



Transport Engineering Report

Proposed Multiple Dwelling Development
(Social and Affordable Housing)
33 University Dr, Meadowbrook
St George Community Housing Limited



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Revision Record

No.	Author	Reviewed/Approved	Description	Date
1.	B. Vanetti	M. Grierson	DA Report (Draft)	22/01/2026
2.	B. Vanetti	M. Grierson RPEQ No. 31037 	DA Report (Final)	18/03/2026
3.				
4.				



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1. Introduction

1.1. Purpose

Colliers International Engineering and Design (TTMC) Pty Ltd has been engaged by Buildcorp to prepare a Traffic Impact Assessment investigating a proposed Multiple Dwelling Development (Social and Affordable housing) at 33 University Dr, Meadowbrook. It is understood this report will accompany a Development Application to be lodged with the Logan City Council (LCC).

1.2. Scope

The scope of the transport aspects investigated includes:

- Reviewing the prevailing traffic and transport conditions surrounding the site.
- Identifying parking supply required to cater for development demands.
- Assessing the parking layout to provide efficient and safe internal circulation and manoeuvring.
- Assessing the access configuration to provide efficient and safe manoeuvring between the site and the public road network for cars, service vehicles, cyclists and pedestrians.
- Identifying the service vehicle needs for the site
- Assessing the internal service vehicle layouts to provide efficiency and safety for on-site service vehicle operation
- Reviewing access to a suitable level of public and active transport provisions.
- Identification of likely traffic volumes and traffic distribution from the development.
- Identification of likely traffic impacts of development on the surrounding road network.

The development plans have been assessed against the following guidelines and planning documents:

- Logan City Council Planning Scheme 2015, specifically:
 - Servicing, Access and Parking Code (SAP Code)
 - Schedule 6 Planning Scheme Policies (PSP)
 - SC6 Infrastructure
 - Road Hierarchy Overlay Code
 - Bicycle Network Overlay Code

- Australian Standards for Parking Facilities, specifically:
 - Part 1: Off-street car parking (AS2890.1:2004)
 - Part 2: Off-street commercial vehicle facilities (AS2890.2:2018)
 - Part 3: Bicycle parking (AS2890.3:2015)
 - Part 6: Off-street parking for people with disabilities (AS2890.6:2009).
- Department of Transport and Main Roads 'Guide to Traffic Impact Assessment' (GTIA)
- NSW Roads and Traffic Authority - Guide to Traffic Generating Developments (RTA GTGD) 2024

2. Site Location

The subject site is located at 33 University Dr, Meadowbrook, as shown in Figure 2.1 and Figure 2.2. The property description is Lot 100 on SP103674. The subject site has road frontage to University Drive to the north and Logan Motorway to the south.



Figure 2.1: Approximate Site location (Surrounding Context)

Source: Google Maps



Figure 2.2: Site Location (Immediate Context)

Source: Nearmap

Key site characteristics from a planning perspective include:

- Currently empty
- 5,423m² site area (estimated)
- Zoned as Community Facilities
- Located within ZM-02.00 Precinct map - Education.

3. The Proposed Development

3.1. Development Profile

The development scheme consists of 3 x 5-level tower residential land use (multiple dwellings). The proposed land uses for this development are summarised in Table 3.1.

Table 3.1: Proposed land uses

Land Use	Area/Qty
Multiple Dwelling:	
Social Housing	
• 1 Bedroom	21
• 2 Bedroom	21
Total Social Housing	42
Affordable Housing	
• 1 Bedroom	13
• 2 Bedroom	25
Total Affordable Housing	38
Total Development	80 units

A copy of the development plans, prepared by DKO Architecture (QLD) PTY LTD, is included in Appendix A.

3.2. Parking

The development plan includes the following parking supply:

- 80 resident spaces incl. 2 Persons with Disabilities (PWD) space located on Ground floor.
- 27 residential bicycle spaces and 7 visitor bicycle spaces.

Further details regarding the proposed car and bicycle parking provisions are included in Section 5.

3.3. Access

The development proposes the following access arrangements:

- 6.2m type General Wide Flared access from University Drive on the northeastern side of the site. This access will accommodate cars and service vehicles with left-in/left-out movements only.
- Pedestrian access to the University Drive frontage via footpath linkages.
- Cyclist access to University Drive frontage via footpath/vehicular driveway.

Further details regarding the proposed access arrangements are included in Section 6.

3.4. Servicing

The development plan allows occasional access for vehicles up to the size of an 8.8m Medium Rigid Vehicle (MRV) and regular access for vehicles up to the size of a 10.3m rear-loader Refuse Collection Vehicle (RCV). Formal loading provisions for vehicles up to the size of a RCV are also provided.

Further details regarding the proposed servicing arrangements are included in Section 7.

4. Site Travel Environment

4.1. Public Transport Facilities and Services

4.1.1. Bus Services

The site is located in close proximity to local bus stop on University Drive, less than 300m walk from the site to the east. These bus stops services Translink route 560.

Route 560 operates between Loganholme Station and Browns Plains. This service runs every day, with weekday frequencies of 30 minutes. On weekends, it operates all day at 60-minute intervals.

4.1.2. Train Services

The Loganlea train station is located 20min walk distance to the south of the site. It serves the Beenleigh Line (Gold Coast Line) with regular services to Brisbane (Ferny Grove line) and the Gold Coast (Varsity Lakes), offering connections via bus routes, parking, kiss'n'ride, bike facilities, accessibility features (lifts, ramps, toilets), and proximity to Logan Hospital and TAFE.

