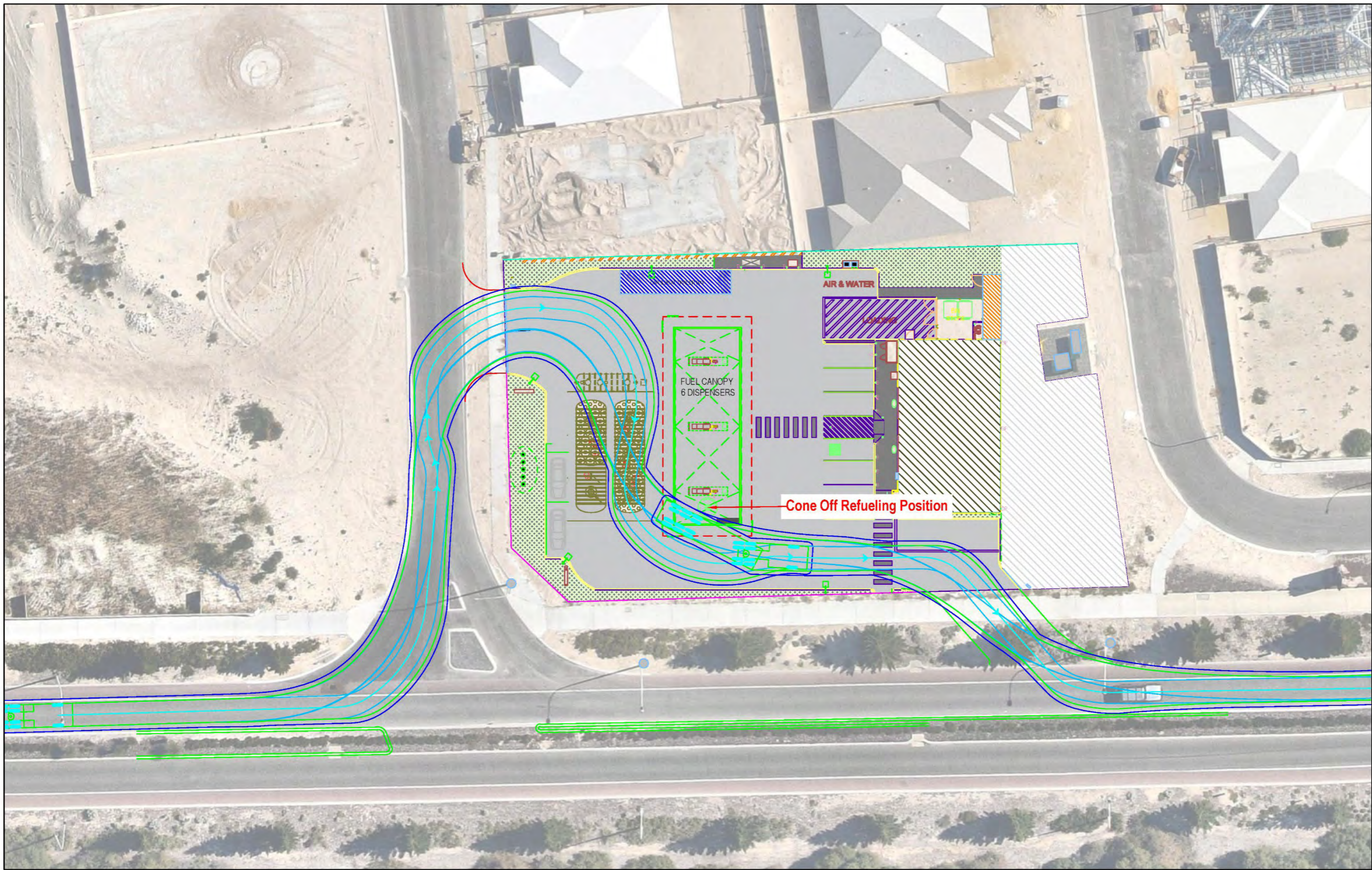
# Appendix B

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## TURN PATH PLANS



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**7-Eleven Two Rocks**

