



**UNITING SA HOUSING DEVELOPMENT
HAWKER STREET, BOWDEN**
TRAFFIC AND PARKING REPORT

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Traffic and Parking Report

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1. INTRODUCTION

CIRQA has been engaged to provide design and assessment advice the proposed residential apartment development at the corner of Hawker Street and Market Place, Bowden. Specifically, CIRQA has been engaged to provide advice in respect to traffic and parking aspects of the proposal.

This report provides a review of the subject site, the proposed development, its access and parking provisions and the associated traffic impact on the adjacent road network. The traffic and parking assessments have been based upon plans prepared by City Collective (Project no. 2284, Drawing nos. P1000-1003, Rev P.06 dated 14 March 2025, refer Appendix A).

2. BACKGROUND

2.1 SUBJECT SITE

The subject site comprises six separate allotments, namely:

- 16 Market Place, Bowden (Lot 3 in D29368, CT5785/728);
- 2-10 Market Place, Bowden (Lot 44 and 45 in F121991, CT5731/392 and CT5731/393);
- 18 Market Place, Bowden (Lot 2 in D29368, CT5789/977);
- 12-14 Market Place, Bowden (Lot 46 in F121993, CT5387/586); and
- 105 Gibson Street, Bowden (Lot 1 in D29368, CT5785/729).

The subject site is located on the northern side of Hawker Street, Bowden. The site is bounded by Market Place to the east and north-east, Hawker Street to the south, Gibson Street to the west and residential development to the north and north-west. The subject site is currently occupied by seven (7) single storey semi-detached community housing dwellings and three (3) single storey detached community housing dwellings. Vehicle access is provided via three (3) two-way access points on Market Place and one (1) two-way access point on Gibson Street. All turning movements are permitted at each of the site's existing access points.

Figure 1 illustrates the location of the subject site with respect to the adjacent road network.