Major upgrades are planned for Loganlea Train Station as part of broader network improvements. The station will be relocated east, opposite Logan Hospital, and the rail corridor expanded from two to four tracks to increase service frequency and reduce peak-hour road congestion. The project includes a 400-space Park 'n' Ride facility, new accessible bus stops, and dedicated kiss 'n' ride bays to improve traffic flow. Active transport will be supported through new pathways, a secure bicycle enclosure, and safe pedestrian crossings on Armstrong Road and Valencia Street, enhancing connectivity and reducing reliance on private vehicles.

4.2. Active Transport Facilities

4.2.1. Bicycles

Loganlea Road is identified in the Logan City Council Planning Scheme (LCC PS) Cycle Network overlay as a Major Existing Cycle Network, while University Drive includes sections classified as Major Existing and Major Future Cycle Network. The intersection of Loganlea Road and University Drive has been recently upgraded with dedicated cycle lanes and supporting infrastructure.

4.2.2. Pedestrians

Formal pedestrian footpaths are provided on both sides of University Drive. The nearest designated pedestrian crossing is at the Loganlea Road / University Drive intersection.

4.3. The Road Network

4.3.1. Road Hierarchy

The hierarchy and characteristics of roads in the immediate vicinity of the site are shown in Table 4.1. All the roads in the vicinity are administered by LCC with exception of Logan Motorway, which is a state-controlled road.

Table 4.1: Surrounding Road Hierarchy

Road	Speed Limit	Road Configuration			Classification
		Reserve Width	Carriageway Width	Lane Configuration	
University Drive	60km/h	35m	18m	4 traffic lanes; no parking on southern side, formal parking on northern side. Median separated	Urban collector dual carriageway
Logan Motorway	100km/h	60m	35m	4 traffic lanes, no parking on both sides. Median separated	Highway
Loganlea Road	60km/h	32m	21m	6 traffic lanes, no parking on both sides. Median separated	Urban arterial dual carriageway
Meadowbrook Drive	50km/h ¹	23m	15m	2 traffic lanes, informal parking on both sides	Urban access road

¹Default speed limit on unsigned roads in built up areas in Queensland.

The intersection of Loganlea Road and University Drive is signal-controlled, while the remaining intersections are priority-controlled.

4.4. On-Street Parking

Stopping or parking is not permitted along the southern section of University Drive, which fronts the site, apart from a formal parking available on the northern side, providing approximately 12 spaces over 73m of parking.

4.5. Transport Planning

Colliers has reviewed the Logan City Council Planning Scheme Local Government Infrastructure Plan (LGIP) in relation to the future road network near the subject site. Recent upgrades were made to the Loganlea Road section nearby to the site, and no future upgrades appear to be proposed in the site's immediate proximity.

5. Parking Arrangements

5.1. Parking Supply

5.1.1. Car parking

The car parking supply requirements for the proposed development land uses have been determined in accordance with Table 9.4.7.3.2 - *Vehicle parking and servicing* of the planning scheme.

Table 5.1 provides a summary of the parking supply requirements in line with the LCC PS – *Servicing, access and parking code* (SAP) and the proposed provisions for the development scheme.

Table 5.1: Car Parking Supply Requirement

Land Use / Component	LCC Requirement	Extent	Requirement	Provision
Multiple Dwelling (Residents): 1 Bedroom 2 Bedrooms	1.5 space/unit (max) 2 spaces/unit (max) 1 vehicle washing space where more than 15 dwellings.	80 units (total) 34 units 46 units	143 spaces (total) 51 spaces 92 spaces	80 resident parking spaces
Multiple Dwelling (Visitors)	0.25 spaces/unit	80 units	20 spaces (min)	0 spaces
Total			163 spaces	80 spaces

As seen in Table 5.1, the development scheme proposes a total of 80 car parking spaces which represents a performance solution to the provisions of the LCC PS. However, the proposed parking rate is in line with the Queensland Social Housing Guideline (QSHG), which states:

*“...**one covered car parking space per dwelling is required** and considered sufficient to accommodate parking demand generated by residents and visitors.”*

Therefore, the proposed 80 car parking space per unit is considered to be sufficient to cater for the development demand. Noting that, no washing bay is proposed, as is not a required item under the QSHG. If considered required a washing bay facilities could be working into the loading bay area.

Overall, the proposed car parking supply and arrangements are considered suitable for the development.

5.1.2. PWD Parking

The QSHG requires 1 PWD parking space per Platinum unit provided.

The development proposes 2 of the Social Housing units be built to a Platinum standard. Therefore, 2 resident PWD parking spaces are provided and located next to the build foyer access.

Overall, the proposed PWD provisions are considered suitable for the development.

5.1.3. Bicycle Parking

The bicycle parking supply requirements for the proposed development land uses have been determined in line with Table 9.4.7.3.2 - *Vehicle parking and servicing* of the planning scheme.

Table 5.2 provides a summary of the bicycle parking supply requirements in line with the LCC PS and the proposed provisions for the development scheme.

Table 5.2: Bicycle Parking Supply Requirement

Land Use / Component	LCC Requirement	Extent	Requirement	Provision
Multiple Dwelling (Residents)	1 space per 3 units	80 units	27 spaces	27 spaces
Multiple Dwelling (Visitors)	1 space per 12 units	80 units	7 spaces	7 spaces
Total			34 spaces	34 spaces

As seen in Table 5.2, the development scheme proposes a total of 34 bicycle parking spaces, which meets the LCC PS requirements. The 7 visitor spaces are proposed located adjacent to the site pedestrian access via horizontal racks. Whilst, the 27 resident bicycle spaces proposed, are provided in a bike storeroom within the car park.

Overall, the bicycle parking supply for the development are considered acceptable.