MRWA: 19.0m Fuel Tanker (15m Turn Radius)  
 Fuel Tanker Circulation

**LEGEND**

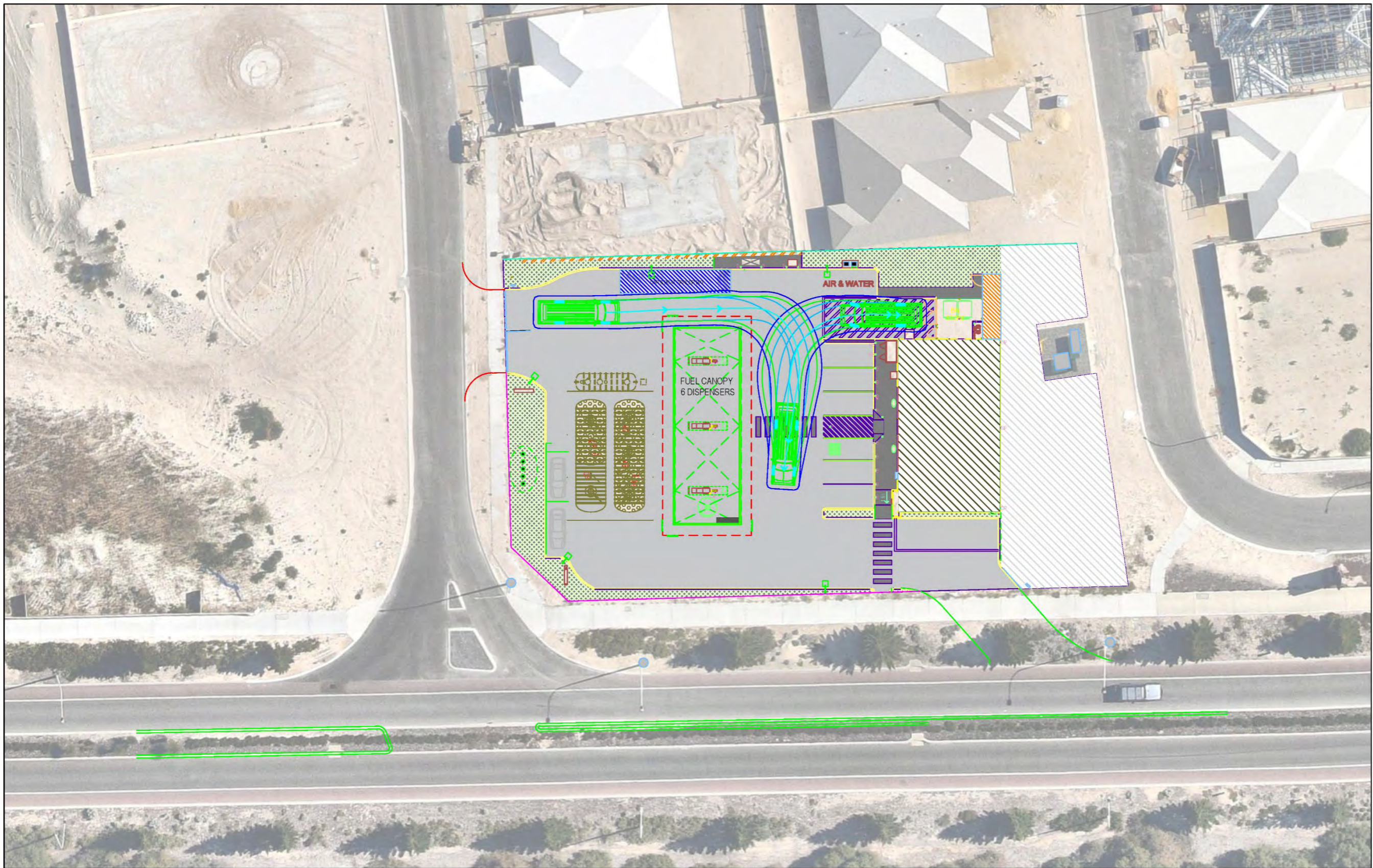
- Vehicle Body
- Wheel Path
- 500mm Clearance

