Metro Outer Development Assessment Panel Agenda

Meeting Date and Time: Wednesday, 18 September 2024; 9:30am
Meeting Number: MODAP/37
Meeting Venue: 140 William Street, Perth

A live stream will be available at the time of the meeting, via the following link:
MODAP/37 – 18 September 2024 – City of Gosnells

PART A – INTRODUCTION

1. Opening of Meeting, Welcome and Acknowledgement
2. Apologies
3. Members on Leave of Absence
4. Noting of Minutes

PART B – CITY OF GOSNELLS

1. Declarations of Due Consideration
2. Disclosure of Interests
3. Form 1 DAP Applications
   - 3.1 Lot 8, 1510 Albany Highway, Beckenham – Service Station Convenience Store and Signage – DAP/24/02696
4. Form 2 DAP Applications
5. Section 31 SAT Reconsiderations

PART C – OTHER BUSINESS

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

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

ATTENDANCE

DAP Members

Eugene Koltasz (Presiding Member)
Jacky Jurmann (Deputy Presiding Member)
Lindsay Baxter (Specialist Member)
Cr Caren Baayens (Local Government DAP Member, City of Gosnells)
Cr Aaron Adams (Local Government DAP Member, City of Gosnells)

Minute Secretary

Claire Ortlepp (DAP Secretariat)

Officers in Attendance

Ashlee Kelly (DAP Secretariat)

PART A – INTRODUCTION

1. Opening of Meeting, Welcome and Acknowledgement

The Presiding Member declares the meeting open and acknowledges the traditional owners and pay respects to Elders past and present of the land on which the meeting is being held.

This meeting is being recorded and livestreamed on the DAP website in accordance with regulation 40(2A) of the *Planning and Development (Development Assessment Panels) Regulations 2011*. Members are reminded to announce their name and title prior to speaking.

2. Apologies

Nil.

3. Members on Leave of Absence

Nil.

4. Noting of Minutes

Signed minutes of previous meetings are available on the DAP website.

PART B – CITY OF GOSNELLS

1. Declarations of Due Consideration

Any member who is not familiar with the substance of any report or other information provided for consideration at the DAP meeting must declare that fact before the meeting considers the matter.

2. Disclosure of Interests

Nil.

3. Form 1 DAP Applications

3.1 Lot 8, 1510 Albany Highway, Beckenham – Service Station Convenience Store and Signage – DAP/24/02696

4. Form 2 DAP Applications

Nil.

5. Section 31 SAT Reconsiderations

Nil.

Part B – Item 3.1 – LOT 8, 1510 Albany Highway, BECKENHAM – Service Station, Convenience Store and Signage

Form 1 – Responsible Authority Report
(Regulation 12)

DAP Name:	Metro Outer DAP
Local Government Area:	City of Gosnells
Applicant:	Planning Solutions (Aust) Pty Ltd
Owner:	Astrametro Pty Ltd
Value of Development:	$2,000,000.00 ☐ Mandatory (Regulation 5) ☒ Opt In (Regulation 6)
Responsible Authority:	City of Gosnells
Authorising Officer:	Brenton Scambler (Manager Development Services)
LG Reference:	DA24/00216
DAP File No:	DAP/24/02696
Application Received Date:	1 May 2024
Report Due Date:	19 July 2024
Application Statutory Process Timeframe:	90 Days
Attachment(s):	1. Location Plan 2. Development Plans 3. Traffic Impact Assessment 4. Main Roads WA Comments

Responsible Authority Recommendation

That the Metro Outer Development Assessment Panel resolves to:

> **Approve** DAP Application reference DAP/24/02696 and accompanying plans (Proposed Demolition Plan (DWG DA10 - Rev A), Proposed Site Plan (DWG DA01 - Rev B), Proposed Floor Plan (DWG DA02 - Rev A), Proposed Elevations (DWG DA03 - Rev A), Proposed Elevations (DWG DA04 - Rev A), Proposed Elevations (DWG DA05 - Rev B), Proposed Building/Canopy & Pylon Signage (DWG DA09 - Rev B), Proposed Perspectives (DWG DA06 – Rev B), Proposed Perspectives (DWG DA07 – Rev B), Proposed Landscaping Plan (DWG DA08 – Rev B) in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015*, and the provisions of Town Planning Scheme No. 6, subject to the following conditions:

Conditions:

1. This decision constitutes planning approval only and is valid for a period of four 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. Pursuant to clause 26 of the Metropolitan Region Scheme, this approval is deemed to be an approval under clause 24(1) of the Metropolitan Region Scheme.

3. Prior to applying for a Building Permit, the proponent shall submit to the City of Gosnells for approval a preliminary proposal for an art work at a cost of 1% of the total project cost (to a maximum of $250,000), to be to be located within the subject site as an integral part of the development. Alternatively, prior to applying for a Building Permit, the owner/applicant shall make a cash contribution towards public art in lieu of the above.

   Prior to commencement of development, the proponent shall submit to the City of Gosnells for approval an 'Application for Art Work Design' and the proponent is to enter into a contract with a professional artist/s to design and install (if appropriate) the art work approved by the City of Gosnells. Prior to occupation of the development, the art work shall be installed and maintained thereafter to the satisfaction of the City of Gosnells.

4. Prior to applying for a Building Permit, a Landscape Plan for the development site and the adjoining road verge(s) is to be submitted and approved by the City of Gosnells. The following details are to be included in:

   i) Existing street trees and vegetation to be retained on the site;

   ii) Landscape treatments such as lawn, mulch areas, paving and bin collection areas;

   iii) The location, species, quantity and pot sizes of proposed trees and shrubs; and

   iv) Areas to be irrigated.

5. Prior to applying for a Building Permit, the applicant shall submit, have approved, and thereafter implement, a drainage plan, to the satisfaction of the City of Gosnells, showing how stormwater drainage from the proposed building and/or paved areas is to be connected to the existing drainage system.

   The drainage plan must show:
   i. gully and manhole locations;
   ii. pipe sizes,
   iii. locations and falls;
   iv. all invert levels; falls to paved areas;
   v. on-site stormwater compensating devices;
   vi. proposed connections to the City's system;
   vii. soakwells (if any);
   viii. buildings (including floor levels);

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ix. carparks (including pavement levels); and
x. fill (proposed levels).

6. The development must be designed, and all works must be carried out in accordance with the Traffic Impact Assessment prepared by Transcore dated 24 July 2024, to the satisfaction of the City of Gosnells.

7. Prior to the occupation of the development, an easement, in accordance with Section 195 and 196 of the Land Administration Act 1997, is to be placed on the certificate of title specifying public and vehicular access rights between Lot 8 Albany Highway and Lot 9 William Street.

8. Prior to the occupation of the development, the existing median on WilliamStreet is to be extended as far as practical to prohibit right in and right outmovements to/from the site, without preventing right in access to adjoining Lot 9 (No. 8) William Street, Beckenham to the satisfaction of the City of Gosnells on advice from Main Roads WA.

9. Prior to the commencement of development, a Road Safety Audit for the development shall be undertaken by a suitably qualified traffic consultant and submitted to the City of Gosnells for approval. Any recommended corrective actions of the audit shall be implemented prior to the occupationof development to the satisfaction of the City of Gosnells on advice from Main Roads WA.

10. Prior to the occupation of the development, the landscaping and irrigationof the development site and the adjoining verges is to be installed in accordance with an approved landscape plan and thereafter maintained tothe satisfaction of the City of Gosnells.

11. Prior to occupation of the development, all crossovers are to be located and constructed to the City of Gosnells specifications.

12. Prior to occupation of the development, vehicle parking, manoeuvring and circulation areas shall be designed, constructed, sealed, drained, line- marked and kerbed in accordance with:

    i) The approved plan(s);

    ii) Australian/New Zealand Standards AS/NZS 2890.01:2004, Parking facilities, Part 1: Off-street car parking;

    iii) Australian/New Zealand Standards AS/NZS 2890.6:2009, Parking facilities, Part 6: Off-street parking for people with disabilities;

    iv) Australian Standard AS 1428.1-2009, Design for access and mobility, Part 1: General Requirements for access- New building work; and

    v) The City's parking design requirements.

13. Stormwater discharge shall not be discharged into the Albany Highway Road Reservation.

14. No earthworks shall encroach onto the Albany Highway Road Reservation.

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15. Signage:
    i. Illumination must not exceed 300cd/m^2 between the hours ofsunset and sunrise;
    ii. Must not flash, pulsate or chase;
    iii. Shall not contain fluorescent, reflective or retro-reflective colours or materials.

Advice Notes

1. The applicant is advised of the need to apply for a Building Permit prior to the commencement of work.

   A demolition permit may be required to be obtained from the localgovernment prior to the commencement of demolition works.

2. The applicant is advised that with regard to food preparation, the applicant is required to submit appropriate forms to the City in accordance with the Food Act 2008 and shall design and construct the food premises in accordance with Standard 3.2.3 of the Australia New Zealand Food Standards Code.

3. The applicant is advised that prior to applying for a Building Permit, the applicable trade waste permits must be obtained from the Water Corporation for disposal of all trade waste produced onsite.

4. The applicant is advised that no contaminated stormwater is permitted to enter the stormwater drains.

5. The applicant is advised that all fuels, oils and other liquids shall be appropriately stored within a bunded and covered area capable of trapping all wastes.

6. The applicant is advised of to the following to minimise the impact of development works:

   i) All development works must be carried out in accordance with Control of Noise Practices set out in section 6 of AS2436-1981. For further detail please contact the Department of Water and Environmental Regulation.

   ii) Development works shall only be permitted between 0700 hours and 1900 hours on any day which is not a Sunday or public holiday, without the written approval of the City.

   iii) Development work shall comply in all respects with the Environmental Protection (Noise) Regulations 1997.

7. No works are permitted within the Albany Highway Road Reservation unless Main Roads has issued a Working on Roads Permit.

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8. The applicant is required to submit an Application form to undertake workswithin the road reserve prior to undertaking any works within the road reserve. Application forms and supporting information about the procedure can be found on the Main Roads website > Technical & Commercial > Working on Roads.

Details: outline of development application

Region Scheme	Metropolitan Region Scheme
Region Scheme - Zone/Reserve	Urban
Local Planning Scheme	City of Gosnells Town Planning Scheme No. 6 (TPS 6)
Local Planning Scheme - Zone/Reserve	Light Industry
Structure Plan/Precinct Plan	N/A
Structure Plan/Precinct Plan - Land Use Designation	N/A
Use Class and permissibility:	Convenience Store "D" Service Station "D"
Lot Size:	4,013.8m²
Existing Land Use:	Industry – Light – Coates Hire
State Heritage Register	No
Local Heritage	☒ N/A ☐ Heritage List ☐ Heritage Area
Design Review	☒ N/A ☐ Local Design Review Panel ☐ State Design Review Panel ☐ Other
Bushfire Prone Area	No
Swan River Trust Area	No

Proposal:

The application proposes the construction of a Service Station / Convenience Store and associated Signage. The application involves the following:

- The retail sale of fuel and convenience goods, operating on 24 hours per day, seven days per week.
- The construction of a 152m^2 single storey building with a nil setback to the southeast side boundary and 6m setback to Albany Highway.
- The provision of 24 car parking bays, comprising eight parking bays for customers and staff and 16 refuelling bays.
- The provision of a 5.5m high canopy consisting of eight fuel bowers and 16 refuelling bays.
- The provision of signage associated with the business, including an 8m high monolith sign.
- Retention of the existing left in/left out crossover to Albany Highway.

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- Modification of the existing 7.4m wide crossover to William Street to increase to 9m wide.

Background:

Previous Approvals

In 1980, a development approval for a showroom was issued on the subject site with no further development being undertaken. Since the initial approval the site was used continually as an equipment hire business which ceased operating in early 2024.

Site Context

The subject site is located on the corner of William Street and Albany Highway. A portion of Albany Highway at the intersection of Kenwick Link / William Street is designated as a Primary Regional Road under the MRS. The remaining section of Albany Highway abutting the site is under Main Roads WA (MRWA) control, but not currently reserved under the MRS.

The site is zoned Urban under the MRS and Light Industry under TPS 6. A plan showing the location of the site is contained in Attachment 1.

Site Description

The subject site accommodates showrooms/warehouse associated with the previous use. All buildings address William Street.

It is noted that all structures are to be demolished and the northwest portion of the site is subject to a future development application.

Legislation and Policy:

Legislation

- *Planning and Development Act 2005*
- *Planning and Development (Local Planning Schemes) Regulations 2015.*
- Metropolitan Region Scheme
- Town Planning Scheme No. 6

Local Policies

- Local Planning Policy 4.9 - Signage

Consultation:

Public Consultation

The proposal was not required to be advertised for public comment.

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Referrals/consultation with Government/Service Agencies

The application was referred to Main Roads Western Australia (MRWA) for comment as the site abuts a portion of Albany Highway which is under MRWA control. MRWA has no objection to the proposal, subject to the inclusion of conditions relating to proposed crossover modifications and vehicle access.

Planning Assessment:

Town Planning Scheme No. 6

Land Use Permissibility

The subject site is zoned Light Industry under TPS 6. In accordance with TPS 6, a Service Station and Convenience Store are "D" uses in the Light Industry zone, meaning it is not permitted unless the local government has exercised its discretion by granting development approval.

Car Parking

The following table details TPS 6 parking provisions for the site.

Use Class	**TPS 6 Parking Standards**	**TPS 6 Car Parking Requirements**	**Car Parking Bays Provided**
Convenience Store	1 space for every 15m² net lettable area, plus Service Station requirements	152m²/15m² = 10.13 Round up to 11 car bays	
Service Station	4 spaces for every working bay, plus 1 space for every person employed on site	No working bays Maximum of 2 staff = 2 car bays	
Total		13 bays required	A total of 8 bays have been provided on site.

The proposal results in a shortfall of 5 parking bays when assessed against the parking requirements of TPS6. In this regard, it is noted that the fuel bowsers accommodate the parking of 16 cars that are not included in the car parking calculation. If the fuel bowser parking is included, the development provides 24 parking bays and results in a practical surplus of 11 bays. Given the use of the site is predominantly a service station the inclusion of the bowser parking is considered appropriate and acceptable.

Clause 4.13.3 of TPS 6 allows for variations to car parking requirements where there will be no resultant lowering of safety, convenience, or amenity standards. Based on the use of the site it is considered that that there will be no resultant lowering of safety, convenience, and amenity standards resulting from the proposed variation, which is considered acceptable in this instance.

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Setbacks and Landscaping

The proposal complies with the setback and landscaping requirements of TPS 6, with the exception of the following:

Assessment Element	TPS 6 Standards	Assessment
Primary Street Setback	15m setback	A 6m setback to Albany Highway is proposed.
Landscaping	3m abutting all streets, except for approved crossovers.	Proposed 3m width, except for a 19m portion abutting William street which is 1.5m wide.

TPS 6 requires a 15m primary street setback and the application includes a 6m setback to the Convenience Store building. In considering the variation, it is noted that the proposed building setback is unlikely to have a negative impact on the amenity of the locality and any impact is proposed to be minimised using landscaping. Additionally, the proposed 6m setback is consistent with the setbacks of the existing commercial development on the opposite side of Albany Highway. The variation is considered minor and as such, the proposed setback is considered acceptable.

TPS 6 requires landscaping to be a minimum of 3m abutting all streets, except for approved crossovers. The application generally provides landscaping in accordance with the landscaping requirements of TPS, however proposes a 1.5m landscaping strip for a length of 19m abutting William Street. In considering this variation, the reduced landscaping strip directly adjoins a large verge area which will lessen the impact of the reduction. It should also be noted that as the development site is a corner lot, 13.9% of the overall site area is provided as landscaping. As such, the proposed reduction in landscaping is considered acceptable.

Traffic and Access

The applicant submitted a Traffic Impact Assessment (Attachment 3) for the application which indicates that traffic generated from the development will not have an adverse impact on the surrounding road network, and there is sufficient capacity within the network to accommodate the development. The key findings of the TIA are:

- The development is anticipated to generate approximately 257 and 295 trips (both inbound and outbound) during the weekday morning and afternoon peak hour period.
- It is estimated that about 40% of the trips will effectively be new trips as the proposed development relies on passing trade for operation with the majority of visits coming from this source.
- The stacking capacity and queue analysis at filling points was modelled during the ‘cheap fuel’ day peak hour and suggests that the level of queuing can be comfortably accommodated within the site.

The application proposes the removal of an existing boundary fence between the subject site and adjoining Lot 9 William Street and proposes a new accessway to allow for cross boundary vehicle movements. A right of carriageway easement currently

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exists on Lot 9 William Street which terminates at the boundary of the subject site. To facilitate the ongoing cross boundary access, a condition has been recommended requiring the creation of a right of carriageway easement to the proposed new accessway area.

Analysis of Crossovers

The development proposes to utilise the existing left in and left out 7.105m crossover to Albany Highway and to increase the width of the full movement crossover to William Street to 9m. Further, a new accessway between the subject site and Lot 9 William Street is proposed.

The capacity analysis of the crossovers and the Albany Highway / William Street intersection was undertaken using a Signalised Intersection Design and Research Aid (SIDRA) analysis. The SIDRA analysis concludes that the existing crossover to Albany Highway will continue to operate at an appropriate level of service into the future.

With respect to the William Street crossover, the SIDRA analysis indicates the crossover will operate at an appropriate level of service, except for right-out movements from the crossover. Right-out movements from this crossover are forecast to experience delays in the AM and PM peaks due to the high level of traffic volume on William Street.

The City referred the TIA and SIDRA analysis to MRWA for assessment as the proposal abuts roads under its care and control. MRWA provided no-objection to the development, however based on the results of the SIDRA analysis recommended the central median on William Street be extended to prohibit right-in and right-out movements to the site. The City has considered the SIDRA analysis and MRWA comment and agree that the William Street crossover should be modified to prevent right-in movements. The proponent should also undertake a road safety audit to assess the crossover modifications and recommend any additional safety measures to be undertaken.

As such a condition has been recommended requiring the modification of the William Street median to prevent right-in and right-out traffic movements. Additionally, a condition has been recommended requiring the submission of a road safety audit prior to the commencement of development.

Local Planning Policy 4.9 - Signage

LPP 4.9 provides guidance for the assessment and determination of applications seeking approval for signs and/or flags. The proposal complies with the relevant provisions of LPP 4.9, except for the following:

Assessment Element	LPP 4.9 - Sign Standards	Assessment
Size	Maximum height of 7m, or 8m where the site accommodates multiple tenancies.	The proposed signs have a height of 8m with a single tenancy.

A primary objective of LPP 4.9 is to ensure signs are appropriate to their location and function, and do not diminish the visual amenity, heritage significance and character of the locality, or detract from the appearance of buildings and places. The two pylon

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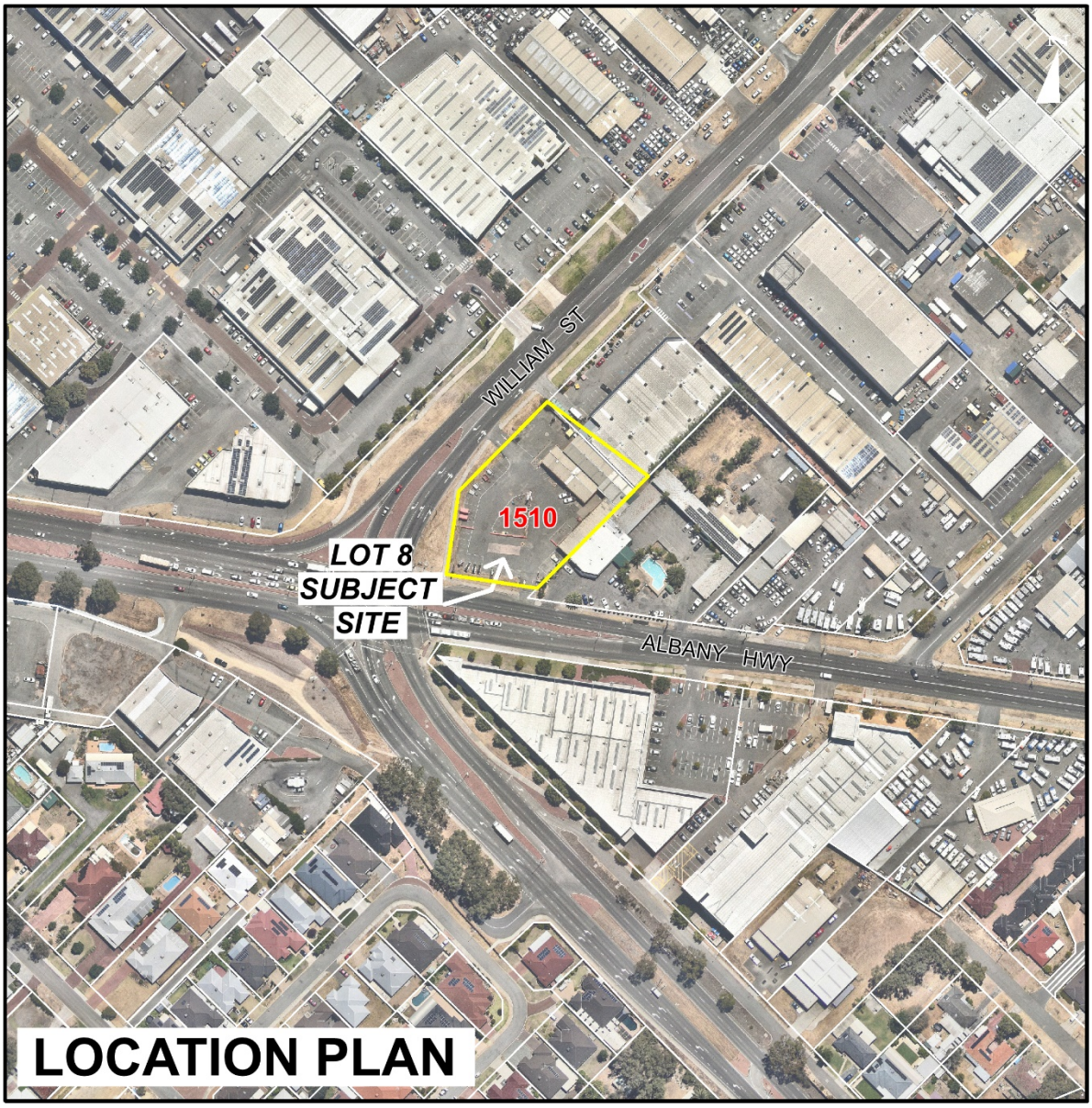
signs are proposed in areas of high traffic volumes adjacent to the crossovers on William Street and Albany Highway. The location of the signs provide clear views for drivers and are considered appropriate in their location and function.

