

APPENDIX C

TRAFFIC IMPACT ASSESSMENT

26 October 2021

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TOMRA Collection Solutions Australia
Unit 2, 39 Herbert Street
ST LEONARDS, NSW, 2065

Attention: Edgar Cupido

Dear Edgar

Return Vending Machine Expansion 4/7 Honeybee Parade, Banksia Grove WA 6031 Traffic Impact Assessment

1 Introduction

1.1 Overview

SLR Consulting Australia Pty Ltd (SLR) has been commissioned by TOMRA Collection Solutions Australia (TOMRA) to prepare a traffic and transport impact assessment (TIA) for the proposed return vending machine (RVM) facility to be located at Unit 4, 7 Honeybee Parade in Banksia Grove.

Plans for the proposed development, prepared by IDEARCHITECTURE, are reproduced at **Attachment A**.

This TIA has been prepared to inform City of Wanneroo Council (Council) in their assessment of the development application (DA) by identifying and addressing the traffic and transport matters relevant to the proposed development. Specifically, this assessment addresses the existing and the anticipated future traffic conditions including the configuration of the site, access to / from the fronting main road Pinjar Road, car parking, servicing, active transport, pedestrian access, and the wider traffic impacts.

1.2 Project Description

The proposed works include the retrofitting of the internal layout of an existing vacant bulky goods unit. It is proposed that TOMRA will install three banks of two RVMs at each bank and one bulk sorter that handles all materials. All this machinery can operate simultaneously, sorting a mixture of glass and lightweight materials. It is proposed that the RVM will operate as per the following:

- Customer hours Monday to Sunday 7:00am to 7:00pm;
- Heavy vehicles including a 10.2m long Refuse Collection Vehicle (RCV – IVECO ACCO 2350G¹ or similar) to operate during the period Monday to Saturday, 7:00am to 7:00pm, excluding Sundays;
- The use is conducted wholly indoors, with the loading of containers onto the RCV to occur within the building with roller door shut;

¹ <http://iveco.org/download/IVECO/IVECO%20Australia/AccoCompactor08.pdf>

- Collection of recycling materials with the RCV is expected to occur four times a day, from Monday to Saturday, and therefore it is anticipated that a maximum of 24 heavy vehicle movements (one-way) will occur;
- It is anticipated that there will be minimal staff on site and therefore minimal amount of refuse will be generated other than the collected recyclables.

1.3 Planning Aspects of the Proposed Development

This DA seeks approval for development consent for an RVM facility which has an approximate gross floor area (GFA) of 395 sqm. The proposed development will share the existing available car parking spaces with other units in the same industrial estate which has a total GFA of approx. 2,500 sqm and a total site area of 8,750 sqm (inclusive of the service station development). Pre-construction indicative site plans are provided in **Attachment B**.

It is understood that the relevant Environmental Planning Instruments (EPIs) to the proposed development are as follows:

- Western Australia Planning Committee (WAPC) draft amendment to the Planning and Development (Local Planning Schemes) Regulations 2015;
- City of Wanneroo District Planning Scheme (DPS) No.2 2001;
- City of Wanneroo, Planning and Sustainability Local Planning Policy 4.28 – Container Deposit Scheme Infrastructure (May 2020).

1.4 Assessment Scope

This TIA has been prepared to assess the consistency of the proposed development with the traffic- and transport-specific provisions of the following:

- Australian Standards AS2890.1:2004 Parking Facilities Part 1: Off-street car parking;
- Australian Standards AS2890.2:2018 Parking Facilities Part 2: Off-street commercial vehicle facilities;
- Australian Standards AS2890.6:2009 Parking Facilities Part 6: Off-street car parking for people with disabilities;
- Clause 61C/2/f in the WAPC draft amendment to the Planning and Development (Local Planning Schemes) Regulations 2015;
- Table 2 (as per Clause 4.14) – Car Parking Standards in Council’s DPS 2001;
- Austroads Guidelines: Guide to Road Design Part 4A: Unsignalised and Signalised Intersections.

2 Existing Conditions Assessment

2.1 Subject Site

The subject site is located at Unit 4 / 7 Honeybee Parade, Banksia Grove, which is otherwise more formally described as Lot 138 on Deposited Plan (DP) 418857. The subject development proposes to retrofit Unit 4 in the recently constructed industrial estate in order to provide a RVM facility as well as associated processing, storage, server room and office facilities. The subject site is under the local government jurisdiction of the City of Wanneroo Council.

The subject site is shown in **Figure 1** in the local context.

Figure 1: Proposed Development – Local Context



2.2 Fronting Road

Access to the proposed development is provided by several driveway crossovers from Honeybee Parade which is a local street connects Porrecta Link and Jewel Way.

Vehicular access is currently achieved via two priority-controlled bi-directional driveway crossovers, being one on Honeybee Parade and one at the adjoining service station development.

The primary (southern) driveway is located 45m to the north of Jewel Way / Honeybee Parade intersection. The secondary driveway is at the adjoining service station development. It should be noted that the service station development has three separate driveway crossovers, and the eastern-most driveway of the service station, which is on Honeybee Parade provides almost direct access to the industrial estate via the rear of the service station's convenience store.

Both access driveways are shared with the neighbouring units in the industrial estate at 7 Honeybee Parade, which are understood to be varying from retail stores to bulky goods units.