5.2. Parking Layout

The development scheme provides a single level of parking on the ground floor. The LCC PS Parking Code and PS Schedule 6.2.5 require car parking layouts to meet the requirements of the AS2890 series.

Table 5.3 identifies the characteristics of the proposed parking layouts with respect to the AS2890.1 design provisions.

Table 5.3: Parking Design Requirements

Design Aspect	AS2890.1 Provision	Proposed Provision	Compliance
Carparking			
Parking space length: - Standard space (Class 1A) - PWD space (Class 4)	5.4m (min) 5.4m (min)	5.4m (min) 5.4m (min)	AS2890.1 Compliant AS2890.1 Compliant
Parking space width: - Standard space (Class 1A) - PWD space (Class 4)	2.4m (min) 2.4m + 2.4m 'Shared Area'	2.4m (min) 2.4m + 2.4m 'Shared Area'	AS2890.1 Compliant AS2890.1 Compliant
Aisle Width: - Parking aisle - Circulation road (two way/two lane)	5.8m (min) 5.5m (min) between kerbs plus 0.3m clearances to vertical obstructions	6.2m (min) 6.2m (min) between kerbs	AS2890.1 Compliant AS2890.1 Compliant
Parking envelope clearance	Located as per Figure 5.2 of AS2890.1	Located as per Figure 5.2 of AS2890.1	AS2890.1 Compliant
Maximum Gradient:			

Design Aspect	AS2890.1 Provision	Proposed Provision	Compliance
- PWD parking - Parking aisle	1:40 (2.5%) 1:20 (5.0%)	Generally Flat Generally Flat	AS2890.1 Compliant AS2890.1 Compliant
Blind Aisle Extension	1.0m extension beyond final space	1.0m extension beyond final space	AS2890.1 Compliant
Height Clearance: - General Minimum - Over PWD space and PWD shared area	2.2m 2.5m	2.2m (min) 2.5m (min)	AS2890.1 Compliant AS2890.1 Compliant
Bicycle Parking			
Ground Rack length	1.8m (min)	1.8m (min)	AS2890.3 Compliant
Wall Racks Length	1.2m (min)	1.2m (min)	AS2890.3 Compliant
Rack spacing	0.5m (min)	0.5m (min)	AS2890.3 Compliant
Manoeuvring/Access Paths - Wall/Ground Racks	1.5m (min)	1.5m (min)	AS2890.3 Compliant
Height Clearance - Wall/Ground Racks	2.2m (min)	2.2m (min)	AS2890.3 Compliant

The development parking layouts are generally consistent with the provisions of the AS2890.

6. Access Arrangements

6.1. Vehicular Access

The development scheme proposes to provide vehicular access to University Drive at the northeastern end of the site frontage. This access will accommodate vehicles up to the size of a 10.3m RCV with left-in/left-out movements only.

The design provisions of the University Drive access and the requirements of the AS2890 are detailed in in Table 6.1.

Table 6.1: University Drive Access Arrangements

Design Aspect	AS2890 Provision	Proposed Provision	Compliance
Width / Crossover Type to accommodate: - Cars^{1 2} - Service vehicles^{1 3}	3.5m wide Based on Swept Paths	6.2m / General Wide Flared	AS2890 Compliant
Distance from: intersection¹	6m (min)	>6m	AS2890 Compliant
Sight Distance ^{1 2}	83m (desirable) 65m (minimum)	East:>250m West: 40m (to the intersection)	AS2890 Compliant
Driveway Sight Splays	2.0m wide x 5.0m deep (on exit side)	2.0m wide x 2.5m deep (on exit side)	AS2890 Compliant
Minimum Queuing Provisions ¹	3 vehicles / 18m	1 vehicles / 10m	Performance Solution
Maximum Driveway grade	1:20 (5%) maximum within first 6m	1:20 (5%) maximum within first 6m	AS2890 Compliant

¹ Based on University Drive being classed as a 'major road' and speed limit of 60km/h.

² Based on the access servicing low turnover car parking spaces.

³ Based on the access servicing service vehicles up to the size of an RCV.

In general, the proposed University Drive access arrangements are generally consistent with the provisions of the AS2890. Further details in relation to the deemed compliance of required provisions or justification for design aspects resolved with performance solutions are provided in the following:

Minimum Queuing Provisions

The development proposal provides 10m queuing (1 car) to the first conflict point (loading area). Whilst this is below the requirements of the AS2890, this is considered sufficient to accommodate queueing potential due to the low turnover nature of the car park.

As detailed further in Section 8, it is expected that the peak vehicle movements into/out of the University Drive access will be 17vph (one-way) during the peak-hour periods. The probability (using the Poisson distribution method) of more than 1 vehicle entering the site at the same time (or, say, within a 20-second period whilst a car is waiting for a car to manoeuvre out of the parking bay) and being required to queue, extending back onto University Drive, is less than 1%. As such, the proposed internal queuing capacity of 1

vehicle is sufficient to cater for the 99th percentile entry queue of the site and is therefore considered acceptable.

Overall, the proposed University Drive access is designed generally in accordance with the AS2890, apart from some design performance solutions that are deemed fit-for-purpose.

6.2. Active Transport Access

Pedestrian access is provided to the main building entry/foyer via the footpath from University Drive.

Cyclists' access to the site will be provided via either the main building entry or the vehicular access driveways.

Overall, the active transport provisions are considered fit for the purpose.

7. Service Vehicle Arrangements

7.1. Council Requirements

For a Multiple Dwelling development, the Table 9.4.7.3.5 - *Design Vehicle* under the LCC PS SAP Code requires an HRV as a design vehicle.