It is noted that the site is surrounded by commercial and industrial developments with associated signage of a similar size and nature. It is therefore considered that the proposed pylon signs are unlikely to compromise the existing streetscape and amenity of the locality. The variation to the height of the signs is relatively minor in the context of the locality and not considered to result in any adverse visual impacts. It is therefore acceptable. A condition has been recommended to ensure the brightness of the signs are within MRWA limits and that they do not pulsate, flash, chase or contain reflective materials.

Conclusion:

The proposal is consistent with the planning framework and is therefore recommended for approval subject to conditions.

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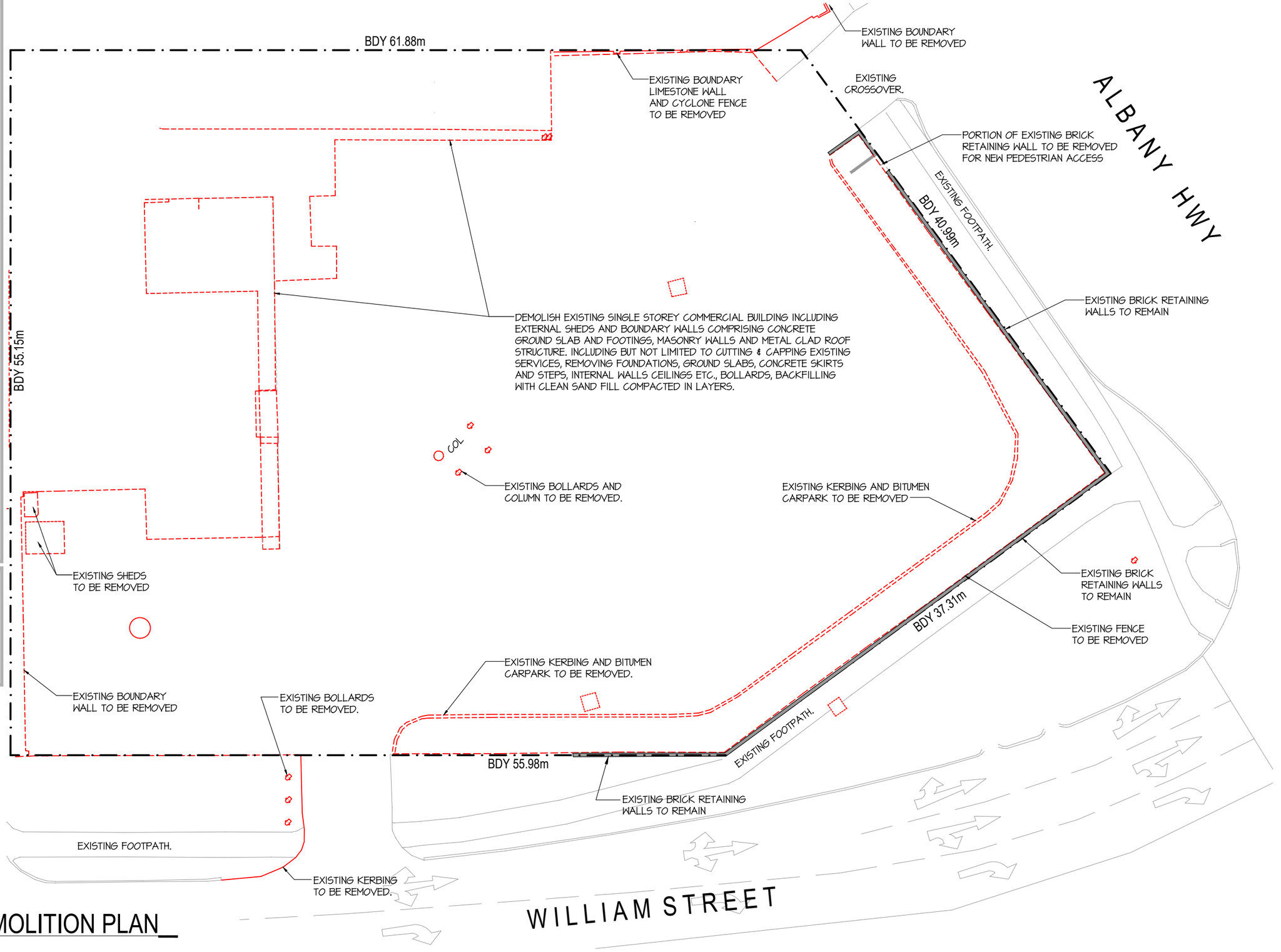
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DEMOLITION NOTES

1. PRECAUTIONS MUST BE TAKEN BEFORE AND DURING DEMOLITION IN ACCORDANCE WITH AS 2601-2001: DEMOLITION OF STRUCTURES.
2. DURING THE PROGRESS OF THE DEMOLITION THE WORKS SHALL BE UNDER THE CONTINUOUS SUPERVISION OF THE DEMOLISHER OR OF AN EXPERIENCED FOREMAN, AND DEMOLITION SHALL BE EXECUTED STOREY BY STOREY COMMENCING AT THE ROOF AND WORKING DOWNWARDS.
3. PROTECTIVE OUTRIGGERS, FENCES, AWNINGS, HOARDING, BARRICADES AND THE LIKE MUST BE INSTALLED WHERE NECESSARY TO GUARD AGAINST DANGER TO LIFE OR PROPERTY OR WHEN REQUIRED BY THE RELEVANT BUILDING SURVEYOR.
4. ALL PRACTICABLE PRECAUTIONS SHALL BE TAKEN TO AVOID DANGER FROM COLLAPSE OF A BUILDING WHEN ANY PART OF A FRAMED OR PARTIAL FRAMED BUILDING IS REMOVED.
5. DEMOLISHED MATERIAL SHALL NOT BE ALLOWED TO REMAIN ON ANY FLOOR OR STRUCTURE IF THE WEIGHT OF THE MATERIAL EXCEEDS THE SAFE CARRYING CAPACITY OF THE FLOOR OR STRUCTURE AND SUCH MATERIAL SHALL NOT BE SO PILED OR STACKED THAT IT WOULD ENDANGER WORKMEN OR OTHER PERSONS, AND SHALL BE REMOVED AS SOON AS PRACTICABLE FROM THE SITE.
6. NO WALL, CHIMNEY OR OTHER STRUCTURE OR PART OF A STRUCTURE SHALL BE LEFT UNATTENDED OR UNSUPPORTED IN SUCH A CONDITION THAT IT MAY COLLAPSE DUE TO WIND OR VIBRATION OR OTHERWISE BECOME DANGEROUS.
7. BEFORE DEMOLITION IS COMMENCED ANS ALSO DURING THE PROGRESS OF SUCH WORKS. ALL ELECTRICAL CABLE AND OR APPARATUS WHICH ARE LIABLE TO BE A SOURCE OF DANGER - OTHER THAN CABLE OR APPARATUS USED FOR DEMOLITION WORKS - SHALL BE DISCONNECTED.
8. ARRANGEMENTS SHALL BE MADE WITH THE RELEVANT ELECTRICAL SUPPLY AUTHORITY FOR THE DISCONNECTION OF ELECTRICAL MAINS SUPPLY EXCEPT THAT, WHERE PARTIAL DEMOLITION IS PROPOSED, THE LISCENSED ELECTRICAL CONTRACTOR SHALL SATISFY THE RELEVANT ELECTRICAL SUPPLY AUTHORITY THAT THE PORTION OF BUILDING TO BE DEMOLISHED HAS BEEN ISOLATED.
9. IT IS THE DEMOLITION CONTRACTORS RESPONSIBILITY TO CARRY OUT AN AUDIT PRIOR TO THE COMMENCEMENT OF ANY WORKS TO DETERMINE IF ASBESTOS IS PRESENT IN THE EXISTING WORKS. WHERE ANY ASBESTOS PRODUCT IS FOUND IN THE PROPOSED WORKS AREA DURING INITIAL INSPECTION OR DURING THE COURSE OF THE DEMOLITION WORKS THE BUILDER SHALL ENGAGE AN AUTHORISED AND REGISTERED CONTRACTOR FOR SAFE AND LAWFUL DISPOSAL.
10. MATERIALS REMOVED OR DISPLACED FROM THE BUILDING BEING DEMOLISHED OR MATERIAL LEFT STANDING SHALL NOT BE BURNED ON THE DEMOLITION SITE.
11. BUILDER TO PROVIDE ADEQUATE PROPPING WHERE LOAD BEARING WALLS ARE TO BE REMOVED. PROPPING TO BE KEPT IN PLACE UNTIL NEW WALLS/BEAMS ARE INSTALLED.

NOTE!

1. THE CONTRACTOR SHALL APPLY FOR DEMOLITION PERMIT & PAY ALL ASSOCIATED FEES AND BONDS.
2. THE CONTRACTOR SHALL APPLY FOR THE VERGE AND CROSSOVER PERMIT AND SHALL PAY ALL ASSOCIATED FEES AND BONDS.
3. THE CONTRACTOR SHALL ALLOW TO CARRY OUT RAT BAITING AS PER THE CONDITIONS OF THE DEMOLITION APPROVAL.
4. THE CONTRACTOR SHALL PROVIDE DILAPIDATION SURVEYS AND REPORTS OF ALL EXISTING SURROUNDING BUILDINGS.
5. CONTRACTOR TO VISIT SITE TO OBTAIN AN ACCURATE QUOTE.



PROPOSED DEMOLITION PLAN_

SCALE - 1 : 300

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NO:	DATE:	REVISION:	DRAWN:	CHECK:
A	29.04.24	ISSUED FOR DEVELOPMENT APPLICATION	IJ	-
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HBD
HORLEY BUILDING DESIGN & DRAFTING
2 MARLOW WAY THORNLIE WA 6108
MOBILE: 0422 845 668
E: anthonyhbd@hotmail.com

DEVELOPMENT APPLICATION

PROPOSED SERVICE STATION
LOT 8, CNR ALBANY HIGHWAY & WILLIAM STREET, BECKENHAM
for K MANGIONE

A3 SHEET

Date	04.03.24
Design	IJ
Drawn	IJ
Checked	IJ
Scale	AS SHOWN
Job No.	0077
Dwg -	DA10
Rev -	A

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Version: 1, Version Date: 06/09/2024

LEGEND

- NEW BUILDING AREA.
- NEW CONCRETE PAVED FOOTPATH.
- NEW BITUMEN PAVING.
- NEW LANDSCAPING.
- NEW NATIVE SHADE TREE.
- EXISTING TREE.

BIKE RAIL SPECIFICATION

SECURABIKE 850 x 800mm S.S. 40NB (50.0) 1.5mm GRADE 304 STAINLESS STEEL BIKE RAILS (PRODUCT CODE: BR85F) OR SIMILAR APPROVED. PROVIDE CONCRETE FOOTINGS TO MANUFACTURER'S RECOMMENDATION.

NOTES:

SITE DESIGN IS CONCEPTUAL ONLY AND SUBJECT TO THE FOLLOWING:-

1. END USER REQUIREMENTS;
2. FULL TOWN PLANNING ASSESSMENT;
3. PLANNING APPROVAL;
4. TRAFFIC/ TRANSPORT ASSESSMENT & TURN PATH ANALYSIS;
5. CIVIL STORMWATER & LEVELS DESIGN.



PROPOSED SITE PLAN

SCALE - 1 : 300

LANDSCAPING CALCS_

SITE AREA:	2,692m²
SOFT LANDSCAPING:	283m²
HARD LANDSCAPING:	92m²
TOTAL LANDSCAPING:	13.9%

CARPARKING CALCS_

CAR BAYS PROVIDED:	8 BAYS
CAR CANOPY:	16 CARS
2 BIKE RACKS:	4 BIKES

BUILDING AREA SCHEDULE_

RETAIL BUILDING	152m² GLA
SERVICE YARD	40m² GLA

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NO:	DATE:	REVISION:	DRAWN:	CHECK:
A	12.04.24	ISSUED FOR DEVELOPMENT APPLICATION	IJ	-
B	16.04.24	UPDATED FILL POINT LOCATION	IJ	-

HORLEY BUILDING DESIGN & DRAFTING
2 MARLOW WAY THORNLIE WA 6108
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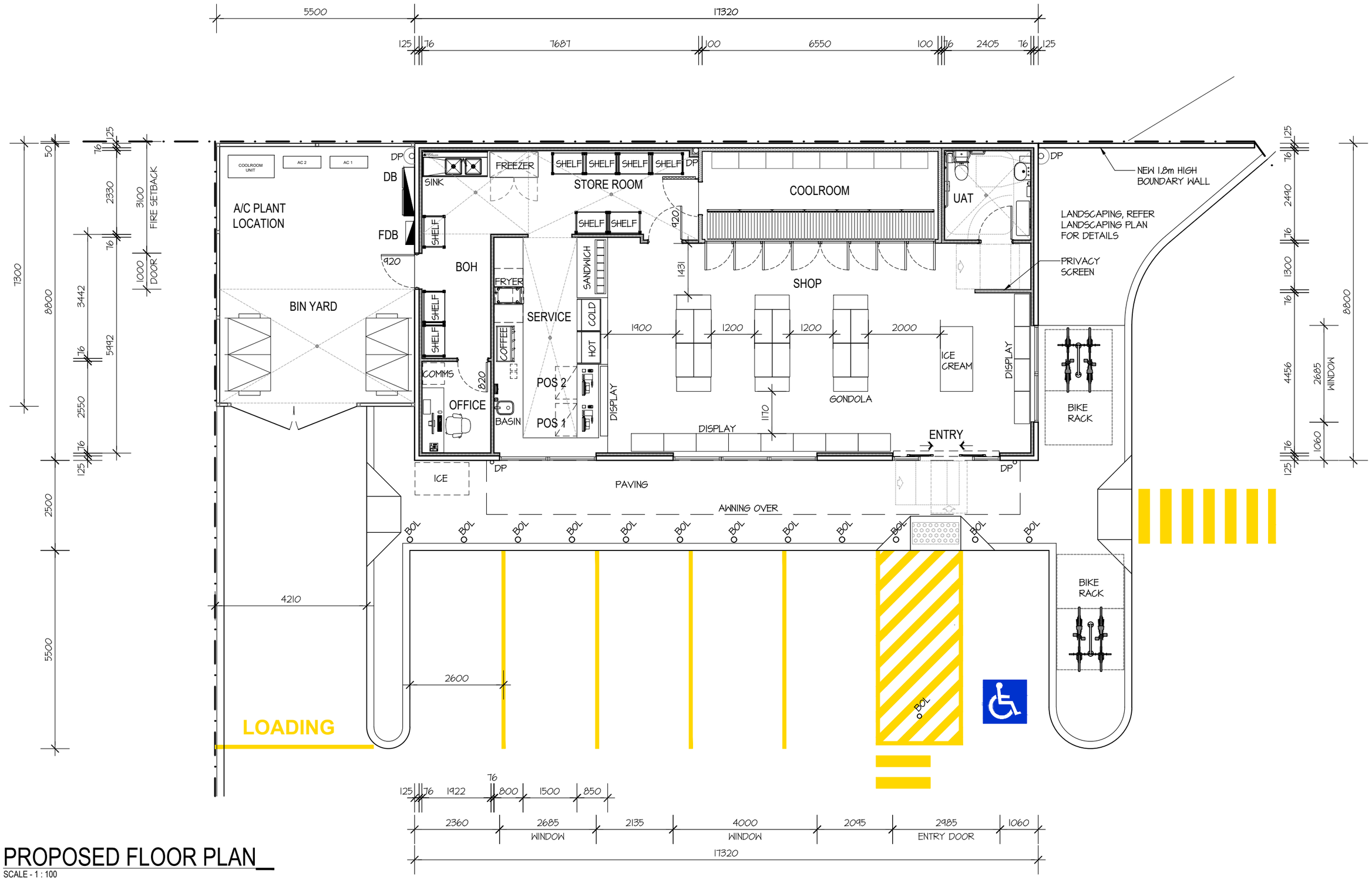
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for K MANGIONE