2.3 Car Parking & Servicing

On-street parking is not permitted on Honeybee Parade and Jewel Way within the vicinity of the subject site. Therefore, the proposed development will accommodate 100% of the car parking demand on site.

The broader site (Lot 138 on DP 418857 – GFA of approx. 2,500 sqm) which the subject tenancy forms a part of, currently provides a total of 73 car parking spaces (69 regular parking bays and 4 PWD² parking bays). This results in approx. one car parking space for every 34 sqm of GFA in the wider industrial estate.

Servicing activities are also accommodated on-site at the rear of the tenancies (for heavy vehicles) or within the fronting car park (for vehicles up to 5.2m long VANs). Tenancies have roller doors at the rear of the development (facing east) to enable efficient loading and unloading activities.

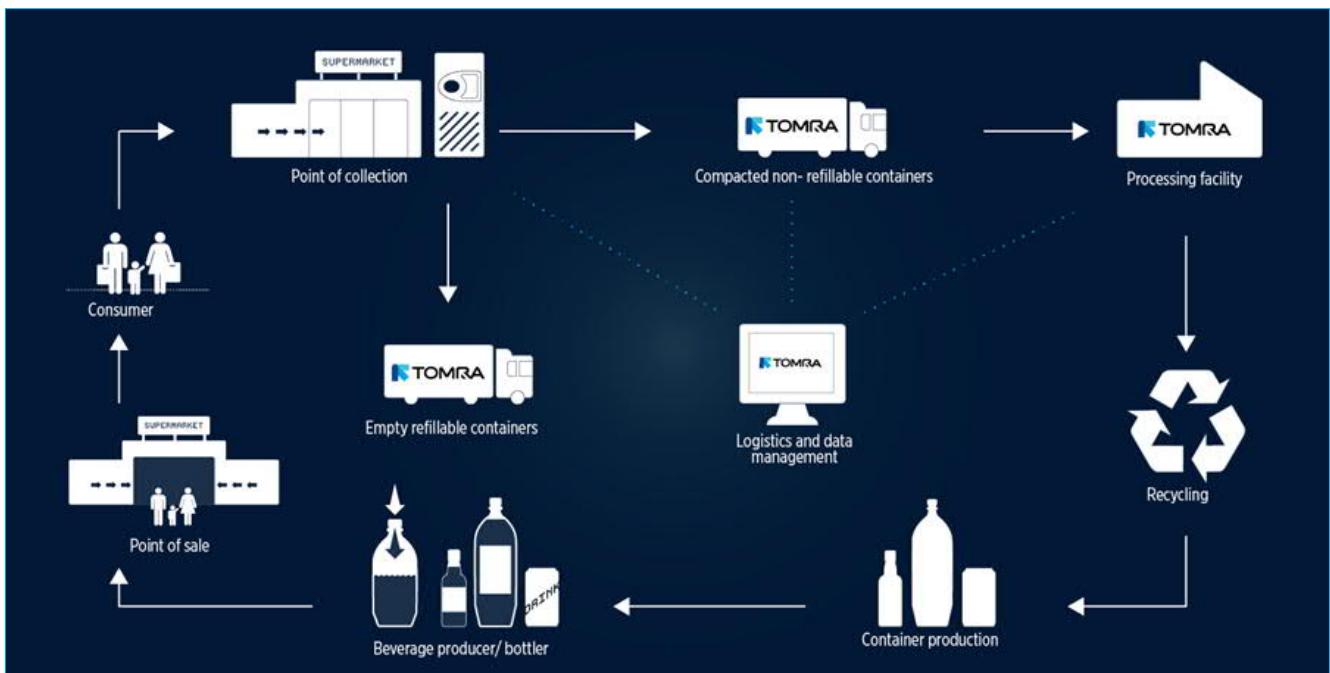
3 Proposed Development

3.1 Development Operation

The vacant bulky goods unit located at the subject site to be retrofitted to accommodate a RVM facility at which recyclable materials such as bottles and containers will be deposited by the public, processed, and stored prior to transportation to an external waste collection facility. This facility is to be operated by TOMRA, which has approximately 80,000 installations of similar systems elsewhere within Australia and internationally.

Figure 2 provides a high-level summary of TOMRA’s involvement in the process of recycling various materials.

Figure 2: Recycling of Materials and TOMRA



As demonstrated in **Figure 2**, the collection of recyclable materials will be facilitated by RVMs, at which members of the public can deposit certain items (such as aluminium cans and glass bottles) in exchange for a small refund which can be transferred to any bank account digitally or donated to charities. These items are then sorted by staff at the rear of the RVMs (in the same warehouse) and bundled together prior to being collected by a rear-loading RCV at an internal loading area for transportation to an external processing facility.

² PWD: people with disabilities.

It is also worth noting that the transportation of sorted materials from the site is likely to be the responsibility of a separate service provider, and therefore the proponent has limited direct control over servicing schedules and vehicle fleets. It is however understood that the nominated transportation contractor will work with the proponent to ensure the subject development is serviced safely and efficiently.

3.2 Land Use & Yield

The town planning consultant (Urbis) has advised that the current permitted use of the tenancy is best described as “*bulky goods showrooms*”, generally consistent with the Occupancy permit issued by Council which is provided in **Attachment C**. Based on this, it is concluded that the proposed land use is consistent with the existing approvals according to Western Australia Building Act 2011 and no changes to the existing land use are necessary.

