

108 Franklin Pty Ltd C/- Future Urban

Construction of a twenty-two-level mixed-use building comprising residential apartments, tourist accommodation, advertisements, shops, offices, and associated car parking and landscaping

108 – 112A Franklin Street, Adelaide SA 5000

Development Application ID: 23037672



OVERVIEW

DEVELOPMENT ID	23037672
APPLICANT	108 Franklin Pty Ltd C/- Future Urban Pty Ltd
LODGEMENT DATE	16 February 2024
PLANNING & DESIGN CODE VERSION	2024.3 (Dated 15/02/2024)
NATURE OF DEVELOPMENT	Construction of a twenty-two-level mixed-use building comprising residential apartments, tourist accommodation, advertisements, shops, offices, and associated car parking and landscaping
ZONING INFORMATION	Zones: • Capital City

	<p>Overlays:</p> <ul style="list-style-type: none"> • Airport Building Heights (Regulated) • Affordable Housing • Building Near Airfields • Design • Heritage Adjacency • Hazards (Flooding – Evidence Required) • Noise and Air Emissions • Prescribed Wells Area • Regulated and Significant Tree <p>Technical Numeric Variations (TNVs):</p> <ul style="list-style-type: none"> • Maximum Building Height (Metres) (Maximum building height is 53m) • Concept Plan (Concept Plan 79 – Primary Pedestrian Area)
CATEGORY OF DEVELOPMENT	Code Assessed – Performance Assessed
RELEVANT AUTHORITY	State Planning Commission pursuant to Section 94 (1)(a)(ii) of the <i>Planning, Development and Infrastructure Act 2016</i> and as prescribed by Schedule 6 (3) of the <i>Planning, Development and Infrastructure (General) Regulations 2017</i>
STATUTORY REFERRALS	Adelaide Airport Limited City of Adelaide Environment Protection Authority Government Architect
DELEGATION	State Commission Assessment Panel (SCAP) – section 5.2.1 of the SCAP Development Delegations Policy dated 18 March 2021.
PUBLIC NOTIFICATION	No - the development is excluded from notification under Table 5 of the Capital City Zone.
SERIOUSLY AT VARIANCE	No
RECOMMENDATION	Planning Consent be granted subject to reserved matters and conditions
RECOMMENDING OFFICER	Damon Huntley Planning Officer

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EXECUTIVE SUMMARY

108 Franklin Pty Ltd C/- Future Urban has applied for planning consent for the construction of a mixed-use high-rise building at 108 – 112A Franklin Street, Adelaide. The proposed scheme comprises a 5-level podium base, with two towers elevating above podium level. The southern tower is intended for hotel accommodation, and the northern tower is to comprise residential apartments. The development incorporates ancillary facilities for hotel guests such as a restaurant / kitchen, function room, hotel gymnasium and sauna. The development includes commercial and retail tenancies at lower levels, together with on-site car parking, secure bicycle parking, and integrated landscaping.

The subject site is located wholly within the Capital City Zone. The proposed scheme is a 'performance assessed' category of development. The proposed development does not require public notification in accordance with Table 5 Column A 2 of the Capital City Zone.

The application was referred to the Government Architect for comment in accordance with the Planning, Development and Infrastructure Regulations (General) 2017 as the site is located in the Design Overlay under the Planning and Design Code. As the maximum height of the building is proposed to elevate above 80 metres AHD, the application was referred to Adelaide Airport Limited. A Site Contamination Declaration Form has been submitted as part of the development application and it has been identified that site contamination exists or may exist on the site. As a result, the application has also been referred to the Environment Protection Authority. The state agencies have provided an overall level of support for the development. The application was also referred to the City of Adelaide (Council) for technical comments with the applicant responding to concerns relating to vehicle and pedestrian sightlines and traffic generation and impact at peak periods. The proposed scheme has attained a measured level of support from the Council.

The key assessment matters for the proposed development include the proposed variety of land uses within the Capital City Zone, the design, appearance, scale and height of the building, development that enables activation at street level and street network connectivity, mitigation of impacts to sensitive receivers, adequate provision of bicycle parking, appropriate management of commercial and residential waste, stormwater management, integration of environmental sustainability initiatives, minimisation of wind impact at street level and the upper levels of the residential apartments, and vehicle manoeuvrability to and from the site.

Following an assessment against the Capital City Zone, the relevant Overlays and general development polices within the Planning and Design Code, it is recommended that the proposed development be granted planning consent, subject to reserved matters and conditions.

BACKGROUND

- Development Application 020/A048/19: Development Plan Consent was granted on 14 October 2020 subject to nine (9) conditions for the partial demolition of the existing buildings and the construction of two towers above a common podium for hotel and serviced apartment use, along with porte-cochere at 108 Franklin Street. This consent is now lapsed as development approval was never received, nor applied for.
- The current development application (DA 23037672) was lodged on 16 February 2024. The development proposal at the time of lodgement was described as the 'construction of a twenty-nine-level mixed-use building comprising residential apartments, tourist accommodation, shops, and offices.' Following referral advice from the Government Architect (GA) and the City of Adelaide (Council), the proponent team made notable changes to the overall design concept which are outlined in the detailed description of the proposal below.

The proponent engaged in the Department for Housing and Urbans Development's pre-lodgement service in combination with the Office for Design and Architecture's (ODASA) Design Review service, as listed below:

- Pre-Lodgement Panel meeting #1 – 14 July 2022.
- ODASA Design Review Panel #1 – 21 July 2022.
- Pre-Lodgement Panel meeting #2 – 14 August 2023.
- ODASA Design Review Panel #2 – 30 November 2023.

DETAILED DESCRIPTION OF PROPOSAL

The application seeks planning consent for the proposed construction of a mixed-use 22-level building following the demolition of existing structures at the site of 108 - 112A Franklin Street, Adelaide (the site). The proposed multi-storey mixed-use building is to comprise two towers connected by one podium structure.

The northern tower comprises 175 residential apartments elevating to a height of 74 metres, and the southern tower comprises 246 hotel rooms elevating to a height of 60 metres. Between ground level to level 5, the development includes commercial and retail tenancies, hotel business centre and associated restaurant / kitchen, function room, hotel gymnasium and sauna, residential gymnasium and sauna. A total of 114 car parking spaces contained within a five-storey tall podium comprising natural ventilation. The development integrates a total of 240 bicycle parking spaces.

The building is proposed to be constructed to south, west, and northern boundaries of the site, and a 0.8 metre setback from the eastern boundary. Ground level layout incorporates a centrally located mid-block link at connecting Cannon Street and Tatham Street.

Vehicle access to the building is proposed at the northern end of Tatham Street. Waste collection is proposed to occur on site via an access point from Tatham Street on the northern side of the mid-block link. At ground level, a recessed point of entry to the residential lobby is proposed from Cannon Street. Ground level access to the hotel is via a point of entry from Cannon Street, and from the mid-block link. Canopies are proposed above the Franklin Street footpath and sections of the Cannon Street frontage at an approximate height 4.5 metres above ground.

Indicative roof-level signage for the south tower is denoted on the revised architectural drawings. The indicative sign on the south facing tower measures a width of 7.2 metres and a rise of 1.7 metres. The indicative signs on the east and west-facing elevations measure a width of 6.8 metres and a rise of 1.6 metres.

The commercial tenancies are proposed to operate from 7:00 am to 9:00 pm on weekdays and from 8:00 am to 5:00 pm on Saturdays. The retail tenancies are proposed to operate from 7:00 am to 9:00 pm on weekdays and from 8:00 am to 5:00 pm on Saturdays and Sundays.

The applicant has nominated a total of 40 staff projected to be employed by the hotel.

The external material selection schedule for the proposed building consists of the following:

- Precast concrete Panel Off Form – Dark Green;
- Precast Concrete Panel Off Form – Light Grey;
- Precast Concrete Panel Off Form – Dark Grey;
- Precast Concrete Panel Form Lines – Grey;
- Aluminium Composite Panel – Brushed Gold;
- 76 mm * 230 mm *110 mm Fair Face Red Brick with Light Grey Mortar;
- Timber Look Aluminium Batten Cladding – White Oak;
- Clear Glass Balustrade with Powder Coated Frame;
- Perforated Metal Screening for Carpark, and;
- Proprietary Acoustic Screen.

The development integrates raised planter beds at ground floor level and planting on level 5 consisting of species tolerant to higher winds. Details pertaining to the landscaping scheme are contained in **Attachment 1D**.

The architectural plans included in the application details are included in **Attachment 1C**. The relevant design parameters of the proposal are set out in Table 2 below:

Land Use/s	Residential apartments, tourist accommodation with associated function room, restaurant / kitchen, gymnasium and sauna, shops and office space.
Building Height	Residential Tower: 74 metres / 117.750 metres AHD. Hotel Tower: 60 metres / 103.950 metres AHD.
Description of Levels	<p><u>Basement</u>: Storage, services, fire stair, and lift pit;</p> <p><u>Ground Floor</u>: 4 x commercial tenancies, hotel waiting area, waste room, loading / unloading compartment, 28 x bicycle parking spaces;</p> <p><u>Level 1</u>: Restaurant / kitchen, hotel business centre, staff room, storage, 13 x car parking spaces, and 26 x bicycle parking spaces;</p> <p><u>Level 2</u>: 32 x car parking spaces, and 62 x bicycle parking spaces;</p> <p><u>Level 3</u>: Hotel function room, 33 car parking spaces, and 62 x bicycle parking spaces;</p> <p><u>Level 4</u>: Hotel gymnasium and sauna, residential gym and sauna, 36 car parking spaces, and 62 x bicycle parking spaces;</p> <p><u>Level 5</u>: 18 x hotels rooms and linen storage, 7 x 2 bed apartments, 4 x 1 bed apartments (11 apartments in total);</p>

	<p><u>Levels 6-17</u>: 19 x hotel rooms and linen storage, 7 x 2 bed apartments, 4 x 1 bed apartments (a total of 228 hotel rooms and 132 apartments across the levels);</p> <p><u>Levels 18-19</u>: 7 x 2 bed apartments, 4 x 1 bed apartments (a total of 22 apartments across the levels);</p> <p><u>Levels 20-21</u>: 4 x 3 bed apartments, 1 x 2 bed apartment (a total of 10 apartments across the levels).</p>
Car Parking	114 car parking spaces.
Bicycle Parking	240 bicycle parking spaces.

Table 2: Proposed Building Overview

LOCATION OF DEVELOPMENT

Location ref.	108 – 112A Franklin Street, Adelaide 5000				
Title ref.	CT 5156/499	Plan Parcel	F1049999 AL2	Council	Adelaide City Council
Location ref.	108 – 112A Franklin Street, Adelaide 5000				
Title ref.	CT 5980/624	Plan Parcel	F105000 AL3	Council	Adelaide City Council
Location ref.	108 – 112A Franklin Street, Adelaide 5000				
Title ref.	CT 5156/498	Plan Parcel	F105143 AL1	Council	Adelaide City Council
Location ref.	108 – 112A Franklin Street, Adelaide 5000				
Title ref.	CT 5253/876	Plan Parcel	F137745 AL7	Council	Adelaide City Council

Table 3: Property Information Summary

Site Description



Figure 1: Aerial Photo of the Site and Locality (Location SA Viewer)

The development site is located at 108 - 112A Franklin Street, Adelaide, centrally located within the central business district. The site is located approximately 90 metres to the east of the intersection of Franklin Street and Morphett Street. The subject site is regular in shape and forms a site area in the order of 2,112 square metres. The site is bound by Cannon Street to the east (frontage of 98.9 metres), Franklin Street to the south (frontage of 21.34 metres) and Tatham Street to the west (frontage of 98.9 metres). Immediately adjacent the site to the north is an item of local heritage significance, known as the Federation Trading (former Aerated Bread Factory) and is located at 127-133 Waymouth Street.

There is a mixture of built form situated on the site including single-storey shopfronts along Franklin Street and a former warehouse building fronting Tatham Street and Cannon Street. The existing building on the corner of Franklin Street and Cannon Street is currently operating as a bar (HC Club). The subject site and surrounds can be viewed in the compendium of site photographs below.

Locality Description

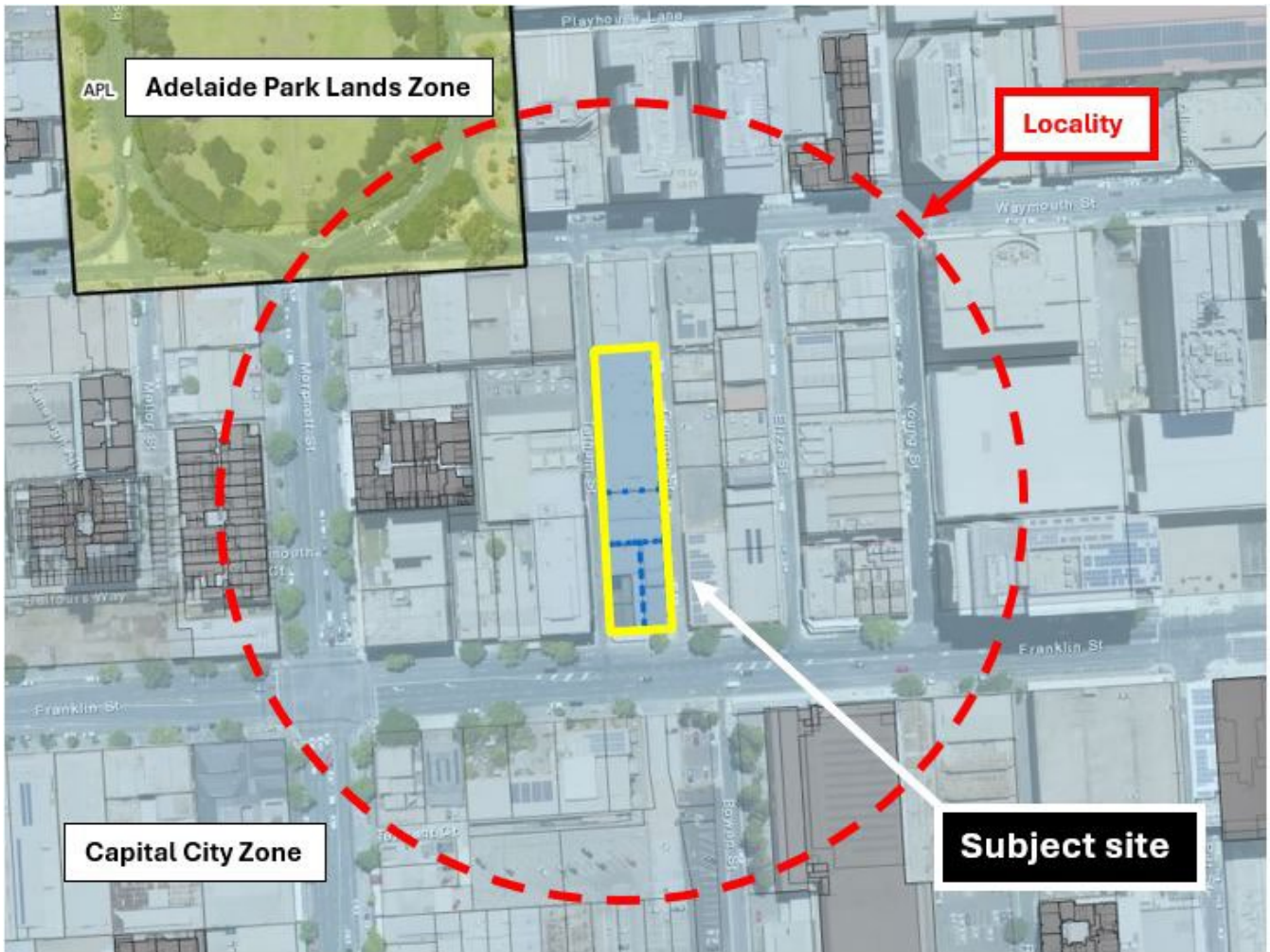


Figure 2: Zoning of the Site and Locality (SAPPA)

The locality is urban in character, encompassing a variety of buildings of diverse architectural style, as outlined in detail below:

Franklin Street

Franklin Street is framed by an eclectic mix of buildings that vary in size and scale. The existing buildings accommodate a range of commercial uses which include consulting rooms, offices, shops, hotel accommodation, and commercial car parking. Between Morphett Road and Bentham Street, built form on the northern side of Franklin Street fluctuates between single-level to 17-level buildings. On the southern side of Franklin Street, the height of buildings form a relatively gentle transition between Morphett Road to the west to Pitt Street further east.

Directly adjacent the development site is the Adelaide Central Bus Station, which provides bus and coach services to regional areas and interstate destinations. To the immediate west of the Adelaide Central Bus Station is the Adelaide Sustainability Centre and the Common Ground Community Garden.

Cannon Street

Cannon Street is a relatively narrow road that extends approximately 135 metres connecting Franklin Street to the south, and Waymouth Street to the north. On the eastern side of Cannon Street is a ground level car

park which is shown in photo 3 below. This ground level car park is bookended by existing buildings that have frontage to Franklin Street and Waymouth Street.

Tatham Street

Tatham Street runs parallel to the west of Cannon Street. Tatham Street presents an enclosed character, defined in part by its narrow width and variety of buildings forming a compact frame to the street. Similar to Cannon Street, a central area of the western side of Tatham Street opens into a ground level car park measuring an area in the order of 630 square metres. Further to the west of Tatham Street is the Regency Apartments Adelaide (hotel accommodation) which is shown in photo 11 below.



Figure 3: Recently Authorised Development Map (SAPPA)

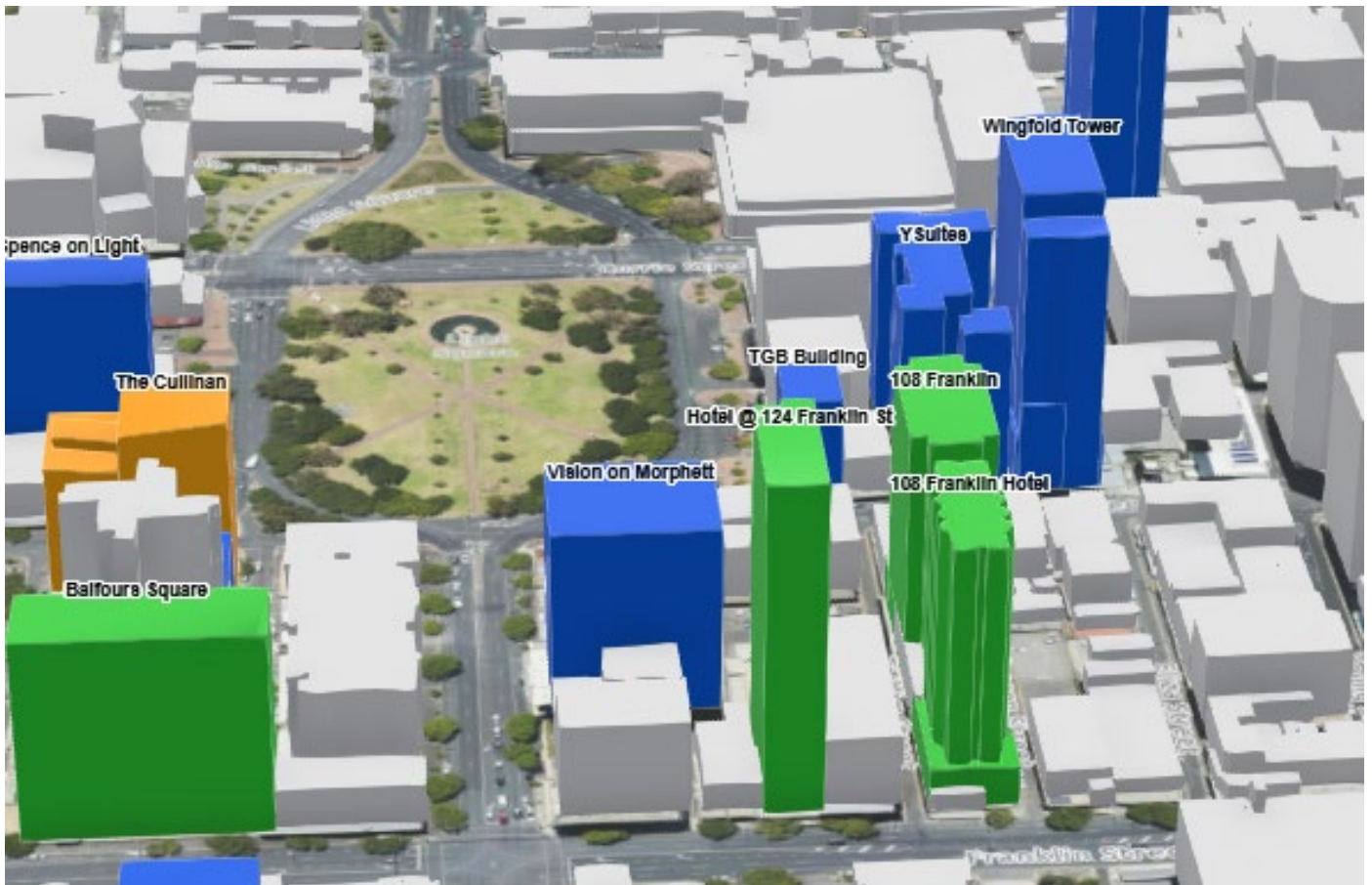


Figure 4: Recently Authorised Development Map

As shown in figures 3 and 4 above, there are examples of recently authorised high-rise buildings situated to the west of the subject land. The subject site and the properties outlined in red are located in a 'Local Variation Technical and Numeric Variations ('TNVs') in the Planning and Design Code ('the Code') which provides a maximum height limit guide of 53 metres.



Photo 1: Cannon Street facing south



Photo 2: Cannon Street facing north



Photo 3: Cannon Street facing northeast



Photo 4: Cannon Street facing northwest



Photo 5: Tatham Street facing northeast



Photo 6: Tatham Street facing north



Photo 7: Rear boundary of the subject site



Photo 8: Tatham Street facing southwest



Photo 9: Waymouth Street facing south



Photo 10: Tatham Street corner facing west



Photo 11: View to the west of Tatham Street



Photo 12: Franklin Street facing northwest



Photo 13: Franklin Street facing northeast



Photo 14: Franklin Street facing south

CATEGORY OF DEVELOPMENT

Element	Assessment Pathway	Reason
Residential flat building	Code Assessed – Performance Assessed	Development not classified as accepted, deemed-to-satisfy, restricted or impact assessed will be performance assessed on its merits against the Code.
Tourist accommodation	Code Assessed – Performance Assessed	Development not classified as accepted, deemed-to-satisfy, restricted or impact assessed will be performance assessed on its merits against the Code.
Office	Code Assessed – Performance Assessed	Development not classified as accepted, deemed-to-satisfy, restricted or impact assessed will be performance assessed on its merits against the Code.
Shop	Code Assessed – Performance Assessed	Development not classified as accepted, deemed-to-satisfy, restricted or impact assessed will be performance assessed on its merits against the Code.
Advertisement	Code Assessed – Performance Assessed	Development not classified as accepted, deemed-to-satisfy, restricted or impact assessed will be performance assessed on its merits against the Code.

Table 4: Development Element(s) and Assessment Pathway(s)

Default Category of Development: Code Assessed – Performance Assessed.

PUBLIC NOTIFICATION

Generally, all classes of performance assessed development require public notification unless, pursuant to section 107(6) of the Act, the class of development is excluded from public notification by the Code in Table 5 of the relevant zone(s).

The development does not require public notification as per Capital City Table 5 Column A 2: Any kind of development where the site of the development is **not** adjacent land to a site (or land) used for residential

purposes in a neighbourhood-type zone. The development proposal does not capture any corresponding exceptions listed under Column B of Table 5.

COUNCIL REFERRAL

Pursuant to regulation 23(2)(b) of the *Planning, Development and Infrastructure Regulations 2017* (the Regulations) the proposal was referred to the Chief Executive Officer of the City of Adelaide (Council) for the opportunity to provide a report on the impact of the proposed development on specified technical matters at the local level.

- On 5 September 2024, the Council provided technical comments in regard to public realm and infrastructure, stormwater, traffic and access, encroachments and local heritage advice.
- On 17 October 2024, the applicant provided a response to the matters raised by Council.
- The Council has not undertaken a follow-up review of the applicant's response. Further commentary relating to this is contained in various sections of the report.

The Council's referral response can be found in **Attachment 2D**.

AGENCY REFERRALS

Pursuant to Schedule 9 of the Regulations; and as required by relevant Overlays, the following agency referrals have been undertaken:

Referral Body	Function	Summary of Response
(Adelaide Airport) The Secretary of the relevant Commonwealth Department responsible for administering the <i>Airports Act 1996</i> .	Direction	<p>The statutory referral response from the Adelaide Airport was received on 13 May 2024.</p> <p>The Adelaide Airport referral response was received prior to substantial design changes being made to the proposed scheme, which included a reduction of the building elevation from 29 levels to 22 levels.</p> <p>The airport has no objection to the proposed development noting that the application will require approval in accordance with the <i>Airports Act 1996</i> and the <i>Airports (Protection of Airspace) Regulations 1996</i> with final approval by the Department of Infrastructure, Transport, Regional Development, Communication and the Arts.</p> <p>The Adelaide Airport Limited referral response is included in Attachment 2A.</p>
Government Architect (GA)	Advice	<p>The statutory referral response from the GA was received on 25 September 2024. The GA's referral response indicates a general level of support for the development. The GA has advised that there are various aspects of the development that would benefit from some further design consideration.</p>

		The GA referral response is included in Attachment 2C .
Environment Protection Authority (EPA)	Direction	<p>The statutory referral response from the EPA was received on 15 July 2022.</p> <p>The EPA is satisfied that the preconditions for audit have not been met based on the proposed land use. Should planning consent be granted, the EPA directs the relevant authority to impose two (2) conditions of consent requiring the applicant to obtain a statement of site suitability (refer to conditions 6 and 7).</p> <p>The EPA referral response is included in Attachment 2B.</p>

Table 5: Agency Referral(s) Overview

It is noted that the following referrals were not required, despite the land being located within several overlays under Part 3 of the Code:

Minister responsible for administering the *South Australian Housing Trust Act 1995*: The site is situated within the Affordable Housing Overlay. The proposed scheme does not incorporate any affordable housing products, and therefore no referral to the South Australian Housing Trust is applicable.

Minister responsible for the administration of the *Heritage Places Act 1993*: The site is situated within the Heritage Adjacency Overlay. The site is not located in near proximity to a State Heritage listed property, and therefore no referral to Heritage SA is applicable.

The Chief Executive of the Department of the Minister responsible for the administration of the *Landscape South Australia Act 2019*: The site is situated within the Prescribed Wells Area Overlay. The development does not incorporate activities listed under PO 1.1 of the overlay, and therefore no referral required.

PLANNING ASSESSMENT

Seriously at Variance Test

Pursuant to section 107(2)(c) of the Act, a development must not be granted planning consent if it is seriously at variance with the Code.

The proposed development comprises residential apartments and tourist accommodation, facilities that are subordinate to the hotel, and shops that are in the form of a ‘restaurant’ and ‘bar’. The development site is located in the Capital City Zone. Development of this nature is appropriate within the site and locality for the following reasons:

- The Capital City Zone seeks “a zone that is the economic and cultural focus of the state supporting a range of residential, employment, community, educational. Innovation, recreation, tourism and entertainment facilities generating opportunities for population and employment growth.”
- Capital City Zone PO 1.1 and DTS / DPF 1.1 contemplate a vibrant mix of land uses that contribute to the vitality of the area. Dwellings, tourist accommodation, shops and offices are among the desired combination of land uses envisaged within the Zone.

The proposed development is not considered to be seriously at variance with the relevant Desired Outcomes and Performance Outcomes of the Planning and Design Code pursuant to section 107(2)(c) of

the Planning, Development and Infrastructure Act 2016. and therefore, warrants further assessment against the Code.

Planning and Design Code

The application has been assessed on its merits against the relevant provisions of the Planning and Design Code (the Code), which are contained in **Appendix 1**.

The following is an assessment of the pertinent issues, having regard to the policy hierarchy of the Code.

Quantitative Overview

Design Parameters	P&D Code Guideline	Proposal	Achieved / Not Achieved
Building Height	53 metres.	74 metres.	Does not comply with the Maximum Building Height (metres) TNV. Refer to Building Height assessment.
Car Parking	No minimum.	114 car parking spaces distributed between level 1 and level 4.	Complies.
Bicycle Parking	208 bicycle parking spaces.	240 secure bicycle parking spaces are proposed to be distributed between the ground-floor level up to level 4.	Complies.
Front Setback	Building façades are strongly modelled, incorporate a vertical composition which reflect the proportions of existing frontages and ensure that architectural detailing is consistent around corners and along minor streets and laneways (Capital City Zone - PO 3.3).	The building features a podium base at ground level extending to all site boundaries comprising the inclusion of approximately 0.8 metres setback along the Cannon Street frontage.	Complies.
Rear Setback			
Side Setbacks			
Dwelling Floor Areas	<p>One-bedroom dwelling: minimum internal floor area of 50 square metres;</p> <p>Two-bedroom dwelling: minimum internal floor area of 65 square metres;</p> <p>Three+ bedroom dwelling: minimum internal floor area of 80 square metres and any dwelling over three bedrooms provides an addition 15 square metres for every additional bedroom.</p>	Various floor space area measurements ranging from one-bedroom apartments forming an area of 51.2 square metres to a three-bedroom apartment forming an area of 173.7 square metres.	Complies.
Private Open Space	<p>Design in Urban Areas Table 1 – Private Open Space recommends the following minimum rates of private open space:</p> <ul style="list-style-type: none"> - Studio (no separate bedroom): 4 square metres / minimum dimension of 1.8 metres; - One-bedroom dwelling: 8 square metres / minimum dimension of 2.1 metres; 	67 percent of the apartments contain balconies that exceed the minimum rates recommended by Design in Urban Areas Table 1 – Private Open Space.	Does not comply with the Design in Urban Areas Table 1 – Private Open Space. Refer to Design in Urban Areas assessment.

	<ul style="list-style-type: none"> - Two-bedroom dwelling: 11 square metres / minimum dimension of 2.4 metres, and; - Three + bedroom dwelling: 15 square metres / minimum dimension of 2.6 metres. 		
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Overlays

Airport Building Heights (Regulated) Overlay (All structures over 80 metres AHD)

The Airport Building Heights (Regulated) Overlay seeks the management of potential impacts of buildings and generated emissions to maintain operational and safety requirements of registered and certified commercial and military airfields, airports, airstrips and helicopter landing sites. The building has a maximum height of 117.750 metres AHD and therefore encroaches 37.75 metres above the 80-metre AHD height control specified in the Overlay that applies to the site. As outlined in the referrals section above, the airport has no objection to the proposed development.

The development is consistent with PO 1.1 and PO 1.2 of the Overlay.

Affordable Housing Overlay

The Affordable Housing Overlay aims to achieve the provision of affordable housing that is integrated with residential and mixed-use development. The proposed scheme does not incorporate any affordable housing products amongst the mix of residential apartments. The Applicant was queried on whether the scheme included affordable housing and confirmed that the proposal does not.

As a result, evaluation against the Affordable Housing Overlay policies is not applicable to the planning assessment of the application.

Building Near Airfields Overlay

The Building Near Airfields Overlay seeks to maintain the operational and safety requirements of certified commercial and military airfields, airports, airstrips and helicopter landing sites through management of non-residential lighting, turbulence and activities that may attract or result in the congregation of wildlife.

The distance from the runway centreline to the closest point of the building is not less than 35 times the height of the proposed building. The proposed development therefore conforms with PO 1.3 and DTS / DPF 1.3 of the Overlay.

Design Overlay

The Design Overlay seeks development that provides a positive contribution to the liveability, durability and sustainability of the built environment through high-quality design.

The referral commentary provided from the GA advised that the proposed design is generally acceptable in respect to building height, built form composition, ground plane, public realm, architectural expression, car parking, internal layouts and amenity. The design composition of the proposed building is addressed in various sections of the planning assessment, along with the statutory referral comments provided by the GA.

Heritage Adjacency Overlay

The Heritage Adjacency Overlay seeks that development adjacent to State and Local Heritage Places maintains the heritage and cultural values of those Places. The adjacent sites at 123 and 127-133 Waymouth Street, and 25 Eliza Street are local heritage listed properties.

In terms of design, Council have advised that the integration of red brick into the podium adjacent to the Federation Trading building is supported. It is considered that the design of the proposed building would not

unduly impact upon the historic qualities of the local heritage listed properties. The proposed development conforms with PO 1.1 of the Overlay.

Hazards (Flooding – Evidence Required) Overlay

The Hazards (Flooding – Evidence Required) Overlay seeks to protect people, property and infrastructure from potential impact from floodwaters through the appropriate siting and design of development.

The site is not located in an area that is subject to floodwaters in a 1-in-100-year average return interval flood event. Impact from flooding is considered to be low risk as the subject site is significantly well separated from any major watercourses. Accordingly, it is considered that the proposed development meets PO 1.1 of the Overlay.

Noise and Air Emissions Overlay

The Noise and Air Emissions Overlay seeks the protection of community health and amenity from adverse impacts associated with noise and air emissions.

For the purpose of Noise and Air Emissions Overlay DTS / DPF 1.1, it is noted that Franklin Street is not categorised as a Designated Road or Designated Road Corridor. It is considered that the development would not be significantly impacted by high noise and / or air pollution sources within the area of the site. Further to this, the northern residential tower is to be situated at the rear of the site, achieving generous separation from both Franklin Street and Waymouth Street. It is considered that the proposed scheme is consistent with PO 1.1 of the Noise and Air Emissions Overlay.

Prescribed Wells Area Overlay

The Prescribed Wells Area Overlay seeks sustainable water use in prescribed wells areas. The proposed development would not require any significant use of water and therefore the Prescribed Wells Area Overlay is not considered to be applicable to the assessment of this development application.

Regulated and Significant Tree Overlay

The Regulated or Significant Tree Overlay seeks the conservation of regulated and significant trees to provide aesthetic and environmental benefits and mitigate tree loss.

The development proposal does not necessitate any tree-damaging activities to Regulated or Significant Trees. Accordingly, the proposed development is not contrary to the policies relating to the Regulated and Significant Tree Overlay.

Capital City Zone

The subject land is located within the Capital City Zone (the Zone).

Desired Outcomes and Land Use

The proposed mixed-use building comprises 246 hotel rooms and ancillary hotel facilities, 175 residential apartments, and commercial tenancies (shop and office space) between ground-floor and level 1. The Zone anticipates a mix of land uses which includes retail, residential, office, and tourism development, as proposed. Zone Desired Outcomes ('DO') 1 and 2 anticipate the following:

“A zone that is the economic and cultural focus of the state supporting a range of residential, employment, community, educational, innovation, recreation, tourism and entertainment facilities generating opportunities for population and employment growth.”

“High intensity and large-scale development with high street walls reinforcing the distinctive grid pattern layout of the city with active non-residential ground level uses to positively contribute to public safety, inclusivity and vibrancy.”

In terms of land use, PO 1.1 and DTS / DPF 1.1 of the Zone contemplate a vibrant mix of development that contributes to the vitality of the area. A shop, office, residential flat building, and tourist accommodation are among the desired combination of land uses envisaged within the Zone. The development incorporates two commercial tenancies at the front of the ground floor level which is expected to positively contribute to the active pedestrian environment along Franklin Street as desired by PO 2.1 of the Zone.

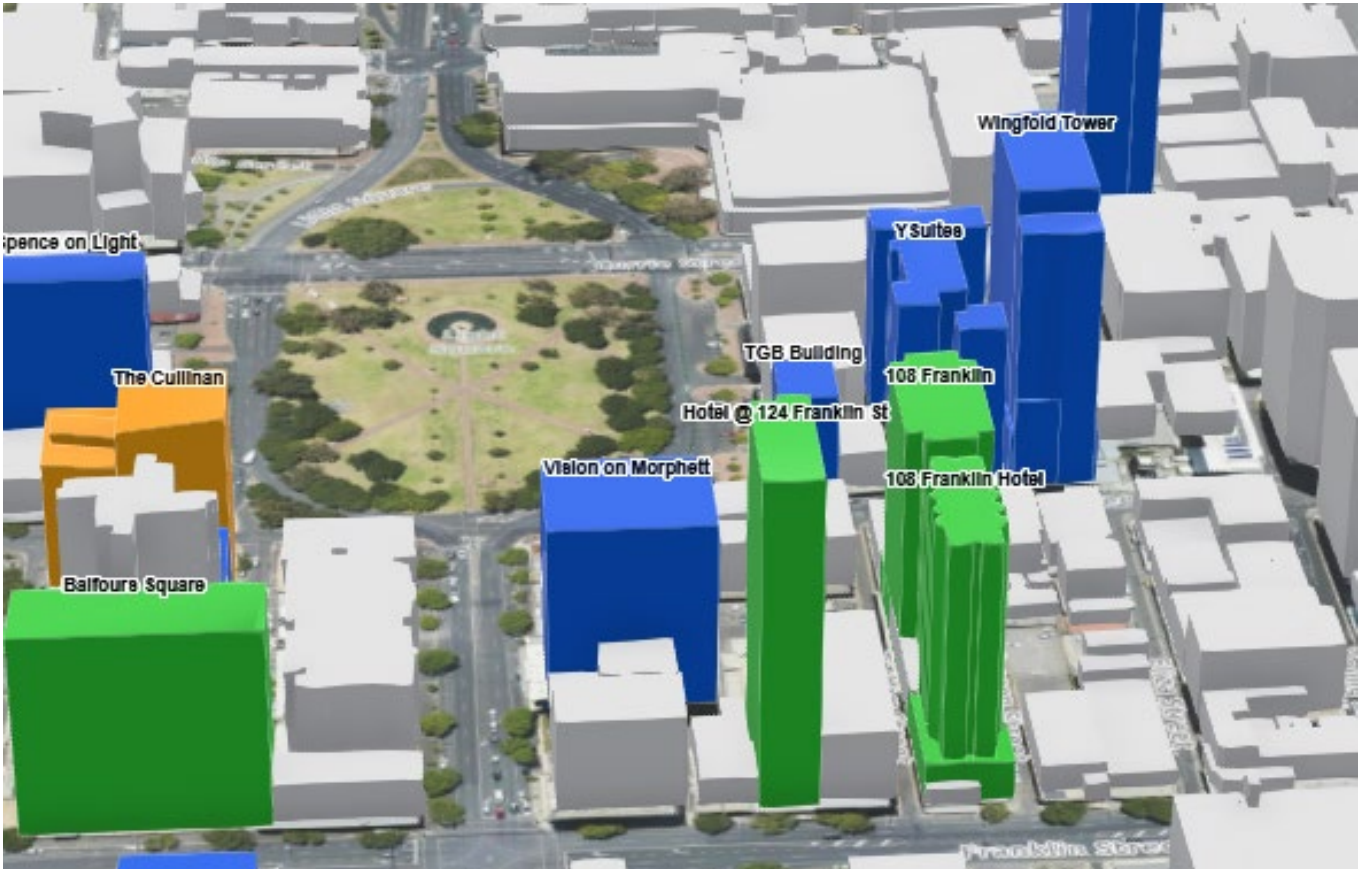
Accordingly, the proposed development is consistent with the range of land uses and desired outcomes envisaged for the Zone.

Building Height

The residential tower of the proposed building would elevate to a maximum height of 74 metres. The hotel tower elevates to a height of 60 metres. In terms of building height policy requirements within the Code, the site is controlled by 'Local Variation Technical and Numeric Variations ('TNVs')' which seek a maximum building height of 53 metres.

PO 4.1 seeks that building height is consistent with the form expressed in any relevant *Maximum Building Height (Levels) Technical and Numeric Variation layer* and *Maximum Building Height (Metres) Technical and Numeric Variation layer* or positively responds to the local context and achieves the desired outcomes of the Zone.

The proposed height of the building exceeds the maximum building height TNV by 21 metres. In terms of the local context and design response, it is noted that taller residential tower would be situated at the rear of the site, with the lower 60-metre-high tower located at the front southern portion of the site. When viewed from Franklin Street, the appearance of the lower hotel tower at the front southern portion of the site will provide a lesser jarring visual impact, with the taller northern tower situated deeper to the rear of the site. The southern tower is within a minimum distance of 21.7 metres to the boundary of the Maximum Building Height (metres) TNV layer for which there is no prescribed height limit. It is also worth noting that the 60-metre height of the southern tower is lower than the maximum building height authorised as part of the prior Development Application 020/A048/19. Taking these factors into consideration, it is considered that the proposed additional height responds in a manner that is appropriate.



PO 4.2 of the Zone suggests that development exceeding the building height specified in the *Maximum Building Height (Levels) Technical and Numeric Variation layer* and the *Maximum Building Height (Metres) Technical and Numeric Variation layer* is generally not contemplated unless:

(a) the development provides for the retention, conservation and reuse of a building that:

- (i) is a State or local heritage place and the heritage values of the place will be maintained
- (ii) provides a notable positive contribution to the character of the local area

or

(b) the building incorporates measures that provide for a substantial additional gain in sustainability, and it demonstrates at least four of the following are met:

- (i) the development provides an orderly transition up to an existing taller building or prescribed maximum height in an adjacent Zone or building height area on the *Maximum Building Height (Levels) Technical and Numeric Variation layer* and *Maximum Building Height (Metres) Technical and Numeric Variation layer*
- (ii) incorporates high quality open space that is universally accessible and directly connected to, and well-integrated with, public realm areas of the street
- (iii) Incorporates high quality, safe and secure, universally accessible pedestrian linkages that connect through the development site to the surrounding pedestrian network
- (iv) provides higher amenity through provision of private open space in excess of minimum requirements by 25 percent for at least 50 percent of dwellings
- (v) no on-site car parking is provided
- (vi) at least 75% of the ground floor street fronts of the building are active frontages
- (vii) the building has frontage to a public road that abuts the Adelaide Park Lands;
- (viii) where the development includes housing, at least 15% of the dwellings are affordable housing

- (ix) the impact on adjacent properties is no greater than a building of the maximum height on the *Maximum Building Height (Levels) Technical and Numeric Variation layer* and *Maximum Building Height (Metres) Technical and Numeric Variation layer* in relation to sunlight access and overlooking.

It is noted that the development provides on-site car parking and does not incorporate affordable housing products. The subject site does not have frontage to a public road that abuts the park lands.

In regard to PO 4.2 (b), the sustainability report provided in support of the application outlines a sum of sustainability measures incorporated into the development. These outcomes will achieve a 4.5 Star NABERS Rating for hotels, including a Commitment Agreement certification, to achieve an above average to excellent score. The residential component will achieve a 5 Star Green Star Buildings Rating, which is considered national excellence.

The GA’s referral advice raises no concerns with the development’s proposed environmental performance.

Further to PO 4.2, the scheme achieves compliance with the four design components below:

- *Orderly Height Transition*: The area surrounding the development site is experiencing a transition in built form. There is existing high-rise buildings and examples of recently authorised high-rise buildings situated to the west of the subject land. Given the close proximity of the site to the unlimited height TNV layer in combination with the existing and recently authorised high-rise development, it is considered that an orderly height transition will be achieved.
- *Universally Accessible Pedestrian Linkage*: The development features the inclusion of the mid-block link at ground level connecting Cannon Street and Tatham Street. This is a positive design aspect of the development, enabling pedestrian permeability and movement between Cannon Street and Tatham Street.
- *Occupant Amenity through Private Open Space*: The development incorporates a total of 175 residential apartments. The table below demonstrates the number of apartments containing private open space in excess of the minimum requirements by 25 percent:

Level 5	6 dwellings comply
Level 6 - 17	6 dwellings (per level) comply
Level 18	6 dwellings comply
Level 19	6 dwellings comply
Level 20-21	5 dwellings comply
	Cumulative total = 100

- *Active Frontages at Ground Level*: The design at across all three street frontages achieves a cumulative 75 percent consisting of shop fronts, lobby spaces, and the inclusion of the mid-block link.

On 14 October 2020 Development Plan Consent was granted for Development Application 020/A048/19. The development comprised a maximum building height elevating to 68 metres. The newly proposed building has a relatively similar conceptional design elevating an additional 6 metres. When considering the size and scale of the building, the additional height is not considered to be of major significance when compared to that previously endorsed.

The development application has been referred to the GA, who has noted that the proposed height of building is challenging due in part to the narrow laneway conditions. The GA has identified positive aspects of the design and support the proposal based on the relative consistency with the previously approved two-

tower scheme, with increased separation between the towers, reduction of the podium height to five building levels, and legible height difference between the two towers. It is considered that the proposed scheme achieves optimal height and floor space yields in accordance with PO 4.3 of the Zone.

For the combination of contextual reasons outlined above, the proposed maximum building height is considered to be acceptable.

Setbacks, Design and Appearance

As noted in the Building Height section above, the area surrounding the subject site features a number of high-rise buildings. In this area of Franklin Street, buildings comprise minimal front setbacks and provide a well-defined and consistent frame to the public road.

The Zone seeks built form that integrates with existing buildings, in particular, newly proposed high-rise buildings shall deliver an appropriate design response where there is a prevailing low-rise context. Zone PO 3.1 and PO 3.2 (b) seek built form that achieves the following:

“A contextual design response that manages differences in scale and building proportions to maintain a cohesive streetscape and frame city streets.”

“Buildings where located in an existing low-rise context, are designed to include a podium / street wall height and upper-level setback that

(i) relates to the scale and context of adjoining built form;

(ii) provides a human scale at street level;

(iii) creates a well-defined and continuity of frontage;

(iv) gives emphasis and definition to street corners to clearly define the street grid; and

(v) contributes to the interest, vitality and security of the pedestrian environment.”

The podium base extends to all boundaries of the site, with the exception of an approximately 0.8 metres setback along the Cannon Street frontage. The GA has not raised any significant concerns in respect to the built form proportions of the development.

The proposed building comprises strongly modelled high street walls that would reinforce the distinctive grid pattern that is prevalent throughout the surrounding streets within the Zone, as sought by DO 2, PO 3.3, and PO 3.6 of the Zone. DTS / DPF 3.13 of the Zone seeks for the ground-floor level of buildings to incorporate a minimum floor to ceiling height of 3.5 metres. The ground-floor level of the building features a generous height of 5 metres, which will offer adaptability and flexibility at ground-level to accommodate a variety of future uses. Accordingly, the ground-floor level design and internal layout meets PO 3.13 and DTS / DPF 3.13 of the Zone.

In terms of architectural expression, the GA is supportive of the updated refinements that have been made to the podium design which offer a simpler and more rational composition when compared against the original design. The GA considers that the design could further benefit from facade alignments between the upper and lower podium elements integrating enhancement of the brick base and mitigation of sheer wall conditions along Cannon and Tatham Street. The GA also recommends review of the alignment of the central batten screening to set back and clearly express the solid podium corners, with the view to reinforce the podium's character as a building base. In response to the GA, the proponent team are of the opinion that the sheer wall condition has been mitigated through the differentiation between the composition and articulation of the lower and upper podium, and the varied architectural expression between the two towers.

The GA supports the contrasting expression between the two towers which includes the singular expression of the southern tower. The GA recommends that the inner facing northern wall of the south tower continues a regular orthogonal expression.

As part of the GA's referral assessment, it has been identified that the elevations do not clearly indicate where external materials are proposed. The GA has requested the option to review annotated elevations to confirm the location of proposed materials and finishes. Revised architectural plans received on 17 October 2024 include details of external materials on the elevation drawings. A reserved matter is recommended in order to resolve this in consultation with the GA.

Street Level Activation

PO 2.1 of the Zone seeks non-residential land uses at ground floor level such as shops and restaurants support and maximise pedestrian activity to provide visual interest and positively contribute to public safety, walkability and vibrancy.

The ground floor level of the building comprises 4 x commercial tenancies and a hotel arrival space. The integration of non-residential uses at ground-level will contribute to increased pedestrian activity and visual interest at street level. It is considered that the design adheres to PO 2.1.

PO 2.2 of the Zone seeks development that contributes to the activation of the public realm by presenting an attractive human scaled pedestrian-oriented frontage at ground level, enabling a sense of openness within the public realm, and a clear sense of address to each building.

In regard to the design concept, the GA is generally supportive of the inclusion of the proposed exterior glazing across the ground level tenancies and the integrating of the pedestrian link. In terms of the street to building transition, the GA is not convinced by the proposed level transition arrangements for the Franklin Street tenancies consisting of internal ramps and the residential entry foyer inclusive of stairs and platform lift protruding into the entry foyer recess. The Council has also noted that the internal and external levels are not clear. In response to this matter, the proponent team have provided a design statement that explains that the building will be stepped where logical to minimise any level transitions, and where unavoidable a fully compliant ramp or steps will be incorporated internally. As part of design development, there is a possibility that the tenancy entrance doors may be repositioned to suit future tenants, and there will be every attempt to "engineer out" any internal steps or ramps will be pursued.

The GA has also raised concern in respect to the design of the mid-block link, advising that the single-storey volume of the linkage results in a missed opportunity and that an increased entrance would enable an improved visitor experience. Further, the GA has advised that that the environmental condition and amenity of the link is yet to be demonstrated, as the submitted wind report indicates further wind tunnel testing is required to ensure the comfort criteria are met. The applicant has provided a response to this matter, advising the following:

- *"The corners of the building façades that face the link have been amended to comprise curved glazing in lieu of the 90-degree corners and corner cut-offs that were previously proposed, which, in our view:*
 - *provides a level of consistency in the expression and quality of the pedestrian link; and*
 - *enhances spatial generosity and user experience; and*
- *the micro-climate of the development will be appropriately managed, with the wind assessment identifying that:*
 - *the recommended comfort criteria are achieved for public footpaths and building entrances; and*
 - *should the pedestrian link exceed recommended criteria during detailed design testing, this can be readily mitigated/remedied using wind control mechanisms, such as an air curtain."*

In general, it is considered that the design response is consistent with PO 2.2 as each road facing frontage will enable the ground level tenancies and access points to be easily identifiable. There does not appear to be any ground level access points that are situated in notably obscure or inconvenient locations.

Interface

PO 5.1 of the Zone seeks that development is designed to manage the interface with residential uses in the City Living Zone:

- (a) in relation to building proportions, massing, and overshadowing; and
- (b) by avoiding land uses, or intensity of land uses, that unduly impact residential amenity (including licensed premises).

The site of development is well separated from the boundary of the City Living Zone by a distance in the order of 475 metres. Given the separation to the City Living Zone, the proposal conforms with PO 5.1.

Movement

PO 6.1 encourages that access to, and movement within, the Capital City Zone to be universally accessible, easy, safe, comfortable, convenient and legible for people of all abilities, with priority given to pedestrians and cyclists.

The subject site is located in a relatively central location with easy access to pedestrian links. The development integrates a sufficient supply of secure bicycle parking as desired by PO 6.1.

Access

PO 7.1 seeks that vehicular access points are associated with multi-level and/or non-ancillary car parks located to minimise disruption to traffic flow.

PO 7.2 seeks that development designed so that vehicle access points for parking, servicing or deliveries, and pedestrian access to a site, are located to minimise interrupting the operation of and queuing on public roads and pedestrian paths.

Vehicle access to the building is via Tatham Street at the northern end of the site, which is considered to be suitable. Impact regarding operation of and queuing on public roads and pedestrian paths is addressed in the Transport, Access and Parking assessment below.

Public Realm

PO 10.1 recommends development in the public realm where it:

- (a) does not present a safety risk to pedestrians or other users of the public road
- (b) does not interrupt pedestrian movement
- (c) does not interfere with existing infrastructure or services on the street
- (d) positively contributes to the vibrancy of the area
- (e) is consistent with the outcomes of the zone.

The proposed design would not have any undue impact in respect to pedestrian safety and movement within the public realm and the development would not give rise to detrimental encroachments and / or interference with existing infrastructure or services within the immediate street network.

Advertisements

PO 8.1 recommends that advertisements use simple graphics and are restrained in their size, design and colour, and achieve an overall consistency of design and appearance along individual street frontages. The size and location of the indicative signage on the southern tower is considered to be suitably proportionate to the profile of the tower. The signage is to be located at the top of the tower and therefore would not have an impact at street level.

General Development Policies

Advertisements

PO 1.1 seeks that advertisements are compatible and integrated with the design of the building and/or land they are located on.

PO 1.3 seeks that advertising does not encroach on public land or the land of an adjacent allotment.

PO 1.4 encourages where possible, advertisements on public land are integrated with existing structures and infrastructure. Indicative roof-level signage for the south tower is denoted on the revised architectural drawings.

Indicative roof-level signage for the south tower is denoted on the revised architectural drawings. The indicative sign on the south facing tower measures a width of 7.2 metres and a rise of 1.7 metres. The indicative signs on the east and west-facing elevations measure a width of 6.8 metres and a rise of 1.6 metres. The applicant has confirmed that the signage will be for future hotel branding. The size and location of the indicative signage at the top of the southern tower is considered to be appropriate and would not encroach across the boundary of the site. It is considered that the indicative signage is consistent with PO 1.1, PO 1.3, and PO 1.4.

As no details of proposed illumination has been provided with the application, a reserved matter is recommended to ensure that the advertisement signage does not give rise to any external amenity impacts.

Clearance from Overhead Powerlines

The development application includes an Electricity Declaration confirming that the proposed development would not be contrary to the regulations prescribed for the purposes of section 86 of the *Electricity Act 1996*. It is noted that there are no powerlines along Franklin Street, Cannon Street and Tatham Street in proximity to the development site, and as such, the proposal is in accordance with PO 1.1 and DTS / DPF 1.1 (a) (Clearance from Overhead Powerlines).

Design in Urban Areas

External Appearance

Design in Urban Areas POs 1.1 to 1.5 encourage buildings that reinforce corners and setbacks through contrasting design techniques enabling comfort and safety of the public realm. Primary building facades shall convey purpose, identify main access points and complement the streetscape. Waste storage and loading areas shall be adequately screened from public view.

In general, the overall design response provides a sufficient degree of architectural articulation and contrasting design elements offering a suitable level of visual interest. The facades and access points at ground level are designed to appropriately convey purpose and ease of access at street level. The waste storage and loading area would not be readily visible when viewed from Tatham Street.

Following the amendments made to the proposal, the GA is supportive of the reduction of the height and bulk of the podium, resulting also in a reduction in car parking numbers.

Safety

Design in Urban Areas POs 2.1 - 2.5 recommends that new development integrates and maintains clear sight lines between buildings and streets to improve safety and passive surveillance. Buildings at street level should be orientated and designed to maximise passive surveillance of the public realm. Buildings shall be designed with safe, perceptible, and direct access from public street frontages.

The GA has not raised any significant concerns relating to the ground-floor level design and public safety. As noted above in the Street Activation assessment, the GA has noted concern in respect to proposed level transition arrangements for the Franklin Street tenancies consisting of internal ramps and the residential entry foyer inclusive of stairs and platform lift protruding into the entry foyer recess. The proponent has provided a response in respect to this matter.

It is considered that the design is largely consistent with Design in Urban Areas POs 2.1 - 2.5 as the development will enable a sufficient level of passive surveillance of the public realm with suitably identifiable access / egress points from the public street frontages.

Energy Efficiency

Design in Urban Areas POs 4.1 to PO 4.3 encourage development that is designed to maximise passive environmental performance and buildings that incorporate climate responsive design techniques.

In support of the development proposal, the applicant has submitted a sustainability report prepared by Bestec. The report states that the development is pursuing the following sustainability initiatives:

- *Design to achieve the intent of 4.5 Star NABERS Energy for Hotels with a Commitment Agreement certification.*
- *Design to achieve the intent of 5 Star Green Star Buildings Rating.*
- *The design of the project from an ESD perspective and subsequent Greenstar rating will incorporate “self- assessment” and be considered Climate Positive and development of a project specific tool to demonstrate achievement of a 5 Star rating.*
- *The self-assessment score card will incorporate comparative criteria to the Greenstar tool but be prepared to be project specific in lieu of the generic Greenstar tool assessment criteria.*
- *The project is not intending to incorporate any fossil fuel energy contribution namely natural gas fired equipment.*
- *Heating and domestic hot water will be via electric heat pump arrangements which will utilise contributions from the PV solar array at roof level.*
- *Following Best-Practice Sustainability Initiatives throughout.*
- *Fossil-fuel reduced design (Retail cooking excluded).*
- *Water Sensitive Urban Design (WSUD) will incorporate the following initiatives: -*
 - *Reduce reliance on drinking water to irrigate green spaces.*
 - *Flood mitigation by intercepting stormwater flows with marginal increased volume of rainwater storage tank to control peak run offs.*
- *The indicative roof plan within Appendix B highlights the extent of photovoltaic solar array at roof level. It is estimated a solar array of 98Kw can be incorporated.*
- *Incorporation of renewable energy systems and rainwater reuse systems.*
- *Compliance with Section J exceeded.*
- *ESD commitment to the “reduction in embodied energy” by reusing the existing structure and materials will be either by reuse of components as applicable or recycling through the deconstruction process rather than dispose to landfill.*

The various sustainability initiatives are considered to be consistent with Design in Urban Areas POs 4.1 to PO 4.3.

Further, it is noted that the GA's referral advice dated 25 September 2024 does not raise any concerns in respect to development's environmental performance. The scheme will also need to conform with the energy efficiency requirements set out in the national construction code.

Waste Management

Design in Urban Areas POs 11.1 and PO 11.2 encourage high-rise development that provides a dedicated area for on-site collection and sorting of recyclable materials, that is appropriately designed and screened from view within the public domain.

The Applicant has engaged Colby Phillips Advisory to prepare a Waste Management Plan (dated 10 October 2024). The Waste Management Plan includes the following details:

- Collection systems are provided for source-separated landfill, recycling, food waste, and cardboard. The room is sized for regular collection of waste, including daily collection of General Waste and up to 3 times per week for other waste streams. A bin wash area / system is to be included in the Ground Floor bin room.
- Bins are to be stored in an enclosed ventilated room at Ground Level. Residential tenants will dispose waste into chutes, with a 3-chute system provided at each residential level for separate disposal of General Waste, Recycling, and Organics / Food Waste. Bins are to be stored in a fully enclosed and ventilated room at Ground Level separated more than 3 metres from any habitable room window.
- It is proposed that the Waste Trucks will reverse-enter the site from Tatham Street into the Loading Dock within the property boundary. Trucks will forward-exit to Tatham Street.
- Collections should be scheduled to fit in with commercial collection contractor requirements, fit in with other site vehicle movements, and minimise impacts on traffic accessing the building. It is expected that collections would occur overnight between 10:00 pm to 7:00 am.

The planning report advises that there will be no more than 17 collections per week.

The Council has reviewed the proposed Waste Management Plan and has no objection regarding the proposed waste management.

The refuse storage area and loading room at ground level are located and enclosed within the building of the site and would not be readily visible from Tatham Street. Accordingly, it is considered that the proposed waste management strategy is acceptable and consistent with Design in Urban Areas PO 11.1 and PO 11.2.

Internal Layout, Occupant and Guest Amenity

Design in Urban Areas PO 18.1 seeks that living rooms have an external outlook to provide a high standard of amenity for occupants. PO 18.2 seeks that bedrooms are separated or shielded from active communal recreation areas, common access areas and vehicle parking areas and access ways to mitigate noise and artificial light intrusion.

Design in Urban Areas PO 28.1 seeks that residential accommodation within multi-level buildings have habitable rooms, windows and balconies designed and positioned to be separated from those of other dwellings and accommodation to provide visual and acoustic privacy and allow for natural ventilation and the infiltration of daylight into interior and outdoor spaces.

The floor layouts of the residential apartments offer functional habitable space for future occupants. It is noted that the abutting balcony spaces for a large portion of the apartments are separated by a 2.1-metre-high frosted privacy screen. The balconies are located in very close proximity to bedrooms of adjoining apartments and there is a degree of apprehension concerning exchange of noise from abutting apartments. Solid partition walls between the adjoining balconies would be a preferred design solution in this respect. Taking this into further consideration, it is noted that this design arrangement is not uncommon in modern

apartment buildings, and it is expected that unsociable noise impacts between neighbouring occupants will be able to be managed by policies contained within the Strata Corporation by laws.

Design in Urban Areas PO 27.1 recommends that dwellings are provided with suitable sized areas of usable private open space to meet the needs of occupants. The corresponding DTS / DPF 27.1 seeks that private open space is provided in accordance with Design in Urban Areas Table 1 - Private Open Space.

Table 1 – Private Open Space recommends the following minimum rates of private open space:

- Studio (no separate bedroom): 4 square metres / minimum dimension of 1.8 metres;
- One-bedroom dwelling: 8 square metres / minimum dimension of 2.1 metres;
- Two-bedroom dwelling: 11 square metres / minimum dimension of 2.4 metres, and;
- Three + bedroom dwelling: 15 square metres / minimum dimension of 2.6 metres.

The development includes 175 residential apartments. 67 percent of the apartments contain balconies that exceed the minimum rates recommended by Table 1 – Private Open Space. The remaining balance of apartment balconies do not exhibit any seriously unfavourable shortfalls and will provide functional area for future occupants, achieving the intent of PO 27.1.

Design in Urban Areas PO 29.1 seeks that buildings containing in excess of 10 dwellings provide a variety of dwelling sizes and a range in the number of bedrooms per dwelling to contribute to housing diversity.

Design in Urban Areas PO 30.1 recommends that dwellings are of a suitable size to provide a high standard of amenity for occupants. DTS / DPF 31.1 seeks that dwellings have a minimum internal floor area in accordance with the following:

- Studio dwelling: minimum internal floor area of 35 square metres;
- One bedroom dwelling: minimum internal floor area of 50 square metres;
- Two-bedroom dwelling: minimum internal floor area of 65 square metres;
- Three+ bedroom dwelling: minimum internal floor area of 80 square metres and any dwelling over three bedrooms provides an addition 15 square metres for every additional bedroom.

The residential tower hosts a reasonable variety of dwelling typologies, largely consisting of two-bedroom apartments. The internal floor areas for the apartments conform with the design parameters recommended by DTS / DPF 31.1.

PO 31.3 encourages development which maximises the number of dwellings that face public open space and public streets and limits dwellings oriented towards adjoining properties.

By virtue of the parallel street pattern of Cannon Street and Tatham Street, all residential apartments will have a degree of outlook above a public street, albeit at elevated levels.

In regard to the layout of the hotel suites, the GA is supportive of the design strategy, which benefits from natural light and outlook at both ends of the central corridor.

Landscaping

Design in Urban Areas PO 3.1 seeks development that incorporates soft landscaping and tree planting to minimise heat absorption and reflection, maximise shade and shelter, maximise stormwater infiltration, and enhance the appearance of land and streetscapes.

PO 34.1 recommends development that integrates soft landscaping between dwellings and common driveways to improve the outlook for occupants and appearance of common areas.

The footprint of the building encompasses the entirety of the site and therefore opportunity to deliver extensive ground-level landscaping is limited. Notwithstanding, the Landscaping Plan prepared by Oxigen includes the following planting design initiatives:

- *Ground Floor Planting: Raised planters at ground level have climbing plants that will establish on metal grid supports fixed to the building face, together with small ornamental shrubs suitable for the shaded environment beneath canopies and the main building overhang. Within the undercroft the raised planters will utilise hardy plants capable of establishing in an indoor/outdoor environment.*
- *Level 5 Planting: The plant species used on the upper level are tolerant of higher winds and exposure in fully irrigated raised planters. A variety of plant types and species are used that includes ornamental shrubs & groundcovers and larger shrubs.*
- *Maintenance of the Design: Hard landscape elements such as planters and paving are designed and selected for their amenity, usability and robust, low maintenance characteristics. The key plant species are selected for their reliability and longevity tailored to each zone. All planting areas will have irrigation systems programmed to provide the appropriate level of water for the different plant types throughout the year.*

The GA supports the engagement of a landscape architect and the indicative selection of proposed plant species. The GA acknowledges that all planting areas, whilst limited in area, are inclusive of a programmed irrigation system. The inclusion of the planting above podium level between the two towers is considered to offer a sufficient level of softening and separation when viewed from the north of the hotel tower, and the south of the residential tower.

Stormwater Management

PO 42.3 seeks development that incorporates stormwater management systems to mitigate peak flows and manage the rate and duration of stormwater discharge from the site to ensure that development does not increase flows in downstream systems.

Council have provided the following advice as part of their referral response dated 5 September 2024:

- *The applicant has not verified suitability of the proposed floor levels based on an assessment of the 100-year overland flows along Franklin Street to address Hazards (Flooding - Evidence Required) Overlay. Council provided a catchment plan to the State Commission Assessment Panel on 22 May 2024 with the previous Council response to assist the applicant with this assessment.*
- *The updated documentation does not demonstrate compliance with the South Australian Water Sensitive Urban Design policy as details of the Stormwater Retention System (e.g. tank size, tank location, areas serviced, etc) has not been provided.*
- *Council will require full design and details of the works on Council land to Council requirements, including an upgrade to the Council pipe in Franklin Street, for further Council review and approval.*

The applicant has provided the following response to Council's referral advice:

We refer to the Civil Plan and e-mail correspondence between PT Design and the CoA, dated October 11, 2024, and note:

- *a new connection into the 900-millimetre pipe beneath Franklin Street is proposed;*
- *a retention/detention tank is proposed beneath the internal driveway (alongside the pedestrian link) for irrigation and cleaning purposes, and to satisfy WSUD;*
- *the permeability of the site will not change pre- or post-development, and flows from the site are expected to be consistent (if anything, with an increase in the time of concentration of run-off);*

- *all run-off will be directed through the retention/detention tank, enabling flows from the site to be reduced; and*
- *permeable paving is not proposed, as the building covers the entirety of the site.*

We also refer to the updated Sustainability Report which expands upon the WSUD measures incorporated into the proposed development.

At this point, Council has not had the opportunity to undertake a follow-up review of the updated documentation submitted by the applicant. As this is the case, it is recommended that a reserved matter be imposed to allow opportunity for Council to undertake a subsequent review of the up-to-date stormwater management documentation and furnish the State Planning Commission with the necessary technical advice.

Wind Analysis

Design in Urban Areas PO 14.3 provides the following policy guidance in respect to wind impacts:

Development of 5 or more building levels, or 21 m or more in height (as measured from natural ground level and excluding roof-mounted mechanical plant and equipment) is designed to minimise the impacts of wind through measures such as:

- (a) A podium at the base of a tall tower and aligned with the street to deflect wind away from the street;
- (b) Substantial verandas around a building deflect downward travelling wind flows over pedestrian areas;
- (c) The placement of buildings and use of setbacks to deflect the wind at ground level, and;
- (d) Avoiding tall shear elevations that create windy conditions at street level.

Design in Urban Areas PO 28.2 (a) seeks that balconies are designed, positioned and integrated into the overall architectural form and detail of the development to respond to daylight, wind, and acoustic conditions to maximise comfort and provide visual privacy.

The applicant has submitted a Desktop Pedestrian Level Wind Assessment Report prepared by Global Wind Technology Services Pty Ltd. In short, the report provides the following commentary:

- The main building entrances are set back beneath the building line of the levels above and will not be affected by washdown. It is predicted that the recommended standing criterion will be satisfied.
- The mid-block walkway link is expected to be subjected to the pressure difference between the east and west faces of the development, which may cause wind flow acceleration along the pedestrian lines. Wind speeds that exceed the recommended criteria at the time of testing during detailed design can be rectified through wind control mechanisms.
- It is recommended that minimum 1.2 m high balustrades are constructed on the residential apartment balconies between level 1 to level 19 to fulfil the recommended walking criteria.
- It is recommended that minimum 1.5 m high balustrades are constructed on the residential apartment balconies between level 20 and level 21 to fulfil the recommended walking criteria.

The revised compendium of drawings demonstrates minimum balcony balustrade height levels in accordance with the recommended design parameters outlined in the report. As for the potential accelerated wind flow conditions at the passage of the mid-block link, it is expected that wind speeds exceeding the recommended criteria can be controlled as per the recommendation in the report.

Interface between Land Uses

Hours of Operation

Interface between Land Uses PO 2.1 seeks that non-residential does not unreasonably impact the amenity of sensitive receivers (or lawfully approved sensitive receivers) or an adjacent zone primarily for sensitive receivers through its hours of operation having regard to:

- (a) the nature of the development
- (b) measures to mitigate off-site impacts
- (c) the extent to which the development is desired in the zone
- (d) measures that might be taken in an adjacent zone primarily for sensitive receivers that mitigate adverse impacts without unreasonably compromising the intended use of that land.

The commercial tenancies are proposed to operate from 7:00 am to 9:00 pm on weekdays and from 8:00 am to 5:00 pm on Saturdays. The retail tenancies are proposed to operate from 7:00 am to 9:00 pm on weekdays and from 8:00 am to 5:00 pm on Saturdays and Sundays. The Environmental Noise Assessment report prepared by Bestec advised that only background music will be played in the hotel restaurant and therefore, assessment against the EPA Guidelines for Development Proposal Assessment for Venues Where Music May be Played is not warranted.

Given that the upper levels of the building are to host hotel guests together with residential occupants, it is anticipated that undue noise impacts will be self-regulated within the internal confines of the development, and as a result of this, adjoining properties are also expected to be unaffected by the proposal operational hours.

The proposed hours of operation are considered to be sufficient to ensure that nearby sensitive receivers are not significantly impacted. Accordingly, the development is considered to be consistent with Interface between Land Uses PO 2.1.

Overshadowing

Interface between Land Uses PO 3.1 seeks that overshadowing of habitable room windows of adjacent residential land uses in:

- (a) a neighbourhood-type zone is minimised to maintain access to direct winter sunlight
- (b) other zones is managed to enable access to direct winter sunlight.

Interface between Land Uses PO 3.2 seeks that overshadowing of the primary area of private open space or communal open space of adjacent residential land uses in:

- (a) a neighbourhood-type zone is minimised to maintain access to direct winter sunlight
- (b) other zones is managed to enable access to direct winter sunlight.

The subject land is not located in close proximity to a neighbourhood-type zone. The site of development is well separated from the boundary of the City Living Zone by a distance in the order of 475 metres. There does not appear to be any adjacent residential properties to the south and east of the site that would be significantly impacted by overshadowing, noting that the Maximum Building Height (Metres) TNV permits building height of 53 metres.

Noise Emissions

PO 4.1 seeks that development that emits noise (other than music) does not unreasonably impact the amenity of sensitive receivers (or lawfully approved sensitive receivers).

As noted above, the Environmental Noise Assessment report prepared by Bestec advised that only background music will be played in the hotel restaurant and therefore, assessment against the EPA Guidelines for Development Proposal Assessment for Venues Where Music May be Played is not warranted.

As part of the interface and noise emissions assessment, it is worth noting the variety of uses and activities that are desired within the Capital City Zone. DTS / DPF 1.1 of the Zone contemplates a variety of

sensitive land uses in this location consisting of dwellings, residential flat buildings, supported accommodation, student accommodation and tourist accommodation. Within the local area, there does not appear to be any established uses / activities of a substantially high noise emitting nature that would result in a significant conflict and impact upon future guests of the hotel and residential occupants. Taking the above factors into account, it is considered that significant impact from high noise and / or air pollution is not a substantial risk for this proposed development.

Site Contamination

The applicant has engaged A.M Environmental Consulting to undertake a Preliminary Site Investigation ('PSI'). The PSI dated 18 September 2023 reports the presence of potentially contaminating activities on the site. Soil contamination such as fill, staining, odour or elevated chemical concentrations have not been identified as part of the preliminary screening level soil assessment. The assessment involved review of the impact arising from potential volatilising organic chemicals. The assessment highlighted that the development would result in a predominately sealed site and would therefore restrict access to subsurface soils. The PSI concludes that the risk of site contamination is low based on the information attained.

In addition to the PSI, the applicant has submitted a signed and dated Site Contamination Declaration Form completed by Ashley Moule of A.M Environmental Consulting. The declaration form identifies that site contamination exists or may exist as a result of various potentially contaminating activities inclusive of garages, printers and publishers and other manufacturers. The application was subsequently referred to the EPA on 26 February 2024.

The EPA considers that the information provided by the proponent is of the minimum level required to reasonably demonstrate that the site can be made suitable for the proposed use, subject to a statement of site suitability. Should planning consent be granted, the EPA has directed the relevant authority to impose two conditions of consent requiring the applicant to obtain a statement of site suitability issued by a site contamination auditor. The statement of site suitability must certify that the land is suitable for the proposed use prior to the granting of a certificate of occupancy (refer to conditions 6 and 7 - Conditions imposed by the Environmental Protection Authority under Section 122 of the Act).

Transport, Access and Parking

The objectives of the Transport, Access and Parking is for a comprehensive and connected transport system that is safe, sustainable, efficient, convenient and accessible for all users. Transport, Access and Parking PO 6.2 recommends that vehicle parking areas are appropriately located, designed and constructed to minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced, and the like. The development application has been accompanied by a Traffic and Parking Assessment report prepared by Frank Siow and Associates dated 6 August 2024 and a subsequent assessment dated 15 October 2024 following referral advice from Council.

Vehicle access to the building is via Tatham Street at the northern end of the site. Access to the loading / unloading bay is situated 7.9 metres to the rear of the mid-block link. The Traffic and Parking Assessment report provides the following vehicle access and parking details:

- The vehicle access ramp grade would be 1 in 20 for a distance of 6 metres inside the boundary. The ramp grades to the upper levels would generally be 1 in 8 and where some sections of the grade exceed 1 in 8, appropriate transitions would be provided to ensure that the grades are consistent with the requirements of AS/NZS 2890.1:2004.
- The car park would be a reserved car park and used by regular drivers (apartment residents, some staff and for hotel valet parking) and these drivers would be familiar with the layout and site constraints. Within the private car park, traffic mirrors would be installed to assist with the use of the ramps, where found to be necessary, similar to other private car parks.

The matters addressed by the applicant following Council's referral advice relate to sightlines and use of mirror, sightlines at egress from central driveway, sightlines egress from carpark, and a transport review. The response purports that all outstanding items have been appropriately addressed, in particular, the

transport review. The proponent is of the opinion that the junctions of Tatham Street / Franklin Street and Tatham Street / Waymouth Street will continue to operate at well below capacity and the additional traffic generated by the development would have minimal impact on the adjacent roads and junctions.

Vehicle Parking

The amended architectural drawings denote a total of 114 car parking spaces distributed between level 1 and level 4.

Transport, Access and Parking Table 2 – Off-Street Car Parking Requirements in Designated Areas stipulates that there is no minimum car parking rate for all classes of development within designated areas. The Capital City Zone is listed as a designated area within Table 2. The subject site is located outside of the Primary Pedestrian Area identified in the Primary Pedestrian Area Concept Plan and therefore the site is not controlled by a maximum limit in Table 2.

The GA holds concerns in respect to the quantity of above ground car parking, however, there is also recognition that car parking numbers have been reduced when compared to the previously referred scheme. The GA also recommends further consideration be given to exterior car parking screening to minimise visibility of cars and parking infrastructure. Whilst the Code envisages that no on-site car parking is provided, it is considered that the inclusion of car parking will be practical for the uses proposed, particularly the residential apartments. Overall, the layout of car parking is appropriately integrated with the design response of the podium and would not significantly impact upon the nearby built form character of the area.

Bicycle Parking

General Development Policies – Transport, Access and Parking Table 3 Off-Street Bicycle Parking Requirements suggests rates for the following elements of development:

Tourist accommodation: a rate of 1 space for every 20 employees plus 2 for the first 40 rooms and 1 for every additional 40 rooms for visitors for tourist accommodation.

Residential component of a multi-storey building: Within the City of Adelaide 1 for every dwelling for residents with a total floor area less than 150 square metres, 2 for every dwelling for residents with a total floor area greater than 150 square metres, plus 1 for every 10 dwellings for visitors.

Office: 1 space for every 200m² of gross leasable floor area plus 2 spaces plus 1 space per 1000m² of gross leasable floor area for visitors.

Shop: 1 space for every 300m² of gross leasable floor area plus 1 space for every 600m² of gross leasable floor area for customers.

In order to undertake the bicycle parking rate calculation, the following information is to be factored into account:

- The applicant has advised that the areas marked on the plans as ‘commercial tenancies’ are not yet confirmed as future tenants are to be secured at a later stage. For the purpose of this assessment, the Traffic and Parking Report prepared by Frank Siow and Associates nominates the ‘commercial tenancies’ as a ‘shop’.
- The proponent provided written correspondence dated 22 August 2024 nominating a projected total of 40 hotel employees.

The required bicycle parking rate for the development as proposed equates to a cumulative total of 208 bicycle parking spaces required (rounded up to the highest number).

212 secure bicycle parking spaces are proposed to be distributed between the level 1 up to level 4. There are an additional 28 bicycle parking spaces proposed at ground level which are expected to be used intermittently by visitors. Based on the rate suggested by the Code, and details provided by the proponent, the development conforms with Table 3.

Other Matters

Council has noted that the plans detail narrow planter beds and threshold ramps along the Franklin Street frontage which protrude over the boundary into Council land. Council advises that these are not permitted. Levels must match the existing back of footpath levels.

CONCLUSION

The assessment of the proposed mixed-use development at 108 – 112A Franklin Street, Adelaide against the Capital City Zone, relevant Overlay policy modules and general development polices indicates that the proposed development is generally consistent with the relevant Planning and Design Code policies.

The proposed residential apartments, hotel accommodation and ancillary facilities, commercial and retail tenancies. The variety of uses proposed are consistent with the envisaged land uses desired within the Capital City Zone.

The proposed maximum building height of 74 metres exceeds the maximum Technical Numeric Variation building height of 53 metres. There are examples of similar scale high rise development within near proximity to the site, located on the northern side of Franklin Street. It is identified that the development will form a part of the emerging transition of taller high-rise buildings between Morphett Street and King William Road. The taller residential tower will be set back at the rear of the site, providing a less jarring visual impact when viewed from Franklin Street. The development offers universally accessible pedestrian linkage between Cannon Street and Tatham Street, along with generous provision of private open space for the residential apartments. The design integrates a suitable proportion of active frontages at street level to enable a pleasing interaction with the public realm. A sum of sustainability measures have been incorporated into the design of the building. The development site is situated in a relatively central area of the Capital City Zone and is well separated from the City Living Zone.

The Government Architect has expressed a general level of support for the overall podium and two tower design strategy and the architectural expression of the building.

No significant land use conflicts or interface impacts have been identified as part of the assessment.

The development proposal constitutes a change of use to a more sensitive use of the land. It has been identified that site contamination exists on the development site. The Environment Protection Authority is satisfied that the site could be made suitable for the proposed use subject to compliance with conditions.

Whilst some materiality details remain unclear, this matter can suitably be reserved to a later stage of assessment. Similarly, accelerated wind flow conditions at the passage of the mid-block link is expected to be addressed and resolved as part of the detailed design phase.

The proposed development is not considered to be *seriously at variance* with the Planning and Design Code policies. It is assessed that the development proposal presents sufficient merit to warrant the granting of planning consent, subject to reserved matters and conditions of consent.

RECOMMENDATION

1. Pursuant to Section 107(2)(c) of the *Planning, Development and Infrastructure Act 2016*, and having undertaken an assessment of the application against the Planning and Design Code, the application is NOT seriously at variance with the provisions of the Planning and Design Code; and
2. Development Application Number 23037672, by 108 Franklin Pty Ltd C/- Future Urban, is granted Planning Consent subject to the following reserved matter(s) and condition(s) / reasons:

RESERVED MATTERS

Pursuant to section 102(3) of the *Planning, Development and Infrastructure Act of 2016*, the following matter(s) shall be reserved for further assessment to the satisfaction of the State Planning Commission and prior to the granting of Development Approval:

Reserved Matter 1

The applicant shall submit a final detailed schedule of high quality and durable external materials and finishes, and a physical samples board prepared in consultation with the Government Architect.

Reserved Matter 2

The applicant shall submit a final Stormwater Management Plan detailing stormwater quantity and quality measures prepared in consultation with the City of Adelaide.

Reserved Matter 3

The applicant shall submit final details of the illuminated advertisement signage proposed on the southern tower, confirming that the signage will not move, flash, blink or rotate in any manner; and that the illumination of the signage will be kept to a level which ensures that no hazard, discomfort or nuisance is caused to adjoining residents.

CONDITIONS

Condition 1

The development authorisation granted herein shall be undertaken in accordance with the stamped approved plans, drawings, specifications and other documents submitted to the State Planning Commission, except where varied by conditions below (if any).

Condition 2

The recommendations detailed in the Environmental Noise Assessment, dated 02 August 2024 prepared by Bestec shall be fully incorporated into the development. Such measures shall be made operational prior to the occupation or use of the development and maintained at all times to the satisfaction of the Relevant Authority.

Condition 3

The recommendations detailed Section 5 of the Desktop Pedestrian Level Wind Assessment dated 12 August 2024 prepared by Global Wind Technology Services Pty Ltd shall be fully incorporated into the development. Such measures shall be made operational prior to the occupation or use of the development and maintained at all times to the satisfaction of the Relevant Authority.

Condition 4

The hours of operation for the commercial tenancies herein approved are as follows:

- Monday to Friday 7:00 am to 9:00 pm
- Saturday 8:00 am to 5:00 pm

The hours of operation for the retail tenancies herein approved are as follows:

- Monday to Friday 7:00 am to 9:00 pm
- Saturday 8:00 am to 5:00 pm
- Sunday 8:00 am to 5:00 pm
- Public Holiday 8:00 am to 5:00 pm

Condition 5

The planting and landscaping identified on the stamped and approved plans granted Planning Consent shall be undertaken in the first planting season concurrent with or following substantial completion of the development. Such planting and landscaping shall be irrigated and maintained thereafter with any plants which become diseased, or die must be replaced within the next available growing season with suitable species, to the satisfaction of the State Planning Commission.

Conditions imposed by Environment Protection Authority under Section 122 of the Act

Condition 6

A certificate of occupancy must not be granted in relation to a building on the relevant site until a statement of site suitability is issued by a site contamination auditor certifying the land is suitable for the proposed use and informed by a completed site contamination audit report prepared in accordance with Part 10A of the *Environment Protection Act 1993*.

Condition 7

If a certificate of occupancy is not required pursuant to regulation 103 of the *Planning, Development and Infrastructure (General) Regulations 2017*, a person must not occupy the building for the purpose authorised under the development approval until a statement of site suitability is issued by a site contamination auditor certifying the land is suitable for the proposed use and informed by a completed site contamination audit report prepared in accordance with Part 10A of the *Environment Protection Act 1993*.

ADVISORY NOTES

Advisory Note 1

The approved development must be substantially commenced within 24 months of the date of Development Approval and completed within 3 years from the operative date of the approval, unless this period has been extended by the relevant authority.

Advisory Note 2

The applicant has a right of appeal against the conditions which have been imposed on this Planning Consent or Development Approval. Such an appeal must be lodged at the Environment, Resources and Development Court within two months from the day of receiving this notice or such longer time as the Court may allow. The applicant is asked to contact the ERD Court if wishing to appeal. The ERD Court is located in the Sir Samuel Way Building, Victoria Square, Adelaide, (telephone number 8204 0289).

Advisory Note 3

This consent or approval will lapse at the expiration of 24 months from its operative date (unless this period has been extended by the Relevant Authority).

Advisory Note 4

No works, including site works can commence until a Development Approval has been granted.

Advisory Note 5

All Council, utility or state-agency maintained infrastructure (i.e. roads, kerbs, drains, crossovers, footpaths etc) that is demolished, altered, removed or damaged during the construction of the development shall be reinstated to Council, utility or state agency specifications. All costs associated with these works shall be met by the proponent.

Advisory Note 6

Unless exempt from requiring development approval, no additional signs shall be constructed or displayed on the land without the approval of Council.

Advisory Note 7

The finished floor-level of the ground floor-level of the site must match the levels of the adjacent road at the boundary.

Advisory Note(s) imposed by Environment Protection Authority under Section 122 of the Act

Advisory Note 8

The applicant/owner/operator are reminded of its general environmental duty, as required by section 25 of the *Environment Protection Act 1993*, to take all reasonable and practicable measures to ensure that activities on the site and associated with the site (including during construction) do not pollute the environment in a way which causes or may cause environmental harm.

Advisory Note(s) imposed by (Adelaide Airport) The Secretary of the relevant Commonwealth Department responsible for administering the *Airports Act 1996* under Section 122 of the Act

Advisory Note 9

The application has been assessed and the development at a. approx. height of RL 145.550m Australian Height Datum (AHD) the application **will** penetrate the Adelaide Airport Obstacle Limitation surfaces (OLS) which is protected airspace for aircraft operations.

The application will require approval in accordance with the *Airports Act 1996* and the *Airports (Protection of Airspace) Regulations 1996* with final approval by the Department of Infrastructure, Transport, Regional Development, Communication and the Arts.

The developments will penetrate the OLS by approximately 58 metres.

The airport will not object to the development.

If the development is approved by the Department of Infrastructure, Transport, Regional Development, Communication and the Arts any associated lighting would also need to conform to the airport lighting restrictions and shielded from aircraft flight paths.

Crane operations associated with construction, if approved, will also be subject to a separate application.

Address: 108-112A FRANKLIN ST ADELAIDE SA 5000

To view a detailed interactive property map in SAPPA click on the map below



Property Zoning Details

Zone

Capital City

Overlay

- Airport Building Heights (Regulated) (All structures over 80 metres AHD)
- Affordable Housing
- Building Near Airfields
- Design
- Heritage Adjacency
- Hazards (Flooding - Evidence Required)
- Noise and Air Emissions
- Prescribed Wells Area
- Regulated and Significant Tree

Local Variation (TNV)

- Maximum Building Height (Metres) (Maximum building height is 53m)
- Concept Plan (Concept Plan 79 - Primary Pedestrian Area)

Selected Development(s)

Office

This development may be subject to multiple assessment pathways. Please review the document below to determine which pathway may be applicable based on the proposed development compliances to standards.

If no assessment pathway is shown this mean the proposed development will default to performance assessed. Please contact your local council in this instance. Refer to Part 1 - Rules of Interpretation - Determination of Classes of Development

Office - Code Assessed - Performance Assessed

Part 2 - Zones and Sub Zones

Capital City Zone

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	A zone that is the economic and cultural focus of the state supporting a range of residential, employment, community, educational, innovation, recreational, tourism and entertainment facilities generating opportunities for population and employment growth.
DO 2	High intensity and large- scale development with high street walls reinforcing the distinctive grid pattern layout of the city with active non-residential ground level uses to positively contribute to public safety, inclusivity and vibrancy. Design quality of buildings and public spaces is a priority in this zone.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land Use	
PO 1.1 A vibrant mix of residential, retail, community, commercial and professional services, civic and cultural, health, educational, recreational, tourism and entertainment facilities.	DTS/DPF 1.1 The following types of development, or combinations thereof, are envisaged: (a) Advertisement (b) Child care facility (c) Consulting Room (d) Dwelling (e) Educational facility (f) Hospital (g) Hotel (h) Licensed Premises (i) Library (j) Office (k) Supported Accommodation (l) Residential Flat Building (m) Shop (n) Student Accommodation (o) Tourist accommodation.
Activation	
PO 2.1 Non-residential land uses at ground floor level such as shops and restaurants support and maximise pedestrian activity to provide visual interest and positively contribute to public safety, walkability and vibrancy.	DTS/DPF 2.1 None are applicable.
PO 2.2 Development: (a) contributes to the activation of the public realm by presenting an attractive human scaled pedestrian-oriented frontage at ground level that adds interest and vibrancy; (b) maintains a sense of openness to the sky for pedestrians and allow sunlight access to the public realm; (c) provides a clear sense of address to each building.	DTS/DPF 2.2 None are applicable.
Built form and Character	
PO 3.1 A contextual design response that manages differences in scale and building proportions to maintain a cohesive streetscape and frame city streets.	DTS/DPF 3.1 None are applicable

<p>PO 3.2</p> <p>Buildings:</p> <p>(a) are designed to reinforce the prevailing datum heights and parapet levels of the street through design elements that provide a clear distinction between levels above and below the prevailing datum line;</p> <p>(b) where located in an existing low-rise context, are designed to include a podium/street wall height and upper level setback that:</p> <ul style="list-style-type: none"> (i) relates to the scale and context of adjoining built form; (ii) provides a human scale at street level; (iii) creates a well-defined and continuity of frontage; (iv) gives emphasis and definition to street corners to clearly define the street grid; and (v) contributes to the interest, vitality and security of the pedestrian environment. 	<p>DTS/DPF 3.2</p> <p>None are applicable.</p>
<p>PO 3.3</p> <p>Building façades are strongly modelled, incorporate a vertical composition which reflects the proportions of existing frontages, and ensure that architectural detailing is consistent around corners and along minor streets and laneways.</p>	<p>DTS/DPF 3.3</p> <p>None are applicable</p>
<p>PO 3.4</p> <p>Development along The Terraces (North, East, South and West) is designed to positively contribute to a continuous built form to frame the Park Lands and city edge.</p>	<p>DTS/DPF 3.4</p> <p>None are applicable.</p>
<p>PO 3.5</p> <p>Development along the city's boulevards (as identified in Capital City Zone Table 5.1):</p> <p>(a) built to the street boundary at lower levels to reinforce the City's grid layout and frame the boulevard</p> <p>(b) designed to provide a sense of arrival into the City and strongly define junctions where located on a corner site.</p>	<p>DTS/DPF 3.5</p> <p>None are applicable.</p>
<p>PO 3.6</p> <p>Development avoids activities that result in a gap in the built form along a public road or thoroughfare (such as an open lot car park) for an extended period of time to minimise negative impacts on streetscape continuity.</p>	<p>DTS/DPF 3.6</p> <p>None are applicable.</p>
<p>PO 3.7</p> <p>Development along the city's boulevards (as identified in Capital City Zone Table 5.1) is designed to maximise views to the Park Lands and not clutter existing view corridors to the Adelaide Hills when viewed from the public realm.</p>	<p>DTS/DPF 3.7</p> <p>None are applicable.</p>
<p>PO 3.8</p> <p>Development fronting Victoria, Hindmarsh, Whitmore, Hurtle and Light Squares is designed to provide a comfortable pedestrian and recreation environment by enabling direct sunlight to a majority of the Square.</p>	<p>DTS/DPF 3.8</p> <p>Development enables direct sunlight to a minimum of 75% of the landscaped part of each Square at the September equinox.</p>
<p>PO 3.9</p> <p>Development fronting Victoria, Hindmarsh, Whitmore, Hurtle and Light Squares is designed to reinforce the enclosure of the Squares with a continuous built-form with no upper level setbacks.</p>	<p>DTS/DPF 3.9</p> <p>None are applicable.</p>
<p>PO 3.11</p> <p>Development along minor streets and laneways is informed by its local</p>	<p>DTS/DPF 3.11</p> <p>None are applicable.</p>

<p>context to maintain the prevailing built form pattern and structure, and designed to provide a sense of enclosure, and enable fine-grain uses at street level to create an intimate, active, inclusive and walkable public realm.</p>			
<p>PO 3.12 Buildings north of the City Main Street Zone are designed to enable natural sunlight access to the southern footpath of the main street.</p>	<p>DTS/DPF 3.12 Buildings north of the City Main Street Zone that cast a shadow on the southern footpath of the main street incorporate narrow and setback tower elements and provide spaces between buildings.</p>		
<p>PO 3.13 Buildings are adaptable and flexible to accommodate a range of land uses.</p>	<p>DTS/DPF 3.13 The ground floor of buildings has a minimum floor to ceiling height of 3.5m.</p>		
<p>Building Height</p>			
<p>PO 4.1 Building height is consistent with the form expressed in any relevant <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> or positively responds to the local context and achieves the desired outcomes of the Zone.</p>	<p>DTS/DPF 4.1 Development does not exceed the following building heights:</p> <table border="1" data-bbox="829 705 1524 772"> <thead> <tr> <th style="text-align: center;">Maximum Building Height (Metres)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Maximum building height is 53m</td> </tr> </tbody> </table> <p>In relation to DTS/DPF 4.1, in instances where:</p> <ul style="list-style-type: none"> (a) more than one value is returned in the same field, refer to the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> or <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> in the SA planning database to determine the applicable value relevant to the site of the proposed development (b) only one value is returned (i.e. there is one blank field), then the relevant height in metres or building levels applies with no criteria for the other (c) no value is returned (i.e. there are blank fields for both maximum building height (metres) and maximum building height (levels), then none are applicable and the relevant development cannot be classified as deemed-to-satisfy. 	Maximum Building Height (Metres)	Maximum building height is 53m
Maximum Building Height (Metres)			
Maximum building height is 53m			
<p>PO 4.2 Development exceeding the building height specified in the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and the <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> is generally not contemplated unless:</p> <ul style="list-style-type: none"> (a) the development provides for the retention, conservation and reuse of a building that: <ul style="list-style-type: none"> (i) is a State or local heritage place and the heritage values of the place will be maintained (ii) provides a notable positive contribution to the character of the local area or (b) the building incorporates measures that provide for a substantial additional gain in sustainability and it demonstrates at least four of the following are met: <ul style="list-style-type: none"> (i) the development provides an orderly transition up to an existing taller building or prescribed maximum height in an adjacent Zone or building height area on the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> (ii) incorporates high quality open space that is universally accessible and directly connected to, and well integrated with, public realm areas of the street (iii) Incorporates high quality, safe and secure, universally accessible pedestrian linkages that connect through 	<p>DTS/DPF 4.2 None are applicable.</p>		

<p>the development site to the surrounding pedestrian network</p> <ul style="list-style-type: none"> (iv) provides higher amenity through provision of private open space in excess of minimum requirements by 25 percent for at least 50 percent of dwellings (v) no on site car parking is provided (vi) at least 75% of the ground floor street fronts of the building are active frontages (vii) the building has frontage to a public road that abuts the Adelaide Park Lands; (viii) where the development includes housing, at least 15% of the dwellings are affordable housing (ix) the impact on adjacent properties is no greater than a building of the maximum height on the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> in relation to sunlight access and overlooking. 	
<p>PO 4.3 Buildings designed to achieve optimal height and floor space yields.</p>	<p>DTS/DPF 4.3 New development has a minimum building height of:</p> <ul style="list-style-type: none"> (a) not less than half of the maximum building height specified in DTS/DPF 4.1, or 8 building levels (with a minimum of 28m) in instances where 'No prescribed height limit' is specified in DTS/DPF 4.1; or (b) within the City Frame Subzone: 3 building levels (with a minimum of 11.5m), or 4 building levels (with a minimum of 15m) on sites fronting South Terrace <p>other than where:</p> <ul style="list-style-type: none"> (a) a lower building height is necessary to achieve compliance with the Commonwealth Airports (Protection of Airspace) Regulations (b) the site of the development adjoins the City Living Zone and a lesser building height is required to positively manage the interface with low-rise residential development (c) the site of the development adjoins a heritage place, or contains a heritage place or (d) the development includes the construction of a building in the same, or substantially the same, position as a building which was demolished, as a result of significant damage caused by an event within the previous three years where the new building has the same, or substantially the same, layout and external appearance as the previous building.
<p>Interface</p>	
<p>PO 5.1 Development is designed to manage the interface with residential uses in the City Living Zone:</p> <ul style="list-style-type: none"> (a) in relation to building proportions, massing, and overshadowing; and (b) by avoiding land uses, or intensity of land uses, that unduly impact residential amenity (including licensed premises). 	<p>DTS/DPF 5.1 None are applicable.</p>
<p>PO 5.2 Parts of a development exceed the maximum building height specified in DTS/DPF 4.1 and adjoin the City Living Zone boundaries are designed to minimise negative visual and amenity impacts to residential living areas and outdoor open space.</p>	<p>DTS/DPF 5.2 Parts of a building above the maximum building height specified in DTS/DPF 4.1 include additional setbacks, avoid tall sheer walls, centrally locate taller elements, and provide variation of light and shadow through articulation.</p>

Movement			
<p>PO 6.1</p> <p>Access to, and movement within, the Capital City Zone to be universally accessible, easy, safe, comfortable, convenient and legible for people of all abilities, with priority given to pedestrians and cyclists.</p>	<p>DTS/DPF 6.1</p> <p>None are applicable.</p>		
Access			
<p>PO 7.1</p> <p>Vehicular access points are associated with multi-level and/or non-ancillary car parks located to minimise disruption to traffic flow.</p>	<p>DTS/DPF 7.1</p> <p>Vehicular access points associated with multi-level and/or non-ancillary car parks are located on a secondary road frontage, or utilise an existing crossover.</p>		
<p>PO 7.2</p> <p>Development designed so that vehicle access points for parking, servicing or deliveries, and pedestrian access to a site, are located to minimise interrupting the operation of and queuing on public roads and pedestrian paths.</p>	<p>DTS/DPF 7.2</p> <p>None are applicable.</p>		
Concept Plans			
<p>PO 9.1</p> <p>Development is compatible with the outcomes sought by any relevant Concept Plan contained within Part 12 - Concept Plans of the Planning and Design Code to support the orderly development of land through staging of development and provision of infrastructure.</p>	<p>DTS/DPF 9.1</p> <p>The site of the development is wholly located outside any relevant Concept Plan boundary. The following Concept Plans are relevant:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Description</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Concept Plan 79 - Primary Pedestrian Area</td> </tr> </tbody> </table> <p>In relation to DTS/DPF 9.1, in instances where:</p> <ul style="list-style-type: none"> (a) one or more Concept Plan is returned, refer to Part 12 - Concept Plans in the Planning and Design Code to determine if a Concept Plan is relevant to the site of the proposed development. Note: multiple concept plans may be relevant. (b) in instances where 'no value' is returned, there is no relevant concept plan and DTS/DPF 9.1 is met. 	Description	Concept Plan 79 - Primary Pedestrian Area
Description			
Concept Plan 79 - Primary Pedestrian Area			
Public Realm			
<p>PO 10.1</p> <p>Development in the public realm where it:</p> <ul style="list-style-type: none"> (a) does not present a safety risk to pedestrians or other users of the public road (b) does not interrupt pedestrian movement (c) does not interfere with existing infrastructure or services on the street (d) positively contributes to the vibrancy of the area (e) is consistent with the outcomes of the zone. 	<p>DTS/DPF 10.1</p> <p>None are applicable.</p>		

Table 5 - Procedural Matters (PM) - Notification

The following table identifies, pursuant to section 107(6) of the *Planning, Development and Infrastructure Act 2016*, classes of performance assessed development that are excluded from notification. The table also identifies any exemptions to the placement of notices when notification is required.

Interpretation

Notification tables exclude the classes of development listed in Column A from notification provided that they do not fall within a corresponding exclusion prescribed in Column B.

Where a development or an element of a development falls within more than one class of development listed in Column A, it will be excluded from notification if it is excluded (in its entirety) under any of those classes of development. It need not be excluded under all applicable classes of development.

Where a development involves multiple performance assessed elements, all performance assessed elements will require notification (regardless of whether one or more elements are excluded in the applicable notification table) unless every performance assessed element of the application is excluded in the applicable notification table, in which case the application will not require notification.

A relevant authority may determine that a variation to 1 or more corresponding exclusions prescribed in Column B is minor in nature and does not require notification.

Class of Development (Column A)	Exceptions (Column B)
1. Development which, in the opinion of the relevant authority, is of a minor nature only and will not unreasonably impact on the owners or occupiers of land in the locality of the site of the development.	None specified.
2. Any kind of development where the site of the development is not adjacent land to a site (or land) used for residential purposes in a neighbourhood-type zone.	Except any of the following: <ol style="list-style-type: none"> 1. the demolition (or partial demolition) of a State or Local Heritage Place (other than an excluded building) 2. the demolition (or partial demolition) of a building in a Historic Area Overlay (other than an excluded building).
3. Any development involving any of the following (or of any combination of any of the following): <ol style="list-style-type: none"> (a) advertisement (b) child care facility (c) consulting room (d) dwelling (e) office (f) residential flat building (g) shop (h) student accommodation (i) temporary public service depot. 	Except development that exceeds the maximum building height specified in Capital City Zone DTS/DPF 4.1.
4. Any development involving any of the following (or of any combination of any of the following): <ol style="list-style-type: none"> (a) air handling unit, air conditioning system or exhaust fan (b) carport (c) deck (d) fence (e) internal building works (f) land division (g) outbuilding (h) pergola (i) private bushfire shelter (j) retaining wall (k) shade sail (l) solar photovoltaic panels (roof mounted) (m) swimming pool or spa pool and associated swimming pool safety features (n) tree damaging activity (o) verandah (p) water tank. 	None specified.
5. Demolition.	Except any of the following: <ol style="list-style-type: none"> 1. the demolition (or partial demolition) of a State or Local Heritage Place (other than an excluded building) 2. the demolition (or partial demolition) of a building in a Historic Area Overlay (other than an excluded building).

Class of Development (Column A)	Exceptions (Column B)
6. Railway line.	Except where located outside of a rail corridor or rail reserve.
Placement of Notices - Exemptions for Performance Assessed Development	
None specified.	
Placement of Notices - Exemptions for Restricted Development	
None specified.	

Part 3 - Overlays

Airport Building Heights (Regulated) Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Management of potential impacts of buildings and generated emissions to maintain operational and safety requirements of registered and certified commercial and military airfields, airports, airstrips and helicopter landing sites.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Built Form	
PO 1.1 Building height does not pose a hazard to the operation of a certified or registered aerodrome.	DTS/DPF 1.1 Buildings are located outside the area identified as 'All structures' (no height limit is prescribed) and do not exceed the height specified in the Airport Building Heights (Regulated) Overlay which applies to the subject site as shown on the SA Property and Planning Atlas. In instances where more than one value applies to the site, the lowest value relevant to the site of the proposed development is applicable.