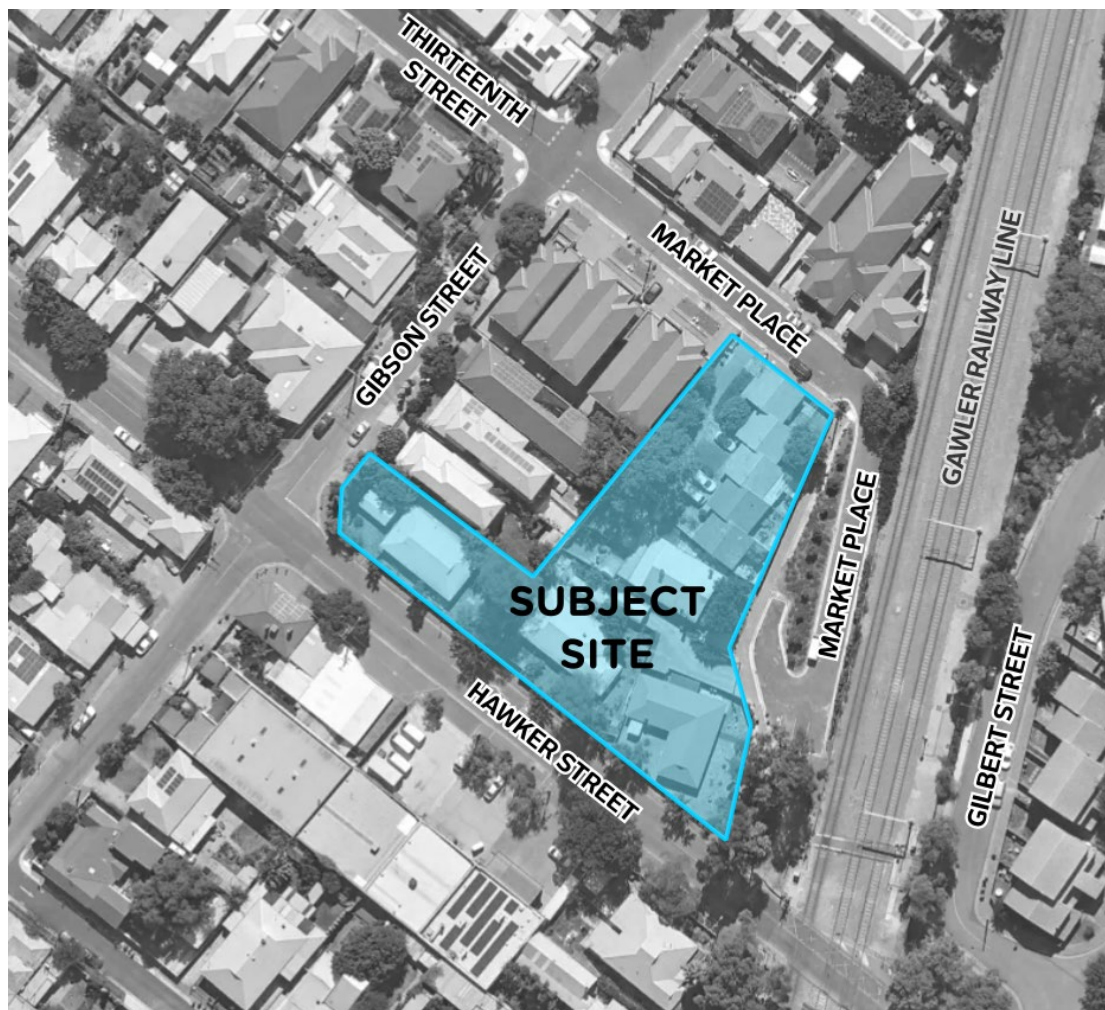


Figure 1 – Location of the subject site with respect to the adjacent road network

The Planning and Design Code identifies that the site is located within an Established Neighbourhood Zone, with the following Overlays applicable:

- Airport Building Heights (Regulated) (All structures over 45 metres);
- Building Near Airfields;
- Historic Area (ChSt2);
- Prescribed Wells Area;
- Regulated and Significant Tree;
- Stormwater Management;
- Traffic Generating Development; and
- Urban Tree Canopy.

2.2 ADJACENT ROAD NETWORK

Hawker Street is a distributor road under the care and control of City of Charles Sturt. Adjacent the site, Hawker Street comprises a 7.9 m wide carriageway (approximate) with a single traffic lane in each direction. 'No Stopping' restrictions apply on both sides of Hawker Street adjacent the site, however indented parallel parking bays are provided intermittently on both sides of Hawker Street, north-west of Gibson Street. Traffic data obtained from the City of Charles Sturt indicates that daily traffic volumes on Hawker Street are in the order of 5,600 vehicles per day (vpd). A speed limit of 40 km/h applies on Hawker Street.

Market Place is a local (no through) road under the care and control of the City of Charles Sturt, comprising a two-way carriageway that varies in width between 6.0 m and 7.8 m (approximate). Four (4) unrestricted 90-degree on-street parking spaces are provided at the southern end of Market Place. Unrestricted on-street (parallel) parking is provided within the balance of the road. A speed limit of 40 km/h applies on Market Place.

Gibson Street is local road under the care and control of the City of Charles Sturt, comprising a two-way carriageway 7.5 m in width (approximate). Parking is generally unrestricted on both sides of the road. Traffic data provided by the City of Charles Sturt indicates that daily traffic volumes on Gibson Street are in the order of 1,800 vpd. A speed limit of 40 km/h applies on Gibson Street.

Gibson Street and Market Place form a priority-controlled (Give Way) four-way intersection (with Thirteenth Street), at which Gibson Street is assigned traffic priority. Gibson Street and Hawker Street form a priority-controlled (Give Way) four-way intersection, at which Hawker Street is assigned traffic priority.

2.3 WALKING AND CYCLING

Sealed footpaths are provided on both sides of Hawker Street, Gibson Street and the section of Market Place west of the bend adjacent the railway corridor, as well as on the western side of the section of Market Place aligned parallel to the Gawler Railway Line, servicing both pedestrians and cyclists. Cyclists are also able to ride on-street sharing the carriageway with motorists.

Gilbert Street, immediately east of the Gawler Railway Line forms part of the Gawler Greenway, a strategic cycling route through the northern suburbs of metropolitan Adelaide, which, when complete, will link the Adelaide CBD with Mawson Lakes, Elizabeth and Gawler.

2.4 PUBLIC TRANSPORT

High-frequency public bus services operate regularly in the vicinity of the subject site, with stops located within 100 m of the subject site on both sides of Hawker Street. These stops are serviced by the following bus routes:

- 251, 253 - Mansfield Park to City;
- 252, 254 - Port Adelaide Interchange to City; and
- N254 - After Midnight Saturday PM - Sunday AM Semaphore to City.