Based on the above, the architectural plan prepared by IDEARCHITECTURE, as provided in **Attachment A**, suggests that the proposed retrofitting of the site to an RCV facility will achieve approximately GFA of 395 sqm for the current land use.

3.3 Site Access

As mentioned within **Section 2.2** of this document, vehicular access to the subject site is currently accommodated by two existing driveway crossovers, being one on Honeybee Parade (primary) and one at the adjoining service station development (secondary). The primary (southern) driveway crossover on Honeybee Parade is 6m wide at its narrowest point. The secondary driveway crossover, which provides almost direct access to Honeybee Parade via the rear of the service station development’s convenience store, is approx. 7.75m wide at its narrowest point. It should be noted that these driveway crossovers will only be used by the customers of the facility and therefore predominantly for light vehicles (up to 5.2m long VANS).

For the collection of recycling materials and all other servicing activities, the proposed development will use a separate and their third driveway crossover, to the east of the facility and at the rear of the site. It should be noted that this driveway is dedicated to the businesses to accommodate their loading and unloading needs. Entry and exit driveways that provide access to the loading and unloading area are approximately 11.0m in width.

As per swept path assessments provided in **Attachment D**, the proposed service vehicle will approach the site from the north along Honeybee Parade in the forward direction. Once the vehicle is wholly on the driveway and off the public road, it will then reverse into the TOMRA facility to collect the recycling materials. The roller door will be shut while the recycling materials are collected. When the collection is completed, the proposed service vehicle will exit the facility in the forward gear and travel in the southbound direction along Honeybee Parade.

As shown in the aerial images presented in **Figure 3**, the geometry of Honeybee Parade within the vicinity of the existing site accesses is relatively flat and straight with no on-street parking. Sight distances at these driveways are therefore considered to be consistent with that specified within Part 4A of the *Austrroads Guide to Road Design*.

No modifications to the existing crossover locations or built forms are considered necessary to accommodate the proposed development.

Figure 3 : Honeybee Parade - Sight Distances



3.4 Car Parking

A review of the car park indicated that all 73 parking spaces within the car park are shared amongst all tenancies. It is noted that the parking spaces are 2.6m wide x 5.5m long with a 6.40m wide aisle. This is well above the requirements of Class 3 and slightly shy of Class 3A as per AS2890.1. Based on this and given no changes are proposed to the land use, no modifications to the existing car parking and circulation arrangements are considered necessary.

The proposed RVM facility operation is not classified within Table 2 (Clause 4.14) – Car Parking Standards of Council's DPS No.2. As a result, the estimated car parking demand has been derived based on Council's requirements for the similar land use types, particularly *Showroom*. This land use requires one parking space for every 30 sqm of the GFA provided.

Based on the above, in accordance with Council's DPS, it is anticipated that the proposed development will require:

- 395 sqm GFA x 1 car parking space / 30 sqm GFA = **13.16 parking spaces**.

SLR's experience with similar container deposit scheme infrastructure in Southeast Queensland suggests that peak customer demand consistently occurs at / around 10am on a Sunday morning across the ten surveyed sites, with the average duration of stay being approximately 10-15 minutes.

The anticipated patronage demands / profile provided by TOMRA indicated that peak parking demand varies from 5 to 13 spaces depending on the demographic make-up of the surrounding area.

The 13 parking spaces likely to have been required as part of the original approval is also twice the parking provision that can be derived in accordance with the WAPC draft amendment to the Planning and Development (Local Planning Schemes) Regulations 2015. Specifically, Clause 61C/2/f of the draft amendment states that:

"For each 100sq.m of the floor area of the part of the building that is primarily used for the purposes of the centre, there is on the land at least....one parking space."

The adoption of this draft rate would derive a parking requirement of approximately four parking spaces which is nine spaces less than required by Council's DPS.

The Building Code of Australia (BCA) prescribes one PWD space for every 100 car parking spaces or part thereof for class 7b buildings. The existing car park currently provides four PWD spaces for the entire site. This is three more PWD spaces than the requirements of BCA. Each PWD space has an adjacent shared space to comply with AS2890.6.

Based on the above, the existing parking provisions are considered compliant and satisfactory with respect to the BCA, AS2890.6, and the range of possible car parking demand approaches.

3.5 Servicing

In the absence of any specific guidance relating to design vehicles within Council's Planning Scheme, the proponent has advised that the proposed development is likely to be serviced by 10.2m long rear-loading RCVs. It is also understood that 1100L wheelie bins will be utilised and the RCV will load and unload these bins automatically with no staff lifting heavy materials. Staff will only align & orderly prepare the 1100L wheelie bins within the facility before the RCV arrives at the site so that the RCV can load up.

In order to demonstrate the typical servicing of the site, 10.2m long IVECO ACCO 2350G COMPACTOR was adopted as it is widely used by recyclers across Australia. Swept path assessments of the subject site have been conducted using this design vehicle to identify any potential conflicts and ensure adequate on- and off-site manoeuvrability and accessibility for the proposed service vehicles.

It is noted that the existing vehicle crossovers at the loading area are sufficiently wide to enable the proposed design vehicle to enter and exit the site in the forward gear.

A copy of the swept path drawings has been provided at **Attachment D**, review of which suggests that the nominated design vehicles can access and service the proposed development safely and efficiently.