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
Any of the following classes of development: (a) building located in an area identified as 'All structures' (no height limit is prescribed) or will exceed the height specified in the <i>Airport Building Heights (Regulated) Overlay</i> (b) building comprising exhaust stacks that generates plumes, or may cause plumes to be generated, above a height specified in the <i>Airport Building Heights (Regulated) Overlay</i> .	The airport-operator company for the relevant airport within the meaning of the <i>Airports Act 1996</i> of the Commonwealth or, if there is no airport-operator company, the Secretary of the Minister responsible for the administration of the <i>Airports Act 1996</i> of the	To provide expert assessment and direction to the relevant authority on potential impacts on the safety and operation of aviation activities.	Development of a class to which Schedule 9 clause 3 item 1 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

	Commonwealth.		
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Building Near Airfields Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Maintain the operational and safety requirements of certified commercial and military airfields, airports, airstrips and helicopter landing sites through management of non-residential lighting, turbulence and activities that may attract or result in the congregation of wildlife.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.3 Buildings are adequately separated from runways and other take-off and landing facilities within certified or registered aerodromes to minimise the potential for building-generated turbulence and windshear that may pose a safety hazard to aircraft flight movement.	DTS/DPF 1.3 The distance from any part of a runway centreline to the closest point of the building is not less than 35 times the building height.

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

Design Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development positively contributes to the liveability, durability and sustainability of the built environment through high-quality design.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
General	
PO 1.1 Medium to high rise buildings and state significant development demonstrate high quality design.	DTS/DPF 1.1 None are applicable.

Procedural Matters (PM)

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the

purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
<p>Except where the development comprises a variation to an application that has either been:</p> <ul style="list-style-type: none"> (a) previously referred to the Government Architect or Associate Government Architect or (b) given development authorisation under the <i>Planning, Development and Infrastructure Act 2016</i> or <i>Development Act 1993</i> and (c) the variation to that application is, in the opinion of the relevant authority, minor in nature or would not warrant a referral when considering the purpose of the referral <p>any of the following classes of development:</p> <ul style="list-style-type: none"> (a) development within the area of the overlay located within the Corporation of the City of Adelaide where the total amount to be applied to any work, when all stages of the development are completed, exceeds \$10,000,000 (b) development within the area of the overlay located within the City of Port Adelaide Enfield where the total amount to be applied to any work, when all stages of the development are completed, exceeds \$3 000 000 (c) development within all other areas of the overlay that involves the erection or construction of a building that exceeds 4 building levels. 	Government Architect or Associate Government Architect	<p>To provide expert design advice to the relevant authority on how the development:</p> <ul style="list-style-type: none"> (a) responds to its surrounding context and contributes to the quality and character of a place (b) contributes to inclusiveness, connectivity, and universal design of the built environment (c) enables buildings and places that are fit for purpose, adaptable and long-lasting (d) adds value by positively contributing to places and communities (e) optimises performance and public benefit (f) supports sustainable and environmentally responsible development. 	Development of a class to which Schedule 9 clause 3 item 22 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

Hazards (Flooding - Evidence Required) Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development adopts a precautionary approach to mitigate potential impacts on people, property, infrastructure and the environment from potential flood risk through the appropriate siting and design of development.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Flood Resilience	
<p>PO 1.1</p> <p>Development is sited, designed and constructed to minimise the risk of entry of potential floodwaters where the entry of flood waters is likely to result in undue damage to or compromise ongoing activities within buildings.</p>	<p>DTS/DPF 1.1</p> <p>Habitable buildings, commercial and industrial buildings, and buildings used for animal keeping incorporate a finished floor level at least 300mm above:</p> <ul style="list-style-type: none"> (a) the highest point of top of kerb of the primary street or (b) the highest point of natural ground level at the primary street boundary where there is no kerb

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

Heritage Adjacency Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development adjacent to State and Local Heritage Places maintains the heritage and cultural values of those Places.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Built Form	
PO 1.1 Development adjacent to a State or Local Heritage Place does not dominate, encroach on or unduly impact on the setting of the Place.	DTS/DPF 1.1 None are applicable.

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
Development which in the opinion of the relevant authority materially affects the context within which the State Heritage Place is situated.	Minister responsible for the administration of the <i>Heritage Places Act 1993</i> .	To provide expert assessment and direction to the relevant authority on the potential impacts of development adjacent State Heritage Places.	Development of a class to which Schedule 9 clause 3 item 17 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

Part 4 - General Development Policies

Clearance from Overhead Powerlines

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Protection of human health and safety when undertaking development in the vicinity of overhead transmission powerlines.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.1 Buildings are adequately separated from aboveground powerlines to minimise potential hazard to people and property.	DTS/DPF 1.1 One of the following is satisfied: (a) a declaration is provided by or on behalf of the applicant to the effect that the proposal would not be contrary to the regulations prescribed for the purposes of section 86 of the <i>Electricity Act 1996</i> (b) there are no aboveground powerlines adjoining the site that are the subject of the proposed development.

Design in Urban Areas

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development is: (a) contextual - by considering, recognising and carefully responding to its natural surroundings or built environment and positively contributing to the character of the locality (b) durable - fit for purpose, adaptable and long lasting (c) inclusive - by integrating landscape design to optimise pedestrian and cyclist usability, privacy and equitable access and promoting the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimise security and safety both internally and within the public realm, for occupants and visitors (d) sustainable - by integrating sustainable techniques into the design and siting of development and landscaping to improve community health, urban heat, water management, environmental performance, biodiversity and local amenity and to minimise energy consumption.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
All Development	
External Appearance	
PO 1.1 Buildings reinforce corners through changes in setback, articulation, materials, colour and massing (including height, width, bulk, roof form and slope).	DTS/DPF 1.1 None are applicable.
PO 1.2 Where zero or minor setbacks are desirable, development provides shelter over footpaths (in the form of verandahs, awnings, canopies and the like, with adequate lighting) to positively contribute to the	DTS/DPF 1.2 None are applicable.

walkability, comfort and safety of the public realm.	
PO 1.3 Building elevations facing the primary street (other than ancillary buildings) are designed and detailed to convey purpose, identify main access points and complement the streetscape.	DTS/DPF 1.3 None are applicable.
PO 1.4 Plant, exhaust and intake vents and other technical equipment are integrated into the building design to minimise visibility from the public realm and negative impacts on residential amenity by: (a) positioning plant and equipment discretely, in unobtrusive locations as viewed from public roads and spaces (b) screening rooftop plant and equipment from view (c) when located on the roof of non-residential development, locating the plant and equipment as far as practicable from adjacent sensitive land uses.	DTS/DPF 1.4 Development does not incorporate any structures that protrude beyond the roofline.
PO 1.5 The negative visual impact of outdoor storage, waste management, loading and service areas is minimised by integrating them into the building design and screening them from public view (such as fencing, landscaping and built form), taking into account the form of development contemplated in the relevant zone.	DTS/DPF 1.5 None are applicable.
Safety	
PO 2.1 Development maximises opportunities for passive surveillance of the public realm by providing clear lines of sight, appropriate lighting and the use of visually permeable screening wherever practicable.	DTS/DPF 2.1 None are applicable.
PO 2.2 Development is designed to differentiate public, communal and private areas.	DTS/DPF 2.2 None are applicable.
PO 2.3 Buildings are designed with safe, perceptible and direct access from public street frontages and vehicle parking areas.	DTS/DPF 2.3 None are applicable.
PO 2.4 Development at street level is designed to maximise opportunities for passive surveillance of the adjacent public realm.	DTS/DPF 2.4 None are applicable.
PO 2.5 Common areas and entry points of buildings (such as the foyer areas of residential buildings) and non-residential land uses at street level, maximise passive surveillance from the public realm to the inside of the building at night.	DTS/DPF 2.5 None are applicable.
Landscaping	
PO 3.1 Soft landscaping and tree planting are incorporated to: (a) minimise heat absorption and reflection (b) maximise shade and shelter (c) maximise stormwater infiltration (d) enhance the appearance of land and streetscapes.	DTS/DPF 3.1 None are applicable.
Environmental Performance	

PO 4.1 Buildings are sited, oriented and designed to maximise natural sunlight access and ventilation to main activity areas, habitable rooms, common areas and open spaces.	DTS/DPF 4.1 None are applicable.
PO 4.2 Buildings are sited and designed to maximise passive environmental performance and minimise energy consumption and reliance on mechanical systems, such as heating and cooling.	DTS/DPF 4.2 None are applicable.
PO 4.3 Buildings incorporate climate responsive techniques and features such as building and window orientation, use of eaves, verandahs and shading structures, water harvesting, at ground landscaping, green walls, green roofs and photovoltaic cells.	DTS/DPF 4.3 None are applicable.
On-site Waste Treatment Systems	
PO 6.1 Dedicated on-site effluent disposal areas do not include any areas to be used for, or could be reasonably foreseen to be used for, private open space, driveways or car parking.	DTS/DPF 6.1 Effluent disposal drainage areas do not: (a) encroach within an area used as private open space or result in less private open space than that specified in Design in Urban Areas Table 1 - Private Open Space (b) use an area also used as a driveway (c) encroach within an area used for on-site car parking or result in less on-site car parking than that specified in Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas.
Car parking appearance	
PO 7.1 Development facing the street is designed to minimise the negative impacts of any semi-basement and undercroft car parking on streetscapes through techniques such as: (a) limiting protrusion above finished ground level (b) screening through appropriate planting, fencing and mounding (c) limiting the width of openings and integrating them into the building structure.	DTS/DPF 7.1 None are applicable.
PO 7.2 Vehicle parking areas appropriately located, designed and constructed to minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced and the like.	DTS/DPF 7.2 None are applicable.
PO 7.3 Safe, legible, direct and accessible pedestrian connections are provided between parking areas and the development.	DTS/DPF 7.3 None are applicable.
PO 7.4 Street-level vehicle parking areas incorporate tree planting to provide shade, reduce solar heat absorption and reflection.	DTS/DPF 7.4 Vehicle parking areas that are open to the sky and comprise 10 or more car parking spaces include a shade tree with a mature canopy of 4m diameter spaced for each 10 car parking spaces provided and a landscaped strip on any road frontage of a minimum dimension of 1m.
PO 7.5 Street level parking areas incorporate soft landscaping to improve visual appearance when viewed from within the site and from public places.	DTS/DPF 7.5 Vehicle parking areas comprising 10 or more car parking spaces include soft landscaping with a minimum dimension of: (a) 1m along all public road frontages and allotment boundaries (b) 1m between double rows of car parking spaces.

PO 7.6	DTS/DPF 7.6
Vehicle parking areas and associated driveways are landscaped to provide shade and positively contribute to amenity.	None are applicable.
PO 7.7	DTS/DPF 7.7
Vehicle parking areas and access ways incorporate integrated stormwater management techniques such as permeable or porous surfaces, infiltration systems, drainage swales or rain gardens that integrate with soft landscaping.	None are applicable.
Earthworks and sloping land	
PO 8.1	DTS/DPF 8.1
Development, including any associated driveways and access tracks, minimises the need for earthworks to limit disturbance to natural topography.	Development does not involve any of the following: <ul style="list-style-type: none"> (a) excavation exceeding a vertical height of 1m (b) filling exceeding a vertical height of 1m (c) a total combined excavation and filling vertical height of 2m or more.
PO 8.2	DTS/DPF 8.2
Driveways and access tracks designed and constructed to allow safe and convenient access on sloping land.	Driveways and access tracks on sloping land (with a gradient exceeding 1 in 8) satisfy (a) and (b): <ul style="list-style-type: none"> (a) do not have a gradient exceeding 25% (1-in-4) at any point along the driveway (b) are constructed with an all-weather trafficable surface.
PO 8.3	DTS/DPF 8.3
Driveways and access tracks on sloping land (with a gradient exceeding 1 in 8): <ul style="list-style-type: none"> (a) do not contribute to the instability of embankments and cuttings (b) provide level transition areas for the safe movement of people and goods to and from the development (c) are designed to integrate with the natural topography of the land. 	None are applicable.
PO 8.4	DTS/DPF 8.4
Development on sloping land (with a gradient exceeding 1 in 8) avoids the alteration of natural drainage lines and includes on site drainage systems to minimise erosion.	None are applicable.
PO 8.5	DTS/DPF 8.5
Development does not occur on land at risk of landslip or increase the potential for landslip or land surface instability.	None are applicable.
Overlooking / Visual Privacy (low rise buildings)	
PO 10.1	DTS/DPF 10.1
Development mitigates direct overlooking from upper level windows to habitable rooms and private open spaces of adjoining residential uses in neighbourhood-type zones.	Upper level windows facing side or rear boundaries shared with a residential use in a neighbourhood-type zone: <ul style="list-style-type: none"> (a) are permanently obscured to a height of 1.5m above finished floor level and are fixed or not capable of being opened more than 125mm (b) have sill heights greater than or equal to 1.5m above finished floor level (c) incorporate screening with a maximum of 25% openings, permanently fixed no more than 500mm from the window surface and sited adjacent to any part of the window less than 1.5 m above the finished floor level.

<p>PO 10.2</p> <p>Development mitigates direct overlooking from balconies to habitable rooms and private open space of adjoining residential uses in neighbourhood type zones.</p>	<p>DTS/DPF 10.2</p> <p>One of the following is satisfied:</p> <ul style="list-style-type: none"> (a) the longest side of the balcony or terrace will face a public road, public road reserve or public reserve that is at least 15m wide in all places faced by the balcony or terrace or (b) all sides of balconies or terraces on upper building levels are permanently obscured by screening with a maximum 25% transparency/openings fixed to a minimum height of: <ul style="list-style-type: none"> (i) 1.5m above finished floor level where the balcony is located at least 15 metres from the nearest habitable window of a dwelling on adjacent land or (ii) 1.7m above finished floor level in all other cases
<p>Site Facilities / Waste Storage (excluding low rise residential development)</p>	
<p>PO 11.1</p> <p>Development provides a dedicated area for on-site collection and sorting of recyclable materials and refuse, green organic waste and wash bay facilities for the ongoing maintenance of bins that is adequate in size considering the number and nature of the activities they will serve and the frequency of collection.</p>	<p>DTS/DPF 11.1</p> <p>None are applicable.</p>
<p>PO 11.2</p> <p>Communal waste storage and collection areas are located, enclosed and designed to be screened from view from the public domain, open space and dwellings.</p>	<p>DTS/DPF 11.2</p> <p>None are applicable.</p>
<p>PO 11.3</p> <p>Communal waste storage and collection areas are designed to be well ventilated and located away from habitable rooms.</p>	<p>DTS/DPF 11.3</p> <p>None are applicable.</p>
<p>PO 11.4</p> <p>Communal waste storage and collection areas are designed to allow waste and recycling collection vehicles to enter and leave the site without reversing.</p>	<p>DTS/DPF 11.4</p> <p>None are applicable.</p>
<p>PO 11.5</p> <p>For mixed use developments, non-residential waste and recycling storage areas and access provide opportunities for on-site management of food waste through composting or other waste recovery as appropriate.</p>	<p>DTS/DPF 11.5</p> <p>None are applicable.</p>
<p>All Development - Medium and High Rise</p>	
<p>External Appearance</p>	
<p>PO 12.1</p> <p>Buildings positively contribute to the character of the local area by responding to local context.</p>	<p>DTS/DPF 12.1</p> <p>None are applicable.</p>
<p>PO 12.2</p> <p>Architectural detail at street level and a mixture of materials at lower building levels near the public interface are provided to reinforce a human scale.</p>	<p>DTS/DPF 12.2</p> <p>None are applicable.</p>
<p>PO 12.3</p> <p>Buildings are designed to reduce visual mass by breaking up building elevations into distinct elements.</p>	<p>DTS/DPF 12.3</p> <p>None are applicable.</p>
<p>PO 12.4</p> <p>Boundary walls visible from public land include visually interesting treatments to break up large blank elevations.</p>	<p>DTS/DPF 12.4</p> <p>None are applicable.</p>
<p>PO 12.5</p> <p>External materials and finishes are durable and age well to minimise ongoing maintenance requirements.</p>	<p>DTS/DPF 12.5</p> <p>Buildings utilise a combination of the following external materials and finishes:</p> <ul style="list-style-type: none"> (a) masonry

	<ul style="list-style-type: none"> (b) natural stone (c) pre-finished materials that minimise staining, discolouring or deterioration.
<p>PO 12.6</p> <p>Street-facing building elevations are designed to provide attractive, high quality and pedestrian-friendly street frontages.</p>	<p>DTS/DPF 12.6</p> <p>Building street frontages incorporate:</p> <ul style="list-style-type: none"> (a) active uses such as shops or offices (b) prominent entry areas for multi-storey buildings (where it is a common entry) (c) habitable rooms of dwellings (d) areas of communal public realm with public art or the like, where consistent with the zone and/or subzone provisions.
<p>PO 12.7</p> <p>Entrances to multi-storey buildings are safe, attractive, welcoming, functional and contribute to streetscape character.</p>	<p>DTS/DPF 12.7</p> <p>Entrances to multi-storey buildings are:</p> <ul style="list-style-type: none"> (a) oriented towards the street (b) clearly visible and easily identifiable from the street and vehicle parking areas (c) designed to be prominent, accentuated and a welcoming feature if there are no active or occupied ground floor uses (d) designed to provide shelter, a sense of personal address and transitional space around the entry (e) located as close as practicable to the lift and / or lobby access to minimise the need for long access corridors (f) designed to avoid the creation of potential areas of entrapment.
<p>PO 12.8</p> <p>Building services, plant and mechanical equipment are screened from the public realm.</p>	<p>DTS/DPF 12.8</p> <p>None are applicable.</p>

Landscaping

<p>PO 13.1</p> <p>Development facing a street provides a well landscaped area that contains a deep soil space to accommodate a tree of a species and size adequate to provide shade, contribute to tree canopy targets and soften the appearance of buildings.</p>	<p>DTS/DPF 13.1</p> <p>Buildings provide a 4m by 4m deep soil space in front of the building that accommodates a medium to large tree, except where no building setback from front property boundaries is desired.</p>																				
<p>PO 13.2</p> <p>Deep soil zones are provided to retain existing vegetation or provide areas that can accommodate new deep root vegetation, including tall trees with large canopies to provide shade and soften the appearance of multi-storey buildings.</p>	<p>DTS/DPF 13.2</p> <p>Multi-storey development provides deep soil zones and incorporates trees at not less than the following rates, except in a location or zone where full site coverage is desired.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #0056b3; color: white;">Site area</th> <th style="background-color: #0056b3; color: white;">Minimum deep soil area</th> <th style="background-color: #0056b3; color: white;">Minimum dimension</th> <th style="background-color: #0056b3; color: white;">Tree / deep soil zones</th> </tr> </thead> <tbody> <tr> <td><300 m²</td> <td>10 m²</td> <td>1.5m</td> <td>1 small tree / 10 m²</td> </tr> <tr> <td>300-1500 m²</td> <td>7% site area</td> <td>3m</td> <td>1 medium tree / 30 m²</td> </tr> <tr> <td>>1500 m²</td> <td>7% site area</td> <td>6m</td> <td>1 large or medium tree / 60 m²</td> </tr> </tbody> </table> <p>Tree size and site area definitions</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Small tree</td> <td>4-6m mature height and 2-4m canopy spread</td> </tr> <tr> <td>Medium tree</td> <td>6-12m mature height and 4-8m canopy spread</td> </tr> </table>	Site area	Minimum deep soil area	Minimum dimension	Tree / deep soil zones	<300 m ²	10 m ²	1.5m	1 small tree / 10 m ²	300-1500 m ²	7% site area	3m	1 medium tree / 30 m ²	>1500 m ²	7% site area	6m	1 large or medium tree / 60 m ²	Small tree	4-6m mature height and 2-4m canopy spread	Medium tree	6-12m mature height and 4-8m canopy spread
Site area	Minimum deep soil area	Minimum dimension	Tree / deep soil zones																		
<300 m ²	10 m ²	1.5m	1 small tree / 10 m ²																		
300-1500 m ²	7% site area	3m	1 medium tree / 30 m ²																		
>1500 m ²	7% site area	6m	1 large or medium tree / 60 m ²																		
Small tree	4-6m mature height and 2-4m canopy spread																				
Medium tree	6-12m mature height and 4-8m canopy spread																				

Environmental					
	<table border="1"> <tr> <td>Large tree</td> <td>12m mature height and >8m canopy spread</td> </tr> <tr> <td>Site area</td> <td>The total area for development site, not average area per dwelling</td> </tr> </table>	Large tree	12m mature height and >8m canopy spread	Site area	The total area for development site, not average area per dwelling
Large tree	12m mature height and >8m canopy spread				
Site area	The total area for development site, not average area per dwelling				
PO 13.3 Deep soil zones with access to natural light are provided to assist in maintaining vegetation health.	DTS/DPF 13.3 None are applicable.				
PO 13.4 Unless separated by a public road or reserve, development sites adjacent to any zone that has a primary purpose of accommodating low-rise residential development incorporate a deep soil zone along the common boundary to enable medium to large trees to be retained or established to assist in screening new buildings of 3 or more building levels in height.	DTS/DPF 13.4 Building elements of 3 or more building levels in height are set back at least 6m from a zone boundary in which a deep soil zone area is incorporated.				
Environmental					
PO 14.1 Development minimises detrimental micro-climatic impacts on adjacent land and buildings.	DTS/DPF 14.1 None are applicable.				
PO 14.2 Development incorporates sustainable design techniques and features such as window orientation, eaves and shading structures, water harvesting and use, green walls and roof designs that enable the provision of rain water tanks (where they are not provided elsewhere on site), green roofs and photovoltaic cells.	DTS/DPF 14.2 None are applicable.				
PO 14.3 Development of 5 or more building levels, or 21m or more in height (as measured from natural ground level and excluding roof-mounted mechanical plant and equipment) is designed to minimise the impacts of wind through measures such as: (a) a podium at the base of a tall tower and aligned with the street to deflect wind away from the street (b) substantial verandahs around a building to deflect downward travelling wind flows over pedestrian areas (c) the placement of buildings and use of setbacks to deflect the wind at ground level (d) avoiding tall shear elevations that create windy conditions at street level.	DTS/DPF 14.3 None are applicable.				
Car Parking					
PO 15.1 Multi-level vehicle parking structures are designed to contribute to active street frontages and complement neighbouring buildings.	DTS/DPF 15.1 Multi-level vehicle parking structures within buildings: (a) provide land uses such as commercial, retail or other non-car parking uses along ground floor street frontages (b) incorporate facade treatments in building elevations facing along major street frontages that are sufficiently enclosed and detailed to complement adjacent buildings.				
PO 15.2 Multi-level vehicle parking structures within buildings complement the surrounding built form in terms of height, massing and scale.	DTS/DPF 15.2 None are applicable.				
Overlooking/Visual Privacy					
PO 16.1	DTS/DPF 16.1				

<p>Development mitigates direct overlooking of habitable rooms and private open spaces of adjacent residential uses in neighbourhood-type zones through measures such as:</p> <ul style="list-style-type: none"> (a) appropriate site layout and building orientation (b) off-setting the location of balconies and windows of habitable rooms or areas with those of other buildings so that views are oblique rather than direct to avoid direct line of sight (c) building setbacks from boundaries (including building boundary to boundary where appropriate) that interrupt views or that provide a spatial separation between balconies or windows of habitable rooms (d) screening devices that are integrated into the building design and have minimal negative effect on residents' or neighbours' amenity. 	<p>None are applicable.</p>
<p>All non-residential development</p>	
<p>Water Sensitive Design</p>	
<p>PO 42.1 Development likely to result in risk of export of sediment, suspended solids, organic matter, nutrients, oil and grease include stormwater management systems designed to minimise pollutants entering stormwater.</p>	<p>DTS/DPF 42.1 None are applicable.</p>
<p>PO 42.2 Water discharged from a development site is of a physical, chemical and biological condition equivalent to or better than its pre-developed state.</p>	<p>DTS/DPF 42.2 None are applicable.</p>
<p>PO 42.3 Development includes stormwater management systems to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that development does not increase peak flows in downstream systems.</p>	<p>DTS/DPF 42.3 None are applicable.</p>
<p>Wash-down and Waste Loading and Unloading</p>	
<p>PO 43.1 Areas for activities including loading and unloading, storage of waste refuse bins in commercial and industrial development or wash-down areas used for the cleaning of vehicles, plant or equipment are:</p> <ul style="list-style-type: none"> (a) designed to contain all wastewater likely to pollute stormwater within a bunded and roofed area to exclude the entry of external surface stormwater run-off (b) paved with an impervious material to facilitate wastewater collection (c) of sufficient size to prevent 'splash-out' or 'over-spray' of wastewater from the wash-down area (d) are designed to drain wastewater to either: <ul style="list-style-type: none"> (i) a treatment device such as a sediment trap and coalescing plate oil separator with subsequent disposal to a sewer, private or Community Wastewater Management Scheme or (ii) a holding tank and its subsequent removal off-site on a regular basis. 	<p>DTS/DPF 43.1 None are applicable.</p>
<p>Laneway Development</p>	
<p>Infrastructure and Access</p>	
<p>PO 44.1</p>	<p>DTS/DPF 44.1</p>

<p>Development with a primary street comprising a laneway, alley, lane, right of way or similar minor thoroughfare only occurs where:</p> <ul style="list-style-type: none"> (a) existing utility infrastructure and services are capable of accommodating the development (b) the primary street can support access by emergency and regular service vehicles (such as waste collection) (c) it does not require the provision or upgrading of infrastructure on public land (such as footpaths and stormwater management systems) (d) safety of pedestrians or vehicle movement is maintained (e) any necessary grade transition is accommodated within the site of the development to support an appropriate development intensity and orderly development of land fronting minor thoroughfares. 	<p>Development with a primary street frontage that is not an alley, lane, right of way or similar public thoroughfare.</p>
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Interface between Land Uses

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development is located and designed to mitigate adverse effects on or from neighbouring and proximate land uses.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature											
Hours of Operation												
<p>PO 2.1</p> <p>Non-residential development does not unreasonably impact the amenity of sensitive receivers (or lawfully approved sensitive receivers) or an adjacent zone primarily for sensitive receivers through its hours of operation having regard to:</p> <ul style="list-style-type: none"> (a) the nature of the development (b) measures to mitigate off-site impacts (c) the extent to which the development is desired in the zone (d) measures that might be taken in an adjacent zone primarily for sensitive receivers that mitigate adverse impacts without unreasonably compromising the intended use of that land. 	<p>DTS/DPF 2.1</p> <p>Development operating within the following hours:</p> <table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 40%;">Class of Development</th> <th>Hours of operation</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Consulting room</td> <td>7am to 9pm, Monday to Friday</td> </tr> <tr> <td>8am to 5pm, Saturday</td> </tr> <tr> <td rowspan="2">Office</td> <td>7am to 9pm, Monday to Friday</td> </tr> <tr> <td>8am to 5pm, Saturday</td> </tr> <tr> <td rowspan="2">Shop, other than any one or combination of the following: <ul style="list-style-type: none"> (a) restaurant (b) cellar door in the Productive Rural Landscape Zone, Rural Zone or Rural Horticulture Zone </td> <td>7am to 9pm, Monday to Friday</td> </tr> <tr> <td>8am to 5pm, Saturday and Sunday</td> </tr> </tbody> </table>	Class of Development	Hours of operation	Consulting room	7am to 9pm, Monday to Friday	8am to 5pm, Saturday	Office	7am to 9pm, Monday to Friday	8am to 5pm, Saturday	Shop, other than any one or combination of the following: <ul style="list-style-type: none"> (a) restaurant (b) cellar door in the Productive Rural Landscape Zone, Rural Zone or Rural Horticulture Zone 	7am to 9pm, Monday to Friday	8am to 5pm, Saturday and Sunday
Class of Development	Hours of operation											
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Shop, other than any one or combination of the following: <ul style="list-style-type: none"> (a) restaurant (b) cellar door in the Productive Rural Landscape Zone, Rural Zone or Rural Horticulture Zone 	7am to 9pm, Monday to Friday											
	8am to 5pm, Saturday and Sunday											
Overshadowing												
<p>PO 3.1</p> <p>Overshadowing of habitable room windows of adjacent residential land uses in:</p>	<p>DTS/DPF 3.1</p> <p>North-facing windows of habitable rooms of adjacent residential land uses in a neighbourhood-type zone receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on 21 June.</p>											

<p>a. a neighbourhood-type zone is minimised to maintain access to direct winter sunlight</p> <p>b. other zones is managed to enable access to direct winter sunlight.</p>	
<p>PO 3.2</p> <p>Overshadowing of the primary area of private open space or communal open space of adjacent residential land uses in:</p> <p>a. a neighbourhood type zone is minimised to maintain access to direct winter sunlight</p> <p>b. other zones is managed to enable access to direct winter sunlight.</p>	<p>DTS/DPF 3.2</p> <p>Development maintains 2 hours of direct sunlight between 9.00 am and 3.00 pm on 21 June to adjacent residential land uses in a neighbourhood-type zone in accordance with the following:</p> <p>a. for ground level private open space, the smaller of the following:</p> <p>i. half the existing ground level open space</p> <p>or</p> <p>ii. 35m² of the existing ground level open space (with at least one of the area's dimensions measuring 2.5m)</p> <p>b. for ground level communal open space, at least half of the existing ground level open space.</p>
<p>PO 3.3</p> <p>Development does not unduly reduce the generating capacity of adjacent rooftop solar energy facilities taking into account:</p> <p>(a) the form of development contemplated in the zone</p> <p>(b) the orientation of the solar energy facilities</p> <p>(c) the extent to which the solar energy facilities are already overshadowed.</p>	<p>DTS/DPF 3.3</p> <p>None are applicable.</p>
Activities Generating Noise or Vibration	
<p>PO 4.1</p> <p>Development that emits noise (other than music) does not unreasonably impact the amenity of sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 4.1</p> <p>Noise that affects sensitive receivers achieves the relevant Environment Protection (Noise) Policy criteria.</p>
<p>PO 4.2</p> <p>Areas for the on-site manoeuvring of service and delivery vehicles, plant and equipment, outdoor work spaces (and the like) are designed and sited to not unreasonably impact the amenity of adjacent sensitive receivers (or lawfully approved sensitive receivers) and zones primarily intended to accommodate sensitive receivers due to noise and vibration by adopting techniques including:</p> <p>(a) locating openings of buildings and associated services away from the interface with the adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers</p> <p>(b) when sited outdoors, locating such areas as far as practicable from adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers</p> <p>(c) housing plant and equipment within an enclosed structure or acoustic enclosure</p> <p>(d) providing a suitable acoustic barrier between the plant and / or equipment and the adjacent sensitive receiver boundary or zone.</p>	<p>DTS/DPF 4.2</p> <p>None are applicable.</p>
<p>PO 4.5</p> <p>Outdoor areas associated with licensed premises (such as beer gardens or dining areas) are designed and/or sited to not cause unreasonable noise impact on existing adjacent sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 4.5</p> <p>None are applicable.</p>
<p>PO 4.6</p> <p>Development incorporating music achieves suitable acoustic amenity when measured at the boundary of an adjacent sensitive receiver (or</p>	<p>DTS/DPF 4.6</p> <p>Development incorporating music includes noise attenuation measures that will achieve the following noise levels:</p>

lawfully approved sensitive receiver) or zone primarily intended to accommodate sensitive receivers.	<table border="1"> <thead> <tr> <th>Assessment location</th> <th>Music noise level</th> </tr> </thead> <tbody> <tr> <td>Externally at the nearest existing or envisaged noise sensitive location</td> <td>Less than 8dB above the level of background noise (L_{90,15min}) in any octave band of the sound spectrum (LOCT_{10,15} < LOCT_{90,15} + 8dB)</td> </tr> </tbody> </table>		Assessment location	Music noise level	Externally at the nearest existing or envisaged noise sensitive location	Less than 8dB above the level of background noise (L _{90,15min}) in any octave band of the sound spectrum (LOCT _{10,15} < LOCT _{90,15} + 8dB)
	Assessment location	Music noise level				
Externally at the nearest existing or envisaged noise sensitive location	Less than 8dB above the level of background noise (L _{90,15min}) in any octave band of the sound spectrum (LOCT _{10,15} < LOCT _{90,15} + 8dB)					
Air Quality						
<p>PO 5.2 Development that includes chimneys or exhaust flues (including cafes, restaurants and fast food outlets) is designed to minimise nuisance or adverse health impacts to sensitive receivers (or lawfully approved sensitive receivers) by:</p> <ul style="list-style-type: none"> (a) incorporating appropriate treatment technology before exhaust emissions are released (b) locating and designing chimneys or exhaust flues to maximise the dispersion of exhaust emissions, taking into account the location of sensitive receivers. 	<p>DTS/DPF 5.2 None are applicable.</p>					
Light Spill						
<p>PO 6.1 External lighting is positioned and designed to not cause unreasonable light spill impact on adjacent sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 6.1 None are applicable.</p>					
Solar Reflectivity / Glare						
<p>PO 7.1 Development is designed and comprised of materials and finishes that do not unreasonably cause a distraction to adjacent road users and pedestrian areas or unreasonably cause heat loading and micro-climatic impacts on adjacent buildings and land uses as a result of reflective solar glare.</p>	<p>DTS/DPF 7.1 None are applicable.</p>					

Out of Activity Centre Development

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO1	The role of Activity Centres in contributing to the form and pattern of development and enabling equitable and convenient access to a range of shopping, administrative, cultural, entertainment and other facilities in a single trip is maintained and reinforced.

Performance Outcomes and Deemed to Satisfy / Designated Performance Outcome Criteria

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
<p>PO 1.1 Non-residential development outside Activity Centres of a scale and type that does not diminish the role of Activity Centres:</p> <ul style="list-style-type: none"> (a) as primary locations for shopping, administrative, cultural, entertainment and community services (b) as a focus for regular social and business gatherings (c) in contributing to or maintaining a pattern of development that supports equitable community access to services and facilities. 	<p>DTS/DPF 1.1 None are applicable.</p>

<p>PO 1.2</p> <p>Out-of-activity centre non-residential development complements Activity Centres through the provision of services and facilities:</p> <ul style="list-style-type: none"> (a) that support the needs of local residents and workers, particularly in underserved locations (b) at the edge of Activities Centres where they cannot readily be accommodated within an existing Activity Centre to expand the range of services on offer and support the role of the Activity Centre. 	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>
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Site Contamination

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Ensure land is suitable for the proposed use in circumstances where it is, or may have been, subject to site contamination.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
<p>PO 1.1</p> <p>Ensure land is suitable for use when land use changes to a more sensitive use.</p>	<p>DTS/DPF 1.1</p> <p>Development satisfies (a), (b), (c) or (d):</p> <ul style="list-style-type: none"> (a) does not involve a change in the use of land (b) involves a change in the use of land that does not constitute a change to a more sensitive use (c) involves a change in the use of land to a more sensitive use on land at which site contamination is unlikely to exist (as demonstrated in a site contamination declaration form) (d) involves a change in the use of land to a more sensitive use on land at which site contamination exists, or may exist (as demonstrated in a site contamination declaration form), and satisfies both of the following: <ul style="list-style-type: none"> (i) a site contamination audit report has been prepared under Part 10A of the <i>Environment Protection Act 1993</i> in relation to the land within the previous 5 years which states that- <ul style="list-style-type: none"> A. site contamination does not exist (or no longer exists) at the land or B. the land is suitable for the proposed use or range of uses (without the need for any further remediation) or C. where remediation is, or remains, necessary for the proposed use (or range of uses), remediation work has been carried out or will be carried out (and the applicant has provided a written undertaking that the remediation works will be implemented in association with the development) and (ii) no other class 1 activity or class 2 activity has taken place at the land since the preparation of the site contamination audit report (as demonstrated in a site contamination declaration form).

Transport, Access and Parking

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	A comprehensive, integrated and connected transport system that is safe, sustainable, efficient, convenient and accessible to all users.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Movement Systems	
PO 1.2 Development is designed to discourage commercial and industrial vehicle movements through residential streets and adjacent other sensitive receivers.	DTS/DPF 1.2 None are applicable.
PO 1.4 Development is sited and designed so that loading, unloading and turning of all traffic avoids interrupting the operation of and queuing on public roads and pedestrian paths.	DTS/DPF 1.4 All vehicle manoeuvring occurs onsite.
Sightlines	
PO 2.1 Sightlines at intersections, pedestrian and cycle crossings, and crossovers to allotments for motorists, cyclists and pedestrians are maintained or enhanced to ensure safety for all road users and pedestrians.	DTS/DPF 2.1 None are applicable.
PO 2.2 Walls, fencing and landscaping adjacent to driveways and corner sites are designed to provide adequate sightlines between vehicles and pedestrians.	DTS/DPF 2.2 None are applicable.
Vehicle Access	
PO 3.1 Safe and convenient access minimises impact or interruption on the operation of public roads.	DTS/DPF 3.1 The access is: <ul style="list-style-type: none"> (a) provided via a lawfully existing or authorised driveway or access point or an access point for which consent has been granted as part of an application for the division of land or (b) not located within 6m of an intersection of 2 or more roads or a pedestrian activated crossing.
PO 3.2 Development incorporating vehicular access ramps ensures vehicles can enter and exit a site safely and without creating a hazard to pedestrians and other vehicular traffic.	DTS/DPF 3.2 None are applicable.
PO 3.3 Access points are sited and designed to accommodate the type and volume of traffic likely to be generated by the development or land use.	DTS/DPF 3.3 None are applicable.

<p>PO 3.4</p> <p>Access points are sited and designed to minimise any adverse impacts on neighbouring properties.</p>	<p>DTS/DPF 3.4</p> <p>None are applicable.</p>
<p>PO 3.5</p> <p>Access points are located so as not to interfere with street trees, existing street furniture (including directional signs, lighting, seating and weather shelters) or infrastructure services to maintain the appearance of the streetscape, preserve local amenity and minimise disruption to utility infrastructure assets.</p>	<p>DTS/DPF 3.5</p> <p>Vehicle access to designated car parking spaces satisfy (a) or (b):</p> <ul style="list-style-type: none"> (a) is provided via a lawfully existing or authorised access point or an access point for which consent has been granted as part of an application for the division of land (b) where newly proposed, is set back: <ul style="list-style-type: none"> (i) 0.5m or more from any street furniture, street pole, infrastructure services pit, or other stormwater or utility infrastructure unless consent is provided from the asset owner (ii) 2m or more from the base of the trunk of a street tree unless consent is provided from the tree owner for a lesser distance (iii) 6m or more from the tangent point of an intersection of 2 or more roads (iv) outside of the marked lines or infrastructure dedicating a pedestrian crossing.
<p>PO 3.6</p> <p>Driveways and access points are separated and minimised in number to optimise the provision of on-street visitor parking (where on-street parking is appropriate).</p>	<p>DTS/DPF 3.6</p> <p>Driveways and access points:</p> <ul style="list-style-type: none"> (a) for sites with a frontage to a public road of 20m or less, one access point no greater than 3.5m in width is provided (b) for sites with a frontage to a public road greater than 20m: <ul style="list-style-type: none"> (i) a single access point no greater than 6m in width is provided or (ii) not more than two access points with a width of 3.5m each are provided.
<p>PO 3.7</p> <p>Access points are appropriately separated from level crossings to avoid interference and ensure their safe ongoing operation.</p>	<p>DTS/DPF 3.7</p> <p>Development does not involve a new or modified access or cause an increase in traffic through an existing access that is located within the following distance from a railway crossing:</p> <ul style="list-style-type: none"> (a) 80 km/h road - 110m (b) 70 km/h road - 90m (c) 60 km/h road - 70m (d) 50km/h or less road - 50m.
<p>PO 3.8</p> <p>Driveways, access points, access tracks and parking areas are designed and constructed to allow adequate movement and manoeuvrability having regard to the types of vehicles that are reasonably anticipated.</p>	<p>DTS/DPF 3.8</p> <p>None are applicable.</p>
<p>PO 3.9</p> <p>Development is designed to ensure vehicle circulation between activity areas occurs within the site without the need to use public roads.</p>	<p>DTS/DPF 3.9</p> <p>None are applicable.</p>
Access for People with Disabilities	
<p>PO 4.1</p> <p>Development is sited and designed to provide safe, dignified and convenient access for people with a disability.</p>	<p>DTS/DPF 4.1</p> <p>None are applicable.</p>
Vehicle Parking Rates	

<p>PO 5.1</p> <p>Sufficient on-site vehicle parking and specifically marked accessible car parking places are provided to meet the needs of the development or land use having regard to factors that may support a reduced on-site rate such as:</p> <ul style="list-style-type: none"> (a) availability of on-street car parking (b) shared use of other parking areas (c) in relation to a mixed-use development, where the hours of operation of commercial activities complement the residential use of the site, the provision of vehicle parking may be shared (d) the adaptive reuse of a State or Local Heritage Place. 	<p>DTS/DPF 5.1</p> <p>Development provides a number of car parking spaces on-site at a rate no less than the amount calculated using one of the following, whichever is relevant:</p> <ul style="list-style-type: none"> (a) Transport, Access and Parking Table 2 - Off-Street Vehicle Parking Requirements in Designated Areas if the development is a class of development listed in Table 2 and the site is in a Designated Area (b) Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements where (a) does not apply (c) if located in an area where a lawfully established carparking fund operates, the number of spaces calculated under (a) or (b) less the number of spaces offset by contribution to the fund.
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Vehicle Parking Areas

<p>PO 6.1</p> <p>Vehicle parking areas are sited and designed to minimise impact on the operation of public roads by avoiding the use of public roads when moving from one part of a parking area to another.</p>	<p>DTS/DPF 6.1</p> <p>Movement between vehicle parking areas within the site can occur without the need to use a public road.</p>
<p>PO 6.2</p> <p>Vehicle parking areas are appropriately located, designed and constructed to minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced, and the like.</p>	<p>DTS/DPF 6.2</p> <p>None are applicable.</p>
<p>PO 6.3</p> <p>Vehicle parking areas are designed to provide opportunity for integration and shared-use of adjacent car parking areas to reduce the total extent of vehicle parking areas and access points.</p>	<p>DTS/DPF 6.3</p> <p>None are applicable.</p>
<p>PO 6.4</p> <p>Pedestrian linkages between parking areas and the development are provided and are safe and convenient.</p>	<p>DTS/DPF 6.4</p> <p>None are applicable.</p>
<p>PO 6.5</p> <p>Vehicle parking areas that are likely to be used during non-daylight hours are provided with sufficient lighting to entry and exit points to ensure clear visibility to users.</p>	<p>DTS/DPF 6.5</p> <p>None are applicable.</p>
<p>PO 6.6</p> <p>Loading areas and designated parking spaces for service vehicles are provided within the boundary of the site.</p>	<p>DTS/DPF 6.6</p> <p>Loading areas and designated parking spaces are wholly located within the site.</p>

Undercroft and Below Ground Garaging and Parking of Vehicles

<p>PO 7.1</p> <p>Undercroft and below ground garaging of vehicles is designed to enable safe entry and exit from the site without compromising pedestrian or cyclist safety or causing conflict with other vehicles.</p>	<p>DTS/DPF 7.1</p> <p>None are applicable.</p>
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Bicycle Parking in Designated Areas

<p>PO 9.1</p> <p>The provision of adequately sized on-site bicycle parking facilities encourages cycling as an active transport mode.</p>	<p>DTS/DPF 9.1</p> <p>Areas and / or fixtures are provided for the parking and storage of bicycles at a rate not less than the amount calculated using Transport, Access and Parking Table 3 - Off Street Bicycle Parking Requirements.</p>
<p>PO 9.2</p> <p>Bicycle parking facilities provide for the secure storage and tethering</p>	<p>DTS/DPF 9.2</p> <p>None are applicable.</p>

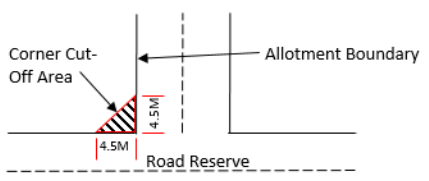
<p>of bicycles in a place where casual surveillance is possible, is well lit and signed for the safety and convenience of cyclists and deters property theft.</p>	
<p>PO 9.3 Non-residential development incorporates end-of-journey facilities for employees such as showers, changing facilities and secure lockers, and signage indicating the location of the facilities to encourage cycling as a mode of journey-to-work transport.</p>	<p>DTS/DPF 9.3 None are applicable.</p>
<p>Corner Cut-Offs</p>	
<p>PO 10.1 Development is located and designed to ensure drivers can safely turn into and out of public road junctions.</p>	<p>DTS/DPF 10.1 Development does not involve building work, or building work is located wholly outside the land shown as Corner Cut-Off Area in the following diagram:</p> 

Table 1 - General Off-Street Car Parking Requirements

Class of Development	Car Parking Rate (unless varied by Table 2 onwards) Where a development comprises more than one development type, then the overall car parking rate will be taken to be the sum of the car parking rates for each development type.
Commercial Uses	
Office	<p>For a call centre, 8 spaces per 100m² of gross leasable floor area</p> <p>In all other cases, 4 spaces per 100m² of gross leasable floor area.</p>

Table 2 - Off-Street Car Parking Requirements in Designated Areas

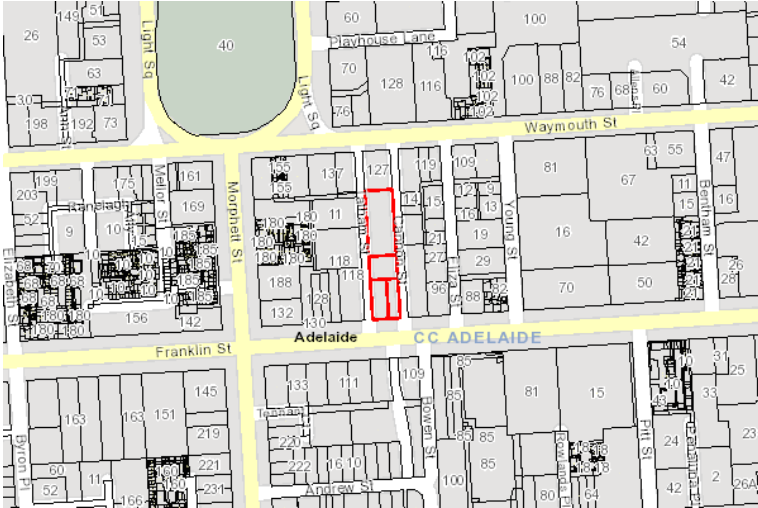
Class of Development	Car Parking Rate		Designated Areas
	Where a development comprises more than one development type, then the overall car parking rate will be taken to be the sum of the car parking rates for each development type.		
	Minimum number of spaces	Maximum number of spaces	
Non-residential development			
Non-residential development excluding tourist accommodation	3 spaces per 100m ² of gross leasable floor area.	5 spaces per 100m ² of gross leasable floor area.	<p>City Living Zone</p> <p>Urban Corridor (Boulevard) Zone</p> <p>Urban Corridor (Business) Zone</p> <p>Urban Corridor (Living) Zone</p> <p>Urban Corridor (Main Street) Zone</p> <p>Urban Neighbourhood Zone (except for Bowden)</p>

Table 3 - Off-Street Bicycle Parking Requirements

Class of Development	Bicycle Parking Rate	
Office	Where a development comprises more than one development type, then the overall bicycle parking rate will be taken to be the sum of the bicycle parking rates for each development type.	
Schedule to Table 3	Designated Area	Relevant part of the State The bicycle parking rate applies to a designated area located in a relevant part of the State described below.
	All zones	City of Adelaide
	Business Neighbourhood Zone Strategic Innovation Zone Suburban Activity Centre Zone Suburban Business Zone Suburban Main Street Zone Urban Activity Centre Zone Urban Corridor (Boulevard) Zone Urban Corridor (Business) Zone Urban Corridor (Living) Zone Urban Corridor (Main Street) Zone Urban Neighbourhood Zone	Metropolitan Adelaide

Address: 108-112A FRANKLIN ST ADELAIDE SA 5000

To view a detailed interactive property map in SAPPa click on the map below



Property Zoning Details

Zone

Capital City

Overlay

- Airport Building Heights (Regulated) (*All structures over 80 metres AHD*)
- Affordable Housing
- Building Near Airfields
- Design
- Heritage Adjacency
- Hazards (Flooding - Evidence Required)
- Noise and Air Emissions
- Prescribed Wells Area
- Regulated and Significant Tree

Local Variation (TNV)

- Maximum Building Height (Metres) (*Maximum building height is 53m*)
- Concept Plan (*Concept Plan 79 - Primary Pedestrian Area*)

Selected Development(s)

Residential flat building

This development may be subject to multiple assessment pathways. Please review the document below to determine which pathway may be applicable based on the proposed development compliances to standards.

If no assessment pathway is shown this mean the proposed development will default to performance assessed. Please contact your local council in this instance. Refer to Part 1 - Rules of Interpretation - Determination of Classes of Development

[Residential flat building - Code Assessed - Performance Assessed](#)

Part 2 - Zones and Sub Zones

Capital City Zone

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	A zone that is the economic and cultural focus of the state supporting a range of residential, employment, community, educational, innovation, recreational, tourism and entertainment facilities generating opportunities for population and employment growth.
DO 2	High intensity and large- scale development with high street walls reinforcing the distinctive grid pattern layout of the city with active non-residential ground level uses to positively contribute to public safety, inclusivity and vibrancy. Design quality of buildings and public spaces is a priority in this zone.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land Use	
PO 1.1 A vibrant mix of residential, retail, community, commercial and professional services, civic and cultural, health, educational, recreational, tourism and entertainment facilities.	DTS/DPF 1.1 The following types of development, or combinations thereof, are envisaged: (a) Advertisement (b) Child care facility (c) Consulting Room (d) Dwelling (e) Educational facility (f) Hospital (g) Hotel (h) Licensed Premises (i) Library (j) Office (k) Supported Accommodation (l) Residential Flat Building (m) Shop (n) Student Accommodation (o) Tourist accommodation.
Activation	
PO 2.1 Non-residential land uses at ground floor level such as shops and restaurants support and maximise pedestrian activity to provide visual interest and positively contribute to public safety, walkability and vibrancy.	DTS/DPF 2.1 None are applicable.
PO 2.2 Development: (a) contributes to the activation of the public realm by presenting an attractive human scaled pedestrian-oriented frontage at ground level that adds interest and vibrancy; (b) maintains a sense of openness to the sky for pedestrians and allow sunlight access to the public realm; (c) provides a clear sense of address to each building.	DTS/DPF 2.2 None are applicable.
Built form and Character	
PO 3.1 A contextual design response that manages differences in scale and building proportions to maintain a cohesive streetscape and frame city streets.	DTS/DPF 3.1 None are applicable
PO 3.2	DTS/DPF 3.2

<p>Buildings:</p> <ul style="list-style-type: none"> (a) are designed to reinforce the prevailing datum heights and parapet levels of the street through design elements that provide a clear distinction between levels above and below the prevailing datum line; (b) where located in an existing low-rise context, are designed to include a podium/street wall height and upper level setback that: <ul style="list-style-type: none"> (i) relates to the scale and context of adjoining built form; (ii) provides a human scale at street level; (iii) creates a well-defined and continuity of frontage; (iv) gives emphasis and definition to street corners to clearly define the street grid; and (v) contributes to the interest, vitality and security of the pedestrian environment. 	None are applicable.
<p>PO 3.3</p> <p>Building façades are strongly modelled, incorporate a vertical composition which reflects the proportions of existing frontages, and ensure that architectural detailing is consistent around corners and along minor streets and laneways.</p>	<p>DTS/DPF 3.3</p> <p>None are applicable</p>
<p>PO 3.4</p> <p>Development along The Terraces (North, East, South and West) is designed to positively contribute to a continuous built form to frame the Park Lands and city edge.</p>	<p>DTS/DPF 3.4</p> <p>None are applicable.</p>
<p>PO 3.5</p> <p>Development along the city's boulevards (as identified in Capital City Zone Table 5.1):</p> <ul style="list-style-type: none"> (a) built to the street boundary at lower levels to reinforce the City's grid layout and frame the boulevard (b) designed to provide a sense of arrival into the City and strongly define junctions where located on a corner site. 	<p>DTS/DPF 3.5</p> <p>None are applicable.</p>
<p>PO 3.6</p> <p>Development avoids activities that result in a gap in the built form along a public road or thoroughfare (such as an open lot car park) for an extended period of time to minimise negative impacts on streetscape continuity.</p>	<p>DTS/DPF 3.6</p> <p>None are applicable.</p>
<p>PO 3.7</p> <p>Development along the city's boulevards (as identified in Capital City Zone Table 5.1) is designed to maximise views to the Park Lands and not clutter existing view corridors to the Adelaide Hills when viewed from the public realm.</p>	<p>DTS/DPF 3.7</p> <p>None are applicable.</p>
<p>PO 3.8</p> <p>Development fronting Victoria, Hindmarsh, Whitmore, Hurtle and Light Squares is designed to provide a comfortable pedestrian and recreation environment by enabling direct sunlight to a majority of the Square.</p>	<p>DTS/DPF 3.8</p> <p>Development enables direct sunlight to a minimum of 75% of the landscaped part of each Square at the September equinox.</p>
<p>PO 3.9</p> <p>Development fronting Victoria, Hindmarsh, Whitmore, Hurtle and Light Squares is designed to reinforce the enclosure of the Squares with a continuous built-form with no upper level setbacks.</p>	<p>DTS/DPF 3.9</p> <p>None are applicable.</p>
<p>PO 3.10</p> <p>Provision of outdoor eating and drinking facilities associated with cafes</p>	<p>DTS/DPF 3.10</p> <p>None are applicable.</p>

<p>and restaurants fronting Victoria, Hindmarsh, Whitmore, Hurtle and Light Squares positively contributes to activity and creates a focus for leisure in the Squares.</p>			
<p>PO 3.11 Development along minor streets and laneways is informed by its local context to maintain the prevailing built form pattern and structure, and designed to provide a sense of enclosure, and enable fine-grain uses at street level to create an intimate, active, inclusive and walkable public realm.</p>	<p>DTS/DPF 3.11 None are applicable.</p>		
<p>PO 3.12 Buildings north of the City Main Street Zone are designed to enable natural sunlight access to the southern footpath of the main street.</p>	<p>DTS/DPF 3.12 Buildings north of the City Main Street Zone that cast a shadow on the southern footpath of the main street incorporate narrow and setback tower elements and provide spaces between buildings.</p>		
<p>PO 3.13 Buildings are adaptable and flexible to accommodate a range of land uses.</p>	<p>DTS/DPF 3.13 The ground floor of buildings has a minimum floor to ceiling height of 3.5m.</p>		
<p>Building Height</p>			
<p>PO 4.1 Building height is consistent with the form expressed in any relevant <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> or positively responds to the local context and achieves the desired outcomes of the Zone.</p>	<p>DTS/DPF 4.1 Development does not exceed the following building heights:</p> <table border="1" data-bbox="831 898 1522 965" style="margin-left: 20px;"> <thead> <tr> <th style="text-align: center;">Maximum Building Height (Metres)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Maximum building height is 53m</td> </tr> </tbody> </table> <p>In relation to DTS/DPF 4.1, in instances where:</p> <ul style="list-style-type: none"> (a) more than one value is returned in the same field, refer to the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> or <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> in the SA planning database to determine the applicable value relevant to the site of the proposed development (b) only one value is returned (i.e. there is one blank field), then the relevant height in metres or building levels applies with no criteria for the other (c) no value is returned (i.e. there are blank fields for both maximum building height (metres) and maximum building height (levels), then none are applicable and the relevant development cannot be classified as deemed-to-satisfy. 	Maximum Building Height (Metres)	Maximum building height is 53m
Maximum Building Height (Metres)			
Maximum building height is 53m			
<p>PO 4.2 Development exceeding the building height specified in the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and the <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> is generally not contemplated unless:</p> <ul style="list-style-type: none"> (a) the development provides for the retention, conservation and reuse of a building that: <ul style="list-style-type: none"> (i) is a State or local heritage place and the heritage values of the place will be maintained (ii) provides a notable positive contribution to the character of the local area or (b) the building incorporates measures that provide for a substantial additional gain in sustainability and it demonstrates at least four of the following are met: 	<p>DTS/DPF 4.2 None are applicable.</p>		

<ul style="list-style-type: none"> (i) the development provides an orderly transition up to an existing taller building or prescribed maximum height in an adjacent Zone or building height area on the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> (ii) incorporates high quality open space that is universally accessible and directly connected to, and well integrated with, public realm areas of the street (iii) Incorporates high quality, safe and secure, universally accessible pedestrian linkages that connect through the development site to the surrounding pedestrian network (iv) provides higher amenity through provision of private open space in excess of minimum requirements by 25 percent for at least 50 percent of dwellings (v) no on site car parking is provided (vi) at least 75% of the ground floor street fronts of the building are active frontages (vii) the building has frontage to a public road that abuts the Adelaide Park Lands; (viii) where the development includes housing, at least 15% of the dwellings are affordable housing (ix) the impact on adjacent properties is no greater than a building of the maximum height on the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> in relation to sunlight access and overlooking. 	
<p>PO 4.3 Buildings designed to achieve optimal height and floor space yields.</p>	<p>DTS/DPF 4.3 New development has a minimum building height of:</p> <ul style="list-style-type: none"> (a) not less than half of the maximum building height specified in DTS/DPF 4.1, or 8 building levels (with a minimum of 28m) in instances where 'No prescribed height limit' is specified in DTS/DPF 4.1; or (b) within the City Frame Subzone: 3 building levels (with a minimum of 11.5m), or 4 building levels (with a minimum of 15m) on sites fronting South Terrace <p>other than where:</p> <ul style="list-style-type: none"> (a) a lower building height is necessary to achieve compliance with the Commonwealth Airports (Protection of Airspace) Regulations (b) the site of the development adjoins the City Living Zone and a lesser building height is required to positively manage the interface with low-rise residential development (c) the site of the development adjoins a heritage place, or contains a heritage place or (d) the development includes the construction of a building in the same, or substantially the same, position as a building which was demolished, as a result of significant damage caused by an event within the previous three years where the new building has the same, or substantially the same, layout and external appearance as the previous building.
<p>Interface</p>	
<p>PO 5.1 Development is designed to manage the interface with residential uses in the City Living Zone:</p>	<p>DTS/DPF 5.1 None are applicable.</p>

<p>(a) in relation to building proportions, massing, and overshadowing; and</p> <p>(b) by avoiding land uses, or intensity of land uses, that unduly impact residential amenity (including licensed premises).</p>	
<p>PO 5.2</p> <p>Parts of a development exceed the maximum building height specified in DTS/DPF 4.1 and adjoin the City Living Zone boundaries are designed to minimise negative visual and amenity impacts to residential living areas and outdoor open space.</p>	<p>DTS/DPF 5.2</p> <p>Parts of a building above the maximum building height specified in DTS/DPF 4.1 include additional setbacks, avoid tall sheer walls, centrally locate taller elements, and provide variation of light and shadow through articulation.</p>
<p>Movement</p>	
<p>PO 6.1</p> <p>Access to, and movement within, the Capital City Zone to be universally accessible, easy, safe, comfortable, convenient and legible for people of all abilities, with priority given to pedestrians and cyclists.</p>	<p>DTS/DPF 6.1</p> <p>None are applicable.</p>
<p>Access</p>	
<p>PO 7.1</p> <p>Vehicular access points are associated with multi-level and/or non-ancillary car parks located to minimise disruption to traffic flow.</p>	<p>DTS/DPF 7.1</p> <p>Vehicular access points associated with multi-level and/or non-ancillary car parks are located on a secondary road frontage, or utilise an existing crossover.</p>
<p>PO 7.2</p> <p>Development designed so that vehicle access points for parking, servicing or deliveries, and pedestrian access to a site, are located to minimise interrupting the operation of and queuing on public roads and pedestrian paths.</p>	<p>DTS/DPF 7.2</p> <p>None are applicable.</p>
<p>Public Realm</p>	
<p>PO 10.1</p> <p>Development in the public realm where it:</p> <ul style="list-style-type: none"> (a) does not present a safety risk to pedestrians or other users of the public road (b) does not interrupt pedestrian movement (c) does not interfere with existing infrastructure or services on the street (d) positively contributes to the vibrancy of the area (e) is consistent with the outcomes of the zone. 	<p>DTS/DPF 10.1</p> <p>None are applicable.</p>

Table 5 - Procedural Matters (PM) - Notification

The following table identifies, pursuant to section 107(6) of the *Planning, Development and Infrastructure Act 2016*, classes of performance assessed development that are excluded from notification. The table also identifies any exemptions to the placement of notices when notification is required.

Interpretation

Notification tables exclude the classes of development listed in Column A from notification provided that they do not fall within a corresponding exclusion prescribed in Column B.

Where a development or an element of a development falls within more than one class of development listed in Column A, it will be excluded from notification if it is excluded (in its entirety) under any of those classes of development. It need not be excluded under all applicable classes of development.

Where a development involves multiple performance assessed elements, all performance assessed elements will require notification (regardless of whether one or more elements are excluded in the applicable notification table) unless every performance assessed element of the application is excluded in the applicable notification table, in which case the application will not require notification.

A relevant authority may determine that a variation to 1 or more corresponding exclusions prescribed in Column B is minor in nature and does not require notification.

Class of Development (Column A)	Exceptions (Column B)
1. Development which, in the opinion of the relevant authority, is of a minor nature only and will not unreasonably impact on the owners or occupiers of land in the locality of the site of the development.	None specified.
2. Any kind of development where the site of the development is not adjacent land to a site (or land) used for residential purposes in a neighbourhood-type zone.	Except any of the following: <ol style="list-style-type: none"> 1. the demolition (or partial demolition) of a State or Local Heritage Place (other than an excluded building) 2. the demolition (or partial demolition) of a building in a Historic Area Overlay (other than an excluded building).
3. Any development involving any of the following (or of any combination of any of the following): <ol style="list-style-type: none"> (a) advertisement (b) child care facility (c) consulting room (d) dwelling (e) office (f) residential flat building (g) shop (h) student accommodation (i) temporary public service depot. 	Except development that exceeds the maximum building height specified in Capital City Zone DTS/DPF 4.1.
4. Any development involving any of the following (or of any combination of any of the following): <ol style="list-style-type: none"> (a) air handling unit, air conditioning system or exhaust fan (b) carport (c) deck (d) fence (e) internal building works (f) land division (g) outbuilding (h) pergola (i) private bushfire shelter (j) retaining wall (k) shade sail (l) solar photovoltaic panels (roof mounted) (m) swimming pool or spa pool and associated swimming pool safety features (n) tree damaging activity (o) verandah (p) water tank. 	None specified.
5. Demolition.	Except any of the following: <ol style="list-style-type: none"> 1. the demolition (or partial demolition) of a State or Local Heritage Place (other than an excluded building) 2. the demolition (or partial demolition) of a building in a Historic Area Overlay (other than an excluded building).
6. Railway line.	Except where located outside of a rail corridor or rail reserve.
Placement of Notices - Exemptions for Performance Assessed Development	
None specified.	

Class of Development (Column A)	Exceptions (Column B)
Placement of Notices - Exemptions for Restricted Development	
None specified.	

Part 3 - Overlays

Affordable Housing Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Affordable housing is integrated with residential and mixed use development.
DO 2	Affordable housing caters for a variety of household structures.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land Division	
PO 1.1 Development comprising 20 or more dwellings / allotments incorporates affordable housing.	DTS/DPF 1.1 Development results in 0-19 additional allotments / dwellings.
PO 1.2 Development comprising 20 or more dwellings or residential allotments provides housing suited to a range of incomes including households with low to moderate incomes.	DTS/DPF 1.2 Development comprising 20 or more dwellings / or residential allotments includes a minimum of 15% affordable housing except where: (a) it can be demonstrated that any shortfall in affordable housing has been provided in a previous stage of development or (b) it can be demonstrated that any shortfall in affordable housing will be accommodated in a subsequent stage or stages of development.
PO 1.3 Affordable housing is distributed throughout the development to avoid an overconcentration.	DTS/DPF 1.3 None are applicable.
Built Form and Character	
PO 2.1 Affordable housing is designed to complement the design and character of residential development within the locality.	DTS/DPF 2.1 None are applicable.
Affordable Housing Incentives	
PO 3.1	DTS/DPF 3.1

<p>To support the provision of affordable housing, minimum allotment sizes may be reduced below the minimum allotment size specified in a zone while providing allotments of a suitable size and dimension to accommodate dwellings with a high standard of occupant amenity.</p>	<p>The minimum site area specified for a dwelling can be reduced by up to 20%, or the maximum density per hectare increased by up to 20%, where it is to be used to accommodate affordable housing except where the development is located within the Character Area Overlay or Historic Area Overlay.</p>
<p>PO 3.2 To support the provision of affordable housing, building heights may be increased above the maximum specified in a zone.</p>	<p>DTS/DPF 3.2 Where a building incorporates dwellings above ground level and includes at least 15% affordable housing, the maximum building height specified in any relevant zone policy can be increased by 1 building level in the:</p> <ul style="list-style-type: none"> (a) Business Neighbourhood Zone (b) City Living Zone (c) Established Neighbourhood Zone (d) General Neighbourhood Zone (e) Hills Neighbourhood Zone (f) Housing Diversity Neighbourhood Zone (g) Neighbourhood Zone (h) Master Planned Neighbourhood Zone (i) Master Planned Renewal Zone (j) Master Planned Township Zone (k) Rural Neighbourhood Zone (l) Suburban Business Zone (m) Suburban Neighbourhood Zone (n) Township Neighbourhood Zone (o) Township Zone (p) Urban Renewal Neighbourhood Zone (q) Waterfront Neighbourhood Zone <p>and up to 30% in any other zone, except where:</p> <ul style="list-style-type: none"> (a) the development is located within the Character Area Overlay or Historic Area Overlay or (b) other height incentives already apply to the development.
<p>Movement and Car Parking</p>	
<p>PO 4.1 Sufficient car parking is provided to meet the needs of occupants of affordable housing.</p>	<p>DTS/DPF 4.1 Dwellings constituting affordable housing are provided with car parking in accordance with the following:</p> <ul style="list-style-type: none"> (a) 0.3 carpark per dwelling within a building which incorporates dwellings located above ground level within either: <ul style="list-style-type: none"> (i) 200 metres of any section of road reserve along which a bus service operates as a high frequency public transit service⁽²⁾ (ii) is within 400 metres of a bus interchange⁽¹⁾ (iii) is within 400 metres of an O-Bahn interchange⁽¹⁾ (iv) is within 400 metres of a passenger rail station⁽¹⁾ (v) is within 400 metres of a passenger tram station⁽¹⁾ (vi) is within 400 metres of the Adelaide Parklands. <p>or</p> <ul style="list-style-type: none"> (b) 1 carpark per dwelling for any other dwelling.

	[NOTE(S): (1) Measured from an area that contains any platform(s), shelter(s) or stop(s) where people congregate for the purpose waiting to board a bus, tram or train, but does not include areas used for the parking of vehicles. (2) A high frequency public transit service is a route serviced every 15 minutes between 7.30am and 6.30pm Monday to Friday and every 30 minutes at night, Saturday, Sunday and public holidays until 10pm.]
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Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral Statutory Reference	
Except where the applicant for the development is the South Australian Housing Authority (or an agent acting on behalf of the South Australian Housing Authority), residential development or land division (other than an excluded land division): <ul style="list-style-type: none"> (a) that comprises 20 or more dwellings or residential allotments and is described in the application documentation as intending to provide affordable housing or (b) that is described in the application documentation as intending to provide affordable housing and the applicant is seeking to access one or more of the planning concessions outlined in the Affordable Housing Overlay DTS/DPF 3.1, 3.2 or 4.1 or (c) that is described in the application documentation as intending to include affordable housing of any number of dwellings or residential allotments 	Minister responsible for administering the <i>South Australian Housing Trust Act 1995</i> .	To provide direction on the conditions required to secure the provision of dwellings or allotments for affordable housing.	Development of a class to which Schedule 9 clause 3 item 20 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

Airport Building Heights (Regulated) Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Management of potential impacts of buildings and generated emissions to maintain operational and safety requirements of registered and certified commercial and military airfields, airports, airstrips and helicopter landing sites.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Built Form	
PO 1.1 Building height does not pose a hazard to the operation of a certified or registered aerodrome.	DTS/DPF 1.1 Buildings are located outside the area identified as 'All structures' (no height limit is prescribed) and do not exceed the height specified in the Airport Building Heights (Regulated) Overlay which applies to the subject site as shown on the SA Property and Planning Atlas. In instances where more than one value applies to the site, the lowest value relevant to the site of the proposed development is applicable.

PO 1.2 Exhaust stacks are designed and sited to minimise plume impacts on aircraft movements associated with a certified or registered aerodrome.	DTS/DPF 1.2 Development does not include exhaust stacks.
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Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
Any of the following classes of development: (a) building located in an area identified as 'All structures' (no height limit is prescribed) or will exceed the height specified in the <i>Airport Building Heights (Regulated) Overlay</i> (b) building comprising exhaust stacks that generates plumes, or may cause plumes to be generated, above a height specified in the <i>Airport Building Heights (Regulated) Overlay</i> .	The airport-operator company for the relevant airport within the meaning of the <i>Airports Act 1996</i> of the Commonwealth or, if there is no airport-operator company, the Secretary of the Minister responsible for the administration of the <i>Airports Act 1996</i> of the Commonwealth.	To provide expert assessment and direction to the relevant authority on potential impacts on the safety and operation of aviation activities.	Development of a class to which Schedule 9 clause 3 item 1 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

Building Near Airfields Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Maintain the operational and safety requirements of certified commercial and military airfields, airports, airstrips and helicopter landing sites through management of non-residential lighting, turbulence and activities that may attract or result in the congregation of wildlife.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.3 Buildings are adequately separated from runways and other take-off and landing facilities within certified or registered aerodromes to minimise the potential for building-generated turbulence and windshear that may pose a safety hazard to aircraft flight movement.	DTS/DPF 1.3 The distance from any part of a runway centreline to the closest point of the building is not less than 35 times the building height.

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

Design Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development positively contributes to the liveability, durability and sustainability of the built environment through high-quality design.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
General	
PO 1.1 Medium to high rise buildings and state significant development demonstrate high quality design.	DTS/DPF 1.1 None are applicable.

Procedural Matters (PM)

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
<p>Except where the development comprises a variation to an application that has either been:</p> <ul style="list-style-type: none"> (a) previously referred to the Government Architect or Associate Government Architect or (b) given development authorisation under the <i>Planning, Development and Infrastructure Act 2016</i> or <i>Development Act 1993</i> and (c) the variation to that application is, in the opinion of the relevant authority, minor in nature or would not warrant a referral when considering the purpose of the referral <p>any of the following classes of development:</p> <ul style="list-style-type: none"> (a) development within the area of the overlay located within the Corporation of the City of Adelaide where the total amount to be applied to any work, when all stages of the development are completed, exceeds \$10,000,000 (b) development within the area of the overlay located within the City of Port Adelaide Enfield where the total amount to be applied to any work, when all stages of the development are completed, exceeds \$3 000 000 (c) development within all other areas of the overlay that involves the erection or construction of a building that exceeds 4 building levels. 	Government Architect or Associate Government Architect	<p>To provide expert design advice to the relevant authority on how the development:</p> <ul style="list-style-type: none"> (a) responds to its surrounding context and contributes to the quality and character of a place (b) contributes to inclusiveness, connectivity, and universal design of the built environment (c) enables buildings and places that are fit for purpose, adaptable and long-lasting (d) adds value by positively contributing to places and communities (e) optimises performance and public benefit (f) supports sustainable and environmentally responsible development. 	Development of a class to which Schedule 9 clause 3 item 22 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

Hazards (Flooding - Evidence Required) Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development adopts a precautionary approach to mitigate potential impacts on people, property, infrastructure and the environment from potential flood risk through the appropriate siting and design of development.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Flood Resilience	
PO 1.1 Development is sited, designed and constructed to minimise the risk of entry of potential floodwaters where the entry of flood waters is likely to result in undue damage to or compromise ongoing activities within buildings.	DTS/DPF 1.1 Habitable buildings, commercial and industrial buildings, and buildings used for animal keeping incorporate a finished floor level at least 300mm above: <ul style="list-style-type: none"> (a) the highest point of top of kerb of the primary street or (b) the highest point of natural ground level at the primary street boundary where there is no kerb

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

Heritage Adjacency Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development adjacent to State and Local Heritage Places maintains the heritage and cultural values of those Places.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Built Form	
PO 1.1 Development adjacent to a State or Local Heritage Place does not dominate, encroach on or unduly impact on the setting of the Place.	DTS/DPF 1.1 None are applicable.

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
Development which in the opinion of the relevant authority materially affects the context within which the State Heritage Place is situated.	Minister responsible for the administration of the <i>Heritage Places Act 1993</i> .	To provide expert assessment and direction to the relevant authority on the potential impacts of development adjacent State Heritage Places.	Development of a class to which Schedule 9 clause 3 item 17 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

Noise and Air Emissions Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Community health and amenity is protected from adverse impacts of noise and air emissions.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Siting and Design	
<p>PO 1.1</p> <p>Sensitive receivers adjoining high noise and/or air pollution sources are designed and sited to shield sensitive receivers from the emission source using measures such as:</p> <ul style="list-style-type: none"> (a) placing buildings containing non-sensitive receivers (such as retail and commercial) between the emission source and sensitive receivers (b) within individual buildings, placing rooms more sensitive to air quality and noise impacts (such as living rooms and bedrooms) further away from the emission source (c) providing appropriate separation or erecting noise attenuation barriers, provided the requirements for safety, urban design and access can be met (d) the use of building design elements such as podiums and jutting, deep or enclosed balconies (including with solid balustrades). 	<p>DTS/DPF 1.1</p> <p>Sensitive receivers satisfy all of the following:</p> <ul style="list-style-type: none"> (a) do not adjoin a: <ul style="list-style-type: none"> (i) Designated Road: Type A (ii) Designated Road Corridor: Type B (iii) Designated Road: Type R (iv) Train Corridor (v) Tram Corridor (b) adjoining development incorporating music includes noise attenuation measures to achieve a noise level in any bedroom exposed to music noise (L10) less than: <ul style="list-style-type: none"> (i) 8 dB above the level of background noise (L90,15 min) in any octave band of the sound spectrum; and (ii) 5 dB(A) above the level of background noise (LA90,15 min) for the overall (sum of all octave bands) A-weighted levels.
<p>PO 1.2</p> <p>Development incorporating a sensitive receiver adjoining high air pollution sources use building design elements such as varying building heights, widths, articulation, setbacks and shapes to increase wind turbulence and the dispersion of air pollutants.</p>	<p>DTS/DPF 1.2</p> <p>Sensitive receivers do not adjoin any of the following:</p> <ul style="list-style-type: none"> (a) Designated Road: Type A (b) Designated Road: Type B (c) Designated Road: Type R (d) Train Corridor

	(e) Tram Corridor.
PO 1.3 Development incorporating a sensitive receiver adjoining high noise and/or air pollution sources locates private open space (including ground level courtyards and balconies), common open space and outdoor play areas within educational facilities and child care facilities away from the emission source.	DTS/DPF 1.3 Open space associated with a sensitive receiver is not adjoining any of the following: (a) Designated Road: Type A (b) Designated Road: Type B (c) Designated Road: Type R (d) Train Corridor (e) Tram Corridor (f) Development incorporating music.

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

Part 4 - General Development Policies

Clearance from Overhead Powerlines

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Protection of human health and safety when undertaking development in the vicinity of overhead transmission powerlines.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.1 Buildings are adequately separated from aboveground powerlines to minimise potential hazard to people and property.	DTS/DPF 1.1 One of the following is satisfied: (a) a declaration is provided by or on behalf of the applicant to the effect that the proposal would not be contrary to the regulations prescribed for the purposes of section 86 of the <i>Electricity Act 1996</i> (b) there are no aboveground powerlines adjoining the site that are the subject of the proposed development.

Design in Urban Areas

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	<p>Development is:</p> <ul style="list-style-type: none"> (a) contextual - by considering, recognising and carefully responding to its natural surroundings or built environment and positively contributing to the character of the locality (b) durable - fit for purpose, adaptable and long lasting (c) inclusive - by integrating landscape design to optimise pedestrian and cyclist usability, privacy and equitable access and promoting the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimise security and safety both internally and within the public realm, for occupants and visitors (d) sustainable - by integrating sustainable techniques into the design and siting of development and landscaping to improve community health, urban heat, water management, environmental performance, biodiversity and local amenity and to minimise energy consumption.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
All Development	
External Appearance	
PO 1.1 Buildings reinforce corners through changes in setback, articulation, materials, colour and massing (including height, width, bulk, roof form and slope).	DTS/DPF 1.1 None are applicable.
PO 1.2 Where zero or minor setbacks are desirable, development provides shelter over footpaths (in the form of verandahs, awnings, canopies and the like, with adequate lighting) to positively contribute to the walkability, comfort and safety of the public realm.	DTS/DPF 1.2 None are applicable.
PO 1.3 Building elevations facing the primary street (other than ancillary buildings) are designed and detailed to convey purpose, identify main access points and complement the streetscape.	DTS/DPF 1.3 None are applicable.
PO 1.4 Plant, exhaust and intake vents and other technical equipment are integrated into the building design to minimise visibility from the public realm and negative impacts on residential amenity by: <ul style="list-style-type: none"> (a) positioning plant and equipment discretely, in unobtrusive locations as viewed from public roads and spaces (b) screening rooftop plant and equipment from view (c) when located on the roof of non-residential development, locating the plant and equipment as far as practicable from adjacent sensitive land uses. 	DTS/DPF 1.4 Development does not incorporate any structures that protrude beyond the roofline.
PO 1.5 The negative visual impact of outdoor storage, waste management, loading and service areas is minimised by integrating them into the building design and screening them from public view (such as fencing, landscaping and built form), taking into account the form of development contemplated in the relevant zone.	DTS/DPF 1.5 None are applicable.
Safety	
PO 2.1 Development maximises opportunities for passive surveillance of the public realm by providing clear lines of sight, appropriate lighting and the use of visually permeable screening wherever practicable.	DTS/DPF 2.1 None are applicable.

PO 2.2 Development is designed to differentiate public, communal and private areas.	DTS/DPF 2.2 None are applicable.
PO 2.3 Buildings are designed with safe, perceptible and direct access from public street frontages and vehicle parking areas.	DTS/DPF 2.3 None are applicable.
PO 2.4 Development at street level is designed to maximise opportunities for passive surveillance of the adjacent public realm.	DTS/DPF 2.4 None are applicable.
PO 2.5 Common areas and entry points of buildings (such as the foyer areas of residential buildings) and non-residential land uses at street level, maximise passive surveillance from the public realm to the inside of the building at night.	DTS/DPF 2.5 None are applicable.
Landscaping	
PO 3.1 Soft landscaping and tree planting are incorporated to: (a) minimise heat absorption and reflection (b) maximise shade and shelter (c) maximise stormwater infiltration (d) enhance the appearance of land and streetscapes.	DTS/DPF 3.1 None are applicable.
Environmental Performance	
PO 4.1 Buildings are sited, oriented and designed to maximise natural sunlight access and ventilation to main activity areas, habitable rooms, common areas and open spaces.	DTS/DPF 4.1 None are applicable.
PO 4.2 Buildings are sited and designed to maximise passive environmental performance and minimise energy consumption and reliance on mechanical systems, such as heating and cooling.	DTS/DPF 4.2 None are applicable.
PO 4.3 Buildings incorporate climate responsive techniques and features such as building and window orientation, use of eaves, verandahs and shading structures, water harvesting, at ground landscaping, green walls, green roofs and photovoltaic cells.	DTS/DPF 4.3 None are applicable.
On-site Waste Treatment Systems	
PO 6.1 Dedicated on-site effluent disposal areas do not include any areas to be used for, or could be reasonably foreseen to be used for, private open space, driveways or car parking.	DTS/DPF 6.1 Effluent disposal drainage areas do not: (a) encroach within an area used as private open space or result in less private open space than that specified in Design in Urban Areas Table 1 - Private Open Space (b) use an area also used as a driveway (c) encroach within an area used for on-site car parking or result in less on-site car parking than that specified in Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas.
Car parking appearance	

<p>PO 7.1</p> <p>Development facing the street is designed to minimise the negative impacts of any semi-basement and undercroft car parking on streetscapes through techniques such as:</p> <ul style="list-style-type: none"> (a) limiting protrusion above finished ground level (b) screening through appropriate planting, fencing and mounding (c) limiting the width of openings and integrating them into the building structure. 	<p>DTS/DPF 7.1</p> <p>None are applicable.</p>
<p>PO 7.2</p> <p>Vehicle parking areas appropriately located, designed and constructed to minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced and the like.</p>	<p>DTS/DPF 7.2</p> <p>None are applicable.</p>
<p>PO 7.3</p> <p>Safe, legible, direct and accessible pedestrian connections are provided between parking areas and the development.</p>	<p>DTS/DPF 7.3</p> <p>None are applicable.</p>
<p>PO 7.4</p> <p>Street-level vehicle parking areas incorporate tree planting to provide shade, reduce solar heat absorption and reflection.</p>	<p>DTS/DPF 7.4</p> <p>Vehicle parking areas that are open to the sky and comprise 10 or more car parking spaces include a shade tree with a mature canopy of 4m diameter spaced for each 10 car parking spaces provided and a landscaped strip on any road frontage of a minimum dimension of 1m.</p>
<p>PO 7.5</p> <p>Street level parking areas incorporate soft landscaping to improve visual appearance when viewed from within the site and from public places.</p>	<p>DTS/DPF 7.5</p> <p>Vehicle parking areas comprising 10 or more car parking spaces include soft landscaping with a minimum dimension of:</p> <ul style="list-style-type: none"> (a) 1m along all public road frontages and allotment boundaries (b) 1m between double rows of car parking spaces.
<p>PO 7.6</p> <p>Vehicle parking areas and associated driveways are landscaped to provide shade and positively contribute to amenity.</p>	<p>DTS/DPF 7.6</p> <p>None are applicable.</p>
<p>PO 7.7</p> <p>Vehicle parking areas and access ways incorporate integrated stormwater management techniques such as permeable or porous surfaces, infiltration systems, drainage swales or rain gardens that integrate with soft landscaping.</p>	<p>DTS/DPF 7.7</p> <p>None are applicable.</p>
Earthworks and sloping land	
<p>PO 8.1</p> <p>Development, including any associated driveways and access tracks, minimises the need for earthworks to limit disturbance to natural topography.</p>	<p>DTS/DPF 8.1</p> <p>Development does not involve any of the following:</p> <ul style="list-style-type: none"> (a) excavation exceeding a vertical height of 1m (b) filling exceeding a vertical height of 1m (c) a total combined excavation and filling vertical height of 2m or more.
<p>PO 8.2</p> <p>Driveways and access tracks designed and constructed to allow safe and convenient access on sloping land.</p>	<p>DTS/DPF 8.2</p> <p>Driveways and access tracks on sloping land (with a gradient exceeding 1 in 8) satisfy (a) and (b):</p> <ul style="list-style-type: none"> (a) do not have a gradient exceeding 25% (1-in-4) at any point along the driveway (b) are constructed with an all-weather trafficable surface.
<p>PO 8.3</p>	<p>DTS/DPF 8.3</p>

<p>Driveways and access tracks on sloping land (with a gradient exceeding 1 in 8):</p> <ul style="list-style-type: none"> (a) do not contribute to the instability of embankments and cuttings (b) provide level transition areas for the safe movement of people and goods to and from the development (c) are designed to integrate with the natural topography of the land. 	None are applicable.
<p>PO 8.4 Development on sloping land (with a gradient exceeding 1 in 8) avoids the alteration of natural drainage lines and includes on site drainage systems to minimise erosion.</p>	<p>DTS/DPF 8.4 None are applicable.</p>
<p>PO 8.5 Development does not occur on land at risk of landslip or increase the potential for landslip or land surface instability.</p>	<p>DTS/DPF 8.5 None are applicable.</p>
Overlooking / Visual Privacy (low rise buildings)	
<p>PO 10.1 Development mitigates direct overlooking from upper level windows to habitable rooms and private open spaces of adjoining residential uses in neighbourhood-type zones.</p>	<p>DTS/DPF 10.1 Upper level windows facing side or rear boundaries shared with a residential use in a neighbourhood-type zone:</p> <ul style="list-style-type: none"> (a) are permanently obscured to a height of 1.5m above finished floor level and are fixed or not capable of being opened more than 125mm (b) have sill heights greater than or equal to 1.5m above finished floor level (c) incorporate screening with a maximum of 25% openings, permanently fixed no more than 500mm from the window surface and sited adjacent to any part of the window less than 1.5 m above the finished floor level.
<p>PO 10.2 Development mitigates direct overlooking from balconies to habitable rooms and private open space of adjoining residential uses in neighbourhood type zones.</p>	<p>DTS/DPF 10.2 One of the following is satisfied:</p> <ul style="list-style-type: none"> (a) the longest side of the balcony or terrace will face a public road, public road reserve or public reserve that is at least 15m wide in all places faced by the balcony or terrace or (b) all sides of balconies or terraces on upper building levels are permanently obscured by screening with a maximum 25% transparency/openings fixed to a minimum height of: <ul style="list-style-type: none"> (i) 1.5m above finished floor level where the balcony is located at least 15 metres from the nearest habitable window of a dwelling on adjacent land or (ii) 1.7m above finished floor level in all other cases
Site Facilities / Waste Storage (excluding low rise residential development)	
<p>PO 11.1 Development provides a dedicated area for on-site collection and sorting of recyclable materials and refuse, green organic waste and wash bay facilities for the ongoing maintenance of bins that is adequate in size considering the number and nature of the activities they will serve and the frequency of collection.</p>	<p>DTS/DPF 11.1 None are applicable.</p>
<p>PO 11.2 Communal waste storage and collection areas are located, enclosed and designed to be screened from view from the public domain, open space and dwellings.</p>	<p>DTS/DPF 11.2 None are applicable.</p>
<p>PO 11.3 Communal waste storage and collection areas are designed to be well ventilated and located away from habitable rooms.</p>	<p>DTS/DPF 11.3 None are applicable.</p>
<p>PO 11.4</p>	<p>DTS/DPF 11.4</p>

Communal waste storage and collection areas are designed to allow waste and recycling collection vehicles to enter and leave the site without reversing.	None are applicable.
PO 11.5 For mixed use developments, non-residential waste and recycling storage areas and access provide opportunities for on-site management of food waste through composting or other waste recovery as appropriate.	DTS/DPF 11.5 None are applicable.
All Development - Medium and High Rise	
External Appearance	
PO 12.1 Buildings positively contribute to the character of the local area by responding to local context.	DTS/DPF 12.1 None are applicable.
PO 12.2 Architectural detail at street level and a mixture of materials at lower building levels near the public interface are provided to reinforce a human scale.	DTS/DPF 12.2 None are applicable.
PO 12.3 Buildings are designed to reduce visual mass by breaking up building elevations into distinct elements.	DTS/DPF 12.3 None are applicable.
PO 12.4 Boundary walls visible from public land include visually interesting treatments to break up large blank elevations.	DTS/DPF 12.4 None are applicable.
PO 12.5 External materials and finishes are durable and age well to minimise ongoing maintenance requirements.	DTS/DPF 12.5 Buildings utilise a combination of the following external materials and finishes: (a) masonry (b) natural stone (c) pre-finished materials that minimise staining, discolouring or deterioration.
PO 12.6 Street-facing building elevations are designed to provide attractive, high quality and pedestrian-friendly street frontages.	DTS/DPF 12.6 Building street frontages incorporate: (a) active uses such as shops or offices (b) prominent entry areas for multi-storey buildings (where it is a common entry) (c) habitable rooms of dwellings (d) areas of communal public realm with public art or the like, where consistent with the zone and/or subzone provisions.
PO 12.7 Entrances to multi-storey buildings are safe, attractive, welcoming, functional and contribute to streetscape character.	DTS/DPF 12.7 Entrances to multi-storey buildings are: (a) oriented towards the street (b) clearly visible and easily identifiable from the street and vehicle parking areas (c) designed to be prominent, accentuated and a welcoming feature if there are no active or occupied ground floor uses (d) designed to provide shelter, a sense of personal address and transitional space around the entry (e) located as close as practicable to the lift and / or lobby access to minimise the need for long access corridors (f) designed to avoid the creation of potential areas of entrapment.
PO 12.8	DTS/DPF 12.8

<p>Building services, plant and mechanical equipment are screened from the public realm.</p>	<p>None are applicable.</p>																								
<p>Landscaping</p>																									
<p>PO 13.1 Development facing a street provides a well landscaped area that contains a deep soil space to accommodate a tree of a species and size adequate to provide shade, contribute to tree canopy targets and soften the appearance of buildings.</p>	<p>DTS/DPF 13.1 Buildings provide a 4m by 4m deep soil space in front of the building that accommodates a medium to large tree, except where no building setback from front property boundaries is desired.</p>																								
<p>PO 13.2 Deep soil zones are provided to retain existing vegetation or provide areas that can accommodate new deep root vegetation, including tall trees with large canopies to provide shade and soften the appearance of multi-storey buildings.</p>	<p>DTS/DPF 13.2 Multi-storey development provides deep soil zones and incorporates trees at not less than the following rates, except in a location or zone where full site coverage is desired.</p> <table border="1" data-bbox="831 600 1522 1010"> <thead> <tr> <th>Site area</th> <th>Minimum deep soil area</th> <th>Minimum dimension</th> <th>Tree / deep soil zones</th> </tr> </thead> <tbody> <tr> <td><300 m²</td> <td>10 m²</td> <td>1.5m</td> <td>1 small tree / 10 m²</td> </tr> <tr> <td>300-1500 m²</td> <td>7% site area</td> <td>3m</td> <td>1 medium tree / 30 m²</td> </tr> <tr> <td>>1500 m²</td> <td>7% site area</td> <td>6m</td> <td>1 large or medium tree / 60 m²</td> </tr> </tbody> </table> <p>Tree size and site area definitions</p> <table border="1" data-bbox="831 1010 1522 1323"> <tbody> <tr> <td>Small tree</td> <td>4-6m mature height and 2-4m canopy spread</td> </tr> <tr> <td>Medium tree</td> <td>6-12m mature height and 4-8m canopy spread</td> </tr> <tr> <td>Large tree</td> <td>12m mature height and >8m canopy spread</td> </tr> <tr> <td>Site area</td> <td>The total area for development site, not average area per dwelling</td> </tr> </tbody> </table>	Site area	Minimum deep soil area	Minimum dimension	Tree / deep soil zones	<300 m ²	10 m ²	1.5m	1 small tree / 10 m ²	300-1500 m ²	7% site area	3m	1 medium tree / 30 m ²	>1500 m ²	7% site area	6m	1 large or medium tree / 60 m ²	Small tree	4-6m mature height and 2-4m canopy spread	Medium tree	6-12m mature height and 4-8m canopy spread	Large tree	12m mature height and >8m canopy spread	Site area	The total area for development site, not average area per dwelling
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<p>PO 13.3 Deep soil zones with access to natural light are provided to assist in maintaining vegetation health.</p>	<p>DTS/DPF 13.3 None are applicable.</p>																								
<p>PO 13.4 Unless separated by a public road or reserve, development sites adjacent to any zone that has a primary purpose of accommodating low-rise residential development incorporate a deep soil zone along the common boundary to enable medium to large trees to be retained or established to assist in screening new buildings of 3 or more building levels in height.</p>	<p>DTS/DPF 13.4 Building elements of 3 or more building levels in height are set back at least 6m from a zone boundary in which a deep soil zone area is incorporated.</p>																								
<p>Environmental</p>																									
<p>PO 14.1 Development minimises detrimental micro-climatic impacts on adjacent land and buildings.</p>	<p>DTS/DPF 14.1 None are applicable.</p>																								
<p>PO 14.2 Development incorporates sustainable design techniques and features such as window orientation, eaves and shading structures, water harvesting and use, green walls and roof designs that enable the provision of rain water tanks (where they are not provided elsewhere on site), green roofs and photovoltaic cells.</p>	<p>DTS/DPF 14.2 None are applicable.</p>																								

<p>PO 14.3</p> <p>Development of 5 or more building levels, or 21 m or more in height (as measured from natural ground level and excluding roof-mounted mechanical plant and equipment) is designed to minimise the impacts of wind through measures such as:</p> <ul style="list-style-type: none"> (a) a podium at the base of a tall tower and aligned with the street to deflect wind away from the street (b) substantial verandahs around a building to deflect downward travelling wind flows over pedestrian areas (c) the placement of buildings and use of setbacks to deflect the wind at ground level (d) avoiding tall shear elevations that create windy conditions at street level. 	<p>DTS/DPF 14.3</p> <p>None are applicable.</p>
Overlooking/Visual Privacy	
<p>PO 16.1</p> <p>Development mitigates direct overlooking of habitable rooms and private open spaces of adjacent residential uses in neighbourhood-type zones through measures such as:</p> <ul style="list-style-type: none"> (a) appropriate site layout and building orientation (b) off-setting the location of balconies and windows of habitable rooms or areas with those of other buildings so that views are oblique rather than direct to avoid direct line of sight (c) building setbacks from boundaries (including building boundary to boundary where appropriate) that interrupt views or that provide a spatial separation between balconies or windows of habitable rooms (d) screening devices that are integrated into the building design and have minimal negative effect on residents' or neighbours' amenity. 	<p>DTS/DPF 16.1</p> <p>None are applicable.</p>
All residential development	
Front elevations and passive surveillance	
<p>PO 17.1</p> <p>Dwellings incorporate windows facing primary street frontages to encourage passive surveillance and make a positive contribution to the streetscape.</p>	<p>DTS/DPF 17.1</p> <p>Each dwelling with a frontage to a public street:</p> <ul style="list-style-type: none"> (a) includes at least one window facing the primary street from a habitable room that has a minimum internal room dimension of 2.4m (b) has an aggregate window area of at least 2m² facing the primary street.
<p>PO 17.2</p> <p>Dwellings incorporate entry doors within street frontages to address the street and provide a legible entry point for visitors.</p>	<p>DTS/DPF 17.2</p> <p>Dwellings with a frontage to a public street have an entry door visible from the primary street boundary.</p>
Outlook and Amenity	
<p>PO 18.1</p> <p>Living rooms have an external outlook to provide a high standard of amenity for occupants.</p>	<p>DTS/DPF 18.1</p> <p>A living room of a dwelling incorporates a window with an external outlook of the street frontage, private open space, public open space, or waterfront areas.</p>
<p>PO 18.2</p> <p>Bedrooms are separated or shielded from active communal recreation areas, common access areas and vehicle parking areas and access ways to mitigate noise and artificial light intrusion.</p>	<p>DTS/DPF 18.2</p> <p>None are applicable.</p>
Residential Development - Low Rise	
External appearance	

<p>PO 20.1</p> <p>Garaging is designed to not detract from the streetscape or appearance of a dwelling.</p>	<p>DTS/DPF 20.1</p> <p>Garages and carports facing a street:</p> <ul style="list-style-type: none"> (a) are situated so that no part of the garage or carport will be in front of any part of the building line of the dwelling (b) are set back at least 5.5m from the boundary of the primary street (c) have a garage door / opening width not exceeding 7m (d) have a garage door / opening width not exceeding 50% of the site frontage unless the dwelling has two or more building levels at the building line fronting the same public street. 		
<p>PO 20.2</p> <p>Dwelling elevations facing public streets and common driveways make a positive contribution to the streetscape and the appearance of common driveway areas.</p>	<p>DTS/DPF 20.2</p> <p>Each dwelling includes at least 3 of the following design features within the building elevation facing a primary street, and at least 2 of the following design features within the building elevation facing any other public road (other than a laneway) or a common driveway:</p> <ul style="list-style-type: none"> (a) a minimum of 30% of the building wall is set back an additional 300mm from the building line (b) a porch or portico projects at least 1m from the building wall (c) a balcony projects from the building wall (d) a verandah projects at least 1m from the building wall (e) eaves of a minimum 400mm width extend along the width of the front elevation (f) a minimum 30% of the width of the upper level projects forward from the lower level primary building line by at least 300mm (g) a minimum of two different materials or finishes are incorporated on the walls of the front building elevation, with a maximum of 80% of the building elevation in a single material or finish. 		
<p>PO 20.3</p> <p>The visual mass of larger buildings is reduced when viewed from adjoining allotments or public streets.</p>	<p>DTS/DPF 20.3</p> <p>None are applicable</p>		
<p>Private Open Space</p>			
<p>PO 21.1</p> <p>Dwellings are provided with suitable sized areas of usable private open space to meet the needs of occupants.</p>	<p>DTS/DPF 21.1</p> <p>Private open space is provided in accordance with Design in Urban Areas Table 1 - Private Open Space.</p>		
<p>PO 21.2</p> <p>Private open space is positioned to provide convenient access from internal living areas.</p>	<p>DTS/DPF 21.2</p> <p>Private open space is directly accessible from a habitable room.</p>		
<p>Landscaping</p>			
<p>PO 22.1</p> <p>Soft landscaping is incorporated into development to:</p> <ul style="list-style-type: none"> (a) minimise heat absorption and reflection (b) contribute shade and shelter (c) provide for stormwater infiltration and biodiversity (d) enhance the appearance of land and streetscapes. 	<p>DTS/DPF 22.1</p> <p>Residential development incorporates soft landscaping with a minimum dimension of 700mm provided in accordance with (a) and (b):</p> <ul style="list-style-type: none"> (a) a total area for the entire development site, including any common property, as determined by the following table: <table border="1" data-bbox="906 2101 1524 2128"> <tr> <td style="background-color: #0056b3; color: white;">Site area (or in the case of residential</td> <td style="background-color: #0056b3; color: white;">Minimum</td> </tr> </table>	Site area (or in the case of residential	Minimum
Site area (or in the case of residential	Minimum		

flat building or group dwelling(s), average site area) (m ²)	percentage of site
<150	10%
150-200	15%
>200-450	20%
>450	25%

(b) at least 30% of any land between the primary street boundary and the primary building line.