t24.158.sk08

09/12/2024

Scale: 1:400 @ A3





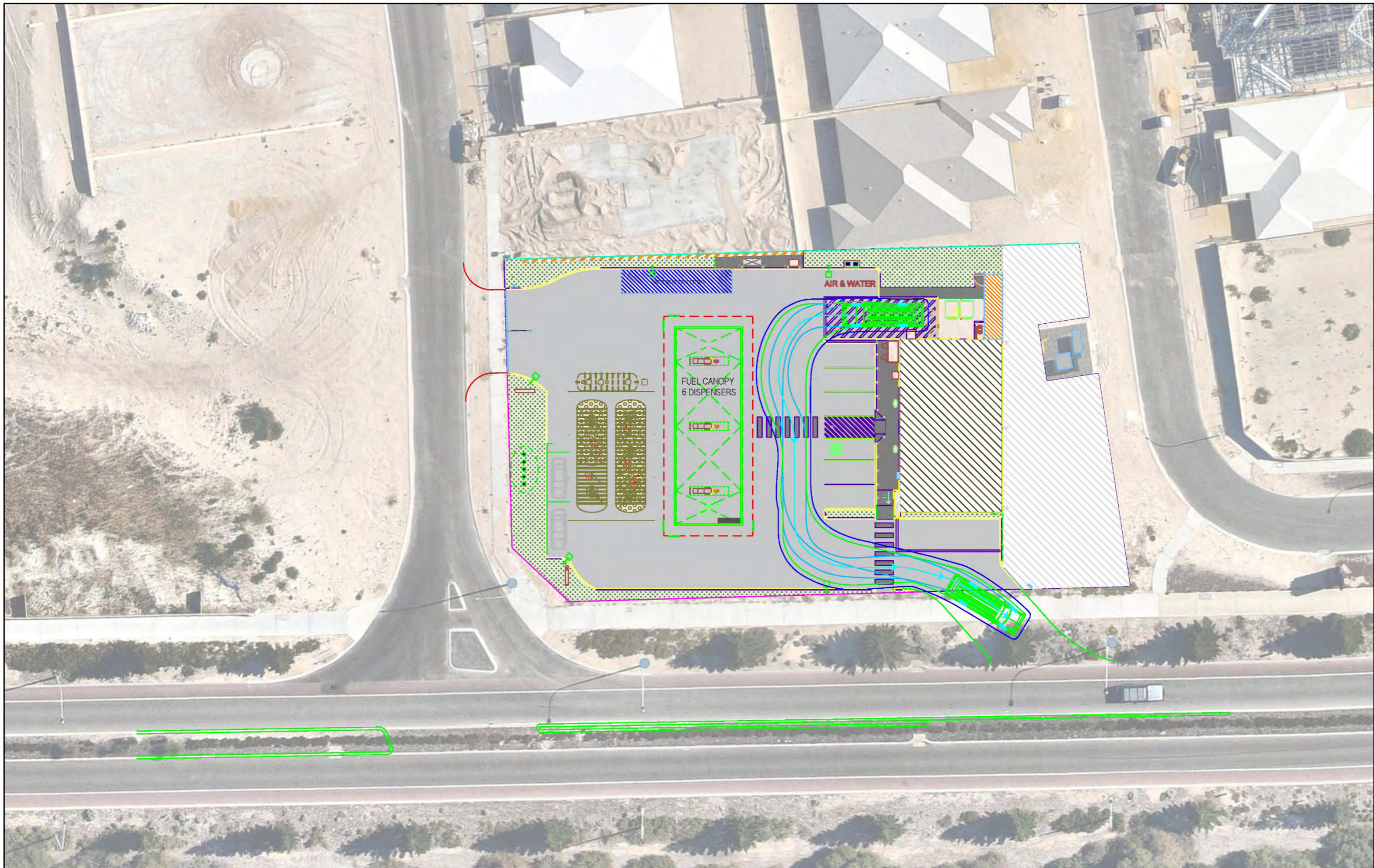
7-Eleven Two Rocks  
 Austroads 2023: 8.8m Service Vehicle  
 Loading Bay Entry