3.6 Active Transport and Pedestrian Circulation

A review of Nearmap aerial imagery indicates that there are existing foot paths (constructed concrete) along both sides of most (nearly all) carriageways in the wider network. It should also be noted that there is no formal cycling infrastructure (cycle lanes or dedicated cycle paths) in the vicinity of the proposed development, however the street network and foot paths can accommodate cyclists.

It is noted that AS2890 does not strictly require pedestrian facilities within the car parking areas; however, the aerial images of the existing development indicate that there are three pedestrian connections to the north of the car park from the south and a continuous pedestrian path along the shop frontages.

Based on experience of other TOMRA operated sites, customer demand via pedestrians entering from the fronting street is very minor with the overwhelming majority of demand accommodated via vehicle mode share.

The nature of the use is also such that patrons require a vehicle to carry the recycling materials and trips made by active means, even in more residential and dense areas, is limited.

Based on the above, the existing active transport infrastructure and the pedestrian circulation within the car park are considered acceptable for the proposed land use.

3.7 Traffic Impact

The proposed use is projected to generate approximately 60-70 vehicle movements in the peak hour period, being a Sunday morning between 10-11am. This level of demand has been determined based on the below:

- 100% passenger vehicle mode share;
- 30-35 transactions per hour (Sunday AM).

Whilst traffic generation assumptions adopted in the TIA prepared for the original DA for the wider industrial estate is not available, the level of demand anticipated for the proposed RVM facility is considered generally consistent with the higher end of the traffic generation range that could be generated by a selection of uses that are already approved.

Accordingly, it is suggested that the proposed TOMRA reuse of the subject tenancy will not generate traffic movements that are significantly different than the anticipated use (as part of the original DA) use or other similar permissible uses. Importantly, the proposed RVM facility use will not generate abnormal or unexpected movements that are inconsistent with network expectations. It should also be noted that the peak hour of the proposed development is anticipated to be limited to one hour only (10am – 11am) on a Sunday, at which the wider road network experiences minimal vehicular traffic.

Based on the above, no external traffic operations or safety issues are envisaged given this small magnitude of traffic demands and the relatively high capacity of the fronting road network (Pinjar Road).

4 Summary

SLR has been commissioned by TOMRA to prepare a TIA for the proposed RVM facility to be located at Unit 4, 7 Honeybee Parade in Banksia Grove.

Based on the assessment documented herein, the following conclusions have been made:

- The sight distances at the existing two driveway crossovers are considered to be consistent with those prescribed in Part 4A of the *Austrroads Guide to Road Design*;
- The proposed access and car parking design is compliant with AS2890 for a Class 3 facility;
- The proposed car parking supply exceeds that outlined in the proposed WAPC draft amendments to the Planning and Development (Local Planning Schemes) Regulations 2015;
- The proposed car parking supply is generally consistent with that outlined in Table 2 of City of Wanneroo DPS No.2 2001;
- The car parking demand likely to be generated by the proposed use is consistent with that already approved and constructed;
- The swept path assessment showed that the proposed RCV (10.2m long IVECO ACCO 2350G) can access and service the tenancy with no internal conflicts and enter & exit Honeybee Parade in the forward gear;
- The proposed use of the vacant unit is not projected to introduce an incremental traffic demand such that it will have an impact on the Honeybee Parade accesses or the external road network, particularly Pinjar Road.

Enclosed (Attachments A to D)

Yours sincerely



CHARLIE SEVENTEKIN
Senior Project Consultant
(Call at any time on 0477 001 763)

Submission Details
Prepared by: Charlie Seventekin
Reviewed by: Kris Stone
Authorised by: Kris Stone