Car parking, access and manoeuvrability

<p>PO 23.1</p> <p>Enclosed car parking spaces are of dimensions to be functional, accessible and convenient.</p>	<p>DTS/DPF 23.1</p> <p>Residential car parking spaces enclosed by fencing, walls or other structures have the following internal dimensions (separate from any waste storage area):</p> <ul style="list-style-type: none"> (a) single width car parking spaces: <ul style="list-style-type: none"> (i) a minimum length of 5.4m per space (ii) a minimum width of 3.0m (iii) a minimum garage door width of 2.4m (b) double width car parking spaces (side by side): <ul style="list-style-type: none"> (i) a minimum length of 5.4m (ii) a minimum width of 5.4m (iii) minimum garage door width of 2.4m per space.
<p>PO 23.2</p> <p>Uncovered car parking space are of dimensions to be functional, accessible and convenient.</p>	<p>DTS/DPF 23.2</p> <p>Uncovered car parking spaces have:</p> <ul style="list-style-type: none"> (a) a minimum length of 5.4m (b) a minimum width of 2.4m (c) a minimum width between the centre line of the space and any fence, wall or other obstruction of 1.5m.
<p>PO 23.3</p> <p>Driveways and access points are located and designed to facilitate safe access and egress while maximising land available for street tree planting, pedestrian movement, domestic waste collection, landscaped street frontages and on-street parking.</p>	<p>DTS/DPF 23.3</p> <p>Driveways and access points satisfy (a) or (b):</p> <ul style="list-style-type: none"> (a) sites with a frontage to a public road of 10m or less, have a width between 3.0 and 3.2 metres measured at the property boundary and are the only access point provided on the site (b) sites with a frontage to a public road greater than 10m: <ul style="list-style-type: none"> (i) have a maximum width of 5m measured at the property boundary and are the only access point provided on the site; (ii) have a width between 3.0 metres and 3.2 metres measured at the property boundary and no more than two access points are provided on site, separated by no less than 1m.
<p>PO 23.4</p> <p>Vehicle access is safe, convenient, minimises interruption to the operation of public roads and does not interfere with street infrastructure or street trees.</p>	<p>DTS/DPF 23.4</p> <p>Vehicle access to designated car parking spaces satisfy (a) or (b):</p> <ul style="list-style-type: none"> (a) is provided via a lawfully existing or authorised access point or an access point for which consent has been granted as part of an application for the division of land (b) where newly proposed, is set back:

	<ul style="list-style-type: none"> (i) 0.5m or more from any street furniture, street pole, infrastructure services pit, or other stormwater or utility infrastructure unless consent is provided from the asset owner (ii) 2m or more from the base of the trunk of a street tree unless consent is provided from the tree owner for a lesser distance (iii) 6m or more from the tangent point of an intersection of 2 or more roads (iv) outside of the marked lines or infrastructure dedicating a pedestrian crossing.
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<p>PO 23.5</p> <p>Driveways are designed to enable safe and convenient vehicle movements from the public road to on-site parking spaces.</p>
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<p>DTS/DPF 23.5</p> <p>Driveways are designed and sited so that:</p> <ul style="list-style-type: none"> (a) the gradient of the driveway does not exceed a grade of 1 in 4 and includes transitions to ensure a maximum grade change of 12.5% (1 in 8) for summit changes, and 15% (1 in 6.7) for sag changes, in accordance with AS 2890.1:2004 to prevent vehicles bottoming or scraping (b) the centreline of the driveway has an angle of no less than 70 degrees and no more than 110 degrees from the street boundary to which it takes its access as shown in the following diagram: <div style="text-align: center;"> <p style="text-align: center;">CENTRE LINE OF DRIVEWAY TO BE BETWEEN 70° TO 110° OFF THE STREET BOUNDARY</p> </div> <ul style="list-style-type: none"> (c) if located to provide access from an alley, lane or right of way - the alley, land or right of way is at least 6.2m wide along the boundary of the allotment / site.
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<p>PO 23.6</p> <p>Driveways and access points are designed and distributed to optimise the provision of on-street visitor parking.</p>
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<p>DTS/DPF 23.6</p> <p>Where on-street parking is available abutting the site's street frontage, on-street parking is retained in accordance with the following requirements:</p> <ul style="list-style-type: none"> (a) minimum 0.33 on-street spaces per dwelling on the site (rounded up to the nearest whole number) (b) minimum car park length of 5.4m where a vehicle can enter or exit a space directly

	(c) minimum carpark length of 6m for an intermediate space located between two other parking spaces or to an end obstruction where the parking is indented.
Waste storage	
PO 24.1 Provision is made for the convenient storage of waste bins in a location screened from public view.	DTS/DPF 24.1 Where dwellings abut both side boundaries a waste bin storage area is provided behind the building line of each dwelling that: <ul style="list-style-type: none"> (a) has a minimum area of 2m² with a minimum dimension of 900mm (separate from any designated car parking spaces or private open space); and (b) has a continuous unobstructed path of travel (excluding moveable objects like gates, vehicles and roller doors) with a minimum width of 800mm between the waste bin storage area and the street.
Residential Development - Medium and High Rise (including serviced apartments)	
Outlook and Visual Privacy	
PO 26.1 Ground level dwellings have a satisfactory short range visual outlook to public, communal or private open space.	DTS/DPF 26.1 Buildings: <ul style="list-style-type: none"> (a) provide a habitable room at ground or first level with a window facing toward the street (b) limit the height / extent of solid walls or fences facing the street to 1.2m high above the footpath level or, where higher, to 50% of the site frontage.
PO 26.2 The visual privacy of ground level dwellings within multi-level buildings is protected.	DTS/DPF 26.2 The finished floor level of ground level dwellings in multi-storey developments is raised by up to 1.2m.
Private Open Space	
PO 27.1 Dwellings are provided with suitable sized areas of usable private open space to meet the needs of occupants.	DTS/DPF 27.1 Private open space provided in accordance with Design in Urban Areas Table 1 - Private Open Space.
Residential amenity in multi-level buildings	
PO 28.1 Residential accommodation within multi-level buildings have habitable rooms, windows and balconies designed and positioned to be separated from those of other dwellings and accommodation to provide visual and acoustic privacy and allow for natural ventilation and the infiltration of daylight into interior and outdoor spaces.	DTS/DPF 28.1 Habitable rooms and balconies of independent dwellings and accommodation are separated by at least 6m from one another where there is a direct line of sight between them and 3m or more from a side or rear property boundary.
PO 28.2 Balconies are designed, positioned and integrated into the overall architectural form and detail of the development to: <ul style="list-style-type: none"> (a) respond to daylight, wind, and acoustic conditions to maximise comfort and provide visual privacy (b) allow views and casual surveillance of the street while providing for safety and visual privacy of nearby living spaces and private outdoor areas. 	DTS/DPF 28.2 Balconies utilise one or a combination of the following design elements: <ul style="list-style-type: none"> (a) sun screens (b) pergolas (c) louvres (d) green facades (e) openable walls.
PO 28.3 Balconies are of sufficient size and depth to accommodate outdoor seating and promote indoor / outdoor living.	DTS/DPF 28.3 Balconies open directly from a habitable room and incorporate a minimum dimension of 2m.
PO 28.4	DTS/DPF 28.4

<p>Dwellings are provided with sufficient space for storage to meet likely occupant needs.</p>	<p>Dwellings (not including student accommodation or serviced apartments) are provided with storage at the following rates with at least 50% or more of the storage volume to be provided within the dwelling:</p> <ul style="list-style-type: none"> (a) studio: not less than 6m³ (b) 1 bedroom dwelling / apartment: not less than 8m³ (c) 2 bedroom dwelling / apartment: not less than 10m³ (d) 3+ bedroom dwelling / apartment: not less than 12m³.
<p>PO 28.5 Dwellings that use light wells for access to daylight, outlook and ventilation for habitable rooms, are designed to ensure a reasonable living amenity is provided.</p>	<p>DTS/DPF 28.5 Light wells:</p> <ul style="list-style-type: none"> (a) are not used as the primary source of outlook for living rooms (b) up to 18m in height have a minimum horizontal dimension of 3m, or 6m if overlooked by bedrooms (c) above 18m in height have a minimum horizontal dimension of 6m, or 9m if overlooked by bedrooms.
<p>PO 28.6 Attached or abutting dwellings are designed to minimise the transmission of sound between dwellings and, in particular, to protect bedrooms from possible noise intrusions.</p>	<p>DTS/DPF 28.6 None are applicable.</p>
<p>PO 28.7 Dwellings are designed so that internal structural columns correspond with the position of internal walls to ensure that the space within the dwelling/apartment is useable.</p>	<p>DTS/DPF 28.7 None are applicable.</p>
<p>Dwelling Configuration</p>	
<p>PO 29.1 Buildings containing in excess of 10 dwellings provide a variety of dwelling sizes and a range in the number of bedrooms per dwelling to contribute to housing diversity.</p>	<p>DTS/DPF 29.1 Buildings containing in excess of 10 dwellings provide at least one of each of the following:</p> <ul style="list-style-type: none"> (a) studio (where there is no separate bedroom) (b) 1 bedroom dwelling / apartment with a floor area of at least 50m² (c) 2 bedroom dwelling / apartment with a floor area of at least 65m² (d) 3+ bedroom dwelling / apartment with a floor area of at least 80m², and any dwelling over 3 bedrooms provides an additional 15m² for every additional bedroom.
<p>PO 29.2 Dwellings located on the ground floor of multi-level buildings with 3 or more bedrooms have the windows of their habitable rooms overlooking internal courtyard space or other public space, where possible.</p>	<p>DTS/DPF 29.2 None are applicable.</p>
<p>Common Areas</p>	
<p>PO 30.1 The size of lifts, lobbies and corridors is sufficient to accommodate movement of bicycles, strollers, mobility aids and visitor waiting areas.</p>	<p>DTS/DPF 30.1 Common corridor or circulation areas:</p> <ul style="list-style-type: none"> (a) have a minimum ceiling height of 2.7m (b) provide access to no more than 8 dwellings (c) incorporate a wider section at apartment entries where the corridors exceed 12m in length from a core.
<p>Group Dwellings, Residential Flat Buildings and Battle axe Development</p>	
<p>Amenity</p>	
<p>PO 31.1</p>	<p>DTS/DPF 31.1</p>

Dwellings are of a suitable size to provide a high standard of amenity for occupants.	Dwellings have a minimum internal floor area in accordance with the following table:	
	Number of bedrooms	Minimum internal floor area
	Studio	35m ²
	1 bedroom	50m ²
	2 bedroom	65m ²
3+ bedrooms	80m ² and any dwelling over 3 bedrooms provides an additional 15m ² for every additional bedroom	

PO 31.2 The orientation and siting of buildings minimises impacts on the amenity, outlook and privacy of occupants and neighbours.	DTS/DPF 31.2 None are applicable.
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PO 31.3 Development maximises the number of dwellings that face public open space and public streets and limits dwellings oriented towards adjoining properties.	DTS/DPF 31.3 None are applicable.
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PO 31.4 Battle-axe development is appropriately sited and designed to respond to the existing neighbourhood context.	DTS/DPF 31.4 Dwelling sites/allotments are not in the form of a battle-axe arrangement.
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Communal Open Space

PO 32.1 Private open space provision may be substituted for communal open space which is designed and sited to meet the recreation and amenity needs of residents.	DTS/DPF 32.1 None are applicable.
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PO 32.2 Communal open space is of sufficient size and dimensions to cater for group recreation.	DTS/DPF 32.2 Communal open space incorporates a minimum dimension of 5 metres.
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PO 32.3 Communal open space is designed and sited to: (a) be conveniently accessed by the dwellings which it services (b) have regard to acoustic, safety, security and wind effects.	DTS/DPF 32.3 None are applicable.
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PO 32.4 Communal open space contains landscaping and facilities that are functional, attractive and encourage recreational use.	DTS/DPF 32.4 None are applicable.
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PO 32.5 Communal open space is designed and sited to: (a) in relation to rooftop or elevated gardens, minimise overlooking into habitable room windows or onto the useable private open space of other dwellings (b) in relation to ground floor communal space, be overlooked by habitable rooms to facilitate passive surveillance.	DTS/DPF 32.5 None are applicable.
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Car parking, access and manoeuvrability

PO 33.1 Driveways and access points are designed and distributed to optimise the provision of on-street visitor parking.	DTS/DPF 33.1 Where on-street parking is available directly adjacent the site, on-street parking is retained adjacent the subject site in accordance with the following requirements:
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	<ul style="list-style-type: none"> (a) minimum 0.33 on-street car parks per proposed dwelling (rounded up to the nearest whole number) (b) minimum car park length of 5.4m where a vehicle can enter or exit a space directly (c) minimum carpark length of 6m for an intermediate space located between two other parking spaces or to an end obstruction where the parking is indented.
<p>PO 33.2</p> <p>The number of vehicular access points onto public roads is minimised to reduce interruption of the footpath and positively contribute to public safety and walkability.</p>	<p>DTS/DPF 33.2</p> <p>Access to group dwellings or dwellings within a residential flat building is provided via a single common driveway.</p>
<p>PO 33.3</p> <p>Residential driveways that service more than one dwelling are designed to allow safe and convenient movement.</p>	<p>DTS/DPF 33.3</p> <p>Driveways that service more than 1 dwelling or a dwelling on a battle-axe site:</p> <ul style="list-style-type: none"> (a) have a minimum width of 3m (b) for driveways servicing more than 3 dwellings: <ul style="list-style-type: none"> (i) have a width of 5.5m or more and a length of 6m or more at the kerb of the primary street (ii) where the driveway length exceeds 30m, incorporate a passing point at least every 30 metres with a minimum width of 5.5m and a minimum length of 6m.
<p>PO 33.4</p> <p>Residential driveways that service more than one dwelling or a dwelling on a battle-axe site are designed to allow passenger vehicles to enter and exit and manoeuvre within the site in a safe and convenient manner.</p>	<p>DTS/DPF 33.4</p> <p>Driveways providing access to more than one dwelling, or a dwelling on a battle-axe site, allow a B85 passenger vehicle to enter and exit the garages or parking spaces in no more than a three-point turn manoeuvre.</p>
<p>PO 33.5</p> <p>Dwellings are adequately separated from common driveways and manoeuvring areas.</p>	<p>DTS/DPF 33.5</p> <p>Dwelling walls with entry doors or ground level habitable room windows are set back at least 1.5m from any driveway or area designated for the movement and manoeuvring of vehicles.</p>
Soft landscaping	
<p>PO 34.1</p> <p>Soft landscaping is provided between dwellings and common driveways to improve the outlook for occupants and appearance of common areas.</p>	<p>DTS/DPF 34.1</p> <p>Other than where located directly in front of a garage or building entry, soft landscaping with a minimum dimension of 1m is provided between a dwelling and common driveway.</p>
<p>PO 34.2</p> <p>Battle-axe or common driveways incorporate landscaping and permeability to improve appearance and assist in stormwater management.</p>	<p>DTS/DPF 34.2</p> <p>Battle-axe or common driveways satisfy (a) and (b):</p> <ul style="list-style-type: none"> (a) are constructed of a minimum of 50% permeable or porous material (b) where the driveway is located directly adjacent the side or rear boundary of the site, soft landscaping with a minimum dimension of 1m is provided between the driveway and site boundary (excluding along the perimeter of a passing point).
Site Facilities / Waste Storage	
<p>PO 35.1</p> <p>Provision is made for suitable mailbox facilities close to the major pedestrian entry to the site or conveniently located considering the nature of accommodation and mobility of occupants.</p>	<p>DTS/DPF 35.1</p> <p>None are applicable.</p>
<p>PO 35.2</p> <p>Provision is made for suitable external clothes drying facilities.</p>	<p>DTS/DPF 35.2</p> <p>None are applicable.</p>

<p>PO 35.3</p> <p>Provision is made for suitable household waste and recyclable material storage facilities which are:</p> <ul style="list-style-type: none"> (a) located away, or screened, from public view, and (b) conveniently located in proximity to dwellings and the waste collection point. 	<p>DTS/DPF 35.3</p> <p>None are applicable.</p>
<p>PO 35.4</p> <p>Waste and recyclable material storage areas are located away from dwellings.</p>	<p>DTS/DPF 35.4</p> <p>Dedicated waste and recyclable material storage areas are located at least 3m from any habitable room window.</p>
<p>PO 35.5</p> <p>Where waste bins cannot be conveniently collected from the street, provision is made for on-site waste collection, designed to accommodate the safe and convenient access, egress and movement of waste collection vehicles.</p>	<p>DTS/DPF 35.5</p> <p>None are applicable.</p>
<p>PO 35.6</p> <p>Services including gas and water meters are conveniently located and screened from public view.</p>	<p>DTS/DPF 35.6</p> <p>None are applicable.</p>
Water sensitive urban design	
<p>PO 36.1</p> <p>Residential development creating a common driveway / access includes stormwater management systems that minimise the discharge of sediment, suspended solids, organic matter, nutrients, bacteria, litter and other contaminants to the stormwater system, watercourses or other water bodies.</p>	<p>DTS/DPF 36.1</p> <p>None are applicable.</p>
<p>PO 36.2</p> <p>Residential development creating a common driveway / access includes a stormwater management system designed to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that the development does not increase the peak flows in downstream systems.</p>	<p>DTS/DPF 36.2</p> <p>None are applicable.</p>
Laneway Development	
Infrastructure and Access	
<p>PO 44.1</p> <p>Development with a primary street comprising a laneway, alley, lane, right of way or similar minor thoroughfare only occurs where:</p> <ul style="list-style-type: none"> (a) existing utility infrastructure and services are capable of accommodating the development (b) the primary street can support access by emergency and regular service vehicles (such as waste collection) (c) it does not require the provision or upgrading of infrastructure on public land (such as footpaths and stormwater management systems) (d) safety of pedestrians or vehicle movement is maintained (e) any necessary grade transition is accommodated within the site of the development to support an appropriate development intensity and orderly development of land fronting minor thoroughfares. 	<p>DTS/DPF 44.1</p> <p>Development with a primary street frontage that is not an alley, lane, right of way or similar public thoroughfare.</p>

Table 1 - Private Open Space

Dwelling Type	Dwelling / Site	Minimum Rate
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	Configuration	
Dwelling (at ground level, other than a residential flat building that includes above ground dwellings)		Total private open space area: (a) Site area <301m ² : 24m ² located behind the building line. (b) Site area ≥ 301m ² : 60m ² located behind the building line. Minimum directly accessible from a living room: 16m ² / with a minimum dimension 3m.
Cabin or caravan (permanently fixed to the ground) in a residential park or caravan and tourist park		Total area: 16m ² , which may be uses as second car parking space, provided on each site intended for residential occupation.
Dwelling in a residential flat building or mixed use building which incorporate above ground level dwellings	Dwellings at ground level:	15m ² / minimum dimension 3m
	Dwellings above ground level:	
	Studio (no separate bedroom)	4m ² / minimum dimension 1.8m
	One bedroom dwelling	8m ² / minimum dimension 2.1m
	Two bedroom dwelling	11m ² / minimum dimension 2.4m
	Three + bedroom dwelling	15 m ² / minimum dimension 2.6m

Infrastructure and Renewable Energy Facilities

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Efficient provision of infrastructure networks and services, renewable energy facilities and ancillary development in a manner that minimises hazard, is environmentally and culturally sensitive and manages adverse visual impacts on natural and rural landscapes and residential amenity.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Water Supply	
PO 11.2 Dwellings are connected to a reticulated water scheme or mains water supply with the capacity to meet the requirements of the intended use. Where this is not available an appropriate rainwater tank or storage system for domestic use is provided.	DTS/DPF 11.2 A dwelling is connected, or will be connected, to a reticulated water scheme or mains water supply with the capacity to meet the requirements of the development. Where this is not available it is serviced by a rainwater tank or tanks capable of holding at least 50,000 litres of water which is: (a) exclusively for domestic use (b) connected to the roof drainage system of the dwelling.
Wastewater Services	
PO 12.1	DTS/DPF 12.1

<p>Development is connected to an approved common wastewater disposal service with the capacity to meet the requirements of the intended use. Where this is not available an appropriate on-site service is provided to meet the ongoing requirements of the intended use in accordance with the following:</p> <ul style="list-style-type: none"> (a) it is wholly located and contained within the allotment of the development it will service (b) in areas where there is a high risk of contamination of surface, ground, or marine water resources from on-site disposal of liquid wastes, disposal systems are included to minimise the risk of pollution to those water resources (c) septic tank effluent drainage fields and other wastewater disposal areas are located away from watercourses and flood prone, sloping, saline or poorly drained land to minimise environmental harm. 	<p>Development is connected, or will be connected, to an approved common wastewater disposal service with the capacity to meet the requirements of the development. Where this is not available it is instead capable of being serviced by an on-site waste water treatment system in accordance with the following:</p> <ul style="list-style-type: none"> (a) the system is wholly located and contained within the allotment of development it will service; and (b) the system will comply with the requirements of the South Australian Public Health Act 2011.
<p>PO 12.2 Effluent drainage fields and other wastewater disposal areas are maintained to ensure the effective operation of waste systems and minimise risks to human health and the environment.</p>	<p>DTS/DPF 12.2 Development is not built on, or encroaches within, an area that is, or will be, required for a sewerage system or waste control system.</p>

Interface between Land Uses

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development is located and designed to mitigate adverse effects on or from neighbouring and proximate land uses.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
General Land Use Compatibility	
<p>PO 1.1 Sensitive receivers are designed and sited to protect residents and occupants from adverse impacts generated by lawfully existing land uses (or lawfully approved land uses) and land uses desired in the zone.</p>	<p>DTS/DPF 1.1 None are applicable.</p>
Overshadowing	
<p>PO 3.1 Overshadowing of habitable room windows of adjacent residential land uses in:</p> <ul style="list-style-type: none"> a. a neighbourhood-type zone is minimised to maintain access to direct winter sunlight b. other zones is managed to enable access to direct winter sunlight. 	<p>DTS/DPF 3.1 North-facing windows of habitable rooms of adjacent residential land uses in a neighbourhood-type zone receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on 21 June.</p>
<p>PO 3.2 Overshadowing of the primary area of private open space or communal open space of adjacent residential land uses in:</p> <ul style="list-style-type: none"> a. a neighbourhood type zone is minimised to maintain access to direct winter sunlight b. other zones is managed to enable access to direct winter sunlight. 	<p>DTS/DPF 3.2 Development maintains 2 hours of direct sunlight between 9.00 am and 3.00 pm on 21 June to adjacent residential land uses in a neighbourhood-type zone in accordance with the following:</p> <ul style="list-style-type: none"> a. for ground level private open space, the smaller of the following: <ul style="list-style-type: none"> i. half the existing ground level open space or ii. 35m² of the existing ground level open space (with at least one of

	<p>the area's dimensions measuring 2.5m)</p> <p>b. for ground level communal open space, at least half of the existing ground level open space.</p>
<p>PO 3.3</p> <p>Development does not unduly reduce the generating capacity of adjacent rooftop solar energy facilities taking into account:</p> <p>(a) the form of development contemplated in the zone</p> <p>(b) the orientation of the solar energy facilities</p> <p>(c) the extent to which the solar energy facilities are already overshadowed.</p>	<p>DTS/DPF 3.3</p> <p>None are applicable.</p>
<p>Activities Generating Noise or Vibration</p>	
<p>PO 4.3</p> <p>Fixed plant and equipment in the form of pumps and/or filtration systems for a swimming pool or spa are positioned and/or housed to not cause unreasonable noise nuisance to adjacent sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 4.3</p> <p>The pump and/or filtration system ancillary to a dwelling erected on the same site is:</p> <p>(a) enclosed in a solid acoustic structure located at least 5m from the nearest habitable room located on an adjoining allotment or</p> <p>(b) located at least 12m from the nearest habitable room located on an adjoining allotment.</p>
<p>PO 4.4</p> <p>External noise into bedrooms is minimised by separating or shielding these rooms from service equipment areas and fixed noise sources located on the same or an adjoining allotment.</p>	<p>DTS/DPF 4.4</p> <p>Adjacent land is used for residential purposes.</p>

Site Contamination

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Ensure land is suitable for the proposed use in circumstances where it is, or may have been, subject to site contamination.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
<p>PO 1.1</p> <p>Ensure land is suitable for use when land use changes to a more sensitive use.</p>	<p>DTS/DPF 1.1</p> <p>Development satisfies (a), (b), (c) or (d):</p> <p>(a) does not involve a change in the use of land</p> <p>(b) involves a change in the use of land that does not constitute a change to a more sensitive use</p> <p>(c) involves a change in the use of land to a more sensitive use on land at which site contamination is unlikely to exist (as demonstrated in a site contamination declaration form)</p> <p>(d) involves a change in the use of land to a more sensitive use on land at which site contamination exists, or may exist (as demonstrated in a site contamination declaration form), and satisfies both of the following:</p> <p>(i) a site contamination audit report has been prepared under Part 10A of the <i>Environment Protection Act 1993</i> in relation to the land within the previous 5 years which states that-</p>

	<p>A. site contamination does not exist (or no longer exists) at the land or</p> <p>B. the land is suitable for the proposed use or range of uses (without the need for any further remediation) or</p> <p>C. where remediation is, or remains, necessary for the proposed use (or range of uses), remediation work has been carried out or will be carried out (and the applicant has provided a written undertaking that the remediation works will be implemented in association with the development)</p> <p>and</p> <p>(ii) no other class 1 activity or class 2 activity has taken place at the land since the preparation of the site contamination audit report (as demonstrated in a site contamination declaration form).</p>
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Transport, Access and Parking

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	A comprehensive, integrated and connected transport system that is safe, sustainable, efficient, convenient and accessible to all users.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Sightlines	
PO 2.1 Sightlines at intersections, pedestrian and cycle crossings, and crossovers to allotments for motorists, cyclists and pedestrians are maintained or enhanced to ensure safety for all road users and pedestrians.	DTS/DPF 2.1 None are applicable.
PO 2.2 Walls, fencing and landscaping adjacent to driveways and corner sites are designed to provide adequate sightlines between vehicles and pedestrians.	DTS/DPF 2.2 None are applicable.
Vehicle Access	
PO 3.1 Safe and convenient access minimises impact or interruption on the operation of public roads.	DTS/DPF 3.1 The access is: <ul style="list-style-type: none"> (a) provided via a lawfully existing or authorised driveway or access point or an access point for which consent has been granted as part of an application for the division of land or (b) not located within 6m of an intersection of 2 or more roads or a pedestrian activated crossing.
PO 3.2 Development incorporating vehicular access ramps ensures vehicles	DTS/DPF 3.2 None are applicable.

<p>can enter and exit a site safely and without creating a hazard to pedestrians and other vehicular traffic.</p>	
<p>PO 3.3 Access points are sited and designed to accommodate the type and volume of traffic likely to be generated by the development or land use.</p>	<p>DTS/DPF 3.3 None are applicable.</p>
<p>PO 3.4 Access points are sited and designed to minimise any adverse impacts on neighbouring properties.</p>	<p>DTS/DPF 3.4 None are applicable.</p>
<p>PO 3.5 Access points are located so as not to interfere with street trees, existing street furniture (including directional signs, lighting, seating and weather shelters) or infrastructure services to maintain the appearance of the streetscape, preserve local amenity and minimise disruption to utility infrastructure assets.</p>	<p>DTS/DPF 3.5 Vehicle access to designated car parking spaces satisfy (a) or (b): (a) is provided via a lawfully existing or authorised access point or an access point for which consent has been granted as part of an application for the division of land (b) where newly proposed, is set back: (i) 0.5m or more from any street furniture, street pole, infrastructure services pit, or other stormwater or utility infrastructure unless consent is provided from the asset owner (ii) 2m or more from the base of the trunk of a street tree unless consent is provided from the tree owner for a lesser distance (iii) 6m or more from the tangent point of an intersection of 2 or more roads (iv) outside of the marked lines or infrastructure dedicating a pedestrian crossing.</p>
<p>PO 3.7 Access points are appropriately separated from level crossings to avoid interference and ensure their safe ongoing operation.</p>	<p>DTS/DPF 3.7 Development does not involve a new or modified access or cause an increase in traffic through an existing access that is located within the following distance from a railway crossing: (a) 80 km/h road - 110m (b) 70 km/h road - 90m (c) 60 km/h road - 70m (d) 50km/h or less road - 50m.</p>
<p>Access for People with Disabilities</p>	
<p>PO 4.1 Development is sited and designed to provide safe, dignified and convenient access for people with a disability.</p>	<p>DTS/DPF 4.1 None are applicable.</p>
<p>Vehicle Parking Rates</p>	
<p>PO 5.1 Sufficient on-site vehicle parking and specifically marked accessible car parking places are provided to meet the needs of the development or land use having regard to factors that may support a reduced on-site rate such as: (a) availability of on-street car parking (b) shared use of other parking areas (c) in relation to a mixed-use development, where the hours of operation of commercial activities complement the residential use of the site, the provision of vehicle parking may be shared (d) the adaptive reuse of a State or Local Heritage Place.</p>	<p>DTS/DPF 5.1 Development provides a number of car parking spaces on-site at a rate no less than the amount calculated using one of the following, whichever is relevant: (a) Transport, Access and Parking Table 2 - Off-Street Vehicle Parking Requirements in Designated Areas if the development is a class of development listed in Table 2 and the site is in a Designated Area (b) Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements where (a) does not apply (c) if located in an area where a lawfully established carparking fund operates, the number of spaces calculated under (a) or (b) less the number of spaces offset by contribution to the fund.</p>

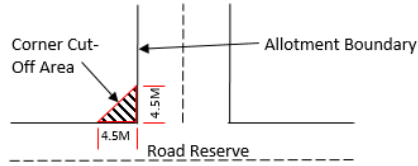
Vehicle Parking Areas	
<p>PO 6.1</p> <p>Vehicle parking areas are sited and designed to minimise impact on the operation of public roads by avoiding the use of public roads when moving from one part of a parking area to another.</p>	<p>DTS/DPF 6.1</p> <p>Movement between vehicle parking areas within the site can occur without the need to use a public road.</p>
<p>PO 6.2</p> <p>Vehicle parking areas are appropriately located, designed and constructed to minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced, and the like.</p>	<p>DTS/DPF 6.2</p> <p>None are applicable.</p>
Bicycle Parking in Designated Areas	
<p>PO 9.1</p> <p>The provision of adequately sized on-site bicycle parking facilities encourages cycling as an active transport mode.</p>	<p>DTS/DPF 9.1</p> <p>Areas and / or fixtures are provided for the parking and storage of bicycles at a rate not less than the amount calculated using Transport, Access and Parking Table 3 - Off Street Bicycle Parking Requirements.</p>
<p>PO 9.2</p> <p>Bicycle parking facilities provide for the secure storage and tethering of bicycles in a place where casual surveillance is possible, is well lit and signed for the safety and convenience of cyclists and deters property theft.</p>	<p>DTS/DPF 9.2</p> <p>None are applicable.</p>
<p>PO 9.3</p> <p>Non-residential development incorporates end-of-journey facilities for employees such as showers, changing facilities and secure lockers, and signage indicating the location of the facilities to encourage cycling as a mode of journey-to-work transport.</p>	<p>DTS/DPF 9.3</p> <p>None are applicable.</p>
Corner Cut-Offs	
<p>PO 10.1</p> <p>Development is located and designed to ensure drivers can safely turn into and out of public road junctions.</p>	<p>DTS/DPF 10.1</p> <p>Development does not involve building work, or building work is located wholly outside the land shown as Corner Cut-Off Area in the following diagram:</p>  <p>The diagram illustrates a corner cut-off area at a road junction. A dashed line represents the 'Allotment Boundary'. A solid line represents the 'Road Reserve', which is 4.5m wide. A hatched triangular area, labeled 'Corner Cut-Off Area', is shown at the junction, with a 4.5m dimension line indicating its width. An arrow points from the text 'Corner Cut-Off Area' to this hatched area.</p>

Table 1 - General Off-Street Car Parking Requirements

Class of Development	Car Parking Rate (unless varied by Table 2 onwards)
<p>Where a development comprises more than one development type, then the overall car parking rate will be taken to be the sum of the car parking rates for each development type.</p>	
Residential Development	
Residential Flat Building	<p>Dwelling with 1 or 2 bedrooms (including rooms capable of being used as a bedroom) - 1 space per dwelling.</p> <p>Dwelling with 3 or more bedrooms (including rooms capable of being used as a bedroom) - 2 spaces per dwelling, 1 of which is to be covered.</p> <p>0.33 spaces per dwelling for visitor parking where development involves 3 or more dwellings.</p>

Table 2 - Off-Street Car Parking Requirements in Designated Areas

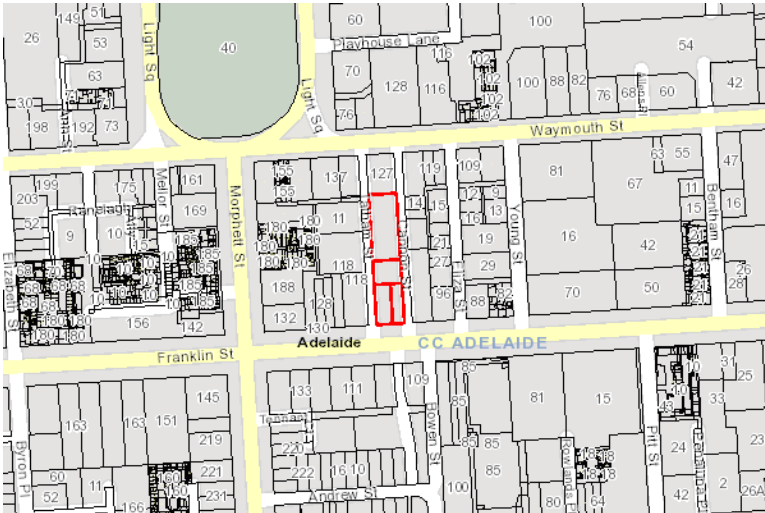
Class of Development	Car Parking Rate		Designated Areas
	Where a development comprises more than one development type, then the overall car parking rate will be taken to be the sum of the car parking rates for each development type.		
	Minimum number of spaces	Maximum number of spaces	
Residential development			
Residential component of a multi-storey building	Dwelling with no separate bedroom -0.25 spaces per dwelling	None specified.	City Living Zone
	1 bedroom dwelling - 0.75 spaces per dwelling		Strategic Innovation Zone in the City of Burnside, City of Marion or City of Mitcham
	2 bedroom dwelling - 1 space per dwelling		Strategic Innovation Zone outside the City of Burnside, City of Marion or City of Mitcham when the site is also in a high frequency public transit area
	3 or more bedroom dwelling - 1.25 spaces per dwelling		Urban Activity Centre Zone when the site is also in a high frequency public transit area
	0.25 spaces per dwelling for visitor parking.		Urban Corridor (Boulevard) Zone Urban Corridor (Business) Zone Urban Corridor (Living) Zone Urban Corridor (Main Street) Zone Urban Neighbourhood Zone (except for Bowden)
Residential component of a multi-storey building	0.75 per dwelling	None specified	Urban Neighbourhood Zone in Bowden
Residential flat building	Dwelling with no separate bedroom -0.25 spaces per dwelling	None specified.	City Living Zone
	1 bedroom dwelling - 0.75 spaces per dwelling		Urban Activity Centre Zone when the site is also in a high frequency public transit area
	2 bedroom dwelling - 1 space per dwelling		Urban Corridor (Boulevard) Zone
	3 or more bedroom dwelling - 1.25 spaces per dwelling		Urban Corridor (Business) Zone
	0.25 spaces per dwelling for visitor parking.		Urban Corridor (Living) Zone Urban Corridor (Main Street) Zone Urban Neighbourhood Zone (except for Bowden)
Residential flat building	0.75 per dwelling	None specified	Urban Neighbourhood Zone in Bowden
Detached dwelling	0.75 per dwelling	None specified	Urban Neighbourhood Zone in Bowden
Row dwelling	0.75 per dwelling	None specified	Urban Neighbourhood Zone in Bowden
Semi-detached dwelling	0.75 per dwelling	None specified	Urban Neighbourhood Zone in Bowden

Table 3 - Off-Street Bicycle Parking Requirements

Class of Development	Bicycle Parking Rate	
	Where a development comprises more than one development type, then the overall bicycle parking rate will be taken to be the sum of the bicycle parking rates for each development type.	
Residential flat building	Within the City of Adelaide 1 for every dwelling for residents with a total floor area less than 150 square metres, 2 for every dwelling for residents with a total floor area greater than 150 square metres, plus 1 for every 10 dwellings for visitors, and in all other cases 1 space for every 4 dwellings for residents plus 1 for every 10 dwellings for visitors.	
Schedule to Table 3	Designated Area	Relevant part of the State
	All zones	City of Adelaide
	Business Neighbourhood Zone Strategic Innovation Zone Suburban Activity Centre Zone Suburban Business Zone Suburban Main Street Zone Urban Activity Centre Zone Urban Corridor (Boulevard) Zone Urban Corridor (Business) Zone Urban Corridor (Living) Zone Urban Corridor (Main Street) Zone Urban Neighbourhood Zone	Metropolitan Adelaide

Address: 108-112A FRANKLIN ST ADELAIDE SA 5000

To view a detailed interactive property map in SAPPA click on the map below



Property Zoning Details

Zone

Capital City

Overlay

- Airport Building Heights (Regulated) (All structures over 80 metres AHD)
- Affordable Housing
- Building Near Airfields
- Design
- Heritage Adjacency
- Hazards (Flooding - Evidence Required)
- Noise and Air Emissions
- Prescribed Wells Area
- Regulated and Significant Tree

Local Variation (TNV)

- Maximum Building Height (Metres) (Maximum building height is 53m)
- Concept Plan (Concept Plan 79 - Primary Pedestrian Area)

Selected Development(s)

Shop

This development may be subject to multiple assessment pathways. Please review the document below to determine which pathway may be applicable based on the proposed development compliances to standards.

If no assessment pathway is shown this mean the proposed development will default to performance assessed. Please contact your local council in this instance. Refer to Part 1 - Rules of Interpretation - Determination of Classes of Development

[Shop - Code Assessed - Performance Assessed](#)

Part 2 - Zones and Sub Zones

Capital City Zone

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	A zone that is the economic and cultural focus of the state supporting a range of residential, employment, community, educational, innovation, recreational, tourism and entertainment facilities generating opportunities for population and employment growth.
DO 2	High intensity and large- scale development with high street walls reinforcing the distinctive grid pattern layout of the city with active non-residential ground level uses to positively contribute to public safety, inclusivity and vibrancy. Design quality of buildings and public spaces is a priority in this zone.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land Use	
PO 1.1 A vibrant mix of residential, retail, community, commercial and professional services, civic and cultural, health, educational, recreational, tourism and entertainment facilities.	DTS/DPF 1.1 The following types of development, or combinations thereof, are envisaged: (a) Advertisement (b) Child care facility (c) Consulting Room (d) Dwelling (e) Educational facility (f) Hospital (g) Hotel (h) Licensed Premises (i) Library (j) Office (k) Supported Accommodation (l) Residential Flat Building (m) Shop (n) Student Accommodation (o) Tourist accommodation.
Activation	
PO 2.1 Non-residential land uses at ground floor level such as shops and restaurants support and maximise pedestrian activity to provide visual interest and positively contribute to public safety, walkability and vibrancy.	DTS/DPF 2.1 None are applicable.
PO 2.2 Development: (a) contributes to the activation of the public realm by presenting an attractive human scaled pedestrian-oriented frontage at ground level that adds interest and vibrancy; (b) maintains a sense of openness to the sky for pedestrians and allow sunlight access to the public realm; (c) provides a clear sense of address to each building.	DTS/DPF 2.2 None are applicable.
PO 2.3 Land uses typically open during night time hours incorporate activities along street frontages at ground level that encourage day time activation compatible with surrounding land uses.	DTS/DPF 2.3 None are applicable.
Built form and Character	

<p>PO 3.1</p> <p>A contextual design response that manages differences in scale and building proportions to maintain a cohesive streetscape and frame city streets.</p>	<p>DTS/DPF 3.1</p> <p>None are applicable</p>
<p>PO 3.2</p> <p>Buildings:</p> <p>(a) are designed to reinforce the prevailing datum heights and parapet levels of the street through design elements that provide a clear distinction between levels above and below the prevailing datum line;</p> <p>(b) where located in an existing low-rise context, are designed to include a podium/street wall height and upper level setback that:</p> <ul style="list-style-type: none"> (i) relates to the scale and context of adjoining built form; (ii) provides a human scale at street level; (iii) creates a well-defined and continuity of frontage; (iv) gives emphasis and definition to street corners to clearly define the street grid; and (v) contributes to the interest, vitality and security of the pedestrian environment. 	<p>DTS/DPF 3.2</p> <p>None are applicable.</p>
<p>PO 3.3</p> <p>Building façades are strongly modelled, incorporate a vertical composition which reflects the proportions of existing frontages, and ensure that architectural detailing is consistent around corners and along minor streets and laneways.</p>	<p>DTS/DPF 3.3</p> <p>None are applicable</p>
<p>PO 3.4</p> <p>Development along The Terraces (North, East, South and West) is designed to positively contribute to a continuous built form to frame the Park Lands and city edge.</p>	<p>DTS/DPF 3.4</p> <p>None are applicable.</p>
<p>PO 3.5</p> <p>Development along the city's boulevards (as identified in Capital City Zone Table 5.1):</p> <p>(a) built to the street boundary at lower levels to reinforce the City's grid layout and frame the boulevard</p> <p>(b) designed to provide a sense of arrival into the City and strongly define junctions where located on a corner site.</p>	<p>DTS/DPF 3.5</p> <p>None are applicable.</p>
<p>PO 3.6</p> <p>Development avoids activities that result in a gap in the built form along a public road or thoroughfare (such as an open lot car park) for an extended period of time to minimise negative impacts on streetscape continuity.</p>	<p>DTS/DPF 3.6</p> <p>None are applicable.</p>
<p>PO 3.7</p> <p>Development along the city's boulevards (as identified in Capital City Zone Table 5.1) is designed to maximise views to the Park Lands and not clutter existing view corridors to the Adelaide Hills when viewed from the public realm.</p>	<p>DTS/DPF 3.7</p> <p>None are applicable.</p>
<p>PO 3.8</p> <p>Development fronting Victoria, Hindmarsh, Whitmore, Hurtle and Light Squares is designed to provide a comfortable pedestrian and recreation environment by enabling direct sunlight to a majority of the Square.</p>	<p>DTS/DPF 3.8</p> <p>Development enables direct sunlight to a minimum of 75% of the landscaped part of each Square at the September equinox.</p>
<p>PO 3.9</p> <p>Development fronting Victoria, Hindmarsh, Whitmore, Hurtle and Light</p>	<p>DTS/DPF 3.9</p> <p>None are applicable.</p>

Squares is designed to reinforce the enclosure of the Squares with a continuous built-form with no upper level setbacks.	
<p>PO 3.10</p> <p>Provision of outdoor eating and drinking facilities associated with cafes and restaurants fronting Victoria, Hindmarsh, Whitmore, Hurtle and Light Squares positively contributes to activity and creates a focus for leisure in the Squares.</p>	<p>DTS/DPF 3.10</p> <p>None are applicable.</p>
<p>PO 3.11</p> <p>Development along minor streets and laneways is informed by its local context to maintain the prevailing built form pattern and structure, and designed to provide a sense of enclosure, and enable fine-grain uses at street level to create an intimate, active, inclusive and walkable public realm.</p>	<p>DTS/DPF 3.11</p> <p>None are applicable.</p>
<p>PO 3.12</p> <p>Buildings north of the City Main Street Zone are designed to enable natural sunlight access to the southern footpath of the main street.</p>	<p>DTS/DPF 3.12</p> <p>Buildings north of the City Main Street Zone that cast a shadow on the southern footpath of the main street incorporate narrow and setback tower elements and provide spaces between buildings.</p>
<p>PO 3.13</p> <p>Buildings are adaptable and flexible to accommodate a range of land uses.</p>	<p>DTS/DPF 3.13</p> <p>The ground floor of buildings has a minimum floor to ceiling height of 3.5m.</p>

Building Height

<p>PO 4.1</p> <p>Building height is consistent with the form expressed in any relevant <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> or positively responds to the local context and achieves the desired outcomes of the Zone.</p>	<p>DTS/DPF 4.1</p> <p>Development does not exceed the following building heights:</p> <table border="1" data-bbox="831 1070 1522 1137"> <tr> <th style="text-align: center;">Maximum Building Height (Metres)</th> </tr> <tr> <td style="text-align: center;">Maximum building height is 53m</td> </tr> </table> <p>In relation to DTS/DPF 4.1, in instances where:</p> <ul style="list-style-type: none"> (a) more than one value is returned in the same field, refer to the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> or <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> in the SA planning database to determine the applicable value relevant to the site of the proposed development (b) only one value is returned (i.e. there is one blank field), then the relevant height in metres or building levels applies with no criteria for the other (c) no value is returned (i.e. there are blank fields for both maximum building height (metres) and maximum building height (levels), then none are applicable and the relevant development cannot be classified as deemed-to-satisfy. 	Maximum Building Height (Metres)	Maximum building height is 53m
Maximum Building Height (Metres)			
Maximum building height is 53m			

<p>PO 4.2</p> <p>Development exceeding the building height specified in the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and the <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> is generally not contemplated unless:</p> <ul style="list-style-type: none"> (a) the development provides for the retention, conservation and reuse of a building that: <ul style="list-style-type: none"> (i) is a State or local heritage place and the heritage values of the place will be maintained (ii) provides a notable positive contribution to the character of the local area or (b) the building incorporates measures that provide for a substantial additional gain in sustainability and it demonstrates 	<p>DTS/DPF 4.2</p> <p>None are applicable.</p>
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<p>at least four of the following are met:</p> <ul style="list-style-type: none"> (i) the development provides an orderly transition up to an existing taller building or prescribed maximum height in an adjacent Zone or building height area on the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> (ii) incorporates high quality open space that is universally accessible and directly connected to, and well integrated with, public realm areas of the street (iii) Incorporates high quality, safe and secure, universally accessible pedestrian linkages that connect through the development site to the surrounding pedestrian network (iv) provides higher amenity through provision of private open space in excess of minimum requirements by 25 percent for at least 50 percent of dwellings (v) no on site car parking is provided (vi) at least 75% of the ground floor street fronts of the building are active frontages (vii) the building has frontage to a public road that abuts the Adelaide Park Lands; (viii) where the development includes housing, at least 15% of the dwellings are affordable housing (ix) the impact on adjacent properties is no greater than a building of the maximum height on the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> in relation to sunlight access and overlooking. 	
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<p>PO 4.3 Buildings designed to achieve optimal height and floor space yields.</p>	<p>DTS/DPF 4.3 New development has a minimum building height of:</p> <ul style="list-style-type: none"> (a) not less than half of the maximum building height specified in DTS/DPF 4.1, or 8 building levels (with a minimum of 28m) in instances where 'No prescribed height limit' is specified in DTS/DPF 4.1; or (b) within the City Frame Subzone: 3 building levels (with a minimum of 11.5m), or 4 building levels (with a minimum of 15m) on sites fronting South Terrace <p>other than where:</p> <ul style="list-style-type: none"> (a) a lower building height is necessary to achieve compliance with the Commonwealth Airports (Protection of Airspace) Regulations (b) the site of the development adjoins the City Living Zone and a lesser building height is required to positively manage the interface with low-rise residential development (c) the site of the development adjoins a heritage place, or contains a heritage place or (d) the development includes the construction of a building in the same, or substantially the same, position as a building which was demolished, as a result of significant damage caused by an event within the previous three years where the new building has the same, or substantially the same, layout and external appearance as the previous building.
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Interface	
<p>PO 5.1 Development is designed to manage the interface with residential uses in the City Living Zone:</p>	<p>DTS/DPF 5.1 None are applicable.</p>

<p>(a) in relation to building proportions, massing, and overshadowing; and</p> <p>(b) by avoiding land uses, or intensity of land uses, that unduly impact residential amenity (including licensed premises).</p>			
<p>PO 5.2 Parts of a development exceed the maximum building height specified in DTS/DPF 4.1 and adjoin the City Living Zone boundaries are designed to minimise negative visual and amenity impacts to residential living areas and outdoor open space.</p>	<p>DTS/DPF 5.2 Parts of a building above the maximum building height specified in DTS/DPF 4.1 include additional setbacks, avoid tall sheer walls, centrally locate taller elements, and provide variation of light and shadow through articulation.</p>		
<p>Movement</p>			
<p>PO 6.1 Access to, and movement within, the Capital City Zone to be universally accessible, easy, safe, comfortable, convenient and legible for people of all abilities, with priority given to pedestrians and cyclists.</p>	<p>DTS/DPF 6.1 None are applicable.</p>		
<p>Access</p>			
<p>PO 7.1 Vehicular access points are associated with multi-level and/or non-ancillary car parks located to minimise disruption to traffic flow.</p>	<p>DTS/DPF 7.1 Vehicular access points associated with multi-level and/or non-ancillary car parks are located on a secondary road frontage, or utilise an existing crossover.</p>		
<p>PO 7.2 Development designed so that vehicle access points for parking, servicing or deliveries, and pedestrian access to a site, are located to minimise interrupting the operation of and queuing on public roads and pedestrian paths.</p>	<p>DTS/DPF 7.2 None are applicable.</p>		
<p>Concept Plans</p>			
<p>PO 9.1 Development is compatible with the outcomes sought by any relevant Concept Plan contained within Part 12 - Concept Plans of the Planning and Design Code to support the orderly development of land through staging of development and provision of infrastructure.</p>	<p>DTS/DPF 9.1 The site of the development is wholly located outside any relevant Concept Plan boundary. The following Concept Plans are relevant:</p> <table border="1" data-bbox="829 1220 1524 1288"> <thead> <tr> <th data-bbox="829 1220 1524 1243" style="text-align: center;">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="829 1243 1524 1288" style="text-align: center;">Concept Plan 79 - Primary Pedestrian Area</td> </tr> </tbody> </table> <p>In relation to DTS/DPF 9.1, in instances where:</p> <p>(a) one or more Concept Plan is returned, refer to Part 12 - Concept Plans in the Planning and Design Code to determine if a Concept Plan is relevant to the site of the proposed development. Note: multiple concept plans may be relevant.</p> <p>(b) in instances where 'no value' is returned, there is no relevant concept plan and DTS/DPF 9.1 is met.</p>	Description	Concept Plan 79 - Primary Pedestrian Area
Description			
Concept Plan 79 - Primary Pedestrian Area			
<p>Public Realm</p>			
<p>PO 10.1 Development in the public realm where it:</p> <p>(a) does not present a safety risk to pedestrians or other users of the public road</p> <p>(b) does not interrupt pedestrian movement</p> <p>(c) does not interfere with existing infrastructure or services on the street</p> <p>(d) positively contributes to the vibrancy of the area</p> <p>(e) is consistent with the outcomes of the zone.</p>	<p>DTS/DPF 10.1 None are applicable.</p>		

Table 5 - Procedural Matters (PM) - Notification

The following table identifies, pursuant to section 107(6) of the *Planning, Development and Infrastructure Act 2016*, classes of performance assessed development that are excluded from notification. The table also identifies any exemptions to the placement of notices when notification is required.

Interpretation

Notification tables exclude the classes of development listed in Column A from notification provided that they do not fall within a corresponding exclusion prescribed in Column B.

Where a development or an element of a development falls within more than one class of development listed in Column A, it will be excluded from notification if it is excluded (in its entirety) under any of those classes of development. It need not be excluded under all applicable classes of development.

Where a development involves multiple performance assessed elements, all performance assessed elements will require notification (regardless of whether one or more elements are excluded in the applicable notification table) unless every performance assessed element of the application is excluded in the applicable notification table, in which case the application will not require notification.

A relevant authority may determine that a variation to 1 or more corresponding exclusions prescribed in Column B is minor in nature and does not require notification.

Class of Development (Column A)	Exceptions (Column B)
1. Development which, in the opinion of the relevant authority, is of a minor nature only and will not unreasonably impact on the owners or occupiers of land in the locality of the site of the development.	None specified.
2. Any kind of development where the site of the development is not adjacent land to a site (or land) used for residential purposes in a neighbourhood-type zone.	Except any of the following: <ol style="list-style-type: none"> 1. the demolition (or partial demolition) of a State or Local Heritage Place (other than an excluded building) 2. the demolition (or partial demolition) of a building in a Historic Area Overlay (other than an excluded building).
3. Any development involving any of the following (or of any combination of any of the following): <ol style="list-style-type: none"> (a) advertisement (b) child care facility (c) consulting room (d) dwelling (e) office (f) residential flat building (g) shop (h) student accommodation (i) temporary public service depot. 	Except development that exceeds the maximum building height specified in Capital City Zone DTS/DPF 4.1.
4. Any development involving any of the following (or of any combination of any of the following): <ol style="list-style-type: none"> (a) air handling unit, air conditioning system or exhaust fan (b) carport (c) deck (d) fence (e) internal building works (f) land division (g) outbuilding (h) pergola (i) private bushfire shelter (j) retaining wall (k) shade sail (l) solar photovoltaic panels (roof mounted) (m) swimming pool or spa pool and associated swimming 	None specified.

Class of Development (Column A)	Exceptions (Column B)
pool safety features (n) tree damaging activity (o) verandah (p) water tank.	
5. Demolition.	Except any of the following: <ol style="list-style-type: none"> the demolition (or partial demolition) of a State or Local Heritage Place (other than an excluded building) the demolition (or partial demolition) of a building in a Historic Area Overlay (other than an excluded building).
6. Railway line.	Except where located outside of a rail corridor or rail reserve.
Placement of Notices - Exemptions for Performance Assessed Development	
None specified.	
Placement of Notices - Exemptions for Restricted Development	
None specified.	

Part 3 - Overlays

Airport Building Heights (Regulated) Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Management of potential impacts of buildings and generated emissions to maintain operational and safety requirements of registered and certified commercial and military airfields, airports, airstrips and helicopter landing sites.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Built Form	
PO 1.1 Building height does not pose a hazard to the operation of a certified or registered aerodrome.	DTS/DPF 1.1 Buildings are located outside the area identified as 'All structures' (no height limit is prescribed) and do not exceed the height specified in the Airport Building Heights (Regulated) Overlay which applies to the subject site as shown on the SA Property and Planning Atlas. In instances where more than one value applies to the site, the lowest value relevant to the site of the proposed development is applicable.

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
<p>Any of the following classes of development:</p> <p>(a) building located in an area identified as 'All structures' (no height limit is prescribed) or will exceed the height specified in the <i>Airport Building Heights (Regulated) Overlay</i></p> <p>(b) building comprising exhaust stacks that generates plumes, or may cause plumes to be generated, above a height specified in the <i>Airport Building Heights (Regulated) Overlay</i>.</p>	<p>The airport-operator company for the relevant airport within the meaning of the <i>Airports Act 1996</i> of the Commonwealth or, if there is no airport-operator company, the Secretary of the Minister responsible for the administration of the <i>Airports Act 1996</i> of the Commonwealth.</p>	<p>To provide expert assessment and direction to the relevant authority on potential impacts on the safety and operation of aviation activities.</p>	<p>Development of a class to which Schedule 9 clause 3 item 1 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.</p>

Building Near Airfields Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Maintain the operational and safety requirements of certified commercial and military airfields, airports, airstrips and helicopter landing sites through management of non-residential lighting, turbulence and activities that may attract or result in the congregation of wildlife.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
<p>PO 1.1</p> <p>Outdoor lighting associated with a non-residential use does not pose a hazard to commercial or military aircraft operations.</p>	<p>DTS/DPF 1.1</p> <p>Development:</p> <p>(a) primarily or wholly for residential purposes</p> <p>(b) for non-residential purposes that does not incorporate outdoor floodlighting.</p>
<p>PO 1.2</p> <p>Development likely to attract or result in the congregation of wildlife is adequately separated from airfields to minimise the potential for aircraft wildlife strike.</p>	<p>DTS/DPF 1.2</p> <p>All development except where it comprises one or more of the following located not less than 3km from the boundaries of an airport used by commercial or military aircraft:</p> <p>(a) food packing/processing plant</p> <p>(b) horticulture</p> <p>(c) intensive animal husbandry</p> <p>(d) showground</p> <p>(e) waste management facility</p> <p>(f) waste transfer station</p> <p>(g) wetland</p> <p>(h) wildlife sanctuary.</p>
<p>PO 1.3</p> <p>Buildings are adequately separated from runways and other take-off and landing facilities within certified or registered aerodromes to minimise the potential for building-generated turbulence and windshear that may pose a safety hazard to aircraft flight movement.</p>	<p>DTS/DPF 1.3</p> <p>The distance from any part of a runway centreline to the closest point of the building is not less than 35 times the building height.</p>

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

Design Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development positively contributes to the liveability, durability and sustainability of the built environment through high-quality design.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
General	
PO 1.1 Medium to high rise buildings and state significant development demonstrate high quality design.	DTS/DPF 1.1 None are applicable.

Procedural Matters (PM)

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
Except where the development comprises a variation to an application that has either been: <ul style="list-style-type: none"> (a) previously referred to the Government Architect or Associate Government Architect or (b) given development authorisation under the <i>Planning, Development and Infrastructure Act 2016</i> or <i>Development Act 1993</i> and (c) the variation to that application is, in the opinion of the relevant authority, minor in nature or would not warrant a referral when considering the purpose of the referral any of the following classes of development:	Government Architect or Associate Government Architect	To provide expert design advice to the relevant authority on how the development: <ul style="list-style-type: none"> (a) responds to its surrounding context and contributes to the quality and character of a place (b) contributes to inclusiveness, connectivity, and universal design of the built environment (c) enables buildings and places that are fit for purpose, adaptable and long-lasting 	Development of a class to which Schedule 9 clause 3 item 22 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

<p>(a) development within the area of the overlay located within the Corporation of the City of Adelaide where the total amount to be applied to any work, when all stages of the development are completed, exceeds \$10,000,000</p> <p>(b) development within the area of the overlay located within the City of Port Adelaide Enfield where the total amount to be applied to any work, when all stages of the development are completed, exceeds \$3 000 000</p> <p>(c) development within all other areas of the overlay that involves the erection or construction of a building that exceeds 4 building levels.</p>		<p>(d) adds value by positively contributing to places and communities</p> <p>(e) optimises performance and public benefit</p> <p>(f) supports sustainable and environmentally responsible development.</p>	
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Hazards (Flooding - Evidence Required) Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development adopts a precautionary approach to mitigate potential impacts on people, property, infrastructure and the environment from potential flood risk through the appropriate siting and design of development.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Flood Resilience	
<p>PO 1.1</p> <p>Development is sited, designed and constructed to minimise the risk of entry of potential floodwaters where the entry of flood waters is likely to result in undue damage to or compromise ongoing activities within buildings.</p>	<p>DTS/DPF 1.1</p> <p>Habitable buildings, commercial and industrial buildings, and buildings used for animal keeping incorporate a finished floor level at least 300mm above:</p> <ul style="list-style-type: none"> (a) the highest point of top of kerb of the primary street or (b) the highest point of natural ground level at the primary street boundary where there is no kerb

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

Heritage Adjacency Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome

DO 1	Development adjacent to State and Local Heritage Places maintains the heritage and cultural values of those Places.
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Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Built Form	
PO 1.1 Development adjacent to a State or Local Heritage Place does not dominate, encroach on or unduly impact on the setting of the Place.	DTS/DPF 1.1 None are applicable.

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
Development which in the opinion of the relevant authority materially affects the context within which the State Heritage Place is situated.	Minister responsible for the administration of the <i>Heritage Places Act 1993</i> .	To provide expert assessment and direction to the relevant authority on the potential impacts of development adjacent State Heritage Places.	Development of a class to which Schedule 9 clause 3 item 17 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

Part 4 - General Development Policies

Clearance from Overhead Powerlines

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Protection of human health and safety when undertaking development in the vicinity of overhead transmission powerlines.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.1 Buildings are adequately separated from aboveground powerlines to minimise potential hazard to people and property.	DTS/DPF 1.1 One of the following is satisfied: <ul style="list-style-type: none"> (a) a declaration is provided by or on behalf of the applicant to the effect that the proposal would not be contrary to the regulations prescribed for the purposes of section 86 of the <i>Electricity Act 1996</i> (b) there are no aboveground powerlines adjoining the site that are

	the subject of the proposed development.
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Design in Urban Areas

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	<p>Development is:</p> <ul style="list-style-type: none"> (a) contextual - by considering, recognising and carefully responding to its natural surroundings or built environment and positively contributing to the character of the locality (b) durable - fit for purpose, adaptable and long lasting (c) inclusive - by integrating landscape design to optimise pedestrian and cyclist usability, privacy and equitable access and promoting the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimise security and safety both internally and within the public realm, for occupants and visitors (d) sustainable - by integrating sustainable techniques into the design and siting of development and landscaping to improve community health, urban heat, water management, environmental performance, biodiversity and local amenity and to minimise energy consumption.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
All Development	
External Appearance	
PO 1.1 Buildings reinforce corners through changes in setback, articulation, materials, colour and massing (including height, width, bulk, roof form and slope).	DTS/DPF 1.1 None are applicable.
PO 1.2 Where zero or minor setbacks are desirable, development provides shelter over footpaths (in the form of verandahs, awnings, canopies and the like, with adequate lighting) to positively contribute to the walkability, comfort and safety of the public realm.	DTS/DPF 1.2 None are applicable.
PO 1.3 Building elevations facing the primary street (other than ancillary buildings) are designed and detailed to convey purpose, identify main access points and complement the streetscape.	DTS/DPF 1.3 None are applicable.
PO 1.4 Plant, exhaust and intake vents and other technical equipment are integrated into the building design to minimise visibility from the public realm and negative impacts on residential amenity by: <ul style="list-style-type: none"> (a) positioning plant and equipment discretely, in unobtrusive locations as viewed from public roads and spaces (b) screening rooftop plant and equipment from view (c) when located on the roof of non-residential development, locating the plant and equipment as far as practicable from adjacent sensitive land uses. 	DTS/DPF 1.4 Development does not incorporate any structures that protrude beyond the roofline.
PO 1.5 The negative visual impact of outdoor storage, waste management, loading and service areas is minimised by integrating them into the	DTS/DPF 1.5 None are applicable.

building design and screening them from public view (such as fencing, landscaping and built form), taking into account the form of development contemplated in the relevant zone.	
Safety	
PO 2.1 Development maximises opportunities for passive surveillance of the public realm by providing clear lines of sight, appropriate lighting and the use of visually permeable screening wherever practicable.	DTS/DPF 2.1 None are applicable.
PO 2.2 Development is designed to differentiate public, communal and private areas.	DTS/DPF 2.2 None are applicable.
PO 2.3 Buildings are designed with safe, perceptible and direct access from public street frontages and vehicle parking areas.	DTS/DPF 2.3 None are applicable.
PO 2.4 Development at street level is designed to maximise opportunities for passive surveillance of the adjacent public realm.	DTS/DPF 2.4 None are applicable.
PO 2.5 Common areas and entry points of buildings (such as the foyer areas of residential buildings) and non-residential land uses at street level, maximise passive surveillance from the public realm to the inside of the building at night.	DTS/DPF 2.5 None are applicable.
Landscaping	
PO 3.1 Soft landscaping and tree planting are incorporated to: (a) minimise heat absorption and reflection (b) maximise shade and shelter (c) maximise stormwater infiltration (d) enhance the appearance of land and streetscapes.	DTS/DPF 3.1 None are applicable.
Environmental Performance	
PO 4.1 Buildings are sited, oriented and designed to maximise natural sunlight access and ventilation to main activity areas, habitable rooms, common areas and open spaces.	DTS/DPF 4.1 None are applicable.
PO 4.2 Buildings are sited and designed to maximise passive environmental performance and minimise energy consumption and reliance on mechanical systems, such as heating and cooling.	DTS/DPF 4.2 None are applicable.
PO 4.3 Buildings incorporate climate responsive techniques and features such as building and window orientation, use of eaves, verandahs and shading structures, water harvesting, at ground landscaping, green walls, green roofs and photovoltaic cells.	DTS/DPF 4.3 None are applicable.
On-site Waste Treatment Systems	
PO 6.1 Dedicated on-site effluent disposal areas do not include any areas to be used for, or could be reasonably foreseen to be used for, private open space, driveways or car parking.	DTS/DPF 6.1 Effluent disposal drainage areas do not: (a) encroach within an area used as private open space or result in

	<p>less private open space than that specified in Design in Urban Areas Table 1 - Private Open Space</p> <p>(b) use an area also used as a driveway</p> <p>(c) encroach within an area used for on-site car parking or result in less on-site car parking than that specified in Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas.</p>
Car parking appearance	
<p>PO 7.1</p> <p>Development facing the street is designed to minimise the negative impacts of any semi-basement and undercroft car parking on streetscapes through techniques such as:</p> <p>(a) limiting protrusion above finished ground level</p> <p>(b) screening through appropriate planting, fencing and mounding</p> <p>(c) limiting the width of openings and integrating them into the building structure.</p>	<p>DTS/DPF 7.1</p> <p>None are applicable.</p>
<p>PO 7.2</p> <p>Vehicle parking areas appropriately located, designed and constructed to minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced and the like.</p>	<p>DTS/DPF 7.2</p> <p>None are applicable.</p>
<p>PO 7.3</p> <p>Safe, legible, direct and accessible pedestrian connections are provided between parking areas and the development.</p>	<p>DTS/DPF 7.3</p> <p>None are applicable.</p>
<p>PO 7.4</p> <p>Street-level vehicle parking areas incorporate tree planting to provide shade, reduce solar heat absorption and reflection.</p>	<p>DTS/DPF 7.4</p> <p>Vehicle parking areas that are open to the sky and comprise 10 or more car parking spaces include a shade tree with a mature canopy of 4m diameter spaced for each 10 car parking spaces provided and a landscaped strip on any road frontage of a minimum dimension of 1m.</p>
<p>PO 7.5</p> <p>Street level parking areas incorporate soft landscaping to improve visual appearance when viewed from within the site and from public places.</p>	<p>DTS/DPF 7.5</p> <p>Vehicle parking areas comprising 10 or more car parking spaces include soft landscaping with a minimum dimension of:</p> <p>(a) 1m along all public road frontages and allotment boundaries</p> <p>(b) 1m between double rows of car parking spaces.</p>
<p>PO 7.6</p> <p>Vehicle parking areas and associated driveways are landscaped to provide shade and positively contribute to amenity.</p>	<p>DTS/DPF 7.6</p> <p>None are applicable.</p>
<p>PO 7.7</p> <p>Vehicle parking areas and access ways incorporate integrated stormwater management techniques such as permeable or porous surfaces, infiltration systems, drainage swales or rain gardens that integrate with soft landscaping.</p>	<p>DTS/DPF 7.7</p> <p>None are applicable.</p>
Earthworks and sloping land	
<p>PO 8.1</p> <p>Development, including any associated driveways and access tracks, minimises the need for earthworks to limit disturbance to natural topography.</p>	<p>DTS/DPF 8.1</p> <p>Development does not involve any of the following:</p> <p>(a) excavation exceeding a vertical height of 1m</p> <p>(b) filling exceeding a vertical height of 1m</p> <p>(c) a total combined excavation and filling vertical height of 2m or more.</p>

<p>PO 8.2</p> <p>Driveways and access tracks designed and constructed to allow safe and convenient access on sloping land.</p>	<p>DTS/DPF 8.2</p> <p>Driveways and access tracks on sloping land (with a gradient exceeding 1 in 8) satisfy (a) and (b):</p> <ul style="list-style-type: none"> (a) do not have a gradient exceeding 25% (1-in-4) at any point along the driveway (b) are constructed with an all-weather trafficable surface.
<p>PO 8.3</p> <p>Driveways and access tracks on sloping land (with a gradient exceeding 1 in 8):</p> <ul style="list-style-type: none"> (a) do not contribute to the instability of embankments and cuttings (b) provide level transition areas for the safe movement of people and goods to and from the development (c) are designed to integrate with the natural topography of the land. 	<p>DTS/DPF 8.3</p> <p>None are applicable.</p>
<p>PO 8.4</p> <p>Development on sloping land (with a gradient exceeding 1 in 8) avoids the alteration of natural drainage lines and includes on site drainage systems to minimise erosion.</p>	<p>DTS/DPF 8.4</p> <p>None are applicable.</p>
<p>PO 8.5</p> <p>Development does not occur on land at risk of landslip or increase the potential for landslip or land surface instability.</p>	<p>DTS/DPF 8.5</p> <p>None are applicable.</p>
<p>Overlooking / Visual Privacy (low rise buildings)</p>	
<p>PO 10.1</p> <p>Development mitigates direct overlooking from upper level windows to habitable rooms and private open spaces of adjoining residential uses in neighbourhood-type zones.</p>	<p>DTS/DPF 10.1</p> <p>Upper level windows facing side or rear boundaries shared with a residential use in a neighbourhood-type zone:</p> <ul style="list-style-type: none"> (a) are permanently obscured to a height of 1.5m above finished floor level and are fixed or not capable of being opened more than 125mm (b) have sill heights greater than or equal to 1.5m above finished floor level (c) incorporate screening with a maximum of 25% openings, permanently fixed no more than 500mm from the window surface and sited adjacent to any part of the window less than 1.5 m above the finished floor level.
<p>PO 10.2</p> <p>Development mitigates direct overlooking from balconies to habitable rooms and private open space of adjoining residential uses in neighbourhood type zones.</p>	<p>DTS/DPF 10.2</p> <p>One of the following is satisfied:</p> <ul style="list-style-type: none"> (a) the longest side of the balcony or terrace will face a public road, public road reserve or public reserve that is at least 15m wide in all places faced by the balcony or terrace or (b) all sides of balconies or terraces on upper building levels are permanently obscured by screening with a maximum 25% transparency/openings fixed to a minimum height of: <ul style="list-style-type: none"> (i) 1.5m above finished floor level where the balcony is located at least 15 metres from the nearest habitable window of a dwelling on adjacent land or (ii) 1.7m above finished floor level in all other cases
<p>Site Facilities / Waste Storage (excluding low rise residential development)</p>	
<p>PO 11.1</p> <p>Development provides a dedicated area for on-site collection and sorting of recyclable materials and refuse, green organic waste and wash bay facilities for the ongoing maintenance of bins that is adequate in size considering the</p>	<p>DTS/DPF 11.1</p> <p>None are applicable.</p>

number and nature of the activities they will serve and the frequency of collection.	
PO 11.2 Communal waste storage and collection areas are located, enclosed and designed to be screened from view from the public domain, open space and dwellings.	DTS/DPF 11.2 None are applicable.
PO 11.3 Communal waste storage and collection areas are designed to be well ventilated and located away from habitable rooms.	DTS/DPF 11.3 None are applicable.
PO 11.4 Communal waste storage and collection areas are designed to allow waste and recycling collection vehicles to enter and leave the site without reversing.	DTS/DPF 11.4 None are applicable.
PO 11.5 For mixed use developments, non-residential waste and recycling storage areas and access provide opportunities for on-site management of food waste through composting or other waste recovery as appropriate.	DTS/DPF 11.5 None are applicable.
All Development - Medium and High Rise	
External Appearance	
PO 12.1 Buildings positively contribute to the character of the local area by responding to local context.	DTS/DPF 12.1 None are applicable.
PO 12.2 Architectural detail at street level and a mixture of materials at lower building levels near the public interface are provided to reinforce a human scale.	DTS/DPF 12.2 None are applicable.
PO 12.3 Buildings are designed to reduce visual mass by breaking up building elevations into distinct elements.	DTS/DPF 12.3 None are applicable.
PO 12.4 Boundary walls visible from public land include visually interesting treatments to break up large blank elevations.	DTS/DPF 12.4 None are applicable.
PO 12.5 External materials and finishes are durable and age well to minimise ongoing maintenance requirements.	DTS/DPF 12.5 Buildings utilise a combination of the following external materials and finishes: (a) masonry (b) natural stone (c) pre-finished materials that minimise staining, discolouring or deterioration.
PO 12.6 Street-facing building elevations are designed to provide attractive, high quality and pedestrian-friendly street frontages.	DTS/DPF 12.6 Building street frontages incorporate: (a) active uses such as shops or offices (b) prominent entry areas for multi-storey buildings (where it is a common entry) (c) habitable rooms of dwellings (d) areas of communal public realm with public art or the like, where consistent with the zone and/or subzone provisions.
PO 12.7 Entrances to multi-storey buildings are safe, attractive, welcoming, functional and contribute to streetscape character.	DTS/DPF 12.7 Entrances to multi-storey buildings are: (a) oriented towards the street (b) clearly visible and easily identifiable from the street and vehicle parking areas (c) designed to be prominent, accentuated and a welcoming

	<p>feature if there are no active or occupied ground floor uses</p> <p>(d) designed to provide shelter, a sense of personal address and transitional space around the entry</p> <p>(e) located as close as practicable to the lift and / or lobby access to minimise the need for long access corridors</p> <p>(f) designed to avoid the creation of potential areas of entrapment.</p>
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<p>PO 12.8</p> <p>Building services, plant and mechanical equipment are screened from the public realm.</p>	<p>DTS/DPF 12.8</p> <p>None are applicable.</p>
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Landscaping

<p>PO 13.1</p> <p>Development facing a street provides a well landscaped area that contains a deep soil space to accommodate a tree of a species and size adequate to provide shade, contribute to tree canopy targets and soften the appearance of buildings.</p>	<p>DTS/DPF 13.1</p> <p>Buildings provide a 4m by 4m deep soil space in front of the building that accommodates a medium to large tree, except where no building setback from front property boundaries is desired.</p>
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<p>PO 13.2</p> <p>Deep soil zones are provided to retain existing vegetation or provide areas that can accommodate new deep root vegetation, including tall trees with large canopies to provide shade and soften the appearance of multi-storey buildings.</p>	<p>DTS/DPF 13.2</p> <p>Multi-storey development provides deep soil zones and incorporates trees at not less than the following rates, except in a location or zone where full site coverage is desired.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #0056b3; color: white;">Site area</th> <th style="background-color: #0056b3; color: white;">Minimum deep soil area</th> <th style="background-color: #0056b3; color: white;">Minimum dimension</th> <th style="background-color: #0056b3; color: white;">Tree / deep soil zones</th> </tr> </thead> <tbody> <tr> <td><300 m²</td> <td>10 m²</td> <td>1.5m</td> <td>1 small tree / 10 m²</td> </tr> <tr> <td>300-1500 m²</td> <td>7% site area</td> <td>3m</td> <td>1 medium tree / 30 m²</td> </tr> <tr> <td>>1500 m²</td> <td>7% site area</td> <td>6m</td> <td>1 large or medium tree / 60 m²</td> </tr> </tbody> </table> <p>Tree size and site area definitions</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Small tree</td> <td>4-6m mature height and 2-4m canopy spread</td> </tr> <tr> <td>Medium tree</td> <td>6-12m mature height and 4-8m canopy spread</td> </tr> <tr> <td>Large tree</td> <td>12m mature height and >8m canopy spread</td> </tr> <tr> <td>Site area</td> <td>The total area for development site, not average area per dwelling</td> </tr> </table>	Site area	Minimum deep soil area	Minimum dimension	Tree / deep soil zones	<300 m ²	10 m ²	1.5m	1 small tree / 10 m ²	300-1500 m ²	7% site area	3m	1 medium tree / 30 m ²	>1500 m ²	7% site area	6m	1 large or medium tree / 60 m ²	Small tree	4-6m mature height and 2-4m canopy spread	Medium tree	6-12m mature height and 4-8m canopy spread	Large tree	12m mature height and >8m canopy spread	Site area	The total area for development site, not average area per dwelling
Site area	Minimum deep soil area	Minimum dimension	Tree / deep soil zones																						
<300 m ²	10 m ²	1.5m	1 small tree / 10 m ²																						
300-1500 m ²	7% site area	3m	1 medium tree / 30 m ²																						
>1500 m ²	7% site area	6m	1 large or medium tree / 60 m ²																						
Small tree	4-6m mature height and 2-4m canopy spread																								
Medium tree	6-12m mature height and 4-8m canopy spread																								
Large tree	12m mature height and >8m canopy spread																								
Site area	The total area for development site, not average area per dwelling																								

<p>PO 13.3</p> <p>Deep soil zones with access to natural light are provided to assist in maintaining vegetation health.</p>	<p>DTS/DPF 13.3</p> <p>None are applicable.</p>
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<p>PO 13.4</p> <p>Unless separated by a public road or reserve, development sites adjacent to any zone that has a primary purpose of accommodating low-rise residential development incorporate a deep soil zone along the common boundary to enable medium to large trees to be retained or established to assist in screening new buildings of 3 or more building levels in height.</p>	<p>DTS/DPF 13.4</p> <p>Building elements of 3 or more building levels in height are set back at least 6m from a zone boundary in which a deep soil zone area is incorporated.</p>
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Environmental

<p>PO 14.1</p>	<p>DTS/DPF 14.1</p>
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<p>Development minimises detrimental micro-climatic impacts on adjacent land and buildings.</p>	<p>None are applicable.</p>
<p>PO 14.2 Development incorporates sustainable design techniques and features such as window orientation, eaves and shading structures, water harvesting and use, green walls and roof designs that enable the provision of rain water tanks (where they are not provided elsewhere on site), green roofs and photovoltaic cells.</p>	<p>DTS/DPF 14.2 None are applicable.</p>
<p>PO 14.3 Development of 5 or more building levels, or 21m or more in height (as measured from natural ground level and excluding roof-mounted mechanical plant and equipment) is designed to minimise the impacts of wind through measures such as:</p> <ul style="list-style-type: none"> (a) a podium at the base of a tall tower and aligned with the street to deflect wind away from the street (b) substantial verandahs around a building to deflect downward travelling wind flows over pedestrian areas (c) the placement of buildings and use of setbacks to deflect the wind at ground level (d) avoiding tall shear elevations that create windy conditions at street level. 	<p>DTS/DPF 14.3 None are applicable.</p>
<p>Car Parking</p>	
<p>PO 15.1 Multi-level vehicle parking structures are designed to contribute to active street frontages and complement neighbouring buildings.</p>	<p>DTS/DPF 15.1 Multi-level vehicle parking structures within buildings:</p> <ul style="list-style-type: none"> (a) provide land uses such as commercial, retail or other non-car parking uses along ground floor street frontages (b) incorporate facade treatments in building elevations facing along major street frontages that are sufficiently enclosed and detailed to complement adjacent buildings.
<p>PO 15.2 Multi-level vehicle parking structures within buildings complement the surrounding built form in terms of height, massing and scale.</p>	<p>DTS/DPF 15.2 None are applicable.</p>
<p>Overlooking/Visual Privacy</p>	
<p>PO 16.1 Development mitigates direct overlooking of habitable rooms and private open spaces of adjacent residential uses in neighbourhood-type zones through measures such as:</p> <ul style="list-style-type: none"> (a) appropriate site layout and building orientation (b) off-setting the location of balconies and windows of habitable rooms or areas with those of other buildings so that views are oblique rather than direct to avoid direct line of sight (c) building setbacks from boundaries (including building boundary to boundary where appropriate) that interrupt views or that provide a spatial separation between balconies or windows of habitable rooms (d) screening devices that are integrated into the building design and have minimal negative effect on residents' or neighbours' amenity. 	<p>DTS/DPF 16.1 None are applicable.</p>
<p>All non-residential development</p>	
<p>Water Sensitive Design</p>	
<p>PO 42.1 Development likely to result in risk of export of sediment, suspended</p>	<p>DTS/DPF 42.1 None are applicable.</p>

<p>solids, organic matter, nutrients, oil and grease include stormwater management systems designed to minimise pollutants entering stormwater.</p>	
<p>PO 42.2 Water discharged from a development site is of a physical, chemical and biological condition equivalent to or better than its pre-developed state.</p>	<p>DTS/DPF 42.2 None are applicable.</p>
<p>PO 42.3 Development includes stormwater management systems to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that development does not increase peak flows in downstream systems.</p>	<p>DTS/DPF 42.3 None are applicable.</p>
<p>Wash-down and Waste Loading and Unloading</p>	
<p>PO 43.1 Areas for activities including loading and unloading, storage of waste refuse bins in commercial and industrial development or wash-down areas used for the cleaning of vehicles, plant or equipment are:</p> <ul style="list-style-type: none"> (a) designed to contain all wastewater likely to pollute stormwater within a bunded and roofed area to exclude the entry of external surface stormwater run-off (b) paved with an impervious material to facilitate wastewater collection (c) of sufficient size to prevent 'splash-out' or 'over-spray' of wastewater from the wash-down area (d) are designed to drain wastewater to either: <ul style="list-style-type: none"> (i) a treatment device such as a sediment trap and coalescing plate oil separator with subsequent disposal to a sewer, private or Community Wastewater Management Scheme or (ii) a holding tank and its subsequent removal off-site on a regular basis. 	<p>DTS/DPF 43.1 None are applicable.</p>
<p>Laneway Development</p>	
<p>Infrastructure and Access</p>	
<p>PO 44.1 Development with a primary street comprising a laneway, alley, lane, right of way or similar minor thoroughfare only occurs where:</p> <ul style="list-style-type: none"> (a) existing utility infrastructure and services are capable of accommodating the development (b) the primary street can support access by emergency and regular service vehicles (such as waste collection) (c) it does not require the provision or upgrading of infrastructure on public land (such as footpaths and stormwater management systems) (d) safety of pedestrians or vehicle movement is maintained (e) any necessary grade transition is accommodated within the site of the development to support an appropriate development intensity and orderly development of land fronting minor thoroughfares. 	<p>DTS/DPF 44.1 Development with a primary street frontage that is not an alley, lane, right of way or similar public thoroughfare.</p>

Interface between Land Uses

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development is located and designed to mitigate adverse effects on or from neighbouring and proximate land uses.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature								
Hours of Operation									
<p>PO 2.1</p> <p>Non-residential development does not unreasonably impact the amenity of sensitive receivers (or lawfully approved sensitive receivers) or an adjacent zone primarily for sensitive receivers through its hours of operation having regard to:</p> <ul style="list-style-type: none"> (a) the nature of the development (b) measures to mitigate off-site impacts (c) the extent to which the development is desired in the zone (d) measures that might be taken in an adjacent zone primarily for sensitive receivers that mitigate adverse impacts without unreasonably compromising the intended use of that land. 	<p>DTS/DPF 2.1</p> <p>Development operating within the following hours:</p> <table border="1"> <thead> <tr> <th>Class of Development</th> <th>Hours of operation</th> </tr> </thead> <tbody> <tr> <td>Consulting room</td> <td>7am to 9pm, Monday to Friday 8am to 5pm, Saturday</td> </tr> <tr> <td>Office</td> <td>7am to 9pm, Monday to Friday 8am to 5pm, Saturday</td> </tr> <tr> <td>Shop, other than any one or combination of the following: <ul style="list-style-type: none"> (a) restaurant (b) cellar door in the Productive Rural Landscape Zone, Rural Zone or Rural Horticulture Zone </td> <td>7am to 9pm, Monday to Friday 8am to 5pm, Saturday and Sunday</td> </tr> </tbody> </table>	Class of Development	Hours of operation	Consulting room	7am to 9pm, Monday to Friday 8am to 5pm, Saturday	Office	7am to 9pm, Monday to Friday 8am to 5pm, Saturday	Shop, other than any one or combination of the following: <ul style="list-style-type: none"> (a) restaurant (b) cellar door in the Productive Rural Landscape Zone, Rural Zone or Rural Horticulture Zone 	7am to 9pm, Monday to Friday 8am to 5pm, Saturday and Sunday
Class of Development	Hours of operation								
Consulting room	7am to 9pm, Monday to Friday 8am to 5pm, Saturday								
Office	7am to 9pm, Monday to Friday 8am to 5pm, Saturday								
Shop, other than any one or combination of the following: <ul style="list-style-type: none"> (a) restaurant (b) cellar door in the Productive Rural Landscape Zone, Rural Zone or Rural Horticulture Zone 	7am to 9pm, Monday to Friday 8am to 5pm, Saturday and Sunday								
Overshadowing									
<p>PO 3.1</p> <p>Overshadowing of habitable room windows of adjacent residential land uses in:</p> <ul style="list-style-type: none"> a. a neighbourhood-type zone is minimised to maintain access to direct winter sunlight b. other zones is managed to enable access to direct winter sunlight. 	<p>DTS/DPF 3.1</p> <p>North-facing windows of habitable rooms of adjacent residential land uses in a neighbourhood-type zone receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on 21 June.</p>								
<p>PO 3.2</p> <p>Overshadowing of the primary area of private open space or communal open space of adjacent residential land uses in:</p> <ul style="list-style-type: none"> a. a neighbourhood type zone is minimised to maintain access to direct winter sunlight b. other zones is managed to enable access to direct winter sunlight. 	<p>DTS/DPF 3.2</p> <p>Development maintains 2 hours of direct sunlight between 9.00 am and 3.00 pm on 21 June to adjacent residential land uses in a neighbourhood-type zone in accordance with the following:</p> <ul style="list-style-type: none"> a. for ground level private open space, the smaller of the following: <ul style="list-style-type: none"> i. half the existing ground level open space or ii. 35m² of the existing ground level open space (with at least one of the area's dimensions measuring 2.5m) b. for ground level communal open space, at least half of the existing ground level open space. 								
<p>PO 3.3</p> <p>Development does not unduly reduce the generating capacity of</p>	<p>DTS/DPF 3.3</p> <p>None are applicable.</p>								

<p>adjacent rooftop solar energy facilities taking into account:</p> <ul style="list-style-type: none"> (a) the form of development contemplated in the zone (b) the orientation of the solar energy facilities (c) the extent to which the solar energy facilities are already overshadowed. 	
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Activities Generating Noise or Vibration

<p>PO 4.1 Development that emits noise (other than music) does not unreasonably impact the amenity of sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 4.1 Noise that affects sensitive receivers achieves the relevant Environment Protection (Noise) Policy criteria.</p>
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<p>PO 4.2 Areas for the on-site manoeuvring of service and delivery vehicles, plant and equipment, outdoor work spaces (and the like) are designed and sited to not unreasonably impact the amenity of adjacent sensitive receivers (or lawfully approved sensitive receivers) and zones primarily intended to accommodate sensitive receivers due to noise and vibration by adopting techniques including:</p> <ul style="list-style-type: none"> (a) locating openings of buildings and associated services away from the interface with the adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers (b) when sited outdoors, locating such areas as far as practicable from adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers (c) housing plant and equipment within an enclosed structure or acoustic enclosure (d) providing a suitable acoustic barrier between the plant and / or equipment and the adjacent sensitive receiver boundary or zone. 	<p>DTS/DPF 4.2 None are applicable.</p>
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<p>PO 4.5 Outdoor areas associated with licensed premises (such as beer gardens or dining areas) are designed and/or sited to not cause unreasonable noise impact on existing adjacent sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 4.5 None are applicable.</p>
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<p>PO 4.6 Development incorporating music achieves suitable acoustic amenity when measured at the boundary of an adjacent sensitive receiver (or lawfully approved sensitive receiver) or zone primarily intended to accommodate sensitive receivers.</p>	<p>DTS/DPF 4.6 Development incorporating music includes noise attenuation measures that will achieve the following noise levels:</p> <table border="1" data-bbox="831 1487 1489 1704"> <thead> <tr> <th data-bbox="831 1487 1098 1547">Assessment location</th> <th data-bbox="1098 1487 1489 1547">Music noise level</th> </tr> </thead> <tbody> <tr> <td data-bbox="831 1547 1098 1704">Externally at the nearest existing or envisaged noise sensitive location</td> <td data-bbox="1098 1547 1489 1704">Less than 8dB above the level of background noise (L_{90,15min}) in any octave band of the sound spectrum (LOCT_{10,15} < LOCT_{90,15} + 8dB)</td> </tr> </tbody> </table>	Assessment location	Music noise level	Externally at the nearest existing or envisaged noise sensitive location	Less than 8dB above the level of background noise (L _{90,15min}) in any octave band of the sound spectrum (LOCT _{10,15} < LOCT _{90,15} + 8dB)
Assessment location	Music noise level				
Externally at the nearest existing or envisaged noise sensitive location	Less than 8dB above the level of background noise (L _{90,15min}) in any octave band of the sound spectrum (LOCT _{10,15} < LOCT _{90,15} + 8dB)				

Air Quality

<p>PO 5.2 Development that includes chimneys or exhaust flues (including cafes, restaurants and fast food outlets) is designed to minimise nuisance or adverse health impacts to sensitive receivers (or lawfully approved sensitive receivers) by:</p> <ul style="list-style-type: none"> (a) incorporating appropriate treatment technology before exhaust emissions are released (b) locating and designing chimneys or exhaust flues to maximise the dispersion of exhaust emissions, taking into account the location of sensitive receivers. 	<p>DTS/DPF 5.2 None are applicable.</p>
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Light Spill	
PO 6.1 External lighting is positioned and designed to not cause unreasonable light spill impact on adjacent sensitive receivers (or lawfully approved sensitive receivers).	DTS/DPF 6.1 None are applicable.
Solar Reflectivity / Glare	
PO 7.1 Development is designed and comprised of materials and finishes that do not unreasonably cause a distraction to adjacent road users and pedestrian areas or unreasonably cause heat loading and micro-climatic impacts on adjacent buildings and land uses as a result of reflective solar glare.	DTS/DPF 7.1 None are applicable.

Out of Activity Centre Development

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO1	The role of Activity Centres in contributing to the form and pattern of development and enabling equitable and convenient access to a range of shopping, administrative, cultural, entertainment and other facilities in a single trip is maintained and reinforced.

Performance Outcomes and Deemed to Satisfy / Designated Performance Outcome Criteria

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.1 Non-residential development outside Activity Centres of a scale and type that does not diminish the role of Activity Centres: <ul style="list-style-type: none"> (a) as primary locations for shopping, administrative, cultural, entertainment and community services (b) as a focus for regular social and business gatherings (c) in contributing to or maintaining a pattern of development that supports equitable community access to services and facilities. 	DTS/DPF 1.1 None are applicable.
PO 1.2 Out-of-activity centre non-residential development complements Activity Centres through the provision of services and facilities: <ul style="list-style-type: none"> (a) that support the needs of local residents and workers, particularly in underserved locations (b) at the edge of Activities Centres where they cannot readily be accommodated within an existing Activity Centre to expand the range of services on offer and support the role of the Activity Centre. 	DTS/DPF 1.2 None are applicable.

Site Contamination

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Ensure land is suitable for the proposed use in circumstances where it is, or may have been, subject to site contamination.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.1 Ensure land is suitable for use when land use changes to a more sensitive use.	DTS/DPF 1.1 Development satisfies (a), (b), (c) or (d): <ul style="list-style-type: none"> (a) does not involve a change in the use of land (b) involves a change in the use of land that does not constitute a change to a more sensitive use (c) involves a change in the use of land to a more sensitive use on land at which site contamination is unlikely to exist (as demonstrated in a site contamination declaration form) (d) involves a change in the use of land to a more sensitive use on land at which site contamination exists, or may exist (as demonstrated in a site contamination declaration form), and satisfies both of the following: <ul style="list-style-type: none"> (i) a site contamination audit report has been prepared under Part 10A of the <i>Environment Protection Act 1993</i> in relation to the land within the previous 5 years which states that- <ul style="list-style-type: none"> A. site contamination does not exist (or no longer exists) at the land or B. the land is suitable for the proposed use or range of uses (without the need for any further remediation) or C. where remediation is, or remains, necessary for the proposed use (or range of uses), remediation work has been carried out or will be carried out (and the applicant has provided a written undertaking that the remediation works will be implemented in association with the development) and (ii) no other class 1 activity or class 2 activity has taken place at the land since the preparation of the site contamination audit report (as demonstrated in a site contamination declaration form).

Transport, Access and Parking

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	A comprehensive, integrated and connected transport system that is safe, sustainable, efficient, convenient and accessible to all users.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Movement Systems	

PO 1.4 Development is sited and designed so that loading, unloading and turning of all traffic avoids interrupting the operation of and queuing on public roads and pedestrian paths.	DTS/DPF 1.4 All vehicle manoeuvring occurs onsite.
Sightlines	
PO 2.1 Sightlines at intersections, pedestrian and cycle crossings, and crossovers to allotments for motorists, cyclists and pedestrians are maintained or enhanced to ensure safety for all road users and pedestrians.	DTS/DPF 2.1 None are applicable.
PO 2.2 Walls, fencing and landscaping adjacent to driveways and corner sites are designed to provide adequate sightlines between vehicles and pedestrians.	DTS/DPF 2.2 None are applicable.
Vehicle Access	
PO 3.1 Safe and convenient access minimises impact or interruption on the operation of public roads.	DTS/DPF 3.1 The access is: (a) provided via a lawfully existing or authorised driveway or access point or an access point for which consent has been granted as part of an application for the division of land or (b) not located within 6m of an intersection of 2 or more roads or a pedestrian activated crossing.
PO 3.2 Development incorporating vehicular access ramps ensures vehicles can enter and exit a site safely and without creating a hazard to pedestrians and other vehicular traffic.	DTS/DPF 3.2 None are applicable.
PO 3.3 Access points are sited and designed to accommodate the type and volume of traffic likely to be generated by the development or land use.	DTS/DPF 3.3 None are applicable.
PO 3.4 Access points are sited and designed to minimise any adverse impacts on neighbouring properties.	DTS/DPF 3.4 None are applicable.
PO 3.5 Access points are located so as not to interfere with street trees, existing street furniture (including directional signs, lighting, seating and weather shelters) or infrastructure services to maintain the appearance of the streetscape, preserve local amenity and minimise disruption to utility infrastructure assets.	DTS/DPF 3.5 Vehicle access to designated car parking spaces satisfy (a) or (b): (a) is provided via a lawfully existing or authorised access point or an access point for which consent has been granted as part of an application for the division of land (b) where newly proposed, is set back: (i) 0.5m or more from any street furniture, street pole, infrastructure services pit, or other stormwater or utility infrastructure unless consent is provided from the asset owner (ii) 2m or more from the base of the trunk of a street tree unless consent is provided from the tree owner for a lesser distance (iii) 6m or more from the tangent point of an intersection of 2 or more roads (iv) outside of the marked lines or infrastructure dedicating a pedestrian crossing.
PO 3.6 Driveways and access points are separated and minimised in number	DTS/DPF 3.6 Driveways and access points:

to optimise the provision of on-street visitor parking (where on-street parking is appropriate).	<ul style="list-style-type: none"> (a) for sites with a frontage to a public road of 20m or less, one access point no greater than 3.5m in width is provided (b) for sites with a frontage to a public road greater than 20m: <ul style="list-style-type: none"> (i) a single access point no greater than 6m in width is provided or (ii) not more than two access points with a width of 3.5m each are provided.
<p>PO 3.7</p> <p>Access points are appropriately separated from level crossings to avoid interference and ensure their safe ongoing operation.</p>	<p>DTS/DPF 3.7</p> <p>Development does not involve a new or modified access or cause an increase in traffic through an existing access that is located within the following distance from a railway crossing:</p> <ul style="list-style-type: none"> (a) 80 km/h road - 110m (b) 70 km/h road - 90m (c) 60 km/h road - 70m (d) 50km/h or less road - 50m.
<p>PO 3.8</p> <p>Driveways, access points, access tracks and parking areas are designed and constructed to allow adequate movement and manoeuvrability having regard to the types of vehicles that are reasonably anticipated.</p>	<p>DTS/DPF 3.8</p> <p>None are applicable.</p>
<p>PO 3.9</p> <p>Development is designed to ensure vehicle circulation between activity areas occurs within the site without the need to use public roads.</p>	<p>DTS/DPF 3.9</p> <p>None are applicable.</p>
Access for People with Disabilities	
<p>PO 4.1</p> <p>Development is sited and designed to provide safe, dignified and convenient access for people with a disability.</p>	<p>DTS/DPF 4.1</p> <p>None are applicable.</p>
Vehicle Parking Rates	
<p>PO 5.1</p> <p>Sufficient on-site vehicle parking and specifically marked accessible car parking places are provided to meet the needs of the development or land use having regard to factors that may support a reduced on-site rate such as:</p> <ul style="list-style-type: none"> (a) availability of on-street car parking (b) shared use of other parking areas (c) in relation to a mixed-use development, where the hours of operation of commercial activities complement the residential use of the site, the provision of vehicle parking may be shared (d) the adaptive reuse of a State or Local Heritage Place. 	<p>DTS/DPF 5.1</p> <p>Development provides a number of car parking spaces on-site at a rate no less than the amount calculated using one of the following, whichever is relevant:</p> <ul style="list-style-type: none"> (a) Transport, Access and Parking Table 2 - Off-Street Vehicle Parking Requirements in Designated Areas if the development is a class of development listed in Table 2 and the site is in a Designated Area (b) Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements where (a) does not apply (c) if located in an area where a lawfully established carparking fund operates, the number of spaces calculated under (a) or (b) less the number of spaces offset by contribution to the fund.
Vehicle Parking Areas	
<p>PO 6.1</p> <p>Vehicle parking areas are sited and designed to minimise impact on the operation of public roads by avoiding the use of public roads when moving from one part of a parking area to another.</p>	<p>DTS/DPF 6.1</p> <p>Movement between vehicle parking areas within the site can occur without the need to use a public road.</p>
<p>PO 6.2</p> <p>Vehicle parking areas are appropriately located, designed and</p>	<p>DTS/DPF 6.2</p> <p>None are applicable.</p>

constructed to minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced, and the like.	
PO 6.3 Vehicle parking areas are designed to provide opportunity for integration and shared-use of adjacent car parking areas to reduce the total extent of vehicle parking areas and access points.	DTS/DPF 6.3 None are applicable.
PO 6.4 Pedestrian linkages between parking areas and the development are provided and are safe and convenient.	DTS/DPF 6.4 None are applicable.
PO 6.5 Vehicle parking areas that are likely to be used during non-daylight hours are provided with sufficient lighting to entry and exit points to ensure clear visibility to users.	DTS/DPF 6.5 None are applicable.
PO 6.6 Loading areas and designated parking spaces for service vehicles are provided within the boundary of the site.	DTS/DPF 6.6 Loading areas and designated parking spaces are wholly located within the site.

Undercroft and Below Ground Garaging and Parking of Vehicles

PO 7.1 Undercroft and below ground garaging of vehicles is designed to enable safe entry and exit from the site without compromising pedestrian or cyclist safety or causing conflict with other vehicles.	DTS/DPF 7.1 None are applicable.
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Bicycle Parking in Designated Areas

PO 9.1 The provision of adequately sized on-site bicycle parking facilities encourages cycling as an active transport mode.	DTS/DPF 9.1 Areas and / or fixtures are provided for the parking and storage of bicycles at a rate not less than the amount calculated using Transport, Access and Parking Table 3 - Off Street Bicycle Parking Requirements.
PO 9.2 Bicycle parking facilities provide for the secure storage and tethering of bicycles in a place where casual surveillance is possible, is well lit and signed for the safety and convenience of cyclists and deters property theft.	DTS/DPF 9.2 None are applicable.
PO 9.3 Non-residential development incorporates end-of-journey facilities for employees such as showers, changing facilities and secure lockers, and signage indicating the location of the facilities to encourage cycling as a mode of journey-to-work transport.	DTS/DPF 9.3 None are applicable.

Corner Cut-Offs


PO 10.1 Development is located and designed to ensure drivers can safely turn into and out of public road junctions.	DTS/DPF 10.1 Development does not involve building work, or building work is located wholly outside the land shown as Corner Cut-Off Area in the following diagram:  <p>The diagram illustrates a corner cut-off area at a road junction. A red hatched triangular area is shown at the corner, with a dimension line indicating a width of 4.5M. A dashed line represents the 'Road Reserve' extending from the corner. A solid line represents the 'Allotment Boundary' which is located within the road reserve.</p>
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Table 1 - General Off-Street Car Parking Requirements

Class of Development	Car Parking Rate (unless varied by Table 2 onwards)
Where a development comprises more than one development type, then the overall car parking rate will be taken to be the sum of the car parking rates for each development type.	
Commercial Uses	
Shop (no commercial kitchen)	5.5 spaces per 100m ² of gross leasable floor area where not located in an integrated complex containing two or more tenancies (and which may comprise more than one building) where facilities for off-street vehicle parking, vehicle loading and unloading, and the storage and collection of refuse are shared. 5 spaces per 100m ² of gross leasable floor area where located in an integrated complex containing two or more tenancies (and which may comprise more than one building) where facilities for off-street vehicle parking, vehicle loading and unloading, and the storage and collection of refuse are shared.
Shop (in the form of a bulky goods outlet)	2.5 spaces per 100m ² of gross leasable floor area.
Shop (in the form of a restaurant or involving a commercial kitchen)	Premises with a dine-in service only (which may include a take-away component with no drive-through) - 0.4 spaces per seat. Premises with take-away service but with no seats - 12 spaces per 100m ² of total floor area plus a drive-through queue capacity of ten vehicles measured from the pick-up point. Premises with a dine-in and drive-through take-away service - 0.3 spaces per seat plus a drive through queue capacity of 10 vehicles measured from the pick-up point.

Table 2 - Off-Street Car Parking Requirements in Designated Areas

Class of Development	Car Parking Rate		Designated Areas
	Where a development comprises more than one development type, then the overall car parking rate will be taken to be the sum of the car parking rates for each development type.		
	Minimum number of spaces	Maximum number of spaces	
Non-residential development			
Non-residential development excluding tourist accommodation	3 spaces per 100m ² of gross leasable floor area.	5 spaces per 100m ² of gross leasable floor area.	City Living Zone Urban Corridor (Boulevard) Zone Urban Corridor (Business) Zone Urban Corridor (Living) Zone Urban Corridor (Main Street) Zone Urban Neighbourhood Zone (except for Bowden)

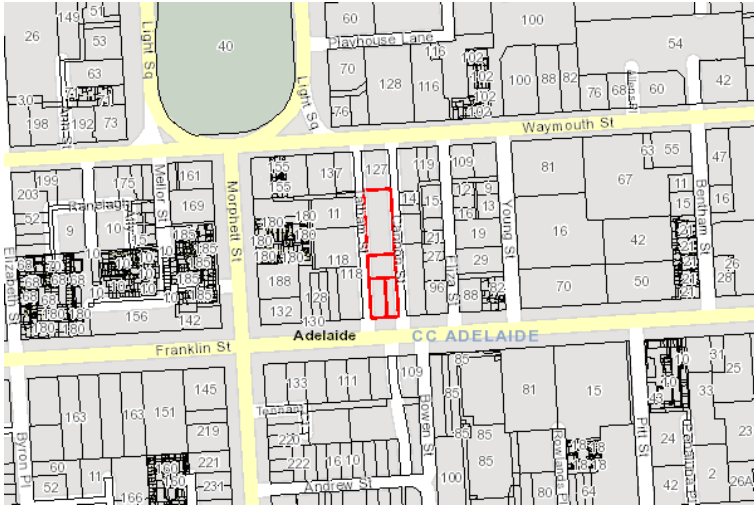
Table 3 - Off-Street Bicycle Parking Requirements

Class of Development	Bicycle Parking Rate	
	Where a development comprises more than one development type, then the overall bicycle parking rate will be taken to be the sum of the bicycle parking rates for each development type.	
Shop	1 space for every 300m ² of gross leasable floor area plus 1 space for every 600m ² of gross leasable floor area for customers.	
Schedule to Table 3	Designated Area	Relevant part of the State
	The bicycle parking rate applies to a designated area located in a relevant part of the State described below.	

	All zones	City of Adelaide
	Business Neighbourhood Zone Strategic Innovation Zone Suburban Activity Centre Zone Suburban Business Zone Suburban Main Street Zone Urban Activity Centre Zone Urban Corridor (Boulevard) Zone Urban Corridor (Business) Zone Urban Corridor (Living) Zone Urban Corridor (Main Street) Zone Urban Neighbourhood Zone	Metropolitan Adelaide

Address: 108-112A FRANKLIN ST ADELAIDE SA 5000

To view a detailed interactive property map in SAPPa click on the map below



Property Zoning Details

Zone

Capital City

Overlay

- Airport Building Heights (Regulated) *(All structures over 80 metres AHD)*
- Affordable Housing
- Building Near Airfields
- Design
- Heritage Adjacency
- Hazards (Flooding - Evidence Required)
- Noise and Air Emissions
- Prescribed Wells Area
- Regulated and Significant Tree

Local Variation (TNV)

- Maximum Building Height (Metres) *(Maximum building height is 53m)*
- Concept Plan *(Concept Plan 79 - Primary Pedestrian Area)*

Selected Development(s)

Tourist accommodation

This development may be subject to multiple assessment pathways. Please review the document below to determine which pathway may be applicable based on the proposed development compliances to standards.