A3 SHEET

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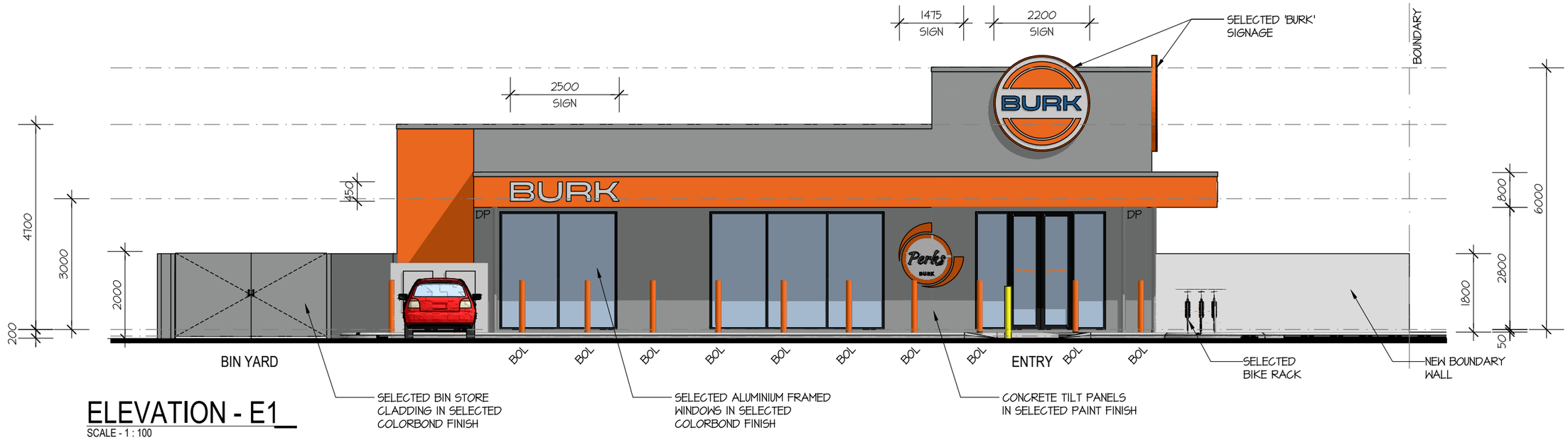
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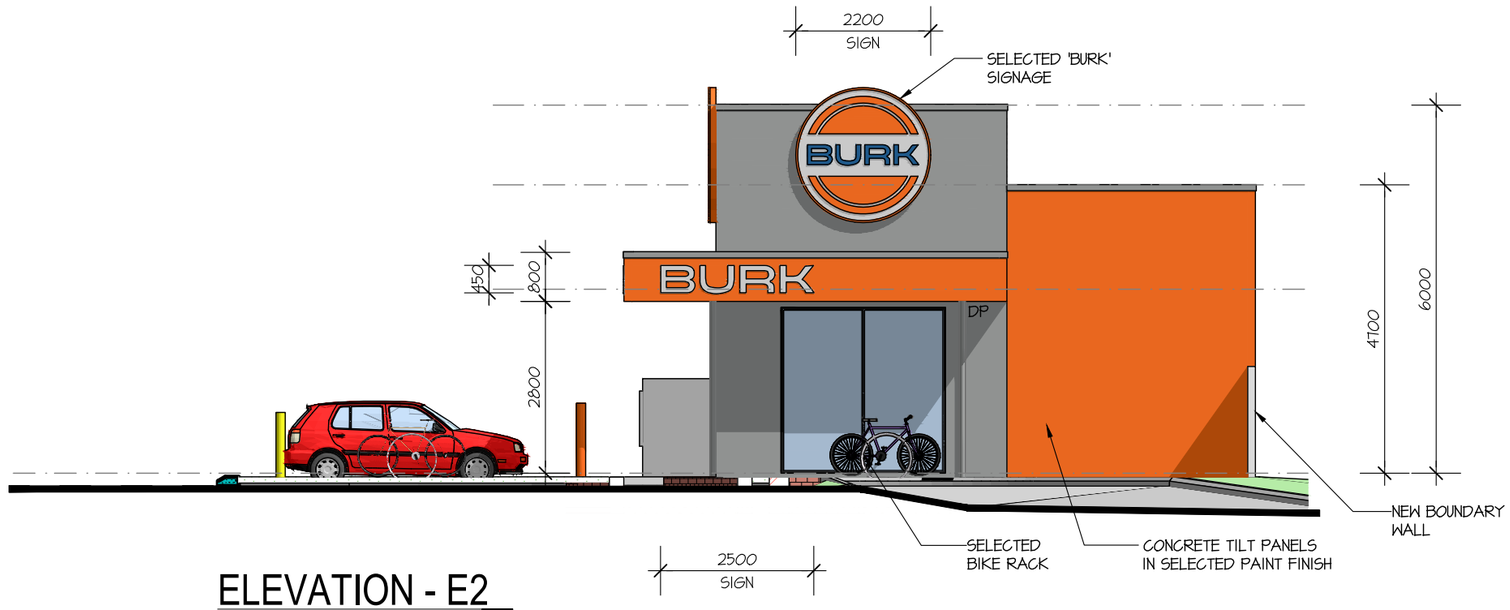
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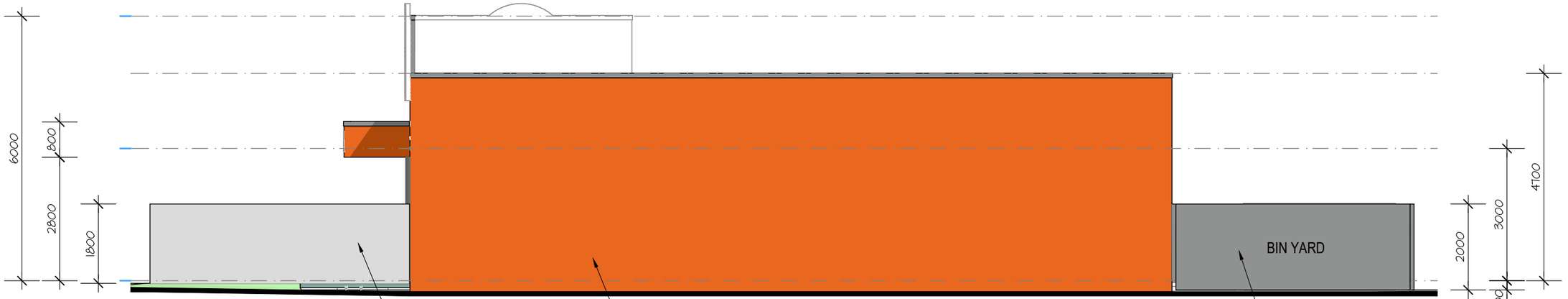
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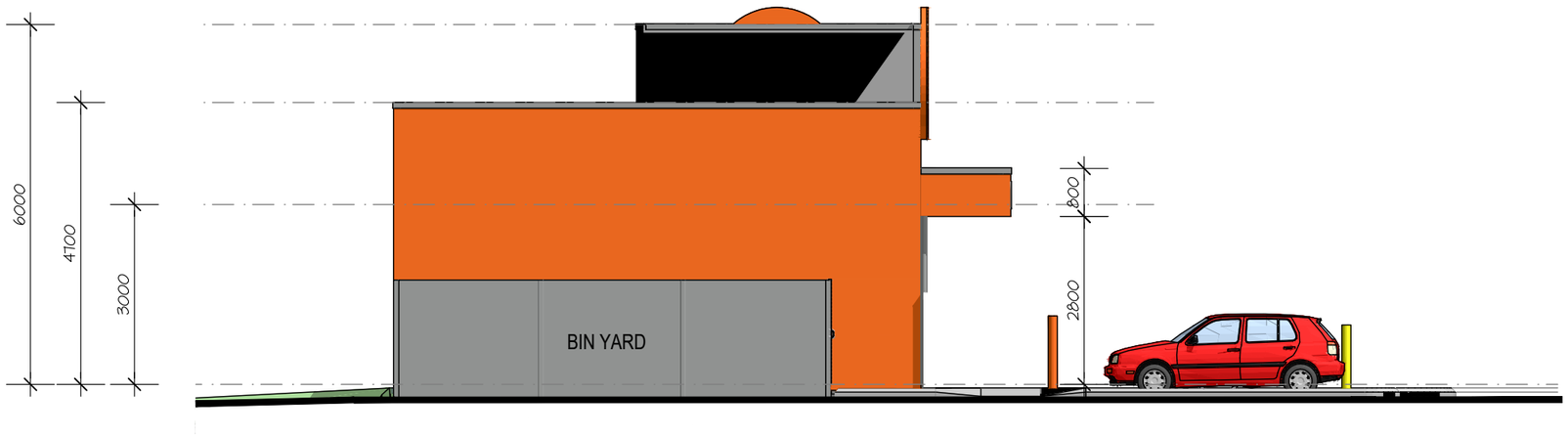
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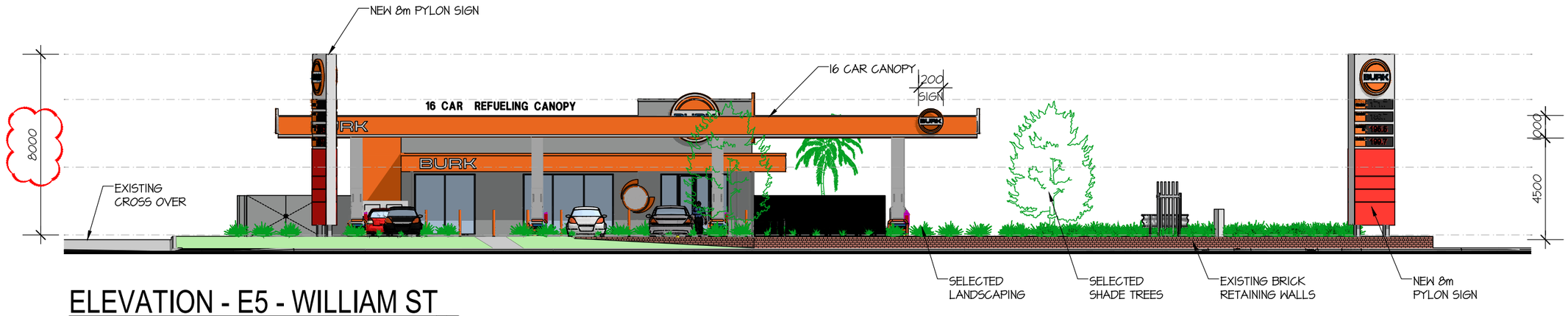
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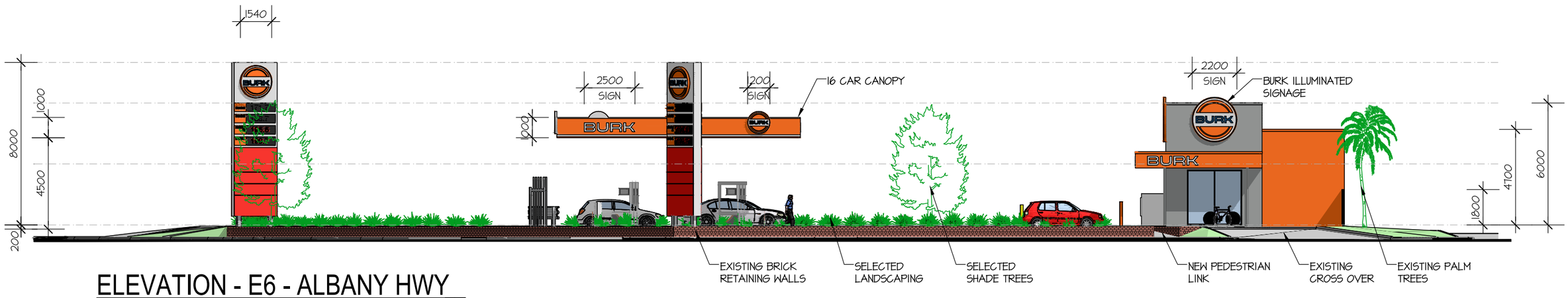
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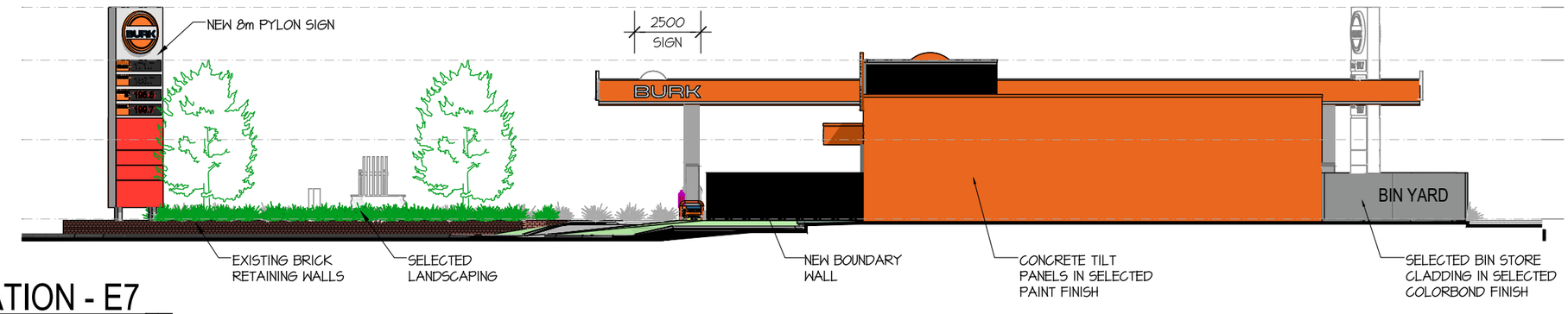
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ELEVATION - E7_

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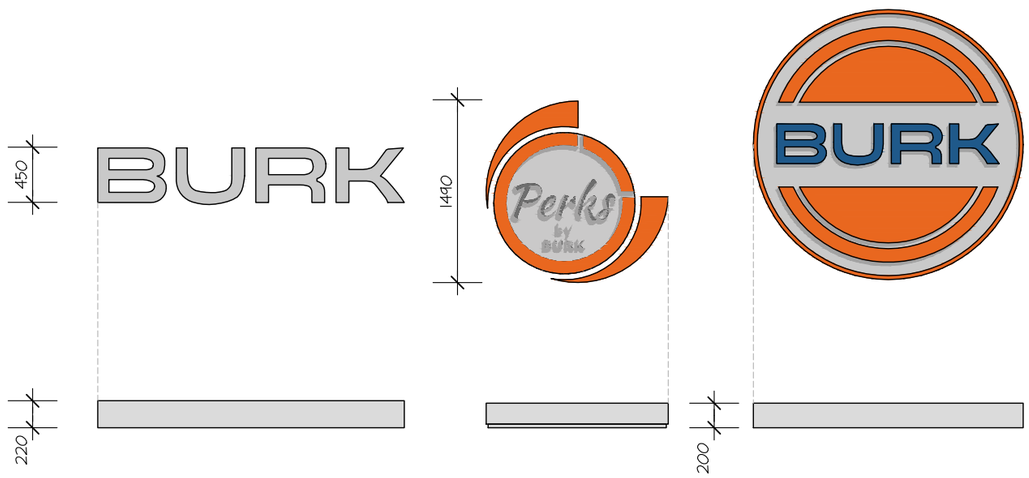
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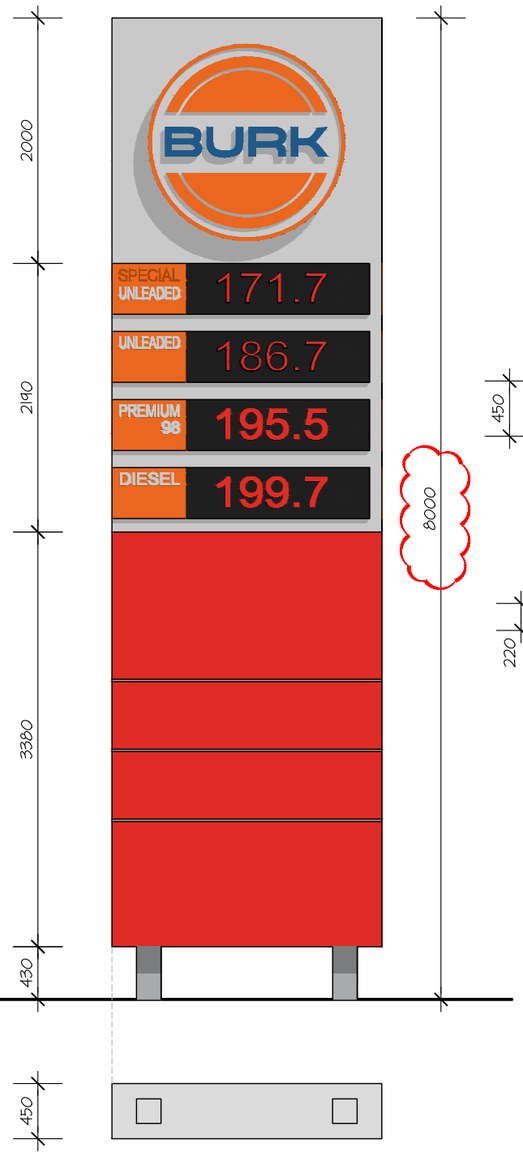
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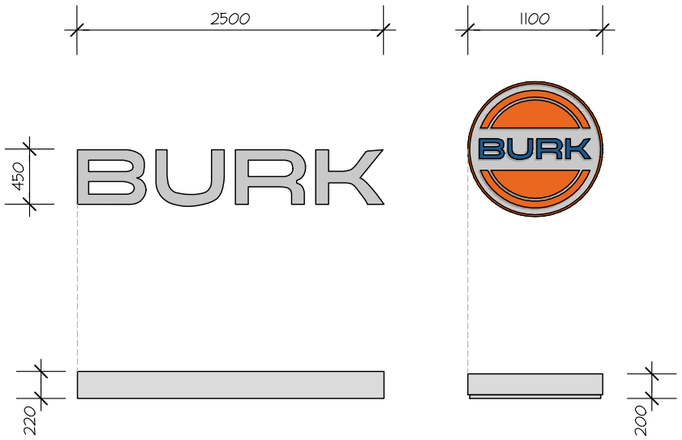


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PLAN VIEW
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NOTE:

SIGNAGE DIMENSIONS ARE SUBJECT TO DETAILED DESIGN

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LEGEND

ALL PLANTS SHOWN ARE AT ESTIMATED MATURE SIZE AS AN INDICATION OF THE FUTURE LANDSCAPE

TREES TO BE PLANTED AT A MINIMUM 25LT POT SIZE

SHRUBS PLANTED AT MINIMUM 14CM POT SIZE

GROUND COVER AND GRASSES TO BE PLANTED AT MINIMUM 13CM POT SIZE

	HEIGHT x WIDTH
TREES	
3 x EUCALYPTUS TORQUATA	6m X 3m
SHRUBS	
4 x CALLISTEMON VIMINALIS (MACARTHER)	1.8m X 1.5m
11 x ACACIA LASIOCARPA	50cm X 1.5m
12 x EREMOPHILA GLABRA 'COMPACTUM'	50cm X 1.5m
GRASSES	
DIANELLA REVOLUTA 'REVELATION'	50cm X 50cm
GROUND COVER	
13 x ACACIA SALIGNA 'SPRINGTIME CASCADE'	30cm X 3m
13 x ADENANTHOS MEISSNERI 'PROSTRATE'	50cm X 2m
21 x GREVILLEA THELMANNIANA 'MINI MARVEL'	30cm X 1m
21 x MYOPORUM PARVIFOLIUM 'BROAD LEAF'	15cm X 1.5m
21 x WESTRIGNIA FRUITICOSA 'MUNDI'	40cm X 1.5m

LANDSCAPING CALCS_

SITE AREA:	2,692m²
SOFT LANDSCAPING:	283m²
HARD LANDSCAPING:	92m²
TOTAL LANDSCAPING:	13.9%



PROPOSED LANDSCAPING PLAN_

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Engineering a better future for over 20 years!

Proposed Service Station, 1510 Albany Highway, Beckenham

Transport Impact Assessment

PREPARED FOR:
Astrametro Pty Ltd

July 2024

Document Set ID: 8370929
Version: 1, Version Date: 06/09/2024

Document history and status

Author	Revision	Approved by	Date approved	Revision type
Vladimir Baltic	r01	B Bordbar	15/03/2024	Draft
Vladimir Baltic	r01a	B Bordbar	17/04/2024	Final
Vladimir Baltic	r02	B Bordbar	24/07/2024	1st Revision

File name: t24.039.vb.r02.docx

Author: Vladimir Baltic

Project manager: Behnam Bordbar

Client: Astrametro Pty Ltd

Project: Service Station, Beckenham

Document revision: r02

Project number: t24.039

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1 Summary

This Transport Impact Assessment (TIA) report has been prepared with respect to the proposed service station at 1510 (Lot 8) Albany Highway in Beckenham, City of Gosnells. The Lot 8 is located at the northeast corner of the existing intersection of Albany Highway/Kenwick Link/William Street.

The development proposal includes construction of a new service station with eight petrol-filling positions under the fuel canopy and with associated on-site parking at the southern portion of the subject site. The northern portion of the site will be developed at a later stage, details and timing of this future development are not known at this stage.

The subject site is currently non-operational and is fenced off. The development proposal contemplates retention of the existing two-point access system presently serving the site.

In accordance with the WAPC document "*Transport Impact Assessment Guidelines for Developments, Volume 4 – Individual Developments (2016)*" a Transport Impact Assessment is required for developments that are likely to generate high volumes of traffic and, therefore, would have a high overall impact on the surrounding land uses and transport networks.

The aim of this Transport Impact Assessment (TIA) is to estimate the traffic which will be generated by the development and establish the resultant traffic pattern on the surrounding road network. This assessment will include the capacity analysis of the two access points on Albany Highway and William Street including the adjacent, signalised intersection of Albany Highway/Kenwick Link/William Street.

For the purpose of this TIA, Transcore undertook traffic count surveys at the immediately adjacent intersection of Albany Highway/Kenwick Link/William Street (for shared lanes) during the established typical weekday morning and afternoon peak hour periods of traffic activity in February/March 2024.

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2 Introduction

This TIA has been prepared by Transcore on behalf of Astrametro Pty Ltd with regards to the proposed service station at 1510 (Lot 8) Albany Highway in Beckenham, City of Gosnells.

The subject site (approximately 4,020m^2) occupies space at the northeast corner of Albany Highway/Kenwick Link/William Street intersection, as shown in **Figure 1**. The subject site has previously accommodated a heavy machinery and equipment hire business which has recently ceased its operation.



Figure 1: Location of the subject site

The site is bound by Albany Highway to the south, William Street to the northwest and the existing commercial developments to the east and north. At present, the subject site is accessible via two crossovers, one full-movement crossover on William Street and one left-in/left-out only crossover on Albany Highway. The subject site forms part of the commercial/retail area which occupies space at the northern side of Albany Highway.

The key issues that will be addressed in this report include the traffic generation of the proposed development and capacity analysis the two site's crossovers including the adjacent intersection of Albany Highway/Kenwick Link/William Street. The parking

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provision for the development and access to the site by all modes of transport will also be addressed.

The location of the subject site within the *Metropolitan Region Scheme* context is illustrated in **Figure 2**. Review of the *MRS* confirms that both roads fronting the subject site are local roads under care and under control of City of Gosnells. Albany Highway's *"Primary Regional Road"* reservation terminates at the intersection and continues along Kenwick Link. The subject site is zoned as *"Urban"* in the *MRS*.