The LCC PS SAP also details the following with respect to vehicle manoeuvring and on-site standing:

- Development provides a vehicle manoeuvring area that:
 - enables vehicles to enter and exit the site in a forward motion where the development:
 - is non-residential development; or
 - is for five or more dwellings;
 - accommodates the design vehicle specified in Table 9.4.7.3.5 - *Design vehicle for a manoeuvring area*;
 - complies with section 3.4.4.10 - *Manoeuvring areas of Planning scheme Policy 5 - Infrastructure*.

7.2. Proposed Servicing Provisions

7.2.1. Design Vehicles

The development proposes to adopt a Medium Rigid Vehicle (MRV) as the Occasional Access service vehicle and a Rear Loading Refuse Collection Vehicle (RCV) as the Regular Access vehicle. This arrangement presents a performance-based solution for the occasional service vehicle requirement.

Adopting a MRV in lieu of a HRV as the Occasional Access service vehicle (representing a typical furniture removal truck) is considered a reasonable performance solution based on the development consists primarily of 1- and 2-bedroom units. Guidance from furniture removalist companies indicates that such sized units typically require removal of 10-20m³ of furniture. This volume of furniture can be accommodated within delivery vehicles representative of a Small Rigid Vehicle (SRV) (storage capacities typically up to 20m³). An MRV type vehicle can accommodate up to 40m³ of internal cargo space, which would be more than sufficient for all units (including the 3-bedroom units). Additionally, Social and Affordable developments generally consist of persons with low income which generally correlates with having less belongings and tending to stay longer in the property.

Based on the above, the proposed use of an MRV as the occasional access service vehicle is considered suitable for the development and acceptable from a traffic engineering perspective.

7.2.2. Loading Bay Provisions

The development scheme provides a formal loading area adjacent to the development driveway accessed directly from University Drive, capable of accommodating vehicles up to the size of an RCV. The informal standing area provision achieves the requirements of the AS2890 for multiple dwelling land uses.

7.2.3. Refuse Collection Provisions

General refuse and recycling from the apartments will be deposited within 1100L bulk bins in the refuse room (on the ground level). A rear-loading RCV will service the site, which will access the site forward in, reverse into the loading area, collect bins at the rear of the vehicle and exit in a forward manner. Refer to Collier's Drawing 25BRT0552-01 in Appendix B for the vehicle manoeuvres.

7.2.4. Design Provisions and Manoeuvring

The LCC PS require that the servicing arrangements layout to meet the requirements of the AS2890 series.

Table 7.1 identifies the service vehicle design provisions with respect to the AS2890 requirements.

Table 7.1: AS2890 Service Vehicle Design Requirements

Design Aspect	AS2890 Provision	Proposed Provision	Compliance
Loading bay length: • MRV bay	8.8m (min)	11.5m	AS2890.2 Compliant
Loading bay width: • MRV bay	3.5m (min)	3.5m	AS2890.2 Compliant
Loading bay grades	1:25 (4%) max	Generally Flat	AS2890.2 Compliant
Height Clearance: • MRV	4.5m (min)	4.5m (min)	AS2890.2 Compliant

Noting that AS2890.2 does not includes the required bay dimensions for an RCV. However, as shown in the swept path analysis 25BRT0552-01 in Appendix B, there is sufficient space for a 10.3m RCV to park and service the development.

Overall, the proposed service vehicle arrangements are generally in accordance with the LCC PS and therefore, is appropriate to support the development.

8. Development Transport Demands

8.1. Development Traffic Demands

8.1.1. Traffic Generation

To estimate the traffic generation expectations of the proposed land uses, reference is made to the Roads and Traffic Authority *Guide to Traffic Generating Developments* (RTA GTGD). This indicates the following traffic generation rates are appropriate for residential high-density developments in 'metropolitan sub-regional areas:

- Peak Hour: 0.29 vehicles per hour (vph) per unit
- Daily: 2.9 vehicles per day (vpd) per unit (10 times peak).

In terms of inbound/outbound movement splits for Multi-Dwelling units, it is proposed to adopt the following:

- 25% in/75% out in the AM peak hour
- 65% in/35% out in the PM peak hour

These splits are consistent with generally accepted practice and reflect the predominantly 'tidal' flow behaviour of traffic movements from residential developments in weekday peak hours.

Application of the above generation rates to proposed development yield of 80 units would result in the following traffic generating potential.

- AM Peak Hour: 23vph (6 in / 17 out)
- PM Peak Hour: 23vph (15 in / 8 out)
- Daily: 230vpd

The 23vph estimated traffic generation is considered a conservative approach since the development propose 1 car parking space per unit only, which will be dedicated for Social and Affordable housing.

8.1.2. Development Traffic Distribution

The estimated distribution derives from the Stantec Traffic Impact Assessment Report for the adjacent lot, which conducted a traffic survey at the intersection of University Drive and the Logan Motorway on/off ramp in May2025, together with an aerial analysis of the area and potential trip attractors. Figure 8.1 shows Colliers estimated development traffic distribution.



Figure 8.1: Estimated Development Traffic Distribution.

8.2. Warrants for Further Assessment.

With regards to warrants for TIA for DMTR State Controlled Roads (SCRs), the DTMR GTIA indicates that this is necessary for any intersections or road links where traffic volume increases represent 5% or more of the base traffic volumes.

Colliers obtained the traffic volumes of the University Drive / Logan Motorway on/off Ramp intersection from the Stantec Traffic Impact Assessment Report for the adjacent lot (Lot 100 on SP312822), which includes the surveyed volumes (2025), expected volumes in 2038 and the proposed adjacent development traffic volumes (Figure 8.2).