If no assessment pathway is shown this mean the proposed development will default to performance assessed. Please contact your local council in this instance. Refer to Part 1 - Rules of Interpretation - Determination of Classes of Development

[Tourist accommodation - Code Assessed - Performance Assessed](#)

Part 2 - Zones and Sub Zones

Capital City Zone

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	A zone that is the economic and cultural focus of the state supporting a range of residential, employment, community, educational, innovation, recreational, tourism and entertainment facilities generating opportunities for population and employment growth.
DO 2	High intensity and large- scale development with high street walls reinforcing the distinctive grid pattern layout of the city with active non-residential ground level uses to positively contribute to public safety, inclusivity and vibrancy. Design quality of buildings and public spaces is a priority in this zone.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Land Use	
PO 1.1 A vibrant mix of residential, retail, community, commercial and professional services, civic and cultural, health, educational, recreational, tourism and entertainment facilities.	DTS/DPF 1.1 The following types of development, or combinations thereof, are envisaged: (a) Advertisement (b) Child care facility (c) Consulting Room (d) Dwelling (e) Educational facility (f) Hospital (g) Hotel (h) Licensed Premises (i) Library (j) Office (k) Supported Accommodation (l) Residential Flat Building (m) Shop (n) Student Accommodation (o) Tourist accommodation.
Activation	
PO 2.1 Non-residential land uses at ground floor level such as shops and restaurants support and maximise pedestrian activity to provide visual interest and positively contribute to public safety, walkability and vibrancy.	DTS/DPF 2.1 None are applicable.
PO 2.2 Development: (a) contributes to the activation of the public realm by presenting an attractive human scaled pedestrian-oriented frontage at ground level that adds interest and vibrancy; (b) maintains a sense of openness to the sky for pedestrians and allow sunlight access to the public realm; (c) provides a clear sense of address to each building.	DTS/DPF 2.2 None are applicable.
PO 2.3 Land uses typically open during night time hours incorporate activities along street frontages at ground level that encourage day time activation compatible with surrounding land uses.	DTS/DPF 2.3 None are applicable.
Built form and Character	
PO 3.1 A contextual design response that manages differences in scale and building proportions to maintain a cohesive streetscape and frame city	DTS/DPF 3.1 None are applicable

streets.	
<p>PO 3.2</p> <p>Buildings:</p> <p>(a) are designed to reinforce the prevailing datum heights and parapet levels of the street through design elements that provide a clear distinction between levels above and below the prevailing datum line;</p> <p>(b) where located in an existing low-rise context, are designed to include a podium/street wall height and upper level setback that:</p> <ul style="list-style-type: none"> (i) relates to the scale and context of adjoining built form; (ii) provides a human scale at street level; (iii) creates a well-defined and continuity of frontage; (iv) gives emphasis and definition to street corners to clearly define the street grid; and (v) contributes to the interest, vitality and security of the pedestrian environment. 	<p>DTS/DPF 3.2</p> <p>None are applicable.</p>
<p>PO 3.3</p> <p>Building façades are strongly modelled, incorporate a vertical composition which reflects the proportions of existing frontages, and ensure that architectural detailing is consistent around corners and along minor streets and laneways.</p>	<p>DTS/DPF 3.3</p> <p>None are applicable</p>
<p>PO 3.4</p> <p>Development along The Terraces (North, East, South and West) is designed to positively contribute to a continuous built form to frame the Park Lands and city edge.</p>	<p>DTS/DPF 3.4</p> <p>None are applicable.</p>
<p>PO 3.5</p> <p>Development along the city's boulevards (as identified in Capital City Zone Table 5.1):</p> <p>(a) built to the street boundary at lower levels to reinforce the City's grid layout and frame the boulevard</p> <p>(b) designed to provide a sense of arrival into the City and strongly define junctions where located on a corner site.</p>	<p>DTS/DPF 3.5</p> <p>None are applicable.</p>
<p>PO 3.6</p> <p>Development avoids activities that result in a gap in the built form along a public road or thoroughfare (such as an open lot car park) for an extended period of time to minimise negative impacts on streetscape continuity.</p>	<p>DTS/DPF 3.6</p> <p>None are applicable.</p>
<p>PO 3.7</p> <p>Development along the city's boulevards (as identified in Capital City Zone Table 5.1) is designed to maximise views to the Park Lands and not clutter existing view corridors to the Adelaide Hills when viewed from the public realm.</p>	<p>DTS/DPF 3.7</p> <p>None are applicable.</p>
<p>PO 3.8</p> <p>Development fronting Victoria, Hindmarsh, Whitmore, Hurtle and Light Squares is designed to provide a comfortable pedestrian and recreation environment by enabling direct sunlight to a majority of the Square.</p>	<p>DTS/DPF 3.8</p> <p>Development enables direct sunlight to a minimum of 75% of the landscaped part of each Square at the September equinox.</p>
<p>PO 3.9</p> <p>Development fronting Victoria, Hindmarsh, Whitmore, Hurtle and Light Squares is designed to reinforce the enclosure of the Squares with a continuous built-form with no upper level setbacks.</p>	<p>DTS/DPF 3.9</p> <p>None are applicable.</p>
<p>PO 3.11</p> <p>Development along minor streets and laneways is informed by its local context to maintain the prevailing built form pattern and structure, and designed to provide a sense of enclosure, and enable fine-grain uses at</p>	<p>DTS/DPF 3.11</p> <p>None are applicable.</p>

<p>street level to create an intimate, active, inclusive and walkable public realm.</p>			
<p>PO 3.12 Buildings north of the City Main Street Zone are designed to enable natural sunlight access to the southern footpath of the main street.</p>	<p>DTS/DPF 3.12 Buildings north of the City Main Street Zone that cast a shadow on the southern footpath of the main street incorporate narrow and setback tower elements and provide spaces between buildings.</p>		
<p>PO 3.13 Buildings are adaptable and flexible to accommodate a range of land uses.</p>	<p>DTS/DPF 3.13 The ground floor of buildings has a minimum floor to ceiling height of 3.5m.</p>		
<p>Building Height</p>			
<p>PO 4.1 Building height is consistent with the form expressed in any relevant <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> or positively responds to the local context and achieves the desired outcomes of the Zone.</p>	<p>DTS/DPF 4.1 Development does not exceed the following building heights:</p> <table border="1" data-bbox="831 640 1528 707"> <thead> <tr> <th style="text-align: center;">Maximum Building Height (Metres)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Maximum building height is 53m</td> </tr> </tbody> </table> <p>In relation to DTS/DPF 4.1, in instances where:</p> <ul style="list-style-type: none"> (a) more than one value is returned in the same field, refer to the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> or <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> in the SA planning database to determine the applicable value relevant to the site of the proposed development (b) only one value is returned (i.e. there is one blank field), then the relevant height in metres or building levels applies with no criteria for the other (c) no value is returned (i.e. there are blank fields for both maximum building height (metres) and maximum building height (levels), then none are applicable and the relevant development cannot be classified as deemed-to-satisfy. 	Maximum Building Height (Metres)	Maximum building height is 53m
Maximum Building Height (Metres)			
Maximum building height is 53m			
<p>PO 4.2 Development exceeding the building height specified in the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and the <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> is generally not contemplated unless:</p> <ul style="list-style-type: none"> (a) the development provides for the retention, conservation and reuse of a building that: <ul style="list-style-type: none"> (i) is a State or local heritage place and the heritage values of the place will be maintained (ii) provides a notable positive contribution to the character of the local area or (b) the building incorporates measures that provide for a substantial additional gain in sustainability and it demonstrates at least four of the following are met: <ul style="list-style-type: none"> (i) the development provides an orderly transition up to an existing taller building or prescribed maximum height in an adjacent Zone or building height area on the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> (ii) incorporates high quality open space that is universally accessible and directly connected to, and well integrated with, public realm areas of the street (iii) Incorporates high quality, safe and secure, universally accessible pedestrian linkages that connect through the development site to the surrounding pedestrian network (iv) provides higher amenity through provision of private open space in excess of minimum requirements by 25 	<p>DTS/DPF 4.2 None are applicable.</p>		

<ul style="list-style-type: none"> percent for at least 50 percent of dwellings (v) no on site car parking is provided (vi) at least 75% of the ground floor street fronts of the building are active frontages (vii) the building has frontage to a public road that abuts the Adelaide Park Lands; (viii) where the development includes housing, at least 15% of the dwellings are affordable housing (ix) the impact on adjacent properties is no greater than a building of the maximum height on the <i>Maximum Building Height (Levels) Technical and Numeric Variation layer</i> and <i>Maximum Building Height (Metres) Technical and Numeric Variation layer</i> in relation to sunlight access and overlooking. 	
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<p>PO 4.3 Buildings designed to achieve optimal height and floor space yields.</p>	<p>DTS/DPF 4.3 New development has a minimum building height of:</p> <ul style="list-style-type: none"> (a) not less than half of the maximum building height specified in DTS/DPF 4.1, or 8 building levels (with a minimum of 28m) in instances where 'No prescribed height limit' is specified in DTS/DPF 4.1; or (b) within the City Frame Subzone: 3 building levels (with a minimum of 11.5m), or 4 building levels (with a minimum of 15m) on sites fronting South Terrace <p>other than where:</p> <ul style="list-style-type: none"> (a) a lower building height is necessary to achieve compliance with the Commonwealth Airports (Protection of Airspace) Regulations (b) the site of the development adjoins the City Living Zone and a lesser building height is required to positively manage the interface with low-rise residential development (c) the site of the development adjoins a heritage place, or contains a heritage place or (d) the development includes the construction of a building in the same, or substantially the same, position as a building which was demolished, as a result of significant damage caused by an event within the previous three years where the new building has the same, or substantially the same, layout and external appearance as the previous building.
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Interface

<p>PO 5.1 Development is designed to manage the interface with residential uses in the City Living Zone:</p> <ul style="list-style-type: none"> (a) in relation to building proportions, massing, and overshadowing; and (b) by avoiding land uses, or intensity of land uses, that unduly impact residential amenity (including licensed premises). 	<p>DTS/DPF 5.1 None are applicable.</p>
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<p>PO 5.2 Parts of a development exceed the maximum building height specified in DTS/DPF 4.1 and adjoin the City Living Zone boundaries are designed to minimise negative visual and amenity impacts to residential living areas and outdoor open space.</p>	<p>DTS/DPF 5.2 Parts of a building above the maximum building height specified in DTS/DPF 4.1 include additional setbacks, avoid tall sheer walls, centrally locate taller elements, and provide variation of light and shadow through articulation.</p>
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Movement

<p>PO 6.1 Access to, and movement within, the Capital City Zone to be universally accessible, easy, safe, comfortable, convenient and legible for people of</p>	<p>DTS/DPF 6.1 None are applicable.</p>
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all abilities, with priority given to pedestrians and cyclists.			
Access			
<p>PO 7.1</p> <p>Vehicular access points are associated with multi-level and/or non-ancillary car parks located to minimise disruption to traffic flow.</p>	<p>DTS/DPF 7.1</p> <p>Vehicular access points associated with multi-level and/or non-ancillary car parks are located on a secondary road frontage, or utilise an existing crossover.</p>		
<p>PO 7.2</p> <p>Development designed so that vehicle access points for parking, servicing or deliveries, and pedestrian access to a site, are located to minimise interrupting the operation of and queuing on public roads and pedestrian paths.</p>	<p>DTS/DPF 7.2</p> <p>None are applicable.</p>		
Concept Plans			
<p>PO 9.1</p> <p>Development is compatible with the outcomes sought by any relevant Concept Plan contained within Part 12 - Concept Plans of the Planning and Design Code to support the orderly development of land through staging of development and provision of infrastructure.</p>	<p>DTS/DPF 9.1</p> <p>The site of the development is wholly located outside any relevant Concept Plan boundary. The following Concept Plans are relevant:</p> <table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: center;">Description</th> </tr> </thead> <tbody> <tr> <td>Concept Plan 79 - Primary Pedestrian Area</td> </tr> </tbody> </table> <p>In relation to DTS/DPF 9.1, in instances where:</p> <ul style="list-style-type: none"> (a) one or more Concept Plan is returned, refer to Part 12 - Concept Plans in the Planning and Design Code to determine if a Concept Plan is relevant to the site of the proposed development. Note: multiple concept plans may be relevant. (b) in instances where 'no value' is returned, there is no relevant concept plan and DTS/DPF 9.1 is met. 	Description	Concept Plan 79 - Primary Pedestrian Area
Description			
Concept Plan 79 - Primary Pedestrian Area			
Public Realm			
<p>PO 10.1</p> <p>Development in the public realm where it:</p> <ul style="list-style-type: none"> (a) does not present a safety risk to pedestrians or other users of the public road (b) does not interrupt pedestrian movement (c) does not interfere with existing infrastructure or services on the street (d) positively contributes to the vibrancy of the area (e) is consistent with the outcomes of the zone. 	<p>DTS/DPF 10.1</p> <p>None are applicable.</p>		

Table 5 - Procedural Matters (PM) - Notification

The following table identifies, pursuant to section 107(6) of the *Planning, Development and Infrastructure Act 2016*, classes of performance assessed development that are excluded from notification. The table also identifies any exemptions to the placement of notices when notification is required.

Interpretation

Notification tables exclude the classes of development listed in Column A from notification provided that they do not fall within a corresponding exclusion prescribed in Column B.

Where a development or an element of a development falls within more than one class of development listed in Column A, it will be excluded from notification if it is excluded (in its entirety) under any of those classes of development. It need not be excluded under all applicable classes of development.

Where a development involves multiple performance assessed elements, all performance assessed elements will require notification (regardless of whether one or more elements are excluded in the applicable notification table) unless every performance assessed element of the application is excluded in the applicable notification table, in which case the application will not require notification.

A relevant authority may determine that a variation to 1 or more corresponding exclusions prescribed in Column B is minor in nature and does not require notification.

Class of Development (Column A)	Exceptions (Column B)
1. Development which, in the opinion of the relevant authority, is of a minor nature only and will not unreasonably impact on the owners or occupiers of land in the locality of the site of the development.	None specified.
2. Any kind of development where the site of the development is not adjacent land to a site (or land) used for residential purposes in a neighbourhood-type zone.	Except any of the following: <ol style="list-style-type: none"> 1. the demolition (or partial demolition) of a State or Local Heritage Place (other than an excluded building) 2. the demolition (or partial demolition) of a building in a Historic Area Overlay (other than an excluded building).
3. Any development involving any of the following (or of any combination of any of the following): <ol style="list-style-type: none"> (a) advertisement (b) child care facility (c) consulting room (d) dwelling (e) office (f) residential flat building (g) shop (h) student accommodation (i) temporary public service depot. 	Except development that exceeds the maximum building height specified in Capital City Zone DTS/DPF 4.1.
4. Any development involving any of the following (or of any combination of any of the following): <ol style="list-style-type: none"> (a) air handling unit, air conditioning system or exhaust fan (b) carport (c) deck (d) fence (e) internal building works (f) land division (g) outbuilding (h) pergola (i) private bushfire shelter (j) retaining wall (k) shade sail (l) solar photovoltaic panels (roof mounted) (m) swimming pool or spa pool and associated swimming pool safety features (n) tree damaging activity (o) verandah (p) water tank. 	None specified.
5. Demolition.	Except any of the following: <ol style="list-style-type: none"> 1. the demolition (or partial demolition) of a State or Local Heritage Place (other than an excluded building) 2. the demolition (or partial demolition) of a building in a Historic Area Overlay (other than an excluded building).
6. Railway line.	Except where located outside of a rail corridor or rail reserve.

Placement of Notices - Exemptions for Performance Assessed Development

None specified.

Placement of Notices - Exemptions for Restricted Development

Class of Development (Column A)	Exceptions (Column B)
None specified.	

Part 3 - Overlays

Airport Building Heights (Regulated) Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Management of potential impacts of buildings and generated emissions to maintain operational and safety requirements of registered and certified commercial and military airfields, airports, airstrips and helicopter landing sites.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Built Form	
PO 1.1 Building height does not pose a hazard to the operation of a certified or registered aerodrome.	DTS/DPF 1.1 Buildings are located outside the area identified as 'All structures' (no height limit is prescribed) and do not exceed the height specified in the Airport Building Heights (Regulated) Overlay which applies to the subject site as shown on the SA Property and Planning Atlas. In instances where more than one value applies to the site, the lowest value relevant to the site of the proposed development is applicable.

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
Any of the following classes of development: (a) building located in an area identified as 'All structures' (no height limit is prescribed) or will exceed the height specified in the <i>Airport Building Heights (Regulated) Overlay</i> (b) building comprising exhaust stacks that generates plumes, or may cause plumes to be generated, above a height specified in the <i>Airport Building Heights (Regulated) Overlay</i> .	The airport-operator company for the relevant airport within the meaning of the <i>Airports Act 1996</i> of the Commonwealth or, if there is no airport-operator company, the Secretary of the Minister responsible for the administration of the <i>Airports Act 1996</i> of the Commonwealth.	To provide expert assessment and direction to the relevant authority on potential impacts on the safety and operation of aviation activities.	Development of a class to which Schedule 9 clause 3 item 1 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

Building Near Airfields Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Maintain the operational and safety requirements of certified commercial and military airfields, airports, airstrips and helicopter landing sites through management of non-residential lighting, turbulence and activities that may attract or result in the congregation of wildlife.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
PO 1.3 Buildings are adequately separated from runways and other take-off and landing facilities within certified or registered aerodromes to minimise the potential for building-generated turbulence and windshear that may pose a safety hazard to aircraft flight movement.	DTS/DPF 1.3 The distance from any part of a runway centreline to the closest point of the building is not less than 35 times the building height.

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

Design Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development positively contributes to the liveability, durability and sustainability of the built environment through high-quality design.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
General	
PO 1.1 Medium to high rise buildings and state significant development demonstrate high quality design.	DTS/DPF 1.1 None are applicable.

Procedural Matters (PM)

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
Except where the development comprises a variation to an application that has either been: (a) previously referred to the Government Architect or Associate Government Architect	Government Architect or Associate Government Architect	To provide expert design advice to the relevant authority on how the development: (a) responds to its	Development of a class to which Schedule 9 clause 3 item 22 of the

<p>or</p> <p>(b) given development authorisation under the <i>Planning, Development and Infrastructure Act 2016 or Development Act 1993</i></p> <p>and</p> <p>(c) the variation to that application is, in the opinion of the relevant authority, minor in nature or would not warrant a referral when considering the purpose of the referral</p> <p>any of the following classes of development:</p> <p>(a) development within the area of the overlay located within the Corporation of the City of Adelaide where the total amount to be applied to any work, when all stages of the development are completed, exceeds \$10,000,000</p> <p>(b) development within the area of the overlay located within the City of Port Adelaide Enfield where the total amount to be applied to any work, when all stages of the development are completed, exceeds \$3 000 000</p> <p>(c) development within all other areas of the overlay that involves the erection or construction of a building that exceeds 4 building levels.</p>	<p>surrounding context and contributes to the quality and character of a place</p> <p>(b) contributes to inclusiveness, connectivity, and universal design of the built environment</p> <p>(c) enables buildings and places that are fit for purpose, adaptable and long-lasting</p> <p>(d) adds value by positively contributing to places and communities</p> <p>(e) optimises performance and public benefit</p> <p>(f) supports sustainable and environmentally responsible development.</p>	<p>Planning, Development and Infrastructure (General) Regulations 2017 applies.</p>
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Hazards (Flooding - Evidence Required) Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development adopts a precautionary approach to mitigate potential impacts on people, property, infrastructure and the environment from potential flood risk through the appropriate siting and design of development.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Flood Resilience	
<p>PO 1.1</p> <p>Development is sited, designed and constructed to minimise the risk of entry of potential floodwaters where the entry of flood waters is likely to result in undue damage to or compromise ongoing activities within buildings.</p>	<p>DTS/DPF 1.1</p> <p>Habitable buildings, commercial and industrial buildings, and buildings used for animal keeping incorporate a finished floor level at least 300mm above:</p> <p>(a) the highest point of top of kerb of the primary street or (b) the highest point of natural ground level at the primary street boundary where there is no kerb</p>

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
None	None	None	None

Heritage Adjacency Overlay

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development adjacent to State and Local Heritage Places maintains the heritage and cultural values of those Places.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Built Form	
PO 1.1 Development adjacent to a State or Local Heritage Place does not dominate, encroach on or unduly impact on the setting of the Place.	DTS/DPF 1.1 None are applicable.

Procedural Matters (PM) - Referrals

The following table identifies classes of development / activities that require referral in this Overlay and the applicable referral body. It sets out the purpose of the referral as well as the relevant statutory reference from Schedule 9 of the Planning, Development and Infrastructure (General) Regulations 2017.

Class of Development / Activity	Referral Body	Purpose of Referral	Statutory Reference
Development which in the opinion of the relevant authority materially affects the context within which the State Heritage Place is situated.	Minister responsible for the administration of the <i>Heritage Places Act 1993</i> .	To provide expert assessment and direction to the relevant authority on the potential impacts of development adjacent State Heritage Places.	Development of a class to which Schedule 9 clause 3 item 17 of the Planning, Development and Infrastructure (General) Regulations 2017 applies.

Part 4 - General Development Policies

Clearance from Overhead Powerlines

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Protection of human health and safety when undertaking development in the vicinity of overhead transmission powerlines.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
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<p>PO 1.1</p> <p>Buildings are adequately separated from aboveground powerlines to minimise potential hazard to people and property.</p>	<p>DTS/DPF 1.1</p> <p>One of the following is satisfied:</p> <ul style="list-style-type: none"> (a) a declaration is provided by or on behalf of the applicant to the effect that the proposal would not be contrary to the regulations prescribed for the purposes of section 86 of the <i>Electricity Act 1996</i> (b) there are no aboveground powerlines adjoining the site that are the subject of the proposed development.
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Design in Urban Areas

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
<p>DO 1</p>	<p>Development is:</p> <ul style="list-style-type: none"> (a) contextual - by considering, recognising and carefully responding to its natural surroundings or built environment and positively contributing to the character of the locality (b) durable - fit for purpose, adaptable and long lasting (c) inclusive - by integrating landscape design to optimise pedestrian and cyclist usability, privacy and equitable access and promoting the provision of quality spaces integrated with the public realm that can be used for access and recreation and help optimise security and safety both internally and within the public realm, for occupants and visitors (d) sustainable - by integrating sustainable techniques into the design and siting of development and landscaping to improve community health, urban heat, water management, environmental performance, biodiversity and local amenity and to minimise energy consumption.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
All Development	
External Appearance	
<p>PO 1.1</p> <p>Buildings reinforce corners through changes in setback, articulation, materials, colour and massing (including height, width, bulk, roof form and slope).</p>	<p>DTS/DPF 1.1</p> <p>None are applicable.</p>
<p>PO 1.2</p> <p>Where zero or minor setbacks are desirable, development provides shelter over footpaths (in the form of verandahs, awnings, canopies and the like, with adequate lighting) to positively contribute to the walkability, comfort and safety of the public realm.</p>	<p>DTS/DPF 1.2</p> <p>None are applicable.</p>
<p>PO 1.3</p> <p>Building elevations facing the primary street (other than ancillary buildings) are designed and detailed to convey purpose, identify main access points and complement the streetscape.</p>	<p>DTS/DPF 1.3</p> <p>None are applicable.</p>
<p>PO 1.4</p> <p>Plant, exhaust and intake vents and other technical equipment are integrated into the building design to minimise visibility from the public realm and negative impacts on residential amenity by:</p> <ul style="list-style-type: none"> (a) positioning plant and equipment discretely, in unobtrusive locations as viewed from public roads and spaces (b) screening rooftop plant and equipment from view (c) when located on the roof of non-residential development, 	<p>DTS/DPF 1.4</p> <p>Development does not incorporate any structures that protrude beyond the roofline.</p>

locating the plant and equipment as far as practicable from adjacent sensitive land uses.	
PO 1.5 The negative visual impact of outdoor storage, waste management, loading and service areas is minimised by integrating them into the building design and screening them from public view (such as fencing, landscaping and built form), taking into account the form of development contemplated in the relevant zone.	DTS/DPF 1.5 None are applicable.
Safety	
PO 2.1 Development maximises opportunities for passive surveillance of the public realm by providing clear lines of sight, appropriate lighting and the use of visually permeable screening wherever practicable.	DTS/DPF 2.1 None are applicable.
PO 2.2 Development is designed to differentiate public, communal and private areas.	DTS/DPF 2.2 None are applicable.
PO 2.3 Buildings are designed with safe, perceptible and direct access from public street frontages and vehicle parking areas.	DTS/DPF 2.3 None are applicable.
PO 2.4 Development at street level is designed to maximise opportunities for passive surveillance of the adjacent public realm.	DTS/DPF 2.4 None are applicable.
PO 2.5 Common areas and entry points of buildings (such as the foyer areas of residential buildings) and non-residential land uses at street level, maximise passive surveillance from the public realm to the inside of the building at night.	DTS/DPF 2.5 None are applicable.
Landscaping	
PO 3.1 Soft landscaping and tree planting are incorporated to: (a) minimise heat absorption and reflection (b) maximise shade and shelter (c) maximise stormwater infiltration (d) enhance the appearance of land and streetscapes.	DTS/DPF 3.1 None are applicable.
Environmental Performance	
PO 4.1 Buildings are sited, oriented and designed to maximise natural sunlight access and ventilation to main activity areas, habitable rooms, common areas and open spaces.	DTS/DPF 4.1 None are applicable.
PO 4.2 Buildings are sited and designed to maximise passive environmental performance and minimise energy consumption and reliance on mechanical systems, such as heating and cooling.	DTS/DPF 4.2 None are applicable.
PO 4.3 Buildings incorporate climate responsive techniques and features such as building and window orientation, use of eaves, verandahs and shading structures, water harvesting, at ground landscaping, green walls, green roofs and photovoltaic cells.	DTS/DPF 4.3 None are applicable.
On-site Waste Treatment Systems	

<p>PO 6.1</p> <p>Dedicated on-site effluent disposal areas do not include any areas to be used for, or could be reasonably foreseen to be used for, private open space, driveways or car parking.</p>	<p>DTS/DPF 6.1</p> <p>Effluent disposal drainage areas do not:</p> <ul style="list-style-type: none"> (a) encroach within an area used as private open space or result in less private open space than that specified in Design in Urban Areas Table 1 - Private Open Space (b) use an area also used as a driveway (c) encroach within an area used for on-site car parking or result in less on-site car parking than that specified in Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements or Table 2 - Off-Street Car Parking Requirements in Designated Areas.
Car parking appearance	
<p>PO 7.1</p> <p>Development facing the street is designed to minimise the negative impacts of any semi-basement and undercroft car parking on streetscapes through techniques such as:</p> <ul style="list-style-type: none"> (a) limiting protrusion above finished ground level (b) screening through appropriate planting, fencing and mounding (c) limiting the width of openings and integrating them into the building structure. 	<p>DTS/DPF 7.1</p> <p>None are applicable.</p>
<p>PO 7.2</p> <p>Vehicle parking areas appropriately located, designed and constructed to minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced and the like.</p>	<p>DTS/DPF 7.2</p> <p>None are applicable.</p>
<p>PO 7.3</p> <p>Safe, legible, direct and accessible pedestrian connections are provided between parking areas and the development.</p>	<p>DTS/DPF 7.3</p> <p>None are applicable.</p>
<p>PO 7.4</p> <p>Street-level vehicle parking areas incorporate tree planting to provide shade, reduce solar heat absorption and reflection.</p>	<p>DTS/DPF 7.4</p> <p>Vehicle parking areas that are open to the sky and comprise 10 or more car parking spaces include a shade tree with a mature canopy of 4m diameter spaced for each 10 car parking spaces provided and a landscaped strip on any road frontage of a minimum dimension of 1m.</p>
<p>PO 7.5</p> <p>Street level parking areas incorporate soft landscaping to improve visual appearance when viewed from within the site and from public places.</p>	<p>DTS/DPF 7.5</p> <p>Vehicle parking areas comprising 10 or more car parking spaces include soft landscaping with a minimum dimension of:</p> <ul style="list-style-type: none"> (a) 1m along all public road frontages and allotment boundaries (b) 1m between double rows of car parking spaces.
<p>PO 7.6</p> <p>Vehicle parking areas and associated driveways are landscaped to provide shade and positively contribute to amenity.</p>	<p>DTS/DPF 7.6</p> <p>None are applicable.</p>
<p>PO 7.7</p> <p>Vehicle parking areas and access ways incorporate integrated stormwater management techniques such as permeable or porous surfaces, infiltration systems, drainage swales or rain gardens that integrate with soft landscaping.</p>	<p>DTS/DPF 7.7</p> <p>None are applicable.</p>
Earthworks and sloping land	
<p>PO 8.1</p> <p>Development, including any associated driveways and access tracks, minimises the need for earthworks to limit disturbance to natural topography.</p>	<p>DTS/DPF 8.1</p> <p>Development does not involve any of the following:</p> <ul style="list-style-type: none"> (a) excavation exceeding a vertical height of 1m (b) filling exceeding a vertical height of 1m

	(c) a total combined excavation and filling vertical height of 2m or more.
PO 8.2 Driveways and access tracks designed and constructed to allow safe and convenient access on sloping land.	DTS/DPF 8.2 Driveways and access tracks on sloping land (with a gradient exceeding 1 in 8) satisfy (a) and (b): (a) do not have a gradient exceeding 25% (1-in-4) at any point along the driveway (b) are constructed with an all-weather trafficable surface.
PO 8.3 Driveways and access tracks on sloping land (with a gradient exceeding 1 in 8): (a) do not contribute to the instability of embankments and cuttings (b) provide level transition areas for the safe movement of people and goods to and from the development (c) are designed to integrate with the natural topography of the land.	DTS/DPF 8.3 None are applicable.
PO 8.4 Development on sloping land (with a gradient exceeding 1 in 8) avoids the alteration of natural drainage lines and includes on site drainage systems to minimise erosion.	DTS/DPF 8.4 None are applicable.
PO 8.5 Development does not occur on land at risk of landslip or increase the potential for landslip or land surface instability.	DTS/DPF 8.5 None are applicable.
Overlooking / Visual Privacy (low rise buildings)	
PO 10.1 Development mitigates direct overlooking from upper level windows to habitable rooms and private open spaces of adjoining residential uses in neighbourhood-type zones.	DTS/DPF 10.1 Upper level windows facing side or rear boundaries shared with a residential use in a neighbourhood-type zone: (a) are permanently obscured to a height of 1.5m above finished floor level and are fixed or not capable of being opened more than 125mm (b) have sill heights greater than or equal to 1.5m above finished floor level (c) incorporate screening with a maximum of 25% openings, permanently fixed no more than 500mm from the window surface and sited adjacent to any part of the window less than 1.5 m above the finished floor level.
PO 10.2 Development mitigates direct overlooking from balconies to habitable rooms and private open space of adjoining residential uses in neighbourhood type zones.	DTS/DPF 10.2 One of the following is satisfied: (a) the longest side of the balcony or terrace will face a public road, public road reserve or public reserve that is at least 15m wide in all places faced by the balcony or terrace or (b) all sides of balconies or terraces on upper building levels are permanently obscured by screening with a maximum 25% transparency/openings fixed to a minimum height of: (i) 1.5m above finished floor level where the balcony is located at least 15 metres from the nearest habitable window of a dwelling on adjacent land or (ii) 1.7m above finished floor level in all other cases
Site Facilities / Waste Storage (excluding low rise residential development)	
PO 11.1 Development provides a dedicated area for on-site collection and sorting of recyclable materials and refuse, green organic waste and wash bay facilities	DTS/DPF 11.1 None are applicable.

for the ongoing maintenance of bins that is adequate in size considering the number and nature of the activities they will serve and the frequency of collection.	
PO 11.2 Communal waste storage and collection areas are located, enclosed and designed to be screened from view from the public domain, open space and dwellings.	DTS/DPF 11.2 None are applicable.
PO 11.3 Communal waste storage and collection areas are designed to be well ventilated and located away from habitable rooms.	DTS/DPF 11.3 None are applicable.
PO 11.4 Communal waste storage and collection areas are designed to allow waste and recycling collection vehicles to enter and leave the site without reversing.	DTS/DPF 11.4 None are applicable.
PO 11.5 For mixed use developments, non-residential waste and recycling storage areas and access provide opportunities for on-site management of food waste through composting or other waste recovery as appropriate.	DTS/DPF 11.5 None are applicable.
All Development - Medium and High Rise	
External Appearance	
PO 12.1 Buildings positively contribute to the character of the local area by responding to local context.	DTS/DPF 12.1 None are applicable.
PO 12.2 Architectural detail at street level and a mixture of materials at lower building levels near the public interface are provided to reinforce a human scale.	DTS/DPF 12.2 None are applicable.
PO 12.3 Buildings are designed to reduce visual mass by breaking up building elevations into distinct elements.	DTS/DPF 12.3 None are applicable.
PO 12.4 Boundary walls visible from public land include visually interesting treatments to break up large blank elevations.	DTS/DPF 12.4 None are applicable.
PO 12.5 External materials and finishes are durable and age well to minimise ongoing maintenance requirements.	DTS/DPF 12.5 Buildings utilise a combination of the following external materials and finishes: (a) masonry (b) natural stone (c) pre-finished materials that minimise staining, discolouring or deterioration.
PO 12.6 Street-facing building elevations are designed to provide attractive, high quality and pedestrian-friendly street frontages.	DTS/DPF 12.6 Building street frontages incorporate: (a) active uses such as shops or offices (b) prominent entry areas for multi-storey buildings (where it is a common entry) (c) habitable rooms of dwellings (d) areas of communal public realm with public art or the like, where consistent with the zone and/or subzone provisions.
PO 12.7 Entrances to multi-storey buildings are safe, attractive, welcoming, functional and contribute to streetscape character.	DTS/DPF 12.7 Entrances to multi-storey buildings are: (a) oriented towards the street (b) clearly visible and easily identifiable from the street and vehicle parking areas (c) designed to be prominent, accentuated and a welcoming feature if there are no active or occupied ground floor uses

	<ul style="list-style-type: none"> (d) designed to provide shelter, a sense of personal address and transitional space around the entry (e) located as close as practicable to the lift and / or lobby access to minimise the need for long access corridors (f) designed to avoid the creation of potential areas of entrapment.
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PO 12.8 Building services, plant and mechanical equipment are screened from the public realm.	DTS/DPF 12.8 None are applicable.
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Landscaping

PO 13.1 Development facing a street provides a well landscaped area that contains a deep soil space to accommodate a tree of a species and size adequate to provide shade, contribute to tree canopy targets and soften the appearance of buildings.	DTS/DPF 13.1 Buildings provide a 4m by 4m deep soil space in front of the building that accommodates a medium to large tree, except where no building setback from front property boundaries is desired.
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PO 13.2 Deep soil zones are provided to retain existing vegetation or provide areas that can accommodate new deep root vegetation, including tall trees with large canopies to provide shade and soften the appearance of multi-storey buildings.	DTS/DPF 13.2 Multi-storey development provides deep soil zones and incorporates trees at not less than the following rates, except in a location or zone where full site coverage is desired.			
	Site area	Minimum deep soil area	Minimum dimension	Tree / deep soil zones
	<300 m ²	10 m ²	1.5m	1 small tree / 10 m ²
	300-1500 m ²	7% site area	3m	1 medium tree / 30 m ²
	>1500 m ²	7% site area	6m	1 large or medium tree / 60 m ²
	Tree size and site area definitions			
	Small tree	4-6m mature height and 2-4m canopy spread		
	Medium tree	6-12m mature height and 4-8m canopy spread		
Large tree	12m mature height and >8m canopy spread			
Site area	The total area for development site, not average area per dwelling			

PO 13.3 Deep soil zones with access to natural light are provided to assist in maintaining vegetation health.	DTS/DPF 13.3 None are applicable.
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PO 13.4 Unless separated by a public road or reserve, development sites adjacent to any zone that has a primary purpose of accommodating low-rise residential development incorporate a deep soil zone along the common boundary to enable medium to large trees to be retained or established to assist in screening new buildings of 3 or more building levels in height.	DTS/DPF 13.4 Building elements of 3 or more building levels in height are set back at least 6m from a zone boundary in which a deep soil zone area is incorporated.
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Environmental

PO 14.1 Development minimises detrimental micro-climatic impacts on adjacent land and buildings.	DTS/DPF 14.1 None are applicable.
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<p>PO 14.2</p> <p>Development incorporates sustainable design techniques and features such as window orientation, eaves and shading structures, water harvesting and use, green walls and roof designs that enable the provision of rain water tanks (where they are not provided elsewhere on site), green roofs and photovoltaic cells.</p>	<p>DTS/DPF 14.2</p> <p>None are applicable.</p>
<p>PO 14.3</p> <p>Development of 5 or more building levels, or 21m or more in height (as measured from natural ground level and excluding roof-mounted mechanical plant and equipment) is designed to minimise the impacts of wind through measures such as:</p> <ul style="list-style-type: none"> (a) a podium at the base of a tall tower and aligned with the street to deflect wind away from the street (b) substantial verandahs around a building to deflect downward travelling wind flows over pedestrian areas (c) the placement of buildings and use of setbacks to deflect the wind at ground level (d) avoiding tall shear elevations that create windy conditions at street level. 	<p>DTS/DPF 14.3</p> <p>None are applicable.</p>
Car Parking	
<p>PO 15.1</p> <p>Multi-level vehicle parking structures are designed to contribute to active street frontages and complement neighbouring buildings.</p>	<p>DTS/DPF 15.1</p> <p>Multi-level vehicle parking structures within buildings:</p> <ul style="list-style-type: none"> (a) provide land uses such as commercial, retail or other non-car parking uses along ground floor street frontages (b) incorporate facade treatments in building elevations facing along major street frontages that are sufficiently enclosed and detailed to complement adjacent buildings.
<p>PO 15.2</p> <p>Multi-level vehicle parking structures within buildings complement the surrounding built form in terms of height, massing and scale.</p>	<p>DTS/DPF 15.2</p> <p>None are applicable.</p>
Overlooking/Visual Privacy	
<p>PO 16.1</p> <p>Development mitigates direct overlooking of habitable rooms and private open spaces of adjacent residential uses in neighbourhood-type zones through measures such as:</p> <ul style="list-style-type: none"> (a) appropriate site layout and building orientation (b) off-setting the location of balconies and windows of habitable rooms or areas with those of other buildings so that views are oblique rather than direct to avoid direct line of sight (c) building setbacks from boundaries (including building boundary to boundary where appropriate) that interrupt views or that provide a spatial separation between balconies or windows of habitable rooms (d) screening devices that are integrated into the building design and have minimal negative effect on residents' or neighbours' amenity. 	<p>DTS/DPF 16.1</p> <p>None are applicable.</p>
All non-residential development	
Water Sensitive Design	
<p>PO 42.1</p> <p>Development likely to result in risk of export of sediment, suspended solids, organic matter, nutrients, oil and grease include stormwater management systems designed to minimise pollutants entering stormwater.</p>	<p>DTS/DPF 42.1</p> <p>None are applicable.</p>

<p>PO 42.2</p> <p>Water discharged from a development site is of a physical, chemical and biological condition equivalent to or better than its pre-developed state.</p>	<p>DTS/DPF 42.2</p> <p>None are applicable.</p>
<p>PO 42.3</p> <p>Development includes stormwater management systems to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that development does not increase peak flows in downstream systems.</p>	<p>DTS/DPF 42.3</p> <p>None are applicable.</p>
<p>Wash-down and Waste Loading and Unloading</p>	
<p>PO 43.1</p> <p>Areas for activities including loading and unloading, storage of waste refuse bins in commercial and industrial development or wash-down areas used for the cleaning of vehicles, plant or equipment are:</p> <ul style="list-style-type: none"> (a) designed to contain all wastewater likely to pollute stormwater within a bunded and roofed area to exclude the entry of external surface stormwater run-off (b) paved with an impervious material to facilitate wastewater collection (c) of sufficient size to prevent 'splash-out' or 'over-spray' of wastewater from the wash-down area (d) are designed to drain wastewater to either: <ul style="list-style-type: none"> (i) a treatment device such as a sediment trap and coalescing plate oil separator with subsequent disposal to a sewer, private or Community Wastewater Management Scheme or (ii) a holding tank and its subsequent removal off-site on a regular basis. 	<p>DTS/DPF 43.1</p> <p>None are applicable.</p>
<p>Laneway Development</p>	
<p>Infrastructure and Access</p>	
<p>PO 44.1</p> <p>Development with a primary street comprising a laneway, alley, lane, right of way or similar minor thoroughfare only occurs where:</p> <ul style="list-style-type: none"> (a) existing utility infrastructure and services are capable of accommodating the development (b) the primary street can support access by emergency and regular service vehicles (such as waste collection) (c) it does not require the provision or upgrading of infrastructure on public land (such as footpaths and stormwater management systems) (d) safety of pedestrians or vehicle movement is maintained (e) any necessary grade transition is accommodated within the site of the development to support an appropriate development intensity and orderly development of land fronting minor thoroughfares. 	<p>DTS/DPF 44.1</p> <p>Development with a primary street frontage that is not an alley, lane, right of way or similar public thoroughfare.</p>

Interface between Land Uses

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Development is located and designed to mitigate adverse effects on or from neighbouring and proximate land uses.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
General Land Use Compatibility	
PO 1.1 Sensitive receivers are designed and sited to protect residents and occupants from adverse impacts generated by lawfully existing land uses (or lawfully approved land uses) and land uses desired in the zone.	DTS/DPF 1.1 None are applicable.
Overshadowing	
PO 3.1 Overshadowing of habitable room windows of adjacent residential land uses in: a. a neighbourhood-type zone is minimised to maintain access to direct winter sunlight b. other zones is managed to enable access to direct winter sunlight.	DTS/DPF 3.1 North-facing windows of habitable rooms of adjacent residential land uses in a neighbourhood-type zone receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on 21 June.
PO 3.2 Overshadowing of the primary area of private open space or communal open space of adjacent residential land uses in: a. a neighbourhood type zone is minimised to maintain access to direct winter sunlight b. other zones is managed to enable access to direct winter sunlight.	DTS/DPF 3.2 Development maintains 2 hours of direct sunlight between 9.00 am and 3.00 pm on 21 June to adjacent residential land uses in a neighbourhood-type zone in accordance with the following: a. for ground level private open space, the smaller of the following: i. half the existing ground level open space or ii. 35m ² of the existing ground level open space (with at least one of the area's dimensions measuring 2.5m) b. for ground level communal open space, at least half of the existing ground level open space.
PO 3.3 Development does not unduly reduce the generating capacity of adjacent rooftop solar energy facilities taking into account: (a) the form of development contemplated in the zone (b) the orientation of the solar energy facilities (c) the extent to which the solar energy facilities are already overshadowed.	DTS/DPF 3.3 None are applicable.
Activities Generating Noise or Vibration	
PO 4.2 Areas for the on-site manoeuvring of service and delivery vehicles, plant and equipment, outdoor work spaces (and the like) are designed and sited to not unreasonably impact the amenity of adjacent sensitive receivers (or lawfully approved sensitive receivers) and zones primarily intended to accommodate sensitive receivers due to noise and vibration by adopting techniques including: (a) locating openings of buildings and associated services away from the interface with the adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers (b) when sited outdoors, locating such areas as far as practicable from adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers (c) housing plant and equipment within an enclosed structure or acoustic enclosure (d) providing a suitable acoustic barrier between the plant and / or equipment and the adjacent sensitive receiver boundary or zone.	DTS/DPF 4.2 None are applicable.

<p>PO 4.3</p> <p>Fixed plant and equipment in the form of pumps and/or filtration systems for a swimming pool or spa are positioned and/or housed to not cause unreasonable noise nuisance to adjacent sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 4.3</p> <p>The pump and/or filtration system ancillary to a dwelling erected on the same site is:</p> <ul style="list-style-type: none"> (a) enclosed in a solid acoustic structure located at least 5m from the nearest habitable room located on an adjoining allotment or (b) located at least 12m from the nearest habitable room located on an adjoining allotment. 				
<p>PO 4.4</p> <p>External noise into bedrooms is minimised by separating or shielding these rooms from service equipment areas and fixed noise sources located on the same or an adjoining allotment.</p>	<p>DTS/DPF 4.4</p> <p>Adjacent land is used for residential purposes.</p>				
<p>PO 4.5</p> <p>Outdoor areas associated with licensed premises (such as beer gardens or dining areas) are designed and/or sited to not cause unreasonable noise impact on existing adjacent sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 4.5</p> <p>None are applicable.</p>				
<p>PO 4.6</p> <p>Development incorporating music achieves suitable acoustic amenity when measured at the boundary of an adjacent sensitive receiver (or lawfully approved sensitive receiver) or zone primarily intended to accommodate sensitive receivers.</p>	<p>DTS/DPF 4.6</p> <p>Development incorporating music includes noise attenuation measures that will achieve the following noise levels:</p> <table border="1" data-bbox="831 920 1490 1133"> <thead> <tr> <th>Assessment location</th> <th>Music noise level</th> </tr> </thead> <tbody> <tr> <td>Externally at the nearest existing or envisaged noise sensitive location</td> <td>Less than 8dB above the level of background noise (L_{90,15min}) in any octave band of the sound spectrum (LOCT_{10,15} < LOCT_{90,15} + 8dB)</td> </tr> </tbody> </table>	Assessment location	Music noise level	Externally at the nearest existing or envisaged noise sensitive location	Less than 8dB above the level of background noise (L _{90,15min}) in any octave band of the sound spectrum (LOCT _{10,15} < LOCT _{90,15} + 8dB)
Assessment location	Music noise level				
Externally at the nearest existing or envisaged noise sensitive location	Less than 8dB above the level of background noise (L _{90,15min}) in any octave band of the sound spectrum (LOCT _{10,15} < LOCT _{90,15} + 8dB)				
<p>Light Spill</p>					
<p>PO 6.1</p> <p>External lighting is positioned and designed to not cause unreasonable light spill impact on adjacent sensitive receivers (or lawfully approved sensitive receivers).</p>	<p>DTS/DPF 6.1</p> <p>None are applicable.</p>				
<p>Solar Reflectivity / Glare</p>					
<p>PO 7.1</p> <p>Development is designed and comprised of materials and finishes that do not unreasonably cause a distraction to adjacent road users and pedestrian areas or unreasonably cause heat loading and micro-climatic impacts on adjacent buildings and land uses as a result of reflective solar glare.</p>	<p>DTS/DPF 7.1</p> <p>None are applicable.</p>				

Site Contamination

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	Ensure land is suitable for the proposed use in circumstances where it is, or may have been, subject to site contamination.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
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<p>PO 1.1</p> <p>Ensure land is suitable for use when land use changes to a more sensitive use.</p>	<p>DTS/DPF 1.1</p> <p>Development satisfies (a), (b), (c) or (d):</p> <ul style="list-style-type: none"> (a) does not involve a change in the use of land (b) involves a change in the use of land that does not constitute a change to a more sensitive use (c) involves a change in the use of land to a more sensitive use on land at which site contamination is unlikely to exist (as demonstrated in a site contamination declaration form) (d) involves a change in the use of land to a more sensitive use on land at which site contamination exists, or may exist (as demonstrated in a site contamination declaration form), and satisfies both of the following: <ul style="list-style-type: none"> (i) a site contamination audit report has been prepared under Part 10A of the <i>Environment Protection Act 1993</i> in relation to the land within the previous 5 years which states that- <ul style="list-style-type: none"> A. site contamination does not exist (or no longer exists) at the land or B. the land is suitable for the proposed use or range of uses (without the need for any further remediation) or C. where remediation is, or remains, necessary for the proposed use (or range of uses), remediation work has been carried out or will be carried out (and the applicant has provided a written undertaking that the remediation works will be implemented in association with the development) and (ii) no other class 1 activity or class 2 activity has taken place at the land since the preparation of the site contamination audit report (as demonstrated in a site contamination declaration form).
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Transport, Access and Parking

Assessment Provisions (AP)

Desired Outcome (DO)

Desired Outcome	
DO 1	A comprehensive, integrated and connected transport system that is safe, sustainable, efficient, convenient and accessible to all users.

Performance Outcomes (PO) and Deemed-to-Satisfy (DTS) Criteria / Designated Performance Feature (DPF)

Performance Outcome	Deemed-to-Satisfy Criteria / Designated Performance Feature
Movement Systems	
<p>PO 1.4</p> <p>Development is sited and designed so that loading, unloading and turning of all traffic avoids interrupting the operation of and queuing on public roads and pedestrian paths.</p>	<p>DTS/DPF 1.4</p> <p>All vehicle manoeuvring occurs onsite.</p>
Sightlines	
<p>PO 2.1</p> <p>Sightlines at intersections, pedestrian and cycle crossings, and</p>	<p>DTS/DPF 2.1</p> <p>None are applicable.</p>

<p>crossovers to allotments for motorists, cyclists and pedestrians are maintained or enhanced to ensure safety for all road users and pedestrians.</p>	
<p>PO 2.2 Walls, fencing and landscaping adjacent to driveways and corner sites are designed to provide adequate sightlines between vehicles and pedestrians.</p>	<p>DTS/DPF 2.2 None are applicable.</p>
<p>Vehicle Access</p>	
<p>PO 3.1 Safe and convenient access minimises impact or interruption on the operation of public roads.</p>	<p>DTS/DPF 3.1 The access is:</p> <ul style="list-style-type: none"> (a) provided via a lawfully existing or authorised driveway or access point or an access point for which consent has been granted as part of an application for the division of land or (b) not located within 6m of an intersection of 2 or more roads or a pedestrian activated crossing.
<p>PO 3.2 Development incorporating vehicular access ramps ensures vehicles can enter and exit a site safely and without creating a hazard to pedestrians and other vehicular traffic.</p>	<p>DTS/DPF 3.2 None are applicable.</p>
<p>PO 3.3 Access points are sited and designed to accommodate the type and volume of traffic likely to be generated by the development or land use.</p>	<p>DTS/DPF 3.3 None are applicable.</p>
<p>PO 3.4 Access points are sited and designed to minimise any adverse impacts on neighbouring properties.</p>	<p>DTS/DPF 3.4 None are applicable.</p>
<p>PO 3.5 Access points are located so as not to interfere with street trees, existing street furniture (including directional signs, lighting, seating and weather shelters) or infrastructure services to maintain the appearance of the streetscape, preserve local amenity and minimise disruption to utility infrastructure assets.</p>	<p>DTS/DPF 3.5 Vehicle access to designated car parking spaces satisfy (a) or (b):</p> <ul style="list-style-type: none"> (a) is provided via a lawfully existing or authorised access point or an access point for which consent has been granted as part of an application for the division of land (b) where newly proposed, is set back: <ul style="list-style-type: none"> (i) 0.5m or more from any street furniture, street pole, infrastructure services pit, or other stormwater or utility infrastructure unless consent is provided from the asset owner (ii) 2m or more from the base of the trunk of a street tree unless consent is provided from the tree owner for a lesser distance (iii) 6m or more from the tangent point of an intersection of 2 or more roads (iv) outside of the marked lines or infrastructure dedicating a pedestrian crossing.
<p>PO 3.6 Driveways and access points are separated and minimised in number to optimise the provision of on-street visitor parking (where on-street parking is appropriate).</p>	<p>DTS/DPF 3.6 Driveways and access points:</p> <ul style="list-style-type: none"> (a) for sites with a frontage to a public road of 20m or less, one access point no greater than 3.5m in width is provided (b) for sites with a frontage to a public road greater than 20m: <ul style="list-style-type: none"> (i) a single access point no greater than 6m in width is provided or (ii) not more than two access points with a width of 3.5m each are provided.

<p>PO 3.7</p> <p>Access points are appropriately separated from level crossings to avoid interference and ensure their safe ongoing operation.</p>	<p>DTS/DPF 3.7</p> <p>Development does not involve a new or modified access or cause an increase in traffic through an existing access that is located within the following distance from a railway crossing:</p> <ul style="list-style-type: none"> (a) 80 km/h road - 110m (b) 70 km/h road - 90m (c) 60 km/h road - 70m (d) 50km/h or less road - 50m.
<p>PO 3.8</p> <p>Driveways, access points, access tracks and parking areas are designed and constructed to allow adequate movement and manoeuvrability having regard to the types of vehicles that are reasonably anticipated.</p>	<p>DTS/DPF 3.8</p> <p>None are applicable.</p>
<p>PO 3.9</p> <p>Development is designed to ensure vehicle circulation between activity areas occurs within the site without the need to use public roads.</p>	<p>DTS/DPF 3.9</p> <p>None are applicable.</p>
Access for People with Disabilities	
<p>PO 4.1</p> <p>Development is sited and designed to provide safe, dignified and convenient access for people with a disability.</p>	<p>DTS/DPF 4.1</p> <p>None are applicable.</p>
Vehicle Parking Rates	
<p>PO 5.1</p> <p>Sufficient on-site vehicle parking and specifically marked accessible car parking places are provided to meet the needs of the development or land use having regard to factors that may support a reduced on-site rate such as:</p> <ul style="list-style-type: none"> (a) availability of on-street car parking (b) shared use of other parking areas (c) in relation to a mixed-use development, where the hours of operation of commercial activities complement the residential use of the site, the provision of vehicle parking may be shared (d) the adaptive reuse of a State or Local Heritage Place. 	<p>DTS/DPF 5.1</p> <p>Development provides a number of car parking spaces on-site at a rate no less than the amount calculated using one of the following, whichever is relevant:</p> <ul style="list-style-type: none"> (a) Transport, Access and Parking Table 2 - Off-Street Vehicle Parking Requirements in Designated Areas if the development is a class of development listed in Table 2 and the site is in a Designated Area (b) Transport, Access and Parking Table 1 - General Off-Street Car Parking Requirements where (a) does not apply (c) if located in an area where a lawfully established carparking fund operates, the number of spaces calculated under (a) or (b) less the number of spaces offset by contribution to the fund.
Vehicle Parking Areas	
<p>PO 6.1</p> <p>Vehicle parking areas are sited and designed to minimise impact on the operation of public roads by avoiding the use of public roads when moving from one part of a parking area to another.</p>	<p>DTS/DPF 6.1</p> <p>Movement between vehicle parking areas within the site can occur without the need to use a public road.</p>
<p>PO 6.2</p> <p>Vehicle parking areas are appropriately located, designed and constructed to minimise impacts on adjacent sensitive receivers through measures such as ensuring they are attractively developed and landscaped, screen fenced, and the like.</p>	<p>DTS/DPF 6.2</p> <p>None are applicable.</p>
<p>PO 6.3</p> <p>Vehicle parking areas are designed to provide opportunity for integration and shared-use of adjacent car parking areas to reduce the total extent of vehicle parking areas and access points.</p>	<p>DTS/DPF 6.3</p> <p>None are applicable.</p>
<p>PO 6.4</p> <p>Pedestrian linkages between parking areas and the development are provided and are safe and convenient.</p>	<p>DTS/DPF 6.4</p> <p>None are applicable.</p>

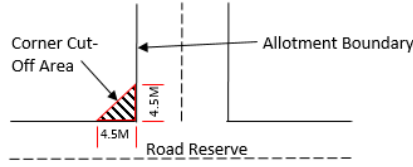
PO 6.5 Vehicle parking areas that are likely to be used during non-daylight hours are provided with sufficient lighting to entry and exit points to ensure clear visibility to users.	DTS/DPF 6.5 None are applicable.
PO 6.6 Loading areas and designated parking spaces for service vehicles are provided within the boundary of the site.	DTS/DPF 6.6 Loading areas and designated parking spaces are wholly located within the site.
Undercroft and Below Ground Garaging and Parking of Vehicles	
PO 7.1 Undercroft and below ground garaging of vehicles is designed to enable safe entry and exit from the site without compromising pedestrian or cyclist safety or causing conflict with other vehicles.	DTS/DPF 7.1 None are applicable.
Bicycle Parking in Designated Areas	
PO 9.1 The provision of adequately sized on-site bicycle parking facilities encourages cycling as an active transport mode.	DTS/DPF 9.1 Areas and / or fixtures are provided for the parking and storage of bicycles at a rate not less than the amount calculated using Transport, Access and Parking Table 3 - Off Street Bicycle Parking Requirements.
PO 9.2 Bicycle parking facilities provide for the secure storage and tethering of bicycles in a place where casual surveillance is possible, is well lit and signed for the safety and convenience of cyclists and deters property theft.	DTS/DPF 9.2 None are applicable.
PO 9.3 Non-residential development incorporates end-of-journey facilities for employees such as showers, changing facilities and secure lockers, and signage indicating the location of the facilities to encourage cycling as a mode of journey-to-work transport.	DTS/DPF 9.3 None are applicable.
Corner Cut-Offs	
PO 10.1 Development is located and designed to ensure drivers can safely turn into and out of public road junctions.	DTS/DPF 10.1 Development does not involve building work, or building work is located wholly outside the land shown as Corner Cut-Off Area in the following diagram: 

Table 1 - General Off-Street Car Parking Requirements

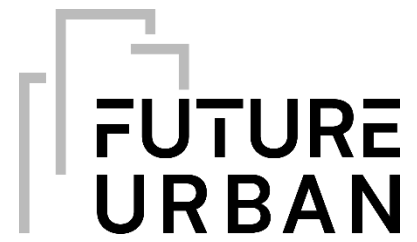
Class of Development	Car Parking Rate (unless varied by Table 2 onwards)
Where a development comprises more than one development type, then the overall car parking rate will be taken to be the sum of the car parking rates for each development type.	
Tourist	
Tourist accommodation other than a caravan and tourist park	1 car parking space per accommodation unit / guest room.

Table 2 - Off-Street Car Parking Requirements in Designated Areas

Class of Development	Car Parking Rate		Designated Areas
	Where a development comprises more than one development type, then the overall car parking rate will be taken to be the sum of the car parking rates for each development type.		
	Minimum number of spaces	Maximum number of spaces	
Non-residential development			
Tourist accommodation	1 space for every 4 bedrooms up to 100 bedrooms plus 1 space for every 5 bedrooms over 100 bedrooms	1 space per 2 bedrooms up to 100 bedrooms and 1 space per 4 bedrooms over 100 bedrooms	City Living Zone Urban Activity Centre Zone when the site is also in a high frequency public transit area Urban Corridor (Boulevard) Zone Urban Corridor (Business) Zone Urban Corridor (Living) Zone Urban Corridor (Main Street) Zone Urban Neighbourhood Zone (except for Bowden)

Table 3 - Off-Street Bicycle Parking Requirements

Class of Development	Bicycle Parking Rate	
	Where a development comprises more than one development type, then the overall bicycle parking rate will be taken to be the sum of the bicycle parking rates for each development type.	
Tourist accommodation	1 space for every 20 employees plus 2 for the first 40 rooms and 1 for every additional 40 rooms for visitors.	
Schedule to Table 3	Designated Area	Relevant part of the State
		The bicycle parking rate applies to a designated area located in a relevant part of the State described below.
	All zones	City of Adelaide
	Business Neighbourhood Zone	Metropolitan Adelaide
	Strategic Innovation Zone	
	Suburban Activity Centre Zone	
	Suburban Business Zone	
	Suburban Main Street Zone	
	Urban Activity Centre Zone	
	Urban Corridor (Boulevard) Zone	
	Urban Corridor (Business) Zone	
Urban Corridor (Living) Zone		
Urban Corridor (Main Street) Zone		
Urban Neighbourhood Zone		



PLANNING REPORT

Mixed-Use Development

108 – 112A Franklin Street, Adelaide

Prepared for:
108 Franklin Pty Ltd

Date:
13.08.2024

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Document Control

Revision	Description	Author	Date
V1	Draft	RG	02.08.2024
V2	Review	FB	13.08.2024
V3	Final	RG	13.08.2024

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1. OVERVIEW

Subject Site/Location	108 – 112A Franklin Street, Adelaide
Current Land Use	Existing buildings encompassing various uses
Zone	Capital City Zone
Overlays	Airport Building Heights (Regulated) (All structures over 80m AHD) Affordable Housing Building Near Airfields Design Heritage Adjacency Hazards (Flooding – Evidence Required) Noise and Air Emissions Prescribed Wells Area Regulated and Significant Tree
Technical and Numeric Variations (TNV)	Maximum Building Height (Maximum building height is 53m) Concept Plan (79 – Primary Pedestrian Area)
Development	Construction of a mixed-use building comprising tourist accommodation, dwellings, offices and shops
Elements	Tourist Accommodation Shop Office Dwelling (in the form of a residential flat building) Advertisement
Assessment Pathway	Code Assessed – Performance Assessed
Public Notification	Public notification not required
Referrals	Adelaide Airport Limited Government Architect Environment Protection Authority City of Adelaide
Planning and Design Code Version and Date	V2023.18 – December 7, 2023
Relevant Authority	State Planning Commission

2. INTRODUCTION

This report has been prepared to accompany an application by 108 Franklin Pty Ltd ('Applicant') for planning consent ('consent') to construct a mixed-use building ('proposed building') comprising tourist accommodation, shops, offices and dwellings at 108 – 112A Franklin Street, Adelaide ('site').

The proposed building will contain:

- a basement level comprising services (fire pump room, main switch and main comms rooms);
- a five-level common podium, including:
 - » commercial tenancies with a cumulative gross leasable floor area of 766.5 square metres, together with the residential lobby and hotel lobby and drop-off zone at ground level, and an east – west pedestrian link that connects Cannon and Tatham Streets with one another;
 - » the car park entry (via Tatham Street) leading to the car parking areas that are spread across Levels 1 – 4 (equating to a total of 114 car parking spaces) and 'sleeved' by the hotel's facilities and amenities across double height floors;
- a two-tower form ascending from the common podium comprising:
 - » a 246 key hotel across Levels 5 to 17, located within the southern tower; and
 - » 175 dwellings across Levels 5 to 21, located within the northern tower.

In preparing this report, we have:

- inspected both the site and its locality;
- participated in the Department for Trade and Investment's ('DTI's') Pre-Lodgement Service (including two Design Review Panel Sessions, as well as a design amendment meeting post-lodgement);
- reviewed the relevant policies of the Planning and Design Code ('Code'); and
- examined the:
 - » Certificates of Title in **Appendix 1**;
 - » architectural drawings prepared by Nic Design in collaboration with Cheesman Architects in **Appendix 2**;
 - » traffic and parking assessment report prepared by Frank Siow and Associates in **Appendix 3**;
 - » stormwater report and civil drawings prepared by PT Design in **Appendix 4**;
 - » waste management plan devised by Colby Phillips Advisory in **Appendix 5**;
 - » sustainability report prepared by BESTEC in **Appendix 6**;
 - » wind report prepared by GWTS in **Appendix 7**;
 - » acoustic report prepared by BESTEC in **Appendix 8**;
 - » landscape plan prepared by Oxigen in **Appendix 9**; and
 - » preliminary site investigation report prepared by A.M. Environmental Consulting in **Appendix 10**.

This report contains our description of the site, its locality and the proposal, and our assessment of the proposal against what we consider to be the most relevant policies of the Code.

3. BACKGROUND

3.1 Previous Authorisation

The State Commission Assessment Panel ('SCAP') granted consent to a previous scheme over the site (via Development Application 020/A048/19) on October 14, 2020 which involved the "*partial demolition of the existing buildings and the construction of two towers above a common podium for hotel and serviced apartment use, along with porte-cochere.*"

The site has since been acquired by the Applicant. The built form and land use composition of the proposal has evolved during the course of the pre-lodgement, and post-lodgement, processes as a result of market demand, other competing developments within the immediate locality and the feedback of referral agencies.

3.2 Pre-Lodgement Process

Prior to lodgement, the Applicant and their representatives participated in:

- two Pre-Lodgement Panel ('PLP') Meetings, held on July 14, 2022 and August 14, 2023; and
- two Design Review Panel ('DRP') Sessions, held on July 21, 2022, and November 30, 2023.

At that time, the Applicant proposed a twin-tower form, and later refined the proposal to:

- introduce a single tower form in lieu of a twin tower form above the podium;
- introduce a substantial recess to the southern façade above the podium at Level 7 (to Franklin Street) in lieu of having a continuous sheer wall in this location (this recess has also allowed for the creation of an outdoor terrace area);
- simplify the northern façade of the podium to improve the visual relationship between the proposed building and the adjoining local heritage place to the north of the site (the Federation Trading building);
- devise a comprehensive ESD strategy, which demonstrates the various design aspects and incorporates further inclusions to ensure an exemplary outcome;
- refine the architectural expression of the proposed building by simplifying the tower's façades and introducing fine-grain detailing to the podium to better reflect the existing streetscape and local context;
- reduce the number of car parking spaces within the confines of the proposed building from 234 to 158; and
- reduce the height of the podium from nine levels to seven levels.

In addition, the Applicant decided to relocate the car park entry from Cannon Street to Tatham Street to minimise conflict with pedestrians along Cannon Street and consolidate all servicing and vehicle access points to Tatham Street (with the exception of the hotel drop-off entry point via Cannon Street).

3.3 Amended Proposal

Following receipt of the Government Architect's referral response, the Applicant has amended the proposal yet again to better address a number of key concerns. For instance, they have:

- reverted back to the two-tower form above a common podium;
- reduced the height of the podium from six levels to four levels (not including ground level);
- reduced the overall building height from 95 metres and 27 levels to:
 - » 74 metres and 21 levels for the northern tower; and

- » 60 metres and 17 levels for the southern tower;
 - deleted the sleeved offices and Level 7 terrace from the southern end of the southern tower, and incorporated double-height hotel amenities and facilities;
 - reduced the gross leasable floor area of commercial tenancies (from 3,102 square metres to 766.5 square metres);
 - increased the size of the basement to accommodate services, waste and linen storage;
 - reconfigured the ground floor plane (maintaining the pedestrian link, commercial tenancies (shops, office), loading areas and car park entry);
 - introduced modular construction to the southern tower (while maintaining conventional construction for the podium and northern tower);
 - increased the number of hotel keys (246 keys in lieu of 203 keys);
 - increased the number of dwellings from 173 to 175. The offering now includes:
 - » 60 one-bedroom dwellings in lieu of 59;
 - » 107 two-bedroom dwellings in lieu of 108; and
 - » eight, three-bedroom dwellings;
 - reduced the number of car parking spaces from 158 spaces to 114 spaces; and
- increased the number of bicycle parking spaces from 208 spaces to 240 spaces.

4. SITE AND LOCALITY

4.1.1 Site

The site is identified as 108 – 112A Franklin Street, Adelaide and consists of four contiguous allotments which are more formally described as:

- Allotment 7 on Filed Plan 137745 (CT 5253/876);
- Allotment 3 on Filed Plan 105000 (CT5980/497);
- Allotment 2 on Filed Plan 104999 (CT 5156/499); and
- Allotment 1 on Filed Plan 105143 (CT 5156/498).

Each Certificate of Title can be found in **Appendix 1**.

The site has an area of approximately 2,112 square metres and frontages of:

- 21.34 metres to Franklin Street on its southern side;
- 98.9 metres to Cannon Street on its eastern side; and
- 98.9 metres to Tatham Street on its western side.

The site is identified in Figure 4.1 below.

Figure 4.1 *The Site*



Having regard to the site, the following is noted:

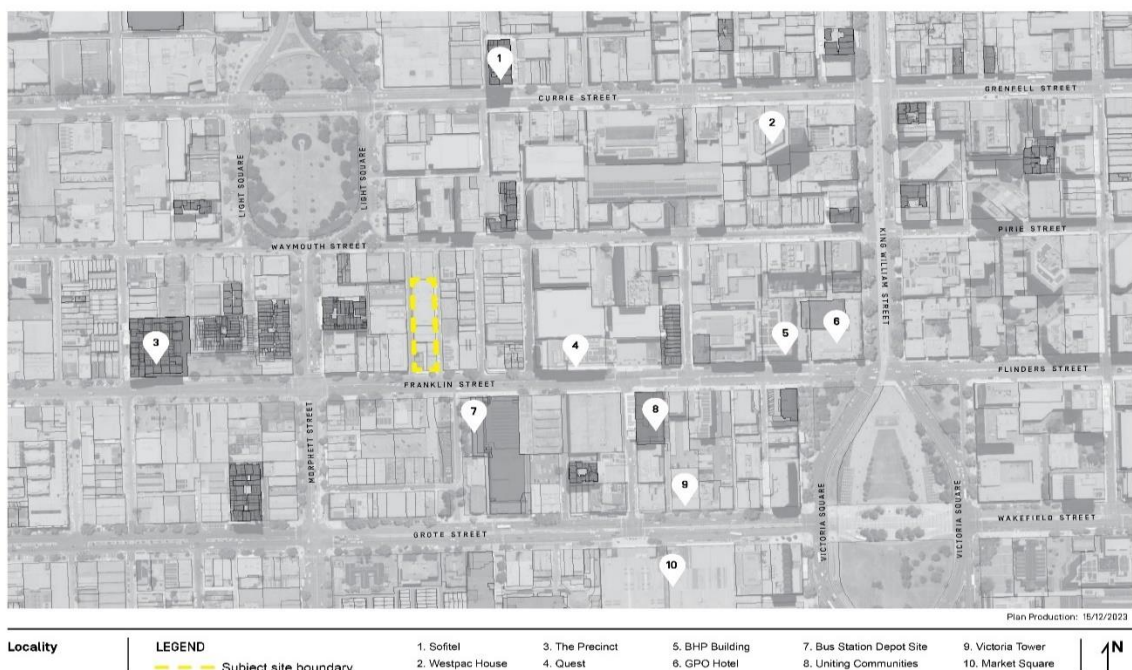
- the site is rectangular in shape, and has a north-south orientation;
- the site contains a range of former warehouse buildings (low-rise in nature) fronting Cannon Street and Tatham Street, and a shopfront (also low-rise in nature) facing Franklin Street, formerly occupied by the Publisher's Hotel (wine bar) and ancillary entertainment/function centre uses, with all existing buildings abutting the outer boundaries of the site;
- the site abuts a local heritage place to the north, known as the Federation Trading building (127 – 133 Waymouth Street, Adelaide);
- the Franklin Street footpath is approximately 4.6 metres wide, however the Cannon Street and Tatham Street footpaths are notably narrow, measuring approximately 1.2 metres and approximately 0.5 metres in width respectively; and
- there are no easements or encumbrances affecting the site and there are no regulated or significant trees on or near the site either.

4.1.2 Locality

The locality is captured in Figure 4.2 below. It includes land:

- immediately to the north, including the heritage-listed Federation Trading building and the two corner sites fronting Waymouth Street with secondary frontages to Cannon Street and Tatham Street (123 and 137 – 145 Waymouth Street, Adelaide);
- with frontage to Cannon Street (oriented to the west) and land with frontage to Tatham Street (oriented to the east); and
- on the southern (opposite) side of (and with frontage to) Franklin Street, identified as 109 and 111 Franklin Street, Adelaide.

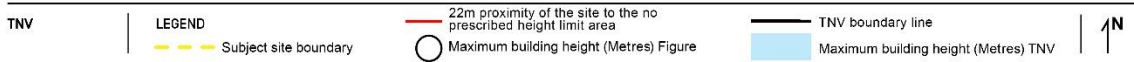
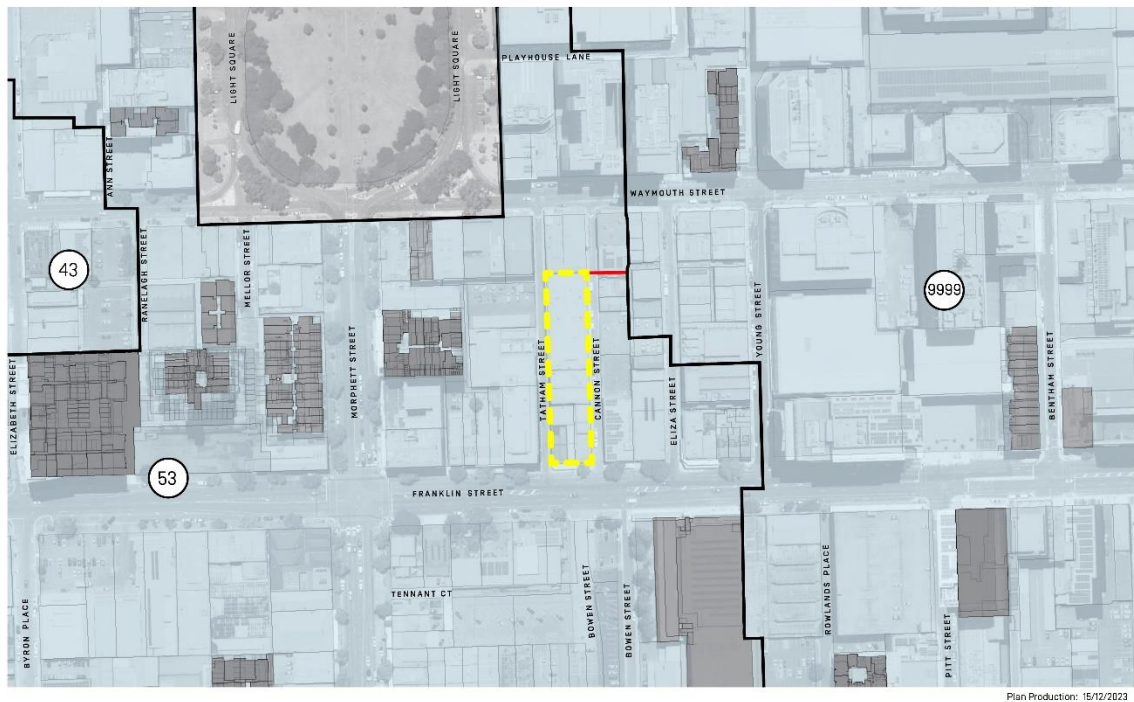
Figure 4.2 *Locality plan*



Having regard to the locality, the following is noted:

- the locality comprises a mix of land uses, including office and retail tenancies, as well as tourist accommodation (in the form of backpacker hostels) and open lot car parking;
- buildings in the immediate vicinity of the site the range from one to four levels in height, and, when considered in the context of the policies of the Code, depart to a significant extent from the desired yield and height outcomes that have been sought for the Capital City Zone (consequently, the locality is expected to undergo significant transformation in the not-too-distant future);
- the height of buildings is currently evolving, noting a number of developments that have been approved (but are yet to be commenced) or are in design development will be of a similar height and scale to that which is proposed; and
- the site is located a mere 22 metres to the west of that part of the Capital City Zone where there is 'no prescribed height limit', as illustrated in Figure 4.3 below.

Figure 4.3 TNV Map



5. PROPOSED DEVELOPMENT

5.1 Land Use

The proposed building will accommodate a mix of land uses. These uses are listed in Table 5.1 below and include:

- tourist accommodation (hotel) and associated amenities;
- offices;
- shops; and
- dwellings (in the form of a residential flat building).

Table 5.1 *Proposed Land Uses*

	Location	Proposed Use
Podium	Basement	Services and storage
	Ground Floor	Hotel lobby and associated offices Residential lobby Four (G1 – G4) commercial/retail tenancies Pedestrian link and hotel drop-off zone Services / car park entry ramp
	Level 1	Hotel amenities and facilities Car parking (13 spaces) Bicycle parks (26 spaces)
	Level 2	Car parking (32 spaces) Bicycle parking (62 spaces) Residential storage
	Level 3	Car parking (33 spaces) Bicycle parking (62 spaces) Hotel amenities and facilities
	Level 4	Car parking (36 spaces) Bicycle parking (62 spaces) Hotel amenities and facilities Residential amenities
Northern Tower	Level 5	Dwellings (one and two-bedroom typologies) Terrace and screened services
	Levels 6 – 19	Dwellings (one and two-bedroom typologies)
	Levels 20 – 21	Dwellings (two and three-bedroom typologies)
	Rooftop	Screened plant and provision for solar panels
Southern Tower	Level 5	Multi-function room Bar and restaurant (associated with the hotel) Mechanical plant and services
	Levels 6 – 17	Typical hotel room floors (Level 8 inclusive of an outdoor terrace oriented to Franklin Street)
	Rooftop	Screened plant and provision for solar panels

The Applicant is currently shortlisting hotel operators to lease the hotel component of the proposed building.

5.2 Siting

The ground floor level will:

- abut the rear (northern) boundary, front (southern) boundary and a portion of the side (western) boundary (the loading dock and transformer room will be set back 0.9 to 2.0 metres from this boundary); and
- be set back 0.8 metres from the opposite (eastern) side boundary where the proposed building relates to commercial tenancy frontages.

The podium levels will:

- abut the northern (rear), western (side) and southern (front) boundaries (with the exception of a 1.95 metre recess to the western portion of the podium); and
- be set back 0.9 metres from the eastern (side) boundary.

The northern and southern towers will be separated by a distance of 9.95 metres, and:

- the northern tower will be set back 2.98 metres from the northern (rear) boundary, 0.86 metres from the eastern (side) boundary and abut the opposite (western) side boundary (with the exception of the 1.95-metre recess); and
- the southern tower will be set back 1.5 metres from the eastern (side) boundary and 0.685 metres from the opposite (western) side boundary (measured from the outermost projection of the façade detailing) and abut the southern (front) boundary (with a portion of the architectural fin detail encroaching the boundary).

5.3 Building Height

The proposed building will measure:

- five levels (including ground level) and 18.6 metres to the top of the podium;
- 18 levels (including ground level) and 60 metres (103.95 metres AHD) to the top of the southern tower (or 63.5 metres and 107.15 metres AHD to the top of the lift overrun); and
- 22 levels (including ground level) and 74 metres (117.75 metres AHD) to the top of the northern tower (or 76.6 metres (120.35 metres AHD) to the top of the lift overrun).

With respect to the height of the proposed building, it is relevant to note that:

- a relevant authority must take into account any prior development authorisation that relates to the same proposed development (refer Regulation 60 of the *Planning, Development and Infrastructure (General) Regulations 2017*); and
- to that end, a previous authorisation was granted for a twin-tower development of 68 metres of a comparable land use composition.

5.4 Built Form and Architectural Expression

The design includes:

- a five-level podium, broken up into:
 - » a two-storey-tall lower podium, characterised by fine-grain detailing, including a double-height brick colonnade design, infilled with black-framed vertical glazed panels and an overhanging bronze canopy feature; and

- » a three-storey upper podium, characterised by vertically proportioned glazed panels and stained precast concrete to the hotel component, and aluminium screening and perforated mesh screening to the car parking floors; and
- a twin tower form articulated by contrasting architectural expressions, namely:
 - » a horizontal form to the hotel, broken up by centrally located, vertically proportioned panels to the core, with depth and texture provided through the modular form; and
 - » a high degree of glazed facades and depth created through recessed walls behind balconies to the residential tower.

5.5 Dwelling Typologies

The particulars of the dwellings are as follows:

- 60 one-bedroom dwellings ranging from 51 to 54 square metres in area, with balconies of 8 to 10 square metres in area;
- 107 two-bedroom dwellings ranging from 73 to 89.5 square metres in area, with balconies of 11 to 24 square metres in area; and
- eight, three-bedroom dwellings ranging from 132.3 to 173.7 square metres in area, with multiple balconies comprising cumulative areas of over 30 square metres.

All dwellings are designed to achieve high levels of amenity, including long-range outlooks, natural light and ventilation, and generous living spaces.

5.6 Access and Parking

5.6.1 Access and Arrival Sequence

The particulars of the proposed access arrangements are disclosed within the traffic and parking assessment report (**Appendix 3**). It is clear from this document that:

- pedestrian access is attainable to various tenancies and entries via Franklin, Cannon and Tatham Streets, as well as the pedestrian link;
- the proposal enhances the pedestrian experience through the incorporation of:
 - » a greater setback to Cannon Street to provide a wider footpath than what currently exists; and
 - » a pedestrian link connecting Cannon and Tatham Streets together (the link is located at the approximate mid-point of the podium providing universally accessible movements east – west through the site);
- vehicle access via the link will facilitate one-way entry movements via Cannon Street and exit movements via Tatham Street, with temporary drop-off and loading bays; and
- vehicle access to the car park will be accommodated via a two-way access point to Tatham Street via the circular ramp to the dedicated car parking levels.

5.6.2 Car Parking

The car parking areas are proposed to be ‘sleeved’ at the northern end of the podium.

The car park will accommodate 114 line-marked spaces, with two spaces to be set aside at all times for people with a disability. All spaces have been designed to achieve the relevant standard (AS/NZS 2890.1:2004).

As outlined in the traffic and parking assessment report contained in **Appendix 3**, 101 of the 114 spaces will be allocated to residents, whilst the remaining 13 spaces (including two DDA spaces) will be allocated to the hotel.

5.6.3 Bicycle Parking

The proposed development will accommodate 240 bicycle parking spaces, with there being:

- 28 spaces available at ground level (located between the pedestrian link and the hotel drop-off zone);
- 26 spaces at Level 1 allocated for staff; and
- 186 spaces across Levels 2 – 4 (62 spaces per level).

5.7 Waste

The particulars of the proposed waste management plan devised by Colby Phillips Advisory are contained within **Appendix 5**.

At a high level, the proposed building will be serviced by a shared waste storage room at ground level, comprising shared skip bins. The various uses of the site will manage waste in the following manner:

- shared skip bins are proposed for use across the various uses, with:
 - » commercial tenancies located at ground level accessing and utilising skips via the waste room or directly within the loading dock;
 - » staff collecting waste for the hotel tenancies utilising the service lift to access the hotel waste store on Level 1; and
 - » the prospective residents utilising waste chutes located on each floor level, with bulky waste to be taken directly to the waste storage room on the ground floor level;
- the responsibilities of waste management within the proposed building are to be undertaken in accordance with the management plan outlined in Table 4.1 of the Waste Management Plan;
- a private waste contractor will be appointed, with waste vehicles being required to reverse into the loading dock and exit in a forward motion (via Tatham Street); and
- there will be no more than 17 collections per week.

Waste generation has been calculated using the waste resource generation rates (WRGR) for each land use, based on the relevant guidelines, being the State Guideline (Zero Waste SA, 2014).

A summary of the total waste generation per waste stream, size and number of skip bins and frequency of waste collection is provided in Table 5.2 overleaf.

Table 5.2 Waste summary

	Waste Stream	Estimated Volumes (L/wk)	Collection Frequency	Bin Type		
				Quantity	Size (L)	Type
Commercial Tenancies	General	4,310	7	1	1,100	Skip
	Dry Comingled Recycling	640	3	1	600	Skip
	Cardboard/Paper	2,300	3	1	1,100	Skip
	Organics	2,750	3	2	660	Skip
	Recycled Deposit Container	230	1	1	240	MGB
Hotel Rooms and Hotel Amenities	General	11,160	7	3	660	Skip
	Dry Comingled Recycling	3,920	3	3	660	Skip
	Cardboard/Paper	2,920	3	2	660	Skip
	Food Organics	1,490	3	1	660	Skip
	Recycled Deposit Container	260	1	2	240	MGB
Residential	General	8,940	7	2	1,100	Skip
	Dry Comingled Recycling	7,450	3	3	1,100	Skip
	Organics	2,980	3	2	660	Skip

The storage area is proposed to meet ventilation requirements in accordance with the relevant standard (AS/NZS 1668).

5.8 Landscaping

The landscaping plan prepared by Oxigen in **Appendix 8** includes:

- raised aluminium planters (600 millimetres wide and 600 millimetres deep) with a mesh climbing frame for plants along the Cannon Street frontage (and located wholly within the boundaries of the site);
- raised aluminium planters (450 millimetres wide and 600 millimetres deep) with a centrally-located batten climbing frame for plants located within the central portion of the pedestrian link (separating the vehicle drop-off zone from the pedestrian walkway);
- 500-millimetre high GRC planter troughs with 1700-millimetre-high balustrades or 1800-millimetre-high screens to the Level 5 services terrace; and
- selected species to tolerate the environmental and climatic conditions of their intended setting (i.e., wind and light), with planters to be fitted with irrigation and drainage systems.

5.9 Stormwater

We refer to the stormwater report prepared by PT Design in **Appendix 4** and note that the proposed development will:

- not increase the extent of impervious surfaces within the confines of the site;
- discharge an equivalent volume of stormwater from the site to that of the pre-development conditions, which will be accommodated via the existing stormwater drainage system;
- discharge runoff from the roof and balconies via a gravity system connected to the side entry pit located on Franklin Street; and
- have a finished floor level set at 150 millimetres above the adjacent top of kerb level.

5.10 Environmental Sustainability

The Applicant seeks to prioritise sustainability by pursuing:

- a 4.5 Star NABERS Energy rating for the hotel with a Commitment Agreement certification;
- a 5 Star Green Star Buildings rating;
- best-practice sustainability initiatives throughout;
- the use of electricity in lieu of fossil-fuel reliance;
- heating and domestic hot water via electric heat pumps fed by the PV solar array on the roof;
- renewable energy systems and rainwater reuse systems; and
- compliance with Section J of the National Construction Code.

To be exact, the Applicant proposes to:

- improve pedestrian access and movement by promoting walkability through the incorporation of the pedestrian link, setting the proposed building back from Cannon Street to facilitate a widened footpath, and taking advantage of the site's central location and proximity to tram and bus stops;
- prioritise bicycle storage and parking;
- create flexible façades and floor plates that can be readily adapted should the need ever arise;
- use high-performance double glazing to reduce heat ingress, and include shading and screens to control glare and indoor environmental quality;
- include operable windows to promote natural ventilation;
- reduce embodied carbon emissions by selecting suitable materials and specifying low carbon products; and
- incorporate a solar PV array on the rooftop.

The full extent of sustainability inclusions is outlined in **Appendix 6**.

5.11 Advertisements

A zone for future hotel branding/signage is proposed along the eastern and western facades (measuring 6.6 metres by 1.7 metres and covering an area of 11.22 square metres, and along the southern façade (measuring 7.1 metres by 1.7 metres and covering an area of 12.07 square metres).

5.12 Encroachments

In the event that planning consent is granted, the City of Adelaide's permission will be sought in relation to the architectural fins associated with the modular hotel component, as they encroach the southern (front) boundary of the site.

5.13 Site Contamination

The Preliminary Site Investigation ('PSI') undertaken by A.M. Environmental Consulting is included in **Appendix 8**.

The investigation uncovered that:

- the site history suggests that previous uses of the site could have resulted in potentially contaminating activities;

- a preliminary screening level soil assessment and soil vapour test did not indicate gross or widespread indicators or soil contamination such as fill, staining, odour or elevated chemical concentrations which would result in a material risk to the future users of the site; and
- the overall risk of site contamination is low, however further soil testing is recommended post-demolition of the existing structures.

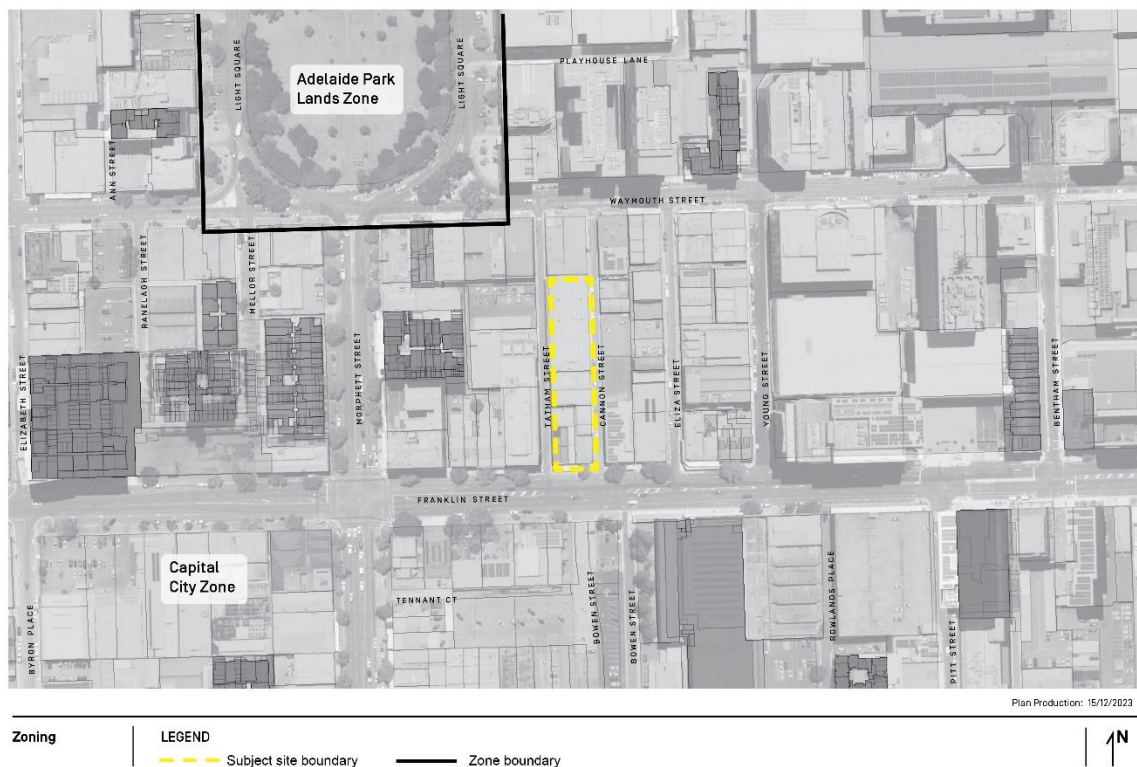
6. PROCEDURAL MATTERS

At the time of preparing this report, the relevant version of the Code was consolidated on December 7, 2023 (Version 2023.18).

6.1 Zone and Overlays

The site is located wholly within the confines of the Capital City Zone ('CC Zone'), as shown in Figure 6.1 below. No Subzones apply to the site.

Figure 6.1 Zoning



The following Overlays apply to the site:

- Airport Building Heights (Regulated) (All structures over 80m AHD);
- Airport Building Heights (Regulated) (All structures over 90m AHD);
- Affordable Housing;
- Building Near Airfields;
- Design;
- Heritage Adjacency;
- Hazards (Flooding – Evidence Required);
- Noise and Air Emissions;
- Prescribed Wells Area;
- Regulated and Significant Tree.

The following Technical and Numeric Variations also apply to the site:

- Maximum Building Height (Metres) (Maximum building height is 53 metres); and
- Concept Plan (Concept Plan 79 – Primary Pedestrian Area).

6.2 Nature of Development

The nature of the proposed development is best described as:

“The construction of a mixed-use building comprising tourist accommodation, dwellings, offices and shops.”

6.3 Elements

The proposed development comprises the following elements:

- Tourist accommodation;
- Shop;
- Office;
- Residential flat building; and
- Advertisement.

6.4 Assessment Pathway

According to Tables 1, 2 and 4 respectively of the CC Zone, the proposed development is not ‘accepted’, ‘deemed-to-satisfy’ or ‘restricted’ and is, therefore, to be ‘performance assessed’.

6.5 Relevant Authority

The State Planning Commission is the relevant authority, as the site is located within the City of Adelaide and the cost of the proposed development exceeds \$10 million – see Schedule 6, Clause 3, Subordinate Clause (1) of the *Planning, Development and Infrastructure (General) Regulations 2017* (*‘PDI (General) Regulations’*).

6.6 Referrals

According to Schedule 9 of the *PDI (General) Regulations*, the application to which the proposed development relates must be referred to:

- Adelaide Airport Limited, as the proposed building has been designed to exceed the height specified in the Airport Building Heights (Regulated) Overlay; and
- the Government Architect, as the site is captured by the Design Overlay.

The application must also be referred to the City of Adelaide, for comment on prescribed matters under Regulation 23(b) of the *PDI (General) Regulations*, and the Environment Protection Authority, as the proposed development involves a more sensitive land use, pursuant to Schedule 9 of the *PDI (General) Regulations* and Part 9.1 of the Code.

6.7 Public Notification

According to Column A, Clause 2 of Table 5 of the CC Zone, the application to which the proposed development relates is exempt from public notification, as the site is not adjacent land to a site (or land) used for residential purposes in a ‘neighbourhood-type’ zone.

7. ASSESSMENT AGAINST PLANNING AND DESIGN CODE

Table 3 of the CC Zone lists the applicable policies for tourist accommodation, shop, office and dwellings (in the form of a residential flat building). These policies are attached in **Appendix 9**.

The applicable policies include Desired Outcomes (DOs) which “*automatically apply in relation to a performance assessed development*” and Performance Outcomes (POs). It is also worth noting that some POs have a standard outcome that is considered to satisfy the corresponding PO, referred to as Designated Performance Features (DPFs). The Rules of Interpretation within Part 1 of the Code state the following in relation to DPFs (underlining our emphasis):

“A DPF provides a guide to a relevant authority as to what is generally considered to satisfy the corresponding performance outcome but does not need to necessarily be satisfied to meet the performance outcome and does not derogate from the discretion to determine that the outcome is met in another way, or from the need to assess development on its merits against all relevant policies.”

As a result of the above, the assessment below focusses on the applicable DOs and POs and may only refer to DPFs in instances where it assists in the exercise of discretion.

7.1 Overlay Assessment

7.1.1 Affordable Housing

The site is, as previously mentioned, captured by the Affordable Housing Overlay, however no affordable housing is proposed for three reasons.

First, the provision of such housing is advisory, not mandatory, and the intent of this Overlay is to ensure that such housing is integrated into the CC Zone, not each and every building that is proposed within it.

Second, the provision of such housing would, in this instance, render the proposed development commercially unviable (indeed, the initial concept included affordable housing to the tune of 15 percent, however the subsequent feasibility study saw them all removed).

Third, the preferred scheme for the former Franklin Street Bus Station site, which is located some 35 metres to the south-east of the site, is set to accommodate a high proportion of affordable houses.

7.1.2 Airport Building Heights (Regulated)

The site is subject to:

- an Obstacle Limitation Surface (‘OLS’) level of 80 metres AHD and 90 metres AHD; and
- a Procedures for Air Navigation Services – Aircraft Operations (‘PANS-OPS’) level of approximately 182 metres AHD (being the maximum height a building could extend to without interfering with the safety, efficiency or regularity of any existing or future airport operations), as confirmed by the previous consent granted to Development Application 020/A048/19.

The tallest portion of the proposed building will measure:

- 117.75 metres AHD (to the top of the parapet); and
- 120.35 metres AHD (to the top of the lift overrun).

Despite the proposed building penetrating the OLS, it will remain well below the PANS-OPS level, so as to “not pose a hazard to the operation of a certified or registered aerodrome”. We further note that as the tallest portion of the proposed building has been lowered since receiving Adelaide Airport Limited’s (‘AAL’s’) referral response, there is no benefit in further consultation, as it was accepted in its previous form.

7.1.3 Building Near Airfields

The proposed building is adequately separated from the nearest runway (approximately 5.0 kilometres south-west of the site, which is not less than 35 times the proposed building height), thereby satisfying PO 1.3 of this Overlay and the corresponding DPF, namely DPF 1.3.

7.1.4 Design

The proposed building will, as sought by DO 1 of this Overlay, contribute to the liveability, durability and sustainability of its locality through a high-quality design that has been repeatedly refined to address the constructive feedback received during the Pre-Lodgement Process.

The proposed building will be inclusive by incorporating:

- a universally accessible, high-quality and safe pedestrian link that connects two narrow and elongated streets together;
- a setback from Cannon Street to allow the footpath to be widened and to improve the pedestrian network within the public realm; and
- retail and commercial tenancies at ground level to generate activity and welcome the public to the development.

It will also:

- contribute to liveability by increasing housing choice and diversity in the city; and
- be durable and sustainable, being designed for purpose and assembled from durable materials, whilst incorporating a number of environmentally sustainable design techniques and initiatives.

7.1.5 Hazards (Flooding – Evidence Required)

Noting that there is no flood mapping data available for the site, the proposed finished floor level has been set at 150 millimetres above the adjacent top of kerb level, providing a degree of mitigation against potential floodwaters, as sought by PO 1.1 of this Overlay.

7.1.6 Heritage Adjacency

PO 1.1 of this Overlay states that development adjacent to a local heritage place should not dominate, encroach or unduly impact on the setting of that place. The Applicant's Architects have sought to address PO 1.1 by:

- reducing the overall height of the podium abutting the rear wall of the Local Heritage Place and incorporate a simple masonry presentation that is contextually responsive; and
- setting back the northern tower some 2.9 metres from the northern (rear) boundary and reducing the overall height of the northern tower.

7.1.7 Noise and Air Emissions

The intent of this Overlay is to protect sensitive receivers from adverse noise and air quality impacts. To this end, we note that the requirements of the Ministerial Building Standard ('MBS') 010 will need to be satisfactorily addressed through the detailed design phase of the process and prior to building consent being issued. That said, the proposed development will incorporate any measures necessary to achieve the requirements of the MBS 010 in accordance with the Overlay.

7.1.8 Prescribed Wells Area

The intent of the Overlay is to ensure sustainable water use in prescribed wells areas. To this end, we note that the proposed development does not involve any activities resulting in the taking of water.

7.1.9 Regulated and Significant Tree

The intent of this Overlay is to mitigate the loss of regulated trees through appropriate development and redevelopment. To this end, we note that the site is devoid of any regulated or significant trees.

7.2 Land Use

The proposed land use mix is appropriate, noting that:

- all of the proposed land uses (tourist accommodation, shop, office and residential flat building) are envisaged and expected within the CC Zone (both DO 1 for, and PO 1.1/DPF 1.1 of, the CC Zone attest to this); and
- the proposed land use mix will clearly contribute to the vibrancy and activation sought for this part of the City (see DOs 1 and 2 for the CC Zone).

7.3 Activation and Public Realm Interface

The CC Zone calls for:

- non-residential uses to be located at ground level to support and maximise pedestrian activity (see PO 2.1 of the CC Zone);
- development that contributes to the activation of the public realm by presenting an attractive human-scaled and pedestrian-oriented frontage (see PO 2.2 of the CC Zone);
- land uses that encourage activity during the day, evening and at night (see PO 2.3 of the CC Zone); and
- permeable shopfronts that allow for light spill onto the street and complement the appearance of the proposed building's frontage (see PO 2.4 of the CC Zone).

The proposal appropriately responds to these outcomes by:

- maximising the extent of activation along Cannon and Franklin Streets, a portion of Tatham Street (equating cumulatively to 75 percent of the site's frontages) and within the proposed pedestrian link itself, by comprising tenancies and activities including:
 - » retail shop and restaurant tenancies;
 - » residential and office lobbies;
 - » a high-amenity pedestrian link connecting to the existing footpath network; and
 - » integrated public refuge spaces (bench seats).

Further, the proposal incorporates the following design measures to further contribute to, and enhance, the public realm, being:

- a generous setback to the Cannon Street (eastern) boundary, to achieve a widened footpath to allow for improved pedestrian connections and safety within the public realm (noting that Tatham Street has an incredibly narrow path and Cannon Street carries the majority of foot traffic between Waymouth and Franklin Streets);
- a canopy to the Franklin Street frontage to provide shade and shelter for pedestrians along one of the City's main boulevards; and
- a high-quality and universally accessible pedestrian link, which:
 - » will be well-connected to the existing pedestrian network;
 - » provides an east – west connection between Cannon and Tatham Streets which reduces the length of travel due to the considerable length of these secondary street-facing boundaries;

- » provides an interface with active shop and restaurant uses which are envisaged to operate both during the day and at night; and
- » will be well-lit and landscaped, providing for a safe and pleasant environment for the general public.

7.4 Built Form and Character

The proposed built form, character and overall architectural expression is a high-quality, contextually responsive design outcome and, in particular, the proposed building:

- will reinforce the prevailing datum heights and parapet levels of the street, and, with reference to the proposed street elevation plan (Drawing N-21058_SD034, Revision M) in **Appendix 2** where the fine-grain, masonry presentation of the double-height ground floor base appropriately references the immediately adjacent buildings, while the remaining podium levels relate to the proportions of other medium-rise buildings along Franklin Street to create continuity and balance to the streetscape (see POs 3.1 and 3.2 of the CC Zone and PO 12.1 of the Design in Urban Areas Section of the Code);
- façades are expressed with a vertical composition with architectural detailing reflective of the character of existing buildings on the site (see PO 3.3 of the CC Zone);
- will extend to the boundaries of the site (with the exception of Cannon Street and portions of the building along Tatham Street) in a manner which reinforces the City's grid layout and frames the boulevard (see PO 3.4 of the CC Zone);
- is designed for adaptability, with appropriate floor to ceiling heights and the ability to expand office tenancies across the upper podium floors within the car park, should there ever be a desire for lesser car parking and more commercial floor space (see PO 3.13 of the CC Zone);
- is broken up into distinct elements, being the lower and upper podium and distinctive twin-tower form that suitably breaks up building mass (see PO 12.3 of the Design in Urban Areas Section of the Code);
- has a break at the southern façade of the hotel at Level 4 to provide visual relief, together with articulated fins that avoid the presentation of a sheer condition;
- will feature a neutral, two-tone and inoffensive pre-finished precast concrete so as to not be visually dominant or overbearing (see PO 12.4 of the Design in Urban Areas Section of the Code);
- will incorporate a selection of external materials that are economical and durable, and require little to no ongoing maintenance (see PO 12.5 of the Design in Urban Areas Section of the Code);
- has been designed to facilitate a safe, attractive, welcoming and functional entrance point, and will contribute to the streetscape character (see PO 12.7 of the Design in Urban Areas Section of the Code), noting that commercial tenancies, as well as the hotel and residential lobbies, are oriented towards the public realm and/or the pedestrian link;
- has also been designed to maximise opportunities for passive surveillance of the public realm through visually permeable façades at ground level which provide for a clear line of sight to the street (see POs 2.1 and 2.4 of the Design in Urban Areas Section of the Code); and
- is accessible via clear, safe and perceptible frontages, identifiable from the public realm and conveniently located (see PO 2.3 of the Design in Urban Areas Section of the Code).

7.5 Building Height

PO 4.1 of the CC Zone states:

PO 4.1 *Building height is consistent with the form expressed in any relevant Maximum Building Height (Levels) Technical and Numeric Variation layer and Maximum Building Height (Metres) Technical and Numeric Variation layer or positively responds to the local context and achieves the desired outcomes of the Zone.*

Having considered PO 4.1, it is noted that the site is subject to the following TNV:

“Maximum Building Height (Metres) (Maximum building height is 53 metres).”