**LEGEND**  
 Vehicle Body  
 Wheel Path  
 500mm Clearance



t24.158.sk09  
 09/12/2024  
 Scale: 1:400 @ A3





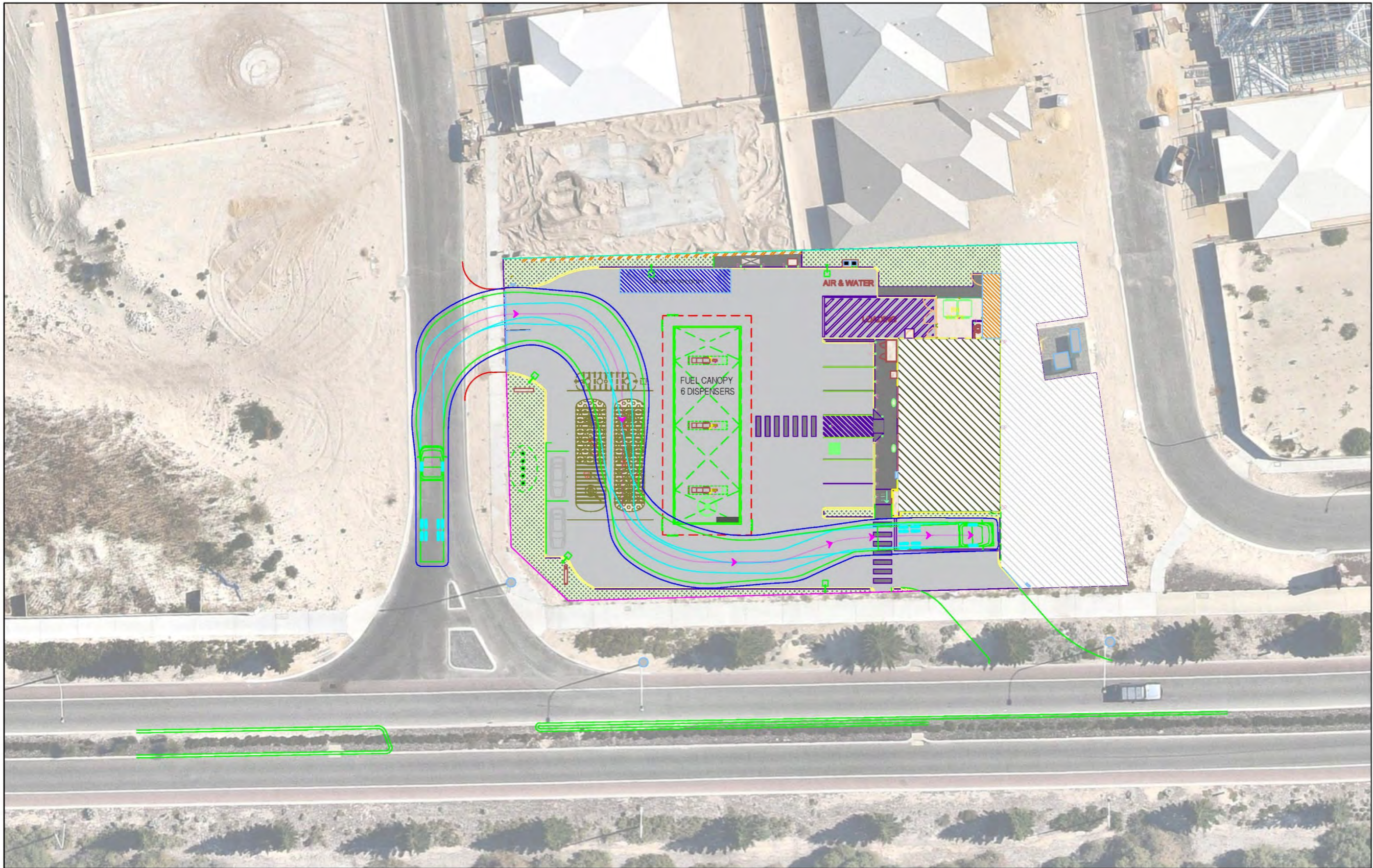
7-Eleven Two Rocks  
 Austroads 2023: 8.8m Service Vehicle  
 Loading Bay Exit

**LEGEND**  
 Vehicle Body  
 Wheel Path  
 500mm Clearance



t24.158.sk10  
 09/12/2024  
 Scale: 1:400 @ A3





**7-Eleven Two Rocks**

Austrroads 2023: 12.5m Service Vehicle  
 Over Night Loading Bay Forward Gear Entry