Assuming the development traffic generation discussed in Section 8.1 (Figure 8.3) and the proposed 2038 scenario derived from Stantec Report, Figure 8.4 illustrates the percentage increase in the 2038 scenario resulted from the proposed development traffic generation.

		Meadowbrook Drive							
		64	241	209	155	117	188		
University Drive	83	33	↗	4	93	24	67		
	148	285	→	2	54	16	45	69	
	267	156	↘	2	57	13	83	225	
	47	42	↔	↖	↙	↓	↘	454	
	844	↖	↗	↖	↗	↘	↙	358	
0									
545									
516									
	493	110	84	0	64	70	60		
	311	86	32	1	255	202	216		
					37	30	31		
		0	430	687	206	314	55		
		On/off Logan Mwy Ramp							

Figure 8.2: 2038 intersection traffic demand – survey + growth + adjacent development traffic volumes.

		Meadowbrook Drive							
		0	0	0	0	0	0		
University Drive	12	4	↗						
	15		→					0	
	8		↘					15	
	17		↔	↖	↙	↓	↘	8	
	8		↖	↗	↖	↗	↘	0	
0									
12									
4									
	4								
	3								
	0	3	4	5	2	0			
		On/off Logan Mwy Ramp							

Figure 8.3: Proposed Development traffic volumes.

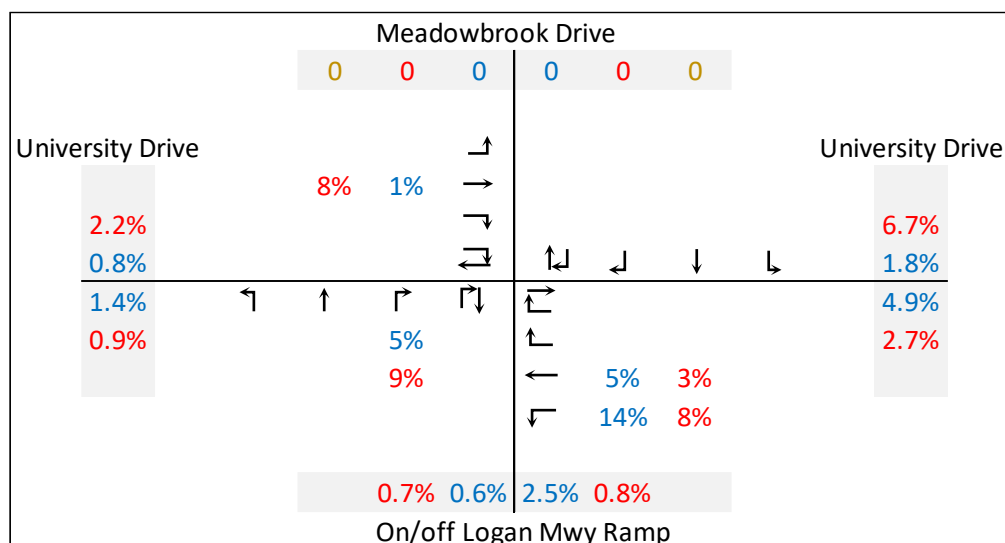


Figure 8.4: Traffic Generation Increase (%) – University Drive / Logan Motorway on/off Ramp Roundabout.

As shown in Figure 8.4, the development traffic demand will exceed the 5% DTMR threshold, and a detailed TIA is deemed required. However, when considering the development traffic generation volumes and distribution (Figure 8.3), the increase in trips will be minimal, when taking the 2038 base traffic volumes as reference (Figure 8.2). Below is a detailed comparison of each movement which has achieved or exceeded the 5% threshold.

- 14% increase is noted for the left-turn on the eastern approach during the AM peak period, resulting from an increase of only 5 vehicles. This equates to approximately 1 additional vehicle every 12 minutes. The percentage increase exceeds the threshold due to the low existing/estimated base demand of 37 vehicles for this movement, rather than a significant traffic impact.
- 8% increase is noted for the left-turn on the eastern approach during the PM peak period, resulting from an increase of only 2 vehicles. This equates to approximately 1 additional vehicle every 30 minutes. The percentage increase exceeds the threshold due to the low existing/estimated base demand of 30 vehicles for this movement, rather than a significant traffic impact.
- 5% increase is noted for the through on the eastern approach during the AM peak period, resulting from an increase of only 12 vehicles. This equates to approximately 1 additional vehicle every 5 minutes. The percentage increase exceeds the threshold due to the low existing/estimated base demand of 255 vehicles for this movement, rather than a significant traffic impact.
- 5% increase is noted for the right-turn on the southern approach during the AM peak period, resulting from an increase of only 4 vehicles. This equates to approximately 1 additional vehicle every 15 minutes. The percentage increase exceeds the threshold due to the low existing/estimated base demand of 84 vehicles for this movement, rather than a significant traffic impact.
- 9% increase is noted for the right-turn on the southern approach during the PM peak period, resulting from an increase of only 3 vehicles. This equates to approximately 1 additional vehicle every 20 minutes.

The percentage increase exceeds the threshold due to the low existing/estimated base demand of 32 vehicles for this movement, rather than a significant traffic impact.

- 8% increase is noted for the through on the western approach during the PM peak period, resulting from an increase of only 12 vehicles. This equates to approximately 1 additional vehicle every 5 minutes. The percentage increase exceeds the threshold due to the low existing/estimated base demand of 148 vehicles for this movement, rather than a significant traffic impact.

Therefore, it is considered that the percentage increase in traffic, when comparing the development traffic generation with the 2038 scenario, will not have a significant impact on the roundabout's operation. Notably, the existing roundabout was designed and constructed to a high standard, suitable to cater for traffic demands greater than those estimated for 2038.