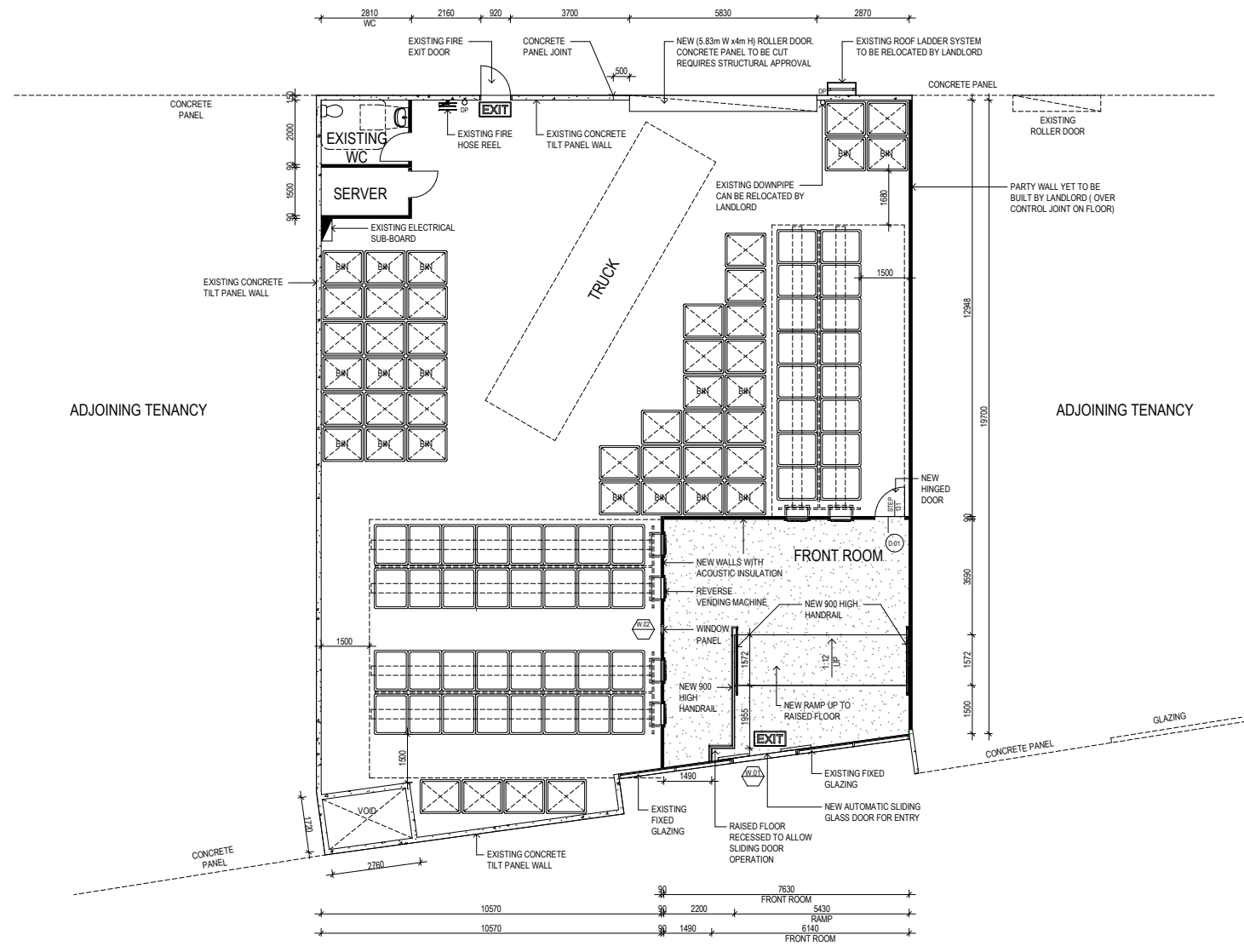
ATTACHMENT A

Development Plans

- NOTES**
1. Confirm all dimensions and levels on site before commencing work.
 2. Figured dimensions shall take precedence over scaled dimensions.
 3. Dimensions relate to structure only and do not include linings or claddings unless noted otherwise.
 4. All work, materials and construction to comply with relevant codes and acts applicable in WA and the Building Code of Australia.

AMENDMENTS

rev	date	detail	checked
D	18.10.2021	RVM BINS UPDATED	FI
P	18.10.2021	ROLLER DOOR UPDATED	FI
Q	20.10.2021	DA SUBMISSION	FI
R	21.10.2021	LAYOUT UPDATED	FI
S	21.10.2021	LAYOUT UPDATED	FI
T	22.10.2021	LAYOUT UPDATED	FI
U	22.10.2021	ROLLER DOOR LOCATION UPDATE	FI
V	25.10.2021	ROLLER DOOR UPDATED	FI



1 PROPOSED GROUND FLOOR PLAN
 SCALE 1:100



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client	TOMRA
project	WESTERN AUSTRALIA RECYCLING DEPOTS
locale	TENANCY 4/7 HONEYBEE PARADE, BANKSIA GROVE, WA
title	PROPOSED GROUND FLOOR PLAN

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date	22.08.2019	checked	FI
job no	2001-1357-13	dwg no / cadfile	CD_201
		rev	V

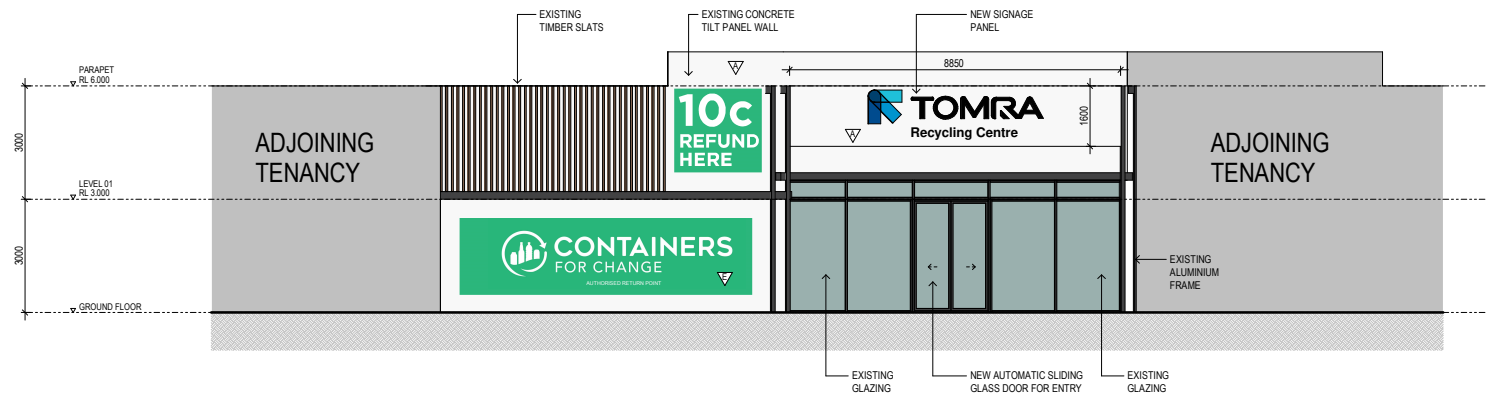
- NOTES**
1. Confirm all dimensions and levels on site before commencing work.
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AMENDMENTS