**LEGEND**

Vehicle Body  
 Wheel Path  
 500mm Clearance

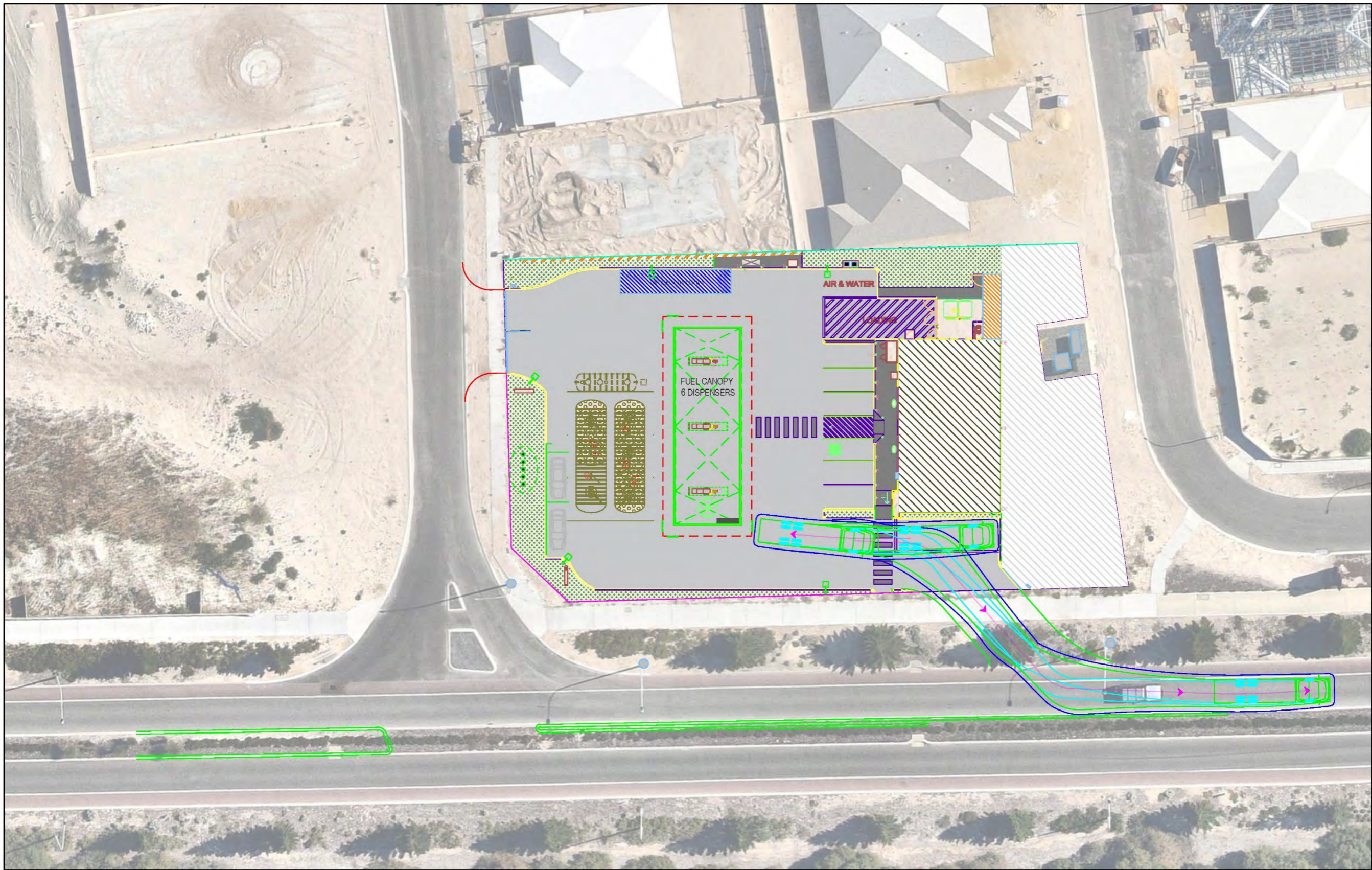


t24.158.sk11a

11/12/2024

Scale: 1:400 @ A3





**7-Eleven Two Rocks**

Austrroads 2023: 8.8m Service Vehicle  
 Over Night Loading Bay Reverse Gear Exit