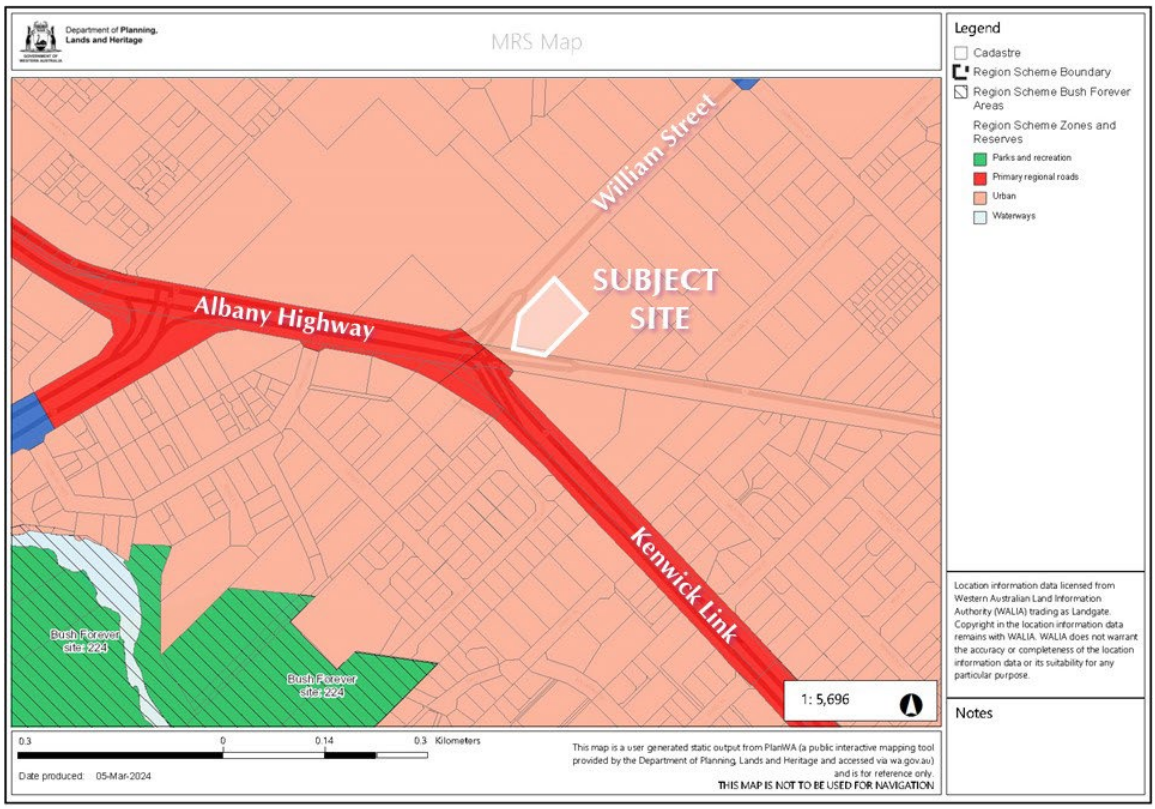


Figure 2. Site location within the Metropolitan Region Scheme

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3 Development Proposal

The subject of this proposal is the southern portion of Lot 8 with the northern portion to be developed in the future by others. The existing two-point access system presently serving the site will be retained.

The development proposal for the southern portion of the subject site contemplates construction of a new service station with associated on-site parking. Specifically, the development proposal entails construction of service station with 16 bowsers (refuelling spaces) under the fuel canopy and associated retail building of GFA 152m^2 floor area.

A total of eight parking bays, inclusive of one ACROD bay, will be provided across the site to serve the proposed service station development. Additionally, one air & water bay will also be provided to the southwest of the canopy.

A separate service yard (loading bay) is proposed at the northern side of the service station building, designed to accommodate (up to) a 10.0m rigid truck.

The fuel delivery will be undertaken using a 17.0m tanker, as is typically the case with service stations within the metropolitan area.

Two bike rails (four bike parking spaces) are provided immediately adjacent the service station building for patrons/employees cycling to the site. Refer **Appendix A** for more details.

The proposed service station will continue to be served by the existing two-point access system present at the site, as follows:

- A full-movement crossover on William Street at the northern end of the site, approximately 65m north of the Albany Highway/Kenwick Link/William Street intersection; and,
- A left-in/left-out crossover on Albany Highway at the southern end of the site, approximately 40m east of the Albany Highway/Kenwick Link/William Street intersection.

The retention of the existing access/egress system is important to achieve effective accessibility and circulation for the proposed development.

It has been advised that medium size rigid service vehicles of 10.0m in length would be used for deliveries to the service station, while waste collection will be likely be undertaken using 8.8m long rear loader waste collection trucks. The swept path assessments of the 10.0m rigid service vehicle, as a larger of the two vehicles, was undertaken to assess the suitability of the site to accommodate such vehicles. The relevant turn path plans for 17.0m fuel tankers and 10.0m service vehicles are presented in **Appendix B**.

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For the purpose of the traffic assessment, it is assumed that the proposed service station would be completed and fully operational by the end of 2026.

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4 Existing Situation

The subject site occupies space immediately northeast of the existing signalised intersection of Albany Highway/Kenwick Link/William Street. The site is currently non-operational.

4.1 Existing Road Network

Albany Highway in the vicinity of the subject site is a dual carriageway, four-lane road (six lanes west of William Street/Kenwick Link), with a 60km/h speed limit. It features paved footpaths on both sides of the road. A redundant bus embayment is located on the northern side of Albany Highway, immediately adjacent to the site.

According to the *Metropolitan Region Scheme (MRS)*, Albany Highway is classified as *"Primary Regional Road (PRR)"* under care and control of Main Roads WA west of William Street/Kenwick Link intersection but is only a local road to the east of it and along the site's frontage thereby under care and control of local authority. In the Main Roads WA *Perth Metropolitan Area – Functional Road Hierarchy* document, Albany Highway is classified as a *Primary Distributor* road.

Kenwick Link and **William Street** are both constructed to a four-lane, undivided road standard with a solid (Kenwick Link) and solid/painted median (William Street) with paths along both sides of the roads. Kenwick Link also entails on-street cycling lanes.

Kenwick Link is classified as a *Primary Distributor* road while William Street is classified as a *Distributor B* in accordance with the Main Roads WA road hierarchy. Kenwick Link and William Street operate under the 70km/h and 60km/h speed limit regime, respectively.

Kenwick Link is classified as *"Primary Regional Road (PRR)"* and as such is under care and control of Main Roads WA while William Street is under care and control of Local Government.

Albany Highway, Kenwick Link and William Street form a four-way signalised intersection immediately adjacent to the site.

4.2 Existing Traffic Volume on Roads

The latest available traffic count data sourced from Main Roads WA, show the following daily volumes on key roads:

- Albany Highway (E of William St): 15,400vpd in 2021/22 (HV 7.8%);
- William Street (N of Albany Hwy): 21,180vpd in 2021/22 (HV 8.2%); and,
- Kenwick Link (N of Roe Hy): 23,540vpd in 2021/22 (HV 7.4%).

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4.3 Heavy Vehicles

Restricted Access Vehicle (RAV) Network routes are designated for access by large heavy vehicle combinations, which is managed by Main Roads WA. All roads adjacent to the subject site, except for Albany Highway east of William Street, are classified as RAV Network 4, as shown **Figure 3**. Albany Highway east of William Street is classified as RAV Network 1.

The RAV 1 Network classification permits operation of semi-trailers of up to 19m and short B-Doubles of up to 20m on these roads, while roads classified as RAV 4 road are designed to carry heavy vehicle combinations of up to 27.5m in length.



Figure 3. Existing heavy vehicle road network classification (RAV)

4.4 Public Transport Access

Existing bus route 220 (Armadale Station to Perth Busport) runs along Albany Highway with bust stops a short walking distance east of the subject site. It provides 20min services during weekday peak periods and hourly services during the rest of the day, on weekends and public holidays.

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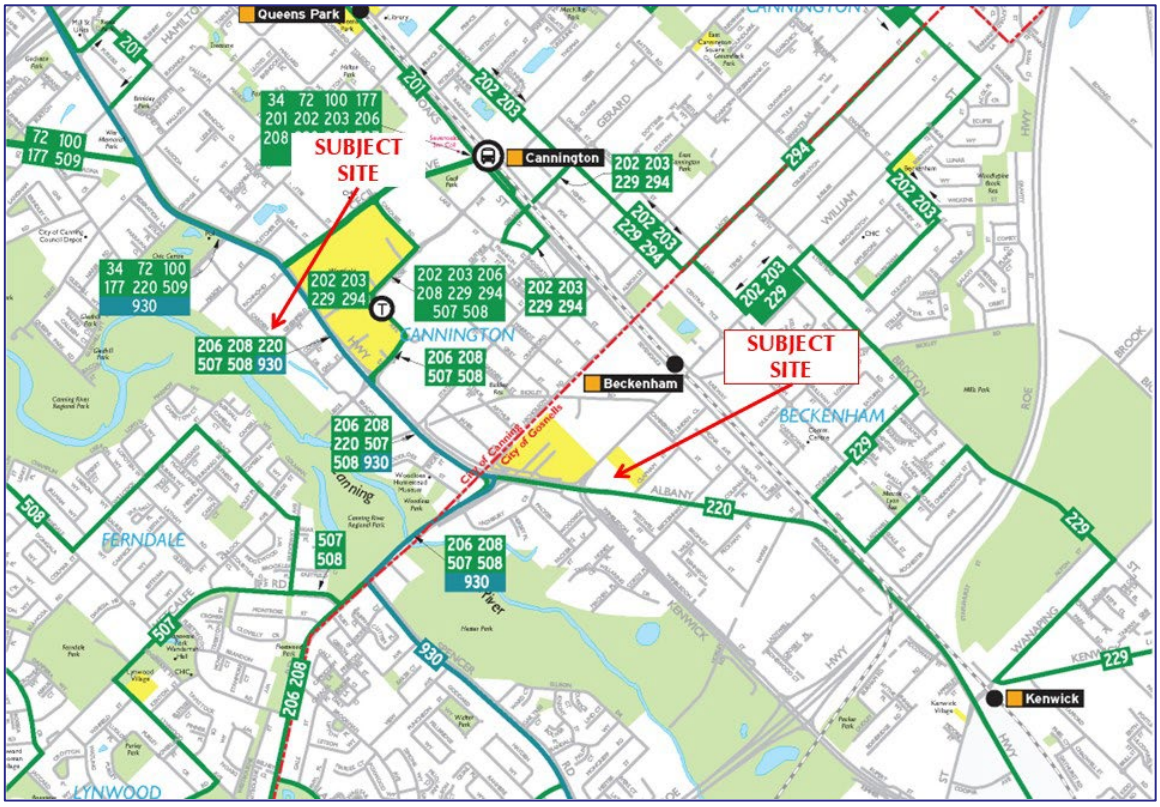


Figure 4. Existing bus services map (source: Transperth)

4.5 Pedestrian and Cyclist Facilities

Pedestrian access to the subject site is available via the existing external footpath network on the surrounding roads. The traffic lights at the Albany Highway/Kenwick Link/William Street intersection facilitates safe pedestrian movements across fronting roads adjacent to the subject site. No changes to the existing footpath network in this vicinity is proposed as part of the proposal.

The *Perth Bike Map* series published by the Department of Transport (see **Figure 5**) indicates good pedestrian and cyclist connectivity to the subject site. Shared paths are in place on Albany Highway and William Street while on-street cycling lanes are provided on Kenwick Link. The shared path form part of the interconnected system of paths, on-street cycling lanes and roads designated as "good road riding environment".

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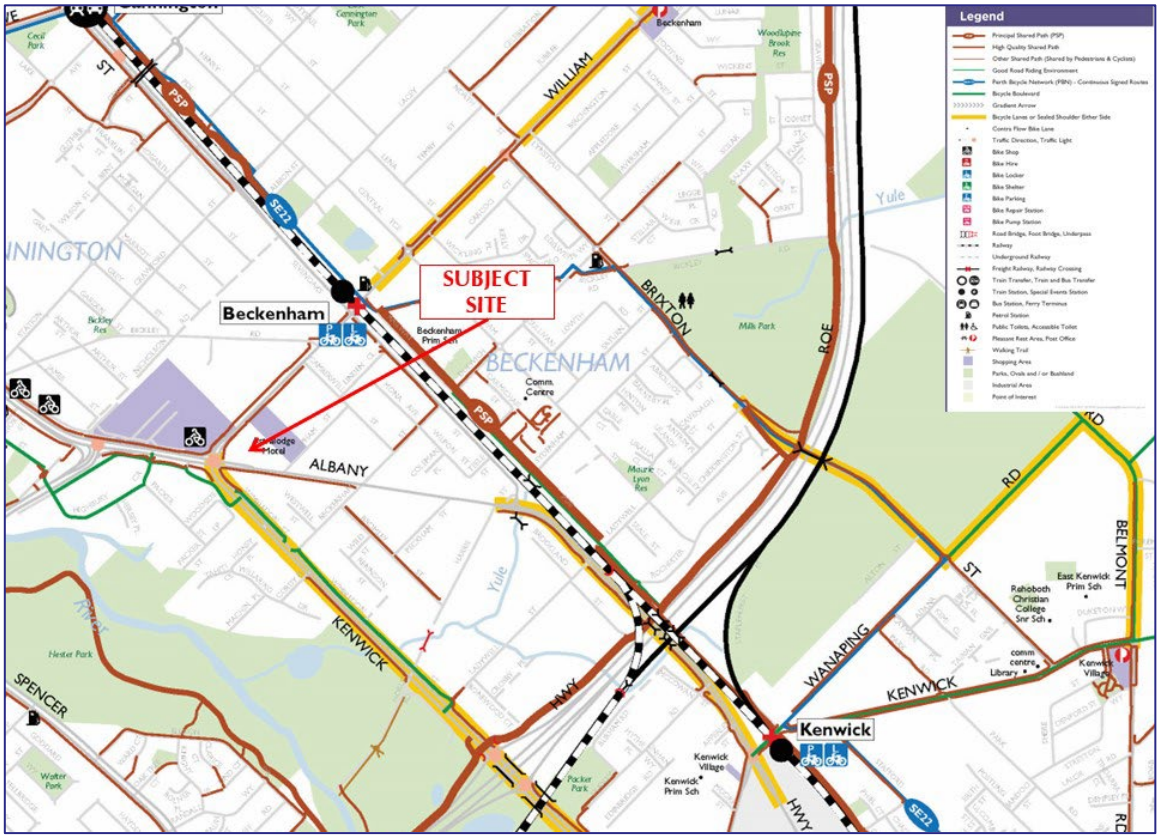


Figure 5: Perth Bike Map (source: Department of Transport)

4.6 Crash Data

Information available on Main Roads WA website provides crash statistics for Albany Highway/Kenwick Link/William Street intersection during the five-year period ending in December 2023.

The crash records indicate that this intersection recorded a total of 71 road crashes with nine casualties (one hospital and eight medical) and no fatalities in the last five-year period. More than 60% of recorded crashes were rear end type of crashes. More details on the crash records are provided in Table 1.

Table 1. Crash history for the Albany Highway/Kenwick Link/William Street intersection

Intersection				Total Crashes	Casualty
Albany Highway/Kenwick Link/William Street				71	9
Sideswipe	Rear End	Pedestrian	Cycle	Wet	Night
13	45	0	N/A	10	13

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5 Changes to Surrounding Transport Networks

No changes to the surrounding road network are contemplated as part of the development proposal.

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6 Integration with Surrounding Area

The proposed development is of a retail/services character and as such is fully in line with the locality.

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7 Traffic Assessment

7.1 Assessment Period

A review of the existing traffic counts for the surrounding road network and other available information suggests that the combination of the traffic expected to be generated by the subject development and the peak road network traffic periods is likely to result in the greatest demand on the road network during the typical weekday morning and afternoon peak hours between 8:00-9:00AM and 4:30-5:30PM.

As such, trip generation is estimated, and traffic analysis is undertaken for these periods, which is in line with WAPC *Transport Impact Assessment Guidelines*.

For the purpose of this assessment, year 2026 assessment is assumed for the post-development scenario.

In line with the requirements of the document *"Transport Impact Assessment Guidelines for Developments, Volume 4 – Individual Developments (2016)"* additional assessment is undertaken for a (near) 10-year post-development time horizon (i.e., 2036 in this particular case).

The available historical traffic counts along Albany Highway indicate that most of the count locations have recorded a drop in daily traffic volumes in recent years with few recording slight increase, suggesting traffic volumes along this section of Albany Highway may have plateaued. Accordingly, in order to ensure a conservative assessment, a nominal 0.5% p.a. annual growth rate was applied to background traffic on Albany Highway for post-development and 10-year horizon assessment scenarios.

7.2 Trip Generation and Distribution

Traffic generation rates for the proposed development were sourced from the *Institute of Transportation Engineers – Trip Generation Manual 11th Edition* (ITE) for Convenience Store/Gas Station. Refer **Table 2** for details on applied trip rates for this land use.

Table 2. Applied trip generation rates for the proposed development

Land Use	Units	Trip rate per unit		
		Daily	AM Peak	PM Peak
Convenience Store/Gas Station	bowsers	265.12	16.06	18.42

Accordingly, it is estimated that the proposed service station would generate approximately **257** and **295** trips (inbound and outbound) during a typical weekday AM and PM and Saturday midday peak hours, respectively.

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The directional split of inbound and outbound trips for the proposed development is assumed to be 50/50 during both peak periods for in line with the *Institute of Transportation Engineers – Trip Generation Manual 11th Edition* (ITE) recommendations.

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. Passing trade factor of 59% was applied in this instance, which is in line with the *ITE Trip Generation Handbook*.

It is therefore estimated that the proposed development would generate approximately **105** and **120** new trips on the road network during the AM and PM peak weekday hours, respectively.

With respect to the assumed distribution and assignment of the development-generated traffic, consideration was given to the location of the site (adjacent to a major district-level route), the overwhelmingly passing trade nature of the development and the current available access and egress routes to and from the site. Accordingly, the assumed directional traffic distribution is as follows:

Inbound trips:

- Approximately 40% of the traffic generated from the development would arrive from Willim Street north direction;
- Approximately 45% of the traffic generated from the development would arrive from Albany Highway west direction;
- Approximately 10% of the traffic generated from the development would arrive from Albany Highway east direction; and,
- Approximately 5% of the traffic generated from the development would arrive from Kenwick Link south direction.

Outbound trips:

- Approximately 5% of the traffic generated from the development would depart towards Willim Street north direction;
- Approximately 10% of the traffic generated from the development would depart towards Albany Highway west direction;
- Approximately 45% of the traffic generated from the development would depart towards Albany Highway east direction; and,
- Approximately 40% of the traffic generated from the development would depart towards Kenwick Link south direction.

7.3 Traffic Flow

The traffic movements estimated to be generated by the proposed development have been manually assigned on the adjacent road network in line with the directional distribution assumptions outlined in the previous section.

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The resulting year 2026 traffic movements generated by this development, during the typical weekday AM and PM peaks are shown in **Figure 6.**

For the purpose of this assessment, the relevant weekday AM and PM peak hour traffic movements at the intersection of Albany Highway/Kenwick Link/William Street were established using SCATS data and Transcore's surveys undertaken on 29th February and 7th March 2024 (refer **Appendix D** for relevant count sheets).

The summary of recorded traffic movements used as a basis for the intersection capacity analysis is illustrated in **Figure 7**.