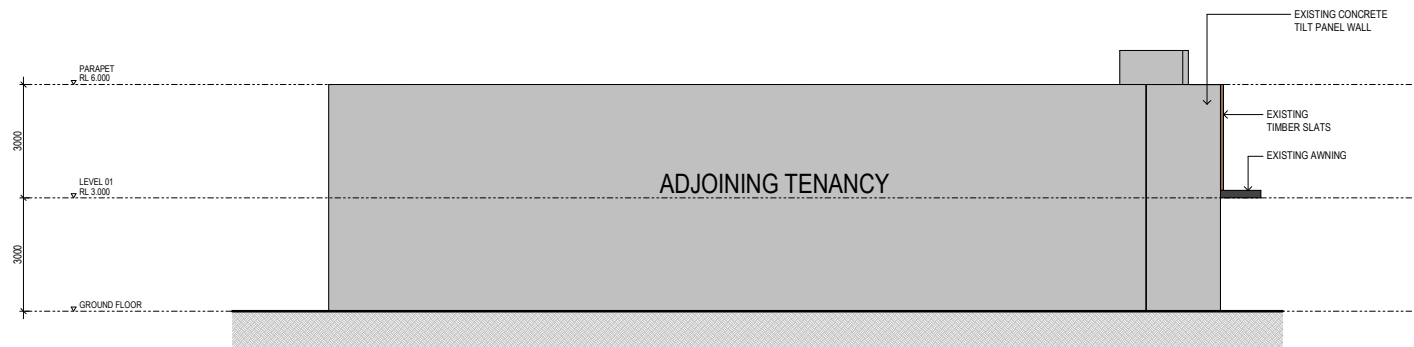
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D	15.10.2021	DRAWING UPDATED	FI
E	18.10.2021	DRAWING UPDATED	FI
F	18.10.2021	ROLLER DOOR UPDATED	FI
G	21.10.2021	OK SUBMISSION	FI
H	22.10.2021	LAYOUT UPDATED	FI
I	25.10.2021	ROLLER DOOR UPDATED	FI

EXTERIOR COLOUR SCHEME LEGEND

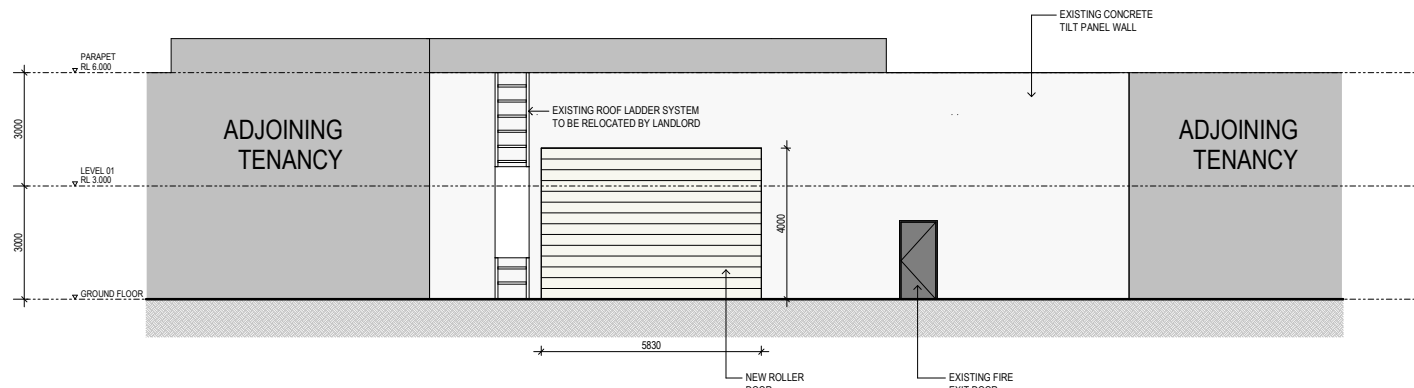
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▽	ORIGINAL BLUE
▽	PANTONE 285C, R10, G75, B141
▽	MINT GREEN
▽	PANTONE 338C, R110, G206, B178
▽	GREY
▽	PANTONE 538C, R197, G207, B218
▽	TO BE ADVISED