**LEGEND**

- Vehicle Body
- Wheel Path
- 500mm Clearance

t24.158.sk12a

11/12/2024

Scale: 1:400 @ A3



# Appendix C

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## SUBDIVISION PLAN

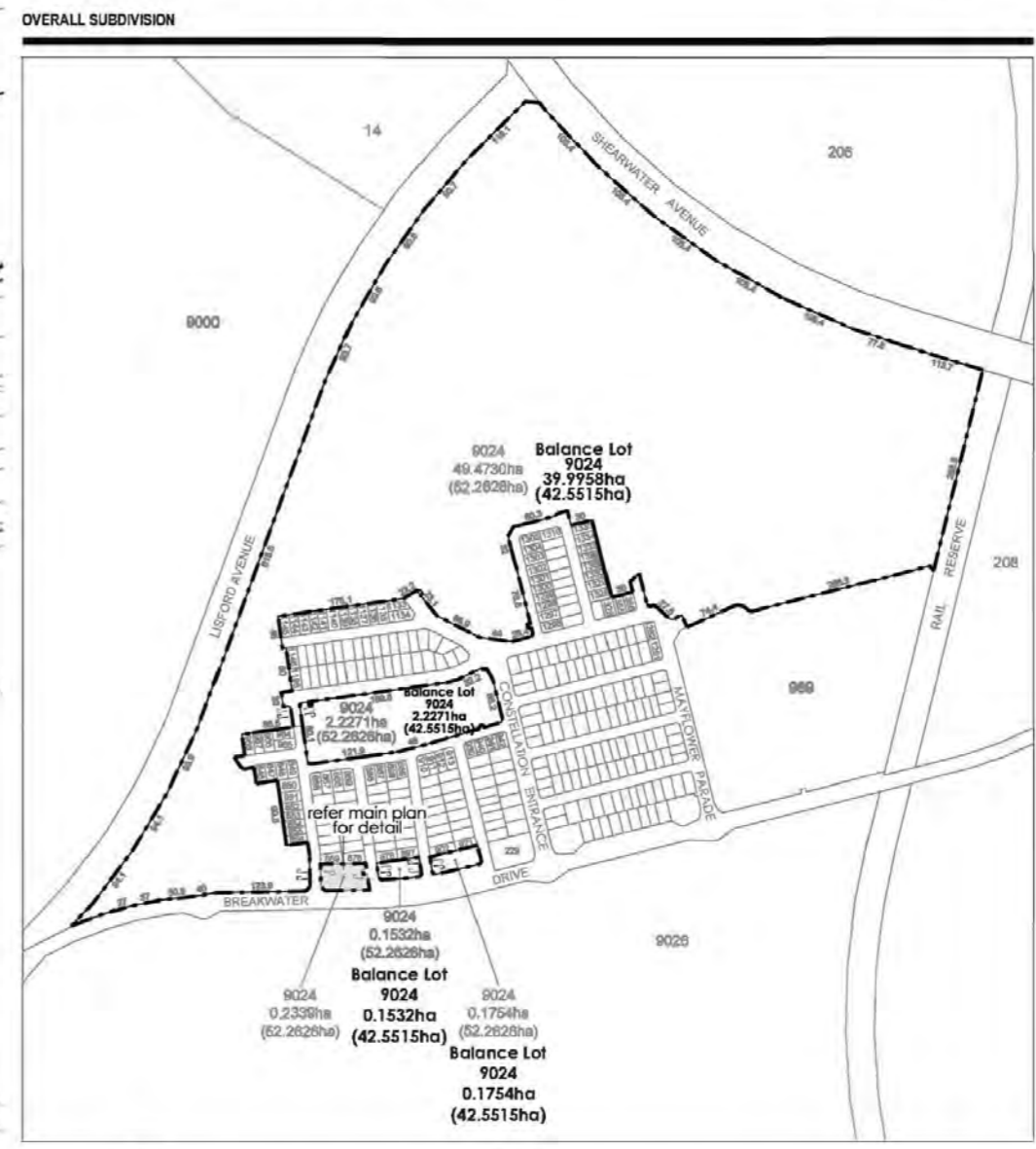
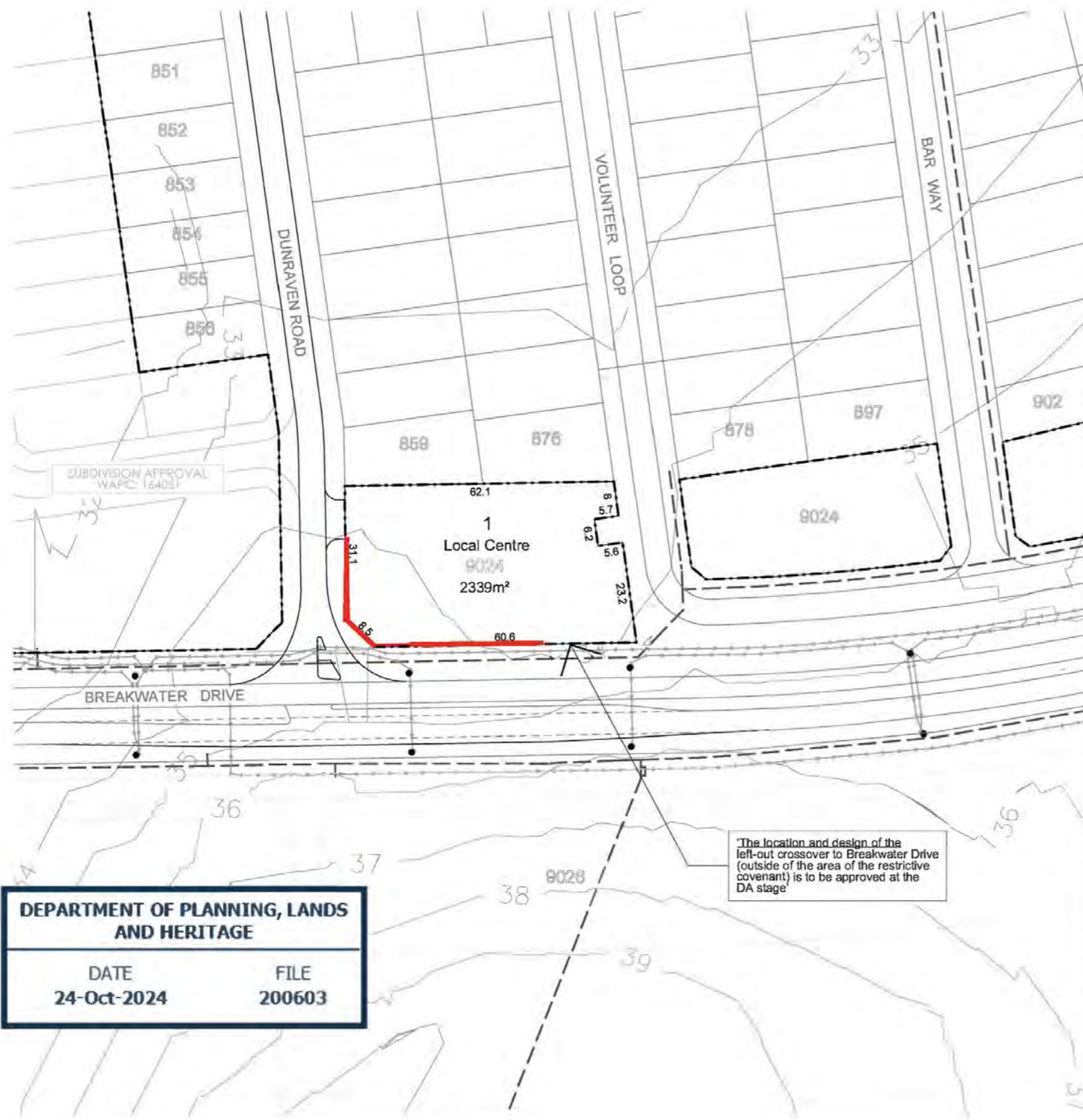