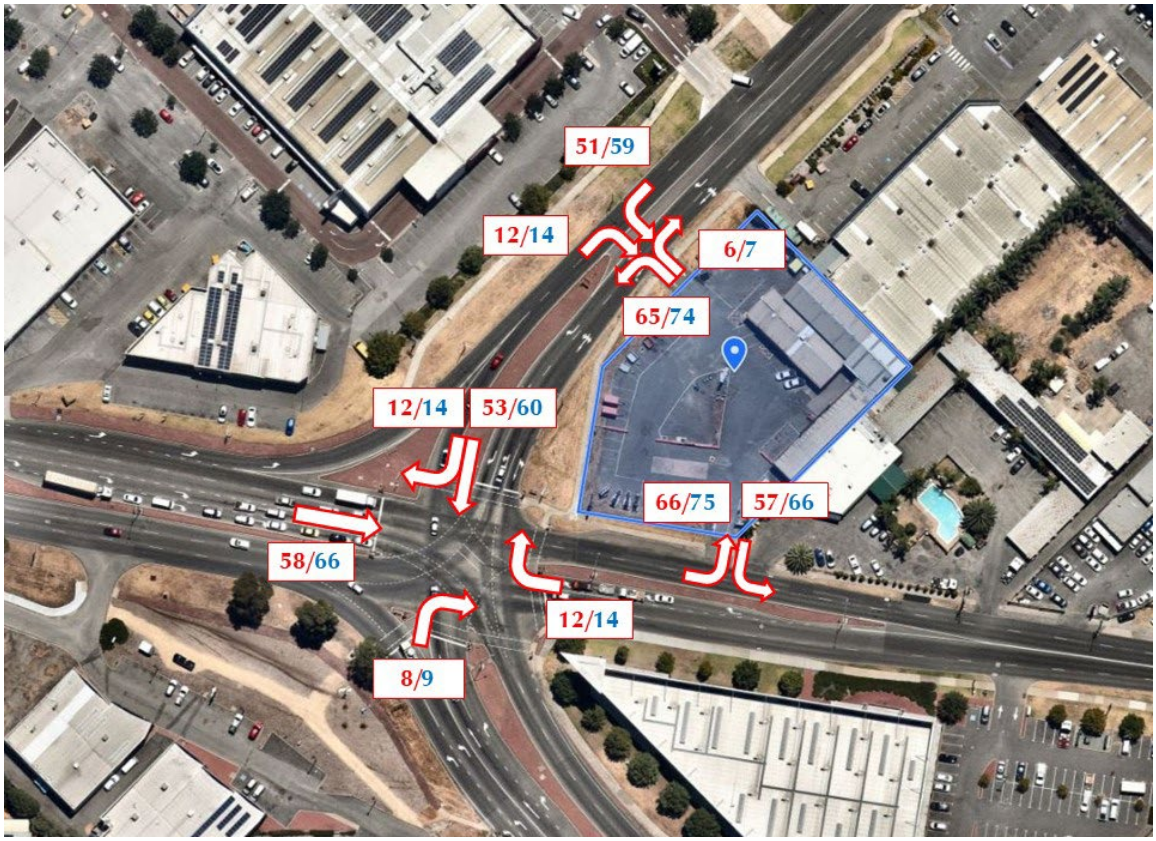


Figure 6: Estimated development generated traffic – Weekday morning/afternoon peak hour traffic

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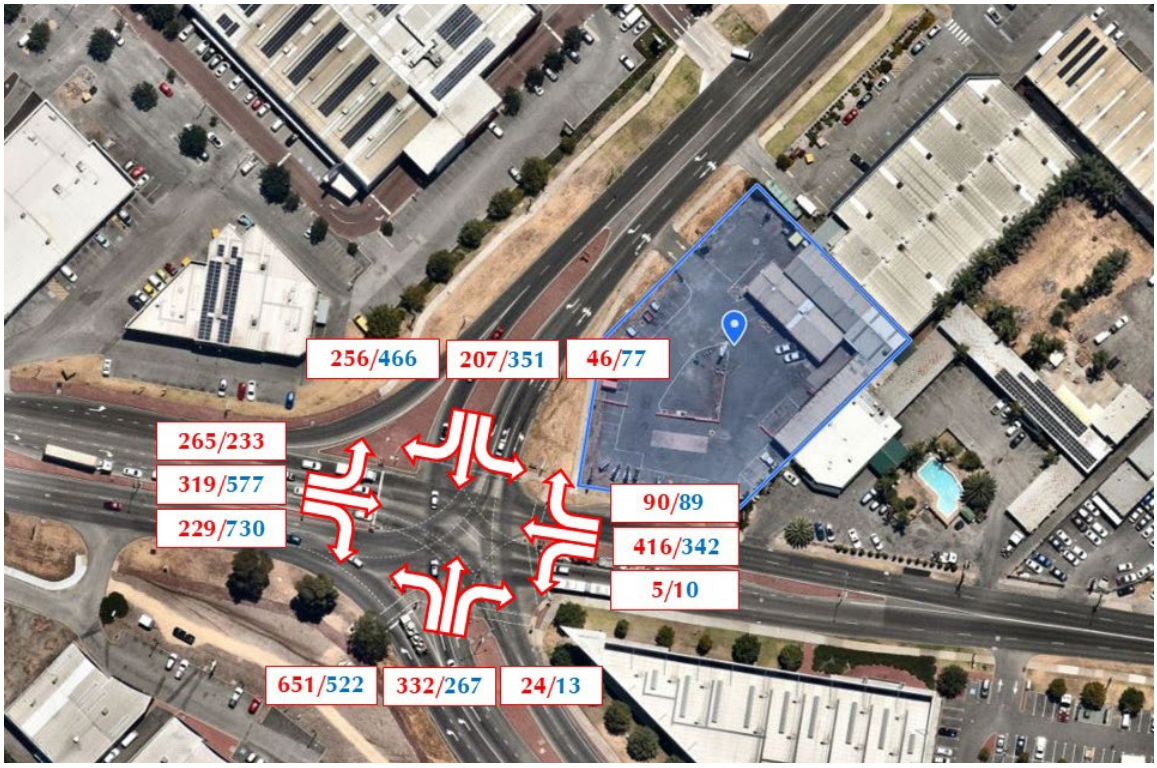


Figure 7. Weekday morning and afternoon peak hour traffic flows at the Albany Highway/Kenwick Link/William Street intersection

7.4 Analysis of Local Intersections & Crossovers

The assessment of the site's two crossovers and the adjacent intersection of Albany Highway/Kenwick Link/William Street was undertaken for the post-development (year 2026) and 10-year horizon (year 2036) scenarios.

The capacity analysis of the crossovers and the intersection was undertaken using the SIDRA NETWORK computer software package. SIDRA is an intersection modelling tool commonly used by traffic engineers for all types of intersections. SIDRA outputs are presented in the form of Degree of Saturation, Level of Service, Average Delay and 95% Queue. These characteristics are defined as follows:

- **Degree of Saturation** is the ratio of the arrival traffic flow to the capacity of the approach during the same period. The Degree of Saturation ranges from close to zero for infrequent traffic flow up to one for saturated flow or capacity.
- **Level of Service** is the qualitative measure describing operational conditions within a traffic stream and the perception by motorists and/or passengers. In general, there are 6 levels of service, designated from A to F, with Level of Service A representing the best operating condition (i.e. free flow) and Level of Service F the worst (i.e. forced or breakdown flow).
- **Average Delay** is the average of all travel time delays for vehicles through the intersection.
- **95% Queue** is the queue length below which 95% of all observed queue lengths fall.

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For the purpose of the SIDRA model, the most recent available SCATS data for the Albany Highway/Kenwick Link/William Street intersect (June 2023) including the Surveytec's video survey were sourced via Main Roads WA Traffic Info portal. The SCATS data and the video survey were used to establish average cycle times, phasing sequences, average queuing and pedestrian traffic info for both weekday peak hour periods. This data was used to calibrate the SIDRA model for the Albany Highway/Kenwick Link/William Street traffic signals.

The results of the SIDRA NETWORK analysis are summarised in **Appendix C** and discussed in the subsequent paragraphs.

Albany Highway/Kenwick Link/William Street Intersection

The SIDRA analysis indicates that this intersection currently operates with overall LoS D and E during the AM and PM peak hour periods, respectively. Refer **Table 3** through to **Table 4** for more details.

The addition of development traffic, including the background traffic growth on constituent roads in 2026, will not result in change to overall intersection LoS. The intersection at this stage operates at about 78% and 103% capacity with proportional marginal increases to queues and delays on approaches. Refer **Table 5** through to **Table 6** for more details.

Similarly, with the allowance for development-generated and 10-year traffic growth on constituent roads (year 2036), the overall LoS for the intersection remains that of LoS D in the AM peak but changes to LoS F in the PM peak. However, this change in LoS is the result of assumed background traffic growth and not the development traffic. Refer **Table 7** through to **Table 8** for more details.

Albany Highway crossover

The SIDRA analysis for post-development and 10-year horizon stages indicates overall LoS A operation with no capacity or queueing issues for Albany Highway crossover, which is to be expected considering its left-in/left-out format. Refer **Table 9** through to **Table 12** for more details.

William Street crossover

The SIDRA analysis for post-development and 10-year horizon stages indicates LoS A for all but right-out movements from the crossover. This particular movement will experience maximum delays of up to 26sec and 62sec in the AM and PM peaks for the 10-year horizon, and less in the post-development stage, which is to be expected considering the high level of traffic volume on William Street. No delays for any other crossover movement are anticipated. Refer **Table 13** through to **Table 16** for more details.

Albany Highway/Kenwick Link/William Street Intersection (Sensitivity Analysis)

A sensitivity analysis of the existing AM and PM peak hour SIDRA model was undertaken for the Albany Highway/Kenwick Link/William Street signals using user-given phasing time factor in lieu of user-given cycle time factor, as requested by Main Roads WA. The outcome of this alternative SIDRA modelling for the two existing weekday peak hour scenarios has shown significant discrepancy to the real-time operation of the signals. The alternative SIDRA model for the existing situation has

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shown approximately 17% and 16.4% higher capacity levels with about 45m and 160m longer average queues on relevant approaches compared to the previously modelled user-given cycle time model for AM and PM peak hours, respectively.

This outcome is somewhat expected considering the inadequacy of the fixed set phase time model to replicate the flexible phase time operation of SCATS, which responds to actual demand for specific phase time in real-time. Hence, the user-given phase time model cannot be related back to the existing traffic signal operation and does not offer a good representation of this intersection's operation. Refer **Table 17** and **Table 18** for more details.

7.5 Impact on Surrounding Roads and Neighbouring Areas

Considering the location of the subject site, its accessibility via major regional road, significant passing trade component and limited number of residential dwellings within the immediate vicinity, the traffic impact from the proposed development in the area will be limited.

7.6 Traffic Noise and Vibration

Due to the location of the proposed development and with respect to the surrounding land uses traffic noise and vibration are relevant only to the residential areas directly fronting adjacent roads east and south of the site, which in this case is limited.

It generally requires a doubling of traffic volumes on a road to produce a perceptible 3dB(A) increase in road noise. The proposed development will not increase traffic volumes or noise on surrounding roads anywhere near this level.

7.7 Road Safety

No particular safety-related issues have been identified for the proposal.

7.8 Queueing Capacity – Service Station

The stacking capacity of the service station and detailed queue analysis at the filling points has been undertaken to investigate potential impacts of higher-than-average site patronage during peak operational periods. Hence, the sensitivity analysis was undertaken to confirm the capacity of the service station to operate satisfactorily during the "cheap fuel" day peak hour.

The experience suggests that, under normal circumstances, the service rate per fill point is usually between 4-5min (time taken for a vehicle to park at a fill point, get fuel, pay for fuel and leave the fill point). In some circumstances refuelling time may extend longer when window-washing or other similar activities are practiced.

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However, during the "cheap fuel" day periods and due to high turnover of vehicles and "pressure" from the other patrons waiting behind the parked vehicle to access the bowser, the refuelling activity is always shortened. In this case and in order to allow for a conservative assessment the service time for each single vehicle is assumed to be at 4.0min. This is more than the average service time of 3.9 minutes established by Transcore as part of the 2022 service station surveys. Accordingly, a service rate of 15 vehicles per hour per fill point will apply for "cheap fuel" peak hour.

Based on peak hour trip generation, it is established that the subject service station would attract up to 148 vehicles during the regular (higher) weekday PM peak hour. It is further assumed that the fuel trade on "cheap fuel" day would record up to 30% higher level of trade than the typical peak weekday PM hour. Considering the number of available service stations within immediate proximity of the site (four other service stations are located within the 2min drive from the site), the assumed peak cheap fuel day trade levels are considered realistic if not conservative. Accordingly, it is assumed that the site would potentially attract up to about 192 customers per hour in this case.

It is assumed that all bowsers will be in operation during the observed peak periods, giving an order taking service rate and capacity of 240 vehicles per hour for the station during the "cheap fuel" hour peak. Service station patrons generally prefer to park at the bowser facing the shop; however, in the proposed canopy setup the patrons are expected to generally approach bowsers from the point of site entry due to convenience. It is also assumed that cars would enter the service channel with the shortest queue, therefore over the peak hour the transactions at each service channel would be evenly split.

A queue length analysis was undertaken to assess the provision of storage for vehicles within the service channels. For this purpose, an M/M/1 queuing model was adopted for each bowser. The M/M/1 is a single-server queue model that can be used to approximate simple systems.

The queuing model adopts the following assumptions:

- Vehicles arrive unevenly following Poisson's probability distribution;
- Service time is exponentially distributed;
- There is one server per queue, i.e., there are 16 queues, one for each bowser;
- The capacity of the queue in which arriving users wait before being served is infinite (for the purposes of identifying queue space requirements);
- The population of users (i.e., the pool of users) available to join the system is infinite; and,
- The queue is serviced on a first come, first served basis.

The results of the "cheap fuel" peak hour queuing analysis are detailed in **Figure 8**.

In summary, "cheap fuel" peak hour queuing analysis of the service station established the following for the scenario:

- The system utilisation is at 80% during the observed peak hour;
- The expected number in the system (refuelling) is 15 vehicles;

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- The expected time in the queue is 23 seconds; and,
- The 95th percentile queue within the whole system is 24 cars.

The queue length usually adopted for robust analysis is the 95th percentile queue. Assuming equal queue distribution it is estimated that in the worst-case scenario there will be one vehicle waiting behind each refuelling row of vehicles waiting.

The site plan suggests that this level of queuing can be comfortably accommodated within the service station forecourt (refer **Appendix E**).

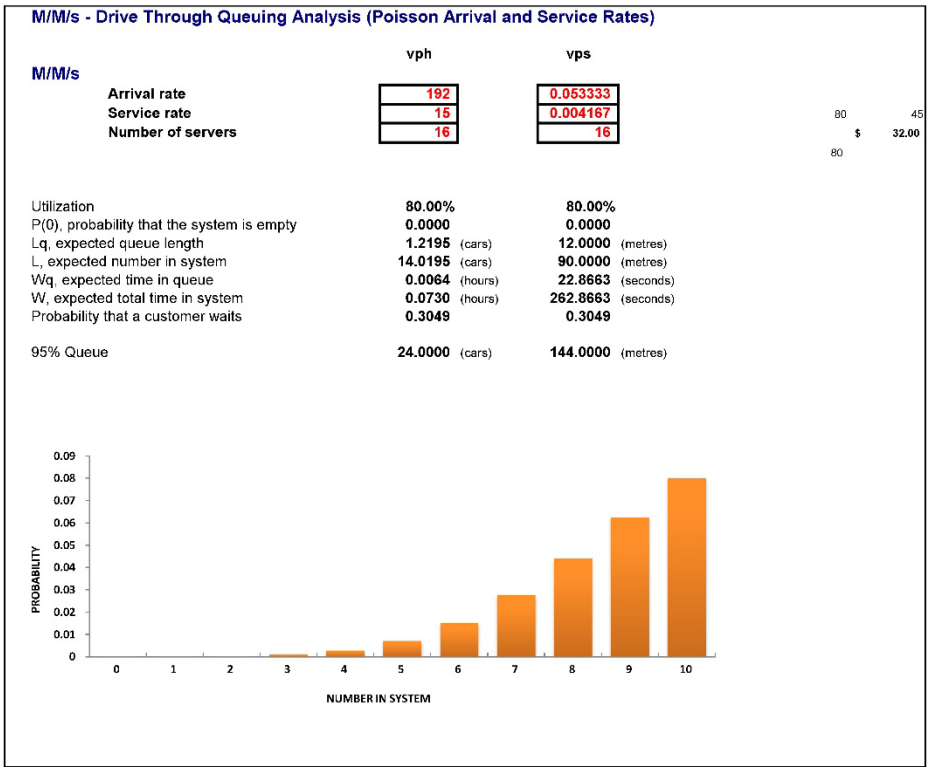


Figure 8. Cheap fuel peak hour queueing analysis

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8 Parking Assessment

The parking supply proposed to address the parking demand of the service station also includes one ACROD bay and one air & water bay. The parking provision comprises:

- Sixteen refuelling spaces/bays under the fuel canopy;
- Six parking bays directly in front of the retail building (inclusive of one ACROD bay);
- Two parking bays along the Albany Highway frontage; and,
- One air & water bay along the William Street frontage.

According to the advice provided to Transcore the proposed car parking supply is adequate and in line with the parking requirements stipulated in the relevant policies.

Based on City of Gosnells LPS No. 6 parking requirement schedule:

"Service Station requires 4 spaces for every working bay, plus 1 space for every person employed on site".

As no working bays are provided, the required parking provision is 1 space for every employee. With two employees on site, 2 parking spaces are required. This is well exceeded with the provision of eight standard bays (including one ACROD), one air & water bay, and the 16 fueling/waiting bays.

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9 Provision for Service Vehicles

A separate service yard (i.e., loading bay) proposed at the northern side of the service station retail building site is designed to accommodate a 10.0m rigid truck. The fuel delivery will be undertaken using a 17m tanker as it is typically the case with service stations located in metropolitan areas.

The delivery of fuel will be undertaken using a typical 17m fuel tanker which will enter the site via William Street crossover, access the fill points west of the canopy, turn within the site and exit the site via the same crossover. The fuel tanker would only ever need to move in the forward gear.

In order to facilitate entry/exit movements of the fuel tanker from the kerbside lane it is proposed to widen the existing crossover on William Street and install the rollover aprons on each side.

The location of the fill points has been selected so that a tanker temporarily parked to undertake the filling operation would not impact on the accessibility of either of the crossovers and would also have minimal practical impact on traffic circulation within the site and around the fuel canopy. Nonetheless, 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.

A service yard is located immediately north of the retail building with the loading bay adjacent to it. The service/delivery vehicles will access the site via William Street 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 William Street crossover.

Appropriate turn path assessment plans for the tankers and service vehicles are attached in **Appendix B**.

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10 Public Transport Access

Details of the available public transport services in this locality are provided in **Section 4.4** of this report and will provide a satisfactory level of public transport accessibility to the site, particularly during business hours.

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11 Pedestrian and Cyclist Access

Details of the pedestrian and cyclist facilities in this locality are provided in **Section 4.5** of the report. The existing facilities in this location provide satisfactory level of accessibility for the proposed development.

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12 Conclusions

This Transport Impact Assessment (TIA) report has been prepared with respect to the proposed service station at 1510 (Lot 8) Albany Highway in Beckenham, City of Gosnells.

The Lot 8 is located at the northeast corner of the existing intersection of Albany Highway/Kenwick Link/William Street.

The development proposal contemplates a construction of a new service station with associated on-site parking at the subject site.

The existing access system presently serving the site is proposed to be retained in its current location with an adjustment to the width of the William Stret crossover.

It is estimated that the proposed development would generate approximately **257** and **295** trips (both inbound and outbound) during the weekday morning and afternoon peak hour period. However, only about 40% of these trips will effectively be new trips as the proposed type of land use relies on passing trade for operation. The proposal also replaces the recently closed heavy machinery and equipment leasing tenancy at the subject site thereby resulting in smaller practical traffic impact footprint than that reported.

The comprehensive traffic modelling and assessment undertaken in this report demonstrates that the surrounding road network has sufficient capacity to accommodate the development traffic.

Accordingly, the traffic-related issues should not form an impediment for the approval of the proposed redevelopment.

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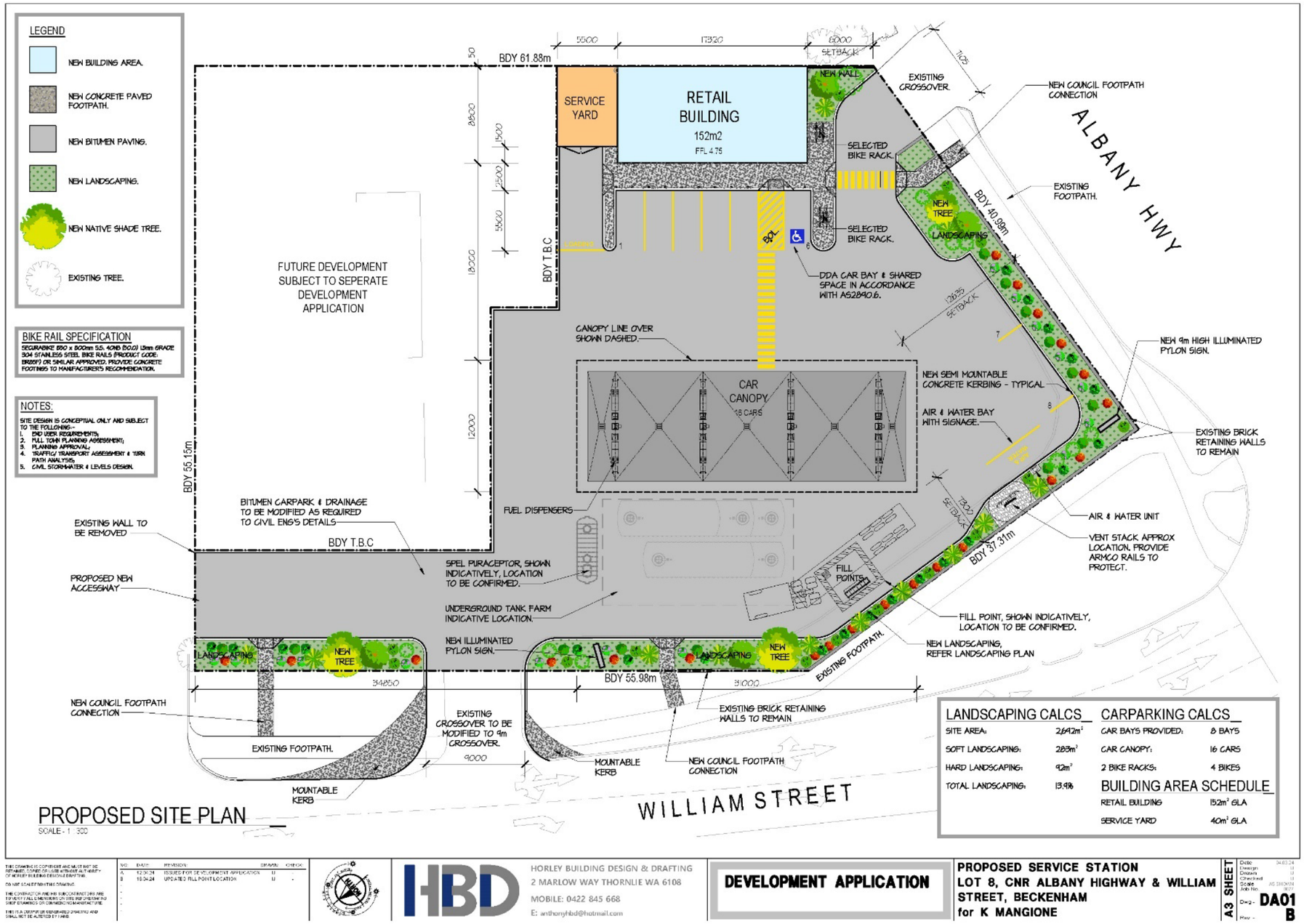
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Appendix A

PROPOSED DEVELOPMENT PLAN

Engineering a better future for over 20 years!