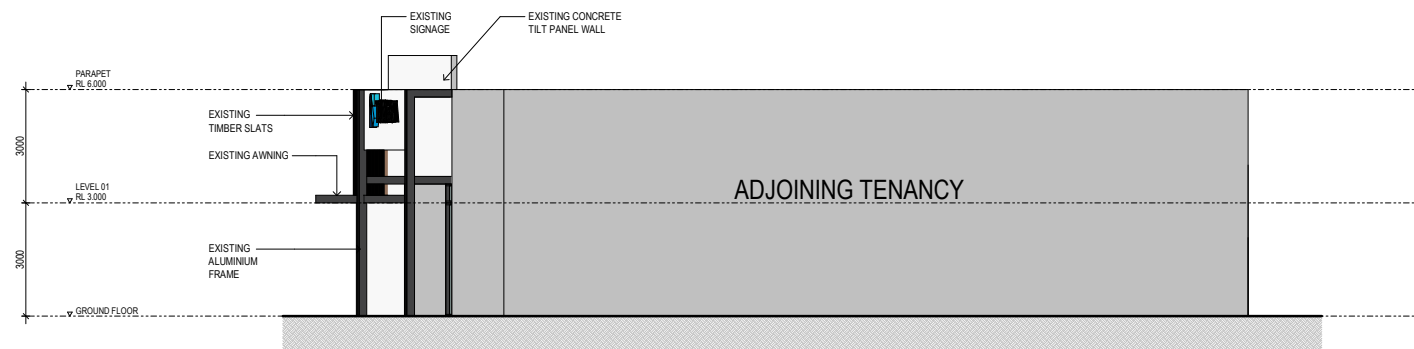
1 WEST ELEVATION
 SCALE 1 : 100



2 NORTH ELEVATION
 SCALE 1 : 100



3 EAST ELEVATION
 SCALE 1 : 100



4 SOUTH ELEVATION
 SCALE 1 : 100



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client	TOMRA
project	WESTERN AUSTRALIA RECYCLING DEPOTS
locale	TENANCY 4/7 HONEYBEE PARADE, BANKSIA GROVE, WA
title	ELEVATIONS

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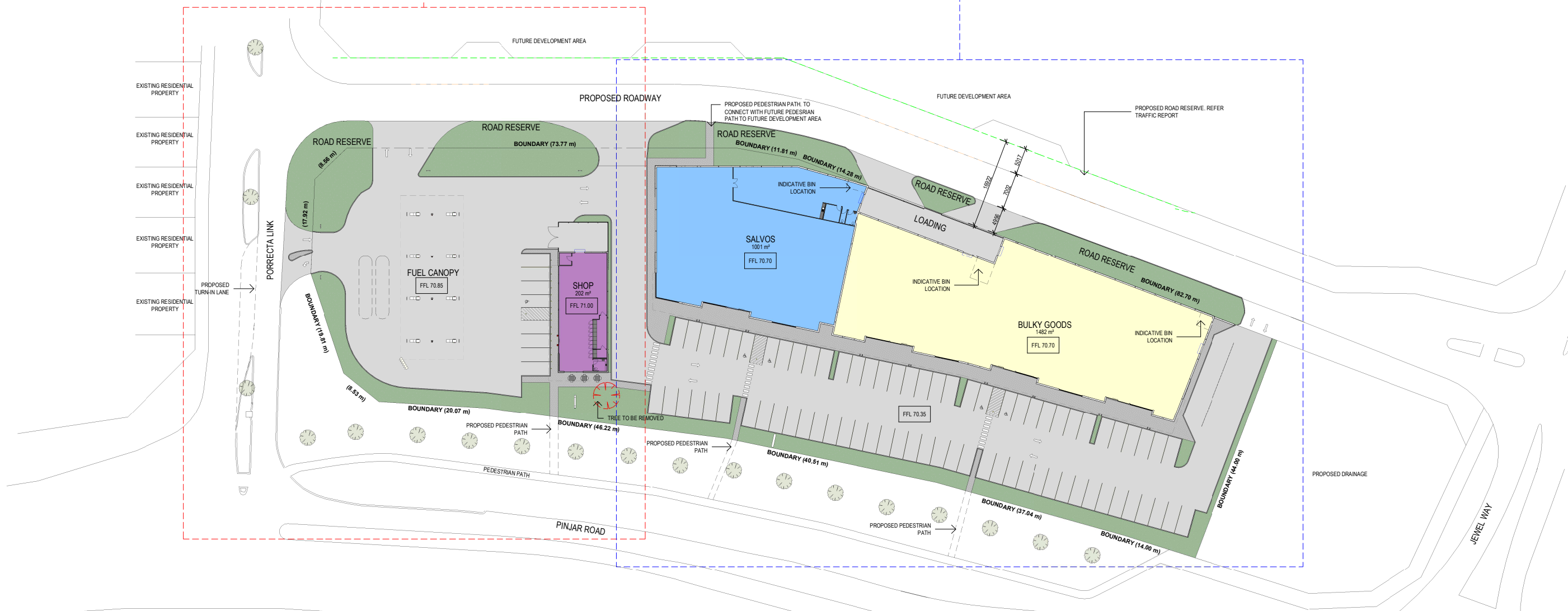
ATTACHMENT B

Indicative DA Plans

Rev.	Amendment	Date
A	DA ISSUE	07/08/19
B	DA ISSUE	04/09/19
C	DA REVISION	02/10/19
D	REVIEW	24/10/19
E	REVIEW	29/10/19
F	DA ISSUE	04/11/19
G	REVIEW	21/01/20
H	DA ISSUE	23/01/20
J	DA ISSUE	30/01/20

PART 1
DWGS 03-08

PART 2
DWGS 09-12



OVERALL SITE PLAN

1:400

SITE AREA	8750m ²
LANDSCAPE AREA	1088m ²

BROWN FALCONER

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6004 Telephone : 08 9382 0303 Facsimile : 08 9223 2440 ABN 65 007 846 586
brownfalconer.com.au