Whilst the northern tower will stand 74 metres tall and the southern tower will stand 60 metres tall and, therefore, exceed the 53 metres TNV, we believe that the height of the proposed building is inconsequential from a planning perspective, and that it responds positively to the local context of, and desired outcomes for, the CC Zone, as sought by PO 4.1. We say this because:

- the site is exceptionally close to the boundary of the ‘no prescribed height limit’ area of the CC Zone (22 metres to the west of it, to be exact, as shown on Drawing Number N-21058_SD034, Revision M), meaning that the site is in a location that can (and will) be surrounded by developments where building height is only governed by PANS-OPS levels; and
- the local context is such that the streetscape character is evolving, with a number of approved and upcoming developments occurring that will result in height and scale in excess of the prescribed 53 metre height guideline. Indeed, a scheme measuring 68 metres tall has previously been approved on this site.

Further, PO 4.2 of the CC Zone contemplates development that exceeds the relevant TNV, where it incorporates measures that provide for a substantial additional gain in sustainability (see Section 7.8 for more detail on this aspect of the proposed development) and meets at least four of the qualifying criteria. In this case, the proposed development achieves the following:

- criterion (i) in that the development ‘*provides an orderly transition up to an existing taller building or prescribed maximum height in an adjacent Zone or building height area on the Maximum Building Height (Levels) Technical and Numeric Variation layer and Maximum Building Height (Metres) Technical and Numeric Variation layer*’;
- criterion (iii) in that the development incorporates ‘*high quality, safe and secure, universally accessible pedestrian linkages that connect through the development site to the surrounding pedestrian network*’;
- criterion (iv) in that the development provides ‘*higher amenity through provision of private open space in excess of minimum requirements by 25 percent for at least 50 percent of dwellings*’; and
- criterion (vi) in that the development provides ‘*at least 75 percent of the ground floor street fronts of the building being active frontages.*’

To be exact:

- the proposed development provides an orderly transition up to:
 - » existing taller buildings, such as Westpac House (measuring 132 metres tall) which is located approximately 300 metres to the north-east of the site;
 - » the adjacent 'no prescribed height limit' area of the CC Zone, immediately east of the site; and
 - » approved developments surrounding the site that also exceed the 53 metre TNV;
- the proposed development includes a high quality, safe and secure, universally accessible pedestrian link that connects the site east-west between Cannon and Tatham Streets through to the surrounding pedestrian network – it also provides a setback at ground level to Cannon Street to accommodate a widened footpath for improved pedestrian use and amenity;
- the proposed development provides higher amenity for its residents, whereby 100 of the 175 dwellings (67 percent of all dwellings) are afforded private open spaces (in the form of balconies) that exceed the minimum size guidelines by 25 percent or more; and
- the proposed development will provide a cumulative 75 percent of all three street frontages as active spaces, comprising shop fronts, lobbies and the pedestrian link.

It is clear that the proposed design exemplifies the recommended outcomes to qualify for an over-height building, integrates sustainability measures and outcomes, and has gone above and beyond to contribute to community benefit through the pedestrian link and widened footpath.

Given the context of the site, being within the CC Zone, which encourages and expects high-intensity and large-scale development, and a stones' throw away from the 'no prescribed height limit' area of the CC Zone, the height of the proposed building is a reasonable outcome for this location and will not have an adverse impact on the skyline of the City.

7.6 Residential Amenity

7.6.1 Dwelling Design

Dwellings should be designed to provide a high level of amenity for occupants and to offer a variety of layouts which vary in shape and size to contribute to diversity. The proposal achieves this in that:

- there is a range of one, two and three-bedroom dwellings, providing for a mix of housing options, as sought by PO 29.1 of the Design in Urban Areas Section of the Code;
- all dwellings exceed the recommended minimum floor areas relative to the number of bedrooms, as per DPF 29.1 of the Design in Urban Areas Section of the Code;
- the design ensures that all dwellings provide for reciprocal privacy by separating balconies, and allow for natural ventilation and the infiltration of daylight, through positioning main living areas and bedrooms next to openable windows/doors, as sought by PO 28.1 of the Design in Urban Areas Section of the Code; and
- all dwellings are expected to exceed the minimum recommended storage capacities to meet the likely needs of occupants, as per DPF 28.4 of the Design in Urban Areas Section of the Code.

7.6.2 Private Open Space

The Design in Urban Areas Section of the Code acknowledges the use of balconies as the primary private open space associated with dwellings in multi-level buildings.

Table 1 – Private Open Space specifies minimum rates and dimensions for various dwelling typologies, being:

- One-bedroom dwelling – 8 square metres and a minimum dimension of 2.1 metres;
- Two-bedroom dwelling – 11 square metres and a minimum dimension of 2.4 metres; and
- Three-bedroom dwelling – 15 square metres and a minimum dimension of 2.6 metres.

All dwellings have at least one balcony exceeding the minimum area and dimensions prescribed above, with over 50 percent of the dwelling stock exceeding the aforementioned recommended minimum sizes, thereby providing a high level of amenity and useable space to meet the likely needs of occupants.

7.7 Traffic, Access and Parking

7.7.1 Pedestrian Access

PO 6.1 of the CC Zone states:

PO 6.1 *Access to, and movement within, the Capital City Zone to be universally accessible, easy, safe, comfortable, convenient and legible for people of all abilities, with priority given to pedestrians and cyclists.*

The proposed development has been designed to achieve universal accessibility to, and from, the site. For example:

- the pedestrian link has been designed to accommodate east – west access between Cannon and Tatham Streets; and
- the proposed building will be set back from the Cannon Street boundary to allow the existing footpath to be widened for improved pedestrian accessibility and safety, noting that Cannon Street is a well-used pedestrian thoroughfare.

7.7.2 Vehicle Access and Traffic

PO 7.2 of the CC Zone states:

PO 7.2 *Development designed so that vehicle access points for parking, servicing or deliveries, and pedestrian access to a site, are located to minimise interrupting the operation of and queuing on public roads and pedestrian paths.*

Both Cannon and Tatham Streets facilitate one-way traffic flows in a northbound direction. Tatham Street is subject to on-street parking controls, except for a short section allocated to a loading zone on the western side adjacent to Waymouth Street. Cannon Street accommodates a number of on-street parking bays and provides an existing crossover to the site at the far/northern end.

In response to PO 7.2 of the CC Zone, the design ensures that access points are located so as to minimise any interruption and queuing along public roads and pedestrian paths, noting that:

- all existing on-street car parking bays along Cannon Street will be retained;
- the hotel drop-off zone will facilitate access in a forward motion by vehicles entering northbound via Cannon Street and exiting northbound in a forward direction via Tatham Street;
- a two-way access point to the car park will be provided on Tatham Street, with the ramp grade designed at 1:20 for a distance of 6.0 metres inside the boundary, with ramps to the upper levels generally at 1:8; and

- the loading dock is designed for access by a 10.2 metre rear-lift waste truck (or, alternatively, a smaller 8.8 metre MRV or van), requiring a reverse manoeuvre into the dock, to exit in a forward motion.

All exit locations will be fitted with a traffic mirror to assist drivers to view on-coming traffic along Tatham Street, with sight line distances considered as part of this assessment, and all exit points have been designed to enable the Stopping Sight Distance requirement to be satisfied (refer to AS/NZ 2890.1:2004).

With respect to traffic generation, the assessment undertaken by Frank Siow and Associates (**Appendix 3**) concludes that:

- the morning and afternoon peak periods are expected to generate less than 20 vehicle movements per hour;
- the anticipated traffic volumes, as a result of the proposed development, would be low and can be accommodated within the confines of the adjacent road network; and
- given that parking is prohibited along Tatham Street, there should be minimal traffic impact arising from the proposed development.

7.7.3 Car Parking

The site is subject to the Concept Plan (Concept Plan 79 – Primary Pedestrian Area) TNV, which, for the purposes of car parking, attracts a maximum car parking rate. Based on the land uses and intensity proposed, a maximum rate of 232 spaces applies.

The proposed parking provision of 114 spaces does not exceed the maximum rate, and suitably accommodates the needs of residents, tenants and hotel guests, whilst reducing the on-street car parking demand in the locality.

7.7.4 Bicycle Parking

The overall theoretical demand for bicycle parking, based on the composition of land uses and the recommended rates prescribed under Table 3 of the Transport, Access and Parking Section of the Code, is 209 spaces, including:

- 177 spaces for residents;
- 5 spaces for staff (associated with the hotel); and
- 27 for visitors.

The proposal incorporates:

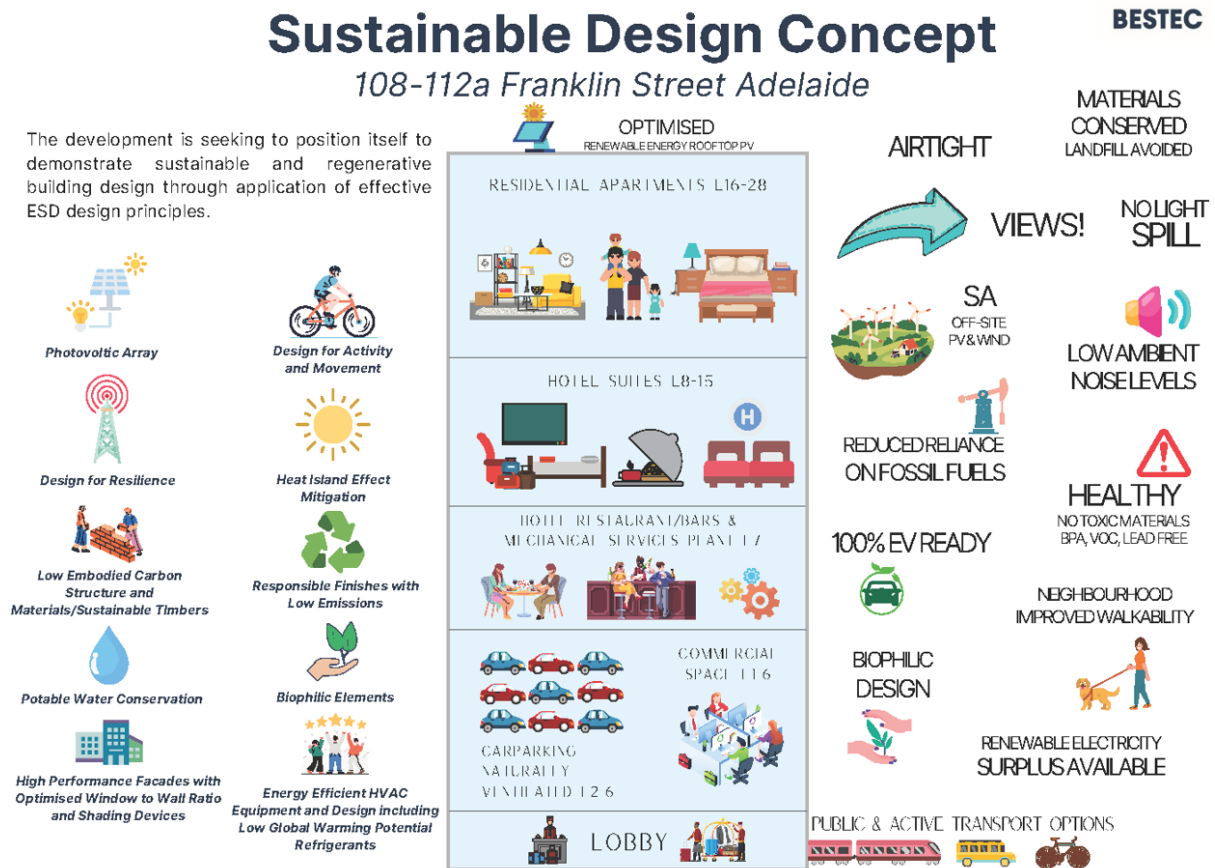
- 28 spaces at ground level (located within the pedestrian link);
- 26 spaces for staff on Level 1; and
- 186 spaces for residents located across Levels 2 – 4 (62 spaces per level).

7.8 ESD

POs 4.1, 4.2 and 4.3 of the Design in Urban Areas Section of the Code recommend that developments are designed to maximise access to natural light and ventilation, as well as their passive environmental performance, and to incorporate climate responsive techniques and features. To this end, we note that the proposed building has been designed with sustainability being of critical importance to the Applicant and their aspiration to deliver an environmentally sustainable building.

BESTEC's sustainable design concept is summarised in Figure 7.1 overleaf.

Figure 7.1



7.9 Amenity

7.9.1 Noise

The site is captured by the Noise and Air Emissions Overlay. Accordingly, there is an expectation that the proposed building is designed to shield sensitive receivers from external noise sources. In addition, the Code expects that adverse effects from noise sources do not unreasonably impact on the amenity of sensitive receivers (see POs 1.1, 1.2, 2.1 and 4.1 to 4.4 of the Interface between Land Uses Section of the Code).

The acoustic report contained in **Appendix 8** considers the impact of environmental noise, as well as noise generated by the development itself, and concludes that:

- compliance with the recommended design specifications as they relate to the structural, façade and glazing design and seals will achieve general acoustic attenuation needs and the satisfaction of the MBS-010;
- noise mitigation of mechanical plant will be developed during detailed design, however; at a preliminary stage, it is noted that these impacts will be controlled by appropriate attenuators, enclosures and vibration isolators, as required;
- waste collection and deliveries at the site should be restricted to operate within day time hours only (7:00am to 10:00pm) to minimise impacts of waste vehicles, reverse alarms and loading/unloading; and
- activities, such as continuous noise associated with the car park, will achieve relevant noise level criteria.

7.9.2 Overlooking

The glazed façades of the proposed building are devoid of any privacy mitigation treatments. Notwithstanding, no such measures are necessary in this instance because:

- PO 16.1 of the Design in Urban Areas Section of the Code does not apply to the site, as it is not adjacent to a 'neighbourhood-type' zone;
- the Code expects occupants of high-rise buildings to have a satisfactory short-range outlook; and
- the site is located in the heart of the CC Zone, where exceptionally tall buildings and reciprocal views are commonplace.

7.9.3 Overshadowing

It is noted that POs 3.1 and 3.2 of the Interface between Land Uses Section of the Code are not applicable to this development, as it will not affect adjacent residential land uses. We say this because it is neither sited adjacent to a 'neighbourhood-type' zone nor land presently used for residential purposes within the CC Zone.

Notwithstanding, shadow diagrams have been prepared and are contained within **Appendix 2**. It is clear from these diagrams that access to direct winter sunlight is not further compromised than what is to be expected within the CC Zone, given the envisaged height and intensity of the built form.

7.10 Waste

The proposed building has, as far as waste is concerned, been designed to comfortably accommodate the needs of the various uses within it, noting that the waste storage area at ground level:

- has been sized to accommodate the requisite type and number of bins for the projected waste volumes and frequency of collection (see POs 11.1 and 11.2 of the Design in Urban Areas Section of the Code);
- will be completely concealed from the public domain and adequately ventilated (see PO 11.3 of the Design in Urban Areas Section of the Code); and
- has been designed to allow for waste collection vehicles to undertake suitable manoeuvres in order to service the site and exit in a forward motion (see PO 11.4 of the Design in Urban Areas Section of the Code).

7.11 Landscaping

The proposed landscaping plans prepared by Oxigen are contained within **Appendix 8**.

The Design in Urban Areas Section of the Code guides the extent of soft landscaping sought within an urban context, with POs 3.1 and 3.2 stating:

PO 3.1 *Soft landscaping and tree planting are incorporated to:*

- (a) maximise heat absorption and reflection*
- (b) maximise shade and shelter*
- (c) maximise stormwater infiltration*
- (d) enhance the appearance of land and streetscapes.*

Given the context of the CC Zone, the proposed landscape design maximises opportunities for greening while balancing the intensity of development that is sought, and satisfies PO 3.1 by:

- maximising greenery through the incorporation of fixed planter boxes adjacent the Franklin and Cannon Street frontages, as well as within the pedestrian link, with integrated mesh climbers to provide for vertical greening;
- including fixed planters to the Level 5 services terrace to enhance greening above ground level and visible from the public realm, while enhancing visual amenity as viewed from south-facing habitable room windows from Level 5 of the northern tower; and
- selecting species that will tolerate their environmental and climatic circumstances.

7.12 Stormwater

PO 42.3 of the Design in Urban Areas Section of the Code states:

PO 42.3 *Development includes stormwater management systems to mitigate peak flows and manage the rate and duration of stormwater discharges from the site to ensure that development does not increase peak flows in downstream systems.*

With reference to the stormwater report by PT Design (**Appendix 4**), the proposal satisfies PO 42.3, noting that:

- the extent of impervious surfaces within the confines of the site will not be increased;
- the existing infrastructure is able to support the flow of runoff generated by this development; and
- the capacity of the existing 225mm diameter concrete/clay pipe within Franklin Street is approximately 40L/s which exceeds the expected flow of 38.5L/s generated from the site in a 1 in 10-year ARI storm event and a 10-minute time of concentration.

In addition, it is reasonable to assume that runoff can be released in a clean state and at an appropriate rate so as to not pollute, or place an undue strain on the carrying capacity of, the City of Adelaide's existing stormwater drainage network.

7.13 Wind Management

Having regard to the desktop Pedestrian Level Wind Assessment by GWTS in **Appendix 7**, the proposal is considered to satisfy PO 14.1 of the Design in Urban Areas Section of the Code. We say this because:

- footpaths and adjoining properties will not be adversely impacted by wind, due to the articulation of the proposed building and location of surrounding buildings;
- the main entrances to the building are set back from the outermost building line and will not be affected by downwash, whereby these areas will satisfy the recommended standing criterion;
- balustrades of 1.2 metres in height on Levels 1 to 19 and balustrades of 1.5 metres in height on Levels 20 to 21 are incorporated into the design to achieve the recommended comfort criterion on balconies; and
- the micro-climate of the pedestrian link will be thoroughly investigated during detailed design to ensure that the comfort criteria is met.

Accordingly, the proposal is considered to meet the expectations of the Code in relation to the management of wind and micro-climatic impacts, with all locations satisfying the pedestrian safety criterion (see POs 14.1, 14.2 and 14.3 of the Design in Urban Areas Section of the Code).

7.14 Advertisements

The extent of proposed future hotel branding/signage conforms to the relevant policies of the Code. For example:

- it will be simplistic, confined the hotel's branding and restrained in size, whilst being commensurate with the scale of the tower and character of the locality (see PO 8.1 of the CC Zone and PO 1.5 of the Advertisements Section of the Code);
- the signage zone is integrated with the design of the building (see PO 1.1 of the Advertisements Section of the Code);
- the signage will be wholly contained within the boundaries of the site (see PO 1.3 of the Advertisements Section of the Code);
- the quantity, size and location of signage will not result in the proliferation of advertising displays, clutter or untidiness (see PO 2.1 of the Advertisements Section of the Code); and
- the content of the signage will relate to the use of this part of the proposed building (see PO 3.1 of the Advertisements Section of the Code).

7.15 Site Suitability

DO 1 of the Site Contamination Section of the Code seeks to ensure that land is suitable for its intended purpose/s in circumstances where it is, or may have been, subject to site contamination.

Recognising that the site has historically been used for non-residential purposes and that the proposal will accommodate a more sensitive land use, a PSI has been undertaken by A.M. Environmental Consultants. The PSI concludes that based on the level of investigations and soil and vapour sampling to date, the risk of contamination is low. Notwithstanding, in accordance with Practice Direction 14, the site contamination declaration form identifies the above potentially contaminating activities.

8. CONCLUSION

We have concluded from our assessment of the proposal that it is deserving of consent.

In support of our conclusion, we wish to highlight that the proposal:

- incorporates a mix of land uses that are envisaged within the CC Zone and will positively contribute to the activity and vibrancy of this part of the City;
- achieves a high-quality design outcome that is contextual, inclusive, durable and sustainable;
- delivers on key public realm improvements and connections, as sought by the CC Zone;
- will not offend the City skyline in terms of building height, noting the orderly transition it provides to the adjacent 'no prescribed height limit' area and that it suitably addresses the over-height criteria for the CC Zone whilst incorporating ESD measures to benchmark the proposed building as an exemplary outcome;
- will maintain the operational and safety requirements of AAL by not penetrating the PANS-OPS;
- will not unduly dominate or impact on the setting of the adjacent LHP to the north of the site;
- will provide a range of housing products that appeal to the current needs of the market, through a mix of dwelling types with generous floor areas and private open spaces to achieve a high level of amenity for future occupants;
- will accommodate sufficient on-site bicycle and car parking;
- will provide for safe and convenient movements for all vehicle types and pedestrians;
- will provide for safe and effective stormwater and waste management; and
- will create a safe and comfortable environment that is secure and crime resistant.

Having regard to all relevant policies, it is abundantly clear that the proposal has substantial merit in that it will result in a vibrant, mixed-use outcome of a scale that is anticipated within the CC Zone.



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 5156 Folio 498

Parent Title(s)	CT 1334/152		
Creating Dealing(s)	CONVERTED TITLE		
Title Issued	22/11/1993	Edition 10	Edition Issued 30/12/2021

Estate Type

FEE SIMPLE

Registered Proprietor

ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
OF CARE BOSS PRIVATE CLIENTS PTY. LTD. LEVEL 2 42B LITTLE BOURKE STREET MELBOURNE VIC 3000

Description of Land

ALLOTMENT 1 FILED PLAN 105143
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

Dealing Number	Description
13230161	MORTGAGE TO NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
13685506	CAVEAT BY AZM GROUP PTY. LTD. (ACN: 643 599 722)

Notations

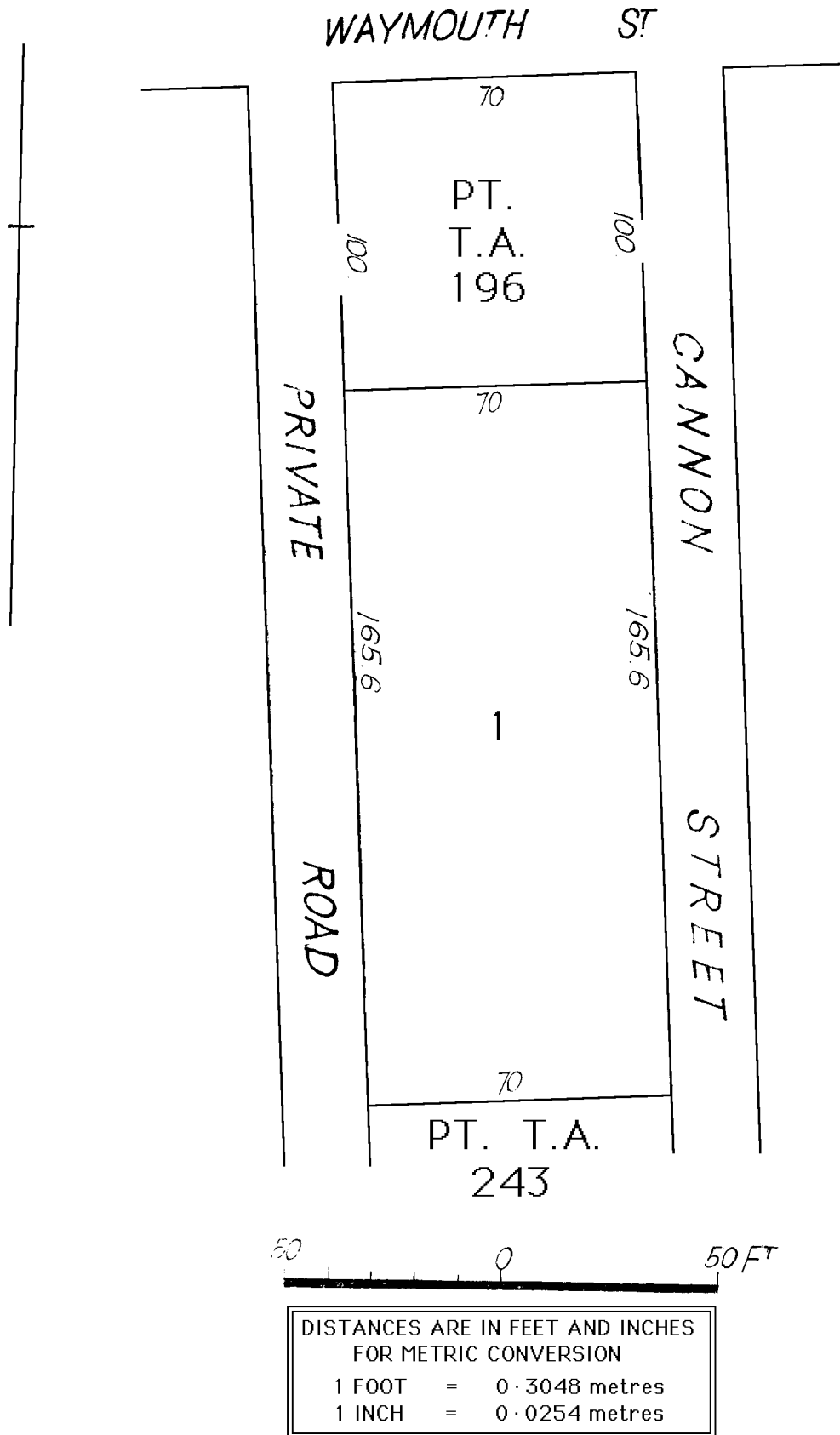
Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G717/1990
APPROVED FX257647

Administrative Interests	NIL
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This plan is scanned from Certificate of Title 1334/152



Note: Subject to all lawfully existing plans of division

Certificate of Title

Title Reference: CT 5156/498
Status: CURRENT
Parent Title(s): CT 1334/152
Dealing(s) Creating Title: CONVERTED TITLE
Title Issued: 22/11/1993
Edition: 10

Dealings

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
20/12/2021	30/12/2021	13687198	WITHDRAWAL OF CAVEAT	REGISTERED	13230885
17/12/2021	23/12/2021	13685506	CAVEAT	REGISTERED	AZM GROUP PTY. LTD. (ACN: 643 599 722)
08/11/2021	11/11/2021	13652088	WITHDRAWAL OF CAVEAT	REGISTERED	13230886
24/12/2019	30/12/2019	13230886	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
24/12/2019	30/12/2019	13230885	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
20/12/2019	24/12/2019	13230161	MORTGAGE	REGISTERED	NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
20/12/2019	24/12/2019	13230160	TRANSFER	REGISTERED	ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
20/12/2019	24/12/2019	13230159	DISCHARGE OF MORTGAGE	REGISTERED	12654394
19/12/2016	10/01/2017	12654394	MORTGAGE	REGISTERED	COMMONWEALTH BANK OF AUSTRALIA (ACN: 123 123 124)
15/08/2003	22/08/2003	9660753	DISCHARGE OF MORTGAGE	REGISTERED	8601002
27/02/2001	13/03/2001	9050895	LEASE	REGISTERED	ILENKA PTY. LTD. (ACN: 067 502 872)
14/12/1998	22/12/1998	8601002	MORTGAGE	REGISTERED	STATE BANK OF NEW SOUTH WALES LTD.
26/04/1995	29/05/1995	7910503	TRANSFER	REGISTERED	VEREMO BAY PTY. LTD. (ACN: 067 853 034)
26/04/1995	29/05/1995	7910502	DISCHARGE OF MORTGAGE	REGISTERED	7298808
26/04/1995	29/05/1995	7910501	DISCHARGE OF MORTGAGE	REGISTERED	6508323

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
03/04/1995	06/04/1995	7898070	AMENDMENT TO TEXT	REGISTERED	
30/09/1993	01/12/1993	7583886	RE-ENTRY OF LEASE	REGISTERED	7047368
04/08/1993	01/12/1993	7550116	LEASE	REGISTERED	TREVOR JAMES GOODEN
19/05/1992	24/06/1992	7298808	MORTGAGE	REGISTERED	
24/01/1991	24/04/1991	7047369	MORTGAGE OF LEASE	REGISTERED	7047368
24/01/1991	24/04/1991	7047368	LEASE	REGISTERED	
31/03/1988	04/05/1988	6508323	MORTGAGE	REGISTERED	



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 5156 Folio 499

Parent Title(s)	CT 1334/153		
Creating Dealing(s)	CONVERTED TITLE		
Title Issued	22/11/1993	Edition 11	Edition Issued 30/12/2021

Estate Type

FEE SIMPLE

Registered Proprietor

ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
OF CARE BOSS PRIVATE CLIENTS PTY. LTD. LEVEL 2 42B LITTLE BOURKE STREET MELBOURNE VIC 3000

Description of Land

ALLOTMENT 2 FILED PLAN 104999
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

Dealing Number	Description
13230161	MORTGAGE TO NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
13685506	CAVEAT BY AZM GROUP PTY. LTD. (ACN: 643 599 722)

Notations

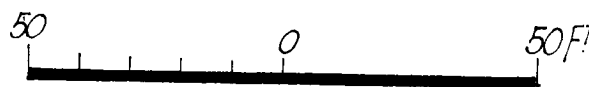
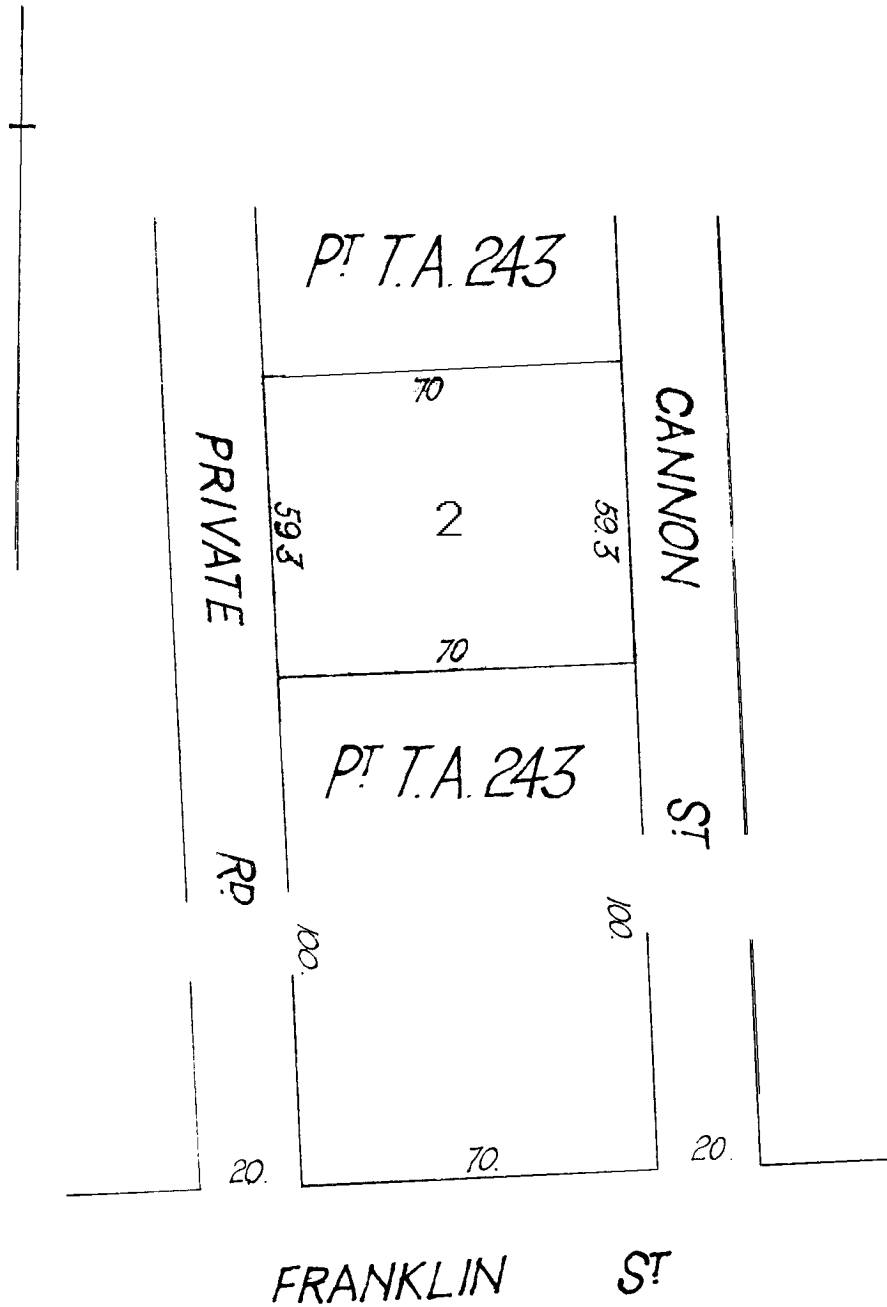
Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G717/1990
APPROVED FX257647

Administrative Interests	NIL
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This plan is scanned from Certificate of Title 1334/153



DISTANCES ARE IN FEET AND INCHES FOR METRIC CONVERSION	
1 FOOT	= 0.3048 metres
1 INCH	= 0.0254 metres

Note: Subject to all lawfully existing plans of division

Certificate of Title

Title Reference: CT 5156/499
Status: CURRENT
Parent Title(s): CT 1334/153
Dealing(s) Creating Title: CONVERTED TITLE
Title Issued: 22/11/1993
Edition: 11

Dealings

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
20/12/2021	30/12/2021	13687198	WITHDRAWAL OF CAVEAT	REGISTERED	13230885
17/12/2021	23/12/2021	13685506	CAVEAT	REGISTERED	AZM GROUP PTY. LTD. (ACN: 643 599 722)
08/11/2021	11/11/2021	13652088	WITHDRAWAL OF CAVEAT	REGISTERED	13230886
24/12/2019	30/12/2019	13230886	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
24/12/2019	30/12/2019	13230885	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
20/12/2019	24/12/2019	13230161	MORTGAGE	REGISTERED	NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
20/12/2019	24/12/2019	13230160	TRANSFER	REGISTERED	ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
20/12/2019	24/12/2019	13230159	DISCHARGE OF MORTGAGE	REGISTERED	12654394
19/12/2016	10/01/2017	12654394	MORTGAGE	REGISTERED	COMMONWEALTH BANK OF AUSTRALIA (ACN: 123 123 124)
15/08/2003	22/08/2003	9660753	DISCHARGE OF MORTGAGE	REGISTERED	8601002
27/02/2001	13/03/2001	9050895	LEASE	REGISTERED	ILENKA PTY. LTD. (ACN: 067 502 872)
14/12/1998	22/12/1998	8601002	MORTGAGE	REGISTERED	STATE BANK OF NEW SOUTH WALES LTD.
13/09/1995	20/09/1995	7991580	TRANSFER OF LEASE	REGISTERED	ILENKA PTY. LTD. (ACN: 067 502 872) 7860374
26/04/1995	29/05/1995	7910503	TRANSFER	REGISTERED	VEREMO BAY PTY. LTD. (ACN: 067 853 034)
26/04/1995	29/05/1995	7910502	DISCHARGE OF	REGISTERED	7298808

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
			MORTGAGE		
26/04/1995	29/05/1995	7910501	DISCHARGE OF MORTGAGE	REGISTERED	6508323
15/03/1995	20/03/1995	7888546	AMENDMENT TO TEXT	REGISTERED	7550116
20/01/1995	28/03/1995	7860374	LEASE	REGISTERED	TYREMAG SALES PTY. LTD.
30/09/1993	01/12/1993	7583886	RE-ENTRY OF LEASE	REGISTERED	7047368
04/08/1993	01/12/1993	7550116	LEASE	REGISTERED	TREVOR JAMES GOODEN
19/05/1992	24/06/1992	7298808	MORTGAGE	REGISTERED	
24/01/1991	24/04/1991	7047369	MORTGAGE OF LEASE	REGISTERED	7047368
24/01/1991	24/04/1991	7047368	LEASE	REGISTERED	
31/03/1988	04/05/1988	6508323	MORTGAGE	REGISTERED	

REAL PROPERTY ACT, 1886



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 5253 Folio 876

Parent Title(s) CT 1810/162
Creating Dealing(s) CONVERTED TITLE
Title Issued 10/03/1995 Edition 9 Edition Issued 30/12/2021

Estate Type

FEE SIMPLE

Registered Proprietor

ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
OF CARE BOSS PRIVATE CLIENTS PTY. LTD. LEVEL 2 42B LITTLE BOURKE STREET MELBOURNE VIC 3000

Description of Land

ALLOTMENT 7 FILED PLAN 137745
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

Dealing Number	Description
13230161	MORTGAGE TO NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
13685506	CAVEAT BY AZM GROUP PTY. LTD. (ACN: 643 599 722)

Notations

Dealings Affecting Title NIL

Priority Notices NIL

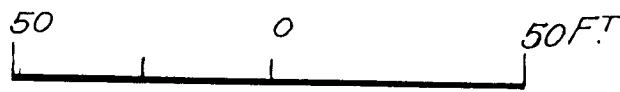
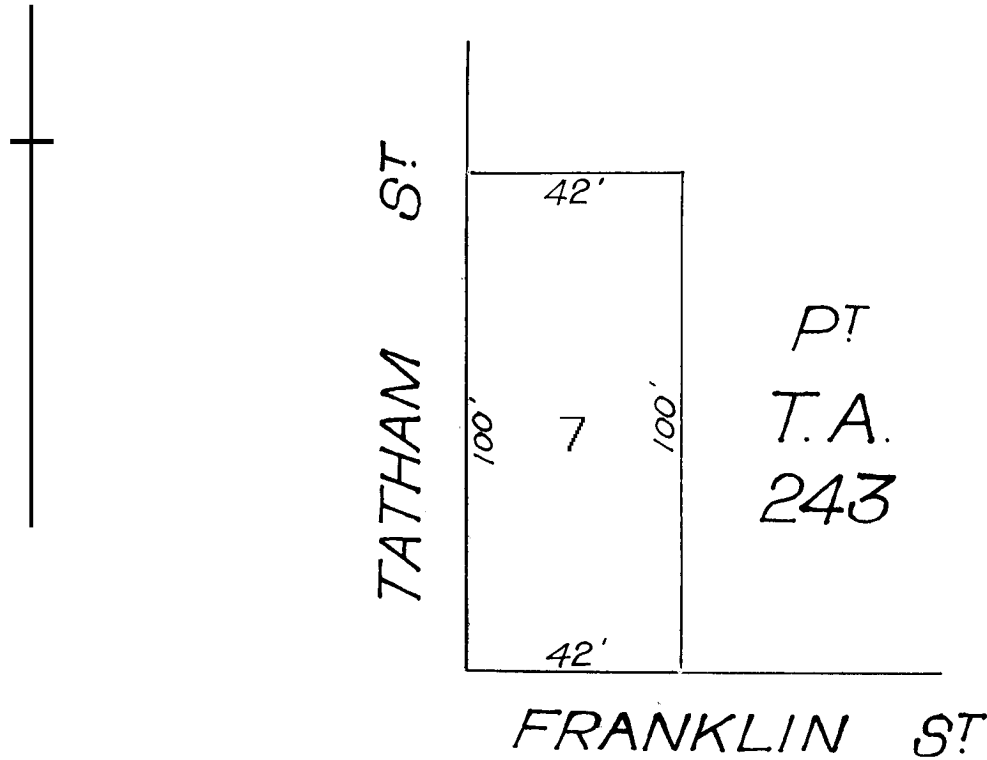
Notations on Plan NIL

Registrar-General's Notes

APPROVED FX257647

Administrative Interests NIL

This plan is scanned for Certificate of Title 1810/162



DISTANCES ARE IN FEET AND INCHES FOR METRIC CONVERSION	
1 FOOT =	0.3048 metres
1 INCH =	0.0254 metres

Note : Subject to all lawfully existing plans of division



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 5980 Folio 624

Parent Title(s)	CT 5156/497				
Creating Dealing(s)	RT 10579934				
Title Issued	15/02/2007	Edition	4	Edition Issued	30/12/2021

Estate Type

FEE SIMPLE

Registered Proprietor

ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
OF CARE BOSS PRIVATE CLIENTS PTY. LTD. LEVEL 2 42B LITTLE BOURKE STREET MELBOURNE VIC 3000

Description of Land

ALLOTMENT 3 FILED PLAN 105000
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

Dealing Number	Description
13230161	MORTGAGE TO NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
13685506	CAVEAT BY AZM GROUP PTY. LTD. (ACN: 643 599 722)

Notations

Dealings Affecting Title NIL

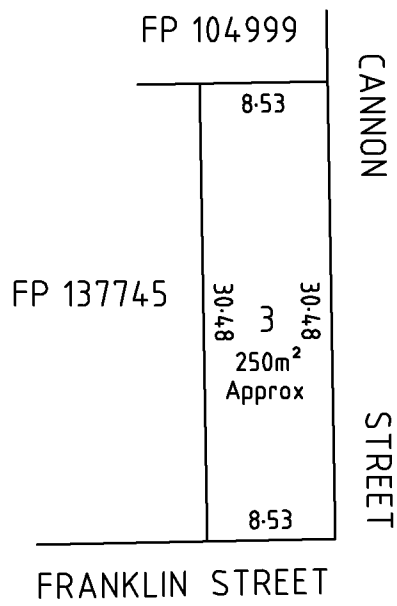
Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

APPROVED FX257647

Administrative Interests NIL



PROPOSED MIXED USE DEVELOPMENT
108 FRANKLIN STREET ADELAIDE SA 5000



CARPARK SUMMARY

CPL1:	13 CARPARKS
CPL2:	32 CARPARKS
CPL3:	33 CARPARKS
CPL4:	36 CARPARKS
TOTAL:	114 CARPARKS
	5489 SQM (INCLUDE CAR RAMP & BIKE PARK & STORAGE)

HOTEL SUMMARY

LEVEL5:	18 ROOMS		
LEVEL6-17:	19 ROOMS		
NET SIZE	NO.	NET AREA	COMMENT
21	245	5145	Typical
43	1	43	DDA
TOTAL:	246 ROOMS	6760 SQM	

APARTMENT SUMMARY

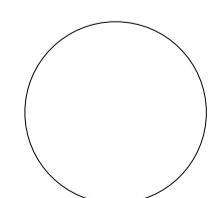
LEVEL 5-19:	11 APARTMENTS
LEVEL 20-21:	5 APARTMENTS
TOTAL:	175 APARTMENTS
	16236 SQM
TOTAL 1BED 1BATH:	60
TOTAL 2BED 2BATH:	107
TOTAL 3BED 2BATH:	8

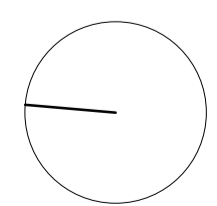
TOTAL BICYCLE PARKS: 240 NOS

COMMERCIAL TENANCY SUMMARY

TOTAL:	766.5 SQM
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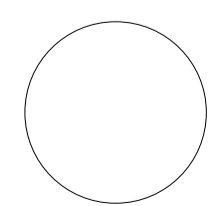
DRAWING NO.	DRAWING TITLE	REV.
SD000	COVER PAGE	P
SD001	PROPOSED SITE PLAN	P
SD002	CBD DEVELOPMENT BUILDING HEIGHTS	P
SD003	MASSING STUDY - 53M BLOCK	P
SD004	MASSING STUDY -STEP DOWN	P
SD005	MASSING STUDY - TWIN TOWER	P
SD006	MASSING STUDY - 103M SINGLE TOWER	P
SD007	MASSING STUDY - PROPOSED TWIN TOWER	P
SD008	MASSING STUDY - DIAGRAM	P
SD009	MASSING STUDY - MATERIALITY	P
SD010	BUILDING MASSING AND INTERFACE	P
SD021	PROPOSED BASEMENT & GROUND FLOOR PLAN	P
SD022	PROPOSED CP L1 TO CP L2 PLAN	P
SD023	PROPOSED CP L3 TO CP L4 PLAN	P
SD024	PROPOSED LEVEL 5 TO LEVEL 17 PLAN	P
SD027	PROPOSED LEVEL 18 TO LEVEL 19 PLAN	P
SD028	PROPOSED LEVEL 20 TO ROOF PLAN	P
SD031	ELEVATIONS SHEET 1	P
SD032	ELEVATIONS SHEET 2	P
SD033	ELEVATIONS SHEET 3	P
SD034	ELEVATIONS SHEET 4	P
SD035	STREET ELEVATION & MATERIAL SELECTION SCHEDULE	P
SD041	SECTIONS	P
SD042	SECTIONS	P
SD061	SHADOW DIAGRAM SUMMER	P
SD062	SHADOW DIAGRAM WINTER	P
SD1101	ARTIST IMPRESSION	P
SD1102	ARTIST IMPRESSION	P
SD1106	ARTIST IMPRESSION	P
SD1107	ARTIST IMPRESSION	P
SD1109	ARTIST IMPRESSION	P
SD1110	ARTIST IMPRESSION	P
SD1111	ARTIST IMPRESSION	P
Grand total: 33		