The North Adelaide Railway Station is located approximately 500 m to the south of the site and is serviced by trains operating on the Gawler Railway Line. In addition, the Bowden Railway Station is located approximately 785 m to the south-west of the site. The Bowden Railway Station is serviced at high frequency by trains operating on the Outer Harbor and Grange Railway Lines.

3. PROPOSED DEVELOPMENT

3.1 LAND USE AND YIELD

The proposed development comprises the demolition of the existing infrastructure on the subject site and the construction of an apartment building including the following key components:

- 28 two-bedroom apartments;
- 2 two-bedroom specialist disability accommodation (SDA) apartments; and
- two separate off-street parking areas with a combined capacity of 34 spaces,

It is understood that all dwellings within the development will provide social (rental) housing.

3.2 ACCESS AND PARKING DESIGN

Six of the apartments will be serviced by a 6-space parking area accessed via Gibson Street. This parking area will generally comply with the requirements of Australian/New Zealand Standard, *Parking Facilities Part 1: Off-street car parking* (AS/NZS 2890.1:2004) in that:

- parking spaces will be 2.4 m wide and 5.4 m long;
- the parking aisle will be at least 5.8 m wide;
- a 1.0 m end-of-aisle extension will be provided beyond the last parking space in the aisle;

- 0.3 m clearance will be provided to all objects greater than 0.15 m in height; and
- pedestrian sightlines will be provided at the access point on Gibson Street.

Vehicle access to the site's 6-space parking area will be provided via a 6.0 m wide two-way crossover on Gibson Street. The access point will accommodate two-way movements with entering vehicles able to be driven past another vehicle stored waiting to exit the site. All vehicles will be able to enter and exit the site in a forward direction. Vehicle turn paths showing ingress, circulation within and egress from the Gibson Street parking area, are included in the plans in Appendix B.

It should be noted that, whilst the location of the proposed Gibson Street access point does not strictly comply with the intersection clearance requirements specified in clause 3.2.3(a) of AS/NZS 2890.1:2004 (given that it is proposed to be located approximately 3.0 m from the tangent point of the kerb), the existing access driveway location (servicing the existing dwelling on the site) also does not comply (given that it is located at the tangent point). However, given that the proposal will result in the access shifting further north-east, with provisions made for forward entry and exit, it is considered to result in an improved access arrangement (in comparison to existing conditions).

It should also be noted that the proposed Gibson Street access point is located over an existing telecommunications pit in the verge. Accordingly, it is proposed that this pit is adjusted to allow it to be trafficable by motor vehicles.

The remainder of the proposed apartments will be serviced by a 28-space parking area (inclusive of two spaces reserved exclusively for use by people with disabilities) accessed via Market Place, which will comply with the requirements of AS/NZS 2890.1:2004 and Australian/New Zealand Standard, Parking Facilities Part 6: Off-street parking for people with disabilities (AS/NZS 2890.6:2022) in that:

- regular parking spaces will be 2.4 m wide and 5.4 m long;
- the disabled parking spaces will be 2.4 m wide and 5.4 m long (with an adjacent shared space of the same dimension);
- the parking aisle will be at least 5.8 m wide;
- a 1.0 m end-of-aisle extension will be provided beyond the last parking space in the aisle;
- 0.3 m clearance will be provided to all objects greater than 0.15 m in height; and

- pedestrian sightlines will be provided at the access point on Market Place.

Vehicle access to the 28-space parking area will be provided via a 6.0 m wide two-way crossover on Market Place. Access to the parking area is proposed to be restricted to residents with allocated parking spaces and disability parking permit holders only (for security reasons). The access point will accommodate two-way movements with entering vehicles able to be driven past another vehicle stored waiting to exit the site. Vehicle turn paths within the site and through the proposed access point are illustrated in the plans in Appendix B. All vehicles will be able to enter and exit the site in a forward direction.

It should be noted that an existing stobie pole is located within the alignment of the proposed Market Place crossover. Accordingly, it is proposed that this pole is relocated.

All redundant crossovers will be closed and reinstated as Council-standard upright kerb.

3.3 REFUSE COLLECTION

Refuse collection for the six apartments located adjacent the intersection of Hawker Street and Gibson Street is proposed to occur on-street on Hawker Street using Council's standard three-bin waste collection system.