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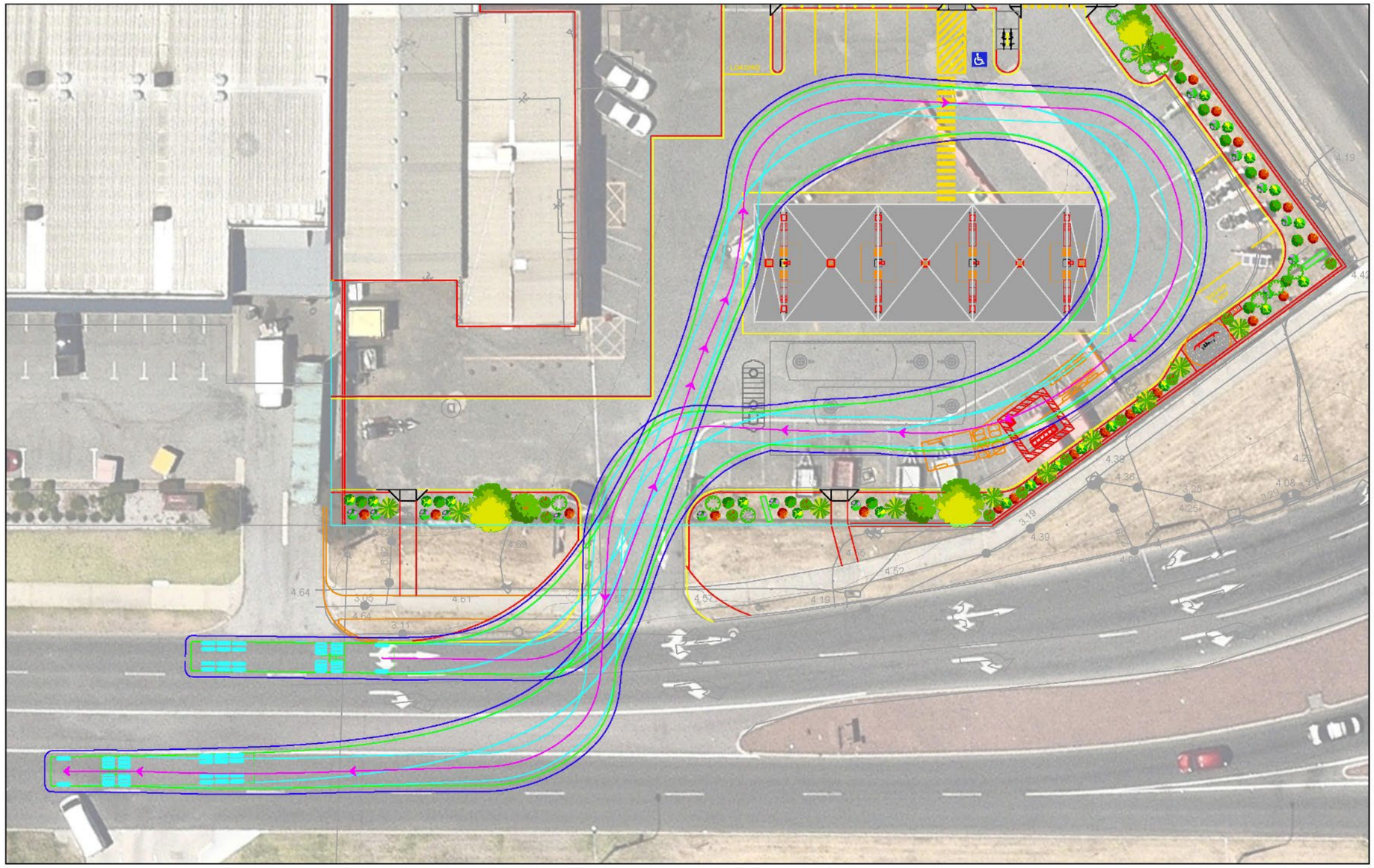
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Appendix B

TURN PATH PLANS

Engineering a better future for over 20 years!

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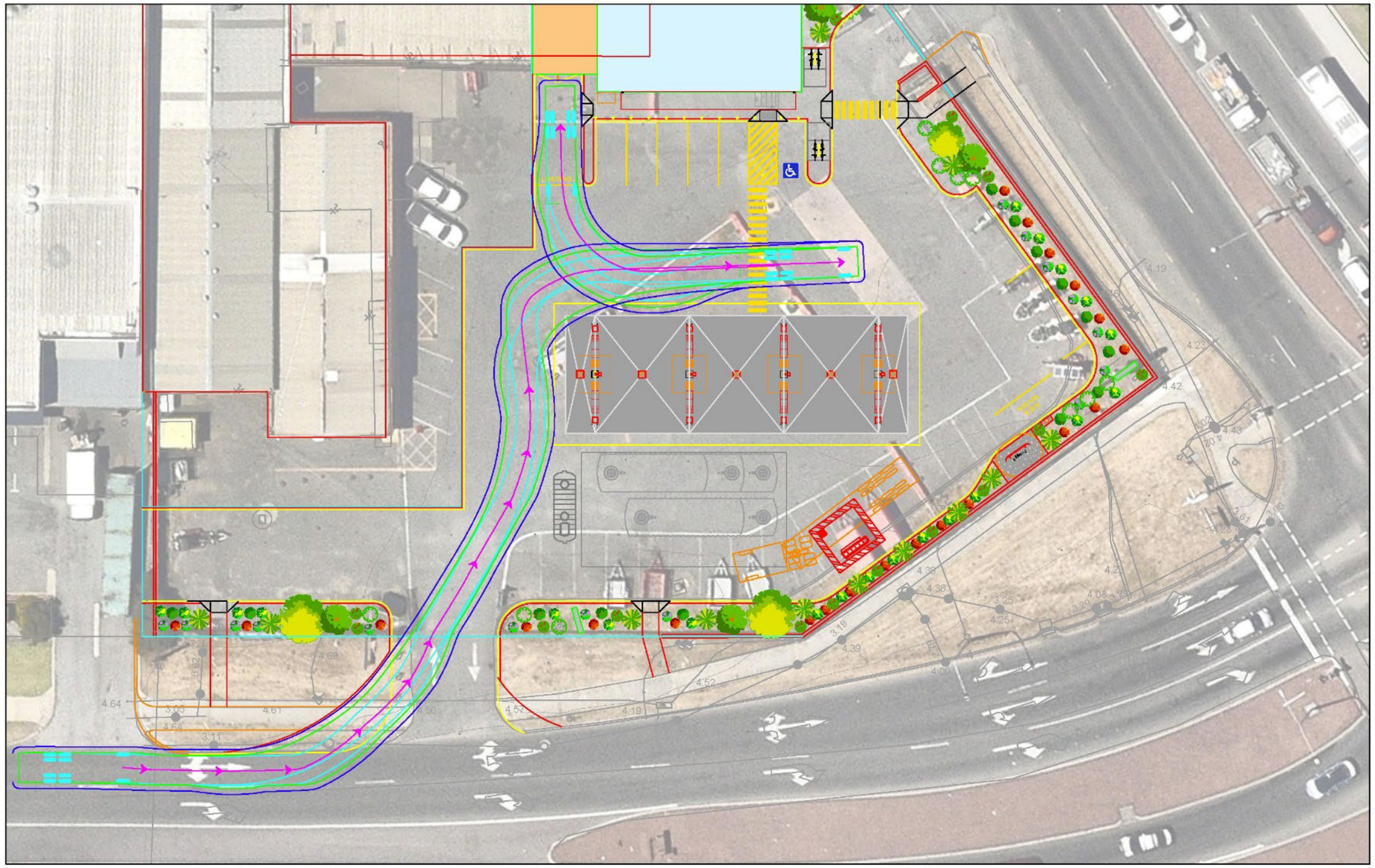
Lot 8 (1510) Albany Highway, Beckenham
17.25m Fuel Tanker (Radius: 12.5m - Austroads)
Fuel tanker circulation

LEGEND
Vehicle Body
Wheel Path
500mm Clearance

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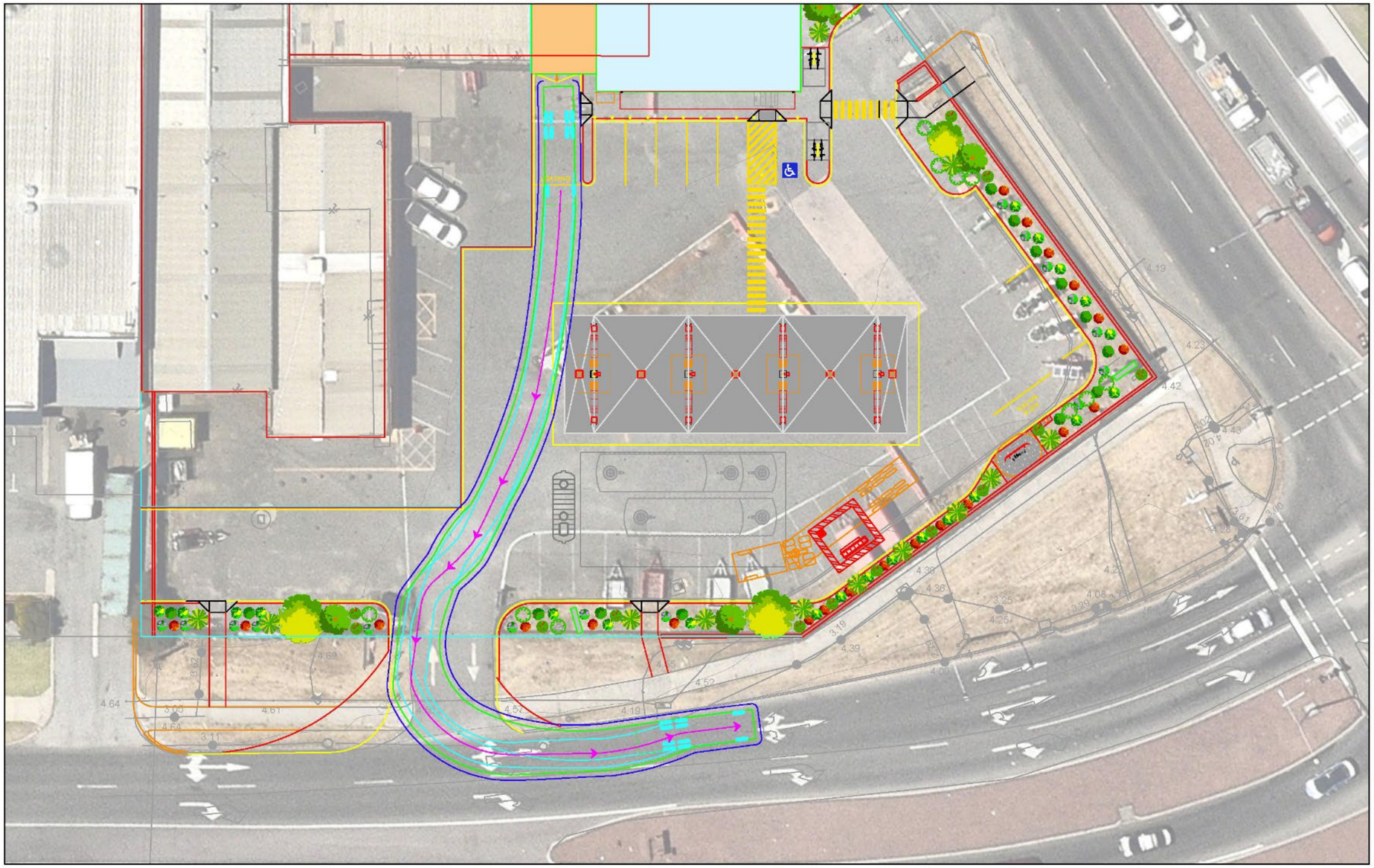
Lot 8 (1510) Albany Highway, Beckenham
10m Service Vehicle (Radius: 10m)
Service vehicle entry

LEGEND
Vehicle Body
Wheel Path
500mm Clearance

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16/04/2024
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Lot 8 (1510) Albany Highway, Beckenham
10m Service Vehicle (Radius: 10m)
Service vehicle exit

LEGEND
Vehicle Body
Wheel Path
500mm Clearance

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Appendix C

SIDRA RESULTS

Engineering a better future for over 20 years!

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Table 3. SIDRA Results – Albany Highway/Kenwick Link/William Street intersection – Weekday AM Peak hour (Existing situation)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Kenwick Lk (S)															
21a	L1	All MCs	685	9.1	685	9.1	0.454	27.7	LOS C	12.2	98.9	0.75	0.78	0.75	41.1
23	R2	All MCs	349	9.1	349	9.1	*0.775	52.7	LOS D	17.5	141.4	0.98	0.89	1.07	25.2
23b	R3	All MCs	25	9.1	25	9.1	0.063	42.9	LOS D	1.0	7.7	0.77	0.72	0.77	29.2
Approach			1060	9.1	1060	9.1	0.775	36.3	LOS D	17.5	141.4	0.83	0.82	0.86	35.5
East: Albany Hwy (E)															
4b	L3	All MCs	5	7.3	5	7.3	0.750	52.7	LOS D	8.2	65.3	1.00	0.90	1.11	23.9
11	T1	All MCs	438	7.3	438	7.3	*0.750	48.2	LOS D	8.2	65.3	1.00	0.90	1.11	24.6
6b	R3	All MCs	95	7.3	95	7.3	0.652	57.4	LOS E	5.0	39.8	1.00	0.83	1.09	3.8
Approach			538	7.3	538	7.3	0.750	49.9	LOS D	8.2	65.3	1.00	0.89	1.11	21.7
NorthEast: William St (N)															
24b	L3	All MCs	48	9.1	48	9.1	0.521	46.3	LOS D	8.0	64.3	0.94	0.81	0.94	5.9
24	L2	All MCs	218	9.1	218	9.1	0.521	45.3	LOS D	8.4	67.7	0.94	0.81	0.94	25.2
26a	R1	All MCs	269	9.1	269	9.1	*0.521	44.1	LOS D	8.5	68.7	0.94	0.80	0.94	24.9
Approach			536	9.1	536	9.1	0.521	44.8	LOS D	8.5	68.7	0.94	0.81	0.94	23.9
West: Albany Hwy (W)															
10a	L1	All MCs	279	7.3	279	7.3	0.157	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	52.3
5	T1	All MCs	336	7.3	336	7.3	0.567	44.4	LOS D	8.1	64.1	0.97	0.79	0.97	24.7
12a	R1	All MCs	241	7.3	241	7.3	*0.706	57.3	LOS E	6.4	50.8	1.00	0.86	1.12	31.1
Approach			856	7.3	856	7.3	0.706	35.1	LOS D	8.1	64.1	0.66	0.73	0.70	31.8
All Vehicles			2989	8.3	2989	8.3	0.775	39.9	LOS D	17.5	141.4	0.83	0.80	0.87	30.0

Table 4. SIDRA Results – Albany Highway/Kenwick Link/William Street intersection – Weekday PM Peak hour (Existing situation)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Kenwick Lk (S)															
21a	L1	All MCs	549	9.1	549	9.1	0.356	18.2	LOS B	6.5	52.8	0.70	0.75	0.70	46.0
23	R2	All MCs	281	9.1	281	9.1	*0.972	100.9	LOS F	22.1	178.5	1.00	1.10	1.50	15.7
23b	R3	All MCs	14	9.1	14	9.1	0.054	61.0	LOS E	0.7	5.5	0.86	0.70	0.86	23.6
Approach			844	9.1	844	9.1	0.972	46.4	LOS D	22.1	178.5	0.80	0.87	0.97	31.8
East: Albany Hwy (E)															
4b	L3	All MCs	11	7.3	11	7.3	0.965	90.1	LOS F	8.2	65.3	1.00	1.15	1.55	16.5
11	T1	All MCs	360	7.3	360	7.3	*0.965	85.6	LOS F	8.2	65.3	1.00	1.15	1.55	16.9
6b	R3	All MCs	94	7.3	94	7.3	0.841	74.6	LOS E	6.3	49.6	1.00	0.95	1.34	3.0
Approach			464	7.3	464	7.3	0.965	83.5	LOS F	8.2	65.3	1.00	1.11	1.50	14.9
NorthEast: William St (N)															
24b	L3	All MCs	81	9.1	81	9.1	1.004	123.4	LOS F	13.1	106.1	1.00	1.18	1.64	2.6
24	L2	All MCs	369	9.1	369	9.1	1.004	122.2	LOS F	13.1	106.1	1.00	1.20	1.64	14.4
26a	R1	All MCs	491	9.1	491	9.1	*1.004	105.8	LOS F	13.1	106.1	1.00	1.22	1.58	14.7
Approach			941	9.1	941	9.1	1.004	113.8	LOS F	13.1	106.1	1.00	1.21	1.61	12.9
West: Albany Hwy (W)															
10a	L1	All MCs	245	7.3	245	7.3	0.138	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	52.3
5	T1	All MCs	607	7.3	607	7.3	0.553	38.3	LOS D	15.1	120.1	0.89	0.76	0.89	26.9
12a	R1	All MCs	768	7.3	768	7.3	*1.015	79.6	LOS E	25.6	203.2	1.00	1.32	1.61	21.5
Approach			1621	7.3	1621	7.3	1.015	52.8	LOS D	25.6	203.2	0.81	0.99	1.10	24.2
All Vehicles			3871	8.1	3871	8.1	1.015	69.9	LOS E	25.6	203.2	0.88	1.03	1.24	21.0

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Table 5. SIDRA Results – Albany Highway/Kenwick Link/William Street intersection – Weekday AM Peak hour (Post-development)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Kenwick Lk (S)															
21a	L1	All MCs	693	9.1	693	9.1	0.459	27.8	LOS C	12.4	100.2	0.76	0.78	0.76	41.1
23	R2	All MCs	349	9.1	349	9.1	*0.778	52.9	LOS D	17.5	141.8	0.99	0.89	1.08	25.1
23b	R3	All MCs	34	9.1	34	9.1	0.084	43.1	LOS D	1.3	10.4	0.78	0.73	0.78	29.0
Approach			1076	9.1	1076	9.1	0.778	36.4	LOS D	17.5	141.8	0.83	0.82	0.86	35.5
East: Albany Hwy (E)															
4b	L3	All MCs	5	7.3	5	7.3	0.739	52.3	LOS D	8.2	65.3	1.00	0.89	1.10	24.0
11	T1	All MCs	432	7.3	432	7.3	*0.739	47.9	LOS D	8.2	65.3	1.00	0.89	1.10	24.7
6b	R3	All MCs	108	7.3	108	7.3	*0.747	59.5	LOS E	5.9	46.9	1.00	0.89	1.19	3.7
Approach			545	7.3	545	7.3	0.747	50.2	LOS D	8.2	65.3	1.00	0.89	1.12	21.3
NorthEast: William St (N)															
24b	L3	All MCs	48	9.1	48	9.1	0.562	46.7	LOS D	8.7	70.2	0.95	0.81	0.95	5.8
24	L2	All MCs	244	9.1	244	9.1	0.562	45.7	LOS D	9.1	73.6	0.95	0.81	0.95	25.1
26a	R1	All MCs	285	9.1	285	9.1	*0.562	44.5	LOS D	9.2	74.7	0.95	0.81	0.95	24.7
Approach			578	9.1	578	9.1	0.562	45.2	LOS D	9.2	74.7	0.95	0.81	0.95	23.9
West: Albany Hwy (W)															
10a	L1	All MCs	282	7.3	282	7.3	0.159	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	52.3
5	T1	All MCs	364	7.3	364	7.3	0.615	44.9	LOS D	8.9	70.2	0.98	0.80	0.98	24.6
12a	R1	All MCs	243	7.3	243	7.3	0.712	57.4	LOS E	6.5	51.3	1.00	0.87	1.13	31.0
Approach			889	7.3	889	7.3	0.712	35.5	LOS D	8.9	70.2	0.68	0.73	0.71	31.5
All Vehicles			3088	8.3	3088	8.3	0.778	40.3	LOS D	17.5	141.8	0.84	0.81	0.88	29.8