The total proposed development is anticipated to generate 23vph during the AM and PM peak hour periods. This number of trips is low in the context of the adjacent road network and likely to be within typical daily fluctuations of the University Drive / Meadowbrook Drive / Logan Motorway Ramp intersection.

The proposed development traffic is therefore considered to have a negligible impact on traffic operations and is appropriate from a traffic engineering perspective.

9. Summary and Conclusions

9.1. Proposed Development

The proposed development comprises three 5-level residential towers containing a total of 80 units (42 Social Housing and 38 Affordable Housing). Vehicular access is provided via a 6.2m General Wide Flared crossover from University Drive, with pedestrian and cyclist access via footpath connections.

9.2. Parking Arrangements

The development provides 80 resident car parking spaces (including 2 PWD spaces), which represents a performance solution compared to LCC Planning Scheme requirements but aligns with the Queensland Social Housing Guideline (one space per dwelling). Bicycle parking complies with LCC PSP, with 34 spaces provided (27 resident and 7 visitor).

Overall, Colliers considers the parking arrangements for the development acceptable.

9.3. Access Arrangements

Vehicular access is proposed via University Drive, designed to accommodate cars and service vehicles with left-in/left-out movements only. The access design generally complies with AS2890, with performance solutions adopted for queuing provisions, supported by the low-turnover nature of the car park. Pedestrian and cyclist access is provided via footpaths and shared driveway connections.

Overall, Colliers considers the access arrangements for the development acceptable.

9.4. Service Vehicle Arrangements

The development accommodates regular access for a rear-loading Refuse Collection Vehicle (RCV) and occasional access for a Medium Rigid Vehicle (MRV). A dedicated standing area is provided on-site, with manoeuvring designed to allow reverse entry and forward exit for RCVs. The loading bay dimensions meet AS2890 requirements.

Overall, the proposed service vehicle arrangements are considered acceptable.

9.5. Traffic Impact Assessment

The development is expected to generate approximately 23 vehicle trips per hour during peak periods and 230 daily trips. While some movements exceed the DTMR 5% threshold, the increase represents only a few vehicles per hour due to low base volumes and will not adversely impact the operation of the University Drive / Logan Motorway roundabout. Proximity to Loganlea Station, bus services, and active transport infrastructure further mitigates potential traffic impacts.

As such, the development is not expected to have any adverse traffic impacts on the local road network.

9.6. Conclusion

Based on the assessment contained within this report, Colliers sees no traffic engineering reason why the relevant approvals should not be granted.



Appendix A Development Plans

Ground Floor Plan



2 STOREY TOWNHOUSE DEVELOPMENT
(c 130 DWELLINGS)
WITH COMMUNAL AMENITIES

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Builder/Contractor shall verify job dimensions before any job commences. Figured dimensions take precedence over drawings and job dimensions. All shop drawings shall be submitted to the Architect/Consultant, and manufacture shall not commence prior to return of inspected shop drawings by the Architect/Consultant

LEGEND

- NOISE CORRIDOR - CATEGORY 3
- NOISE CORRIDOR - CATEGORY 4

AFFORDABLE HOUSING UNITS

- 1 BEDROOM (AFFORDABLE SILVER)
- 2 BEDROOM (AFFORDABLE SILVER)

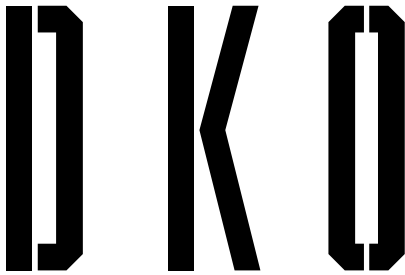
SOCIAL HOUSING UNITS

- 1 BEDROOM (SOCIAL GOLD)
- 2 BEDROOM (SOCIAL GOLD)

DEVELOPMENT
APPLICATION

Client Details

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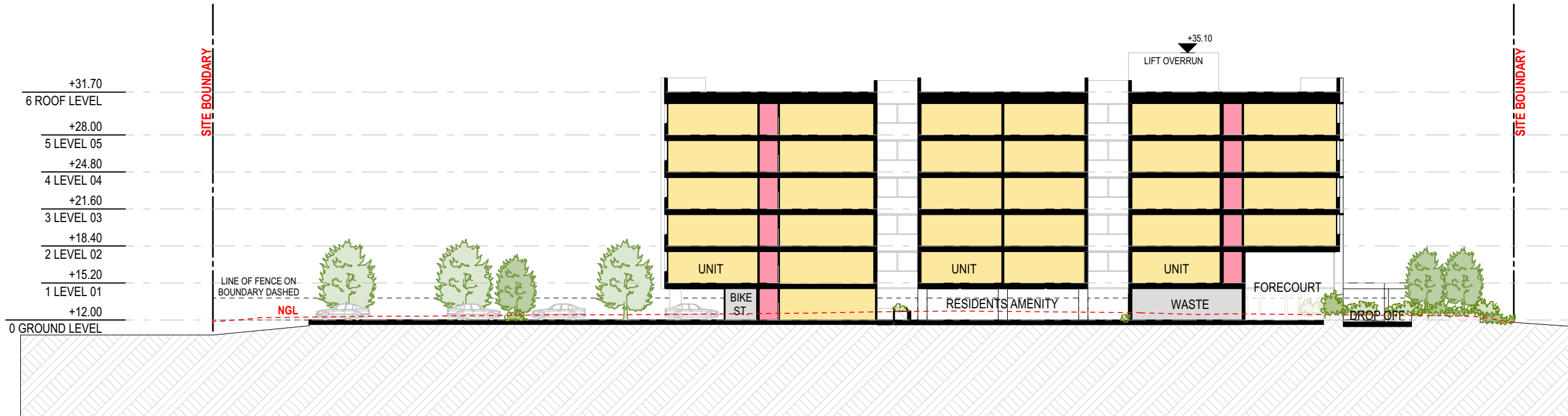
Project Name SGCH Meadowbrook
Project Number 00013982
Project Address 35 University Drive,
Meadowbrook, QLD 4131