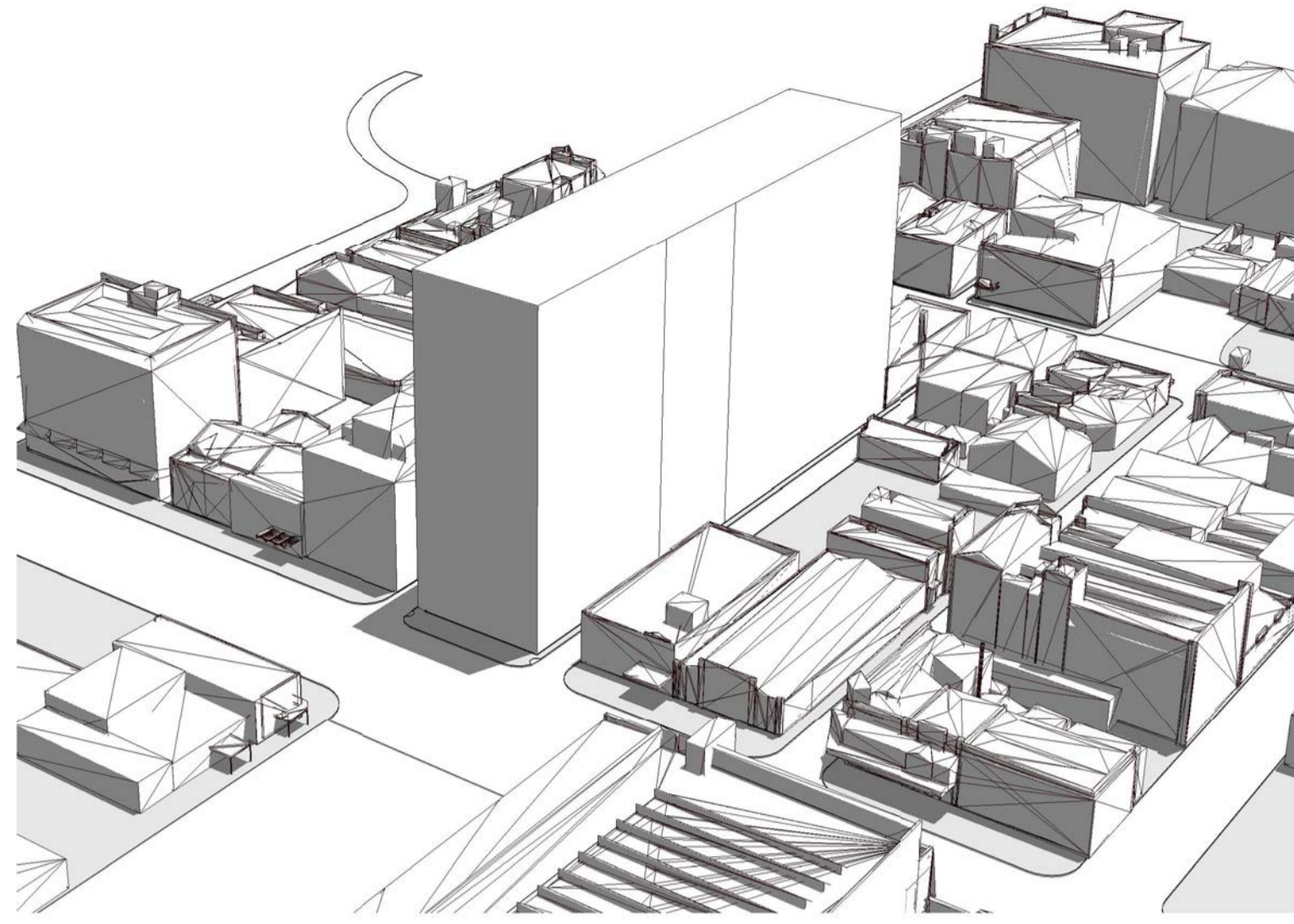




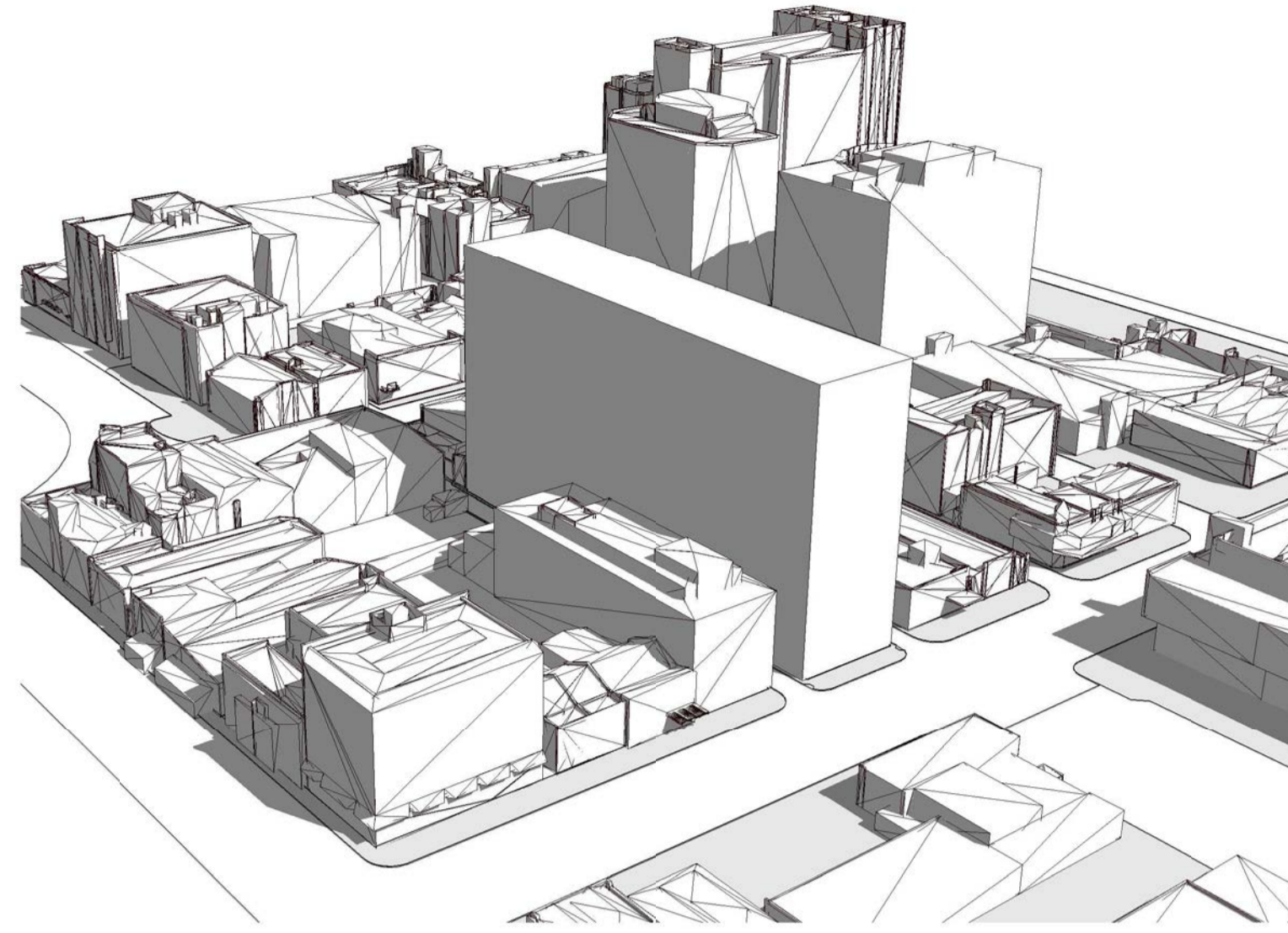


EXISTING BUILDING SHOWN WHITE | COMPLETED | COMMENCED | APPROVED | SUBJECT SITE |

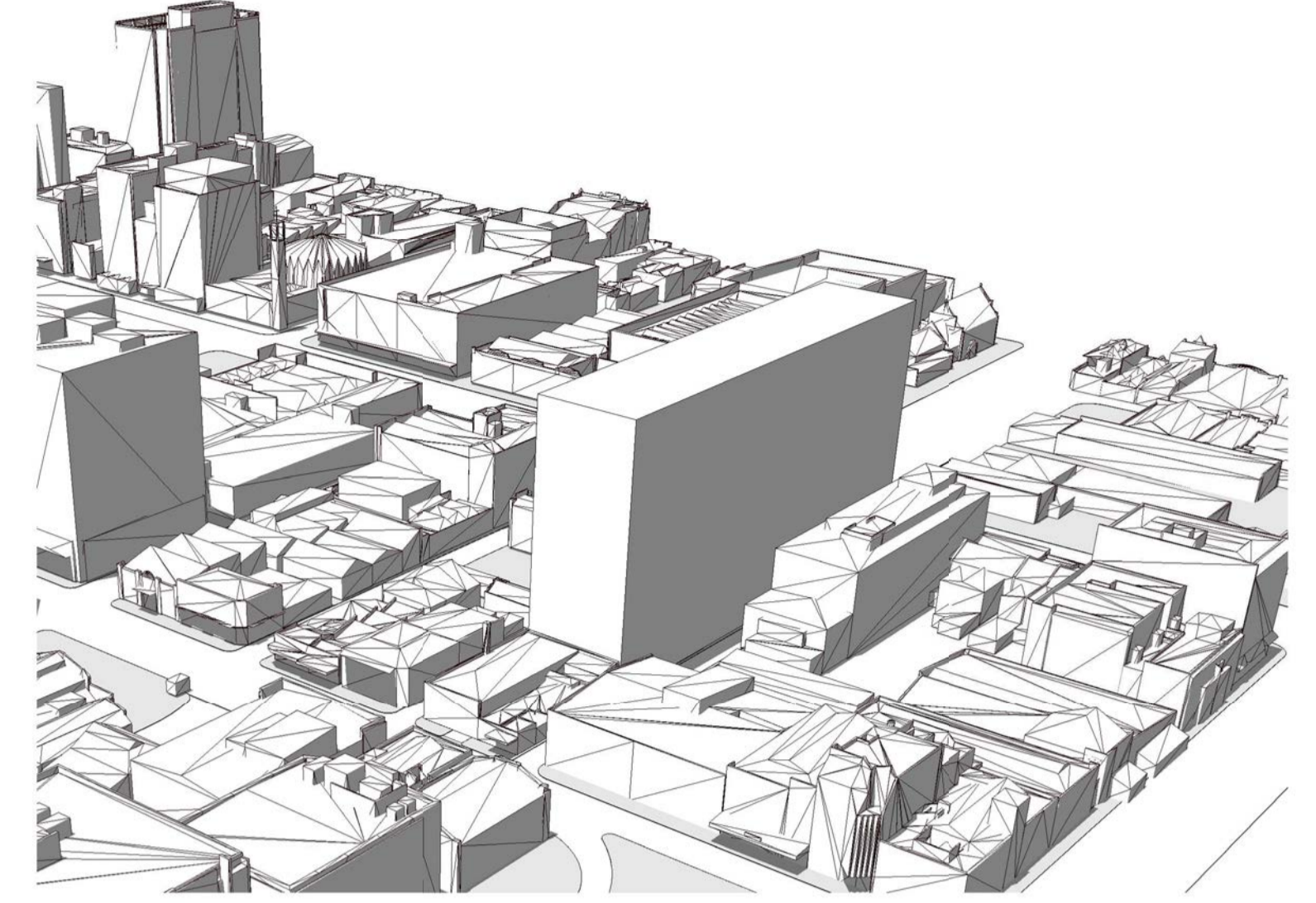




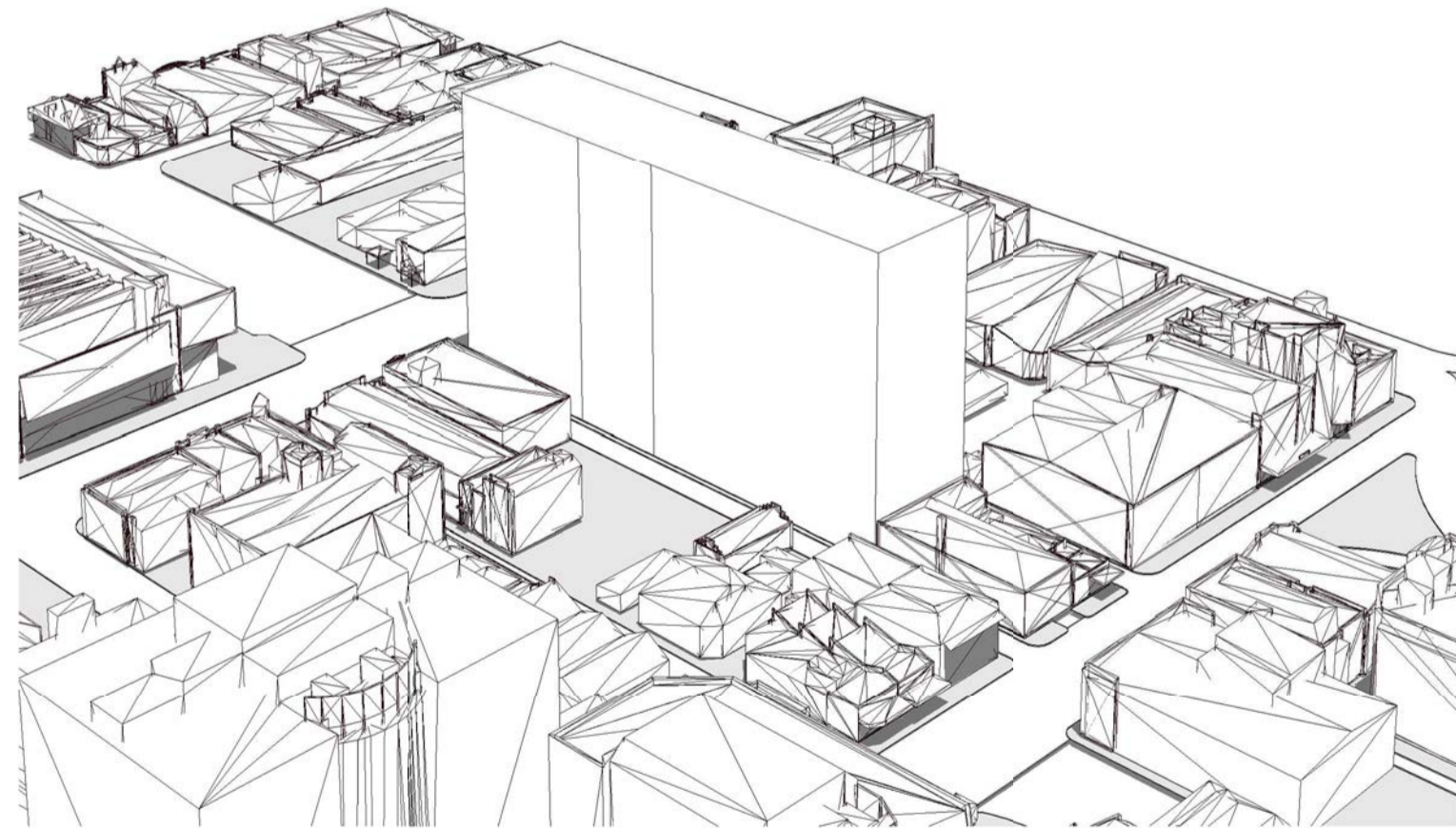
53M Block Aerial View 1



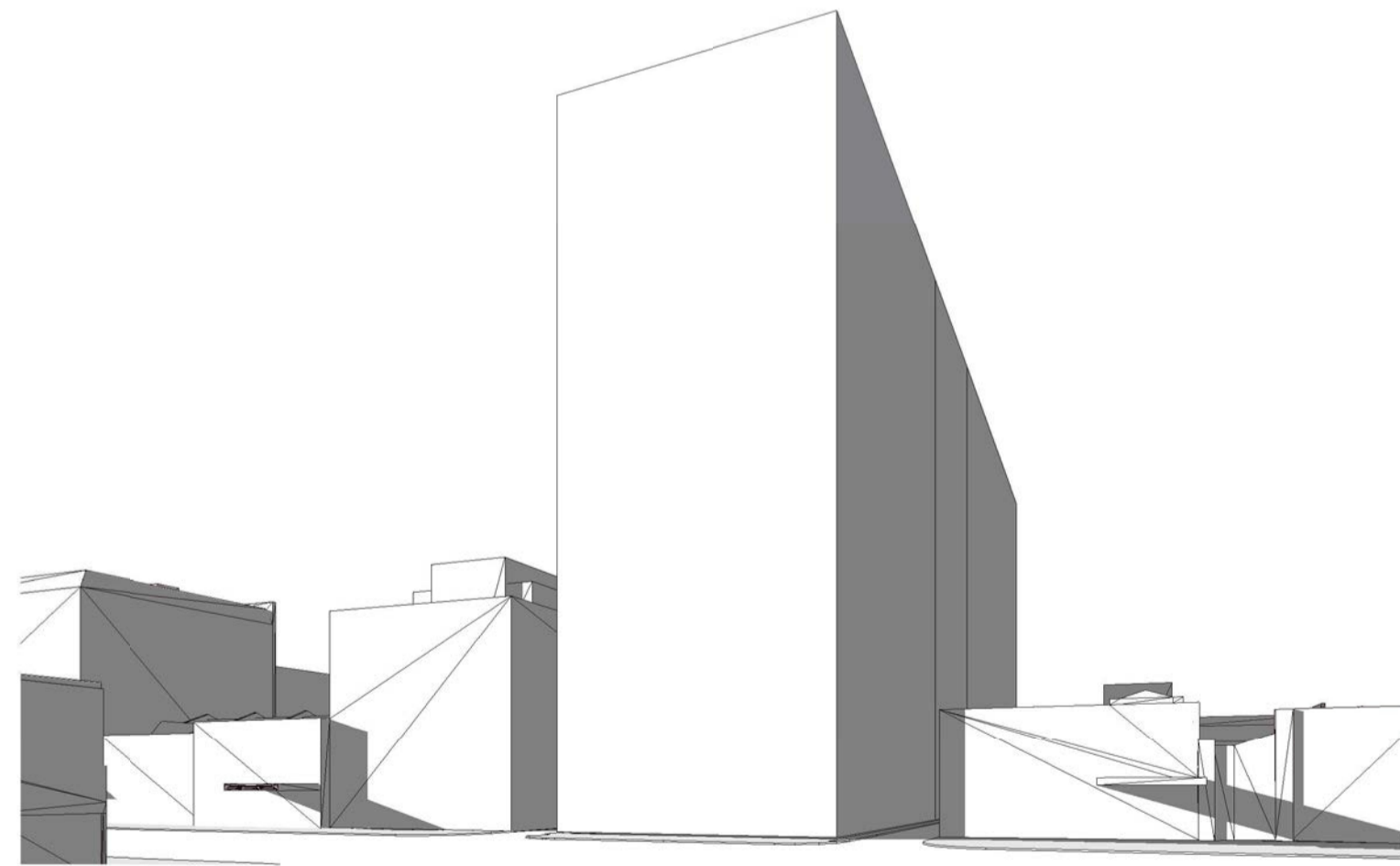
53M Block Aerial View 2



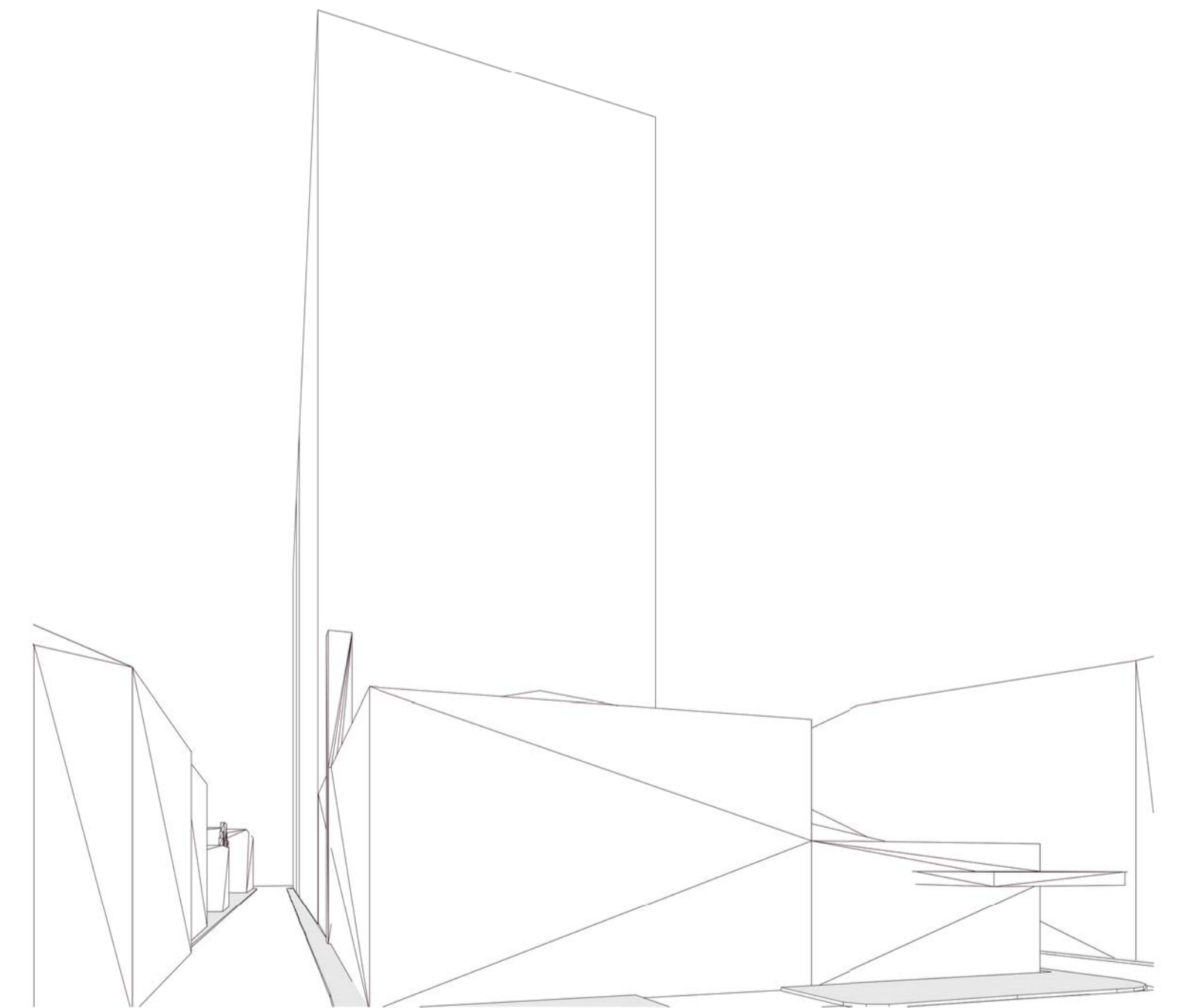
53M Block Aerial View 3



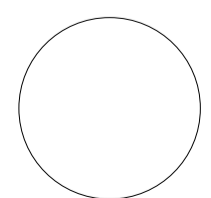
53M Block Aerial View 4

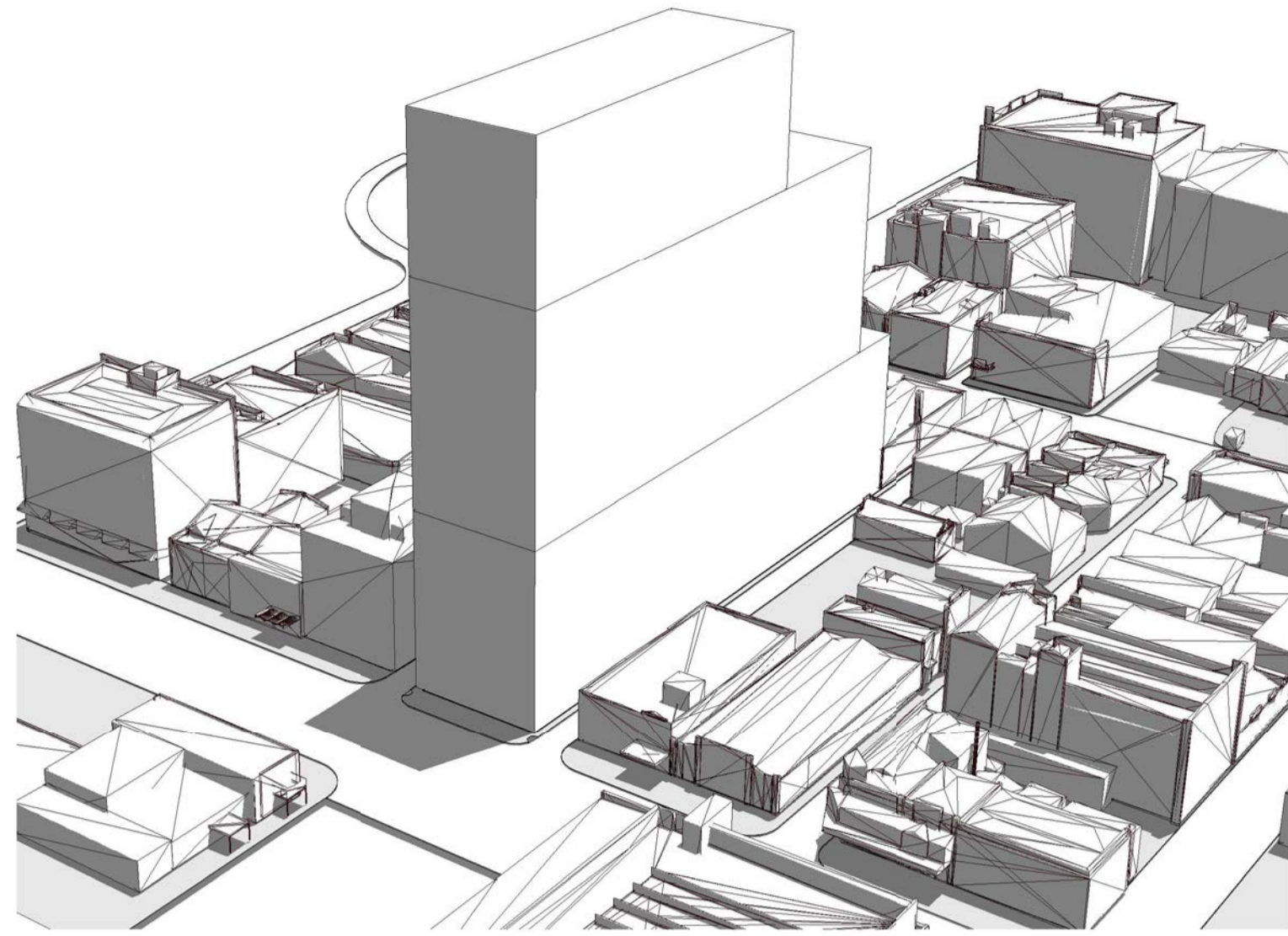


53M Block Street View 1

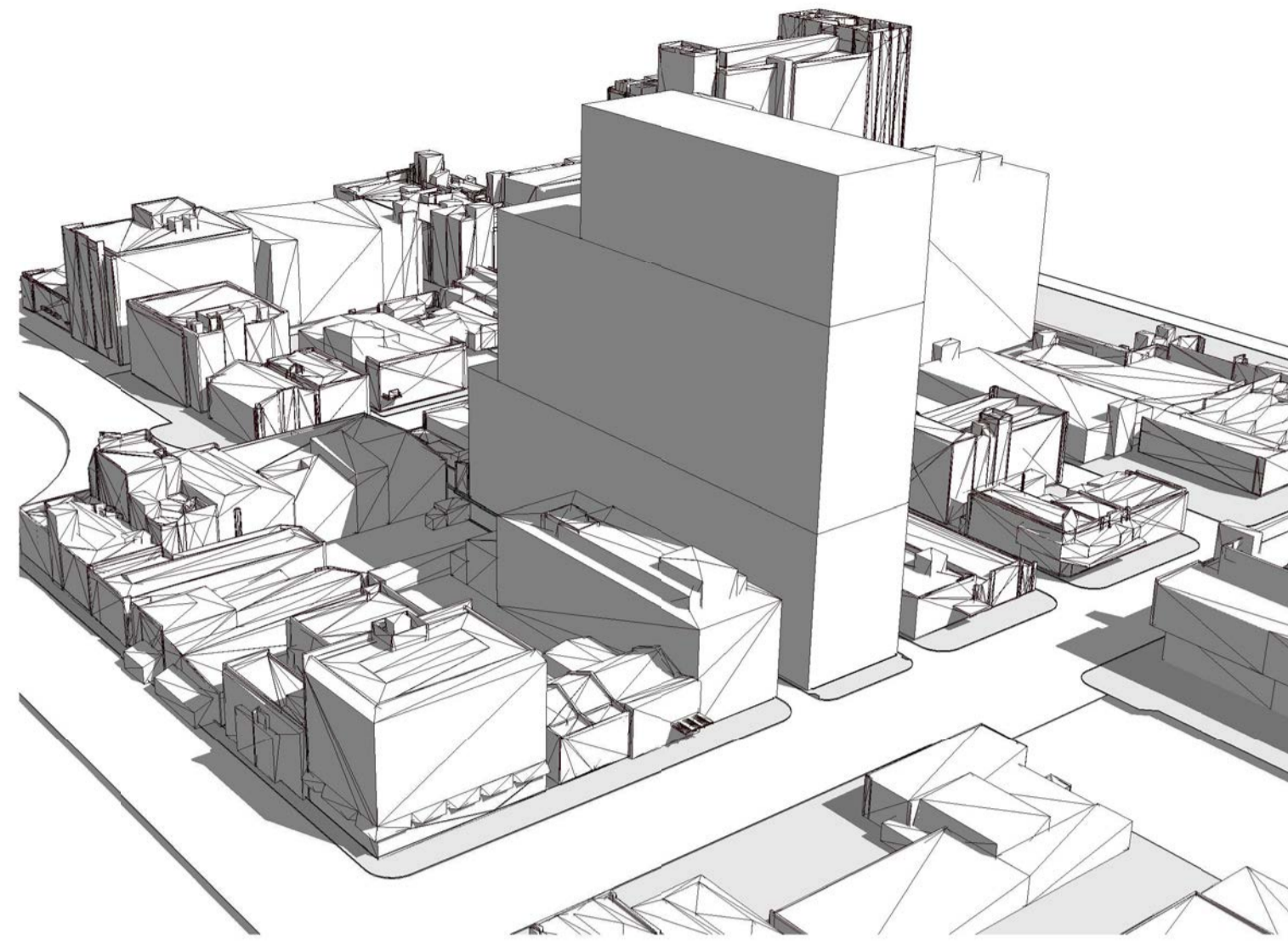


53M Block Street View 2

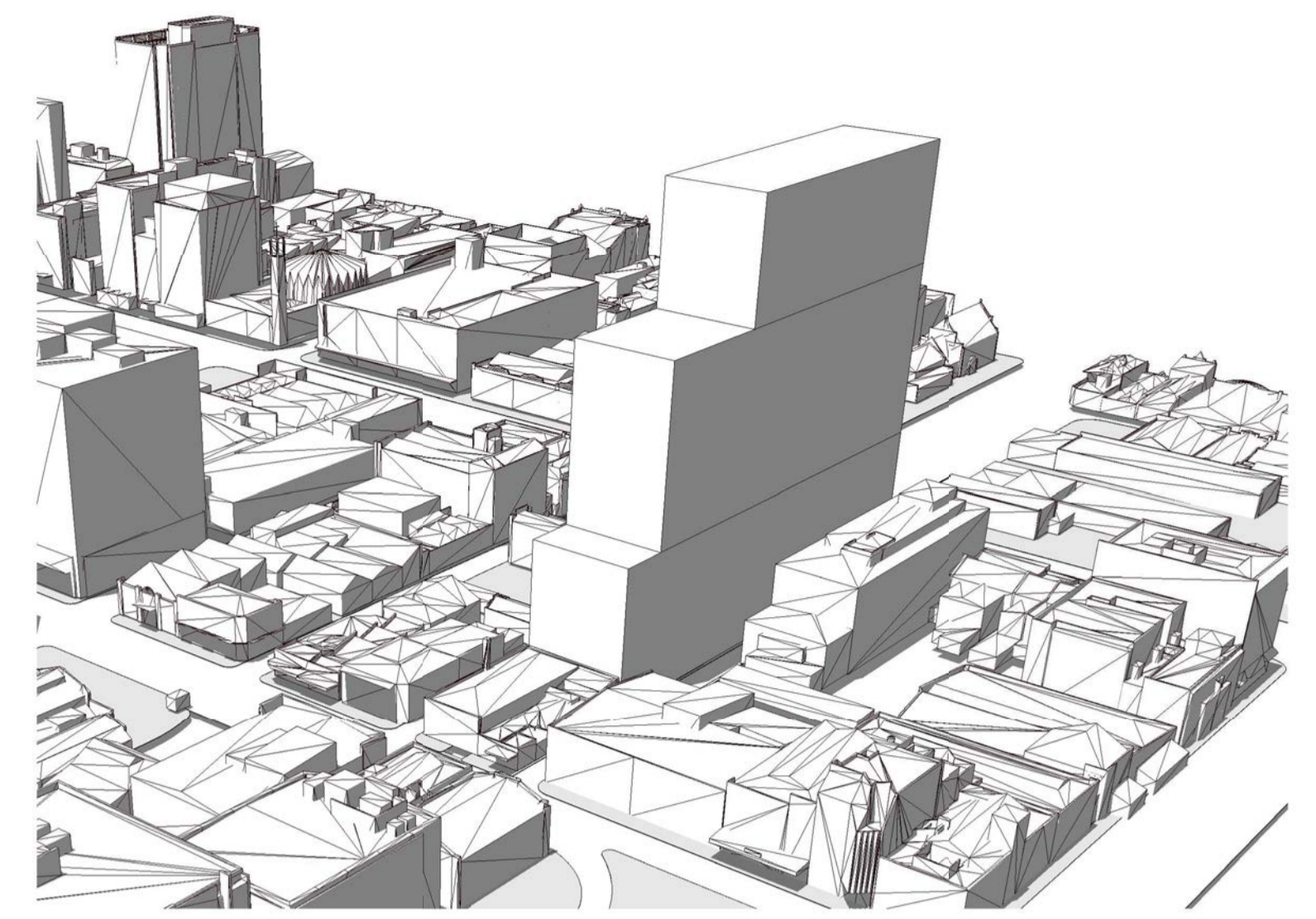




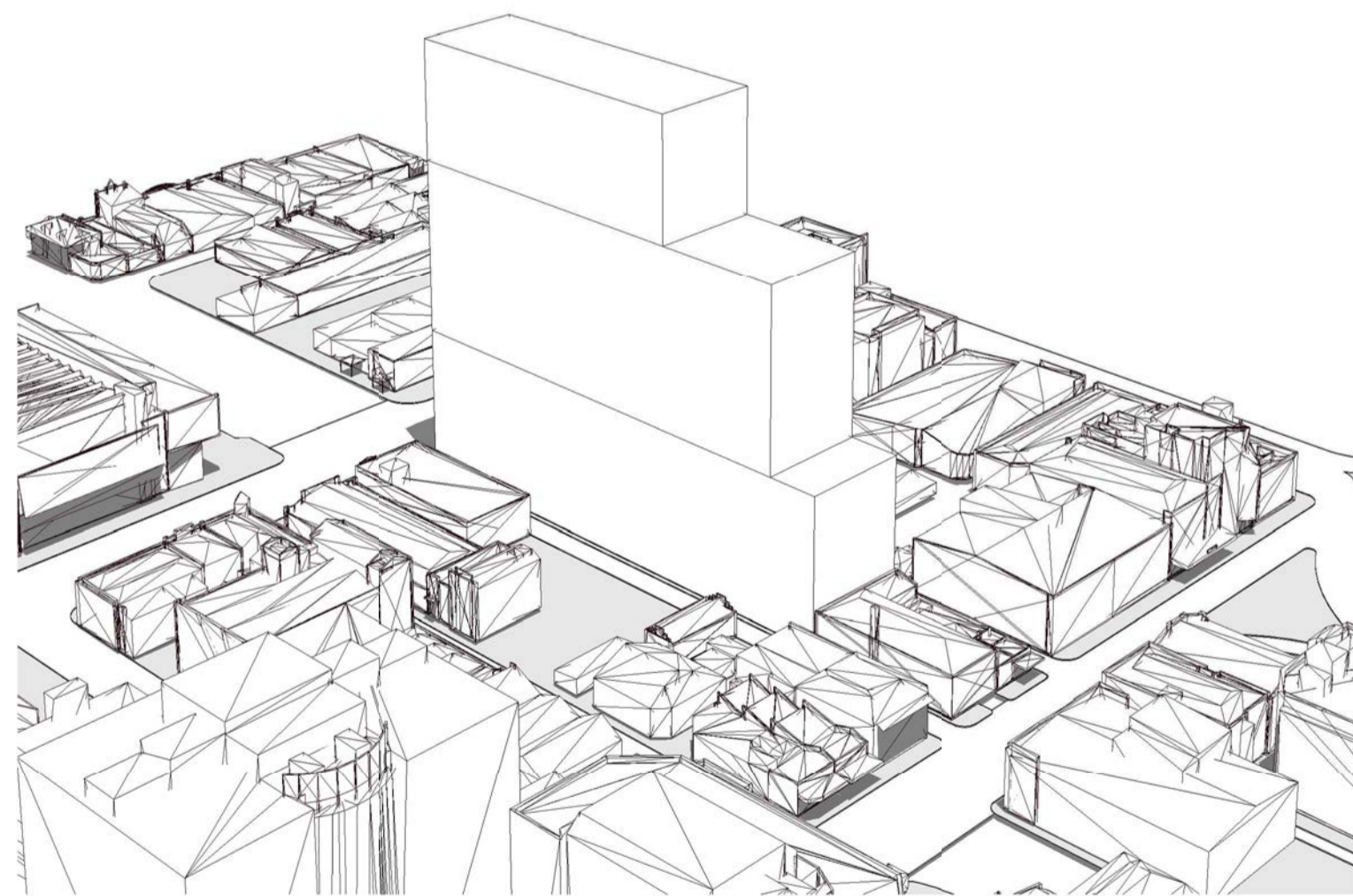
Step Down Design Aerial View 1



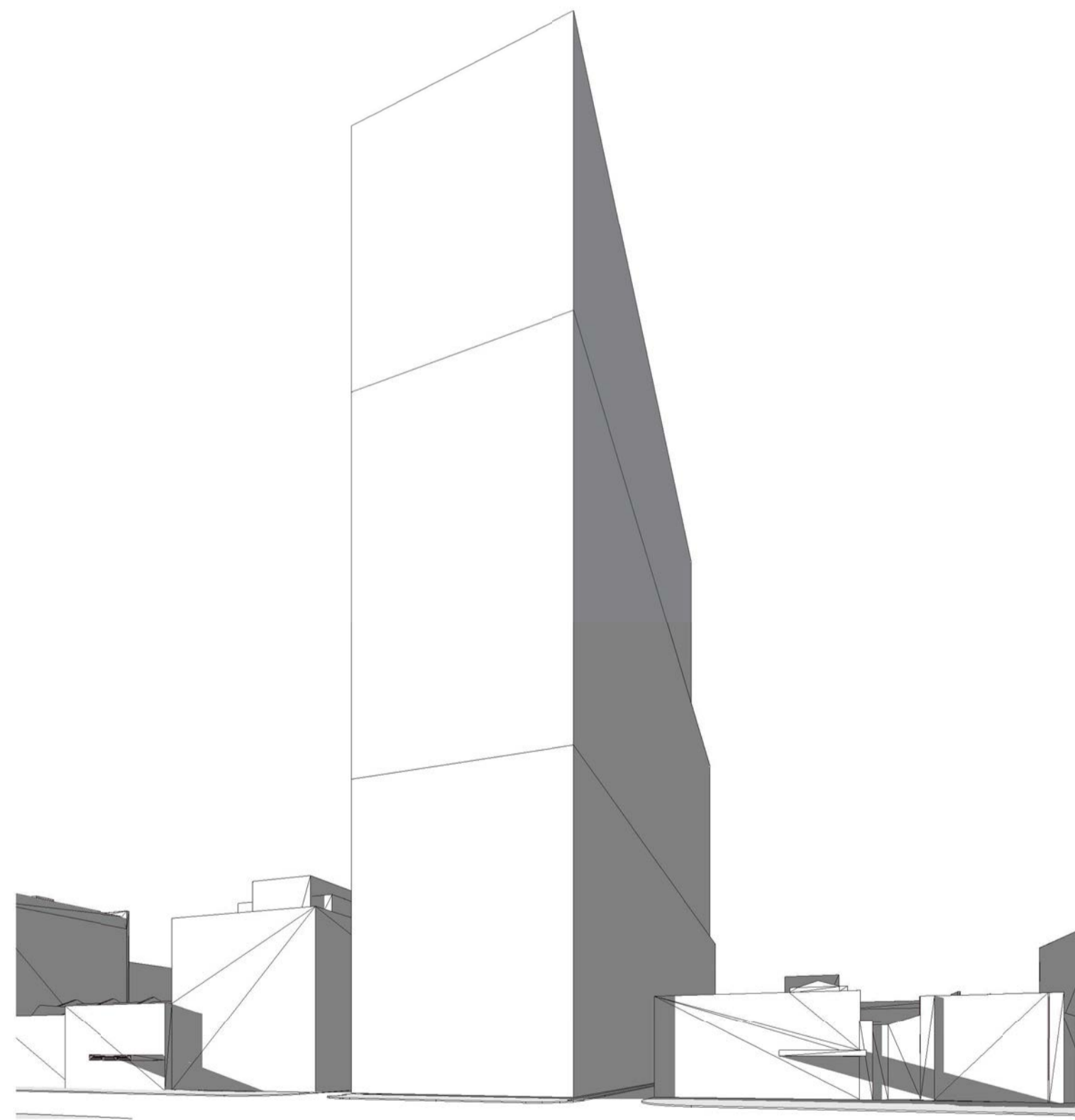
Step Down Design Aerial View 2



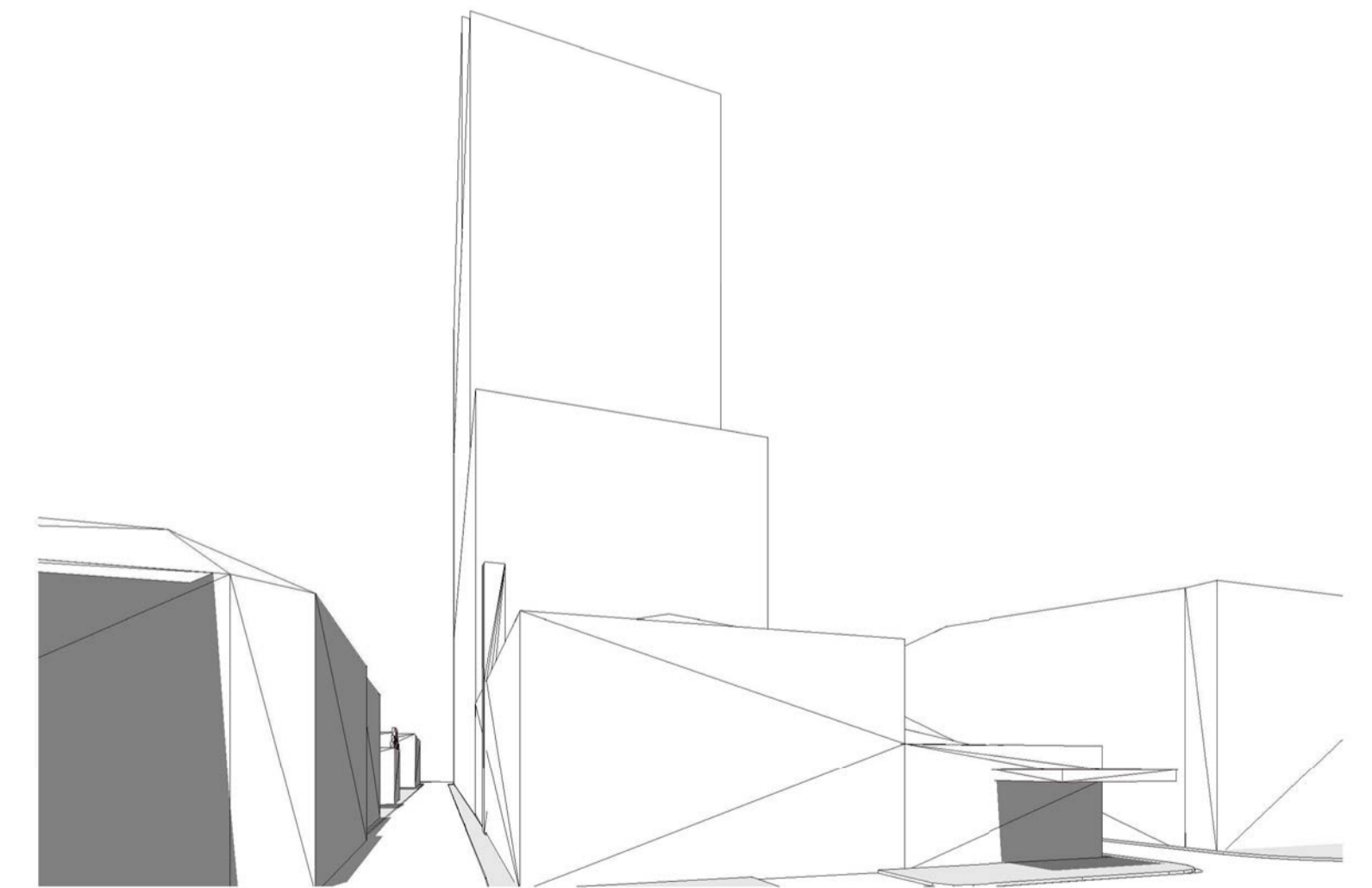
Step Down Design Aerial View 3



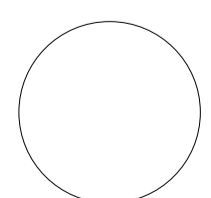
Step Down Design Design Aerial View 4

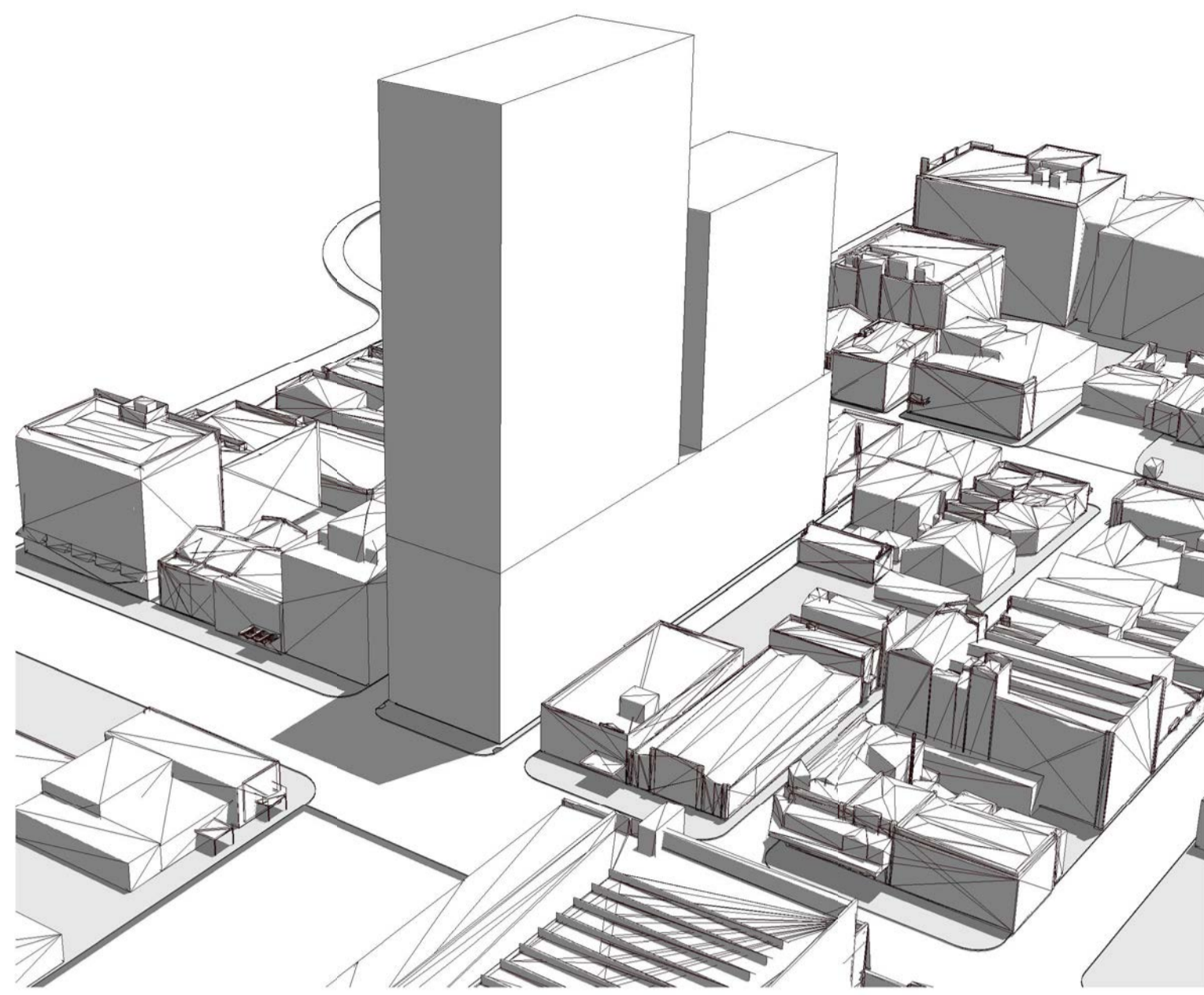


Step Down Design Street View 1

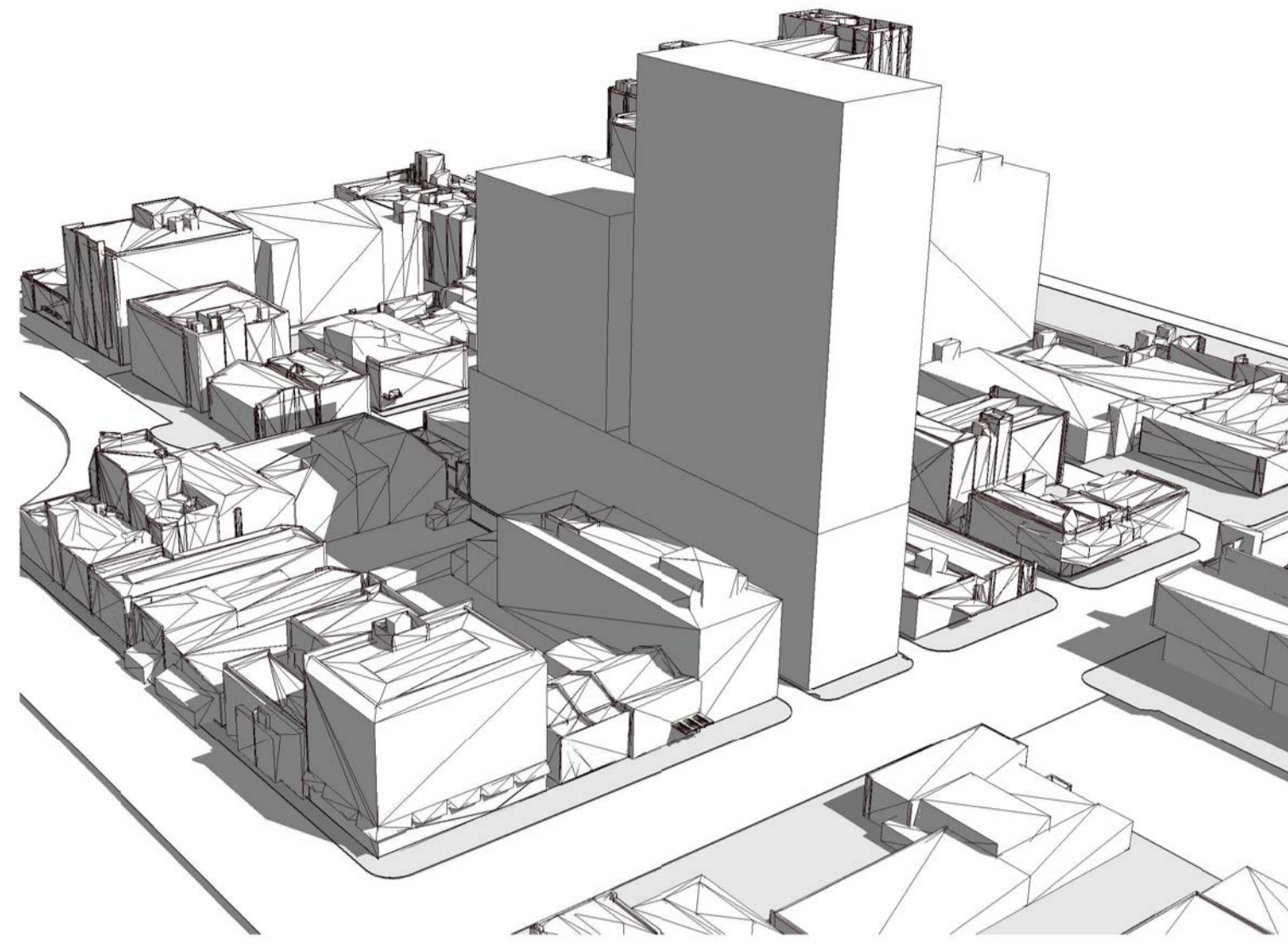


Step Down Design Street View 2

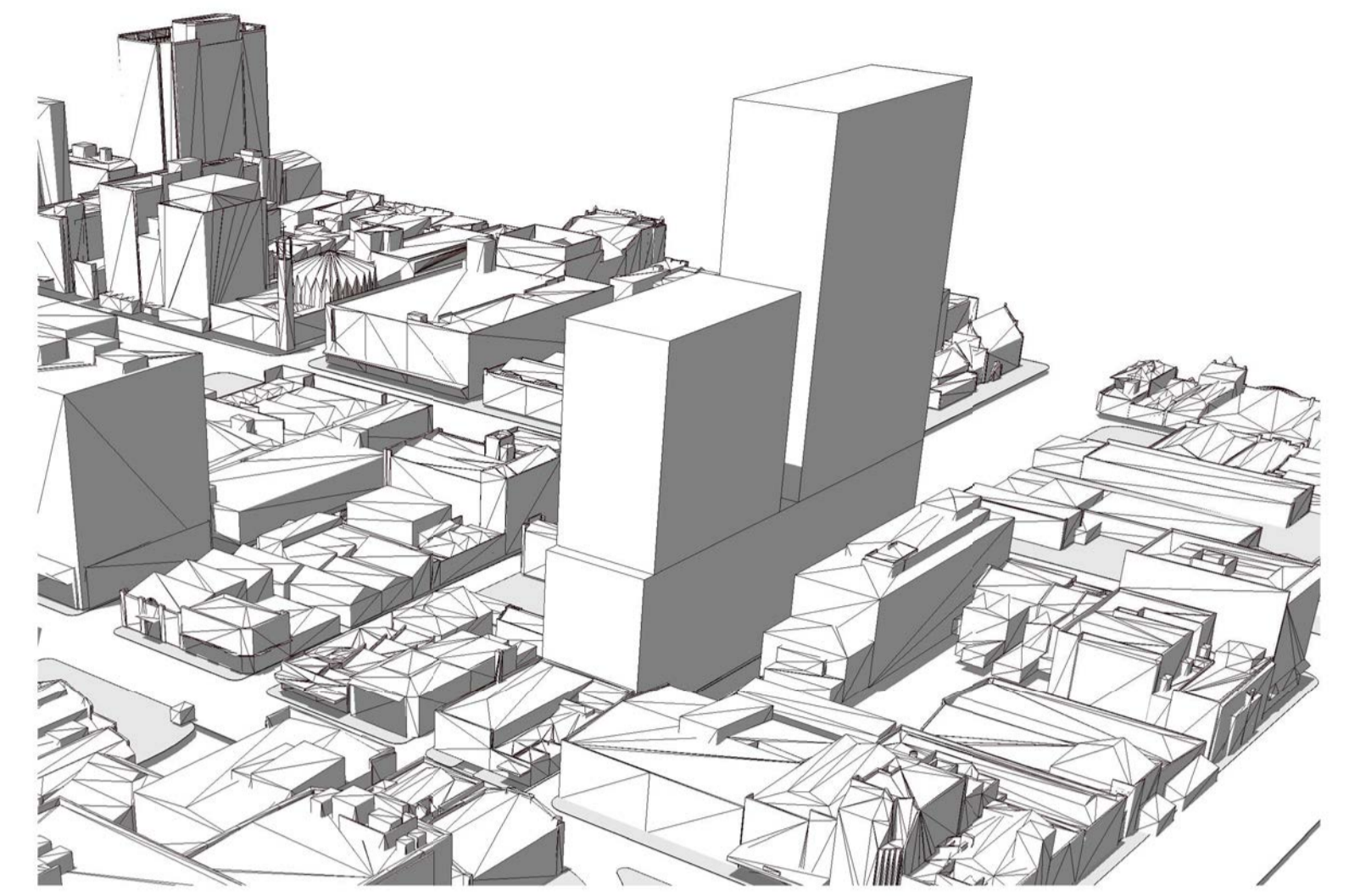




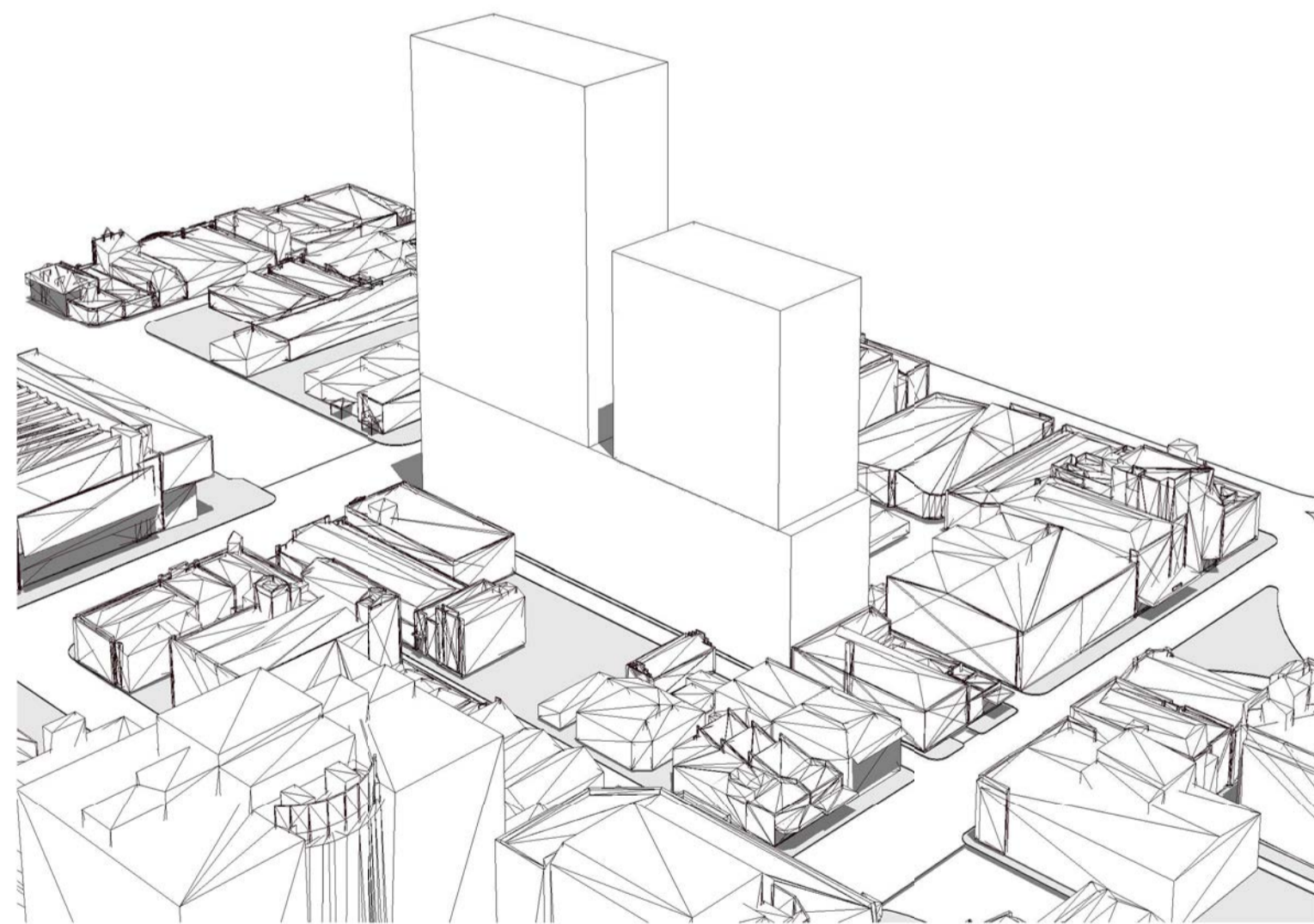
Proposed Twin Tower Aerial View 1



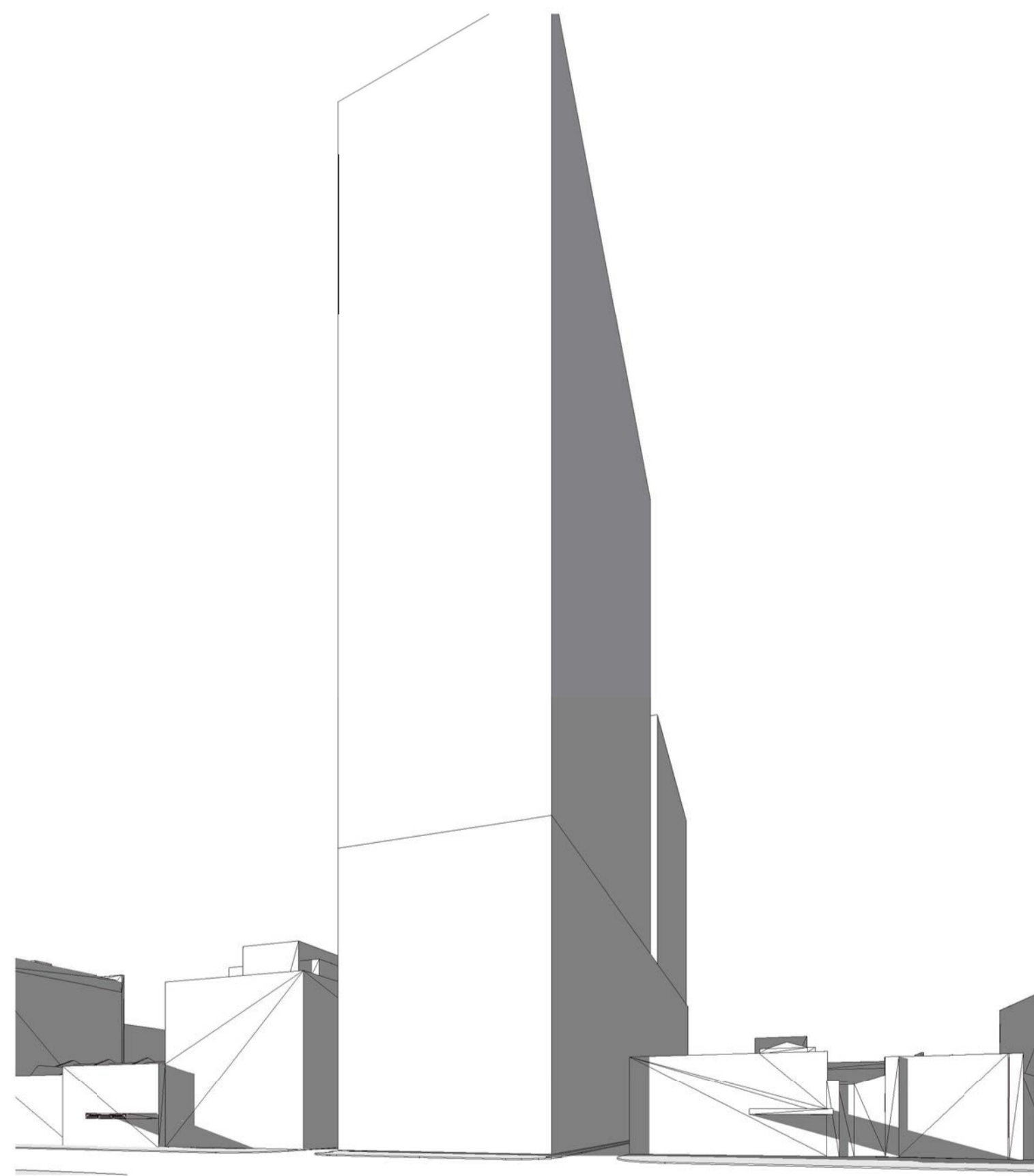
Proposed Twin Tower Aerial View 2



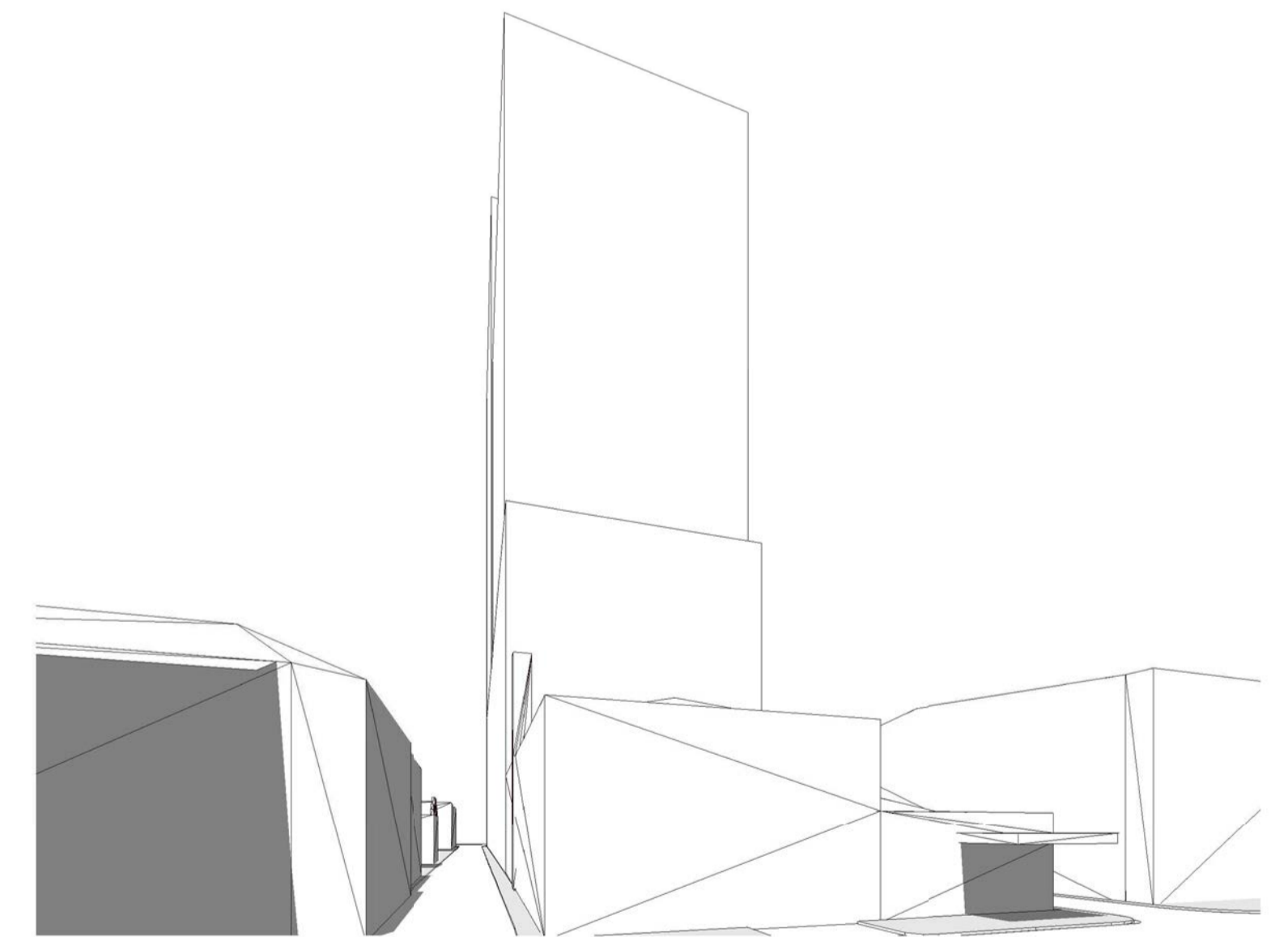
Proposed Twin Tower Aerial View 3



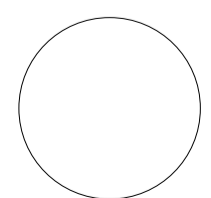
Proposed Twin Tower Aerial View 4

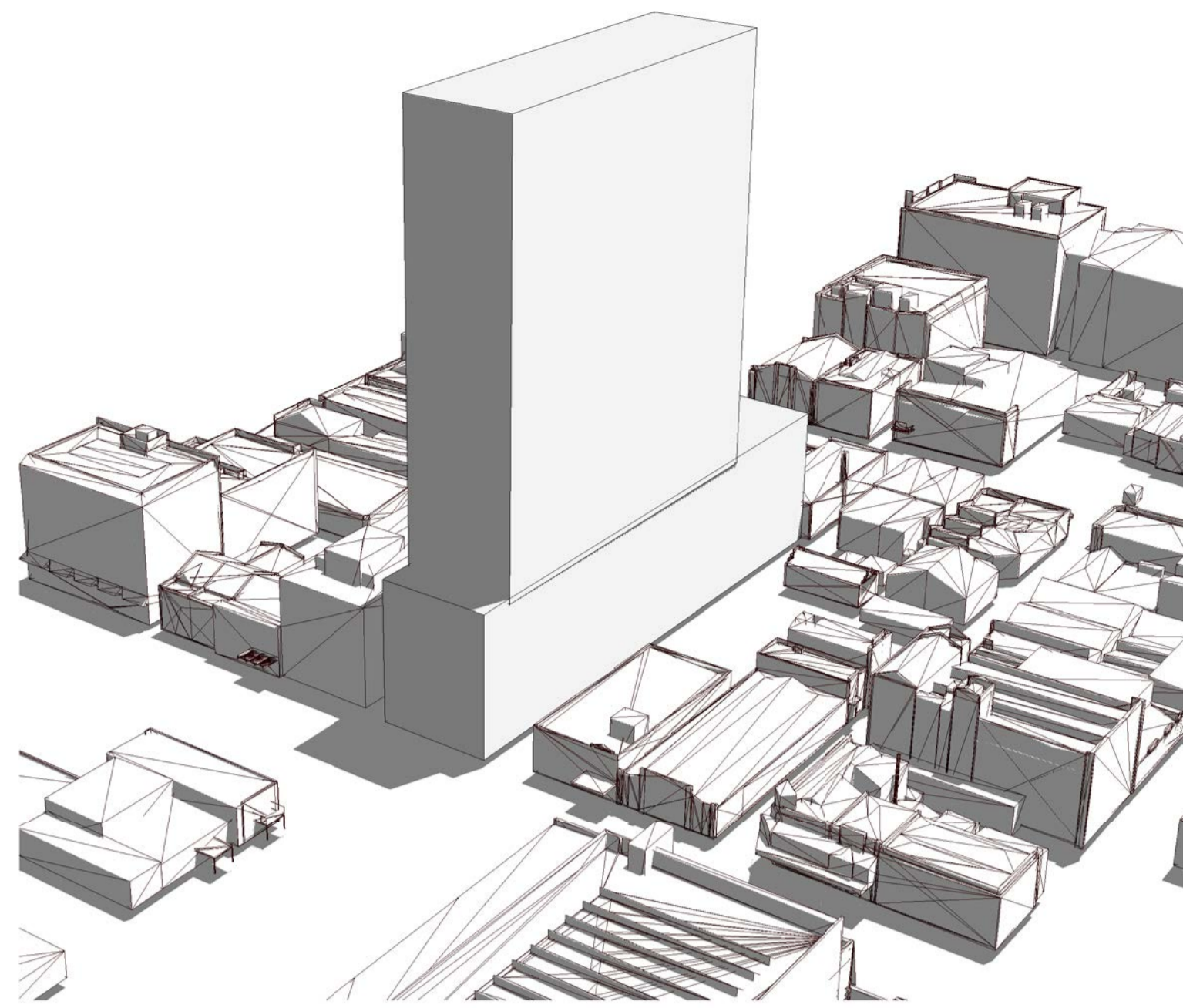


Proposed Twin Tower Street View 1

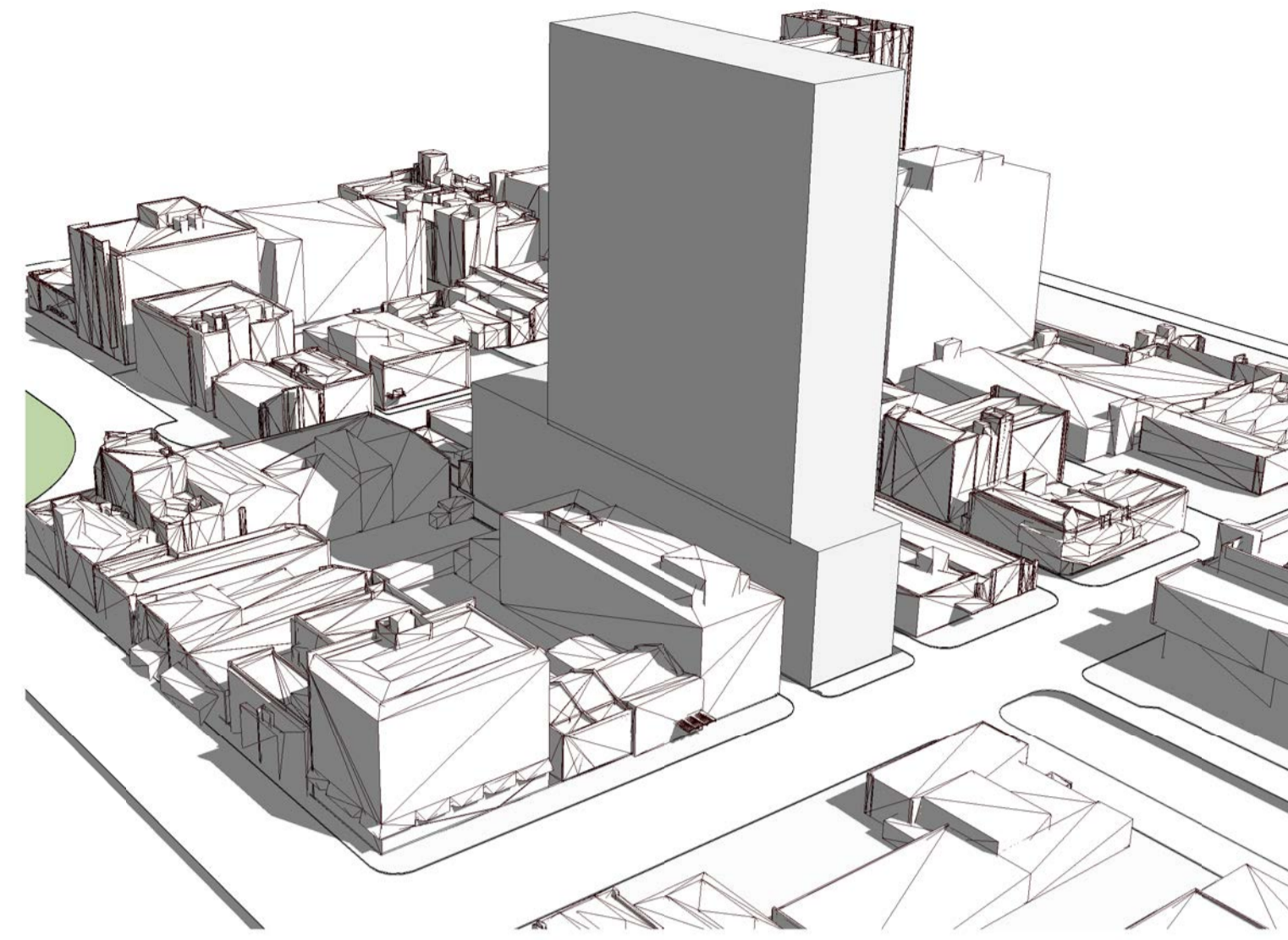


Proposed Twin Tower Street View 2

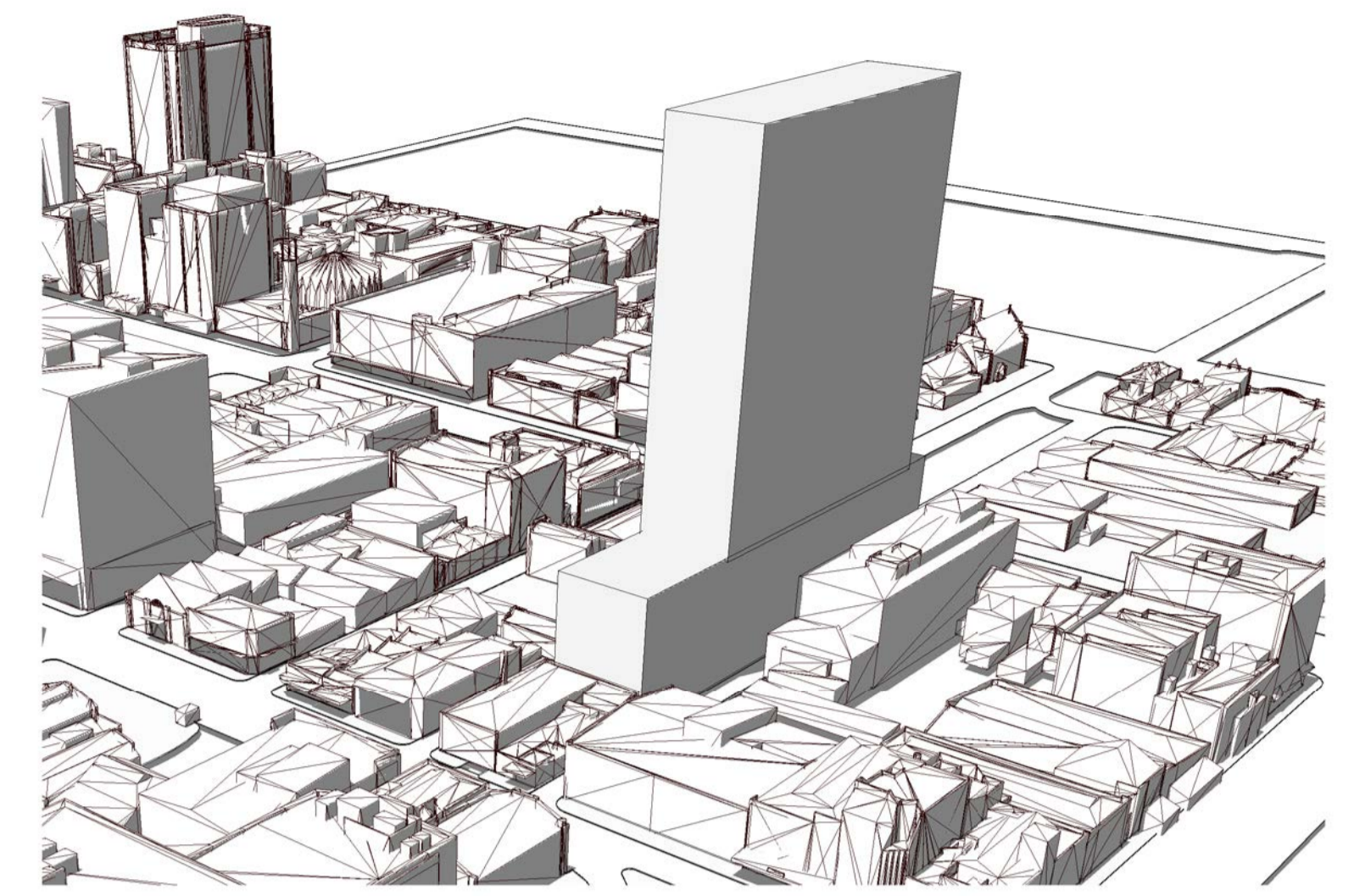




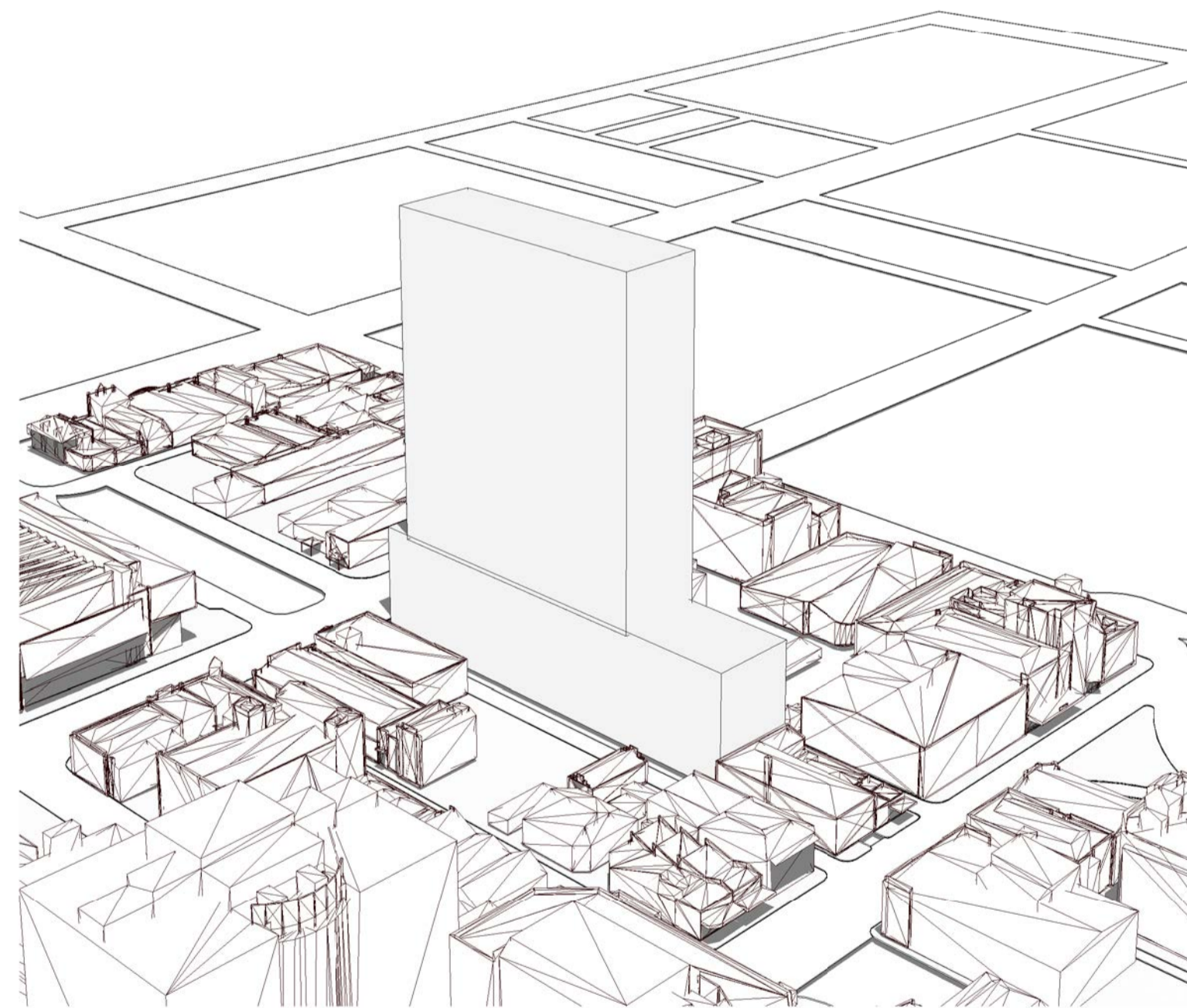
103M Single Tower Aerial View 1



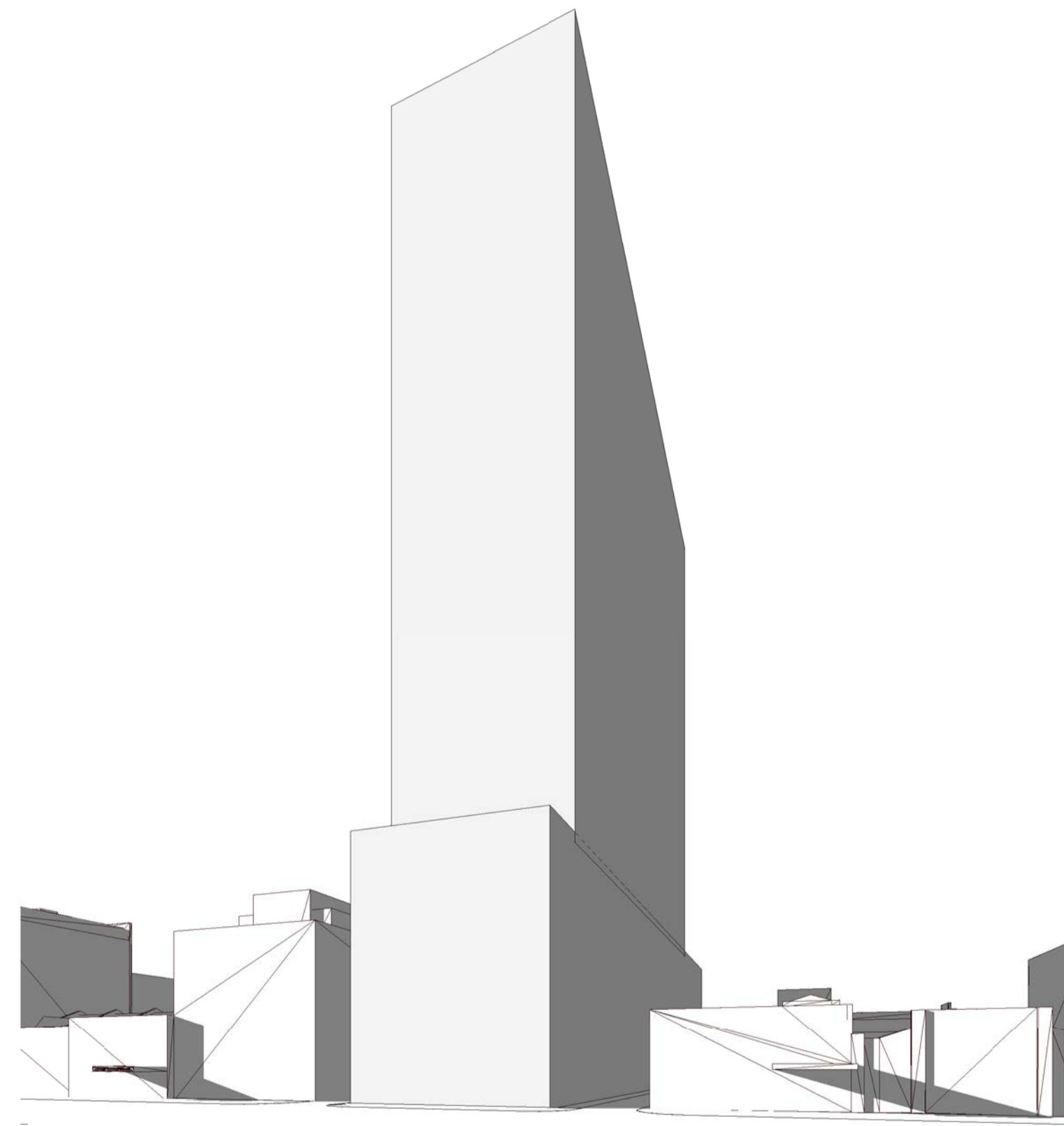
103M Single Tower Aerial View 2



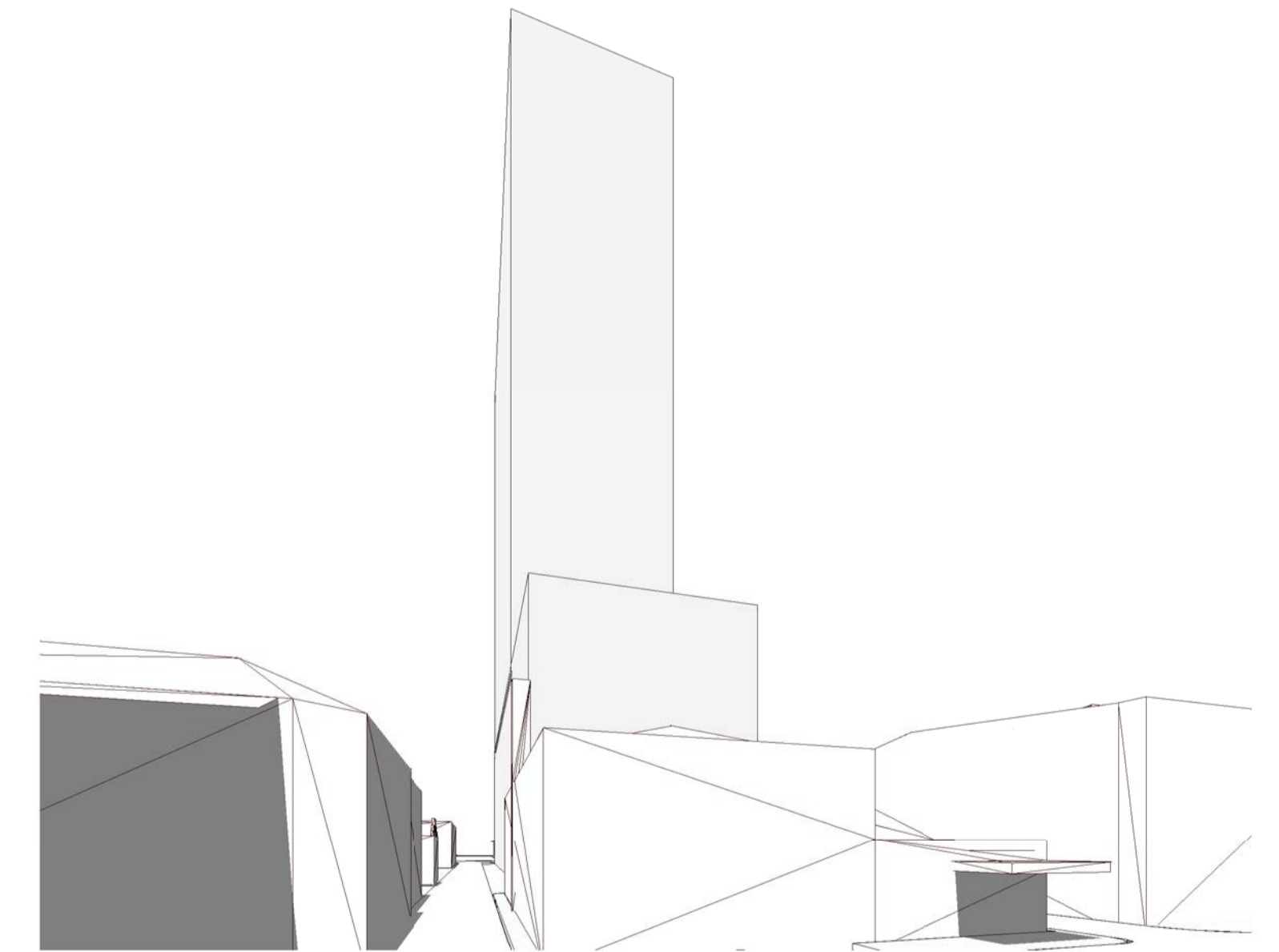
103M Single Tower Aerial View 3



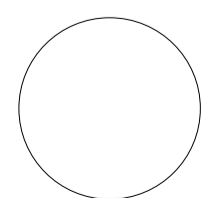
103M Single Tower Aerial View 4

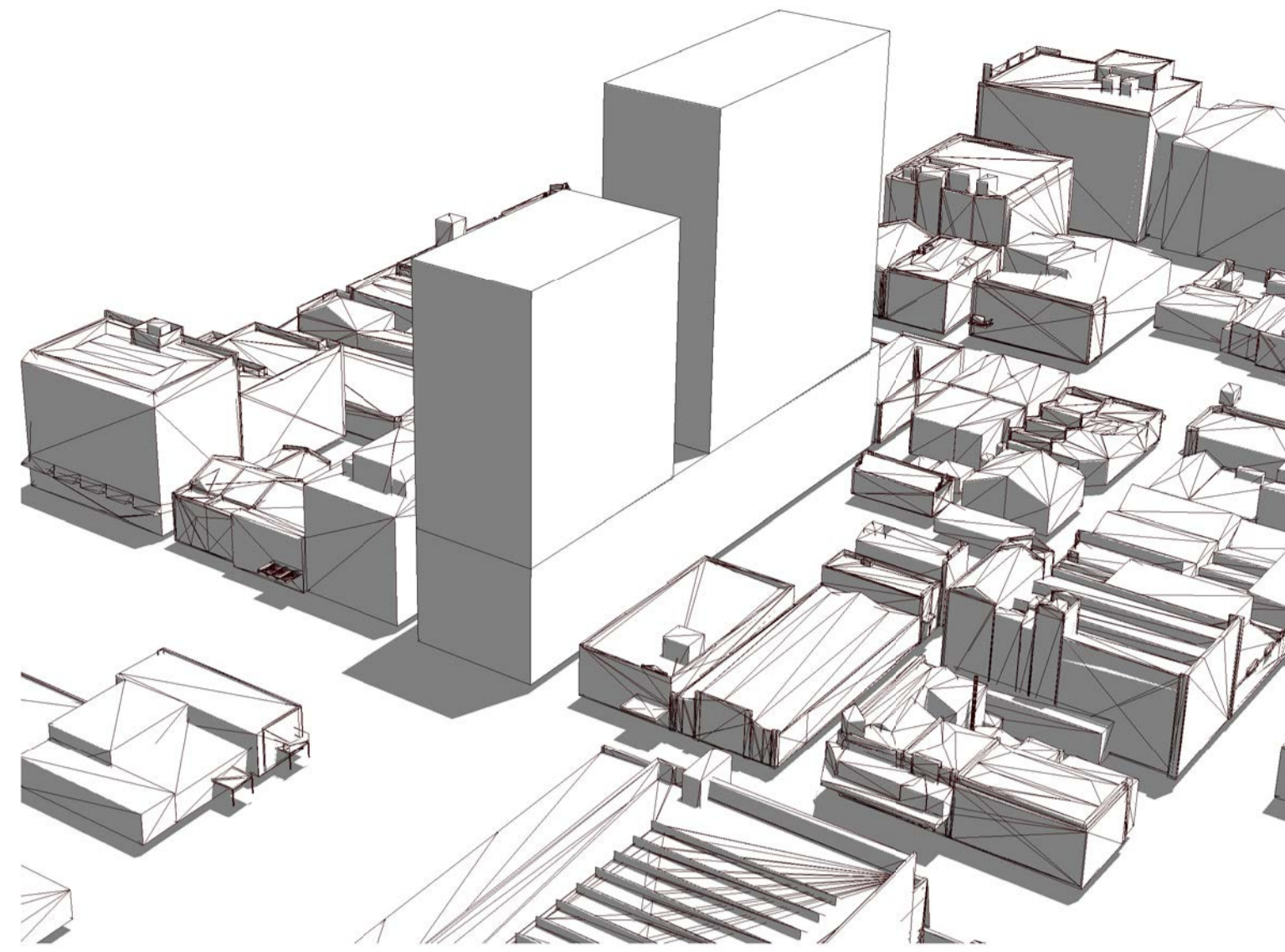


103M Single Tower Street View 1

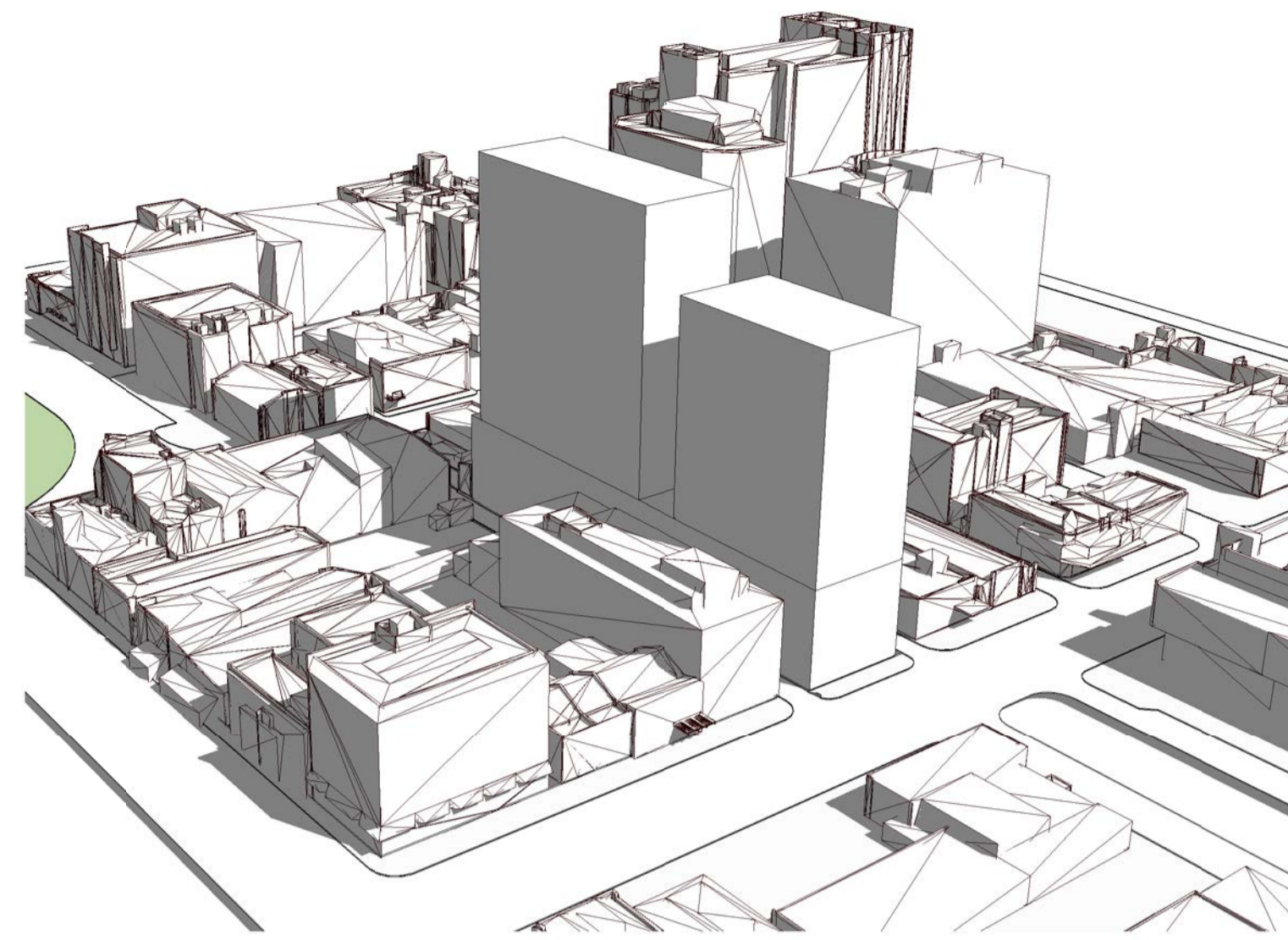


103M Single Tower Street View 2

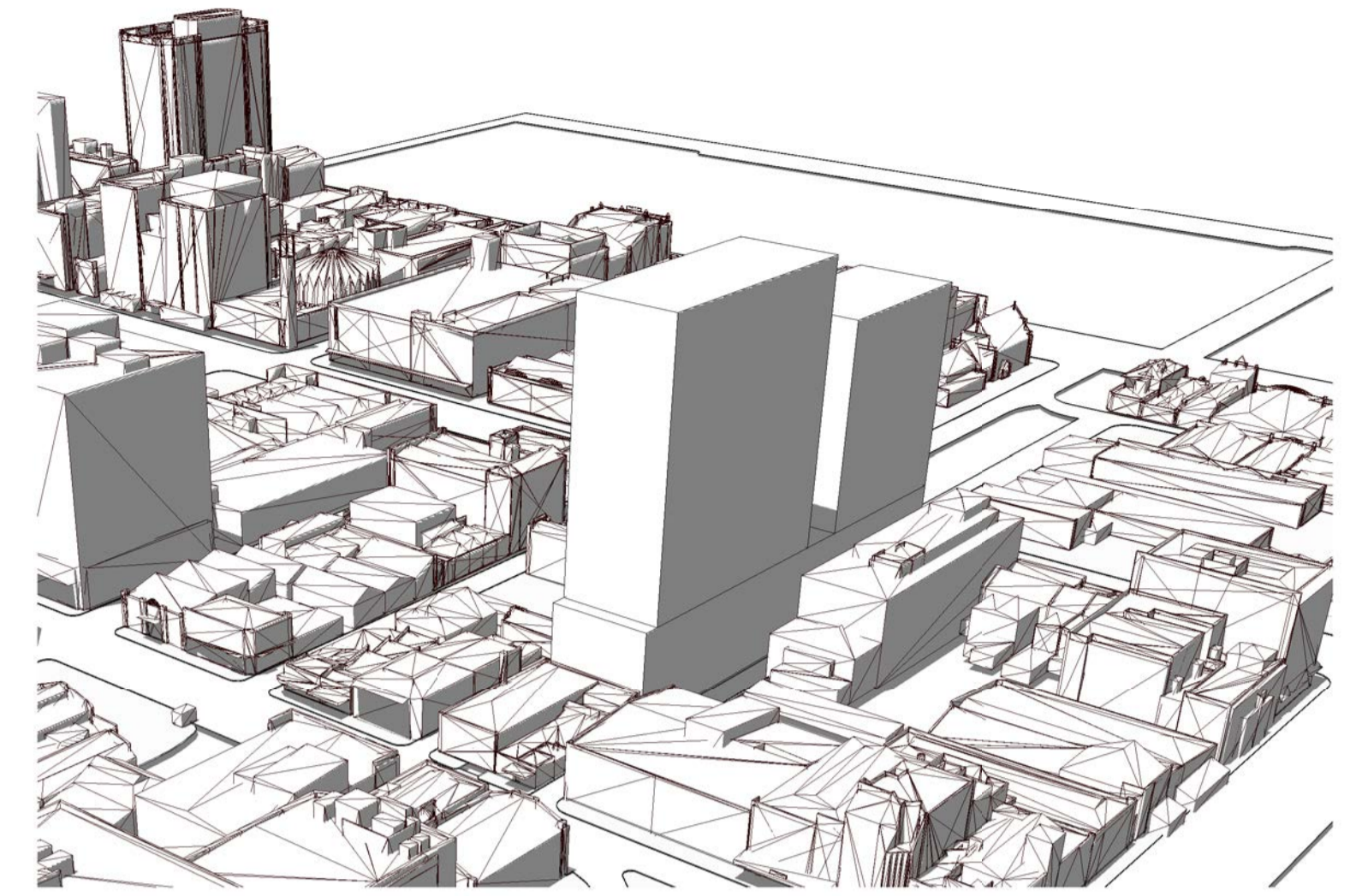




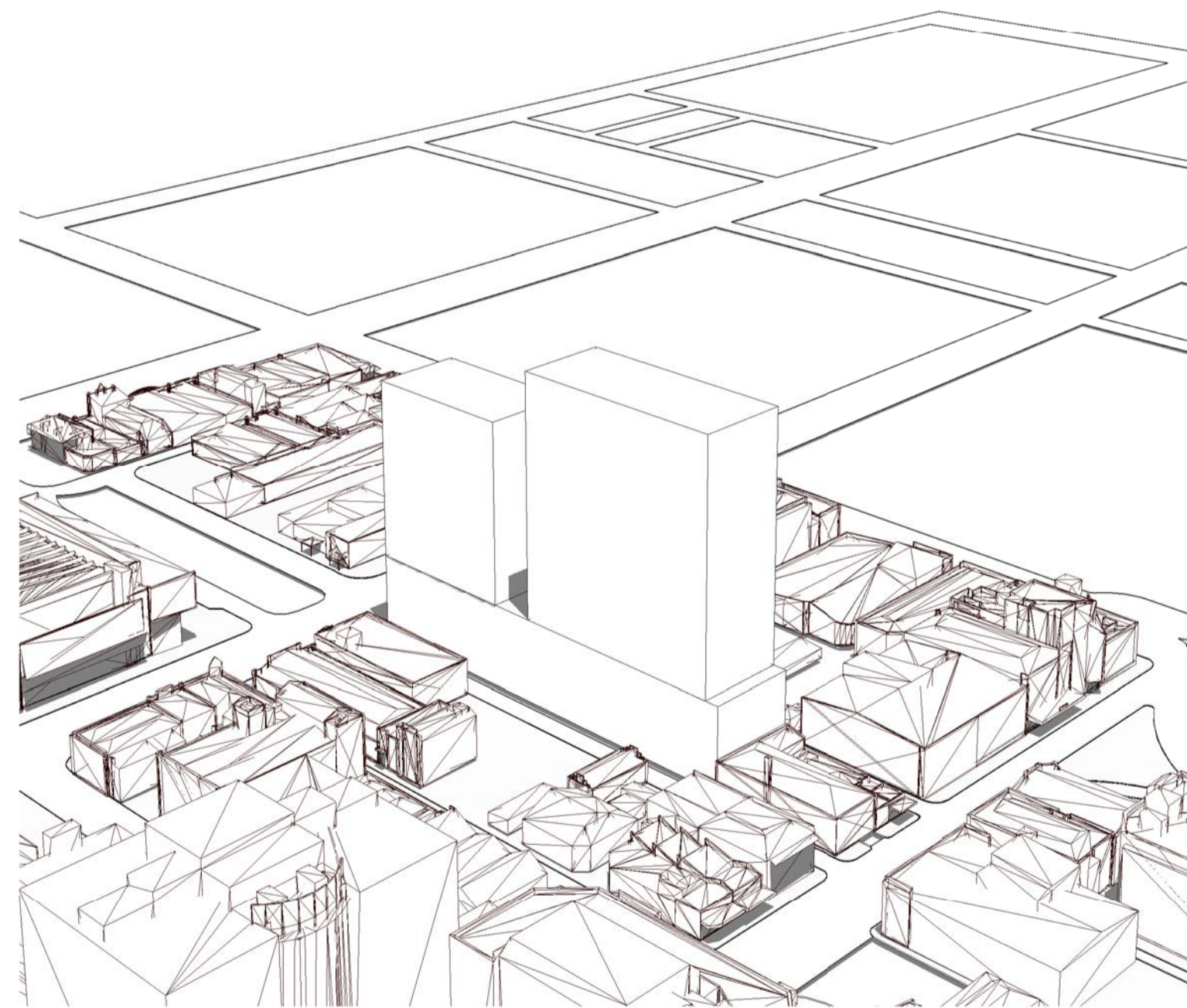
Proposed Twin Tower Aerial View 1



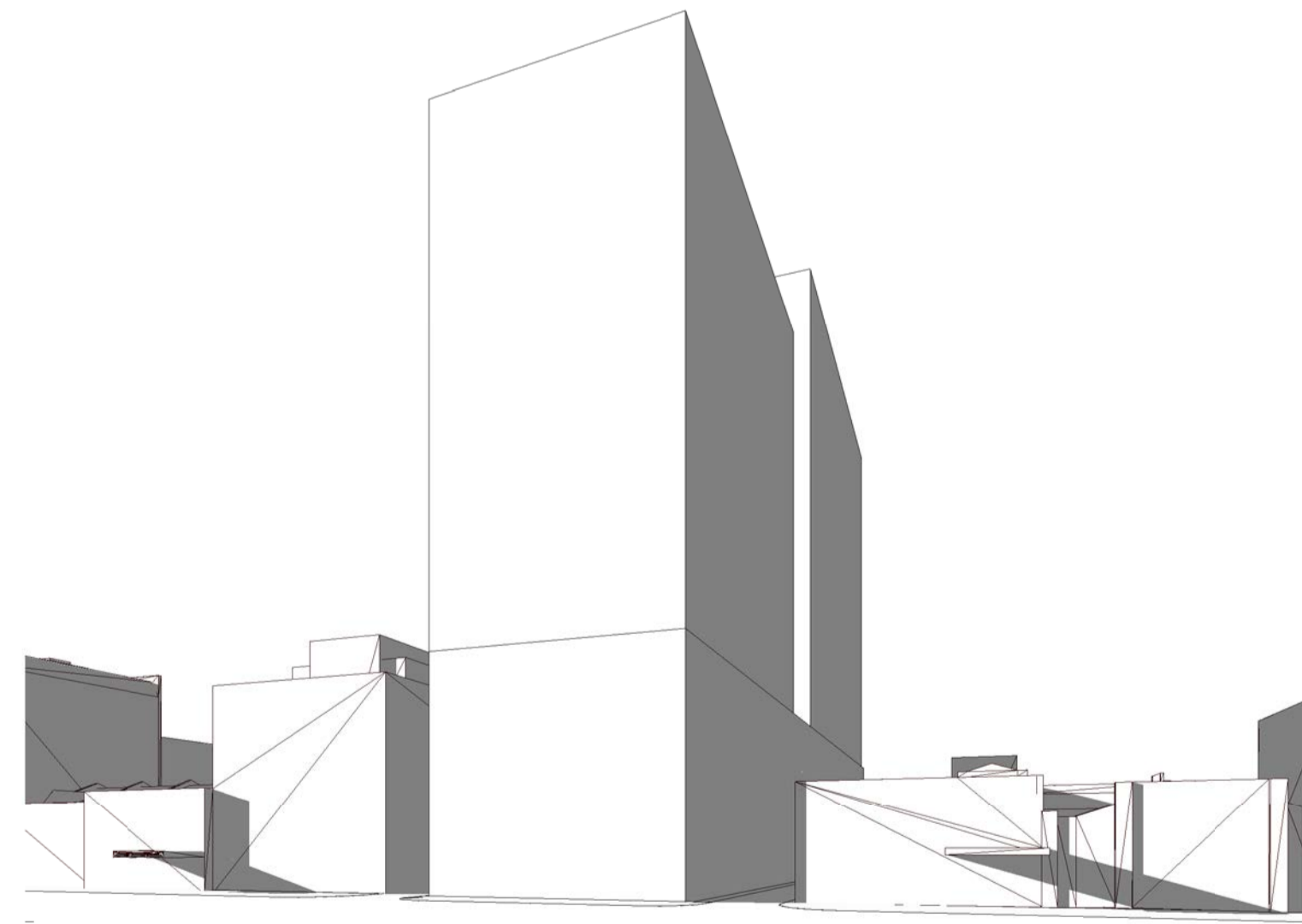
Proposed Twin Tower Aerial View 2



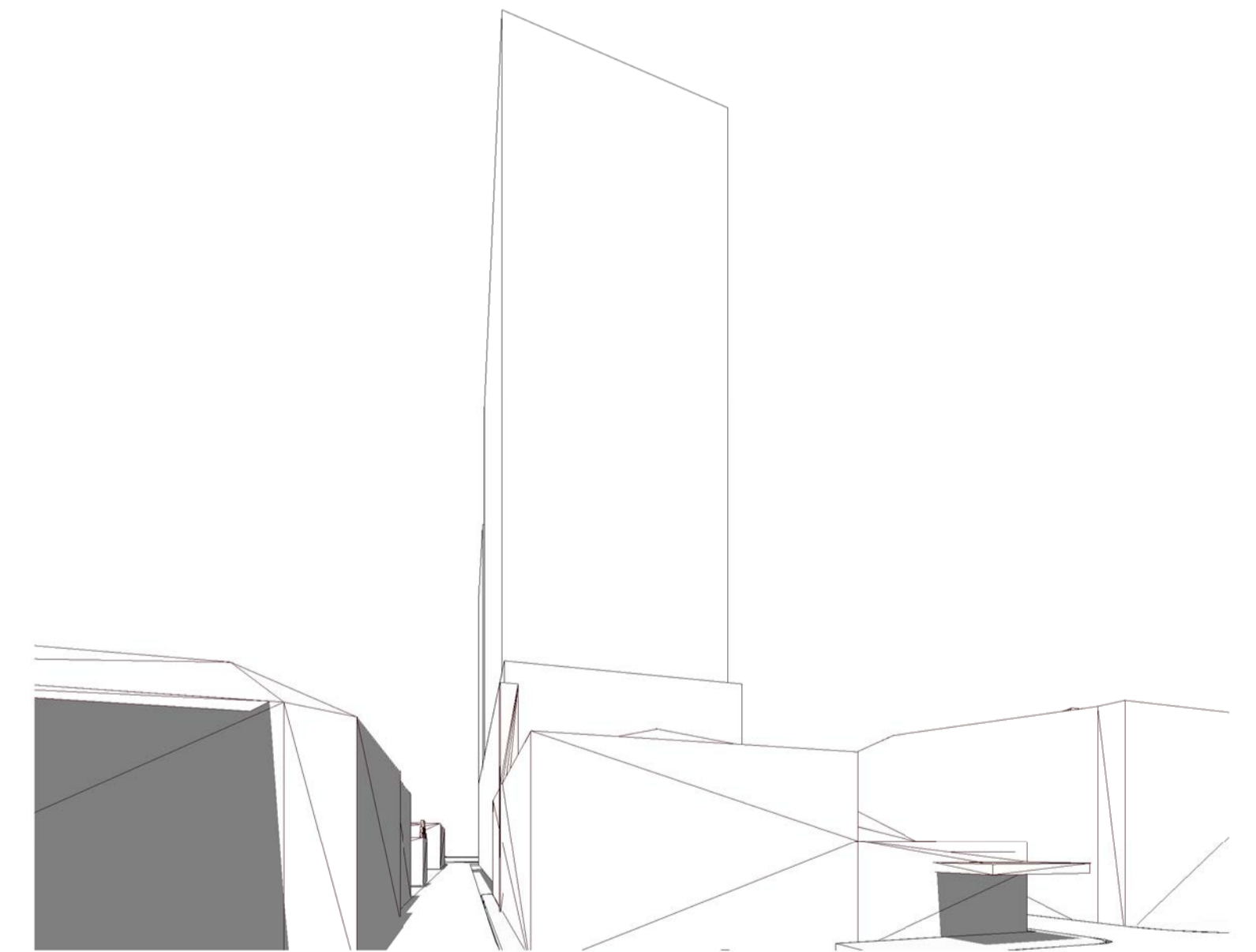
Proposed Twin Tower Aerial View 3



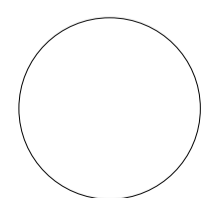
Proposed Twin Tower Aerial View 4



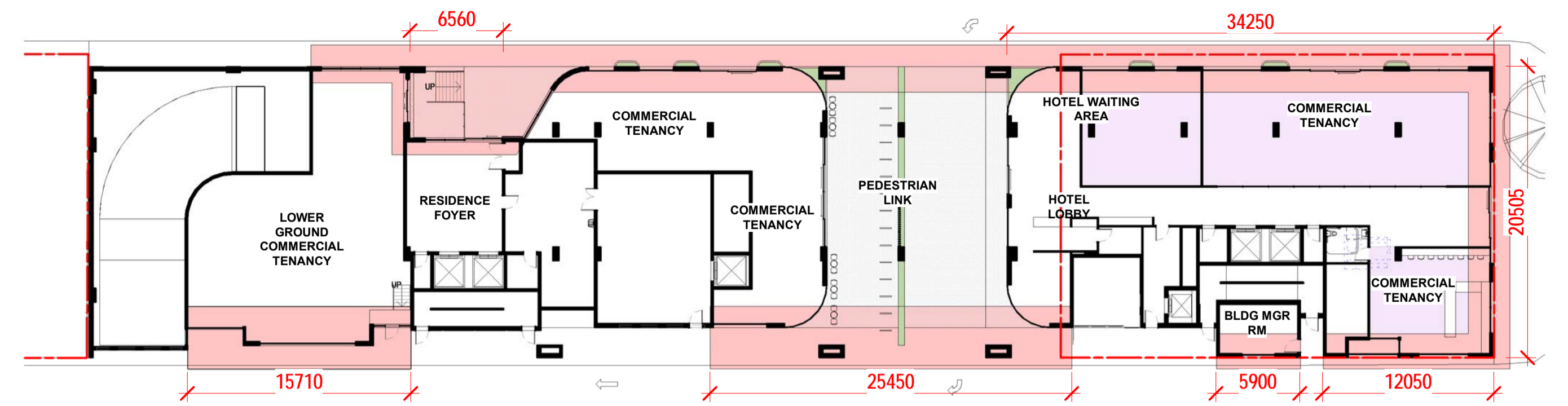
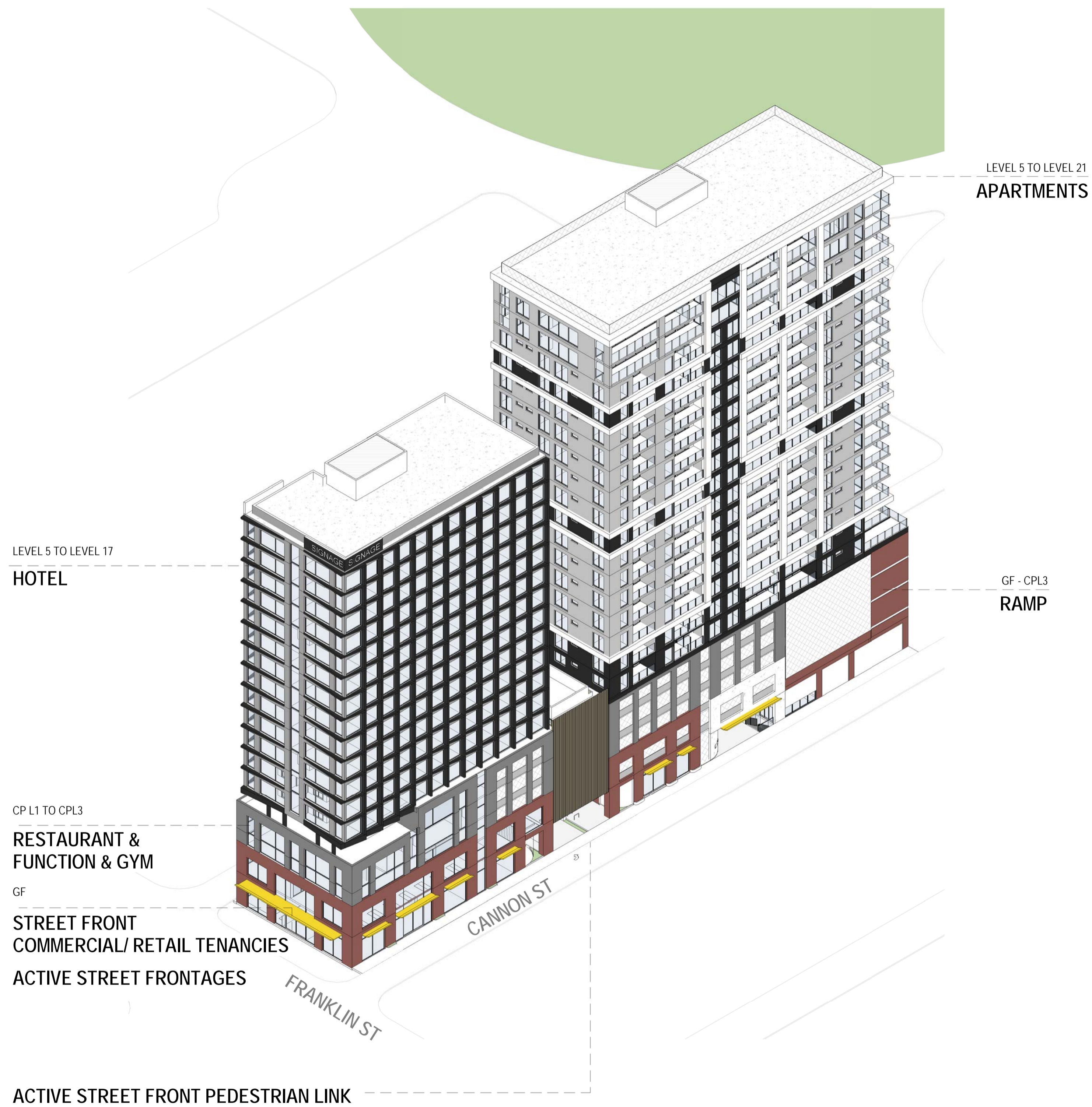
Proposed Twin Tower Street View 1



Proposed Twin Tower Street View 2

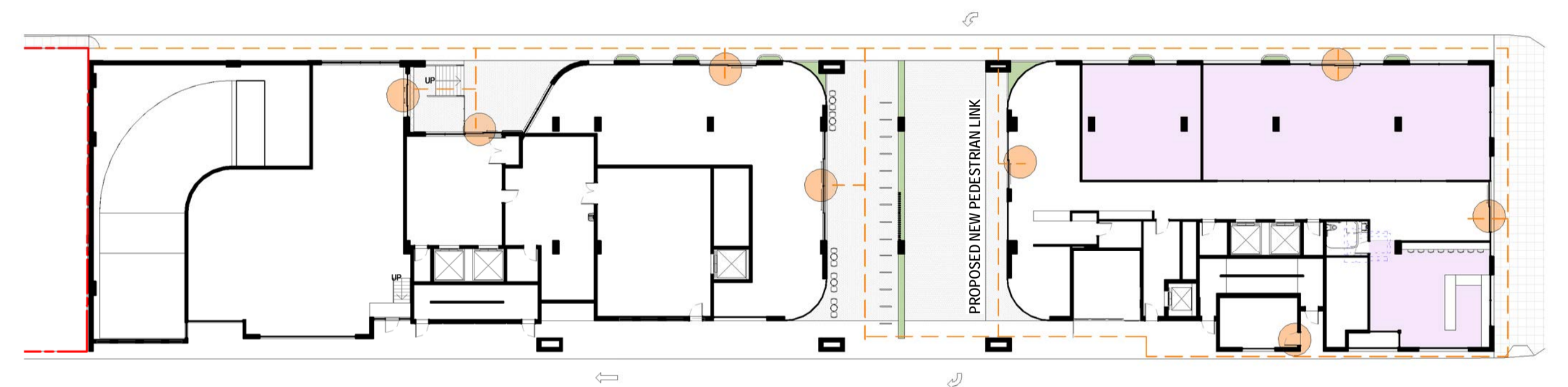


MASSING STUDY - AXONOMETRIC DIAGRAM

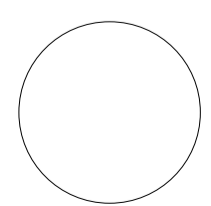


ACTIVE STREET FRONTAGE DIAGRAMME

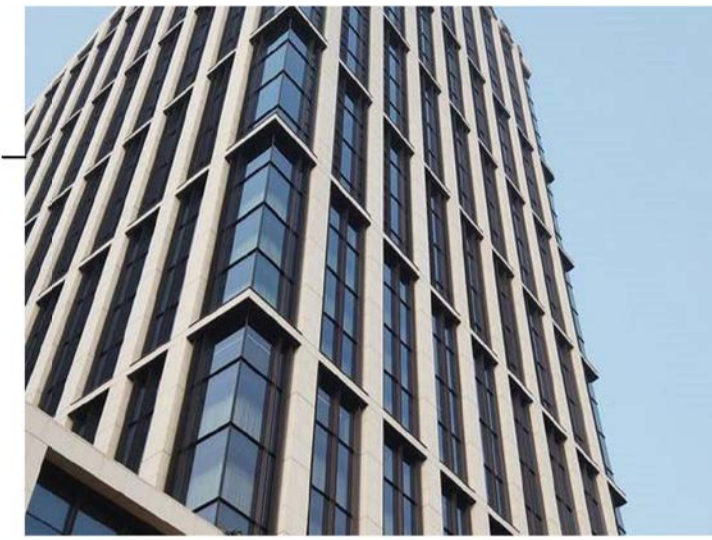
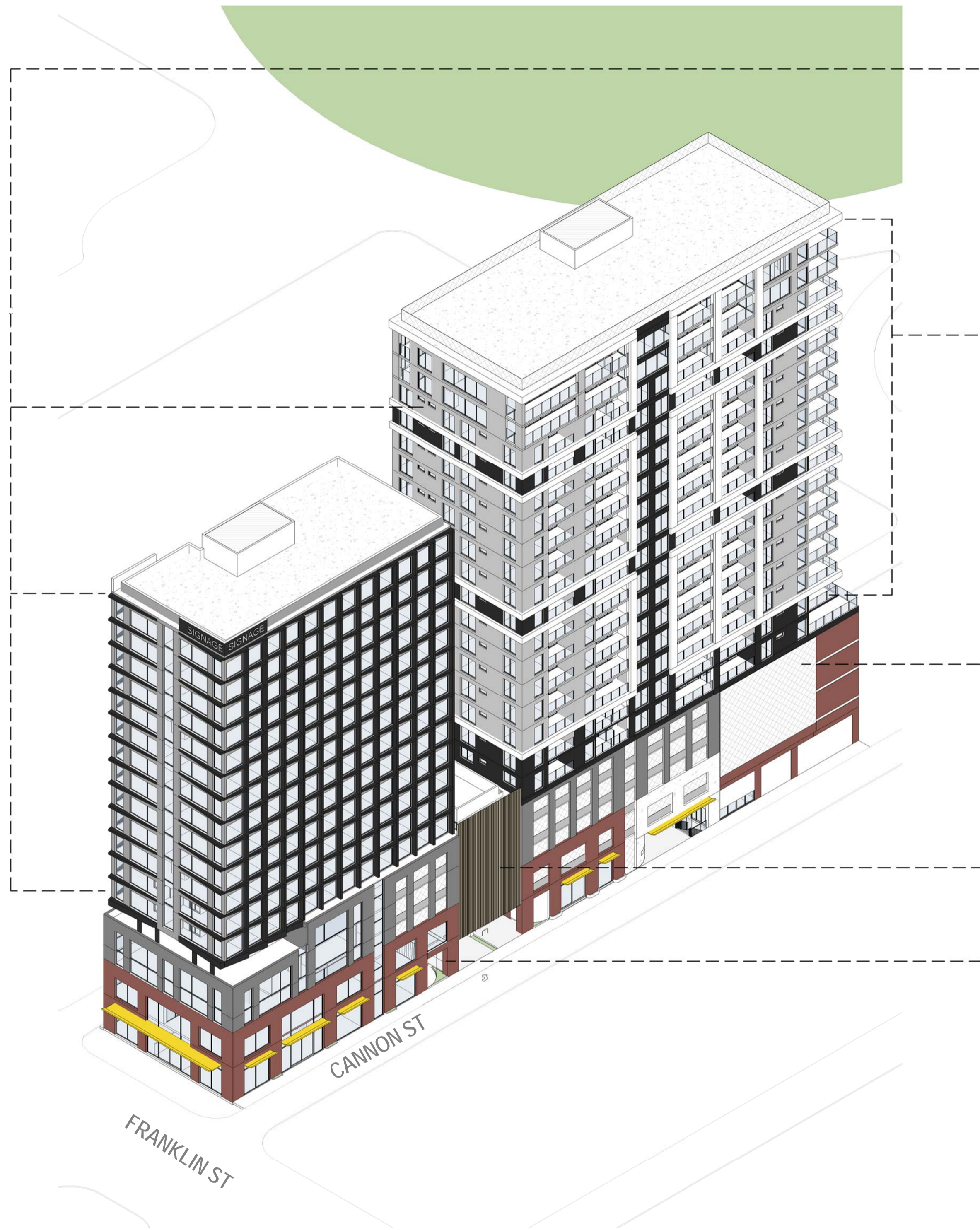
TOTAL STREET FRONT LENGTH - 219M
TOTAL PROPOSED PRIMARY ACTIVE STREET FRONT (HIGHLIGHTED IN RED) - 164.3M (APPROX. 75.0%)



PEDESTRIAN MOVEMENT ON GROUND LEVEL



MATERIAL STUDY - AXONOMETRIC DIAGRAM



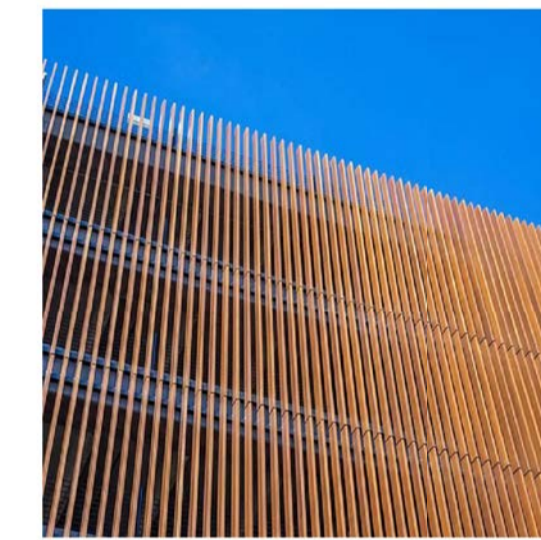
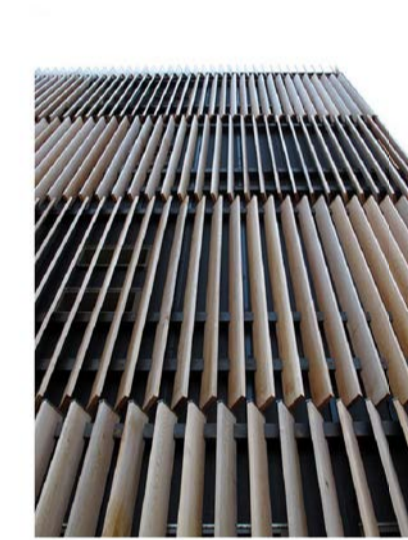
HOTEL FACADE DESIGN IDEA - COLOURED PRECAST CONCRETE WALL PANEL



APARTMENT FACADE DESIGN IDEA - PRECAST CONCRETE PANEL & LIGHT WEIGHT MATERIAL & GLASS BALUSTRADES



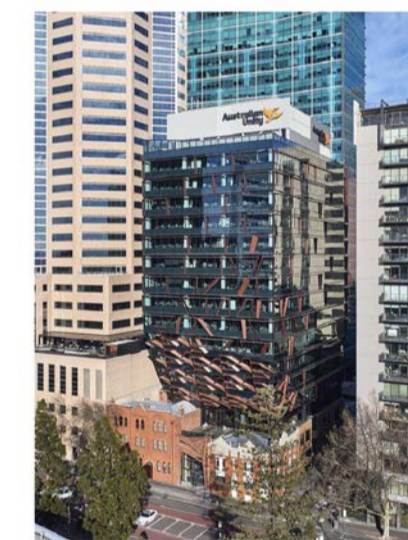
CARPARK FACADE DESIGN IDEA - ALUMINUM VERTICAL SLATS WITH PERFORATED SCREEN



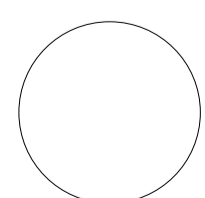
FEATURE METAL CLAD CANOPY



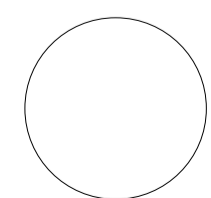
ANCILLARY RETAIL FACADE DESIGN IDEA - BRICKSNAP PRECAST & ALUMINIUM FRAME GLAZING SYSTEM

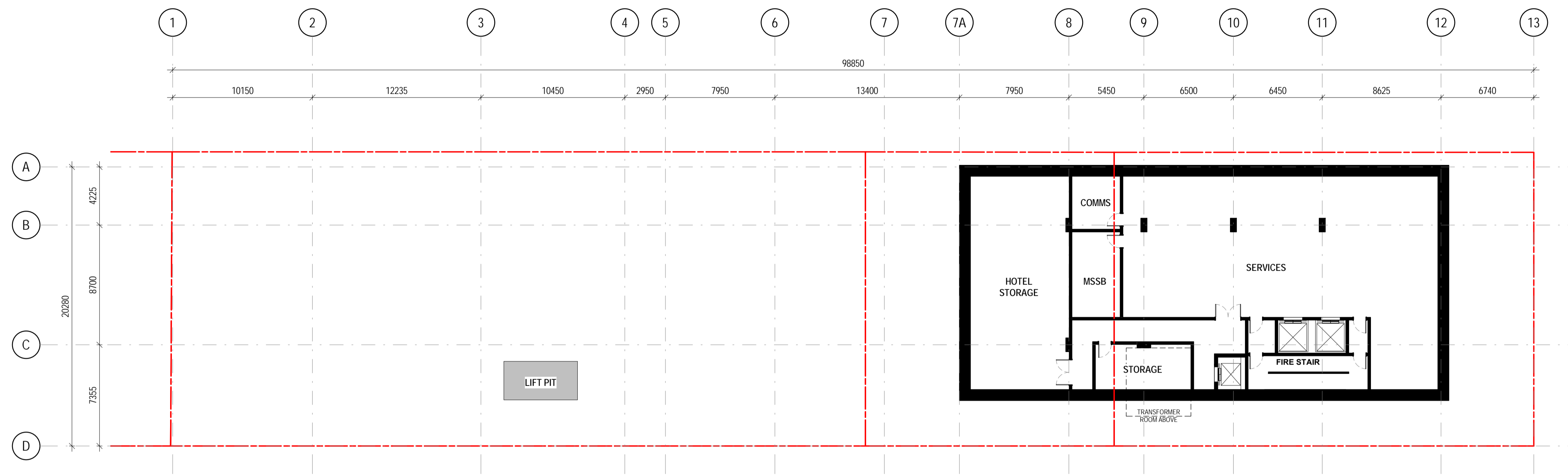


ANCILLARY RETAIL FACADE DESIGN IDEA - BRICKSNAP PRECAST & ALUMINIUM FRAME GLAZING SYSTEM

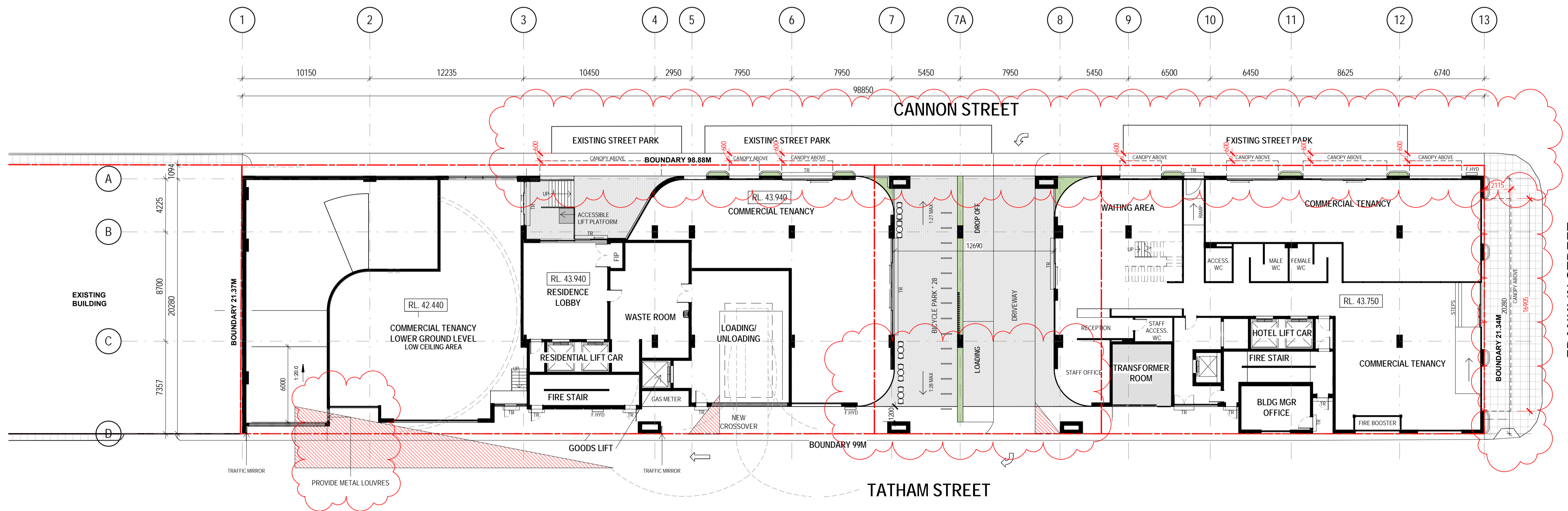


BUILDING MASSING & INTERFACE - PODIUM DESIGN APPROACH

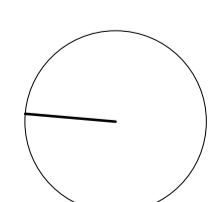


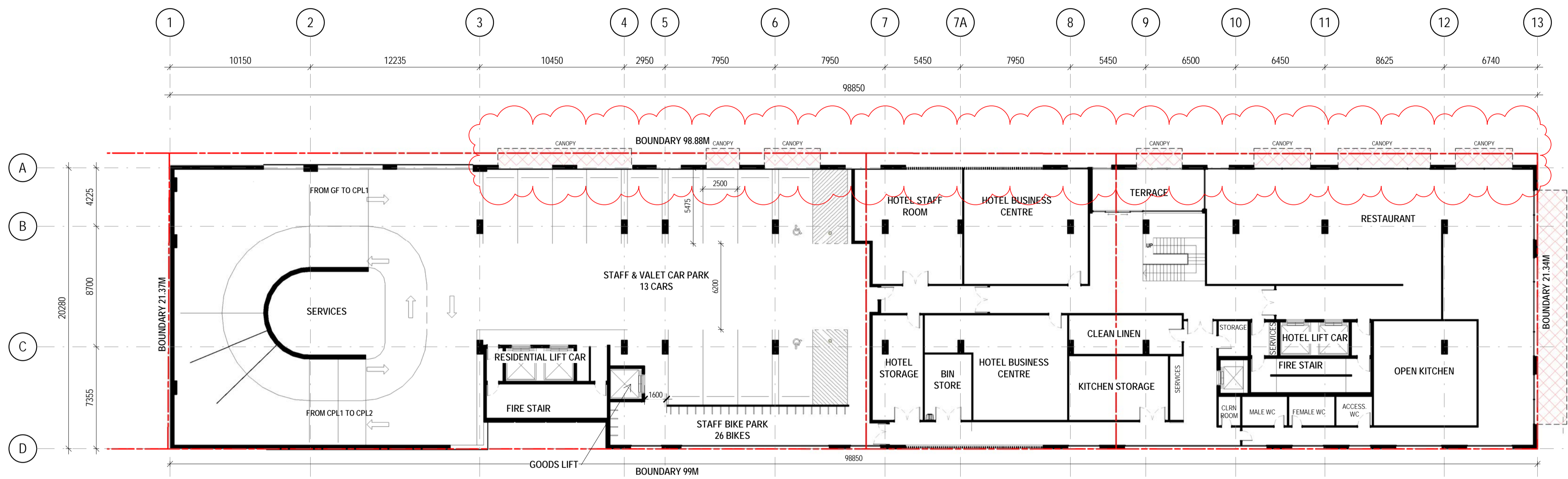


BASEMENT
Scale: 1:200

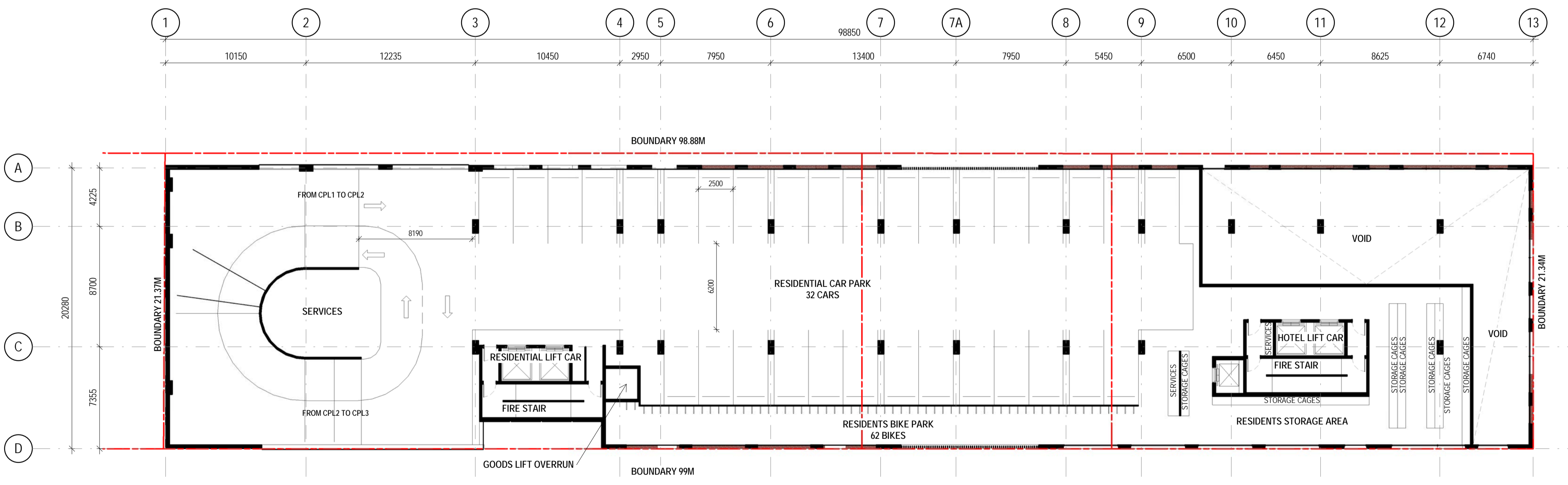


GROUND FLOOR
Scale: 1:200

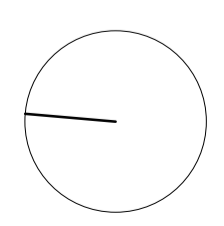


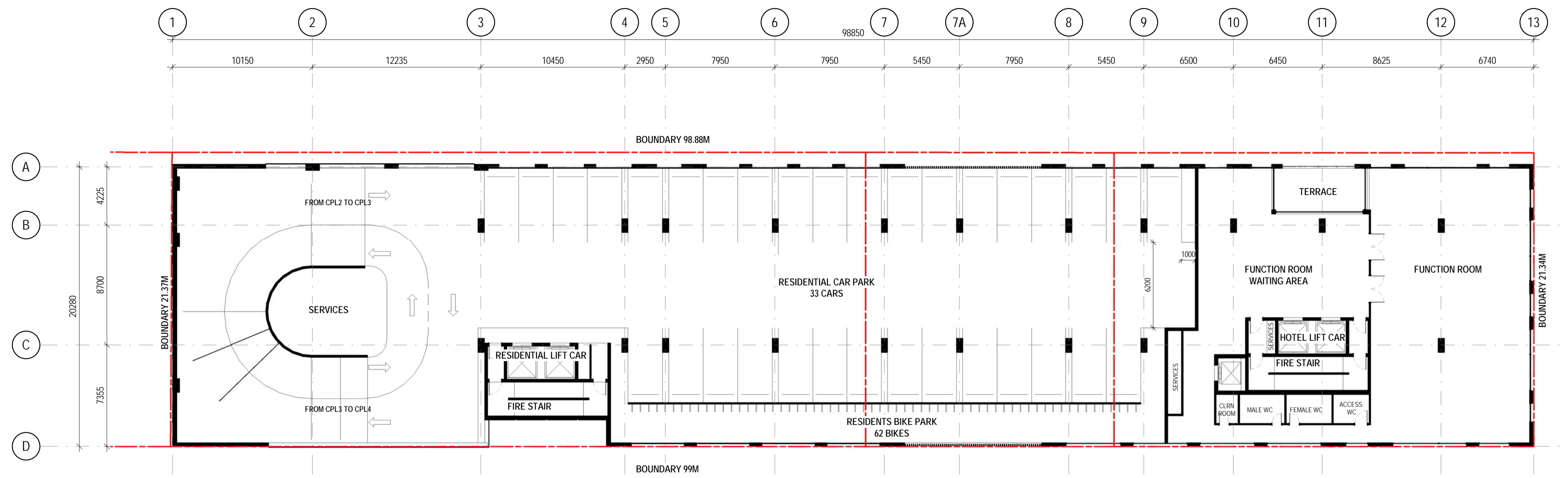


CP L1
Scale 1:200

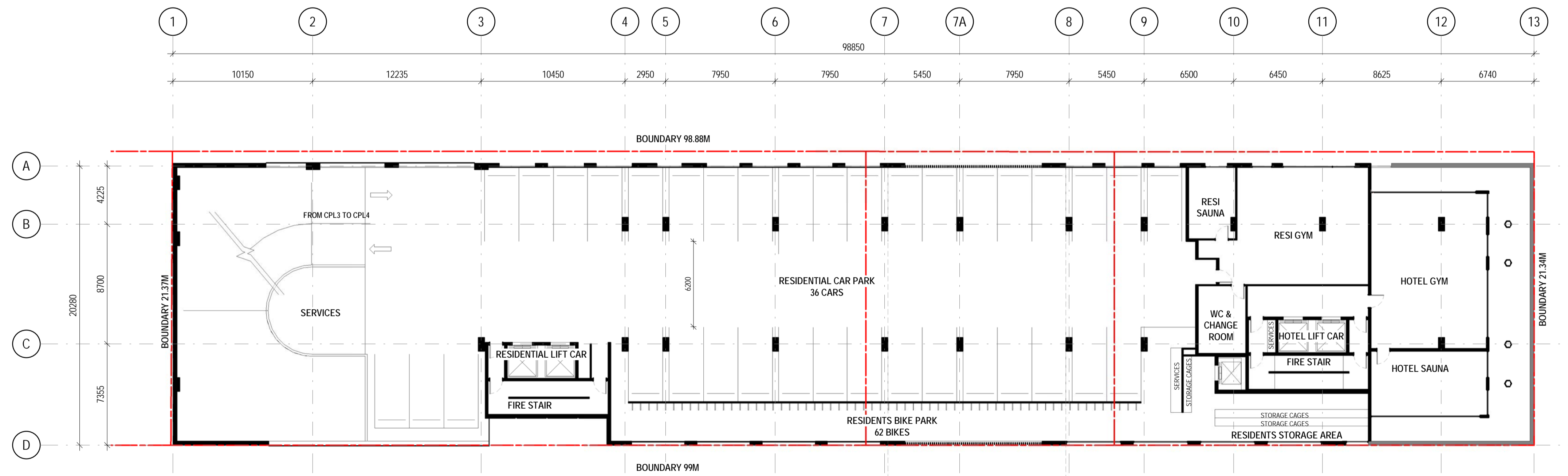


CP L2
Scale 1:200

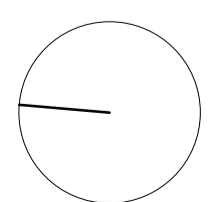


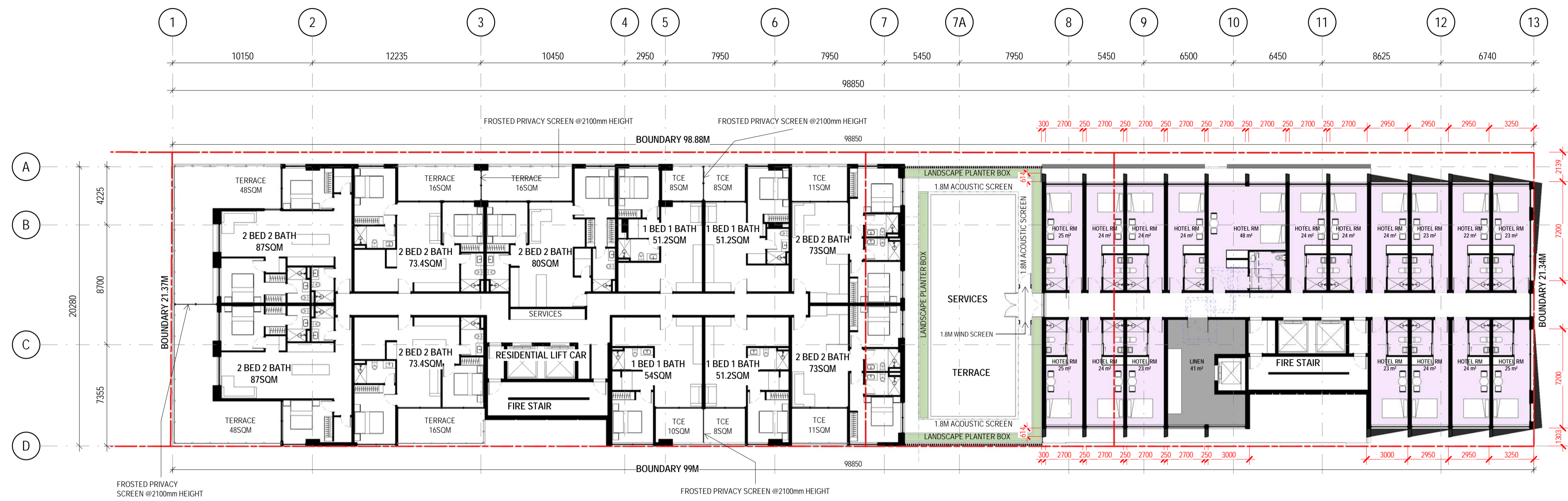


CP L3
Scale 1:200

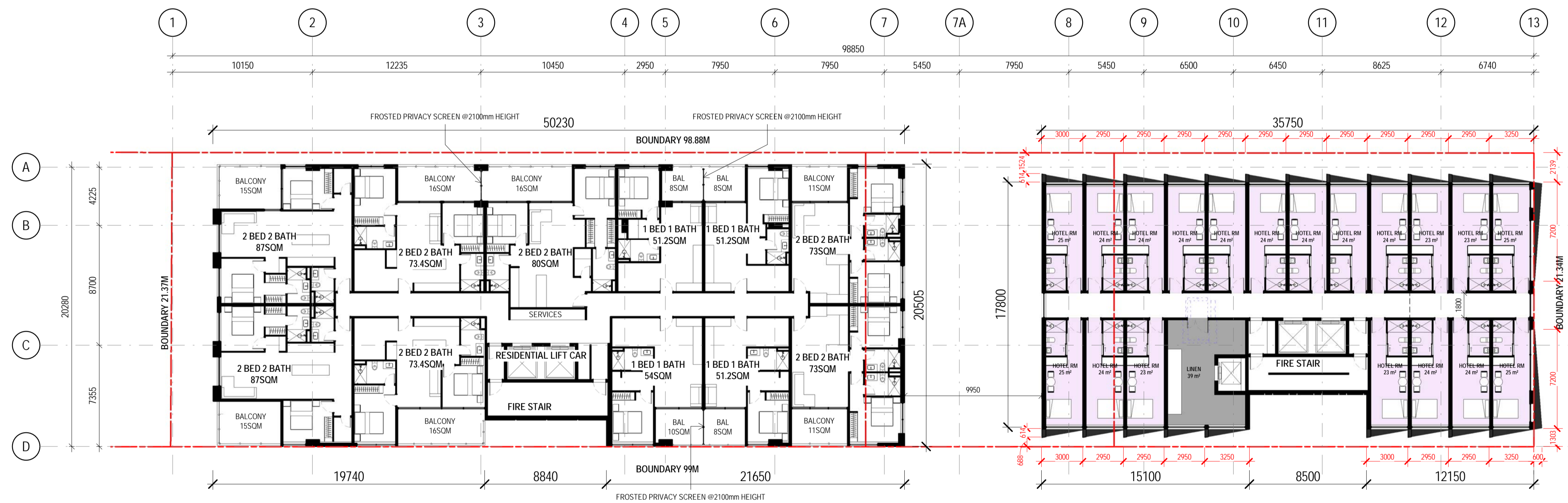


CP L4
Scale 1:200

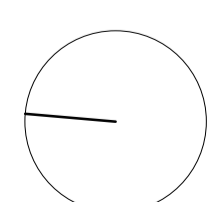


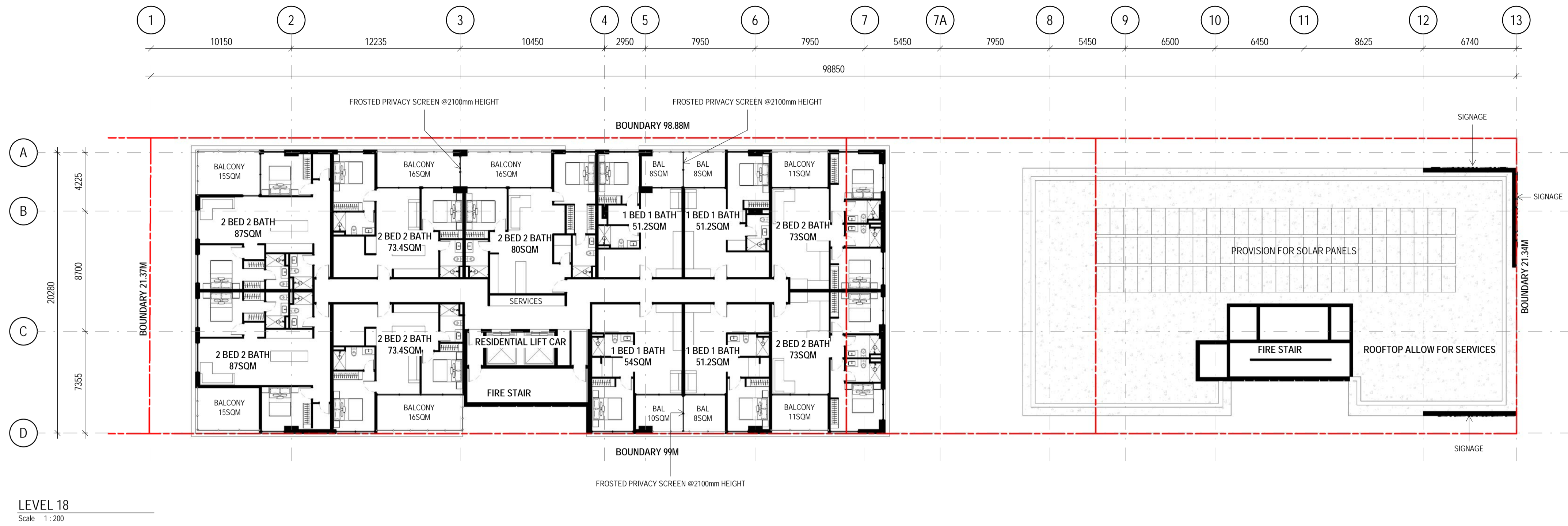


LEVEL 5
Scale: 1:200

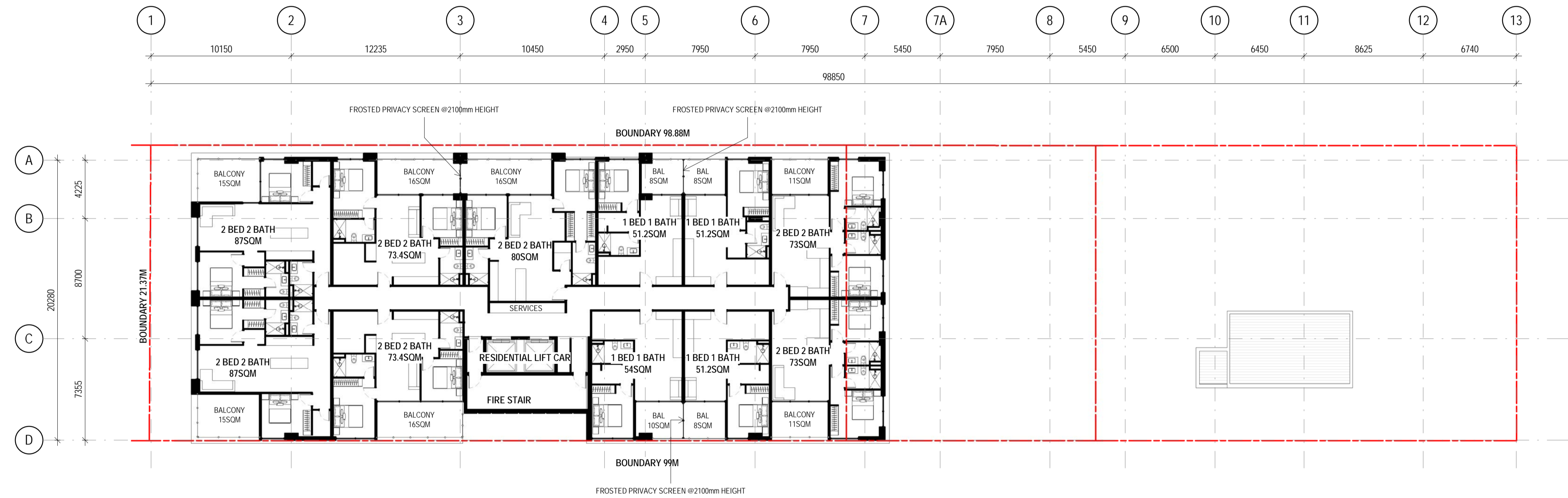


LEVEL 6 - 17
Scale: 1:200

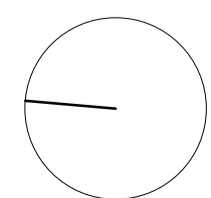


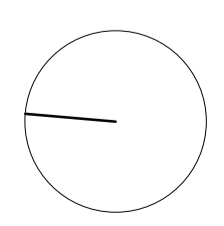
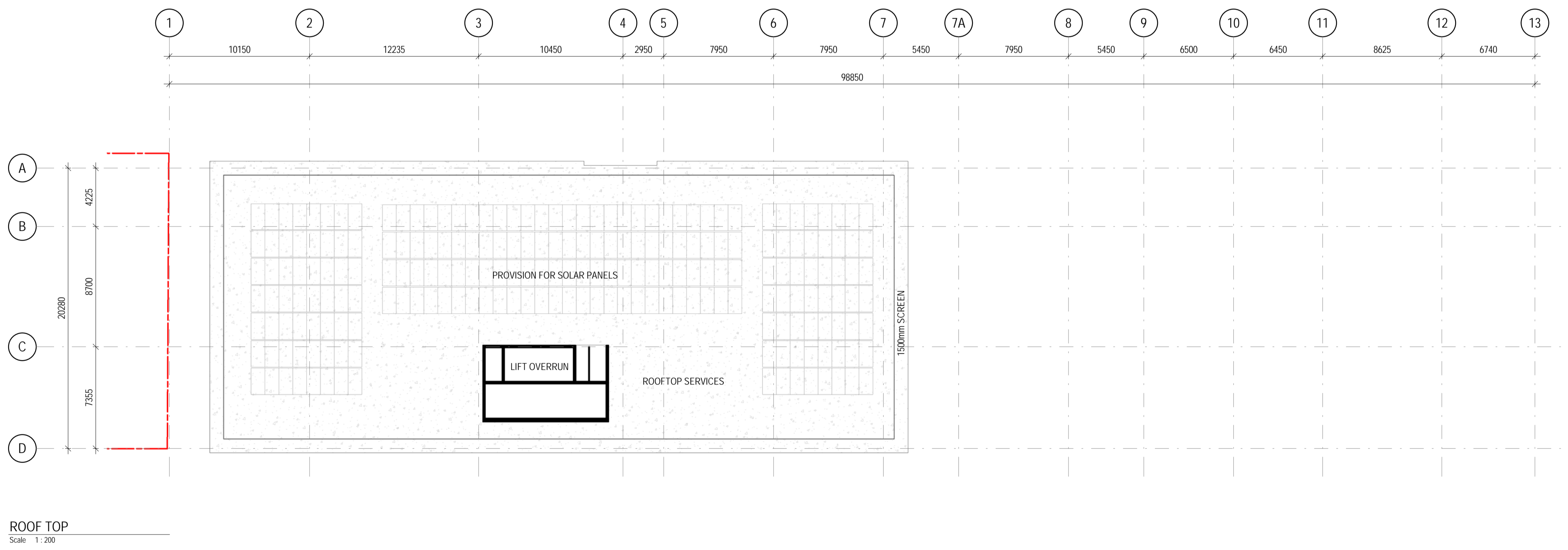
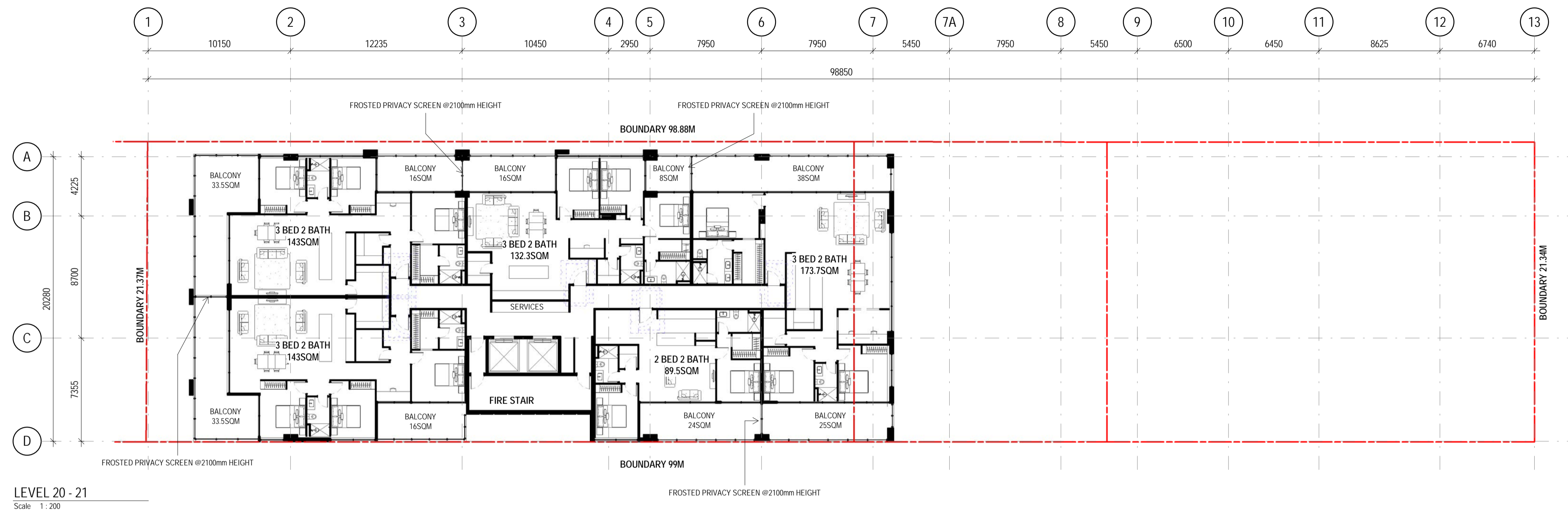