Table 6. SIDRA Results – Albany Highway/Kenwick Link/William Street intersection – Weekday PM Peak hour (Post-development)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Kenwick Lk (S)															
21a	L1	All MCs	555	9.1	555	9.1	0.359	18.3	LOS B	6.8	54.8	0.70	0.75	0.70	45.9
23	R2	All MCs	280	9.1	280	9.1	*1.021	125.8	LOS F	24.5	198.2	1.00	1.18	1.69	13.0
23b	R3	All MCs	23	9.1	23	9.1	0.095	62.8	LOS E	1.2	9.6	0.88	0.72	0.88	23.2
Approach			858	9.1	858	9.1	1.021	54.6	LOS D	24.5	198.2	0.81	0.89	1.03	29.3
East: Albany Hwy (E)															
4b	L3	All MCs	11	7.3	11	7.3	1.025	118.4	LOS F	8.2	65.3	1.00	1.25	1.77	13.4
11	T1	All MCs	353	7.3	353	7.3	*1.025	113.9	LOS F	8.2	65.3	1.00	1.25	1.76	13.7
6b	R3	All MCs	109	7.3	109	7.3	0.884	77.5	LOS E	7.5	59.6	1.00	0.99	1.41	2.9
Approach			473	7.3	473	7.3	1.025	105.5	LOS F	8.2	65.3	1.00	1.19	1.68	12.1
NorthEast: William St (N)															
24b	L3	All MCs	82	9.1	82	9.1	0.995	119.0	LOS F	13.1	106.1	1.00	1.15	1.60	2.7
24	L2	All MCs	369	9.1	369	9.1	0.995	117.8	LOS F	13.1	106.1	1.00	1.16	1.60	14.9
26a	R1	All MCs	511	9.1	511	9.1	*0.995	101.3	LOS F	13.1	106.1	1.00	1.20	1.54	15.2
Approach			962	9.1	962	9.1	0.995	109.1	LOS F	13.1	106.1	1.00	1.18	1.57	13.4
West: Albany Hwy (W)															
10a	L1	All MCs	247	7.3	247	7.3	0.139	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	52.3
5	T1	All MCs	642	7.3	642	7.3	0.600	39.7	LOS D	16.4	130.2	0.91	0.79	0.91	26.4
12a	R1	All MCs	776	7.3	776	7.3	*0.987	84.8	LOS F	24.3	192.5	1.00	1.26	1.50	25.2
Approach			1665	7.3	1665	7.3	0.987	55.5	LOS E	24.3	192.5	0.82	0.97	1.05	26.9
All Vehicles			3958	8.1	3958	8.1	1.025	74.3	LOS E	24.5	198.2	0.88	1.03	1.25	21.2

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Table 7. SIDRA Results – Albany Highway/Kenwick Link/William Street intersection – Weekday AM Peak hour (10-year Horizon)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Kenwick Lk (S)															
21a	L1	All MCs	726	9.1	726	9.1	0.481	28.1	LOS C	13.2	106.4	0.77	0.79	0.77	41.0
23	R2	All MCs	367	9.1	367	9.1	*0.822	57.9	LOS E	19.3	156.4	1.00	0.92	1.14	24.2
23b	R3	All MCs	34	9.1	34	9.1	0.084	45.1	LOS D	1.3	10.4	0.78	0.73	0.78	29.0
Approach			1127	9.1	1127	9.1	0.822	38.3	LOS D	19.3	156.4	0.84	0.83	0.89	34.7
East: Albany Hwy (E)															
4b	L3	All MCs	5	7.3	5	7.3	0.776	53.7	LOS D	8.2	65.3	1.00	0.92	1.14	23.6
11	T1	All MCs	454	7.3	454	7.3	*0.776	49.3	LOS D	8.2	65.3	1.00	0.92	1.14	24.3
6b	R3	All MCs	113	7.3	113	7.3	*0.776	60.4	LOS E	6.2	49.3	1.00	0.91	1.23	3.7
Approach			572	7.3	572	7.3	0.776	51.5	LOS D	8.2	65.3	1.00	0.92	1.16	21.0
NorthEast: William St (N)															
24b	L3	All MCs	52	9.1	52	9.1	0.588	47.0	LOS D	9.1	73.8	0.96	0.82	0.96	5.8
24	L2	All MCs	255	9.1	255	9.1	0.588	46.0	LOS D	9.6	77.4	0.96	0.82	0.96	25.0
26a	R1	All MCs	298	9.1	298	9.1	*0.588	44.8	LOS D	9.7	78.7	0.96	0.81	0.96	24.7
Approach			604	9.1	604	9.1	0.588	45.5	LOS D	9.7	78.7	0.96	0.82	0.96	23.8
West: Albany Hwy (W)															
10a	L1	All MCs	296	7.3	296	7.3	0.167	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	52.3
5	T1	All MCs	381	7.3	381	7.3	0.643	45.4	LOS D	9.4	74.3	0.99	0.82	1.01	24.4
12a	R1	All MCs	256	7.3	256	7.3	0.749	58.4	LOS E	6.9	54.7	1.00	0.89	1.17	30.8
Approach			933	7.3	933	7.3	0.749	36.0	LOS D	9.4	74.3	0.68	0.75	0.73	31.3
All Vehicles			3236	8.3	3236	8.3	0.822	41.3	LOS D	19.3	156.4	0.84	0.82	0.90	29.4

Table 8. SIDRA Results – Albany Highway/Kenwick Link/William Street intersection – Weekday PM Peak hour (10-year Horizon)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Kenwick Lk (S)															
21a	L1	All MCs	582	9.1	582	9.1	0.377	18.5	LOS B	7.2	58.0	0.71	0.76	0.71	45.9
23	R2	All MCs	294	9.1	294	9.1	*1.071	161.6	LOS F	28.6	231.0	1.00	1.26	1.89	10.6
23b	R3	All MCs	24	9.1	24	9.1	0.100	65.3	LOS E	1.2	10.0	0.88	0.72	0.88	23.1
Approach			900	9.1	900	9.1	1.071	66.4	LOS E	28.6	231.0	0.81	0.92	1.10	26.3
East: Albany Hwy (E)															
4b	L3	All MCs	12	7.3	12	7.3	1.081	158.0	LOS F	8.2	65.3	1.00	1.37	1.99	10.6
11	T1	All MCs	372	7.3	372	7.3	*1.081	153.5	LOS F	8.2	65.3	1.00	1.37	1.99	10.8
6b	R3	All MCs	114	7.3	114	7.3	0.918	82.0	LOS F	8.1	64.2	1.00	1.03	1.50	2.7
Approach			497	7.3	497	7.3	1.081	137.3	LOS F	8.2	65.3	1.00	1.29	1.88	9.8
NorthEast: William St (N)															
24b	L3	All MCs	86	9.1	86	9.1	1.076	172.2	LOS F	13.1	106.1	1.00	1.30	1.92	1.9
24	L2	All MCs	418	9.1	418	9.1	1.076	171.1	LOS F	13.1	106.1	1.00	1.32	1.92	10.9
26a	R1	All MCs	535	9.1	535	9.1	*1.076	152.3	LOS F	13.1	106.1	1.00	1.37	1.87	11.1
Approach			1039	9.1	1039	9.1	1.076	161.5	LOS F	13.1	106.1	1.00	1.35	1.89	9.8
West: Albany Hwy (W)															
10a	L1	All MCs	260	7.3	260	7.3	0.146	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	52.3
5	T1	All MCs	673	7.3	673	7.3	0.629	40.2	LOS D	17.4	137.8	0.92	0.80	0.92	26.2
12a	R1	All MCs	815	7.3	815	7.3	*1.036	93.0	LOS F	28.4	225.0	1.00	1.37	1.69	20.0
Approach			1747	7.3	1747	7.3	1.036	59.5	LOS E	28.4	225.0	0.82	1.02	1.14	22.9
All Vehicles			4183	8.1	4183	8.1	1.081	95.6	LOS F	28.6	231.0	0.88	1.11	1.41	17.2

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Table 9. SIDRA Results – Albany Highway crossover – Weekday AM Peak hour (Post-development)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Albany Hwy (E)															
5	T1	All MCs	545	7.3	545	7.3	0.130	0.0	LOS A	3.0	22.2	0.00	0.00	0.00	59.9
Approach			545	7.3	545	7.3	0.130	0.0	NA	3.0	22.2	0.00	0.00	0.00	59.9
North: Crossover															
7	L2	All MCs	60	2.0	60	2.0	0.052	0.6	LOS A	0.2	1.8	0.25	0.11	0.25	47.2
Approach			60	2.0	60	2.0	0.052	0.6	LOS A	0.2	1.8	0.25	0.11	0.25	47.2
West: Albany Hwy (W)															
10	L2	All MCs	69	2.0	69	2.0	0.123	3.5	LOS A	0.0	0.0	0.00	0.18	0.00	7.0
11	T1	All MCs	377	7.3	377	7.3	0.123	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	59.1
Approach			446	6.5	446	6.5	0.123	0.6	NA	0.0	0.0	0.00	0.09	0.00	50.3
All Vehicles			1052	6.6	1052	6.6	0.130	0.3	NA	3.0	22.2	0.01	0.04	0.01	54.8

Table 10. SIDRA Results – Albany Highway crossover – Weekday PM Peak hour (Post-development)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Albany Hwy (E)															
5	T1	All MCs	473	7.3	473	7.3	0.112	0.0	LOS A	7.5	55.1	0.00	0.00	0.00	59.9
Approach			473	7.3	473	7.3	0.112	0.0	NA	7.5	55.1	0.00	0.00	0.00	59.9
North: Crossover															
7	L2	All MCs	69	2.0	69	2.0	0.069	1.4	LOS A	0.3	2.3	0.37	0.23	0.37	46.6
Approach			69	2.0	69	2.0	0.069	1.4	LOS A	0.3	2.3	0.37	0.23	0.37	46.6
West: Albany Hwy (W)															
10	L2	All MCs	79	2.0	79	2.0	0.206	3.5	LOS A	0.0	0.0	0.00	0.12	0.00	7.0
11	T1	All MCs	668	7.3	668	7.3	0.206	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	59.3
Approach			747	6.7	747	6.7	0.206	0.4	NA	0.0	0.0	0.00	0.06	0.00	53.3
All Vehicles			1289	6.7	1289	6.7	0.206	0.3	NA	7.5	55.1	0.02	0.05	0.02	55.1

Table 11. SIDRA Results – Albany Highway crossover – Weekday AM Peak hour (10-year Horizon)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Albany Hwy (E)															
5	T1	All MCs	572	7.3	572	7.3	0.136	0.0	LOS A	3.9	28.3	0.00	0.00	0.00	59.9
Approach			572	7.3	572	7.3	0.136	0.0	NA	3.9	28.3	0.00	0.00	0.00	59.9
North: Crossover															
7	L2	All MCs	60	2.0	60	2.0	0.052	0.7	LOS A	0.2	1.8	0.26	0.12	0.26	47.1
Approach			60	2.0	60	2.0	0.052	0.7	LOS A	0.2	1.8	0.26	0.12	0.26	47.1
West: Albany Hwy (W)															
10	L2	All MCs	69	2.0	69	2.0	0.129	3.5	LOS A	0.0	0.0	0.00	0.17	0.00	7.0
11	T1	All MCs	398	7.3	398	7.3	0.129	0.0	LOS A	0.0	0.0	0.00	0.07	0.00	59.1
Approach			467	6.5	467	6.5	0.129	0.5	NA	0.0	0.0	0.00	0.08	0.00	50.7
All Vehicles			1099	6.7	1099	6.7	0.136	0.3	NA	3.9	28.3	0.01	0.04	0.01	55.0

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Table 12. SIDRA Results – Albany Highway crossover – Weekday PM Peak hour (10-year Horizon)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
East: Albany Hwy (E)															
5	T1	All MCs	497	7.3	497	7.3	0.118	0.0	LOS A	10.6	78.1	0.00	0.00	0.00	59.9
Approach			497	7.3	497	7.3	0.118	0.0	NA	10.6	78.1	0.00	0.00	0.00	59.9
North: Crossover															
7	L2	All MCs	69	2.0	69	2.0	0.070	1.5	LOS A	0.3	2.3	0.38	0.24	0.38	46.6
Approach			69	2.0	69	2.0	0.070	1.5	LOS A	0.3	2.3	0.38	0.24	0.38	46.6
West: Albany Hwy (W)															
10	L2	All MCs	79	2.0	78	2.0	0.214	3.5	LOS A	0.0	0.0	0.00	0.12	0.00	7.0
11	T1	All MCs	704	7.3	699	7.3	0.214	0.0	LOS A	0.0	0.0	0.00	0.05	0.00	59.3
Approach			783	6.8	777	6.8	0.214	0.4	NA	0.0	0.0	0.00	0.06	0.00	53.6
All Vehicles			1349	6.7	1343	6.7	0.214	0.3	NA	10.6	78.1	0.02	0.05	0.02	55.3

Table 13. SIDRA Results – William Street crossover – Weekday AM Peak hour (Post-development)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Crossover (SE)															
7	L2	All MCs	68	2.0	68	2.0	0.121	1.1	LOS A	0.4	2.8	0.44	0.31	0.44	13.7
9	R2	All MCs	6	2.0	6	2.0	0.121	23.0	LOS C	0.4	2.8	0.44	0.31	0.44	45.0
Approach			75	2.0	75	2.0	0.121	2.9	LOS A	0.4	2.8	0.44	0.31	0.44	23.0
NorthEast: William St (NE)															
10	L2	All MCs	54	2.0	54	2.0	0.187	5.7	LOS A	0.0	0.0	0.00	0.11	0.00	55.4
11	T1	All MCs	509	9.1	509	9.1	0.187	0.1	LOS A	0.0	0.0	0.00	0.05	0.00	58.9
Approach			563	8.4	563	8.4	0.187	0.6	NA	0.0	0.0	0.00	0.06	0.00	58.5
SouthWest: William St (SW)															
5	T1	All MCs	727	9.1	727	9.1	0.213	0.1	LOS A	0.2	1.3	0.03	0.03	0.03	59.5
6	R2	All MCs	13	2.0	13	2.0	0.213	8.2	LOS A	0.2	1.3	0.05	0.07	0.05	39.8
Approach			740	9.0	740	9.0	0.213	0.3	NA	0.2	1.3	0.03	0.03	0.03	59.4
All Vehicles			1378	8.4	1378	8.4	0.213	0.5	NA	0.4	2.8	0.04	0.06	0.04	58.3

Table 14. SIDRA Results – William Street crossover – Weekday PM Peak hour (Post-development)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Crossover (SE)															
7	L2	All MCs	78	2.0	78	2.0	0.350	3.2	LOS A	1.7	13.1	0.69	0.73	0.82	9.2
9	R2	All MCs	7	2.0	7	2.0	0.350	53.1	LOS F	1.7	13.1	0.69	0.73	0.82	40.7
Approach			85	2.0	85	2.0	0.350	7.5	LOS A	1.7	13.1	0.69	0.73	0.82	16.9
NorthEast: William St (NE)															
10	L2	All MCs	62	2.0	62	2.0	0.274	5.7	LOS A	9.6	76.7	0.00	0.08	0.00	55.9
11	T1	All MCs	915	9.1	915	9.1	0.274	0.1	LOS A	20.2	163.1	0.00	0.04	0.00	59.2
Approach			977	8.6	977	8.6	0.274	0.4	NA	20.2	163.1	0.00	0.04	0.00	58.9
SouthWest: William St (SW)															
5	T1	All MCs	622	9.1	616	9.1	0.190	0.5	LOS A	0.4	3.1	0.06	0.07	0.06	58.6
6	R2	All MCs	15	2.0	15	2.0	0.190	13.2	LOS B	0.4	3.1	0.14	0.16	0.14	34.7
Approach			637	8.9	631	8.9	0.190	0.8	NA	0.4	3.1	0.06	0.08	0.06	58.4
All Vehicles			1699	8.4	1693	8.5	0.350	0.9	NA	20.2	163.1	0.06	0.09	0.07	57.6

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Table 15. SIDRA Results – William Street crossover – Weekday AM Peak hour (10-year Horizon)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Crossover (SE)															
7	L2	All MCs	68	2.0	68	2.0	0.135	1.2	LOS A	0.4	2.9	0.47	0.34	0.47	13.2
9	R2	All MCs	6	2.0	6	2.0	0.135	26.1	LOS D	0.4	2.9	0.47	0.34	0.47	44.6
Approach			75	2.0	75	2.0	0.135	3.3	LOS A	0.4	2.9	0.47	0.34	0.47	22.4
NorthEast: William St (NE)															
10	L2	All MCs	54	2.0	54	2.0	0.207	5.7	LOS A	0.0	0.0	0.00	0.11	0.00	55.4
11	T1	All MCs	536	9.1	536	9.1	0.207	0.1	LOS A	0.0	0.0	0.00	0.05	0.00	58.9
Approach			589	8.5	589	8.5	0.207	0.6	NA	0.0	0.0	0.00	0.05	0.00	58.6
SouthWest: William St (SW)															
5	T1	All MCs	763	9.1	763	9.1	0.223	0.1	LOS A	0.2	1.4	0.03	0.03	0.03	59.5
6	R2	All MCs	13	2.0	13	2.0	0.223	8.5	LOS A	0.2	1.4	0.05	0.07	0.05	39.8
Approach			776	9.0	776	9.0	0.223	0.3	NA	0.2	1.4	0.03	0.03	0.03	59.4
All Vehicles			1440	8.4	1440	8.4	0.223	0.6	NA	0.4	2.9	0.04	0.06	0.04	58.3

Table 16. SIDRA Results – William Street crossover – Weekday PM Peak hour (10-year Horizon)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Crossover (SE)															
7	L2	All MCs	78	2.0	78	2.0	0.384	3.6	LOS A	2.6	19.7	0.72	0.80	0.88	8.5
9	R2	All MCs	7	2.0	7	2.0	0.384	62.1	LOS F	2.6	19.7	0.72	0.80	0.88	39.7
Approach			85	2.0	85	2.0	0.384	8.7	LOS A	2.6	19.7	0.72	0.80	0.88	15.8
NorthEast: William St (NE)															
10	L2	All MCs	62	2.0	62	2.0	0.287	5.7	LOS A	15.2	121.9	0.00	0.07	0.00	55.9
11	T1	All MCs	961	9.1	961	9.1	0.287	0.1	LOS A	29.5	238.1	0.00	0.03	0.00	59.2
Approach			1023	8.7	1023	8.7	0.287	0.4	NA	29.5	238.1	0.00	0.04	0.00	59.0
SouthWest: William St (SW)															
5	T1	All MCs	653	9.1	634	9.1	0.196	0.6	LOS A	0.4	3.4	0.06	0.07	0.06	58.4
6	R2	All MCs	15	2.0	14	2.0	0.196	14.1	LOS B	0.4	3.4	0.14	0.17	0.14	34.2
Approach			667	8.9	648	8.9	0.196	0.9	NA	0.4	3.4	0.07	0.08	0.07	58.3
All Vehicles			1776	8.5	1756	8.5	0.384	1.0	NA	29.5	238.1	0.06	0.09	0.07	57.5