Refuse collection for the remaining 24 apartments is proposed to occur on-street on Market Place using Council's standard bulk-bin waste collection system, with bins wheeled from the site's waste storage area to the refuse vehicle via the footpath and an access ramp to the roadway on Market Place.

The proposed waste collection arrangement includes the introduction of on-street parking restrictions (at collection times) within the Market Place cul-de-sac to accommodate refuse vehicle turn paths (albeit waste collection is currently undertaken within the Market Place cul-de-sac by Council's contractor without such restrictions).

Refuse vehicle turn paths within Market Place (and on-street vehicle storage in the vicinity of the apartment waste storage area) are included in the plans in Appendix B.

4. PARKING ASSESSMENT

4.1 CAR PARKING

Performance Outcome (PO) 14.1 of the General Development Policies (Housing Renewal) seeks that, for residential flat building development undertaken by the

SA Housing Trust, or providers registered under the Community Housing National Law participating in a program relating to the renewal of housing endorsed by the SA Housing Trust:

"On-site car parking is provided to meet the anticipated demand of residents, with less on-site parking in areas in close proximity to public transport."

The Deemed-to-Satisfy Criteria/Designated Performance Features (DTS/DPF) relating to PO 14.1 are as follows:

"On-site car parking is provided at the following rates per dwelling:

- a) 2 or fewer bedrooms - 1 car parking space*
- b) 3 or more bedrooms - 2 car parking spaces."*

In addition, PO 14.4 of the General Development Policies (Housing Renewal) seeks that:

"Residential flat buildings and group dwelling developments provide sufficient on-site visitor car parking to cater for anticipated demand."

The DTS/DPF relating to PO 14.4 is as follows:

"Visitor car parking for group and residential flat buildings incorporating 4 or more dwellings is provided on-site at a minimum ratio of 0.25 car parking spaces per dwelling."

In addition, 'Table 1 - General Off-Street Car Parking Requirements' of the Planning and Design Code seeks provision of 0.3 space per bed for development classified as supported accommodation (such as the proposed SDA apartments).

Based on the proposed dwelling composition (28 two-bedroom apartments and 2 two-bedroom SDA apartments) the development would be required to accommodate parking in accordance with the provisions outlined in Table 1 in order to satisfy the DTS/DPF criteria applicable to the development.

Table 1 – Parking provisions required to satisfy Planning and Design Code criteria

Parking category	Qty	Units	Rate	Requirement
two-bedroom apartments (resident parking)	28	dwellings	1 space per dwelling	28
two-bedroom apartments (visitor parking)	28	dwellings	0.25 spaces per dwelling	7

Parking category	Qty	Units	Rate	Requirement
SDA apartments (general parking)	4	beds	0.3 space per bed	1.2
Total				36.2 spaces

As illustrated in Table 1, the development would be required to accommodate 37 parking spaces (rounded up), comprising 30 general/resident spaces and 7 visitor spaces, in order to meet the above DTS/DPF criteria. Given that 34 spaces will be provided, the development would fall short of meeting the DTS/DPF criteria (by 3 spaces).

In order to determine the availability of on-street parking within the vicinity of the site, parking occupancy surveys were undertaken by Austraffic on Wednesday 13 November 2024, between 7:00 am and 8:00 pm, with parking occupancy data collected at one-hour intervals. The surveys recorded the number of parked vehicles and parking capacities on the following roads (identified in the aerial image in Figure 2):

- **Market Place**, between Gibson Street and the end of Market Place, adjacent Hawker Street (capacity of 19 unrestricted on-street spaces located between 0 m and 30 m walking distance from the site);
- **Gibson Street**, between Hawker Street and Fourteenth Street (capacity of 34 unrestricted on-street spaces located between 0 m and 140 m walking distance from the site);
- **Thirteenth Street**, between Gibson Street and Drayton Street (capacity of 19 unrestricted on-street spaces located between 60 m and 180 m walking distance from the site);
- **Hawker Street**, between Gibson Street and Drayton Street (capacity of 14 unrestricted on-street spaces located between 30 m and 160 m walking distance from the site); and
- **Gilbert Street**, between Telford Street and Guthrie Street (capacity of 36 unrestricted on-street spaces located between 50 m and 200 m walking distance from the site).