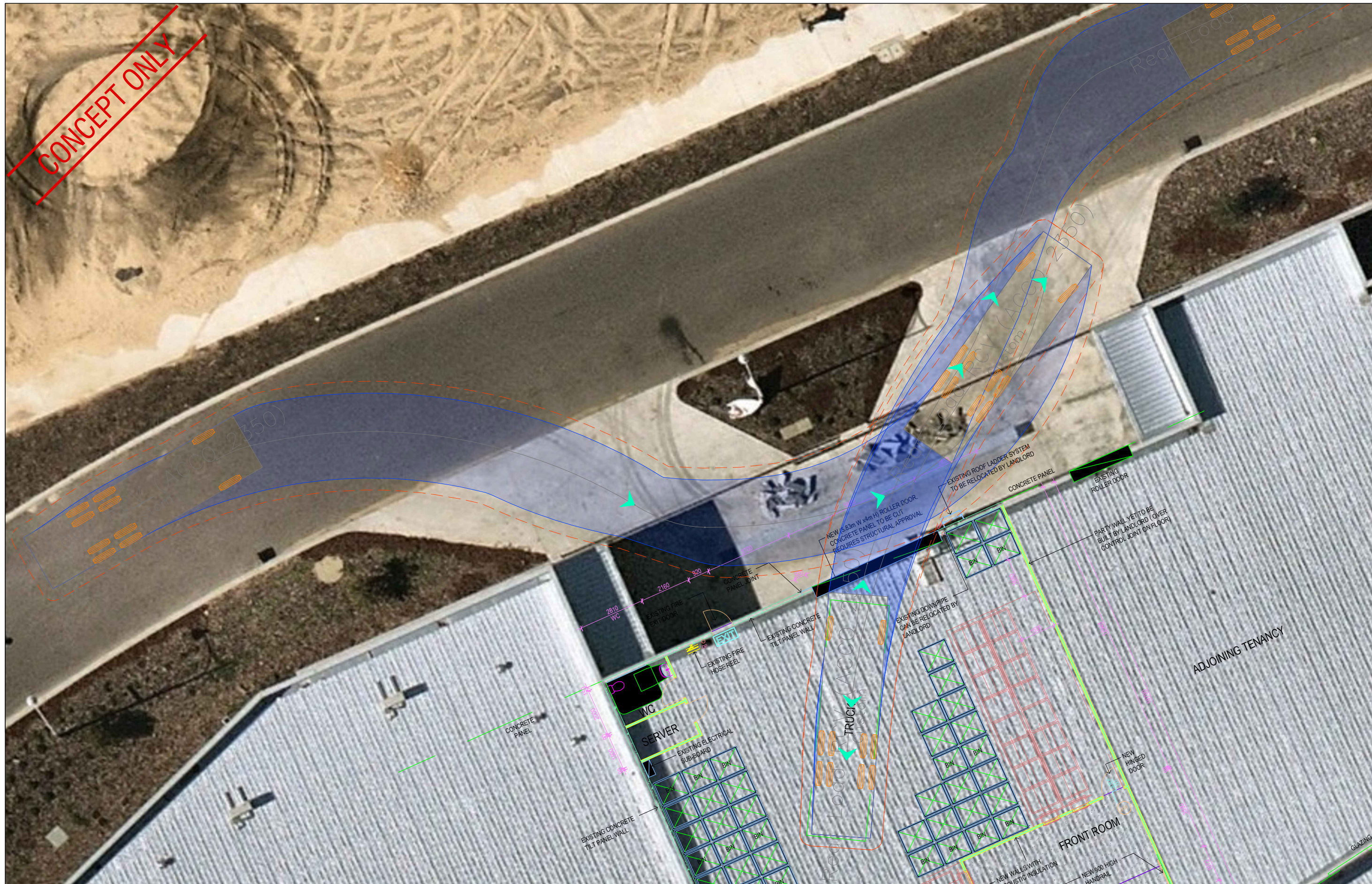
ACCORD PROPERTY

BANKSIA GROVE

OVERALL SITE PLAN

Scale As indicated
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Date 30/01/20
Job No. 2019028
Dwg No. 3283 03 Rev. J A1 SHEET

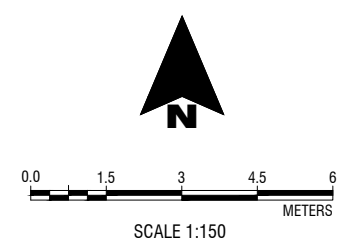
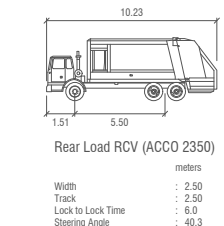
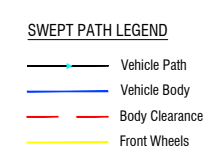
CONCEPT ONLY



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TOMRA
 Banksia Grove - RVC Expansion
10.2m ACCO 2350 Manoeuvre
 FIGURE SK-11

CONCEPT ONLY



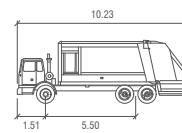
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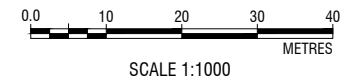
SWEPT PATH LEGEND

- Vehicle Path
- Vehicle Body
- Body Clearance
- Front Wheels



Rear Load RCV (ACC0 2350)

Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 40.3



TOMRA

Banksia Grove - RVC Expansion

10.2m ACCO 2350 Manoeuvre

FIGURE SK-12