Drawn By
Checked By
Date 24/03/2026
Scale 1:500@A3

Drawing Series Plans
Drawing Name Ground Floor Plan

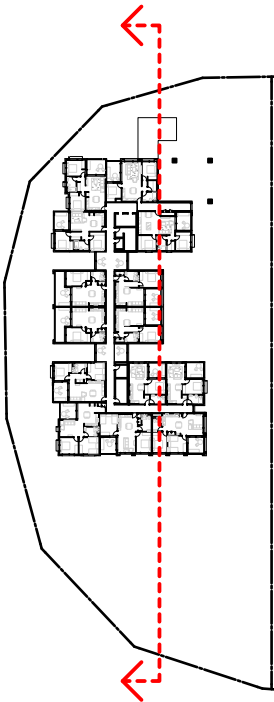
Drawing No. DA302
Revision A

Typical Section



LEGEND

- APARTMENT UNITS
- LOBBY & CORRIDORS
- SERVICES



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DEVELOPMENT
APPLICATION

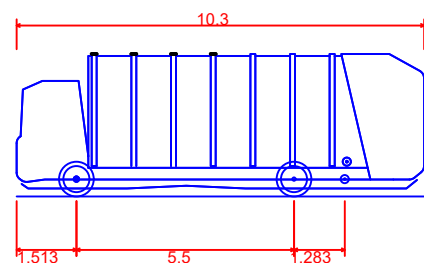
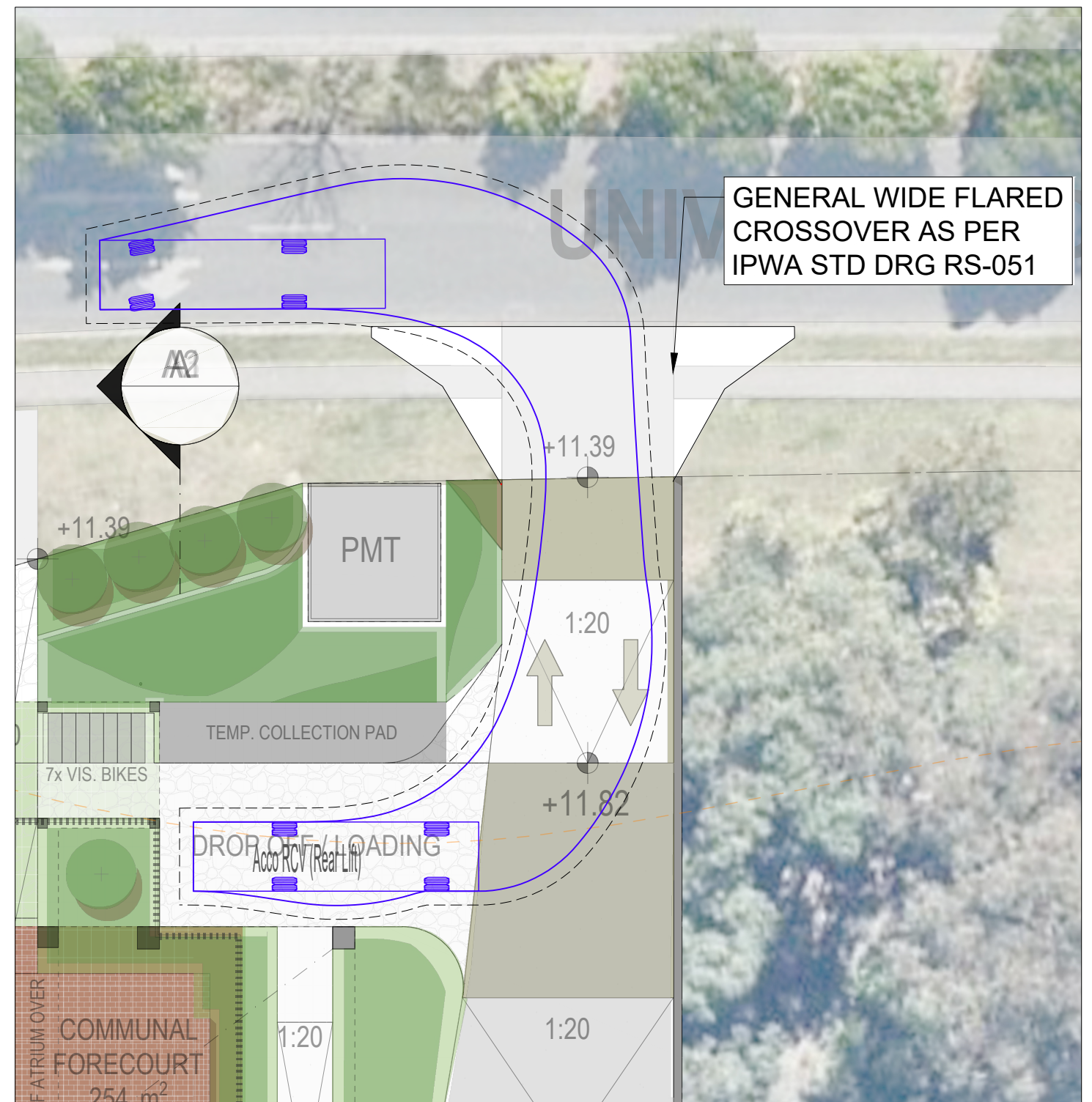
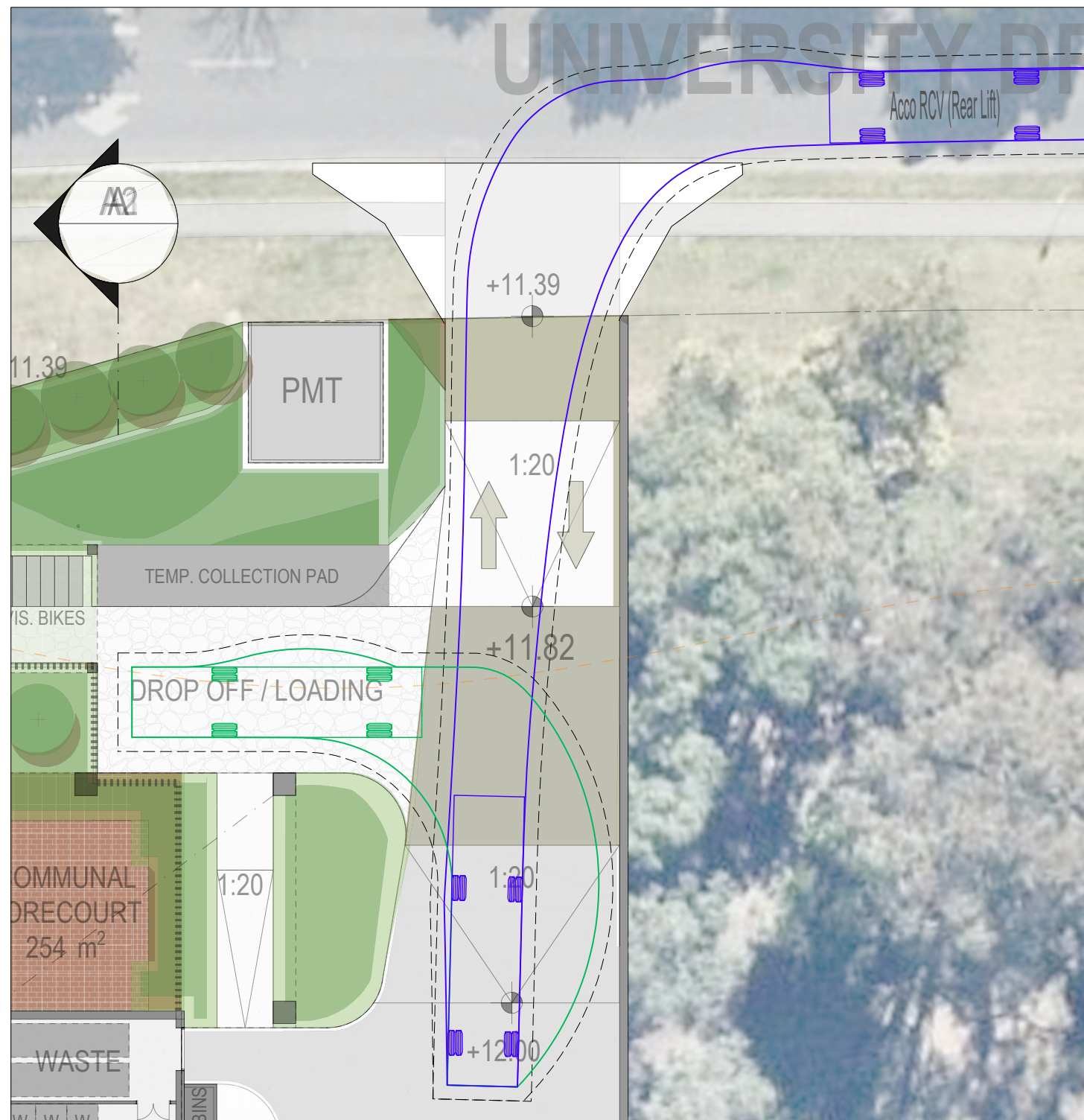


Project Name SGCH Meadowbrook
Project Number 00013982
Date 24/03/2026
Scale 1:400@A3

Drawing Name Typical Section
Drawing Number DA402
Revision A



Appendix B Colliers Drawings



Acco RCV (Rear Lift)

Overall Length 10.300m
Overall Width 2.500m
Overall Body Height 3.600m
Min Body Ground Clearance 0.200m
Track Width 2.500m
Lock-to-lock time 6.00s
Curb to Curb Turning Radius 9.500m
Clearance 0.500m

**PRELIMINARY
ADVICE ONLY**

24 March 2026

REV.	DATE	AMENDMENT DESCRIPTION	DRAWN	CHECKED	APPROVED
B	24.03.2026	REVISED PLANS	BV	MGr	MGr
A	10.12.2025	ORIGINAL ISSUE	BV	MGr	MGr

SCALE	0	2	4	6	8	10m
SCALE 1:200 AT ORIGINAL SIZE						
NORTH						
CLIENT						
St George Community Housing Limited						



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PROJECT	33 University Dr, Meadowbrook
DRAWING TITLE	SWEPT PATH ANALYSIS 10.3m REFUSE COLLECTION VEHICLE (RCV) - DESIGN VEHICLE

PROJECT NUMBER	25BRT0522	ORIGINAL SIZE	A3
DRAWING NUMBER	25BRT0522-01	REVISION	B
DATE	24 Mar 2026	SHEET	1 OF 1