Figure 2 – On-street parking survey area (identified in red)

Table 2 illustrates the parking availability (i.e. number of vacant on-street spaces) recorded during the survey period.

Table 2 – Parking capacities and surveyed availability (vacant spaces)

Time	Market Pl btw Gibson St and end	Gibson St btw Hawker St and Fourteenth St	Thirteenth St btw Gibson St and Drayton St	Hawker St btw Gibson St and Drayton St	Gilbert St btw Telford St and Guthrie St
Capacity	19 spaces	34 spaces	19 spaces	14 spaces	36 spaces
7:00 am	16	25	13	11	34
8:00 am	17	26	13	12	31
9:00 am	17	26	11	8	28
10:00 am	17	24	9	8	24
11:00 am	17	23	10	11	24
12:00 pm	16	26	11	12	29
1:00 pm	16	26	11	8	30
2:00 pm	16	24	10	11	30
3:00 pm	16	25	11	10	31
4:00 pm	14	24	13	12	29

Time	Market Pl <i>btw Gibson St and end</i>	Gibson St <i>btw Hawker St and Fourteenth St</i>	Thirteenth St <i>btw Gibson St and Drayton St</i>	Hawker St <i>btw Gibson St and Drayton St</i>	Gilbert St <i>btw Telford St and Guthrie St</i>
5:00 pm	14	26	14	12	15
6:00 pm	13	27	12	12	24
7:00 pm	13	27	13	11	32
8:00 pm	12	26	14	11	34

As illustrated in Table 2, the level of on-street parking availability adjacent the subject site is relatively high, with at least 38 vacant parking spaces available across Market Place and the surveyed section of Gibson Street at any time (with an average vacancy of 77% during the survey period).

Furthermore, the level of on-street parking availability across the overall survey area is also relatively high, with at least 81 vacant parking spaces available within the survey area at any time (with an average vacancy of 75% during the survey period).

The survey therefore identifies that the available on-street parking across a surveyed sample of street sections within 200 m walking distance of the site (at least 81 spaces) would adequately accommodate the theoretical parking shortfall associated with the proposed development (3 spaces), whilst still leaving ample available parking for adjoining residents and their visitors.

It should be noted that the surveyed street sections only include a portion of on-street parking areas located within walking distance of the site, and that additional on-street parking vacancy would be available on streets to the south of Hawker Street (such as Gibson Street, Trembath Street and Eleventh Street).

Notwithstanding the above assessment, it should be noted that PO 14.1 states that less on-site parking is required in areas in close proximity to public transport. The development is located on a 'Go Zone' route, along which high frequency bus services operate (Hawker Street). High frequency public transport services will therefore be available within the site's immediate proximity (and be readily available to apartment residents and their visitors).

With regard to the extent to which proximity to public transport would offset the development's theoretical parking shortfall, it should be noted that the proposal will provide affordable housing outcomes (despite an Affordable Housing Overlay not applying to the site). For the purposes of a comparison to the above parking provision rates, consideration has been given to DTS/DPF 4.1 of the Affordable Housing Overlay which includes the following criteria:

"Dwellings constituting affordable housing are provided with car parking in accordance with the following:

- (a) 0.3 carpark per dwelling within a building which incorporates dwellings located above ground level within either:*
 - i. 200 metres of any section of road reserve along which a bus service operates as a high frequency public transit service*
 - ii. is within 400 metres of a bus interchange*
 - iii. is within 400 metres of an O-Bahn interchange*
 - iv. is within 400 metres of a passenger rail station*
 - v. is within 400 metres of a passenger tram station*
 - vi. is within 400 metres of the Adelaide Parklands.*
- or*
- (b) 1 carpark per dwelling for any other dwelling."*

While not strictly applicable, the above criteria provide a reasonable indicator of the level of parking which could be provided to satisfy PO 14.1 of the General Development Policies (Housing Renewal). Based on the criteria above, the proposed apartments would have a theoretical requirement for only 9 parking spaces. Given that 34 spaces are proposed, if assessed against the above Affordable Housing criteria, there would be sufficient on-site parking to satisfy the parking requirements for the component of the development that comprises affordable housing.

Furthermore, in considering the parking demand generated by the development, it should be noted that Uniting SA manages the selection of tenants for sites under its management, and it is in Uniting SA's interests to ensure that the subject development caters for tenants' needs. Therefore, prospective tenants of the development are likely to be selected in accordance with their requirement for access to parking (i.e. car ownership status is likely to be a key selection criterion for tenancy within the development). Such measures provide additional justification for the above assessment against Affordable Housing criteria and would ensure that the development's impact on on-street parking in the locality is minimised.