LEVEL 18
Scale 1:200



LEVEL 19
Scale 1:200



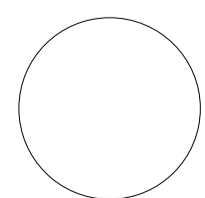




EAST ELEVATION

Scale 1:200

LEVEL 5 TO LEVEL 19 BALCONY BALUSTRADE 1200MM HEIGHT
 LEVEL 20 TO LEVEL 21 BALCONY BALUSTRADE 1500MM HEIGHT



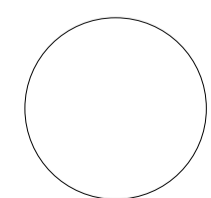
- ▼ PARAPET
AHD: 117.750 m
- ▼ ROOF
AHD: 116.750 m
- ▼ LEVEL 21
AHD: 113.550 m
- ▼ LEVEL 20
AHD: 110.350 m
- ▼ LEVEL 19
AHD: 107.150 m
- ▼ LEVEL 18
AHD: 103.950 m
- ▼ LEVEL 17
AHD: 100.750 m
- ▼ LEVEL 16
AHD: 97.550 m
- ▼ LEVEL 15
AHD: 94.350 m
- ▼ LEVEL 14
AHD: 91.150 m
- ▼ LEVEL 13
AHD: 87.950 m
- ▼ LEVEL 12
AHD: 84.750 m
- ▼ LEVEL 11
AHD: 81.550 m
- ▼ LEVEL 10
AHD: 78.350 m
- ▼ LEVEL 9
AHD: 75.150 m
- ▼ LEVEL 8
AHD: 71.950 m
- ▼ LEVEL 7
AHD: 68.750 m
- ▼ LEVEL 6
AHD: 65.550 m
- ▼ LEVEL 5
AHD: 62.350 m
- ▼ CP L4
AHD: 58.350 m
- ▼ CP L3
AHD: 55.150 m
- ▼ CP L2
AHD: 51.950 m
- ▼ CP L1
AHD: 48.750 m
- ▼ GROUND FLOOR
AHD: 43.750 m

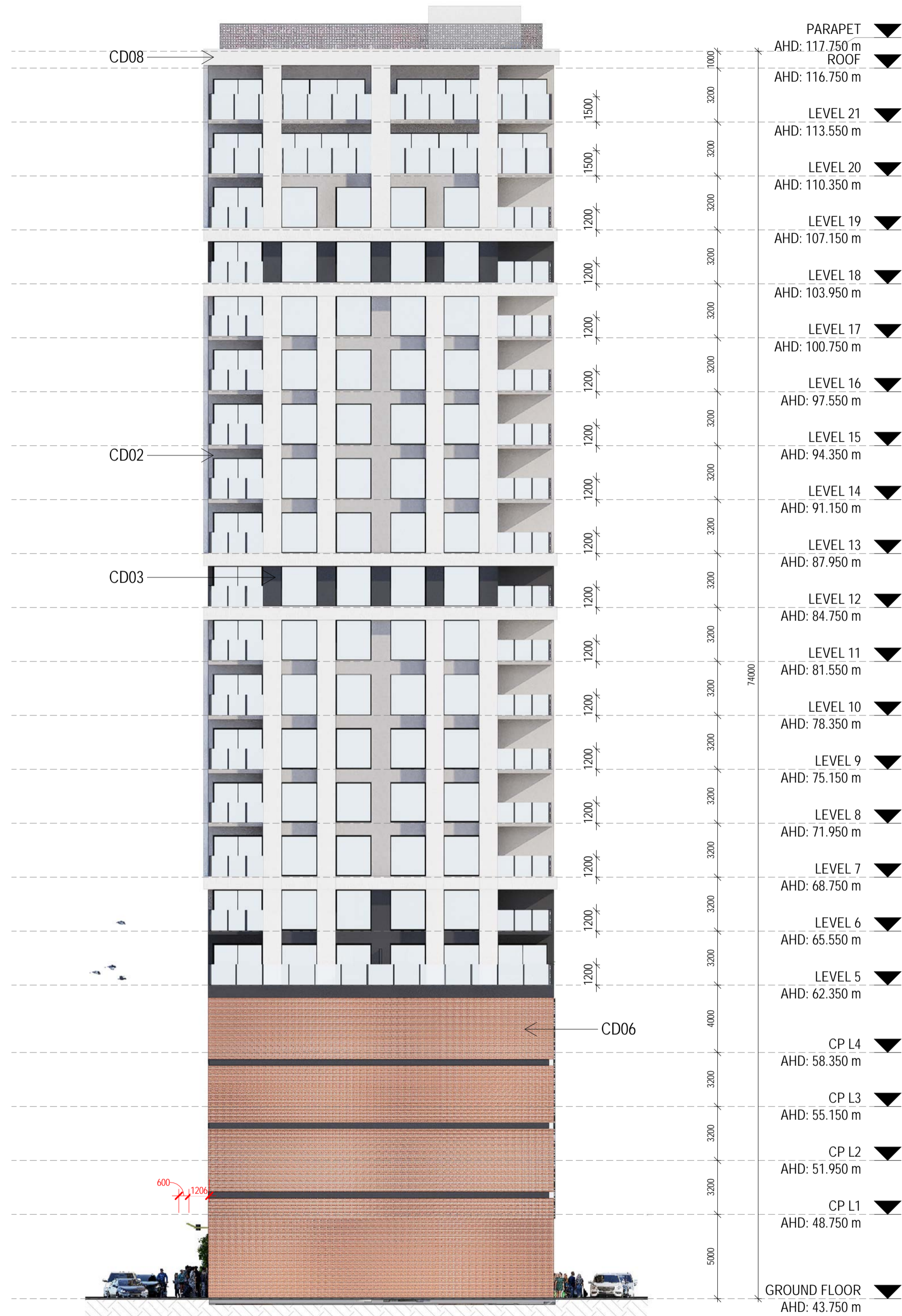


WEST ELEVATION

Scale 1 : 200

LEVEL 5 TO LEVEL 19 BALCONY BALUSTRADE 1200MM HEIGHT
LEVEL 20 TO LEVEL 21 BALCONY BALUSTRADE 1500MM HEIGHT



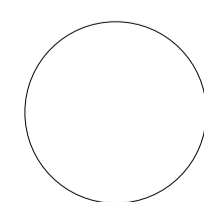


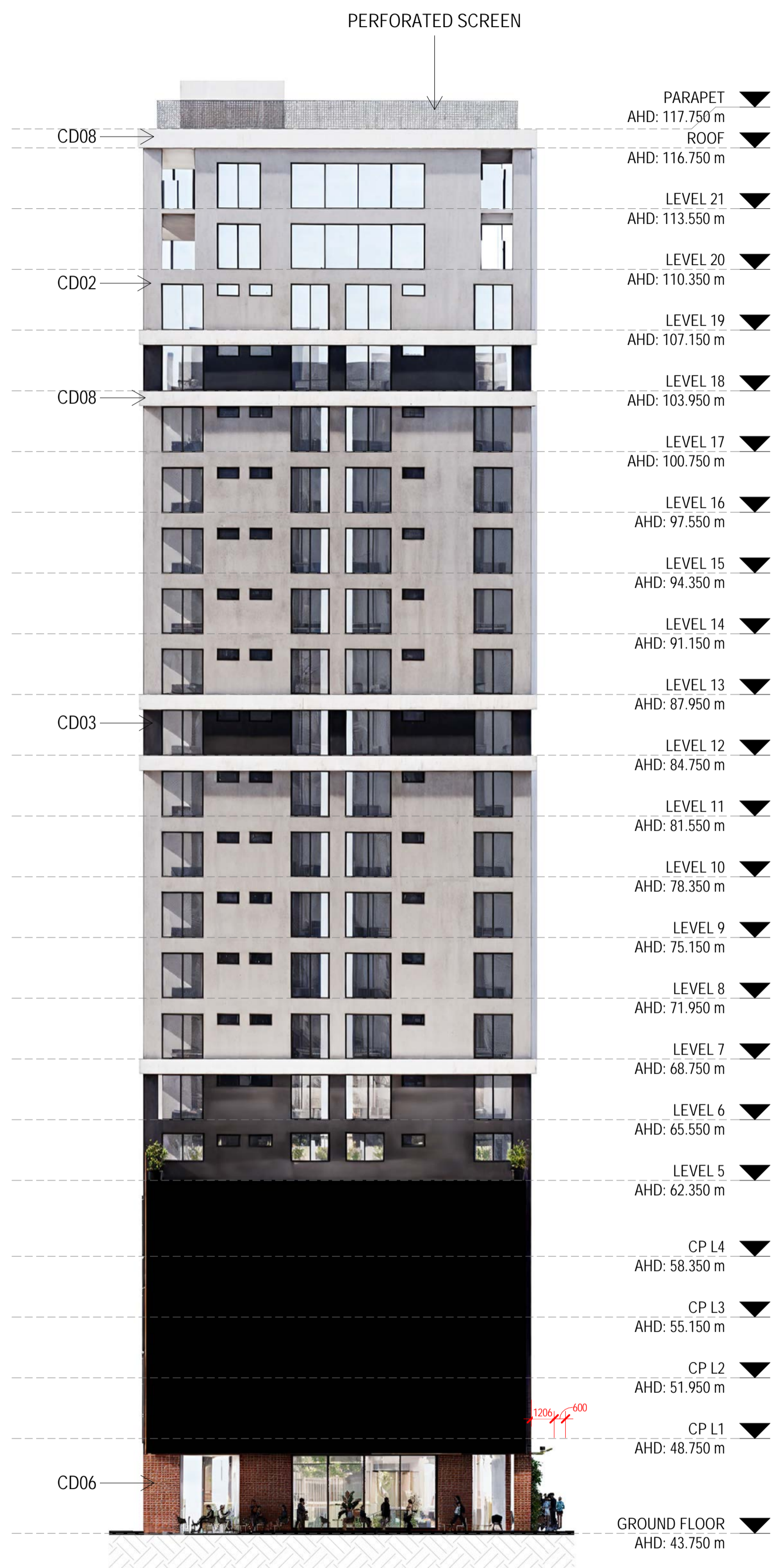
NORTH ELEVATION
Scale 1:200



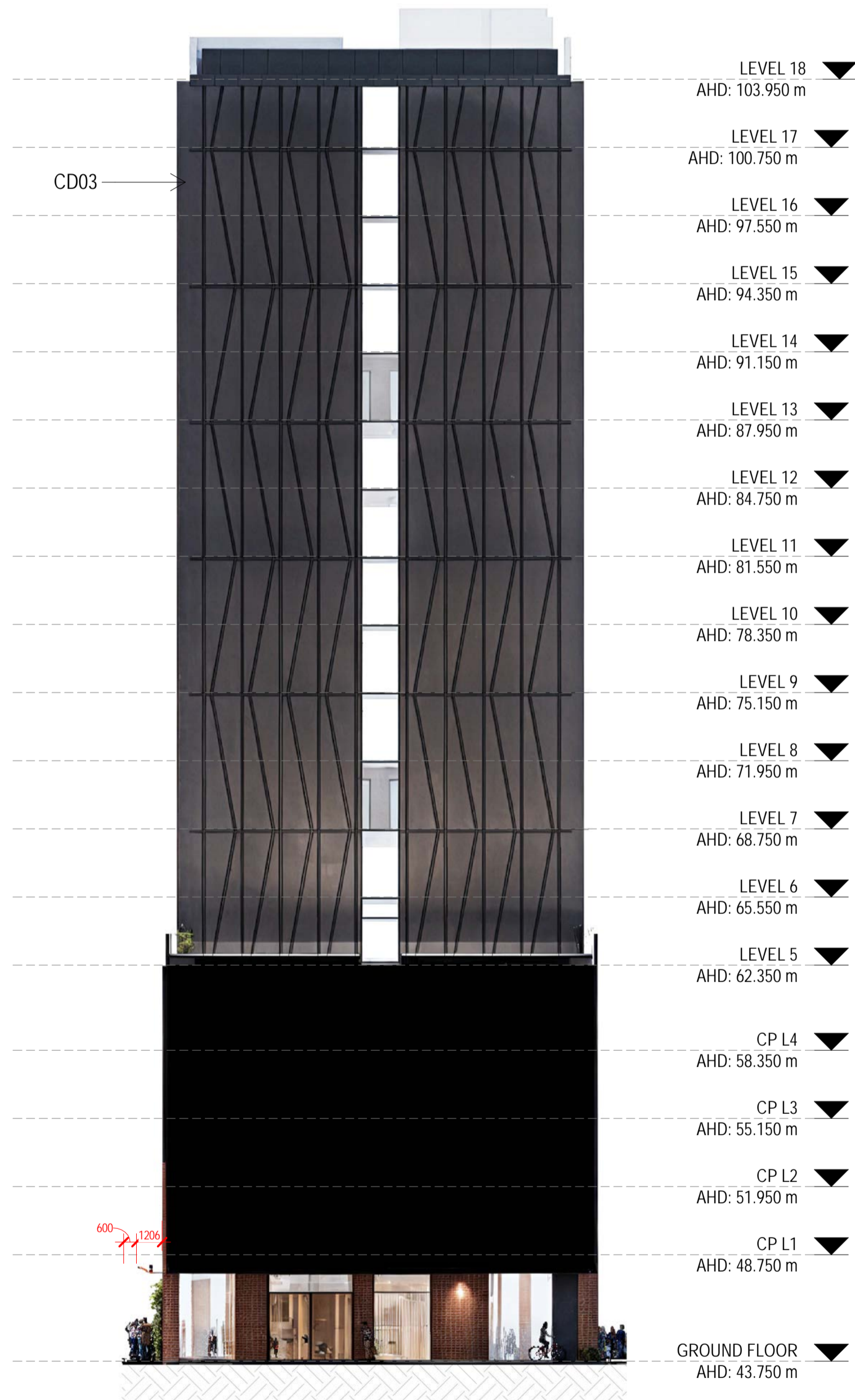
SOUTH ELEVATION
Scale 1:200

MATERIAL SELECTION SCHEDULE		
	IMAGE	DESCRIPTION
CD01		PRECAST CONCRETE PANEL OFF FORM - DARK GREEN
CD02		PRECAST CONCRETE PANEL OFF FORM - LIGHT GREY
CD03		PRECAST CONCRETE PANEL OFF FORM - DARK GREY
CD04		PRECAST CONCRETE PANEL FORM LINES - GREY
CD05		ALUMINIUM COMPOSITE PANEL - BRUSHED GOLD
CD06		76mm*230mm*110mm FAIR FACE RED BRICK WITH LIGHT GREY MORTAR
CD07		ALUMINIUM BATTEN CLADDING - BRASS COPPER
CD08		PRECAST CONCRETE PANEL OFF FORM - WHITE
		CLEAR GLASS BALUSTRADE WITH POWERCOATED FRAME
		LIGHT GREY-BLUE TINTED IGU'S WITH LOW REFLECTIVITY
		PERFORATED METAL SCREENING FOR CARPARK
		PROPIETARY ACOUSTIC SCREEN



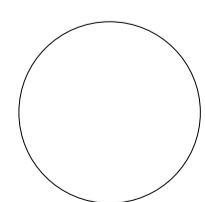


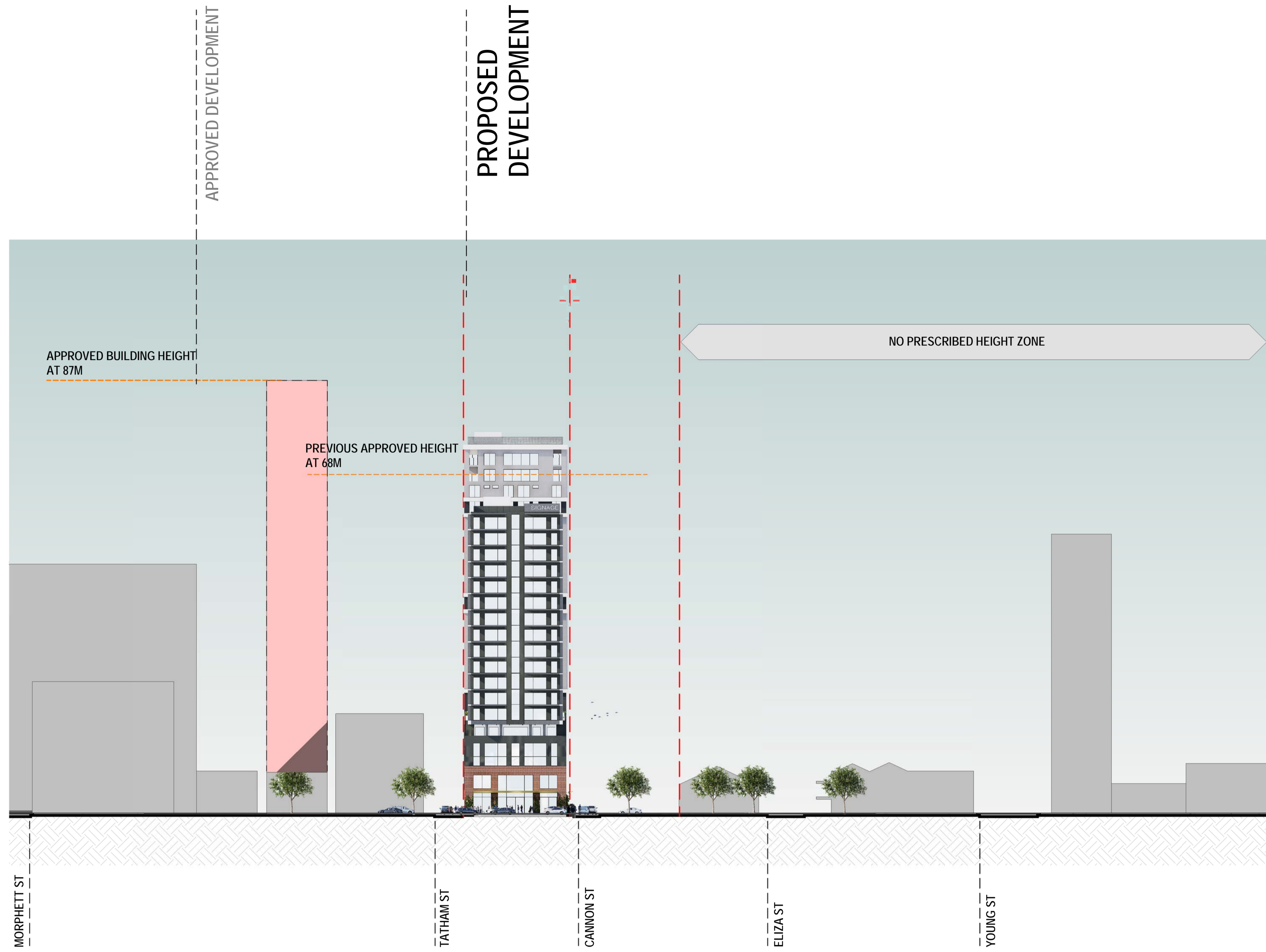
SOUTH ELEVATION 2
Scale: 1:200






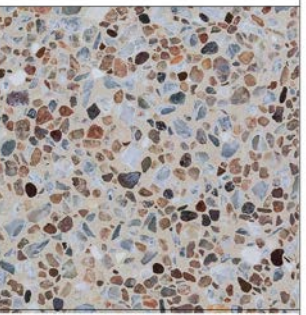
NORTH ELEVATION 2
Scale: 1:200

MATERIAL SELECTION SCHEDULE		
	IMAGE	DESCRIPTION
CD01		PRECAST CONCRETE PANEL OFF FORM - DARK GREEN
CD02		PRECAST CONCRETE PANEL OFF FORM - LIGHT GREY
CD03		PRECAST CONCRETE PANEL OFF FORM - DARK GREY
CD04		PRECAST CONCRETE PANEL FORM LINES - GREY
CD05		ALUMINIUM COMPOSITE PANEL - BRUSHED GOLD
CD06		76mm*230mm*110mm FAIR FACE RED BRICK WITH LIGHT GREY MORTAR
CD07		ALUMINIUM BATTEN CLADDING - BRASS COPPER
CD08		PRECAST CONCRETE PANEL OFF FORM - WHITE
		CLEAR GLASS BALUSTRADE WITH POWERCOATED FRAME
		LIGHT GREY-BLUE TINTED IGU'S WITH LOW REFLECTIVITY
		PERFORATED METAL SCREENING FOR CARPARK
		PROPRIETARY ACOUSTIC SCREEN

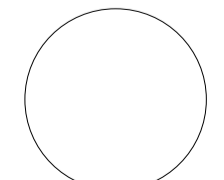


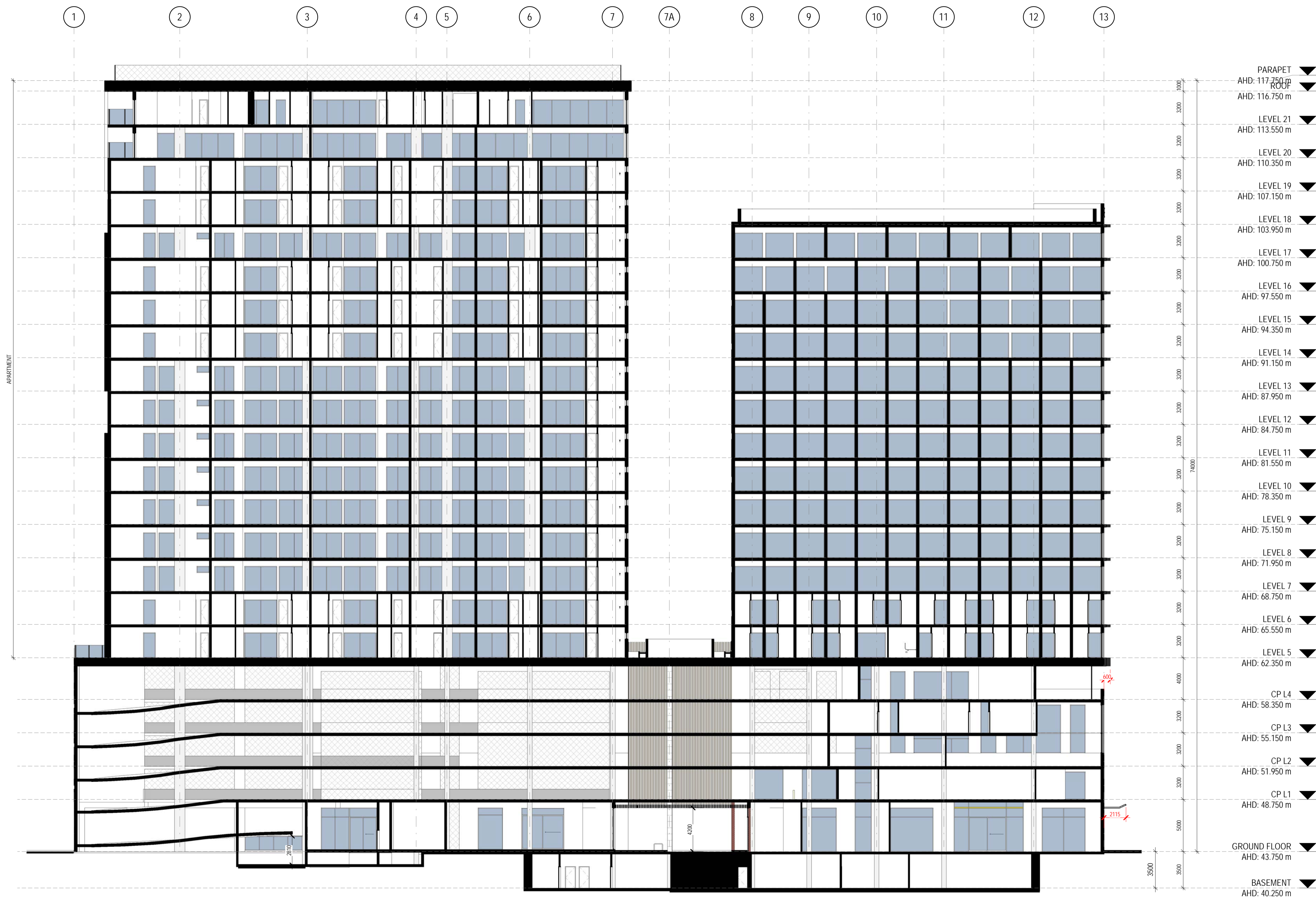


STREET ELEVATION
Scale 1:500

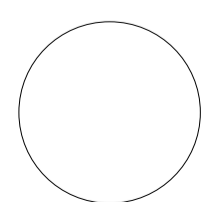
PAVERS PALETTE				
IMAGE				
				
DESCRIPTION	BOWRAL BRICKS - ASH	BOWRAL BRICKS - BOWRAL BLUE	BOWRAL BRICKS - SEPIA	URBANSTON E - RIVER TOPAZ

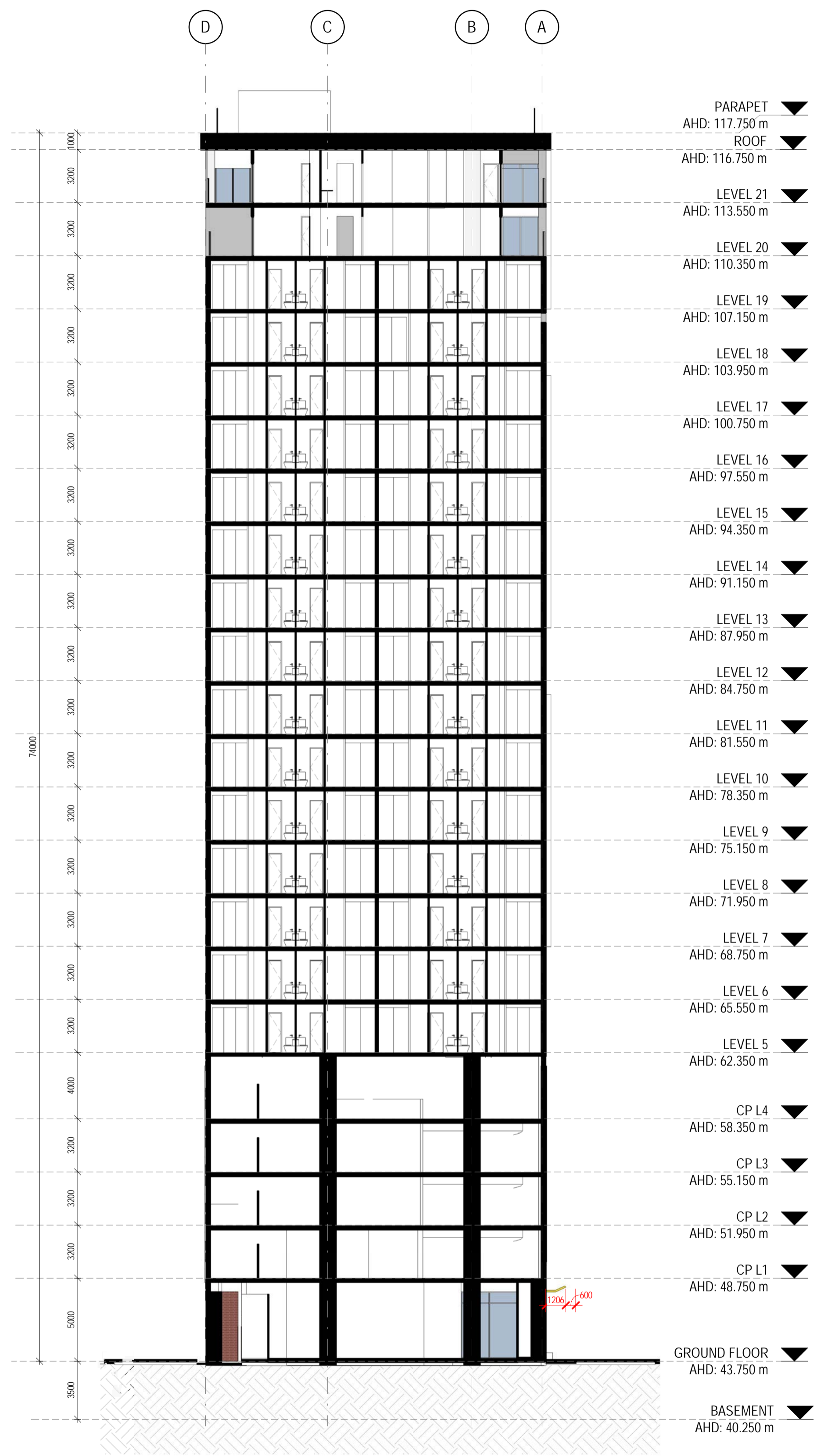
MATERIAL SELECTION SCHEDULE		
	IMAGE	DESCRIPTION
CD01		PRECAST CONCRETE PANEL OFF FORM - DARK GREEN
CD02		PRECAST CONCRETE PANEL OFF FORM - LIGHT GREY
CD03		PRECAST CONCRETE PANEL OFF FORM - DARK GREY
CD04		PRECAST CONCRETE PANEL FORM LINES - GREY
CD05		ALUMINIUM COMPOSITE PANEL - BRUSHED GOLD
CD06		76mm*230mm*110mm FAIR FACE RED BRICK WITH LIGHT GREY MORTAR
CD07		ALUMINIUM BATTEN CLADDING - BRASS COPPER
CD08		PRECAST CONCRETE PANEL OFF FORM - WHITE
		CLEAR GLASS BALUSTRADE WITH POWERCOATED FRAME
		LIGHT GREY-BLUE TINTED IGU'S WITH LOW REFLECTIVITY
		PERFORATED METAL SCREENING FOR CARPARK
		PROPRIETARY ACOUSTIC SCREEN



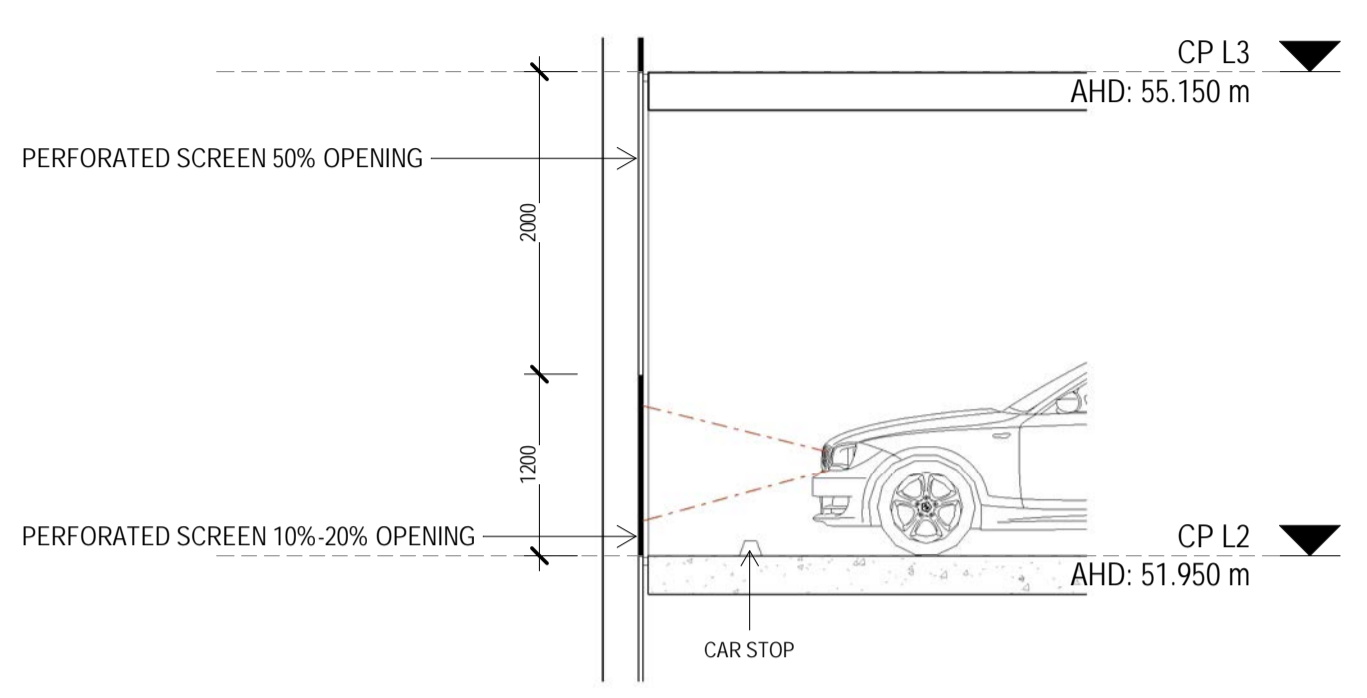


1 Section 1
SD026 Scale 1:200

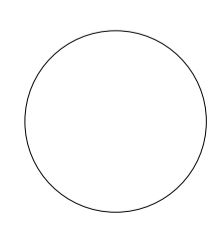




1 Section 3
SD026 Scale 1:200



TYPICAL CAR PARK SCREEN CONCEPT DETAIL





DEC 21 - 9AM



DEC 21 - 10AM



DEC 21 - 11AM



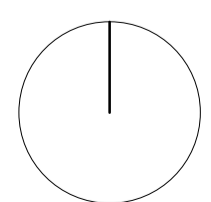
DEC 21 - 12PM

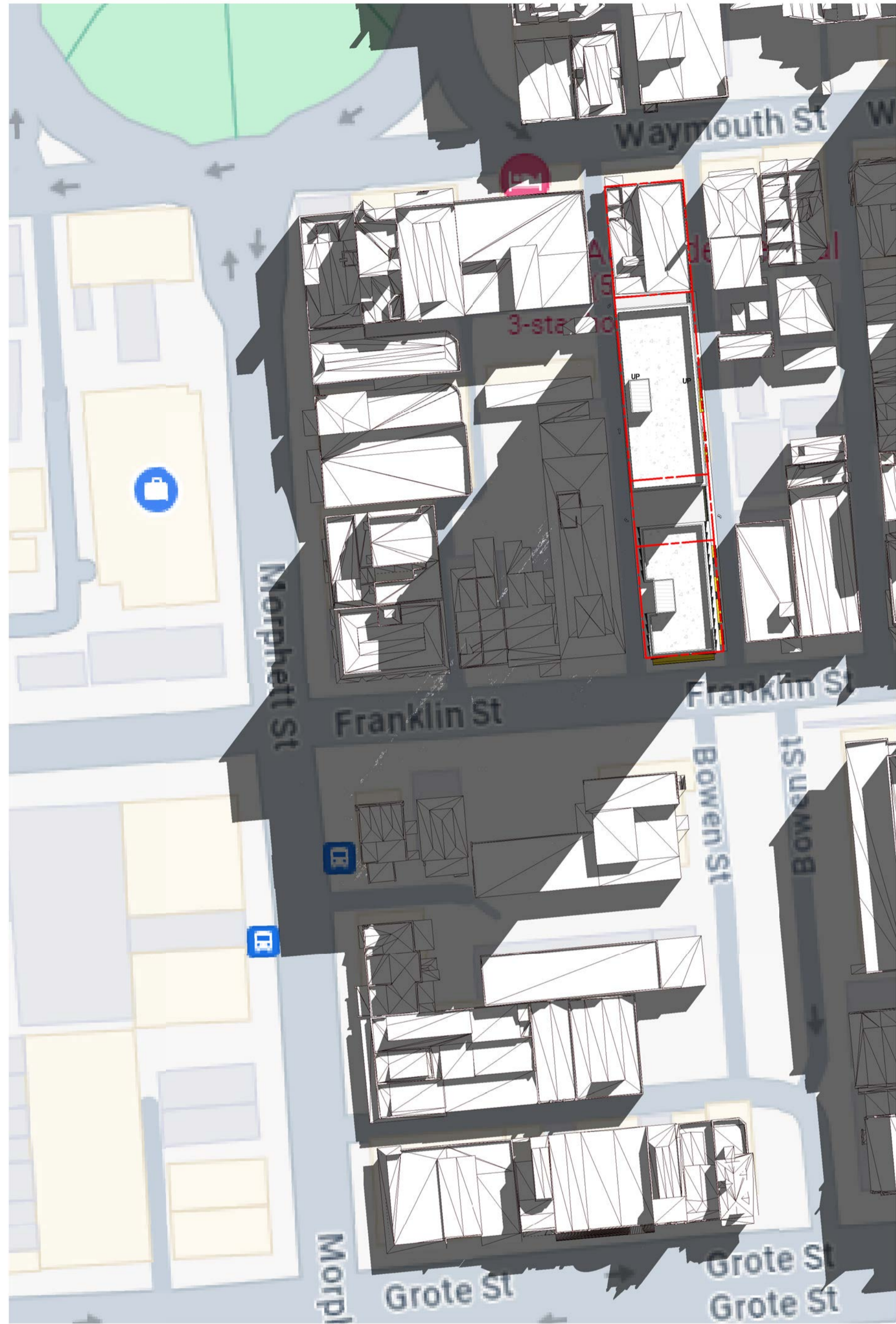


DEC 21 - 1PM

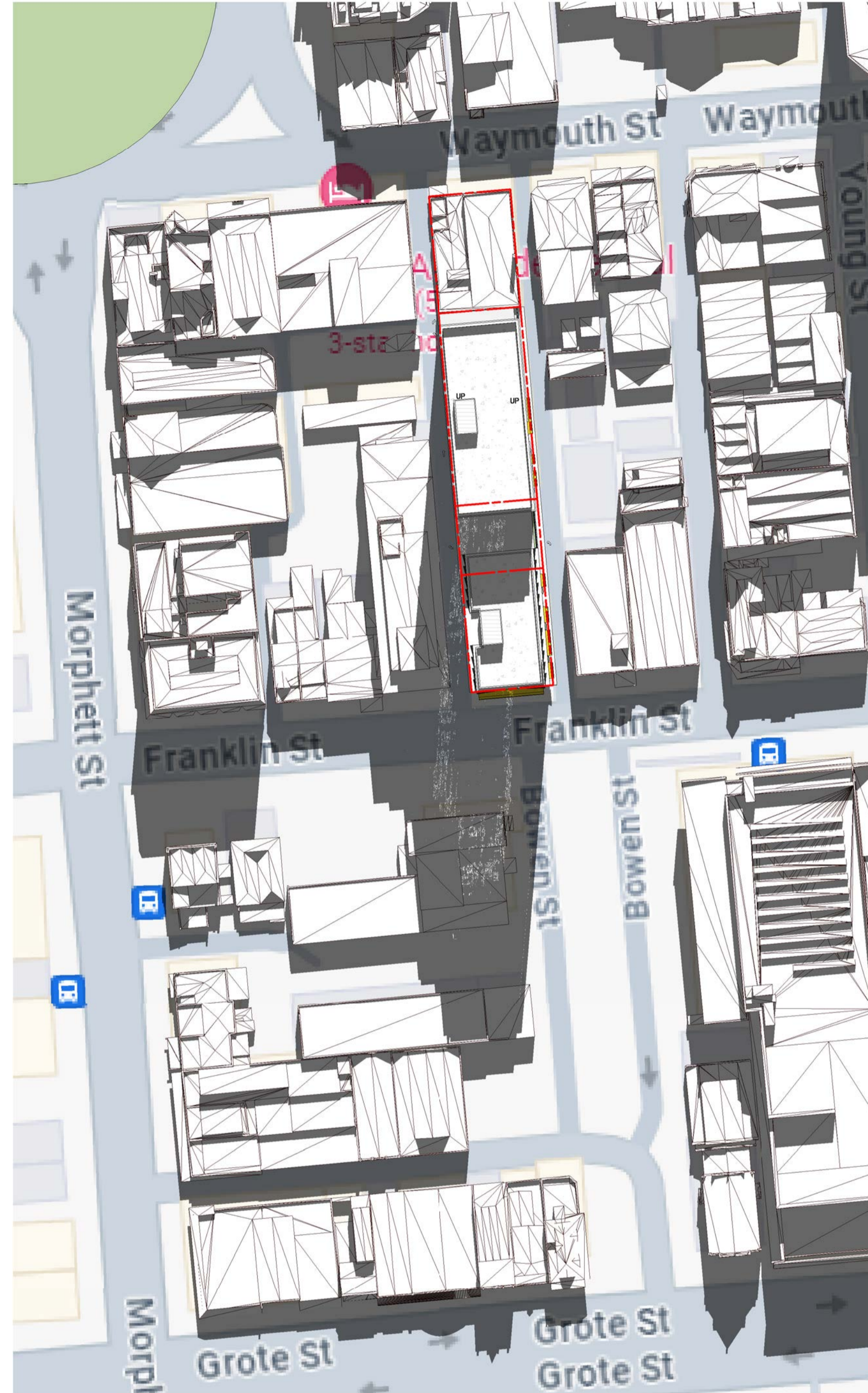


DEC 21 - 2PM

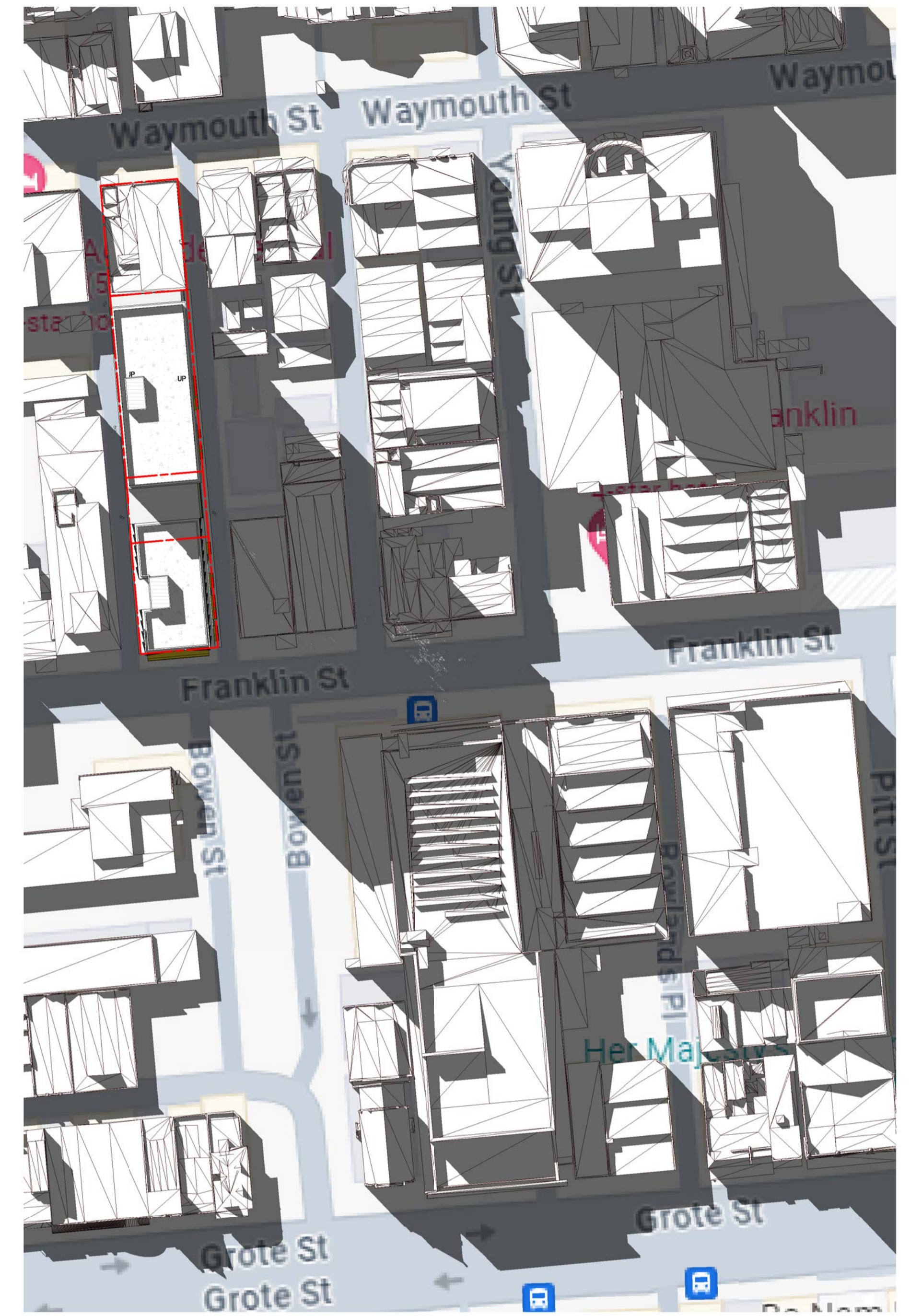




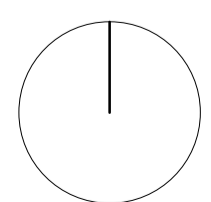
JUN 21 - 9AM

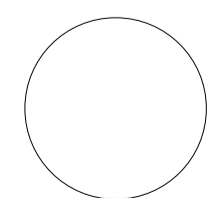


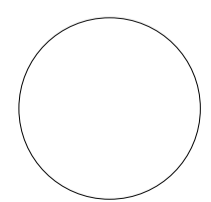
JUN 21 - 12PM



JUN 21 - 3PM







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108 FRANKLIN ST ADL - PROPOSED MIXED USE DEVELOPMENT

drawing

ARTIST IMPRESSION

scale

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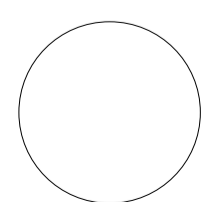
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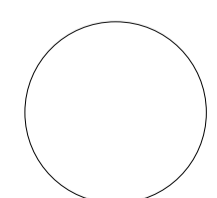
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drawing

ARTIST IMPRESSION

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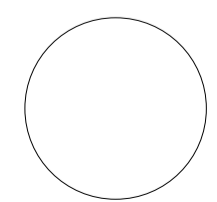
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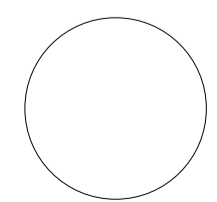
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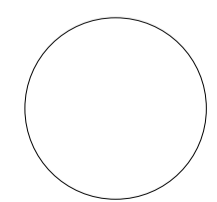
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108 Franklin Street

LANDSCAPE PLAN

oxigen

Oxigen Pty Ltd
98-100 Halifax Street
Adelaide SA 5000

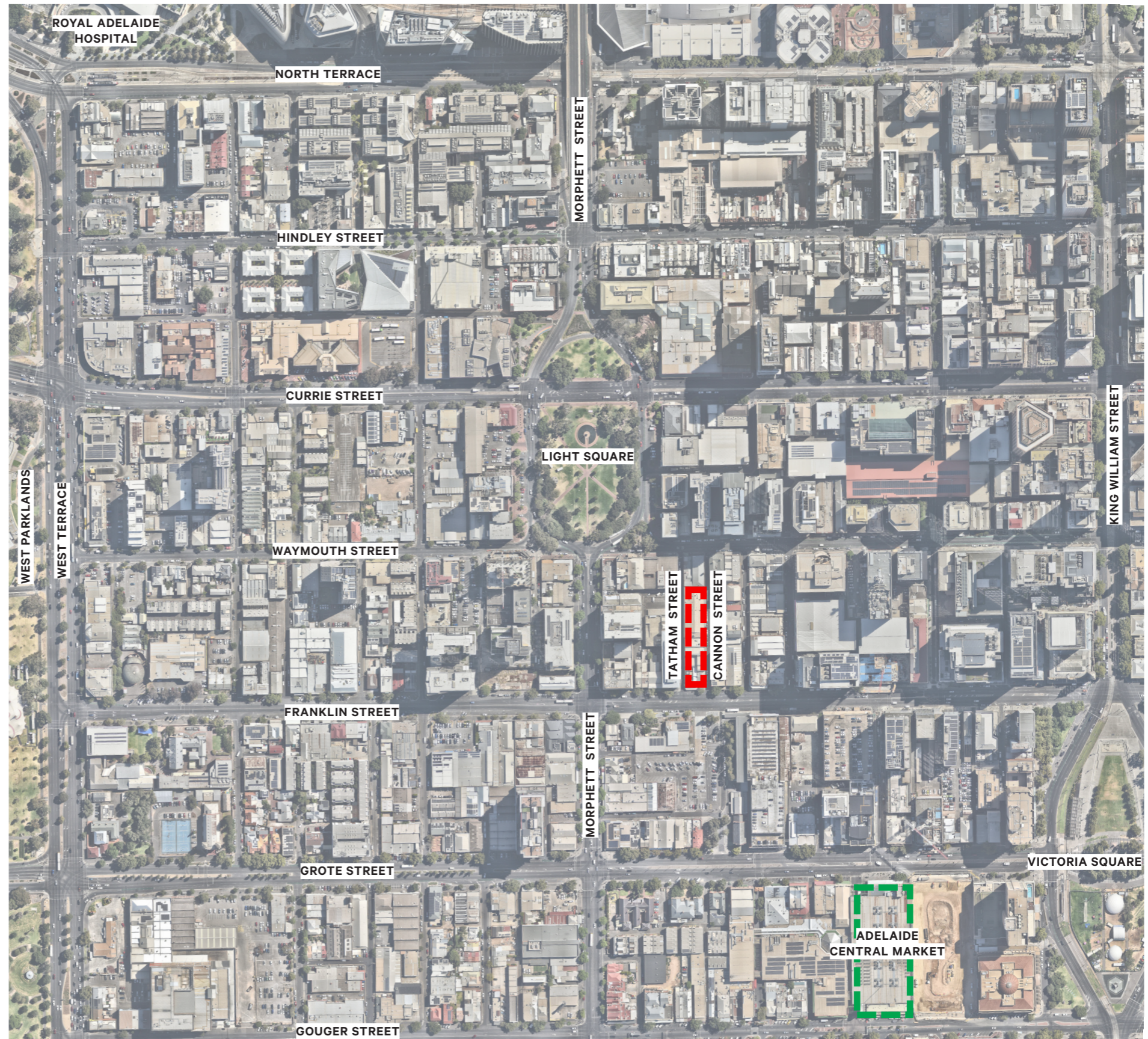
T +61 (08) 7324 9600
design@oxigen.net.au
oxigen.net.au

Existing Site

108 FRANKLIN STREET

- The site of the proposed new building at 108 Franklin Street is set in the north-western quadrant of the Adelaide CBD between Light and Victoria Square in close proximity to the Adelaide Central Market.
- The new building is bound by Franklin Street on the south, Cannon Street to the east and Tatham Street to the west.
- To the north of the site is the existing Federation Trading building.
- The new building is also in close proximity to entertainment precincts on or adjacent to Hindley Street, North Terrace and King William Street.

 108 FRANKLIN STREET SITE



Existing Site Images



Design Intent

INTRODUCTION

108 Franklin Street includes a hotel, residential apartments with commercial opportunities proposed for the ground floor. The new building will maintain an active street frontage to Franklin Street, with further activation on Tatham and Cannon Street through a central undercroft with pedestrian, vehicle and cyclist access.

The Landscape Concept Plan provides guiding principles for the design of external public space at street level, both within the building perimeter and to the adjacent streets.

Landscape design and materiality reflects the location of the building and surrounding precinct with high-quality materials and attractive amenity planting to reinforce the design intent of the building and its use.

APPROACH

Design of the public realm interface on the ground floor is centred around the use of contextual materials that are complementary to the building form and materiality. A wider footpath and generous entry are provided to Cannon Street, enhanced by raised planters and climbing plants to 'soften' the facade and add texture and seasonal colour to the street address.

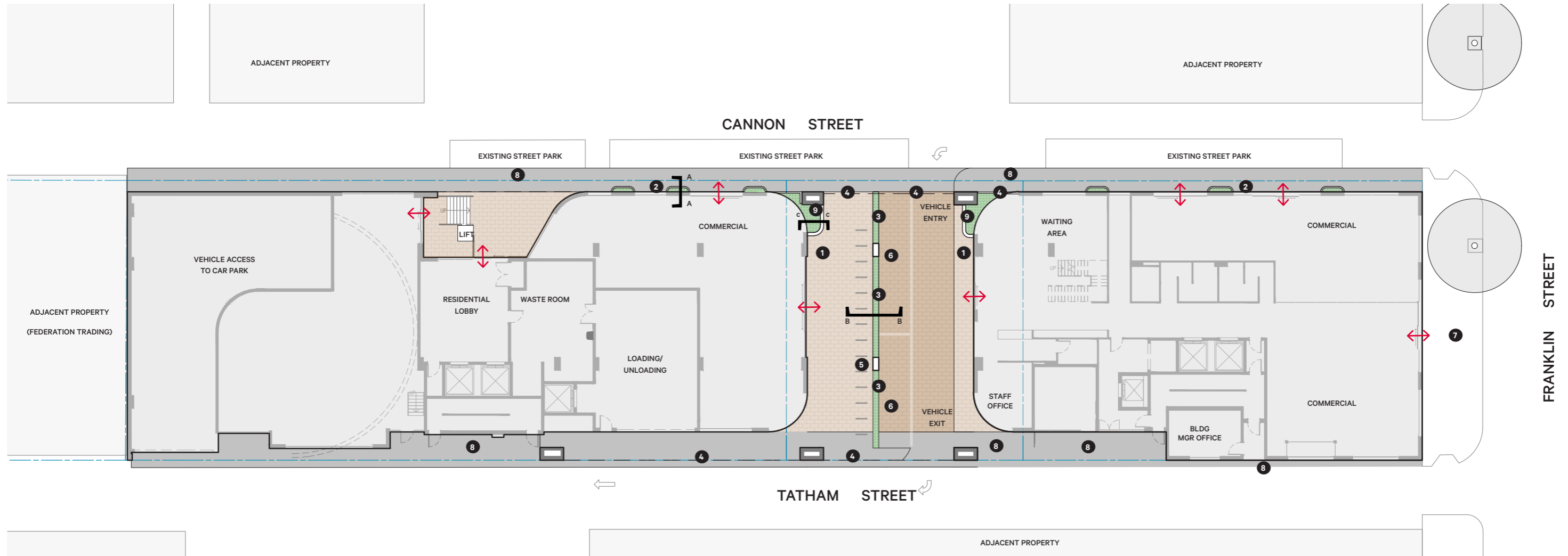
Key design initiatives include:

- Provision of easily accessible, functional and aesthetically pleasing contemporary settings for public and private use.
- Creation of a high-amenity, inter-connected public realm with quality paving materials, planting and landscape elements.
- Use of a robust planting palette that can tolerate and succeed in the various planting applications on the ground and upper level floors.
- Ease of maintenance for each of the planting types and their locations.









Architecture: Cheesman Architects

Landscape Plan - Ground Floor

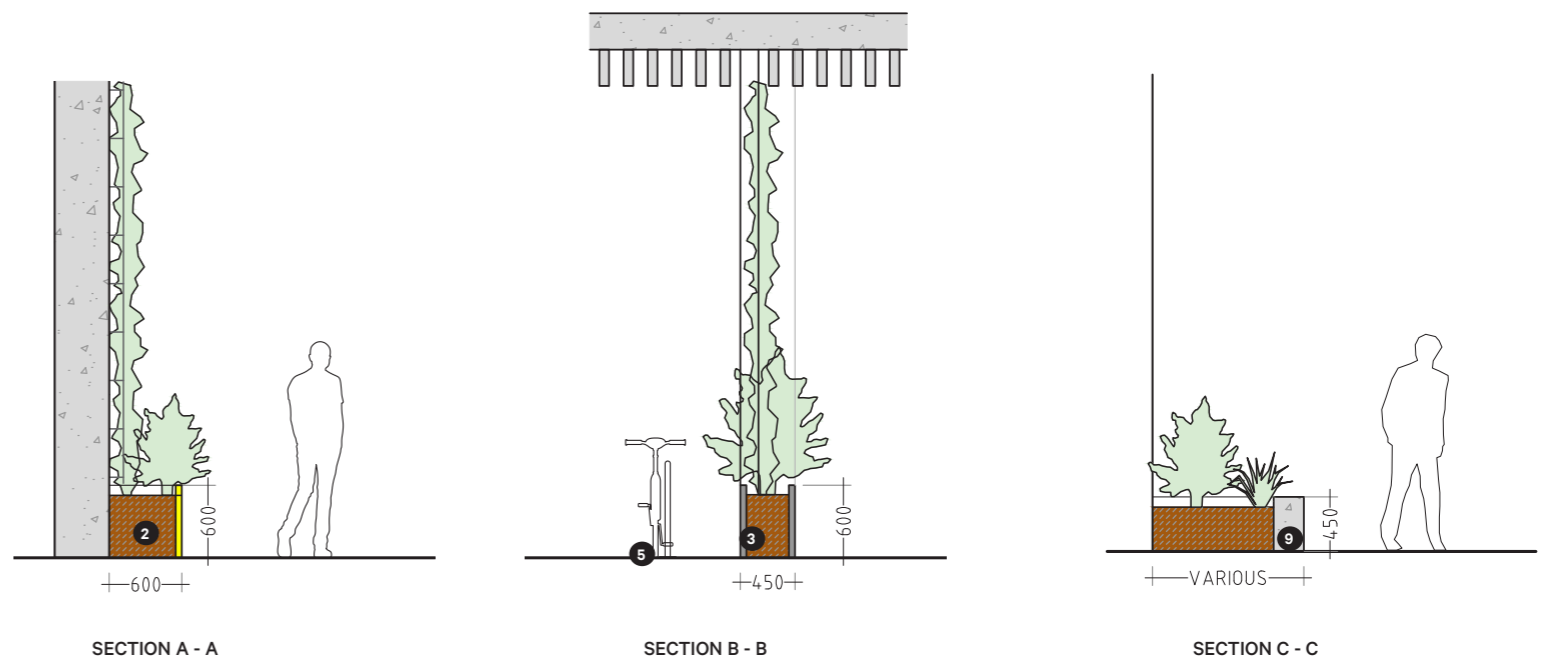


Legend

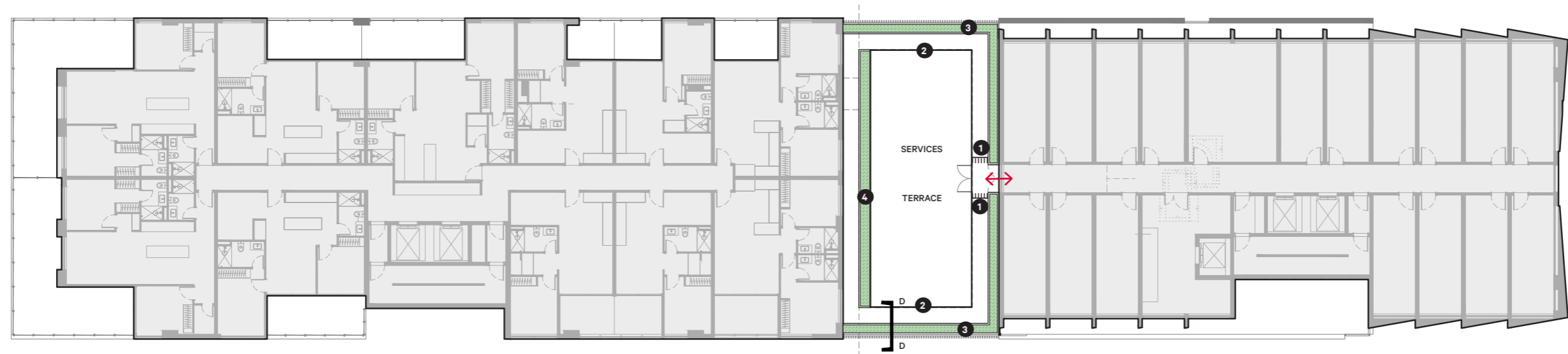
-  Brick paving
-  Bitumen paving
-  Planting areas
-  Existing tree
-  Key pedestrian entry/exit
-  Property boundary

Key Landscape Elements

- 1 — Brick paving with contrast banding
- 2 — Raised aluminium planters (coloured) with mesh climbing frame for plants
- 3 — Raised aluminium planter with centrally located batten climbing frame for plants
- 4 — Canopy (over)
- 5 — Bike rack parking
- 6 — Loading/drop off zone
- 7 — Reinstate footpath to match existing following construction.
- 8 — Bitumen paving
- 9 — Raised GRC planter



Landscape Plan - Level 5

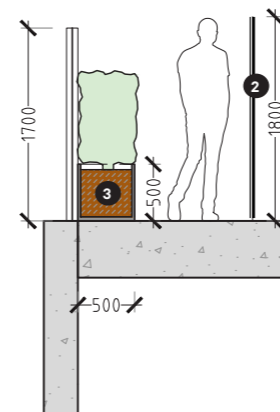


Legend

- Planting areas
- Raised planters
- Key pedestrian entry/exit (indicative)

Key Landscape Elements

- 1 — 1800mm high wind screen
- 2 — 1800mm Acoustic screen
- 3 — Raised 500mm high GRC planter troughs with 1700mm high balustrade
- 4 — Raised 500mm high GRC planter



SECTION D - D

Planting

PLANTING DESIGN

Plant species selected for 108 Franklin Street have proven reliability in urban settings and are able to withstand the site specific microclimates at ground level and on level 5.

The planting design incorporates the following initiatives:

- Plant structure and form to create interest and variety
- Species tolerant of deep shade and semi-indoor environments
- Plants that can adapt to high exposure locations
- Irrigation and drainage to all planting zones

GROUND FLOOR PLANTING

Raised planters at ground level have climbing plants that will establish on metal grid supports fixed to the building face, together with small ornamental shrubs suitable for the shaded environment beneath canopies and the main building overhang.

Within the undercroft the raised planters will utilise hardy plants capable of establishing in an indoor/outdoor environment.

LEVEL 5 PLANTING

The plant species used on the upper level are tolerant of higher winds and exposure in fully irrigated raised planters. A variety of plant types and species are used that includes ornamental shrubs & groundcovers and larger shrubs.

MAINTENANCE OF THE DESIGN

Hard landscape elements such as planters and paving are designed and selected for their amenity, usability and robust, low maintenance characteristics.

The key plant species are selected for their reliability and longevity tailored to each zone. All planting areas will have irrigation systems programmed to provide the appropriate level of water for the different plant types throughout the year.

INDICATIVE SHRUBS + GROUNDCOVERS

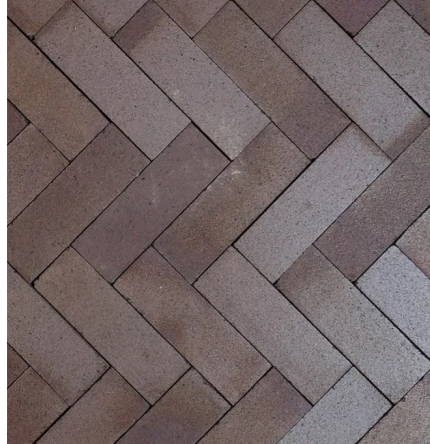
<i>Aeonium arboretum</i> 'Atropurpureum'	Purple Houseleek Tree
<i>Aeonium arboretum</i> 'Green'	Green Houseleek Tree
<i>Agave attenuata</i>	Foxtail Agave
<i>Buxus microphylla</i> var. <i>japonica</i>	Japanese Box
<i>Dichondra</i> 'Silver Falls'	Silver Dichondra
<i>Dracaena</i> 'Janet Craig' (undercroft)	Corn Plant
<i>Liriope</i> 'Just Right'	Lilyturf
<i>Philodendron</i> 'Xanadu'	Xanadu
<i>Raphiolepis</i> 'Snow Maiden'	Indian Hawthorn
<i>Rosmarinus</i> 'Prostratus'	Prostrate Rosemary
<i>Russelia equisetiformis</i> (Red & Yellow)	Firecracker Plant
<i>Sansevieria trifasciata</i> (undercroft)	Snake Plant
<i>Senecio serpens</i>	Blue Chalksticks
<i>Strelitzia nicolai</i>	White Bird of Paradise
<i>Viburnum tinus</i>	Viburnum
<i>Westringia</i> 'Grey Box'	Native Rosemary

INDICATIVE CLIMBERS

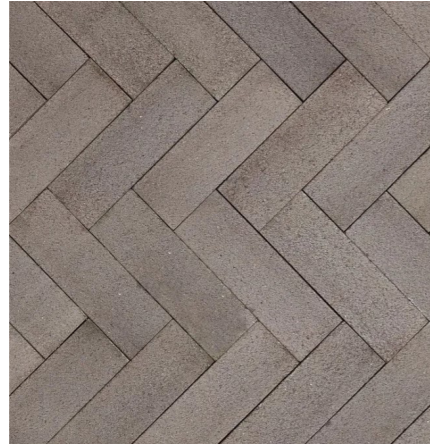
<i>Epipremnum</i> 'Aureum' (undercroft)	Golden Pothos
<i>Hibbertia scandens</i>	Golden Guinea Vine
<i>Trachelospermum jasminoides</i>	Star Jasmine

Materials (indicative)

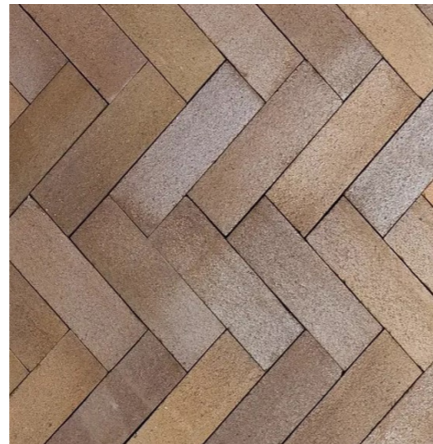
SURFACES



Brick Paving (Ground Floor)
Bowral Bricks ('Bowral Blue')

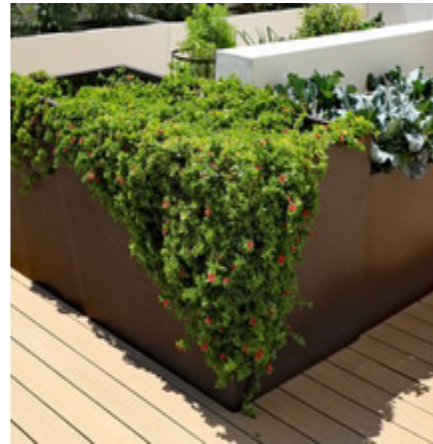


Brick Paving (Ground Floor)
Bowral Bricks ('Ash')



Brick Paving (Ground Floor)
Bowral Bricks ('Sepia')

PLANTERS



Painted aluminium planters



GRC planters with climbing plants

SHRUBS, GROUND LAYER & CLIMBING PLANTS



Aeonium arboretum 'Green'
Green Houseleek Tree



Buxus microphylla var. *japonica*
Japanese Box



Dracaena 'Janet Craig'
Corn Plant



Liriope 'Evergreen Giant'
Lilyturf



Philodendron 'Xanadu'
Xanadu



Raphiolepis 'Snow Maiden'
Indian Hawthorn var.



Russelia equisetiformis
Coral Plant



Sansevieria trifasciata
Snake Plant



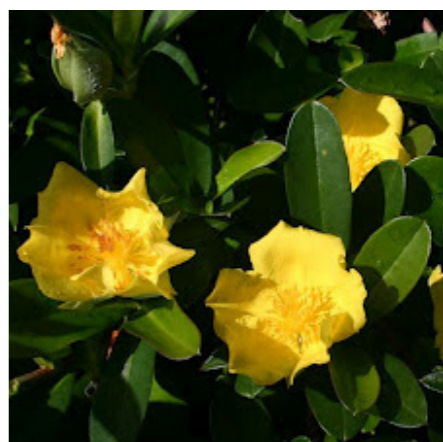
Strelitzia nicolai
White Bird of Paradise



Viburnum tinus
Viburnum



Epipremnum 'Aureum'
Golden Pothos



Hibbertia scandens
Snake Vine

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BESTEC[®]

BRINGING BUILDINGS TO LIFE

108 FRANKLIN STREET, ADELAIDE
MIXED-USE DEVELOPMENT

SUSTAINABILITY REPORT

REPORT ISSUE REGISTER

REVISION	DATE	REVISION DESCRIPTION
01	06.10.23	Issue for Client Comment
02	29.11.23	Preliminary Issue
03	13.12.23	Planning Issue
04	02.08.24	Planning Re-Issue
05	15.10.24	Planning Re-Issue

EXECUTIVE SUMMARY

This report has been prepared by BESTEC at the instruction of AUTA Group. It provides an overview of the sustainability strategy and elements of the design implemented to demonstrate excellence in sustainability. The key performance measures are benchmarked from NABERS Energy, Green Star, Section J compliance, and exploring carbon neutrality for the mixed-use (Hotel & Commercial / Retail) Development, located at 108 Franklin Street, Adelaide.

This report has been prepared to summarise the sustainability commitments made by the principal, by providing tangible, measurable sustainability goals that will add value to the users and the local community. The sustainability strategy is based on providing holistic improvements, through energy performance, potable water consumption, materiality, user experience and environmental emissions.

As part of its commitment to sustainability, the development is pursuing the following:-

- Design to achieve the intent of 4.5 Star NABERS Energy for Hotels with a Commitment Agreement certification.
- Design to achieve the intent of 5 Star Green Star Buildings Rating.
- The design of the project from an ESD perspective and subsequent Greenstar rating will incorporate “self- assessment” and be considered Climate Positive and development of a project specific tool to demonstrate achievement of a 5 Star rating.
- The self-assessment score card will incorporate comparative criteria to the Greenstar tool but be prepared to be project specific in lieu of the generic Greenstar tool assessment criteria.
- The project is not intending to incorporate any fossil fuel energy contribution namely natural gas fired equipment.
- Heating and domestic hot water will be via electric heat pump arrangements which will utilise contributions from the PV solar array at roof level.
- Following Best-Practice Sustainability Initiatives throughout.
- Fossil-fuel reduced design (Retail cooking excluded).
- Water Sensitive Urban Design (WSUD) will incorporate the following initiatives:-
 - Reduce reliance on drinking water to irrigate green spaces.
 - Flood mitigation by intercepting stormwater flows with marginal increased volume of rain water storage tank to control peak run offs.
- The indicative roof plan within Appendix B highlights the extent of photovoltaic solar array at roof level. It is estimated a solar array of 98Kw can be incorporated.
- Incorporation of renewable energy systems and rainwater reuse systems.
- Compliance with Section J exceeded.
- ESD commitment to the “reduction in embodied energy” by reusing the existing structure and materials will be either by reuse of components as applicable or recycling through the deconstruction process rather than dispose to landfill.

This report outlines the works required to achieve the above overall sustainability possible on the development and advise the team on the direction to achieve the above targets. It outlines the commitment made by the Principal for the site.



Figure 1: 3D Image of Proposed Development

INTRODUCTION

Project Description

This report provides a sustainability overview for the construction of the mixed-use development located at 108 Franklin Street, Adelaide. The content of this report is based on the documentation developed by Nic Design Studio and Cheesman Architects and a holistic review of the site and performance.

The development consists of a mixed use commercial/retail and hotel development in Adelaide CBD.

This Development Application (DA) seeks development consent for the following building envelope development parameters:-

- 21-storey building.
- Establishment of retail/commercial premises on the lower ground floor and hotel rooms on upper levels of the building including a gymnasium and a café, lounge and dining area for hotel patrons.
- 4 levels of car parking space, total 114 carparks.

Project Site

The project site is located at 108 Franklin Street, Adelaide, with a total site area of approximately 2,100m².

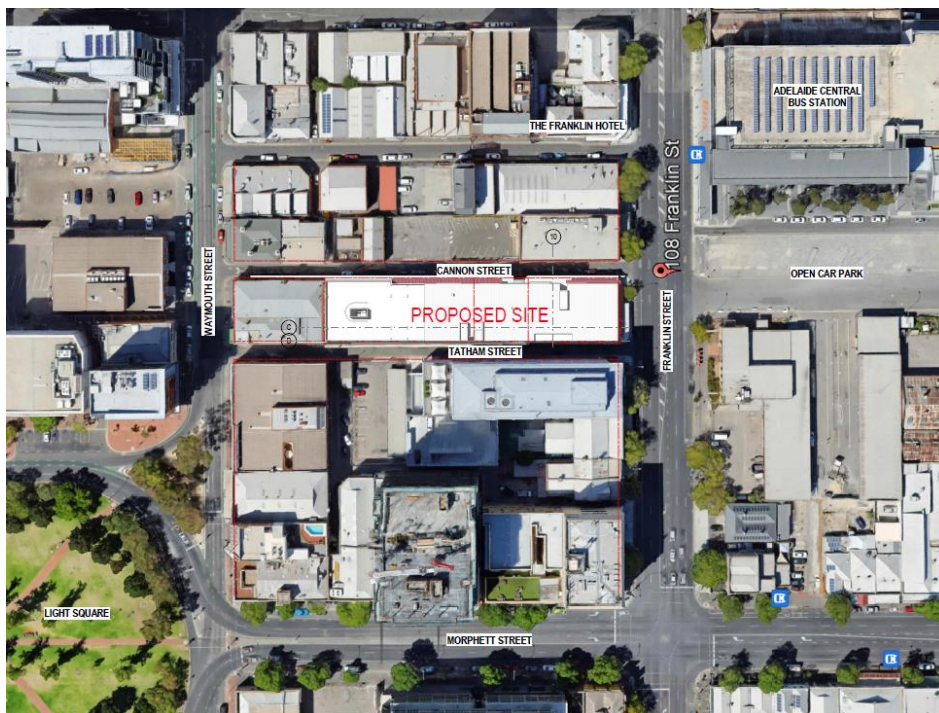


Figure 2: Subject Site in Context, Aerial View

SUSTAINABILITY AT 108 FRANKLIN STREET, ADELAIDE

OVERALL STRATEGY

To demonstrate excellence in sustainability, the development is committed to the following external sustainability guidelines and rating schemes. These include:

- Design to achieve the intent of 4.5 Star NABERS Energy Base Building Commitment Agreement
- Design to achieve the intent of 5 Star Green Star Buildings Rating
- Compliance with NCC/BCA Section J 2022
- Minimise the Embodied Carbon in development
- The design of the project from an ESD perspective and subsequent Greenstar rating will incorporate to be considered Climate Positive “self- assessment” and development of a project specific tool to demonstrate achievement of a 5 Star rating.
- The self-assessment score card will incorporate comparative criteria to the Greenstar tool but be prepared to be project specific in lieu of the generic Greenstar tool assessment criteria.
- The project is not intending to incorporate any fossil fuel energy contribution namely natural gas fired equipment.
- Heating and domestic hot water will be via electric heat pump arrangements which will utilise contributions from the PV solar array at roof level.

Design Concept

Sustainable Design Concept

108-112a Franklin Street Adelaide

BESTEC

The development is seeking to position itself to demonstrate sustainable and regenerative building design through application of effective ESD design principles.

OPTIMISED RENEWABLE ENERGY ROOFTOP PV

RESIDENTIAL APARTMENTS L16-28

HOTEL SUITES L8-15

HOTEL RESTAURANT/BARS & MECHANICAL SERVICES PLANT 17

COMMERCIAL SPACE 116

CARPARKING NATURALLY VENTILATED 126

LOBBY

AIRTIGHT

SA OFF-SITE PV & WIND

REDUCED RELIANCE ON FOSSIL FUELS

100% EV READY

BIOPHILIC DESIGN

PUBLIC & ACTIVE TRANSPORT OPTIONS

MATERIALS CONSERVED LANDFILL AVOIDED

NO LIGHT SPILL

LOW AMBIENT NOISE LEVELS

HEALTHY NO TOXIC MATERIALS BPA, VOC, LEAD FREE

NEIGHBOURHOOD IMPROVED WALKABILITY

RENEWABLE ELECTRICITY SURPLUS AVAILABLE

PHOTOVOLTAIC ARRAY

DESIGN FOR ACTIVITY AND MOVEMENT

DESIGN FOR RESILIENCE

HEAT ISLAND EFFECT MITIGATION

LOW EMBODIED CARBON STRUCTURE AND MATERIALS/SUSTAINABLE TIMBERS

RESPONSIBLE FINISHES WITH LOW EMISSIONS

POTABLE WATER CONSERVATION

BIOPHILIC ELEMENTS

HIGH PERFORMANCE FACADES WITH OPTIMISED WINDOW TO WALL RATIO AND SHADING DEVICES

ENERGY EFFICIENT HVAC EQUIPMENT AND DESIGN INCLUDING LOW GLOBAL WARMING POTENTIAL REFRIGERANTS

EPA PRINCIPALS

The 108 Franklin Street, Adelaide development will follow the golden standard in sustainability principals throughout the development. Overarching ESD principles include:

The Precautionary Principle:

Philosophy: Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

Project Response: The project is committed to incorporating careful selection into the project design. The design team will address key elements such as energy, potable water and material consumption to do what is within the project's control to allow each following generation to have an opportunity for ecological equality.

The Principle of Inter-generational Equity:

Philosophy: The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

Project Response: The project is committed to incorporating careful selection into the project design. The design team will address key elements such as energy, potable water and material consumption to do what is within the project's control to allow each following generation to have an opportunity for ecological equality.

The Principle of the conservation of biological diversity and ecological integrity:

Philosophy: Conservation of biological diversity and ecological integrity should be a fundamental consideration

Project Response: The project is committed to planting native vegetation, improving stormwater runoff from the site, and using integrated landscaping. Rainwater will be collected and used for irrigation, and low-impact refrigerants and insulants with zero ODP will be used throughout.

Principles relating to improved valuation, pricing and incentive mechanisms:

Philosophy: Environmental factors should be included in the valuation of assets and services. The users of goods and services should pay prices based on the full life cycle costs of providing goods and service.

Project Response: The project has committed to achieving a construction waste diversion target of 90%+, as well as developed specific project waste management strategies. These combine to ensure the project pays for the waste and damage it creates. Further, it is designed to be low-energy and low-water consumption, which provides an incentive for residents through lower utility bills.

The Principle of Waste Minimisation

Philosophy: All reasonable and practicable measures should be taken to minimise the generation of waste and its discharge into the environment.

Project Response: The project has committed to achieving a construction waste diversion target of 90%+, as well as developed specific project waste management strategies. Construction materials are chosen to be low impact in their manufacture, including best practice PVC and FSC/PeFC timber throughout. This impacts waste both created by the site, as well as upstream and downstream waste categories.

The above are addressed by 5 key Themes, being *Sea, Land, Water, Air and People*. These 5 key themes are centered around reducing harm as far as practicable across the practice of buildings and infrastructure, both in their construction and operation.

RESOURCES

The only path to a low carbon economy and achieving a “2°C world” where the average global temperature is kept to less than 2°C above pre-industrial levels is through comprehensive and complete consideration of how the development consumes resources. As part of this, the project has elected to measure the consumption, so it can track and improve upon the performance. The strategy focusses on energy, water and materiality to ensure resource use is appropriate.

ENERGY CONSUMPTION

The energy efficiency strategy generally follows the energy efficiency pyramid of design in Figure 4. In the first instance, demand for Greenhouse gasses should be reduced. Consideration should be to remove the need for energy to be consumed where possible. Beyond this, energy can be more efficient, through efficient lighting, mechanical systems, and appropriate services.

Once the system has reduced all available energy-consuming elements and made the remaining systems as efficient as possible, renewable energy sources will be considered. If space allows on the roof, PV will be installed. Only once all of the above major steps have been completed should offsets be used to close the gap and achieve neutrality.

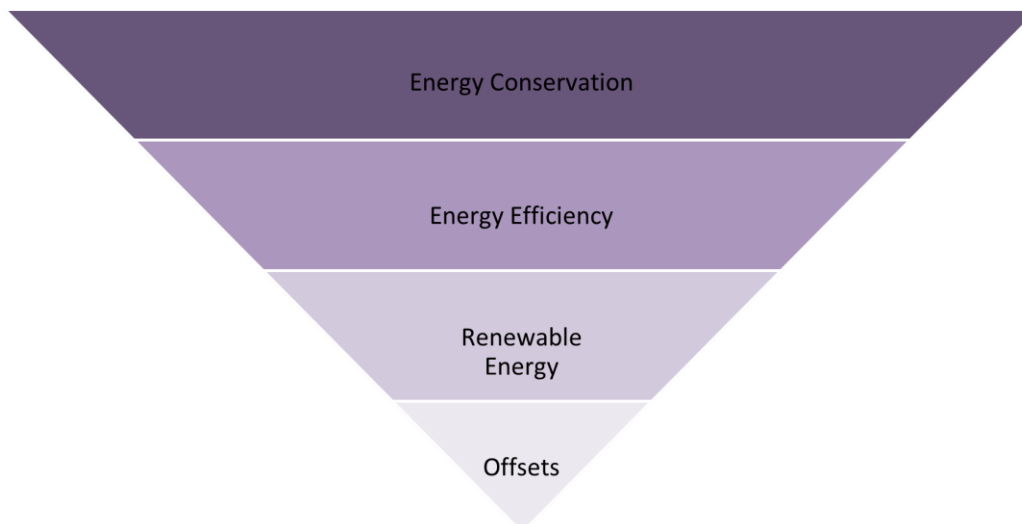


Figure 4: Hierarchy of Design - Energy Efficiency

To achieve the above on the 108 Franklin Street development, the following initiatives are being incorporated:

- **High Performance Façade** - The façade performance will be improved to a Double-Glazed low-e system, incorporating external, external shading. This system is designed to reduce heating and cooling loads and exceeds NCC 2022 Section J requirements for building fabric. It will also deliver greater comfort in the space to users, reduce energy consumption and improve indoor quality.
- **System Performance** - The entire servicing strategy will be upgraded to provide new efficient plant to deliver HVAC to the space. This includes full LED lighting, high-efficiency mechanical central plant and BMCS controls to optimise usage. These systems are designed to a 4.5 Star NABERS Energy performance in operation and 5 Star Green star rating.
- **Metering and Monitoring** – separating commercial areas from retail and tenancy areas, including café, warehouse, corridor spaces, external spaces and car park areas.
- **Efficient Mechanical systems** with a full set of controls, designed to run through operational hours and not after hours. Control of airflow and restriction of simultaneous heating/cooling.
- The indicative roof plan within Appendix B highlights the extent of photovoltaic solar array at roof level. It is estimated a solar array of 98Kw can be incorporated.

- **Water Efficient Fixtures and Fittings** - Low-flow showers and taps, which will reduce the hot water demand across the development associated with showering, sinks and hand basins.
- **Efficient Lighting Systems** – High efficiency LED and fluorescent lighting in Base Building areas with an average power density well below the NCC requirements. Low energy lighting system to all spaces.

Car Park Ventilation - Car park ventilation is via natural ventilation.

Embodied Energy- Targeting low embodied energy materials with preference for sourcing from local suppliers

WATER CONSUMPTION

To achieve responsible water consumption, best practice water-saving initiatives will need to be implemented throughout the project.

- **Rainwater Collection and Reuse** - A rainwater tank on the site is perfect to serve landscape irrigation. The final size of the rainwater tank is subject to design development.
- **Sanitary Fixtures** - By implementing low-flow water fixtures, the consumption associated with the bathrooms will be significantly reduced. All sanitary fixtures are to be provided to the WELS ratings identified below:
 - All showers: 4 Star WELS
 - Urinals: 6 Star WELS
 - All taps: 5 Star WELS
- **Landscape Irrigation-** Landscape irrigation supply to be sourced from the on-site rainwater system resulting in low potable water demand. Efficient irrigation systems will be considered, including underground surface drip systems, moisture sensors, and the use of native plants in the landscaping plan. Natives have evolved to thrive in the Australian environment and are typically more resilient than their exotic counterparts.
- **Water Sensitive Urban Design (WSUD)** - will incorporate the following initiatives:-
 - Reduce reliance on drinking water to irrigate green spaces.
 - Flood mitigation by intercepting stormwater flows with marginal increased volume of rain water storage tank to control peak run offs.

MATERIALS

In line with the principals of sustainability outlined in the EPA, the project will have a significant focus on Materiality. The scope of consideration includes the following action items within the project response:

- **Construction Waste** – The project is committed to achieving a minimum 90% diversion from landfill target during demolition and construction. This diverts and ensure reuse or recycling of a high portion of site waste.
- **Low VOC and Low Formaldehyde Materials** – Ensuring paints, adhesives, sealants, floor coverings, carpets and engineered wood are selected appropriately to meet the intent of Green Star standards provides a healthier and low-impact environment. Such efforts provide a cleaner and better environment for all
- **Best-Practice PVC** – all cables, pipes, flooring and blinds will be selected and specified to be Best Practice PVC. This ensures upstream performance will be met and has significant benefit for the overall environment during the construction process.
- **Best Practice Steel** – Where possible, steel will come from a sustainable steel manufacturer, who has an action plan

- **FSC/PeFC Timber throughout** – all timber, including virgin and engineered timber through construction and fitout elements under the builder's control will endeavour to be specified as FSC/PeFC. This ensures the timber provided to site is of the highest standard and sourced from sustainable sources.
- **Waste Management Plan** – Development of an ongoing Waste Management Plan so waste can be sorted, separated and recycled. This will assist ongoing diversion from landfill for the development.
- ESD commitment to the “reduction in embodied energy” by reusing the existing structure and materials will be either by reuse of components as applicable or recycling through the deconstruction process rather than dispose to landfill.
- Reduction in embodied energy.

COMFORT AND QUALITY

To ensure the best quality for users and visitors inside the space, the following key initiatives will be committed to by the Principal:

- **Visual Comfort** – Maximising high-quality light into the living spaces, with views to the sky and nature where possible. The western elevation has sweeping uninterrupted views as there is no high-rise on the West of the Pacific Highway.
- **Acoustic Excellence** – Designing the layouts of the apartments to be protected from noise from both the Pacific Highway and the train line. Delicate material selection, acoustic attenuation and designing the shape of the building and openings accordingly achieves the performance. Further, separation of spaces ensures acoustic privacy between dwellings.
- **Thermal Comfort** – Appropriate mix of vernacular design, overhangs, high-performance windows and mechanical systems to deliver the users optimised thermal.
- **Lighting Comfort** – Use of high colour rendering index (CRI > 80) LED lighting throughout the entire development. Low-glare lighting with baffles or louvres to limit UGR.
- **Generous natural planting** – Greenery through natural planting throughout the development assists in a connection to nature for users and passers by. It also has a cooling effect, reducing the Urban Heat Island Burden on the project.

MANAGEMENT AND SOCIETY

To provide a socially responsible development that provides the maximum benefit to both the users and the local area, the following response has been completed:

- **Head Contractor to follow strict sustainability protocols** – As a minimum contract requirement, the head contractor will be required to meet ISO14001 and have a project-specific EMP and EMS in place. This will be maintained throughout the job to ensure the lowest impact to the Environment is achieved and highest quality for the community and workers.
- **High Quality Stormwater Runoff** – The design will be such to ensure the peak stormwater runoff is below the pre-development peak. This water will be treated to ensure low levels of Nitrogen, Phosphorus, Gross Pollutants and Total Dissolved Solids enter the wastewater system.
- **Zero ODP and Low GWP Refrigerants** – ensuring emissions around the building are reduced and the environment is responsibly cared for.
- **Low Levels of Light Pollution** – All external lights are pointed downwards, or designed to strike a hard surface (i.e. awning or wall). This limits light spill into the night sky, assisting with bird migratory patterns and wasted energy.
- **Natural Planting** – Use of a significant amount of natural planting around the site. This assists with aesthetic, reduces urban heat island and improves the ecology of the site.

- **Green Cleaning** – Development of cleaning protocols for inside and outside the building that limit the damage to the environment. This includes pesticides, liquids and cleaners.

BUILDING MANAGEMENT

In order to create an integrated design and construction process which in turn leads to effective operational and on-going building performance, the development will target to address this category through the following on- site initiatives.

- **Building commissioning & tuning procedures:** Implementing a detailed commissioning and building tuning process to maximise operational efficiency & building operation.
- **Smart metering & monitoring** separating hotel areas from residential and retail areas. Detailed EMS systems will allow adequate tracing of operational performance. Metering will be designed with an aim to meet metering guidelines under the weights and measurement legislation, as outlined under the current National Measurement Regulations. A detailed monitoring system will be targeted with an intention to help with the early identification of excessive energy users.
- Ongoing analytics will continue to optimise the building's performance towards the building's 4.5 Star NABERS energy rating.
- Load management considered to reduce peak load on the grid and optimise cooling/heating equipment efficiency.

The above combine to ensure the development as a whole is responsible, efficient, beautiful and in the best interest of not just the owners, but the residents, the community and society as a whole.

MATERIAL WASTE

Construction Waste

Construction and demolition waste are becoming much easier to recycle as the traditional landfill evolves into waste recovery centres, which are able to recycle the majority of all construction and demolition waste. The development will achieve a minimum of 90% recycling for the construction and demolition waste produced. Construction waste will be managed through contractual requirements outlining the target recycling rate.

Operational Waste

Operational waste which involves the waste produced in the day-to-day operations can also be minimised through effective sorting methods. The two bins likely to receive the most use will be the garbage and paper recycling. The major waste streams are likely to arise from printing documents, and food preparation in office kitchens and café. It is important to provide accessible bins in many areas and locate the types of bins in the areas where the particular waste stream is likely to arise. A waste management plan will be developed to appropriately size and allocate resources for recycling and general waste. General waste comingled and at least one other waste stream will be collected.

Materiality

The production of building materials can have serious impacts on the environment and occupants. Energy is used to extract, produce, and transport materials; natural resources are exploited, and pollution is created in their production. By maintaining as much of the existing building structure as possible, the development will be able to reduce the impact of new materials on the environment. Where possible, recycled materials will be used. Furthermore, dangerous materials can present health risks to occupants. The development will select responsible finishes with low emissions and incorporate onsite testing to verify indoor environment quality.

The production of building materials can have serious impacts on the environment. Energy is used to extract, produce and transport materials; natural resources are exploited, and pollution created in their production. Further, dangerous materials can present health risks to occupants. The material impact is reduced by limiting the quantities of virgin building materials and choosing the least harmful when using materials. This report encourages strategies to minimise resource intensive materials.

The following principles are being considered for material selection on the site:-

- Portland cement reduction in concrete mixes by using industrial waste product such as fly ash.
- Use of reclaimed water in cement mixes.
- Use of manufactured sand in cement mixes.
- Selection of responsible steel products sourced from accredited steel makers and fabricators.
- Selection of FSC or AFS certified timbers.
- Selection of Best Practice Certified PVC products.
- Specification of sustainable products where appropriate, such as those containing recycled content, third- party environmentally certified products, and those with product stewardship agreements in place.
- Local procurement to support the local economy and reduce transport emissions

ACTIVE TRANSPORT

The adoption of sustainable transport methods are encouraged by building designs which provide appropriate facilities for occupants and visitors. Site proximity to major transport infrastructure also lends itself to building occupants adopting and utilising sustainable methods of transport.

High Quality End Of Trip (Eotf) Facilities - Using transport assessment to allow for efficient provision of EOT facilities for permanent staff, inclusive of lockers, showers and changing facilities.

Bicycle Parking - Secure bicycle spaces to be provided inside the development for use by staff and residents.

Electric Vehicle Infrastructure - Provision of Electric Vehicle (EV) charging points will be targeted, and additional electrical infrastructure to aim for the provision of EV charging points for future uptake wherever possible.

NABERS ENERGY

NABERS RATING OVERVIEW

NABERS is a rating system that allows sustainability measurement across building sectors such as offices, shopping centres, hotels, apartments, and data centres. A building is awarded a rating from one to six stars for buildings efficiency allowing the building to be benchmarked against similar buildings. The project is targeting a 4.5 Star NABERS Energy for rating.



NABERS STAR RATING GUIDE

★ ★ ★ ★ ★	MAKING A START
★ ★ ★ ★ ★	OPPORTUNITIES FOR UPGRADES
★ ★ ★ ★ ★	MARKET STANDARD
★ ★ ★ ★ ★	HIGH PERFORMANCE
★ ★ ★ ★ ★	SUPERIOR PERFORMANCE
★ ★ ★ ★ ★	MARKET LEADER

Figure 7: NABERS rating overview

NABERS ENERGY COMPLIANCE REQUIREMENTS

The 4.5 Star NABERS Energy rating will be achieved through excellent design, façade performance and mechanical system performance. The following strategies are proposed to be captured in design. It is noted NABERS is in the process of updating its Greenhouse Gas intensities to reflect changes in grid electricity GHG intensity. As the grid becomes less carbon-intensive, developments will be further rewarded for moving towards a predominately all electric design. It is proposed this development have no gas load in the NABERS scope of works.

Table 2 is provided below, containing design elements proposed to assist in achieving the 4.5 Star NABERS Energy outcome.

Table 2: Design elements to achieve NABERS Energy rating

ELEMENT	DESIGN RESPONSE
Architecture	<ul style="list-style-type: none"> ▪ Geometry designed to reduce façade to floor area ratio, through simple geometric shapes, removal of recesses, contiguous floor plates, etc. ▪ Responsible façade system design with core on the East façade to limit loads. ▪ Clear delineation between different building class ▪ Proper sealing to reduce bulk airflow. ▪ Light-coloured roofing to reflect solar heat gains.
Façade	<ul style="list-style-type: none"> ▪ High performance DGU Façade, with neutral, low-e tint. ▪ Introduction of thermal breaks where possible to improve performance. ▪ Consideration of external shades
Mechanical	<ul style="list-style-type: none"> ▪ Hi efficiency Air-cooled Heat Recovery Variable Refrigerant Volume systems. ▪ Localised individual fan coil units for perimeter and centre air-conditioning zoning. ▪ No gas. (retail cooking is outside of the NABERS Scope)
Electrical	<ul style="list-style-type: none"> ▪ High efficiency LED lighting throughout. ▪ PFC of > 0.98. ▪ Limited background lighting to common areas, with strong emphasis on controls. ▪ All spaces to turn off lights by sensor (or maximum to 5% design) when space is unoccupied (fire stair, bathrooms, end of trip, etc.). ▪ Maximum 15 min timer from PIR sensor for all non-occupied spaces. ▪ Outdoor lighting on timer. ▪ Exploration of on-site photovoltaic array where roof access and availability allow. ▪ PV array.
Hydraulic	<ul style="list-style-type: none"> ▪ Centralised Heating through Air-Source Heat Pumps with Minimum COP > 3.8 ▪ Low-flow fixtures to reduce potable/DHW loads and circulation. ▪ Quality insulation on ring main to reduce standing losses. ▪ Consideration of setback of DHW temperature overnight/weekends to reduce standing losses. (Standing losses can contribute up to 70% the total DHW demand). ▪ Clear separation of hot water to tenancies as part of tenant load only.
Vertical Transport	<ul style="list-style-type: none"> ▪ High-efficiency lifts throughout. ▪ Ability to turn off all lifts except one after-hours to reduce energy consumption. ▪ Standby power mode to reduce power consumption.

Metering & Operation	<ul style="list-style-type: none"> ▪ Metering designed to meet metering guidelines under the weights and measurement legislation, as outlined under the current National Measurement Regulations. A detailed monitoring system will be installed to help with early identification of excessive energy users.
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The combination of the above design elements, in connection with the architectural design, allows the development to deliver an efficient, comfortable building while demonstrating responsible construction.

NABERS WATER COMPLIANCE REQUIREMENTS

The development is not pursuing a NABERS Water rating. However, several considerations have been made to improve the development's impact on the water usage. According to the predicted water use in the space, minimum 3.5 Star NABERS water rating should be readily achievable under the current design.

Following elements should be incorporated in all designs to reduce water consumption and follow best practice sustainability initiatives:

- All showers to be 4 Star WELS (6L/min flow or lower)
- Waterless urinals or to be maximum 0.8L/flush (6 Star WELS)
- All taps to be 6 star (4L/min or lower) WELS rated
- Water tank with collection from roof serving landscape irrigation and washdown
- Fire system test water collected with a 90% reduction
- Specific metering strategy developed to exclude retail/uses.
- Waterless heat rejection based on building scale and freezing issues.
- Reduced mechanical loads through natural ventilation strategy and high-performance façade

QUALITY OF AMENITY

The development's commitment to sustainability goes beyond embodied carbon, energy, and water. Multiple additional elements are considered to ensure the project's materiality improves the quality of the space for users and the environment at large.

The following additional measures are being undertaken to support sustainability at large in the development.

- Ambient noise levels will be designed to be in line with AS 2107:2016, ensuring a high-quality distraction-free workplace.
- The reverberation time will be designed to and achieve in post-construction commissioning a time less than that stated in AS2107:2000. This is 0.6-0.8s for the office spaces.
- High quality levels of daylight will penetrate the space, with excellent views out glazing that does not have colour distortion.
- To ensure material excellence, the following measures will be implemented:
 - Volatile Organic Compounds – all paints, adhesives, carpets, and flooring will be low VOC;
 - All engineered wood products are to be low Formaldehyde, conforming to a "E0" or "E1" level;
 - PVC will be from best-practice suppliers; and
 - Timber will be FSC or PeFC certified.
- Blinds installed to all façades for occupant comfort and control by tenants.

The above is to ensure an excellent working experience for the tenants of the building, ensuring a high-quality attractive workplace.

SECTION J COMPLIANCE AND EXCEEDENCE

REQUIREMENT OVERVIEW

All new developments in Australia, including the 108 Franklin Street development, are required to comply with the minimum energy performance requirements set out in the National Construction Code. This code places strict environmental performance requirements on the building envelope and services within the building.

The relevant component is known as “Section J” which addresses energy efficiency. Specifically, the building fabric (including solid elements, walls, windows, roof and exposed floor) is dictated by the performance requirements outlined in Part J4.