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Table 17. SIDRA Results – Albany Highway/Kenwick Link/William Street intersection – Weekday AM Peak hour (User given phase times TEST - Existing situation)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Kenwick Lk (S)															
21a	L1	All MCs	685	9.1	685	9.1	0.444	27.0	LOS C	12.0	97.2	0.74	0.78	0.74	41.5
23	R2	All MCs	349	9.1	349	9.1	*0.948	81.9	LOS F	23.0	185.6	1.00	1.09	1.45	19.7
23b	R3	All MCs	25	9.1	25	9.1	0.077	50.1	LOS D	1.0	8.3	0.82	0.72	0.82	27.6
Approach			1060	9.1	1060	9.1	0.948	45.6	LOS D	23.0	185.6	0.83	0.88	0.98	32.1
East: Albany Hwy (E)															
4b	L3	All MCs	5	7.3	5	7.3	0.607	46.0	LOS D	10.4	82.7	0.96	0.80	0.96	26.0
11	T1	All MCs	438	7.3	438	7.3	*0.607	41.5	LOS D	10.5	83.1	0.96	0.80	0.96	26.8
6b	R3	All MCs	95	7.3	95	7.3	0.408	48.9	LOS D	4.5	35.7	0.95	0.78	0.95	7.9
Approach			538	7.3	538	7.3	0.607	42.9	LOS D	10.5	83.1	0.96	0.80	0.96	24.1
NorthEast: William St (N)															
24b	L3	All MCs	48	9.1	48	9.1	0.684	53.0	LOS D	8.7	70.4	1.00	0.84	1.06	5.4
24	L2	All MCs	218	9.1	218	9.1	0.684	52.0	LOS D	9.1	73.9	1.00	0.85	1.06	23.3
26a	R1	All MCs	269	9.1	269	9.1	*0.684	50.7	LOS D	9.3	75.0	1.00	0.85	1.06	23.1
Approach			536	9.1	536	9.1	0.684	51.5	LOS D	9.3	75.0	1.00	0.85	1.06	21.7
West: Albany Hwy (W)															
10a	L1	All MCs	279	7.3	279	7.3	0.157	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	50.0
5	T1	All MCs	336	7.3	336	7.3	0.459	40.0	LOS D	7.6	60.6	0.93	0.76	0.93	27.4
12a	R1	All MCs	241	7.3	241	7.3	*0.441	48.4	LOS D	5.7	45.4	0.95	0.78	0.95	33.6
Approach			856	7.3	856	7.3	0.459	30.9	LOS C	7.6	60.6	0.63	0.69	0.63	34.2
All Vehicles			2989	8.3	2989	8.3	0.948	42.0	LOS D	23.0	185.6	0.83	0.80	0.89	29.4

Table 18. SIDRA Results – Albany Highway/Kenwick Link/William Street intersection – Weekday PM Peak hour (User given phase times TEST - Existing situation)

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] m	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
SouthEast: Kenwick Lk (S)															
21a	L1	All MCs	549	9.1	549	9.1	0.350	17.4	LOS B	5.7	46.4	0.69	0.75	0.69	46.5
23	R2	All MCs	281	9.1	281	9.1	*1.020	125.3	LOS F	24.5	198.4	1.00	1.17	1.68	14.1
23b	R3	All MCs	14	9.1	14	9.1	0.056	62.5	LOS E	0.7	5.6	0.87	0.70	0.87	23.7
Approach			844	9.1	844	9.1	1.020	54.0	LOS D	24.5	198.4	0.80	0.89	1.02	29.6
East: Albany Hwy (E)															
4b	L3	All MCs	11	7.3	11	7.3	0.738	62.2	LOS E	11.1	88.3	1.00	0.89	1.09	21.5
11	T1	All MCs	360	7.3	360	7.3	*0.738	57.7	LOS E	11.3	89.2	1.00	0.88	1.09	22.0
6b	R3	All MCs	94	7.3	94	7.3	0.688	67.2	LOS E	5.8	46.3	1.00	0.84	1.11	6.0
Approach			464	7.3	464	7.3	0.738	59.7	LOS E	11.3	89.2	1.00	0.88	1.10	19.2
NorthEast: William St (N)															
24b	L3	All MCs	81	9.1	81	9.1	1.179	256.0	LOS F	34.3	277.3	1.00	1.47	2.38	1.7
24	L2	All MCs	369	9.1	369	9.1	1.179	254.9	LOS F	35.2	284.2	1.00	1.50	2.38	7.6
26a	R1	All MCs	491	9.1	491	9.1	*1.179	238.5	LOS F	44.9	362.7	1.00	1.60	2.35	7.6
Approach			941	9.1	941	9.1	1.179	246.5	LOS F	44.9	362.7	1.00	1.55	2.36	6.9
West: Albany Hwy (W)															
10a	L1	All MCs	245	7.3	245	7.3	0.138	4.6	LOS A	0.0	0.0	0.00	0.53	0.00	50.1
5	T1	All MCs	607	7.3	607	7.3	0.499	34.7	LOS C	14.4	114.1	0.85	0.73	0.85	29.5
12a	R1	All MCs	768	7.3	768	7.3	*0.942	64.1	LOS E	20.2	159.9	1.00	1.14	1.35	29.4
Approach			1621	7.3	1621	7.3	0.942	44.1	LOS D	20.2	159.9	0.79	0.90	0.96	30.8
All Vehicles			3871	8.1	3871	8.1	1.179	97.3	LOS F	44.9	362.7	0.87	1.05	1.33	18.0

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Appendix D

TRAFFIC SURVEY RESULTS

Engineering a better future for over 20 years!

Document Set ID: 8379929
Version: 1, Version Date: 06/09/2024

Albany Hwy/William St/Kenwick Link, Beckenham
TRAFFIC SURVEY

Date: 7/3/2024

Time: 08:00AM - 09:00AM
04:30PM – 05:30PM

Survey No: 1

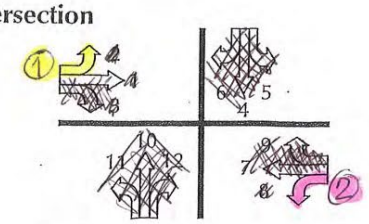
SURVEY LOCATIONS



Document Set ID: 8399929
Version: 1, Version Date: 06/09/2024

Traffic Count Survey Sheet for a 4-Way Intersection

Project Albury Hwy / William St
Project No t24.039
Date Tue 7 Mar
Weather
Surveyor
Time Interval: From 8:00 to 9:00 AM



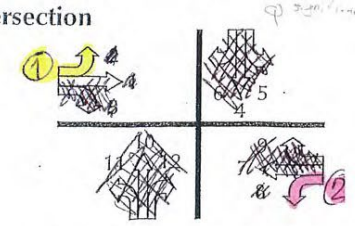
Code: 2 – Vehicular Movement

MOVE	MOVEMENT					
	1	HV	2	HV		
TIME						
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8:15 8:30	67	1				
8:30 8:45	62	3				
8:45 9:00	65	6				
	255	10				

Document Set ID: 8370929
Version: 1, Version Date: 06/09/2024

Traffic Count Survey Sheet for a 4-Way Intersection

Project Albany Hwy / William St
Project No t24.039
Date Thu 7 Mar
Weather
Surveyor
Time Interval: From 4:30 to 5:30 PM



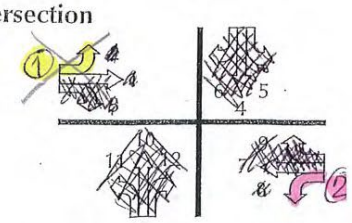
Code: 2 – Vehicular Movement

	MOVEMENT					
MOVE	1	AV	2	HV		
TIME						
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4:45 5:00	72	1				
5:00 5:15	55	0				
5:15 5:30	39	2				
	228	5				

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Version: 1, Version Date: 06/09/2024

Traffic Count Survey Sheet for a 4-Way Intersection

Project: Albury Hwy / William St
Project No: t24.039
Date: 7 Mar
Weather:
Surveyor:
Time Interval: From 8:00 to 9:00 AM



Code: 2 – Vehicular Movement

6

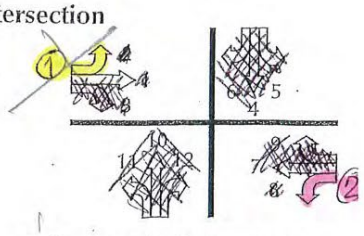
	MOVEMENT					
MOVE	(1)	HV	2	HV		
TIME						
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8:15 8:30			1	0		
8:30 8:45			2	0		
8:45 9:00			0	1		

3 2

Document Set ID: 8370929
Version: 1, Version Date: 06/09/2024

Traffic Count Survey Sheet for a 4-Way Intersection

Project Albury Hwy / William St
Project No t24.039
Date 7 Mar
Weather
Surveyor
Time Interval: From 4:30 to 5:30 PM



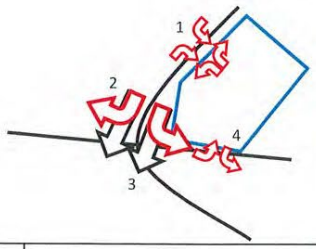
Code: 2 – Vehicular Movement

MOVE	MOVEMENT					
	(1)	HV	2	HV		
TIME						
4:30 4:45			III 3	0		
4:45 5:00			II 2	0		
5:00 5:15			I 1	0		
5:15 5:30			IIII 4	0		
			10	0		

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Traffic Count Survey Sheet

Project: Lot 8 (1510) Albany Hwy, Beckenham
Project No: t24.039
Date: 29 / 2 / 2024
Time: 8:00 AM - 9:00 AM



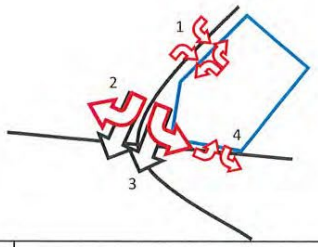
Time	1				Queue (Max No. of car/trucks)	2 (right-turn only)	
	Right-In	Left-In	Left-Out	Right-Out			
8:00 AM to 8:15 AM	Car					Car 59	Queue (Max No. of car/trucks) 3, 3, 8, 7, 6, 7, 6, 15,
	HV					HV 3	
8:15 AM to 8:30 AM	Car					Car 60	Queue (Max No. of car/trucks) 12, 9, 7, 14, 13, 5, 15,
	HV					HV 2	
8:30 AM to 8:45 AM	Car					Car 53	Queue (Max No. of car/trucks) 10, 7, 7, 8, 6, 8, 10, 8,
	HV					HV 2	
8:45 AM to 9:00 AM	Car					Car 72	Queue (Max No. of car/trucks) 9, 10, 8, 14, 11, 13, 6, 7, 10,
	HV					HV 5	

244
12
256

Document Set ID: 8399999
Version: 1, Version Date: 06/09/2024

Traffic Count Survey Sheet

Project: Lot 8 (1510) Albany Hwy, Beckenham
Project No: t24.039
Date: __ / __ / 2024
Time: 8:00 AM - 9:00 AM



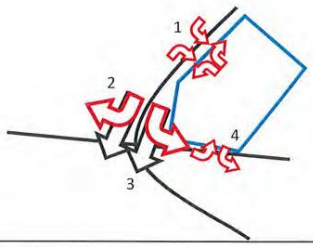
Time	3 (left-turn only)		4		
	Car	Queue (Max No. of car/trucks)	Car Left-In	Car Left-Out	Queue (Max No. of car/trucks)
8:00 AM to 8:15 AM	5	2,2,6,6,4,8,4,3			
	HV 1		HV		
8:15 AM to 8:30 AM	Car 11	7,5,3,3,5,7,5			
	HV 1		HV		
8:30 AM to 8:45 AM	Car 7	5,5,13,7,6,4,8,			
	HV 4		HV		
8:45 AM to 9:00 AM	Car 8	2,4,4,4,3			
	HV 4		HV		

36
10
46

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Version: 1, Version Date: 06/09/2024

Traffic Count Survey Sheet

Project: Lot 8 (1510) Albany Hwy, Beckenham
Project No: t24.039
Date: __ / __ / 2024
Time: 4:30 PM - 5:30 PM



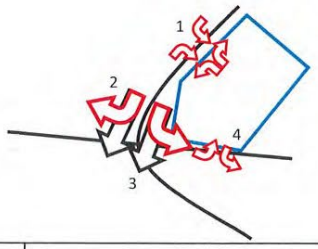
Time	3 (left-turn only)		4		
	Car	Queue (Max No. of car/trucks)	Car Left-In	Car Left-Out	Queue (Max No. of car/trucks)
4:30 PM to 4:45 PM	Car 10	6, 9, 7, 8, 4			
	HV 2		HV		
4:45 PM to 5:00 PM	Car 20	12, 10, 12, 9, 9, 8, 4, 8, 10, 6,			
	HV 2		HV		
5:00 PM to 5:15 PM	Car 13	8, 7, 8, 9			
	HV 4		HV		
5:15 PM to 5:30 PM	Car 22	6, 4, 11, 5, 7, 6, 8,			
	HV 4		HV		

65
12 77

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Traffic Count Survey Sheet

Project: Lot 8 (1510) Albany Hwy, Beckenham
Project No: t24.039
Date: 29 / 2 / 2024
Time: 4:30 PM - 5:30 PM



Time	1					2 (right-turn only)	
	Car: Right-In / Left-In / Left-Out / Right-Out; HV				Queue (Max No. of car/trucks)	Car; HV	Queue (Max No. of car/trucks)
4:30 PM to 4:45 PM					90	0	9, 15, 11, 13, 11,
4:45 PM to 5:00 PM					153	0	11, 13, 12, 15, 12, 8, 11, 12, 12, 10,
5:00 PM to 5:15 PM					118	1	15, 7, 9, 10, 12, 13, 9, 15
5:15 PM to 5:30 PM					104	0	16, 11, 10, 9, 12, 13,

465 | 1 | 466

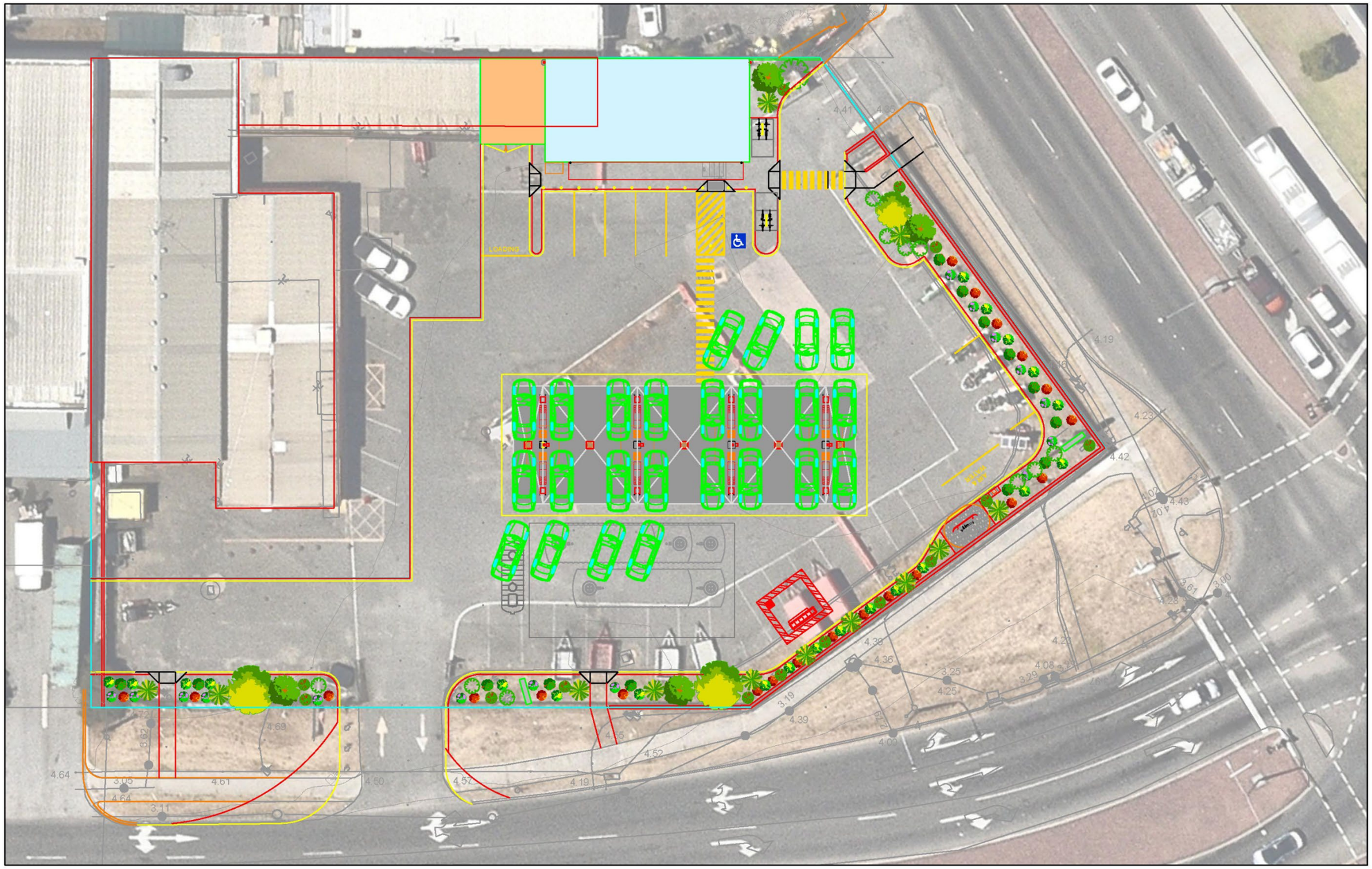
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Appendix E

VEHICLE QUEUING PLAN

Engineering a better future for over 20 years!

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Lot 8 (1510) Albany Highway, Beckenham

B99 Passenger Vehicle

Queuing at Bowsers during peak fuel day

t24.039.sk04

19/07/2024

Scale: 1:300 @ A3

Document Set ID: 8399999
Version: 1, Version Date: 05/09/2024

Enquiries: Didier Ah-Sue on (08) 9323 4806
Our Ref: 22/2278 (D24#742308)
Your Ref: DA24/00216
DAP Ref: DAP/24/02696

21 August 2024
Chief Executive Officer
City of Gosnells
PO Box 662
GOSNELLS WA 6990

Email: council@gosnells.wa.gov.au (via email)

Dear Sir/Madam,

DEVELOPMENT ASSESSMENT PANEL – PROPOSED SERVICE STATION, BULK CONVENIENCE STORE & SIGNAGE – LOT 8 (NO.1510) ALBANY HIGHWAY, BECKENHAM – DA/00216 – DAP/24/02696

In response to correspondence received on 22 May 2024 and further information received on 26 July 2024, pertaining to an amended Traffic Impact Assessment and SIDRA modelling, please be advised Main Roads has no objections to the development proposal, subject to the following conditions being imposed:

Conditions

1. Prior to the occupation of the development, the existing median on William Street is to be extended as far as practicable to prohibit right in and right out movements to/from the site, without preventing right in access to adjoining Lot 9 (No.8) William Street, Beckenham.

   Justification for Condition

   Public safety. To avoid queuing and weaving for right in movements into the site and deter right out movements of the site.

2. Stormwater discharge shall not be discharged into the Albany Highway Road Reservation

   Justification for Condition

   Public safety and protection of the Primary Regional Road Reservation.

3. No earthworks shall encroach onto the Albany Highway Road Reservation.

   Justification for Condition

   Public safety and protection of the Primary Regional Road Reservation

4. Any proposed illumination of the signage must not exceed 300cd/m^2 between the hours of sunset and sunrise.

5. The sign must not flash, pulsate or chase.

6. The sign shall not contain fluorescent, reflective or retro-reflective colours or materials.

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Advice

a) No works are permitted within the Albany Highway Road Reservation unless Main Roads has issued a Working on Roads Permit.

b) The applicant is required to submit an Application form to undertake works within the road reserve prior to undertaking any works within the road reserve. Application forms and supporting information about the procedure can be found on the Main Roads website > Technical & Commercial > Working on Roads.

Should the City disagree with or resolve not to include as part of any conditional approval recommendation any of the above conditions or advice, Main Roads request an opportunity to meet and discuss the application further, prior to a final determination being made.

Main Roads requests a copy of the Joint Development Assessment Panels final determination on this proposal to be sent to planninginfo@mainroads.wa.gov.au.

In the interim, if you have any queries please do not hesitate to contact Didier Ah-Sue on (08) 9323 4806.

Yours sincerely

CFudge

Chris Fudge
Planning Assessment Coordinator

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Version: 1, Version Date: 06/09/2024

PART C – OTHER BUSINESS

1. State Administrative Tribunal Applications and Supreme Court Appeals

The DAP notes the status of the following State Administrative Tribunal Applications and Supreme Court Appeals:

Current SAT Applications				
File No. & SAT DR No.	**LG Name**	**Property Location**	**Application Description**	**Date Lodged**
DR193/2023 DAP/23/02545	Shire of Serpentine Jarrahdale	Lot 218 (No.575) Abernethy Road, Oakford	Proposed Educational Establishment	19/12/2023
DR94/2024 DAP/23/02623	City of Cockburn	Lot 9501 Gaebler Road, Hammond Park	Mixed Use Commercial Development	27/06/2024

Current Supreme Court Appeals				
File No.	**LG Name**	**Property Location**	**Application Description**	**Date Lodged**
DAP/23/02496 CIV 2251 of 2023	City of Swan	Lot 2 & 67 (No.163) and Lot 18 (No.159) James Street, Guildford	Proposed redevelopment of Vaudeville Theatre	03/11/2023

2. General Business

3. Meeting Closure

In accordance with Section 7.3 of the DAP Standing Orders 2024 a DAP member must not publicly comment on any action or determination of a DAP.