Based on the above discussion, the proposed development is regarded as satisfying the provisions of the Planning and Design Code that relate to resident and visitor car parking.

4.2 BICYCLE PARKING

PO 14.5 of the General Development Policies (Housing Renewal) seeks that:

"Residential flat buildings provide dedicated areas for bicycle parking."

The DTS/DPF relating to PO 14.5 is as follows:

"Residential flat buildings provide one bicycle parking space per dwelling."

Uniting SA has advised that the development's resident cohort will typically comprise women aged 55 and over. The Cycling and Walking Australia and New Zealand's 2023 'National Walking and Cycling Participation Survey' included data indicating that 16.1% of women aged over 50 reported having cycled in the past year (when the survey was undertaken). Based on this data, provision of one bicycle parking space per dwelling is likely to result in a significant overprovision of bicycle parking for the resident cohort.

The proposal will provide 26 bicycle parking spaces, which, although will not satisfy DTS/DPF 14.5, is regarded as being sufficient to accommodate the needs of the residents of the development (equivalent to provision of 0.87 bicycle parking spaces per dwelling) and adequate to satisfy PO 14.5.

5. TRAFFIC ASSESSMENT

5.1 TRAFFIC GENERATION AND DISTRIBUTION

The RTA's "Guide to Traffic Generating Developments" (the RTA Guide), and its subsequent updates, identifies the following traffic generation rates applicable to the site's existing and proposed development:

- **low-density residential dwellings** (applicable to the existing detached dwellings on the site):
 - 0.8 am and 0.8 pm trips per dwelling during the respective peak hours;
- **medium-density residential dwellings** (applicable to the existing semi-detached dwellings on the site):
 - 0.4 to 0.5 peak hour trips per dwelling (up to two bedrooms); and
- **high-density residential dwellings** (applicable to the proposed apartments);
 - 0.53 am and 0.32 pm peak hour trips per dwelling.

Based upon the above traffic generation rates, it is forecast that the site's ten (10) existing dwellings will generate in the order of 6 am and pm peak hour trips and that the proposed apartments will generate in the order of 16 am and 10 pm peak hour trips.

Traffic volumes associated with the proposed development are forecast to be distributed to/from the site as follows:

- **Market Place access:**

- 3 ingress and 10 egress movements in the am peak hour;
- 6 ingress and 2 egress movements in the pm peak hour;
- **Gibson Street access:**
 - 1 ingress and 2 egress movements in the am peak hour;
 - 2 ingress and 0 egress movements in the pm peak hour;

The additional forecast volumes associated with the proposed development (in the order of 10 additional am and 4 additional pm peak hour trips) are low and will be readily accommodated on the adjacent road network with minimal impact upon its operation.

6. SUMMARY

The proposal comprises the construction of apartments on the subject site, with associated access and parking provisions. Vehicle access to the site will be provided via a two-way access point on Market Place (servicing 24 apartments), as well as a two-way access point on Gibson Street (servicing 6 apartments). The site has been designed such that all vehicles can enter and exit the site in a forward direction.

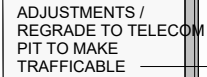
A total of 34 parking spaces will be provided on site. Such a provision is considered sufficient to address the relevant Performance Outcomes, noting the nature of the proposed affordable dwellings (managed by a community housing provider), the proximity to high frequency public transport and the availability of on-street parking on streets within walking distance of the subject site. The parking area will be provided in accordance with the relevant Australian Standard.

Twenty-six (26) bicycle parking spaces will be provided on-site, which is considered sufficient to address the relevant Performance Outcomes relating to bicycle parking, noting the lower typical rates of cycling amongst the development's resident cohort.

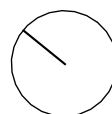
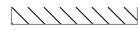
The proposal is forecast to generate in the order of 10 additional am and 4 additional pm peak hour trips. Such level of additional movement will be readily accommodated at the access points and on the adjacent road network.