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# Attachment A

**LEGEND**

- TOTAL APPLICATION AREA (52.2626ha)
- SERVICES
  - WATER PIPE
  - SEWER CONNECTION
  - GRAVITY PIPE
- ELECTRICAL UNDERGROUND DISTRIBUTION LINE
  - DISTRIBUTION POLE / STREETLIGHT
  - ELECTRICAL PILLAR



The location and design of the left-out crossover to Breakwater Drive (outside of the area of the restrictive covenant) is to be approved at the DA stage.

**DEPARTMENT OF PLANNING, LANDS AND HERITAGE**

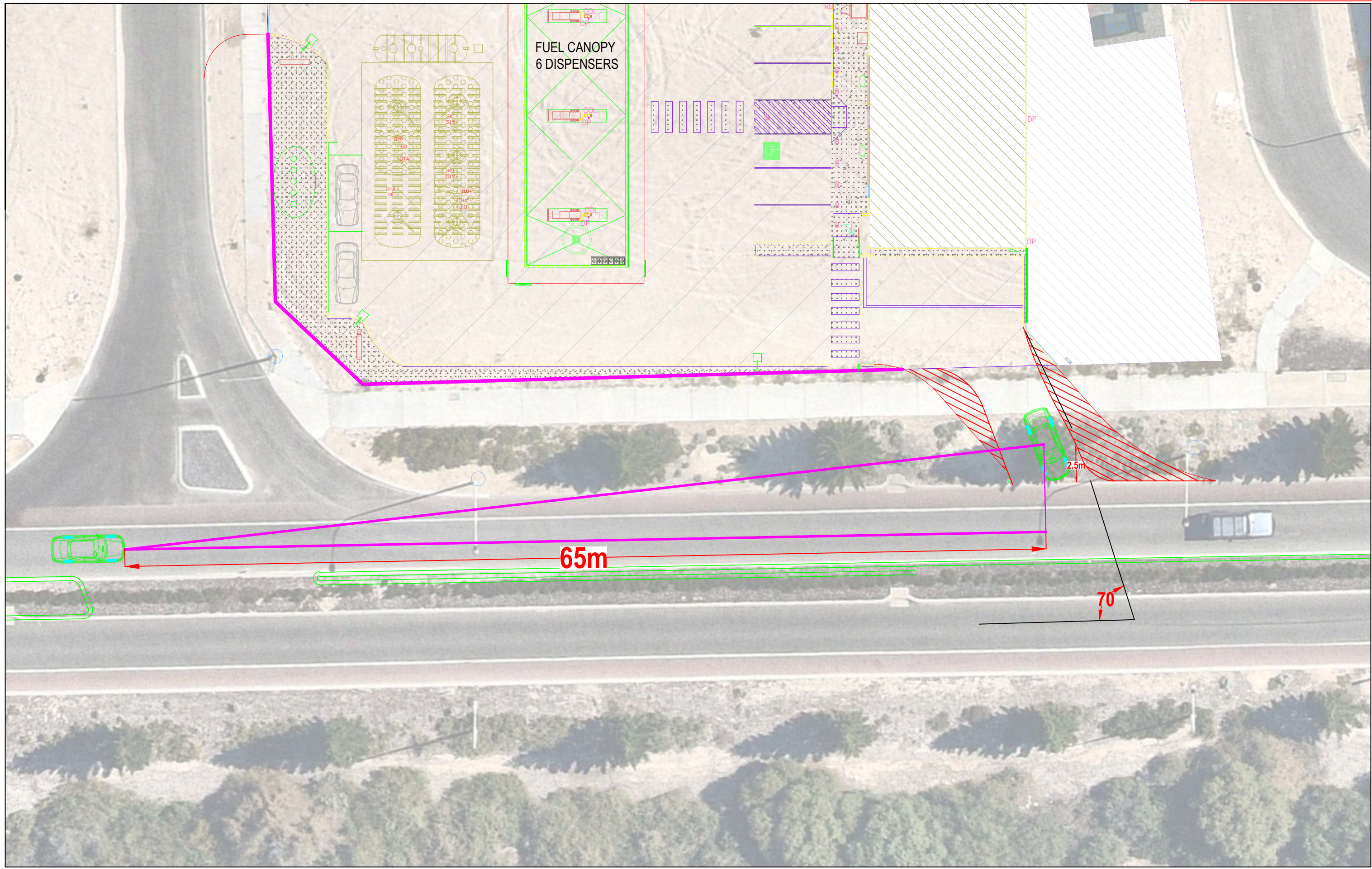
DATE	FILE
24-Oct-2024	200603

**Plan of Subdivision - Freehold**  
 LOT 9024 BREAKWATER DRIVE, TWO ROCKS  
 A Capricorn Village Joint Venture Project

plan:	07A032/155D	date:	22/10/2024	designed:	ME	Taylor Burrell Barnett Town Planning & Design Level 7, 160 St Georges Terrace, Perth WA 6000 e: admin@tbbplanning.com.au p: (08) 9226 4276
scale:	1:1000@A3   1:500@A1	grid:	PCG 94	checked:	ME	
		aerial:	n/a	drawn:	BR	



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7-Eleven Two Rocks  
AS 2890.1 : SSD Requirement for 60km/h (65m)

t24.158.sk14  
13/03/2025  
Scale: 1:250 @ A3