APPENDIX A

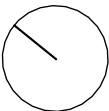
PLANS PREPARED BY CITY COLLECTIVE



LEVEL 1 PLAN

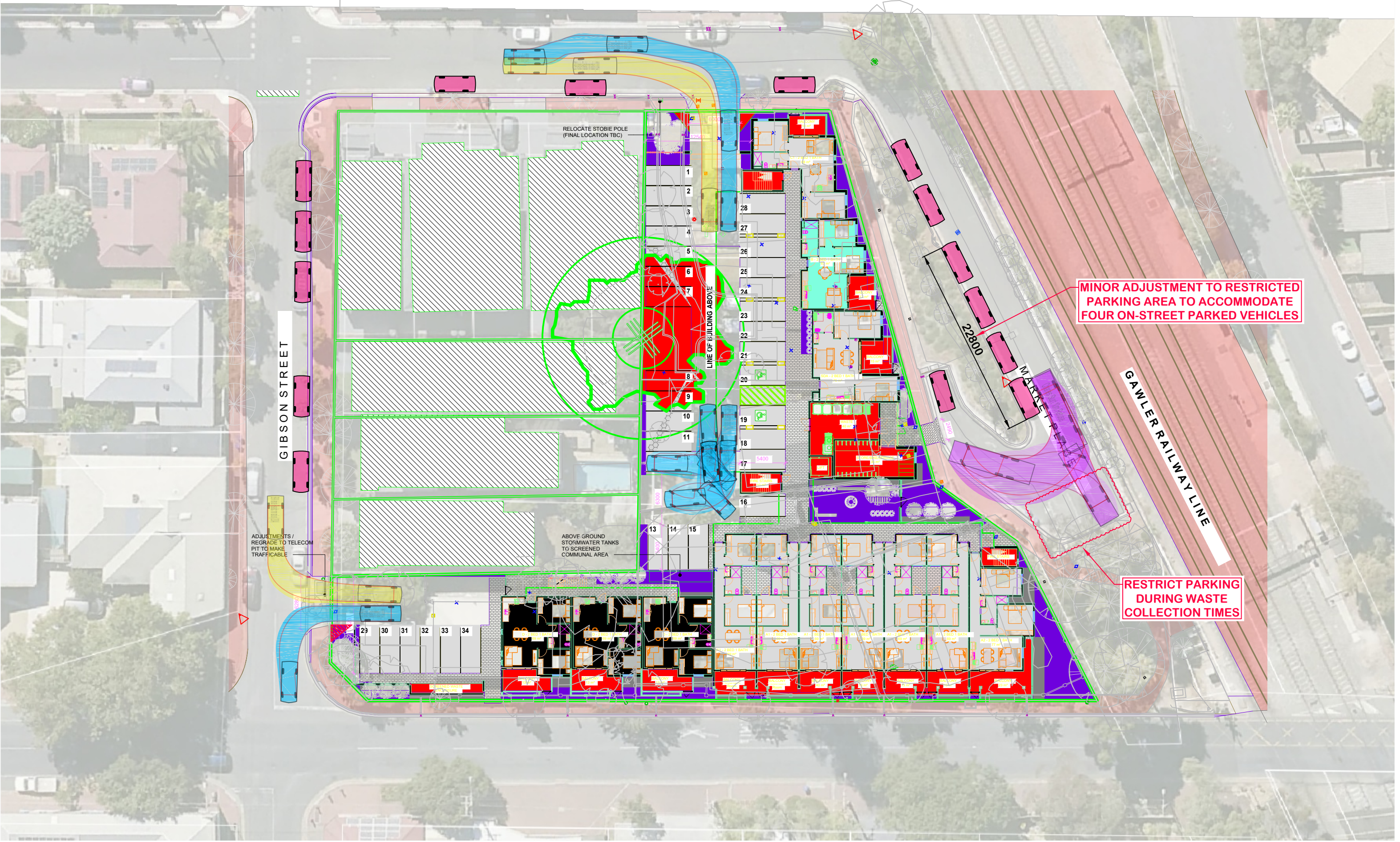


ROOF PLAN



APPENDIX B

TURN PATHS (10 M REFUSE VEHICLE AND B85/B99 VEHICLES)



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DRAWING AMENDMENTS				
VER	DATE	DESCRIPTION	DWN	CHK
G	18/12/2024	FOR REVIEW	ABH	CGB
H	18/12/2024	FOR REVIEW	ABH	CGB
I	24/03/2025	FOR REVIEW	ABH	CGB

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