FAÇADE PERFORMANCE REQUIREMENTS

No modelling has been completed yet on the development but based on a high-level review of the façade systems, the performances are expected to exceed Section J in the façade. These requirements are based on the proposed system detailed in the design brief and is subject to change. Glazed operable doors to balconies will have local relaxations as required.

RESIDENTIAL

The rating system will be the NaThers Scheme with the following performance:-

- Average Energy Performance to exceed 7 stars.
- Minimum Energy Performance 6 stars.

SUMMARY

This report summarises the sustainability targets and commitments for the new proposed development at 108 Franklin Street, Adelaide. The requirements for sustainability have been coordinated with the design team to allow the development to achieve a high level of sustainable practice across the entire development.

As part of its commitment to sustainability, the development has committed to the following:-

- Design to achieve the intent of 4.5 Star NABERS Energy for Hotels with a Commitment Agreement certification.
- Design to achieve the intent of 5 Star Green Star Buildings v1 Rating.
- Following Best-Practice Sustainability Initiatives throughout.
- Reduction in embodied energy by reusing the existing structure.
- Fossil-fuel reduced design (Retail cooking excluded).
- Incorporation of renewable energy systems and rainwater reuse systems.
- Compliance with Section J.

We trust this report provides a detailed overview of the project's commitment to sustainability development.

APPENDIX A ESD PATHWAY & STRATEGIES TO BE INTRODUCED

108 FRANKLIN STREET – SUSTAINABILITY REPORT

Initiative	Environmental Benefit	Operating Cost Benefit	Spatial Impact on NLA	Cost Premium % above base options	Life Cycle Cost / Payback Period Years
Passive					
<ul style="list-style-type: none"> Increased Roof Insulation above BCA/ Part J 	<ul style="list-style-type: none"> GHG reduction Energy reduction Acoustics improvement 	<ul style="list-style-type: none"> Reduced Mechanical Services operating cost 	NIL	+3	1-3
<ul style="list-style-type: none"> Increased Wall Insulation above BCA/ Part J 	<ul style="list-style-type: none"> GHG reduction Energy reduction Acoustics improvement 	<ul style="list-style-type: none"> Reduced Mechanical Services operating cost 	NIL	+3	1-3
<ul style="list-style-type: none"> Increased Floor Insulation above BCA/ Part J 	<ul style="list-style-type: none"> GHG reduction Energy reduction Acoustics improvement 	<ul style="list-style-type: none"> Reduced Mechanical Services operating cost 	NIL	+3	1-3
<ul style="list-style-type: none"> Glass Shading – Screens Add Blinds 	<ul style="list-style-type: none"> GHG reduction Energy reduction Glare Control Enhanced indoor environment quality 	<ul style="list-style-type: none"> Reduced Mechanical Services operating cost 	NIL	+20	3-5

Initiative	Environmental Benefit	Operating Cost Benefit	Spatial Impact on NLA	Cost Premium % above base options	Life Cycle Cost / Payback Period Years
<ul style="list-style-type: none"> Solar Performance Glass with Double Glazing 	<ul style="list-style-type: none"> Thermal comfort GHG reduction Energy reduction Glare control Enhanced indoor environment quality Acoustics improvement 	<ul style="list-style-type: none"> Reduced Mechanical Services operating cost 	NIL	0	3-5
<ul style="list-style-type: none"> Operable window 	<ul style="list-style-type: none"> Fresh air Natural ventilation 	<ul style="list-style-type: none"> Reduced Mechanical Services operating cost 	NIL	0	0
<ul style="list-style-type: none"> Sustainable Fitout Guide for Apartments 	<ul style="list-style-type: none"> GHG reduction Energy reduction Enhanced indoor environment quality 	N/A	NIL	N/A	-
<ul style="list-style-type: none"> Bicycle Storage (Mixed Use) 	<ul style="list-style-type: none"> GHG reduction 	-	Bike Park>Showers	TBC	-
<ul style="list-style-type: none"> Bus Stops/Public Transportation 	<ul style="list-style-type: none"> GHG reduction 	-	NIL	-	-

Initiative	Environmental Benefit	Operating Cost Benefit	Spatial Impact on NLA	Cost Premium % above base options	Life Cycle Cost / Payback Period Years
<ul style="list-style-type: none"> Natural Ventilation to Carparks 	<ul style="list-style-type: none"> Reduced Mechanical Services Capital Cost Reduced Operating Cost Thermal Comfort 	<ul style="list-style-type: none"> Reduced Operating cost 	Louvre high and low level	0	-
<ul style="list-style-type: none"> Low Carbon/VOC Materials 	<ul style="list-style-type: none"> GHG reduction 	-	NIL	+3%	-
Active					
LIGHTING <ul style="list-style-type: none"> LED Lighting Cleaner/ BOH Lighting to public areas Daylight Compensation/ Control to public areas 	<ul style="list-style-type: none"> GHG reduction Energy reduction GHG reduction Energy reduction GHG reduction Energy reduction Enhanced Indoor Environment Quality 	<ul style="list-style-type: none"> Reduced electrical power cost Reduced electrical power cost Reduced electrical power cost 	 NIL NIL NIL	 NIL NIL NIL	 1 1 1
<ul style="list-style-type: none"> Heat Recovery on AHU's Exhaust / Return Air to Hotel 	<ul style="list-style-type: none"> GHG reduction Energy reduction Enhanced indoor environment quality 	<ul style="list-style-type: none"> Reduced Mechanical Services operating cost 	Roof platforms and equipment height	+15% \$350,000.00	3-5

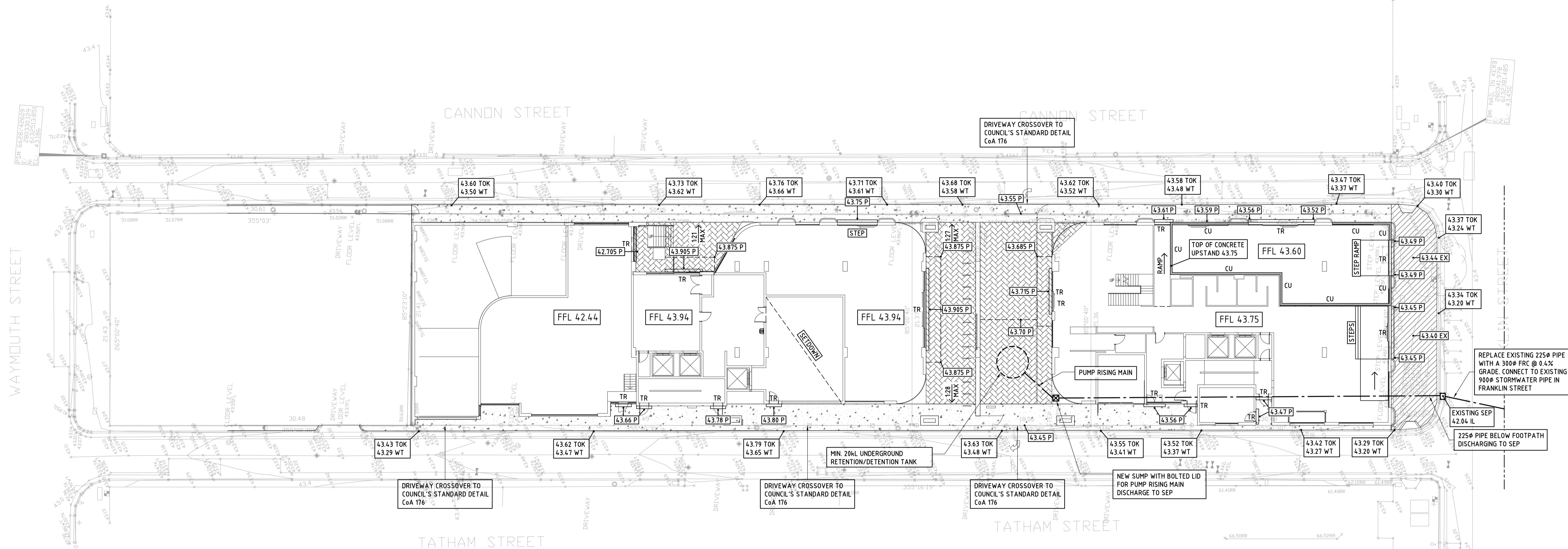
Initiative	Environmental Benefit	Operating Cost Benefit	Spatial Impact on NLA	Cost Premium % above base options	Life Cycle Cost / Payback Period Years
<ul style="list-style-type: none"> Indirect Evap on Outside Air Intakes (Precool) to Hotel 	<ul style="list-style-type: none"> GHG reduction Energy reduction Enhanced indoor environment quality 	<ul style="list-style-type: none"> Reduced Mechanical Services operating cost 	Roof platforms and equipment height	+15% \$230,000.00	3-5
<ul style="list-style-type: none"> Variable Speed Fans/ Pumps/ Chillers to Hotel 	<ul style="list-style-type: none"> GHG reduction Energy reduction Acoustics improvement 	<ul style="list-style-type: none"> Reduced Mechanical Services operating cost 	NIL	+5% \$30,000.00	1-3
<ul style="list-style-type: none"> Economy Cycles and Mixed Mode to Hotel 	<ul style="list-style-type: none"> GHG reduction Energy reduction Thermal comfort Enhanced indoor environment quality 	<ul style="list-style-type: none"> Reduced Mechanical Services operating cost 	Ventilation relief louvres	+5% and builders work \$220,000.00	1-3
<ul style="list-style-type: none"> Solar PV 	<ul style="list-style-type: none"> GHG reduction Energy reduction 	<ul style="list-style-type: none"> Reduced operating cost 	Roof area	\$900 per Kw	3-5
<ul style="list-style-type: none"> Battery Storage 	<ul style="list-style-type: none"> GHG reduction Energy reduction 	<ul style="list-style-type: none"> Reduced operating cost 	30m ² plantroom	\$1,500 per Kw hour	40
<ul style="list-style-type: none"> Low Water Flow Tapware/Sanitary Ware/Lead Freetap 	<ul style="list-style-type: none"> Water Conservation 	<ul style="list-style-type: none"> Reduced operating cost 	NIL	+2% \$30,000.00	1-3

Initiative	Environmental Benefit	Operating Cost Benefit	Spatial Impact on NLA	Cost Premium % above base options	Life Cycle Cost / Payback Period Years
<ul style="list-style-type: none"> Recycled Materials <ul style="list-style-type: none"> Steel Base Course Timber RVC 	<ul style="list-style-type: none"> Reduced landfill 	N/A	N/A	Extent to be determined	-
<ul style="list-style-type: none"> Infrastructure Electrical Car Charging Bays 	<ul style="list-style-type: none"> GHG reduction Energy reduction 	-	Allocated car parks	50 off	-
<ul style="list-style-type: none"> Operational Waste Management 	<ul style="list-style-type: none"> Reduced landfill 	NIL	Garbage room size	-	-
<ul style="list-style-type: none"> Acoustics/Material Selection 	-	<ul style="list-style-type: none"> Enhance Indoor Environment Quality Thermal Comfort 	NIL	+10%	-
<ul style="list-style-type: none"> Roof Gardens 	<ul style="list-style-type: none"> Reduced Operating Cost Enhance Indoor Environment Quality Acoustic Improvement 	<ul style="list-style-type: none"> Reduced Operating Cost 	Construction of roof gardens and reduction of carparks	TBA	-
<ul style="list-style-type: none"> Best Practice Steel and PVC 	<ul style="list-style-type: none"> Sustainable manufacturers 	<ul style="list-style-type: none"> Neutral 	NIL	TBA	NIL

Initiative	Environmental Benefit	Operating Cost Benefit	Spatial Impact on NLA	Cost Premium % above base options	Life Cycle Cost / Payback Period Years
<ul style="list-style-type: none"> Minimise Construction waste to achieve 90% recycling 	<ul style="list-style-type: none"> Healthier low impact to environment 	<ul style="list-style-type: none"> NIL 	NIL	TBA	NIL
<ul style="list-style-type: none"> Embodied Energy Targeting 	<ul style="list-style-type: none"> Local supplier to reduce transport costs 	<ul style="list-style-type: none"> NIL 	NIL	TBA	NIL
<ul style="list-style-type: none"> Low levels of light pollution 	<ul style="list-style-type: none"> Reduce light spill and nuisance to neighbours 	<ul style="list-style-type: none"> NIL 	NIL	-	NIL
<ul style="list-style-type: none"> Zero ODP and GUP Refrigeration 	<ul style="list-style-type: none"> Low environmental impact 	<ul style="list-style-type: none"> NIL 	NIL	+5%	NIL
<ul style="list-style-type: none"> Green Cleaning 	<ul style="list-style-type: none"> Reduced chemical impact on the environment and to humans 	<ul style="list-style-type: none"> NIL 	NIL	TBA	NIL

Initiative	Environmental Benefit	Operating Cost Benefit	Spatial Impact on NLA	Cost Premium % above base options	Life Cycle Cost / Payback Period Years
<ul style="list-style-type: none"> Purchase “Green” Power 	<ul style="list-style-type: none"> Reduced environmental impact, renewable energy source socially responsible reduced GHG emissions 	<ul style="list-style-type: none"> NIL 	NIL	+10%	NIL

APPENDIX B SOLAR ROOF SKETCH

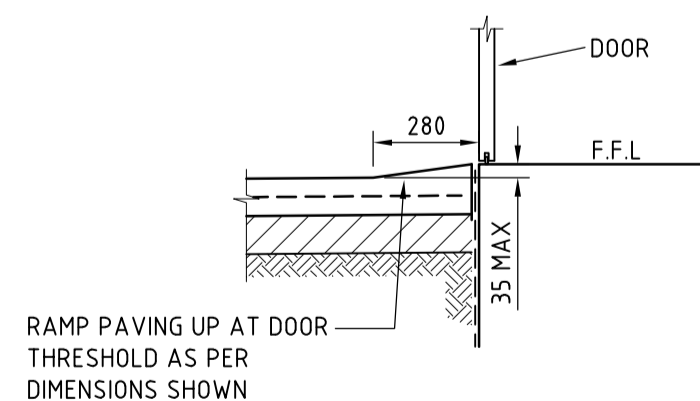


REPLACE EXISTING 225Ø PIPE WITH A 300Ø FRC @ 0.4% GRADE. CONNECT TO EXISTING 900Ø STORMWATER PIPE IN FRANKLIN STREET

EXISTING SEP 42.04 IL
225Ø PIPE BELOW FOOTPATH DISCHARGING TO SEP

LEGEND

- SEWER GRADE PVC STORMWATER PIPE SIZE AS NOTED
- GRADE LINE
- 15.55 DESIGN LEVEL
- IL - INVERT LEVEL
- P - PAVING
- TOK - TOP OF KERB
- WT - WATER TABLE
- ← DIRECTION OF SURFACE FALL
- TR THRESHOLD RAMP
- CU CONCRETE UPSTAND
- 35mm THICK HOTMIX BITUMEN ON 100 THICK FINE CRUSHED ROCK (PM1/200G / PM1/400G) ON 150 THICK COMPACTED QUARRY RUBBLE (PM2/200G)
- 60mm THICK CLAY/CONCRETE PAVER ON 30mm MAX COMPACTED BEDDING SAND ON 100 THICK COMPACTED QUARRY RUBBLE
- REINSTATE EXISTING PAVER ON 30mm MAX COMPACTED BEDDING SAND ON 100 THICK COMPACTED QUARRY RUBBLE.
- PAVING HATCH STYLE SHOWN INDICATIVELY



TYPICAL PAVEMENT AT DOOR THRESHOLD DETAIL
SCALE 1:20

NOTE:

DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AS A PACKAGE. REFER TO ARCHITECTS DRAWINGS FOR ALL SETOUT DIMENSIONS.

ALL LEVELS SHALL BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION. SHOULD ANY DISCREPANCY OCCUR THE CONTRACTOR SHALL CONTACT THIS OFFICE IMMEDIATELY FOR FURTHER INSTRUCTION.

CONTRACTORS NOTES:

COVER LEVELS GIVEN FOR PITS ARE NOMINAL ONLY. COVER LEVELS SHALL MATCH FINISHED PAVING LEVELS.

WHERE EXISTING SERVICE COVERS ARE FOUND WITHIN THE SCOPE OF THE NEW WORKS, THE CONTRACTOR MUST ALLOW TO ADJUST THE COVERS TO SUIT THE PROPOSED FINISHED SURFACE LEVEL.

THE CONTRACTOR IS RESPONSIBLE FOR CHECKING LOCATION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCING ANY EXCAVATION WORK. ANY DAMAGE CAUSED TO ANY SERVICES SHALL BE REPORTED IMMEDIATELY TO THE SUPERINTENDENT & SHALL BE REPAIRED BY THE APPROPRIATE AUTHORITIES. ALL COSTS ASSOCIATED WITH REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE. PHONE 'BEFORE YOU DIG AUSTRALIA (BYDA)' FOR ASSISTANCE.

WHERE PROPRIETARY ITEMS ARE SPECIFIED, ALTERNATE EQUIVALENT PRODUCTS MAY BE ADOPTED WITH THE PRIOR WRITTEN APPROVAL OF THIS OFFICE.

Date	Revision	Issue
11.10.2024	ISSUED FOR PLANNING	D
19.08.2024	PRELIMINARY ISSUE	C
07.08.2024	PRELIMINARY ISSUE	B
28.11.2023	PRELIMINARY ISSUE	A

PT Design Pty Ltd 141-149 Hould Street Adelaide SA 5000
T [08 8412 4300] E [ptdesign@ptdesign.net.au]

Approved	SC	Drawn	MB
CIVIL		Sheet	1 of 1

PLANNING

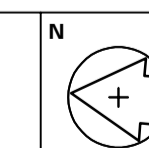
Project

108 FRANKLIN STREET MIXED USE DEVELOPMENT

Client
AUTA GROUP

Drawing Title
STORMWATER LAYOUT

Drawing Number
22759-C01



Scale
1:200

Issue
D

Frank Siow & Associates

Traffic and Parking Consultants

TO

Mr Nic Wong
Nic Design Studio
295 Pirie Street
Adelaide SA 5000

Date: 6 August 2024

Dear Mr Wong,

108 FRANKLIN STREET, ADELAIDE PROPOSED MIXED-USE DEVELOPMENT TRAFFIC AND PARKING ASSESSMENT REPORT

As requested, we have reviewed the proposal to construct a mixed-use development on the subject site.

The subject site is located at 108 Franklin Street, Adelaide. It has 3 street frontages, being Franklin Street, Cannon Street and Tatham Street. All of these roads are under the care and control of the Adelaide City Council.

Cannon Street and Tatham Street connect Franklin Street with Waymouth Street. They both have one-way traffic flows in the northbound direction. These streets provide local access to various parking areas of existing properties in the streets. Tatham Street has parking prohibitions on both sides of the street, except for a short section of Loading Zone on the western side adjacent to Waymouth Street.

Being located within the CBD of Adelaide, the subject sit is conveniently located close to major and multiple public transport services (such as trams, buses and rail), car sharing services, pedestrian routes and bicycle routes. The subject site is also located in close proximity to all major land uses, such as retail shops, offices, community services and government service centres.

1.0 THE PROPOSAL

The proposal is shown in the drawings by Nic Design Studio/Cheesman Architects Drawing N-21058 Rev 59 and comprises of the following land uses spread over the various levels of the development:

- 175 apartments.
- 246 hotel rooms.
- Approximately 1,331.5m² commercial floor area (4 tenancies on the ground floor and restaurant and function area in the upper floor).
- 114 parking spaces in the multi-level car park comprising of 13 spaces (including 2 disabled spaces) for the hotel, 101 spaces for residents of the apartments.
- A hotel drop-off/pick up/loading facility which could accommodate up to 2 cars and a loading space, with entry from Cannon Street and exit to Tatham Street.
- 28 bicycle parking spaces on the ground level for visitors, 26 bicycle parking spaces in Car Park Level 1 for staff and 186 bicycle parking spaces for residents over Car Park Levels 2 to 4 (62 spaces per level).
- Access for the proposed car park comprises of a two-way access on Tatham Street.



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- Bin collection and other servicing is proposed to occur on-site via a dedicated service dock with access from Tatham Street.

The subject site is located within the Capital City Zone of the Planning and Design Code. The subject site is located within the Primary Pedestrian Area as shown in Concept Plan 79 Adelaide City. The Overlays relevant to the subject site are:

- Airport Building Heights (Regulated) (All structures over 80 metres AHD)
- Affordable Housing
- Building Near Airfields
- Design
- Heritage Adjacency
- Hazards (Flooding - Evidence Required)
- Noise and Air Emissions
- Prescribed Wells Area
- Regulated and Significant Tree

2.0 PARKING ASSESSMENT

The subject site falls within the definition of a 'Designated Area' where *Table 2 – Off-Street Car Parking Requirements in Designated Areas* is relevant. *Table 3 – Off-Street Bicycle Parking Requirements* is relevant for assessing the bicycle parking provision for the development.

2.1 Car Parking

The subject site is located within the Primary Pedestrian Area. There is no minimum car parking requirement prescribed in Table 2. However, there is a maximum car parking requirement prescribed, but this maximum is not exceeded by the proposed development.

The proposed parking provision is 116 spaces (ie 114 spaces in the multi-level car park and 2 car parking spaces on the ground level drop-off/pick up/loading facility).

2.2 Bicycle Parking

Table 3 specifies the following bicycle parking rates:

Residential component of a multi-storey Building

- *Within the City of Adelaide 1 for every dwelling for residents with a total floor area less than 150 square metres, 2 for every dwelling for residents with a total floor area greater than 150 square metres, plus 1 for every 10 dwellings for visitors, and in all other cases 1 space for every 4 dwellings for residents plus 1 space for every 10 dwellings for visitors.*

Hotel

- *1 space for every 20 employees plus 2 for the first 40 rooms and 1 for every additional 40 rooms for visitors.*

Shop

- *1 space for every 300m² of gross leasable floor area plus 1 space for every 600m² of gross leasable floor area for customers.*

Note: A 'restaurant' land use and 'function area' land use is not listed in Table 3 as requiring bicycle parking provision.

The bicycle parking provision comprises of:

- 28 spaces on the ground level
- 26 staff spaces on CPL1
- 186 resident spaces on CPL2 to 4
- Total provision 240 spaces

The bicycle parking requirement is summarised in the Table below.

Land use	Number/Area	Spaces required
Apartments (less than 150m ² floor area)	173	173 (resident)
Apartments (more than 150m ² floor area)	2	4 (resident)
Visitors	175	17.5 (visitors)
Commercial GF tenancies (assume shop)	766.5m ²	2.6 (staff) 2.3 (visitor)
Hotel (say 40 staff)	246 rooms	2 (staff) 7.2 (visitors)
	TOTAL RESIDENT	177
	TOTAL STAFF	5
	TOTAL VISITORS	27
	OVERALL REQUIRED	209

Overall, the provision of 240 bicycle parking spaces would exceed the requirement of 209 spaces required by the Planning and Design Code.

Individually, the resident, visitor and staff bicycle parking provision would exceed the Planning and Design Code requirements.

3.0 PARKING LAYOUT & SERVICING

3.1 Parking layout

The proposed car park would be designated for resident and hotel staff/valet parking (User Class 1 and 2 categories as defined in *AS/NZS 2890.1:2004*):

- Resident parking space dimensions (2.5m by 5.4m) – exceed width *AS/NZS 2890.1:2004*.
- Hotel parking spaces dimensions (2.5m by 5.4m) – complies with *AS/NZS 2890.1:2004*.
- Aisleway widths (6.2m) - exceed *AS/NZS 2890.1:2004* (minimum 5.8m).
- Disabled parking space dimensions (2.5m by 5.4m) – exceed width *AS 2890.6:2022*.
- Car park head height (minimum 2.2m) - complies with *AS/NZS 2890.1:2004*.
- Head height above disabled spaces (minimum 2.5m) - complies with *AS 2890.6: 2022*.

The two-way ramps connecting the car park levels would be a minimum of 6.2m wide for a short section on the western side and much wider for the other sections ranging from 6.4m to 6.9m.

At the entrance to Tatham Street, the ramp grade would be 1 in 20 for a distance of 6m inside the boundary. The ramp grades to the upper levels would generally be 1 in 8 and where some sections of the grade exceed 1 in 8, appropriate transitions would be provided to ensure that the grades are consistent with the requirements of *AS/NZS 2890.1:2004*.

The car park would typically be signposted with a speed limit of 10 km/hr to maintain a low-speed environment on the site.

The car park would be a reserved car park and used by regular drivers (apartment residents, some staff and for hotel valet parking) and these drivers would be familiar with the layout and site constraints. Within the private car park, traffic mirrors would be installed to assist with the use of the ramps, where found to be necessary, similar to other private car parks.

A two-way access point would be provided on Tatham Street. There is a very narrow kerb on the eastern side of the site frontage which is not of a formal footpath width.

Swept path diagrams are provided in the Appendix.

A dedicated hotel drop-off/pick-up driveway is proposed which would also include parallel parking spaces within it. There is potential capacity for up to 6 passenger vehicles (ie 3 on the marked parking lane and 3 on the driveway) to be accommodated on-site. It is anticipated that drop-off/pick-up of guests would be of a very short-term nature (by taxis or rideshare vehicles etc) and likely to be spread out over the day. Given the low traffic flows on Tatham Street, we do not envisage any queuing issue arising.

Tatham Street has NO STOPPING parking controls on both sides of the street adjacent to the development frontage and therefore no on-street parking would be affected. In Cannon Street, the hotel drop-off entry point would be located within a current NO STOPPING zone (between an existing Loading Zone and 2P time limit zone). The existing on-street parking would not be affected by this proposal.

3.2 Sight distance

In an earlier Council RFI response, we understand that Council does not support the use of traffic mirrors for access points onto a public street.

It should be noted that the proposed car park is not a public car park. It is a reserved car park for use by apartment residents, some staff and hotel valet parking only. It is a car park that would be used by regular drivers and these drivers would therefore be familiar with the layout and site constraints.

The use of a convex traffic mirror to assist with sight lines is not an uncommon approach. The Department for Infrastructure and Transport has guidelines (*DIT Operational Instruction 2.2*) that provide details of how the traffic mirrors could be used, therefore it is an accepted device used to address sightline issues.

To further consider the sight distance matter, we carried out speed checks of vehicles using Tatham Street. These speed checks showed that the average traffic speed of vehicles entering from Franklin Street to Tatham Street was approximately 24 km/hr. Adjacent to the proposed car park entrance, the average speed was approximately 28 km/hr. These traffic speeds are considered to be low and likely to be due to a number of factors, such as the road environment (where pedestrians are often observed to use the carriageway due to an absence of footpaths in the street), the relatively narrow width of the carriageway, the existing car parks and roller door access that are present on building frontages along the street and the loading zone parking at the northern end of the street.

Figure 3.2 AS/NZS 2890.1:2004 provides a table of sight distance requirements for access driveways. For a 40 km/hr speed, the minimum Stopping Sight Distance (SSD) in the table is 35m. Adjusting the formula for a speed of 30 km/hr, the minimum SSD would be approximately 20m. We have plotted this SSD distance onto the proposed access points of the development, noting that the speeds found from our speed checks were 24 km/hr and 28 km/hr, ie less than 30 km/hr. Our assessment is summarised as follows:

- For the proposed multi-level car park exit point, the exit driver would be able to view an on-coming vehicle for a distance of approximately 34m to the left. This sight distance would exceed the minimum SSD requirement of 20m.
- For the infrequent service vehicle exiting the loading area, the exit driver would be able to view an on-coming vehicle for a distance of approximately 33.5m to the left. The sight distance would exceed the minimum SSD requirement of 20m.

- For the hotel drop off, the eastern building alignment has been set back so that the exit driver is able to view vehicles up to when they turn in from Franklin Street (43.5m away).

We note that the previous hotel and serviced apartment development that was approved in October 2020 for the subject site had a two-way car park access arrangement that had a wall built to the boundary immediately to the left of the exit point of the car with no sight distance provided.

In summary, the proposed exit points have been designed to enable the Stopping Sight Distance requirement (referenced in *AS/NZ 2890.1:2004*) to be satisfied.

There is no formal footpath on Tatham Street adjacent to the frontage of the subject site. This aspect was also noted in the traffic report for the previous hotel and serviced apartment development. As a consequence, there is no pedestrian sightline assessment required for Tatham Street.

We understand that the footpath width on Cannon Street would be upgraded significantly over the frontage of the development site and this would become the main focus of north-south pedestrian access.

3.3 Servicing

A loading dock, accessible from Tatham Street, is proposed to accommodate waste collection, linen pick up/drop off and other hotel related services. Given the constraints of the site and adjacent street, reverse-in manoeuvres would be required.

The swept path diagram below shows that a typical 10.2m rear-lift waste collection truck would be accommodated within the site. Other smaller service vehicles such as the 8.8m MRV truck and linen vans would be suitably accommodated within this area.

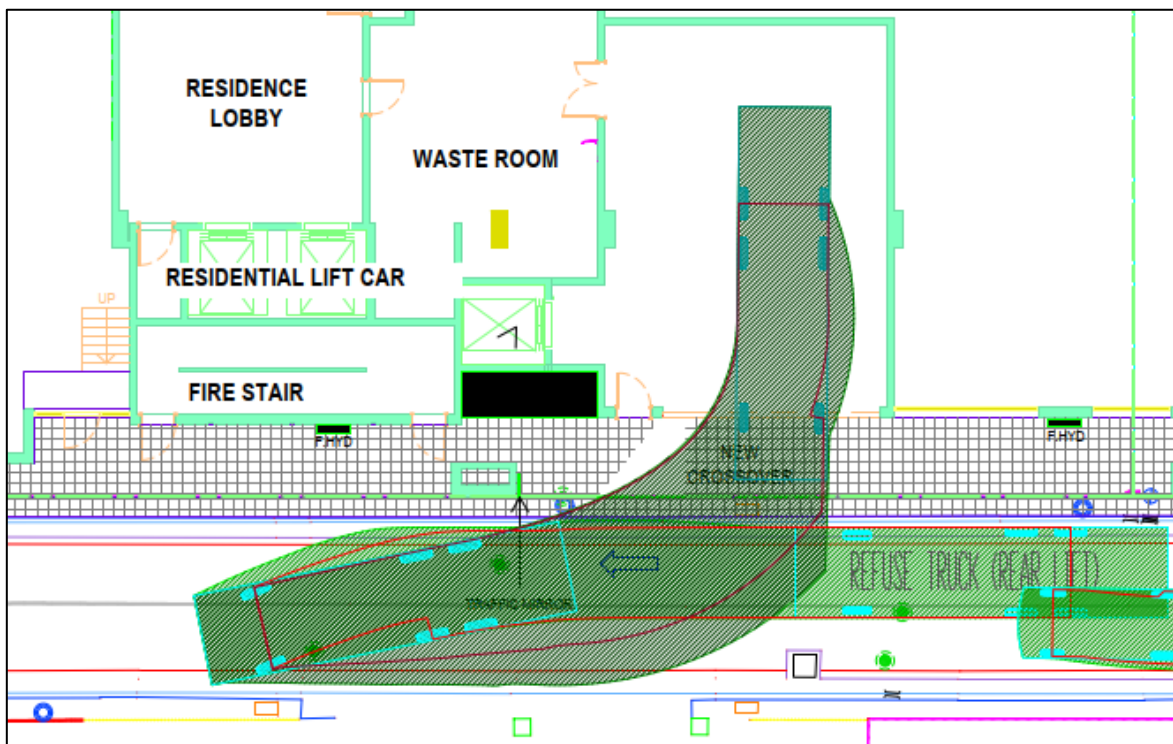


Figure 1: Swept path of the largest expected service vehicle (10.2m long waste collection truck)

The waste servicing is detailed in the Waste Management report. We understand that service vehicles would attend the site on an infrequent basis. Each servicing of the different waste types is anticipated to be of very short duration (typical 15 minutes).

The hotel is also able to be serviced by smaller service vehicles, like vans and utes, for example linen and food vans, via the hotel drop-off/pick-up driveway (in addition to use of the dedicated loading area). All vehicles would be able to enter and exit this driveway in a forward direction.

4.0 TRAFFIC IMPACT

There would not be any parking provided in the multi-level car park for the commercial tenancies. On-site parking would be allocated to residents of the apartments (101 spaces) and for the hotel (13 spaces). Trips generated from the car park would therefore be limited to residents and hotel only.

The *NSW Guide to Traffic Generating Developments* provides peak hour trip generation rates for high rise residential apartments in the form of trip generation per apartment or trip generation per apartment car space. In this instance, given not all apartments would be provided with a parking space, the peak hour trip generation rate per car space would be more relevant to the assessment.

AM peak – 0.15 trips per car space (for apartments)

PM peak – 0.12 trips per car space (for apartments)

The proposed 101 parking spaces allocated to the apartments would therefore be expected to generate approximately 15 vehicles per hour (AM peak) and 12 vehicles per hour (PM peak).

Many of the hotel guests would likely arrive by taxis, rideshare services or public transport. There is a hotel drop-off/pick-up bay provided for taxis and rideshare services. Arrivals and departures of guests would likely be spread out over the day and would mainly occur outside of peak commuting hours. A limited number of parking spaces (13 spaces) would be available for the hotel. Assuming that, conservatively, 30% of the allocated parking (13 spaces) would 'turnover' during the peak hours (generally 8am to 9am, 5pm to 6pm), the hotel would be expected to generate say 4 vehicles per hour during the peak commuting period.

Overall, based on the above estimates, we think that the peak hour trips generated would be less than 20 vehicles per hour. We anticipate that the very low additional traffic generated by the development would have minimal impact on the adjacent roads and junctions.

In an earlier response to the Council's RFI, we had undertaken additional SIDRA traffic impact assessment for the adjacent road junctions. At the time, the SIDRA assessment was based on 158 parking spaces on-site with the following findings from the SIDRA analyses:

- At the Tatham Street/Waymouth Street junction during the morning peak hour and afternoon peak hour, the future degree of saturation at the junction would be 0.191 and 0.227 respectively and considered to be very low and well below the typical capacity level of 0.85-0.9.
- The additional right turns in from Franklin Street would be of such low levels that there would be negligible change in the degree of saturation for the Franklin Street/Tatham Street junction. Our assessment indicates that the future degree of saturation would be 0.278 and 0.220 for the morning and afternoon peak hour respectively, which would be well below the typical capacity level of 0.85-0.9.

The current development has substantially reduced the on-site parking from 158 spaces to 116 spaces (25% reduction). As a consequence, the peak hour trips generated would now be much lower than when the previous SIDRA assessment was undertaken.

In summary, we are of the opinion that convenient access would be provided for the development via the existing street network, with negligible changes to the operating conditions at nearby junctions.

5.0 CONCLUSIONS

The proposed development comprises of a mixed-use development of 175 apartments, a hotel (246 rooms) and 1,331.5m² of commercial tenancies.

A multi-level car park of 114 parking spaces would be provided for use only by residents of the apartments (101 spaces) and the hotel (13 spaces). A drop-off/pick up/loading area (2 parallel spaces and a loading zone) would be provided at the hotel entrance.

There is no prescribed minimum parking provision for the Capital City Zone. The prescribed maximum parking provision is not exceeded.

A total of 240 bicycle parking spaces would be provided for residents, staff and visitors of the development which would exceed the requirements of the Planning and Design Code. Visitor parking would be conveniently located on the ground level, while staff and resident parking would be provided in dedicated areas within the upper-level car parks.

The subject site is located in the CBD area, in close proximity to multiple public transport services. In addition, the subject site is located within an area which has a very wide range of shops, offices and other government and community services and which are all within a short walking distance of the subject site.

The car park would be designed to the relevant parking guidelines. Access to the multi-level car park would be from Tatham Street. The drop-off/pick up/loading facility would be provided for the convenience of hotel guests with entry from Cannon Street and exit to Tatham Street.

An on-site service area would be provided for the development. Servicing of the development would likely be of an infrequent nature, with the main servicing being for waste collection and services associated with the hotel (eg linen service). We are of the opinion that the infrequent servicing, in particular for waste collection, would be satisfactorily accommodated by the proposed service area.

We are also of the opinion that the proposed development would not result in adverse traffic impacts on the adjacent road network.

Based on the above assessment, we are of the opinion that the proposed development can be supported on traffic and parking grounds.

Yours sincerely,

Frank Siow

Frank Siow
Principal Consultant

CANNON STREET

CANNON STREET

CANNON STREET

FRANKLIN STREET

FRANKLIN STREET

TATHAM STREET

TATHAM STREET

TATHAM STREET

BOUNDARY 21.37M

BOUNDARY 98.88M

BOUNDARY 21.34M

COMMERCIAL TENANCY
LOWER GROUND LEVEL
LOW CEILING AREA

RESIDENCE
LOBBY

WASTE ROOM

RESIDENTIAL LIFT CAR

FIRE STAIR

COMMERCIAL TENANCY

DROP OFF

DRIVEWAY

LOADING

WAITING AREA

COMMERCIAL TENANCY

ACCESS.
WC

MALE
WC

FEMALE
WC

RECEPTION

STAFF
ACCESS
WC

HOTEL LIFT CAR

FIRE STAIR

COMMERCIAL TENANCY

BLDG MGR
OFFICE

FIRE BOOSTER

34m - exceed minimum SSD 20m

33.5m - exceed minimum SSD 20m

43.5m - exceed minimum SSD 20m

1:500
PLAN
DATE: 13.08.2024
BY: [Signature]

Frank Siow &
Associates

SWEPT PATH ANALYSIS
108 FRANKLIN STREET
ADELAIDE
SIGHT DISTANCE
CHECKS

DESIGNER:
MS
DATE:
AUGUST 2024
CHECKED:
SHEET:
1 OF 1
NTS
REV No:

PROJECT
FS
DWG NO.
FS-240404

CANNON STREET

CANNON STREET

CANNON STREET

EXISTING STREET PARK

BOUNDARY 98.88M

COMMERCIAL TENANCY

WAITING AREA

ACCESSIBLE LIFT PLATFORM

RESIDENCE LOBBY

WASTE ROOM

DROP OFF

COMMERCIAL TENANCY LOWER GROUND LEVEL LOW CEILING AREA

RESIDENTIAL LIFT CAR

FIRE STAIR

LOADING

RECEPTION

STAFF ACCESS. WC

TRANSFORMER ROOM

STAFF OFFICE

BOUNDARY 21.37M

BICYCLE PARK *28

DRIVEWAY

TRAFFIC MIRROR

TRAFFIC MIRROR

NEW CROSSOVER

REFUSE TRUCK (REAR LIFT)

TATHAM STREET

TATHAM STREET

TATHAM STREET

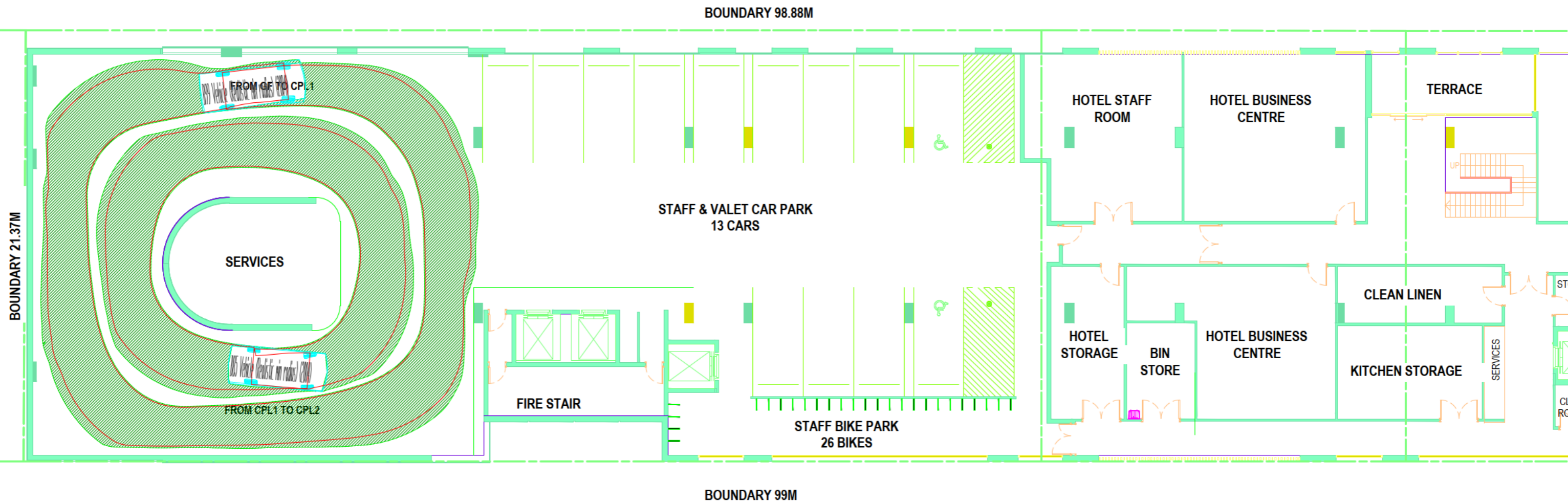
Design Vehicle - Passenger Car (B85 or B99 as per AS/NZS 2890.1-2004)
Design Vehicle - Waste Collection Truck (Typical Rear Lift Waste Truck ~10.2m Length)

Frank Siow & Associates

SWEPT PATH ANALYSIS
108 FRANKLIN STREET
ADELAIDE
GROUND FLOOR REVIEW

DESIGNER: MS
DATE: AUGUST 2024
CHECKED:
SHEET: 1 OF 3
NTS
REV No:

PROJECT
FS
DWG NO.
FS-240404



Design Vehicle - Passenger Car (B85 or B99 as per AS/NZS 2890.1-2004)

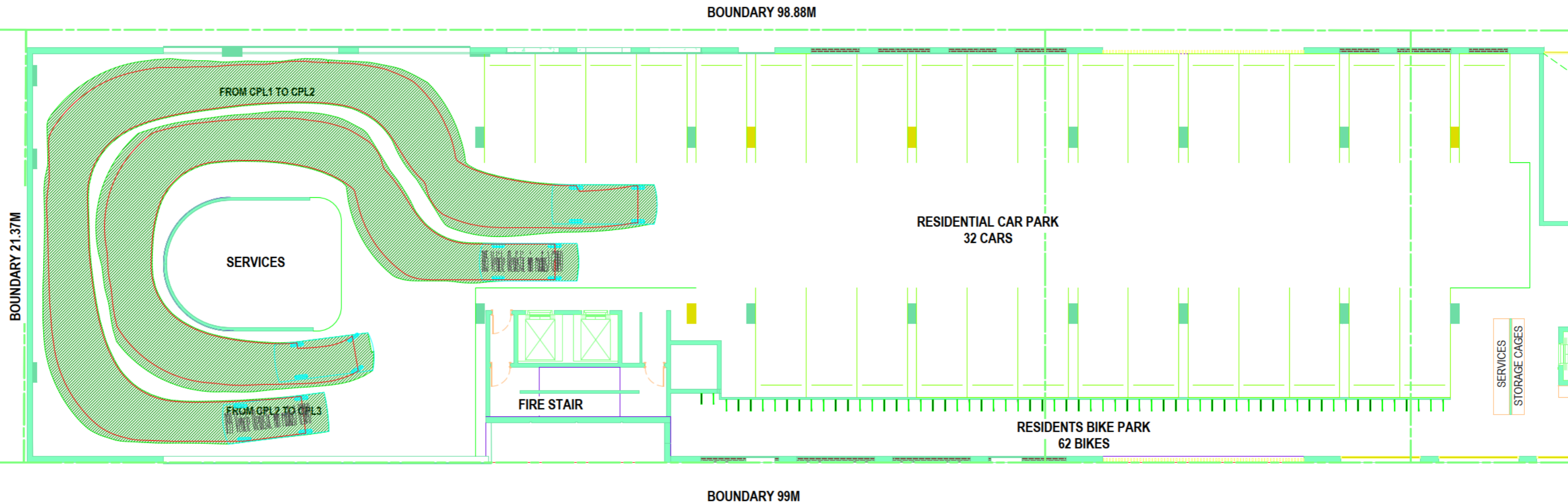
**Frank Siow &
Associates**

SWEPT PATH ANALYSIS
108 FRANKLIN STREET
ADELAIDE

CPL 1

DESIGNER:
MS
DATE:
AUGUST 2024
CHECKED:
SHEET:
2 OF 3
NTS
REV No:

PROJECT
FS
DWG NO.
FS-240404



Design Vehicle - Passenger Car (B85 or B99 as per AS/NZS 2890.1-2004)

**Frank Siow &
Associates**

SWEPT PATH ANALYSIS
108 FRANKLIN STREET
ADELAIDE
CPL 2 to 4 (Typical)

DESIGNER: MS	PROJECT
DATE: AUGUST 2024	FS
CHECKED:	
SHEET: 3 OF 3	DWG NO.
NTS	FS-240404
REV No:	



108 Franklin Street, Adelaide

Waste Management Plan

Date: 7 August 2024

Prepared for:

AUTA Group

Colby Phillips Advisory Pty Ltd

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Rev.	Date	Description	Doc No./Name	Originator	Approved
0	19Dec23	For lodgement	WMP	JPH	
1	7Aug24	For Lodgement	WMP	JPH	

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1 INTRODUCTION

This document presents a waste management plan (WMP) for the 108 Franklin Street Mixed Use Development (the “Development”). The Development is a mixed-use building comprising of Hotel, Commercial Tenancies and High-Density Residential Apartments. The Project proponent is Auta Group.

The WMP explains how the Development can manage waste effectively to achieve regulatory requirements and desired design and operating objectives, including those recommended by the South Australian Better Practice Guide (State Guidelines) (Zero Waste SA, 2014), the South Australia Planning and Design Code (Plan SA, 2024), and Adelaide Council’s Resource Recovery Strategy (City of Adelaide, 2020). The WMP should be read in conjunction with other planning approval documentation for the Development referenced herein.

The objectives of the Waste Management Plan are to:

- Encourage separation of recoverable wastes including recyclables and food waste through convenient disposal options for tenants and residents
- Ensure long term operability of the site from a waste perspective
- Consider the availability and frequency of various waste collection services at the site

2 DEVELOPMENT DESCRIPTION

The Development as at 108 Franklin Street, in the City of Adelaide (Council) – see Figure 2-1 (page 5) which shows an overview of the site. Per plans provided (N-21058 SD000 to SD028, Rev 60, dated 6 Aug 2024), the Development is a mixed use, multi-storey building with frontage onto Franklin Street, Tatham Street, and Cannon Street.

The design of the waste management system at the development is in line with The City of Adelaide (Council) key actions for multi-unit developments, as outlined in their Resource Recovery Strategy document:

Key Action	Response
1.2: Provide multi-unit dwelling building owners, managers and residents with tailored waste management solutions that targets elimination of food from the waste stream.	All residents will be provided with a bench-top food waste kitchen caddy as well and will have convenient access to a dedicated organic waste disposal chute at each residential level to encourage diversion of food waste from the general waste bins.
2.2: Provide a multilingual waste management education toolkit for building managers and residents.	Building management will provide multilingual signage and a building manual for the use of the waste management system onsite.
4.2: Centralise best practice waste management decisions at development phase, during build and in occupancy phases.	The design of the waste management system at this site has been completed in line with the South Australian Better Practice Guidelines.

2.1 Development Metrics

Table 2-1 gives the proposed Development Metrics. In summary, the Development would comprise:

- *Residential (Levels 5 – 21)*
 - 60 x 1-bedroom apartments
 - 107 x 2-bedroom apartments
 - 8 x 3-bedroom apartments
- *Hotel Tenancy*
 - 246 Keys (including 1 x 2-bed suite)
 - Restaurant
 - Hotel Function Room
- *Commercial tenancies (Ground Level)*
 - 1 x Café adjacent Residential Lobby
 - 2 x Cafe
 - 1 x Dry Retail Shop

During concept design, the mix of tenancies has not been finalised. Given the interest in this project within the business community that AG networks with, it is highly likely that the majority of commercial and retail areas will be sold after the project is launched and before the completion of the project in 2028. Several of the tenancies are assumed to be Cafés for waste generation volumes. This represents a worst-case scenario for waste generation to ensure waste systems are adequate for a range of commercial uses.

Table 2-1 below includes the recommended Waste Resource Generation Rate (WRGR) classification (for each land use) based on the State Guideline (Zero Waste SA, 2014), which are used to estimate waste and recycling volumes to assess waste storage required for the site.

Table 2-1 Summary of land uses for the Development, their WRGR Description(s) and relevant Development Metric(s).

Land Use	Description	Site Location	Land Use Type	Dev. Metric(s)	
Residential	Apartments	Level 5 - 21	High Density Residential Dwelling	298	bedrooms
Hotel	Hotel Rooms	Levels 5 - 17	Hotel or Motel Accommodation	246	keys
	Hotel Restaurant	Level 1	Café/Restaurants	230	m2 GFA
	Hotel Function Room	Level 3	Showroom	200	m2 GFA
Commercial	G01 - Café	Ground Level	Light Café	100	m2 GFA
	G02 - Café	Ground Level	Dry Retail > 100 m2	140	m2 GFA
	G03 - Dry Retail	Ground Level	Light Café	222	m2 GFA
	GO4 - Café	Levels 1 - 6	Offices & Consulting	222	m2 GFA

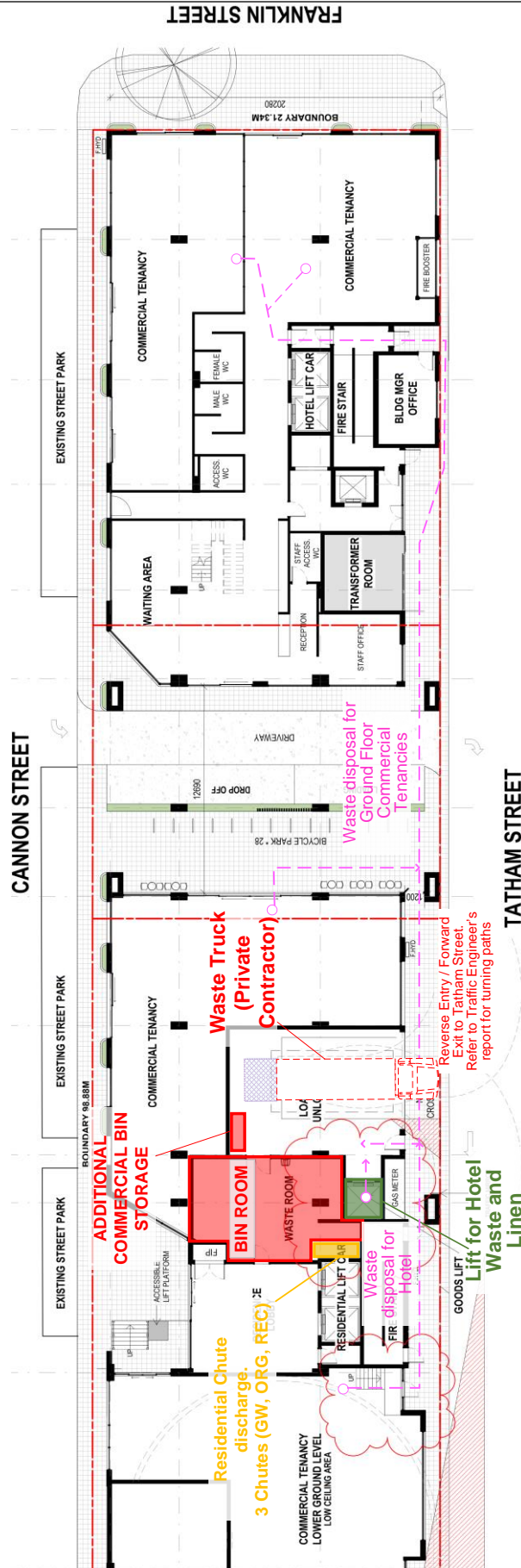


Figure 2-1 Ground Level plan for Development including key waste management features and waste movements

3 WASTE & RECYCLING SERVICE PROVISION

Table 3-1 outlines the recommended waste services by land use per Table 2-1. The different waste service classifications listed in Table 3-1 are explained below.

- **Routine Services** – These require on-site waste storage with routine and regular collections, and would include services for general waste, dry (comingled) recyclables, food/organics waste, and paper/cardboard.
- **At-call services** – These involve non-frequent collections, such as Hard waste and are organised and provided on an as-needed basis.
- **Maintenance services** – Some waste items (e.g. lighting in common areas, garden waste) would be removed and disposed of (off-site) by the contractor providing the related maintenance service (and hence on-site waste storage is not usually needed or provided).
- **External Services** – These are where waste items (e.g. printer cartridges, batteries, lighting) that can be dropped off by tenants/residents at external locations (e.g. Officeworks, waste depot) (and thus, separate on-site waste storage is not usually needed or provided).

Routine Waste and Recycling services for all residents and commercial tenants at the Development would be provided by **Private on-site collection**.

Table 3-1 Expected or recommended waste & recycling services for the Development

Service Type	Residential	Hotel			Commercial			
	Apartments	Hotel Rooms	Hotel Restaurant	Function Room	G0 - 1 Café	G0 - 2 Café	G03 - Dry Retail	G04 - 1 Café
Routine (regularly scheduled)	General Waste	General Waste	General Waste	General Waste	General Waste	General Waste	General Waste	General Waste
	Recycling	Recycling	Recycling	Recycling	Recycling	Recycling	Recycling	Recycling
	Food Organics	Food Organics	Cardboard	Cardboard	Cardboard	Cardboard	Cardboard	Cardboard
			Food Organics	Food Organics	Food Organics	Food Organics	Food Organics	Food Organics
		Recycled deposit containers (OPTION)	Recycled deposit containers (OPTION)	Recycled deposit containers (OPTION)	Recycled deposit containers (OPTION)	Recycled deposit containers (OPTION)	Recycled deposit containers (OPTION)	
			Cooking Oil (OPTION)		Cooking Oil (OPTION)	Cooking Oil (OPTION)		Cooking Oil (OPTION)
At-call (as needed)	Hard/E-waste							
	Printer Cartridges							
	Batteries							
Maintenance (waste removed by contractor)	Sanitary (in-room or public toilets)							
	Lighting (where applicable)							
External (by tenant off-site)	Not applicable							

3.1 Waste & Recycling Volumes

Table 3-2 (page 8) estimates expected waste and recycling volumes for the Development (in Litres/week).

- High Density Residential Dwelling WRGRs have been used for the apartments/penthouses.
- Dry Retail (> 100 m²) WRGRs have been used for the retail stores.
- WRGRs (in the State Guidelines) do not exist for sanitary, lighting, printer cartridge or battery waste.
 - Volumes of these waste items, however, are relatively small, and thus, have not been estimated.
- The Light Café tenancy WRGRs are derated Café / Restaurant WRGRs to match the consultant's experience of similar tenancies in the Adelaide CBD.

Table 3-2 Estimated waste & recycling volumes (Litres/week) for each land use type at the Development. *NE – Not estimated*

Service Type	Residential	Hotel			Commercial			
Waste/Recycling Service	Apartments	Hotel Rooms	Hotel Restaurant	Hotel Function Room	G01 - Café	G02 - Café	G03 - Dry Retail	G04 - Café
	<i>L/week</i>	<i>L/week</i>	<i>L/week</i>	<i>L/week</i>	<i>L/week</i>	<i>L/week</i>	<i>L/week</i>	<i>L/week</i>
General Waste	8,940	8,650	1,810	700	530	1,100	930	1,750
Dry Comingled Recycling	7,450	3,460	180	280	50	110	310	170
Cardboard / Paper		1,730	910	280	260	550	620	870
Recycled Deposit Container			120	140	40	70		120
Food / Garden Organics	2,980		1,450	40	420	880	50	1,400
TOTAL	19,370	13,840	4,470	1,440	1,300	2,710	1,910	4,310

1. Modified Café / Restaurant WRGRs to reflect Light Café tenant: General waste WRGR derated by 50%, recycling/cardboard by 50%, and food waste by 70%. Café active areas (excluding kitchens, ablutions, etc) are used for waste volume calculations.

4 WASTE MANAGEMENT SYSTEM

4.1 Stakeholder Responsibilities

Different stakeholders and their expected roles and responsibilities for the Waste Management System (WMS) at the Development are summarised below (in Table 4-1).

- These stakeholders include the Building Community Corporation(s), Apartment Building Property Manager, Apartment Building residents, Commercial Tenants (including Hotel operator), Council, and waste contractor(s) (providing services to residents).
- These roles and responsibilities may be clarified and articulated in more details before the building becomes operational (e.g., in an Operational Waste Management Plan).

Table 4-1 Overview of Roles & Responsibilities for different parties

Site Role	Relevant Party (if known)	Summary Responsibilities
Developer	AUTA	<ul style="list-style-type: none"> • Follow this planning-stage WMP during design and construction, including recommended local disposal areas, bin storage spaces, bins presentation areas, and/or other waste management infrastructure provision. • For Apartment Building, ensure that Community Corporation by-laws include requirements for property owners and / or residents or tenants to follow these planning and future operational WMP requirements & /or other waste management directions by the Property Manager or Council.
Apartment Building and Commercial Tenancy Owner(s)	Community Corporation(s)*	<ul style="list-style-type: none"> • Appoint Property Manager to undertake waste management responsibilities. • Ensure Property Manager develops and implements an operational WMP. • Review, maintain and/or upgrade WMP and/or WMS for Apartment Building as required
Property Manager	To be appointed	<ul style="list-style-type: none"> • Manage and maintain WMS area and operations for the Apartment Building and Commercial tenancies • Liaise and coordinate with collection service provider(s) to ensure access to site. • Perform waste management collection management: on-site presentation of waste and recycling bins for collection. • Bin & chute cleaning and hygiene management for the WMS. • Review WMS performance and ensure improvements occur where required. • Train and manage residents, commercial tenants, and Property Management staff to use the WMS.
Apartment Residents	Apartment owners &/or their tenants	<ul style="list-style-type: none"> • Follow Community rules and Property Manager directions (which may include Council instructions) to use the WMS properly. • Properly dispose of other waste and recycling items not accepted by WMS
Commercial tenants (including Hotel)	Tenancy owners &/or their tenants	<ul style="list-style-type: none"> • Follow Community rules and Property Manager directions (which may include Council instructions) to use the WMS properly. • Properly dispose of other waste and recycling items not accepted by WMS
Apartment Building and Commercial Tenancies Collection Service Provider(s)	To be appointed (private contractor)	<ul style="list-style-type: none"> • Deliver rear-lift general waste, recycling and food organic collection services. • Advise Property Manager on waste and recycling disposal service requirements. • Provide signage and bins as agreed with Property Manager • Support education and training to apartment residents and commercial tenancy staff by Property Manager

4.2 Waste Storage Area(s) including recommended bin quantities

Waste Storage at the development utilises shared private skip bins for all the apartments, the hotel, and the commercial tenancies. An overview of the waste storage room is shown in Figure 2-1. See Figure 4-1 for greater detail.

Commercial tenancies located at ground level would access and utilise skips located in the bin storage room directly or in the Loading Dock area, as shown in Figure 2-1.

Staff collecting waste for the hotel tenancies will use the service lift to access the hotel bin store (see Figure 4-2).

Apartment residents on floors 5 - 21 will use the waste chutes located at each level for disposal. Bulky waste is to be disposed directly to the Ground Floor bin room.

Table 4-2 gives a schedule of recommended bin storages for Routine Services (based on estimated waste volumes in Table 3-2) and includes for each service:

- *Type of bins;*
- *Collection frequency (expected or proposed); and*
- *Service provider.*

As stated above, a separate waste storage is provided for Ground Level tenancies. This separation is indicated in Table 4-2.

Table 4-2 Waste storage and bin schedule for Routine Services, including collection frequency and collection service provider.

Location	Waste Storage Area	Routine Service	Estimated Waste/Recycling Volumes (L/wk)	Provider	Collection Frequency (Events/wk)	Max. Bins/Items Stored & Collected (per Event)		
						No.	Size (L)	Type
Commercial Tenancies	Ground Level Waste Room	General Waste	4,310	Private Rear Lift	7	1	1,100	Skip
		Dry Comingled Recycling	640		3	1	660	Skip
		Cardboard / Paper	2,300		3	1	1,100	Skip
		Food Organics	2,750		3	2	660	Skip
		Recycled Deposit Container	230		1	1	240	MGB
Hotel Rooms and Hotel Amenities	Ground Level Waste Room	General Waste	11,160		7	3	660	Skip
		Dry Comingled Recycling	3,920		3	3	660	Skip
		Cardboard/Paper	2,920		3	2	660	Skip
		Food Organics	1,490		3	1	660	Skip
		Recycled Deposit Container	260		1	2	240	MGB
Residential	Ground Level Waste Room	General Waste	8,940	7	2	1,100	Skip	
		Dry Comingled Recycling	7,450	3	3	1,100	Skip	
		Food / Garden Organics	2,980	3	2	660	Skip	

Table 4-3: Summary of collection events each week.

Service	Total collections Each Week
General Waste	7
Recycling	3
Paper/Cardboard	3
Organics	3
Container Deposits	1
TOTAL	17

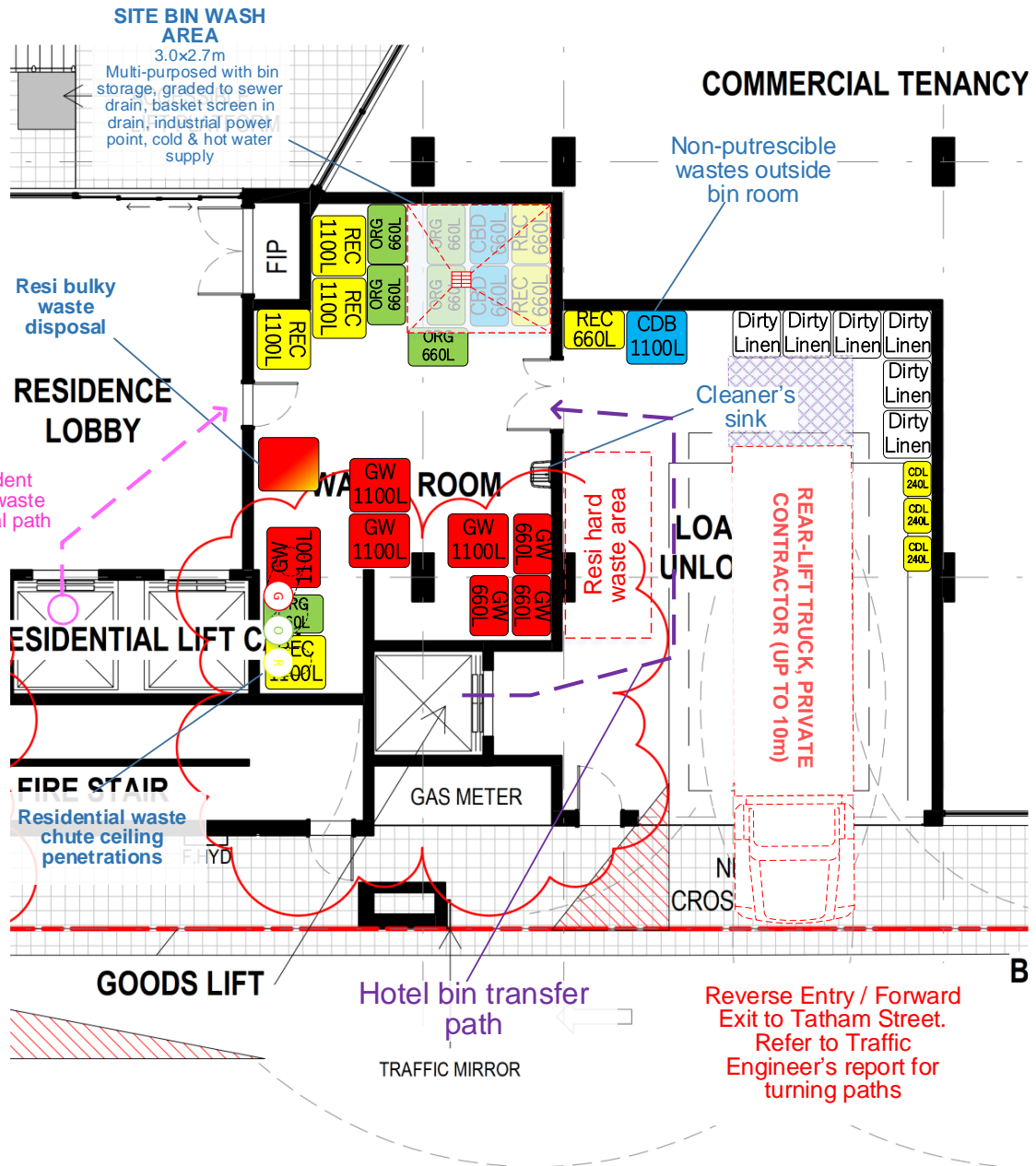


Figure 4-1 Detailed View of Waste Storage Area. GW = General Waste, REC = Mixed Recycling, ORG = Organics (Food Waste), CDL = Container Deposits (10c), CDB = Cardboard

4.3 Hotel and Amenities

Each part of the hotel complex will have bin types and sizes selected during hotel fitout. Bins will be appropriate for each use. Tenants and guests will dispose of waste to bins.

Cleaners or area staff will be responsible for emptying local bins and transferring waste via service lifts to the hotel bin room located on Level 1 (see Figure 4-2).

Transfer of waste from the Hotel Restaurant and Function Room would be via the service corridor at the rear of the Kitchen Storage area or service lift to Level 1 and, into the hotel bin store (see Figure 4-2).

An appointed hotel employee would regularly move full bins from the hotel bin store to the Ground Floor bin room (via the service corridor and goods lift, out of site of the general public) and return with empty bins to the hotel bin store (see Figure 4-2).

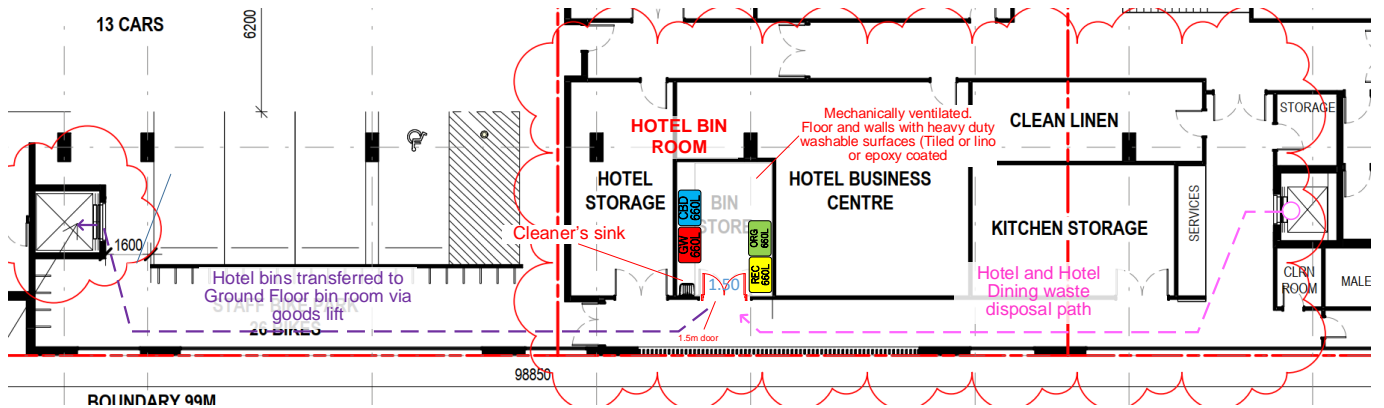


Figure 4-2 Detailed view of Hotel Bin Store and transfer path to Goods Lift

4.4 Retail / Food & Beverage Tenancies (Ground)

These tenancies have direct access to the Loading Dock and Ground Level bin room, as shown in Figure 2-1 (page 5).

Staff or cleaners would carry waste to the Ground Level bin room and dispose waste into the skip bins.

4.5 Apartments

Residential Apartments will use a waste chute system for general waste, recycling, and organics (food waste).

4.5.1 User Storage

Residents would be provided suitable kitchen bins with handles to enable easy carriage to the waste rooms on each level.

- a) General waste bin – at least 20L in size (bag lined)
- b) Comingled recycling waste bin - 20-30L in size
- c) Food organics bin – Kitchen food waste caddy, ca. 6L in size



Figure 4-3– Examples of suitable waste and recycling kitchen bins: (a) General waste & recycling in pull-out drawer; and (b): Bench-top food waste kitchen caddy with handles

4.5.2 Local Disposal (Including Transfer Pathways)

Residents would carry their general waste, recycling, and organics to the chute room located on each level. Each chute room will include 3 chutes, with each chute dedicated to:

- 1) General waste (Landfill)
- 2) Dry comingled recycling
- 3) Organics (food waste)

The layout and disposal paths are demonstrated in Figure 4-4. The disposal path distances for each apartment are between 5m to 20m, well within the State Guidelines recommended maximum disposal distance of 30m. The chutes have been conveniently located close to the Resident Lifts.

A potential layout for the chute system is provided in Figure 4-5. The building design as presented allows adequate space for a dual-chute system. Figure 4-6 shows examples of chute disposal access points.

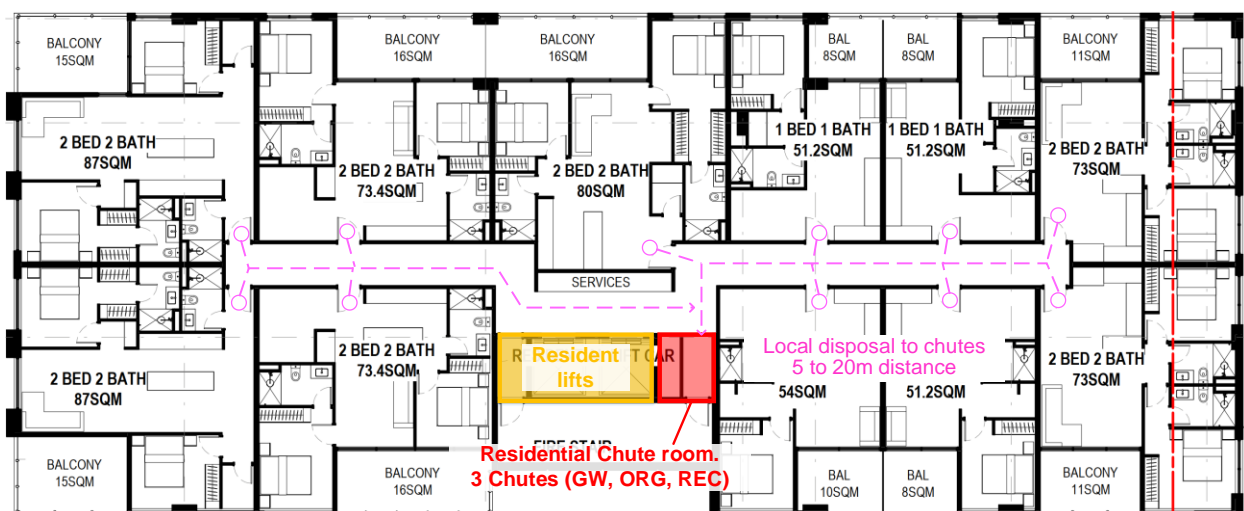


Figure 4-4 Typical apartment level with Transfer Pathways.

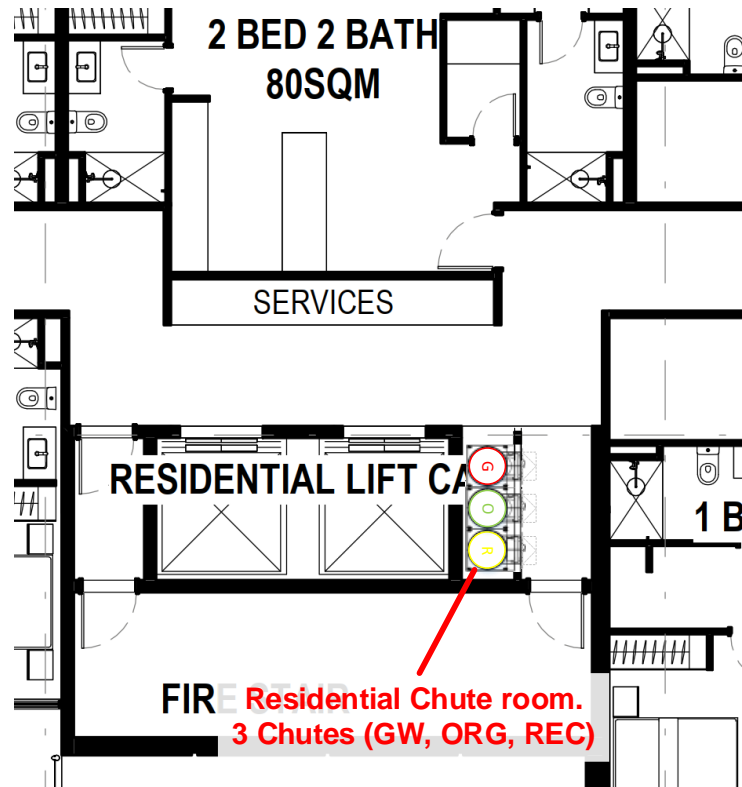


Figure 4-5 Preliminary chute room layout (subject to change during detailed design). G (red) = General Waste, O (green) = Organics and R (yellow) = Mixed Recycling

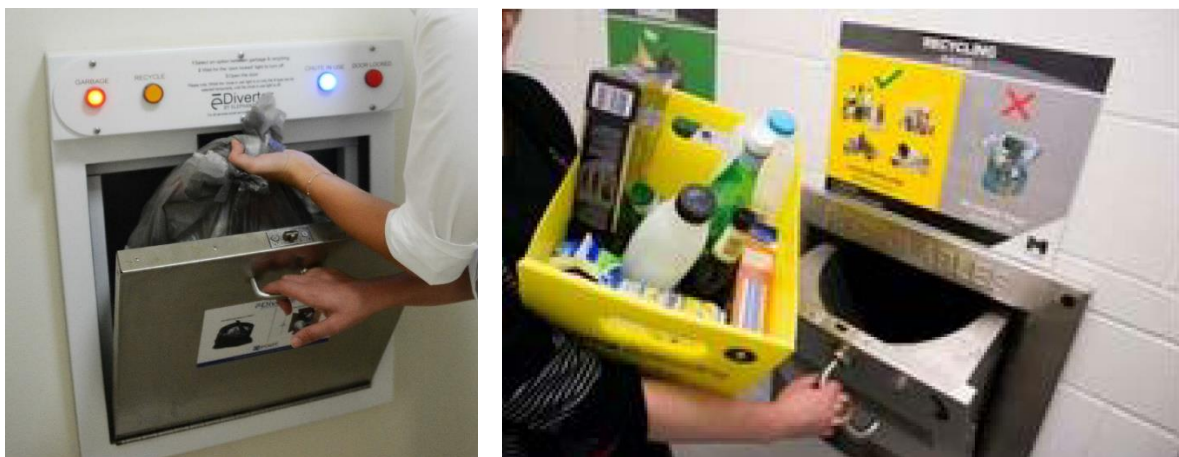


Figure 4-6 Example chute disposal access point

4.6 Presentation of bins

Skip bin presentation is not required as they could be collected directly from the waste storage area by the Waste Collection contractor (Pull in / Pull out service).

4.7 Collection

- Bins would be collected by a private contractor, generally using a Rear Lift truck up to 10m in length.

- The truck would reverse into the Loading Dock from Tatham Street as shown in Figure 4-1 on page 11.
- The private contractor would collect bins from the waste storage areas, empty them and finally return them back to the waste storage areas.
- Collections would be up to:
 - Daily (seven times per week) for General Waste,
 - Three times per week for Recycling,
 - Three times per week for Cardboard/Paper,
 - Once per week for Container Deposits, and
 - Three times per week for Organics (Food Waste).
- The time required to lift bins should be around 15 minutes for each service.
- The truck would exit the Loading Dock to Tatham Street in a forward direction
- Refer to the Traffic Engineer's report for turning paths and other relevant info on truck movements.
- *The collections should be scheduled to*
 - *Fit in with commercial collection contractor requirements.*
 - *Fit in with other site vehicle movements.*
 - *Minimise impacts on traffic accessing the building.*
 - *It is likely that collections would occur overnight between 10pm to 7am*

4.8 Waste Chute Design

Installation of waste chutes in the Apartment Building will conform to Building Code of Australia (BCA) requirements, including consideration for acoustic insulation to minimise noise impacts during operation, and provide for access by water and electrical services required for operation and maintenance (including cleaning) of the chutes.

The waste chutes should include an extraction fan, so the system can operate under negative pressure. They should also include an in-situ cleaning system to keep tube surfaces clean. Fans should be sized to aid ventilation in chute rooms at each level.

Additional mechanical ventilation will be needed for the Ground Floor bin room.

Design should consider including level monitoring / alarms for bins in service under the chute discharges.

Easy access should be provided to chute lockout mechanisms.

Angles of deflection should be selected to minimise risk of blockages and minimise noise from waste hitting the chute deflection.

The chute discharge areas (at Ground Level) will require suitable hard surfaces and installation of drains (to sewer) and grading of floors to capture wash water at the chute discharge points (from periodic chute cleaning). Floor treatments should wrap up the walls so liquid spills can be contained and easily cleaned.

The waste chutes should be subject to a regular inspection and maintenance schedule to ensure reliable operation.

Chute operations would be managed by the Property Management staff including swapping over full bins under chutes with empty / spare bins.

4.9 At-call Services

4.9.1 Hard/E-Waste

- Management (on residents' behalf) should inquire with Council regarding whether these residents can access the Council hard waste collection when the building becomes operational, including establishing suitable arrangements for presentation location for the service.
- If a Council service is not available, management would facilitate private hard waste collection services for residents.
 - This would involve at-call hard waste collection by a private contractor.
 - The waste contractor would park alongside the development on Tatham Street to deliver this service (see Figure 2-1, page 5).

4.9.2 Maintenance Services

Waste would be generated by some maintenance services or activities in the common areas of the Development (e.g. garden waste, lighting, repair work, etc.). These maintenance-generated waste materials would be handled and disposed of by the contractor undertaking these services. Dedicated on-site storage for these waste materials is therefore not needed.

4.9.3 External

Residents and commercial tenants would be able to dispose of smaller waste items, such as printer cartridges, batteries and lighting, to publicly available external drop off points (e.g. supermarkets, Office works, telco retail stores, etc.), which accept these materials.

4.10 Bin cleaning

A dedicated on-site bin cleaning area would be provided and multi-purposed with the Waste Storage Area— see Figure 4-1 (page 11).

- This bin wash area would require grading to a sewer drain with basket screen to remove gross solids, with water proof / washable surface treatment on floor and adjacent walls, standard cold-water supply faucet and commercial-grade electrical power supply (if pressure washer system is to be used), plus screens for use during bin wash events.
- Bin washing activity would be managed by the Site Manager.
- Bin washing would be timed to occur immediately after bins are emptied.

Alternatively, bin cleaning at the Development could be outsourced to an external contractor (e.g. <http://binforce.com.au/>).

- *These external contractors generally have self-contained bin washing systems on back of a ute or truck that enable them to clean bins on site – e.g. Figure 4-7 below.*
 - *Or some will remove bins from site, replacing them with an empty spare, clean the bins, then return them to site.*

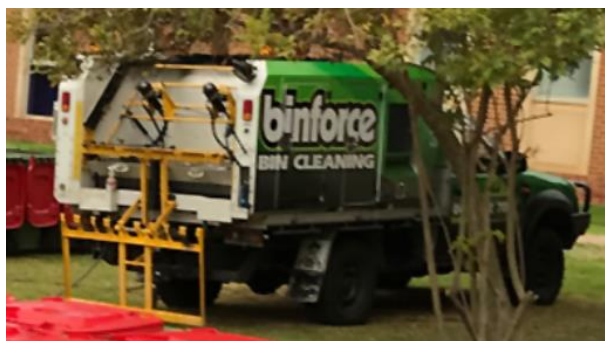


Figure 4-7 – On-site bin wash system for rear-lift trucks on back of ute. Source: <http://binforce.com.au/>

4.11 Transfer pathways

There are a range of transfer pathways for the waste systems at the Development, which were described in Section 4. The following is provided as a guide for sizing and designing these transfer pathways.

- *Transfer pathways –*
 - *User disposal – Free of steps, no grades greater than 1:15, and cater for mobility impaired users.*
 - *Local disposal points to central storage – enough width to accommodate relevant bins, trolley, or waste loads being transferred, free of steps, no grades greater than 1:12*
 - *Collection – less than 30m with no steps or grades greater than 1:10*
- *Corridor widths –*
 - *240L MGBs or smaller bins / loads – min. 1,000 mm (1,200mm preferred)*
 - *660L skip bins – min. 1,200mm (1,400mm preferred)*
 - *1,100L skip skips and/or other waste loads – min. 1,500mm (1,600mm preferred)*
- *Doors –*
 - *Local disposal access – 900mm*
 - *Transfer pathways– Appropriate to the size of bin to be transported, e.g.*
 - *240L MGB (or smaller) – min. 800mm*
 - *660L skip – min. 1,200mm*
 - *1,100L skip – min 1,400mm*
- *Floors – Hard surfaces where bins and skips are to be carted.*
- *Lifts – All lifts should be sized to allow for bulky hard waste items*

Based on current plans, these requirements for transfer pathways in the Development appear to be generally satisfied. All relevant transfer pathways should be reviewed and confirmed at detailed design stage to ensure they are appropriate.

4.12 Waste system Operation and Management

4.12.1 Responsibilities

Table 4-4 summarises the responsibilities of different parties / stakeholders for proposed waste management and operational activities at the Development. In summary, the Building / Facilities Manager would manage the waste system, including ensuring that good waste management outcomes by tenants were achieved.

Table 4-4 Management & operational responsibilities for the waste systems at the Development

Activity	Responsible party
<i>Local Disposal & External Disposal</i>	Tenants and residents
<i>Waste Storage Areas, Hard Waste, Hygiene, Odour Management & Cleaning</i>	Building maintenance staff
<i>Collection services – Waste & Recycling</i>	Commercial / Private Contractor(s)
<i>Management</i>	Property Manager
<i>Education, Training & Engagement (tenants and residents)</i>	Property Manager

4.12.2 Implementation & Communication

The following should be put in place.

- **Site Management System / Manual** – Advice and instructions on waste management and using the waste systems should be provided for tenants, including contact information for further information, questions and issues.
- **Residential and Commercial tenancy agreements** – All agreements must include obligations for tenants to comply with the relevant Building Corporation requirements for using the Waste System, including this or later WMP, and obligations for source separation of materials, which will lead to improved environmental outcomes and lower disposal costs for all residents/tenants.
- **Tenant Induction** – Should include guidance on how to correctly use waste /recycling bins as well as the site approach to waste and recycling, with a focus on source separation of food waste.
- **Clear signage** – At all disposal points. Consider providing signs in multiple languages with photographic and/or pictorial guides.
- **Emergency Response or Site Management Plan(s)** – Should include response measures (or contingencies) for:
 - Waste collection services suspended or not available;
 - Incorrect use by tenants of the waste systems;
 - Illegal dumping on-site; and
 - Poor waste management outcomes (including cleanliness, odour and/or low diversion).
- **WMP Review** – We recommend that this planning-stage Waste Management Plan is reviewed and updated as an Operational WMP before the building becomes operational – so it accurately reflects the Waste System installed and how it must be managed and operated.

4.13 Other Waste System Design or Management Issues

The following would be considered and/or implemented for waste systems at the Development. More details for some of these items can be resolved at detailed design stage with the waste contractor and/or Council.

- 1) **Bins** – These would comply with Australian Standard for Mobile Waste Containers (AS 4213).
- 2) **Signage** –
 - Appropriate signage in all Local Disposal and Waste Storage Areas should be used to ensure correct disposal of waste and recycling.
 - This signage should conform to the signage requirements of Council and/or the State Guideline (Zero Waste SA, 2014).
Signs should be in multiple languages and include photos for guidance.
- 3) **Vermin, hygiene & odour management (inc. ventilation)**
 - **Inspection & Cleaning** –
 - An inspection and cleaning regime would be developed and implemented by the Building / Facilities Manager for waste systems at the Development, including ensuring that surfaces and floors around disposal areas, transfer pathways and waste storage areas are kept clean and hygienic and free of loose waste and recycling materials.
 - *Where putrescible general waste or food waste is being stored, Local Disposal and Waste Storage areas should be graded to a sewer drain with tiling or epoxy coating to floors and adjacent walls to waterproof the area and for cleaning.*
 - **Odour Control** –
 - All Waste Storage Areas –
 - *Where putrescible general waste or food waste is being stored, consider mechanical ventilation for control of odours if natural ventilation is insufficient.*
 - *The ventilation should extract to atmosphere, to prevent odour build up.*
 - *The extraction vent discharge location would be selected to avoid impact on tenants and/or neighbours.*
 - *It should be a requirement for food waste bins in Waste Storage areas that lids are closed after use.*
 - Chute cleaning – a regular cleaning programme should be set up for the waste chutes (e.g. twice per year)
- 4) **Access & security** –
 - All Waste Storage Areas in the Building should be secure and only accessible by key or fob or access code.
 - *This key or fob or access codes would be provided to tenants, property management staff and/or waste contractor(s) collecting from these areas.*
 - *CCTV is recommended to monitor waste disposal practices in all Waste Storage Areas.*

5 PLANNING & DESIGN CODE OBJECTIVES

The applicable policies relating to Waste are provided in the following table. The third column states how these policies have been addressed in the proposed design.

Design in Urban Areas		
<p>PO 1.5 The negative visual impact of outdoor storage, waste management, loading and service areas is minimised by integrating them into the building design and screening them from public view (such as fencing, landscaping and built form), taking into account the form of development contemplated in the relevant zone.</p>	<p>DTS/DPF 1.5 None are applicable</p>	<p>Response: The bin room is fully contained and enclosed within the building envelope.</p>
<p>PO 11.1 Development provides a dedicated area for on-site collection and sorting of recyclable materials and refuse, green organic waste and wash bay facilities for the ongoing maintenance of bins that is adequate in size considering the number and nature of the activities they will serve and the frequency of collection.</p>	<p>DTS/DPF 11.1 None are applicable</p>	<p>Response: Collection systems are provided for source-separated landfill, recycling, food waste, and cardboard.</p> <p>The room is sized for regular collection of waste, including daily collection of General Waste and up to 3 times per week for other waste streams.</p> <p>A bin wash area/system is to be included in the Ground Floor bin room.</p>
<p>PO 11.2 Communal waste storage and collection areas are located, enclosed and designed to be screened from view from the public domain, open space, and dwellings</p>	<p>DTS/DPF 11.2 None are applicable</p>	<p>Response: Bins are to be stored in an enclosed ventilated room at Ground Level. Residential tenants will dispose waste into chutes, with a 3-chute system provided at each residential level for separate disposal of General Waste, Recycling, and Organics/Food Waste.</p>
<p>PO 11.3 Communal waste storage and collection areas are designed to be well ventilated and located away from habitable rooms.</p>	<p>DTS/DPF 11.3 None are applicable</p>	<p>Response: Bins are to be stored in an enclosed ventilated room at Ground Level.</p>
<p>PO 11.4 Communal waste storage and collection areas are designed to allow waste and recycling collection vehicles to enter and leave the site without reversing.</p>	<p>DTS/DPF 11.4 None are applicable</p>	<p>Response: It is proposed that the Waste Trucks will reverse-enter the site from Tatham Street into the Loading Dock within the property boundary. Trucks will forward-exit to Tatham Street. Refer to Traffic Engineer's report for discussion of truck movements.</p>
<p>PO 11.5 For mixed use developments, non-residential waste and recycling storage areas and access provide opportunities for on-site management of food waste through composting or other waste recovery as appropriate</p>	<p>DTS/DPF 11.5 None are applicable</p>	<p>Response: Space is allowed for sorting and collection of a variety of wastes.</p>
<p>PO 35.3</p>	<p>DTS/DPF 35.3 None are applicable</p>	<p>Response: A 3-bin system is proposed for Residential Waste with chutes and</p>

<p>Provision is made for suitable household waste and recyclable material storage facilities which are:</p> <ul style="list-style-type: none"> a) Located away, or screened, from public view, and b) Conveniently located in proximity to dwellings and the waste collection point 		<p>shared bins stored within fully enclosed and ventilated room. Waste disposal is located within 5-20m disposal distances for all residential dwellings.</p> <p>Bin volumes are provided in accordance with the SA Better Practice Guide recommendations and calculations are provided in Table 3-2.</p> <p>The waste truck can stop in the Loading Dock within the property boundary adjacent the bin storage room.</p>
<p>PO 35.4 Waste and recyclable material storage areas are located away from dwellings</p>	<p>DTS/DPF 35.3 Dedicated waste and recyclable material storage areas are located at least 3m from any habitable room window</p>	<p>Response: Bins are to be stored in a fully enclosed and ventilated room at Ground Level (more than 3m from any habitable room window).</p>
<p>PO 35.5 Where waste bins cannot be conveniently collected from the street, provision is made for on-site waste collection, designed to accommodate the safe and convenient access, egress and movement of waste collection vehicles.</p>	<p>DTS/DPF 35.4 None are applicable</p>	<p>Response: See response to PO 11.4.</p>
<p>PO 43.1 Areas for activities including loading and unloading, storage of waste refuse bins in commercial and industrial development or wash-down areas used for the cleaning of vehicles, plant or equipment are:</p> <ul style="list-style-type: none"> a) designed to contain all wastewater likely to pollute stormwater within a bunded and roofed area to exclude the entry of external surface stormwater run-off b) paved with an impervious material to facilitate wastewater collection c) of sufficient size to prevent 'splash-out' or 'over-spray' of wastewater from the wash-down area d) are designed to drain wastewater to either: <ul style="list-style-type: none"> i. a treatment device such as a sediment trap and coalescing plate oil separator with subsequent disposal to a sewer, private or ii. Community Wastewater Management Scheme or a holding tank and its subsequent removal off-site on a regular basis. 	<p>DTS/DPF 43.1 None are applicable</p>	<p>Response: A Loading Dock and Bin Room are provided within the property boundary at Ground Level. A bin wash is to be provided in the bin room, with connection to the sewer via a maintainable basket screen with 3mm holes. The room is fully contained to prevent stormwater from entering the sewer.</p>

6 REFERENCES

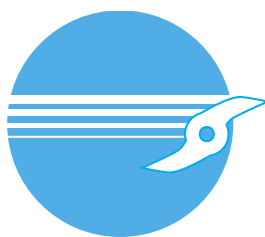
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108 Franklin Street Adelaide

Desktop Pedestrian Level Wind Assessment



GWTS

Document No.

GWTS-DPR-30800-2024-5

October 15 2024

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<p>Project Category: ST-CL-PD-FV</p>	<p>Document No: GWTS-DPR-30800-2024-5</p>
<p>Prepared By: Jon Becerra Booth/Alex Date: 15th October, 2024</p>	
<p>Released By: Seifu Bekele Date: 15th October, 2024</p>	
<p>Revision History</p> <p>Revision No:</p> <p style="text-align: center;">0</p> <p style="text-align: center;">1</p> <p style="text-align: center;">2</p> <p style="text-align: center;">3</p> <p style="text-align: center;">4</p> <p style="text-align: center;">5</p>	<p>Comments:</p> <p style="text-align: center;">Updated Report</p> <p style="text-align: center;">Updated Report</p> <p style="text-align: center;">Updated Report</p> <p style="text-align: center;">Updated Report</p> <p style="text-align: center;">Updated Report</p> <p style="text-align: center;">Updated Report</p>

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EXECUTIVE SUMMARY

GWTS was commissioned by BESTEC to conduct an assessment of pedestrian-level wind effects for the development at 108 Franklin Street, Adelaide, South Australia. We carefully evaluated the wind environment around the proposed building, considering its form and exposure, the nearby existing developments, the local wind climate, and the proposed use of ground-level areas and elevated recreational areas in and adjacent to the proposed development.

Based on our extensive experience and established empirical formulae for calculating wind speeds in pedestrian/recreational areas, we have predicted the expected wind speeds around the proposed building and assessed them against widely accepted and used criteria for comfort and safety.

A summary of the study is as follows:

- Only minor increases in wind speeds were predicted to occur at pedestrian level as a result of the proposed development with the recommended comfort criteria for public footpaths and building entrances being met.
- If wind speeds at the pedestrian link between Cannon Street and Tatham Street, located in the centre of the proposed development, exceed recommended criteria during detailed design testing, they can be readily mitigated using wind control mechanisms such as an air curtain.
- Wind speeds on the apartment balconies and terrace areas were predicted to meet the recommended comfort criterion subject to implementation of the recommended minimum balustrade heights.

Please note that this is an opinion statement and is not based on wind tunnel testing.

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1. INTRODUCTION

1.1 Geometry of the Proposed Development

The proposed building is a 21-level mixed use development in rectangular shape. As illustrated in Figure 2 below, the proposed building is 74 m in height.

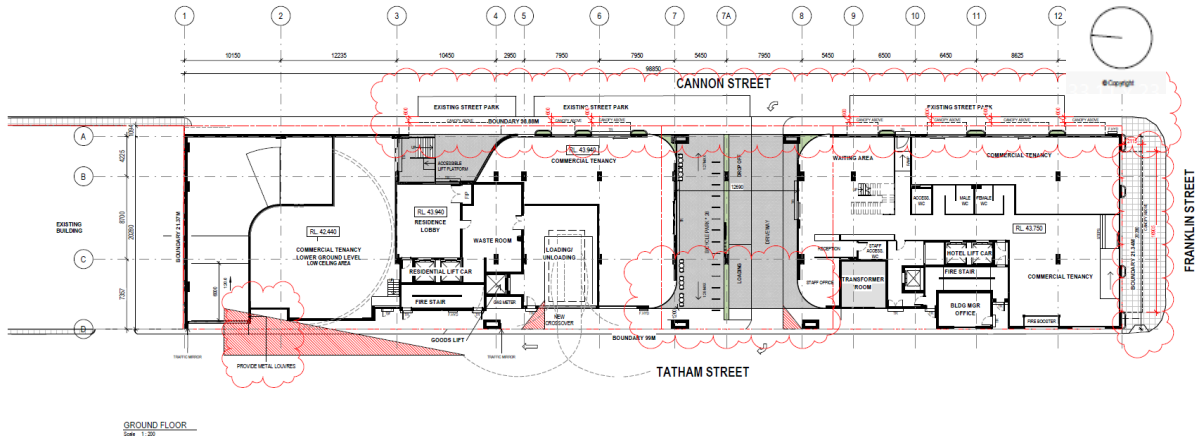


Figure 1: Plan view of the proposed development

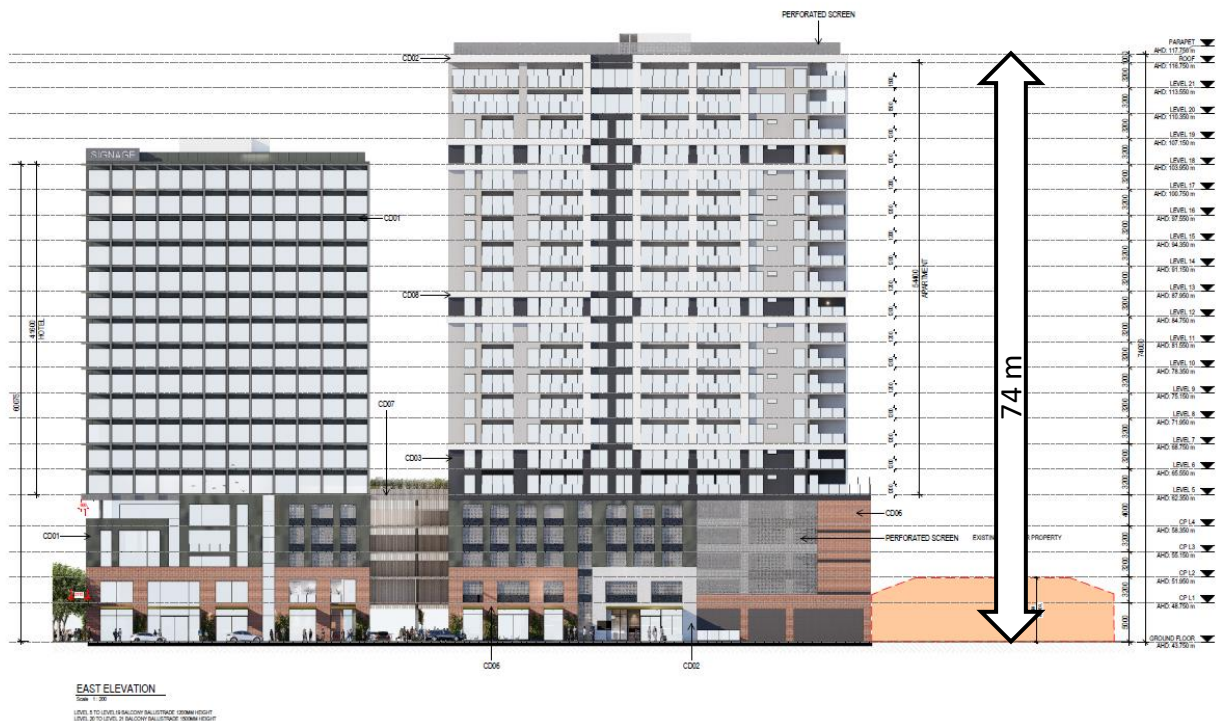


Figure 2: East Elevation of the proposed development

1.2 Building and Site Surroundings

The site is bound by a heritage building to the north, Cannon Street to the east, 108 Franklin Street to the south and Tatham Street to the west. A close-up view of the site is shown in Figure 3.

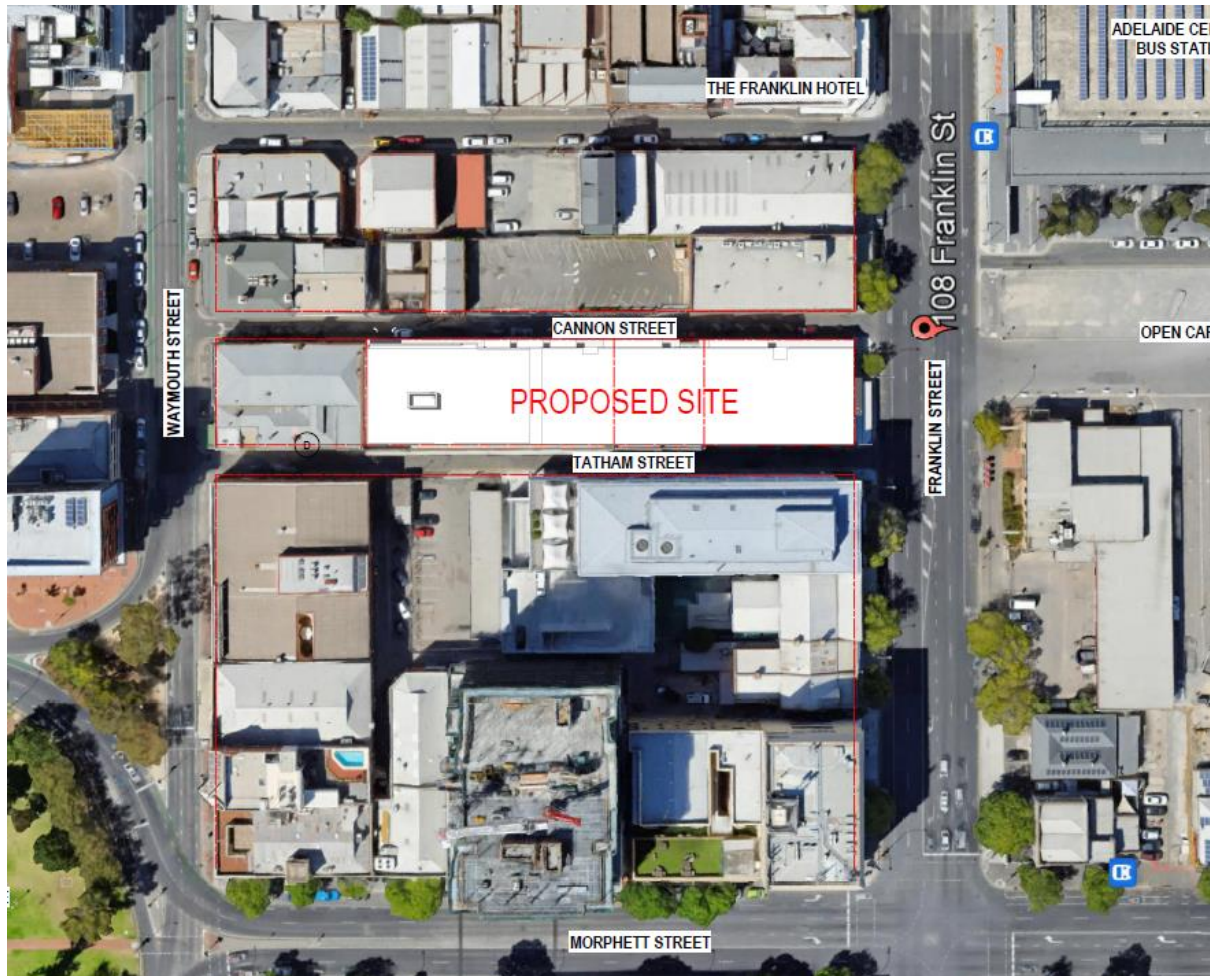


Figure 3: Location of proposed development

A satellite photograph of the project site and surrounding terrain is shown in Figure 4. The surrounding topography within a 4.4 km radius, including a 1.5 km lag distance from the site, consists mainly of low to mid-rise developments. As illustrated in Figure 4, the upstream terrains were modelled as a Terrain Category 3 for all wind directions (as per AS/NZS1170.2:2021).

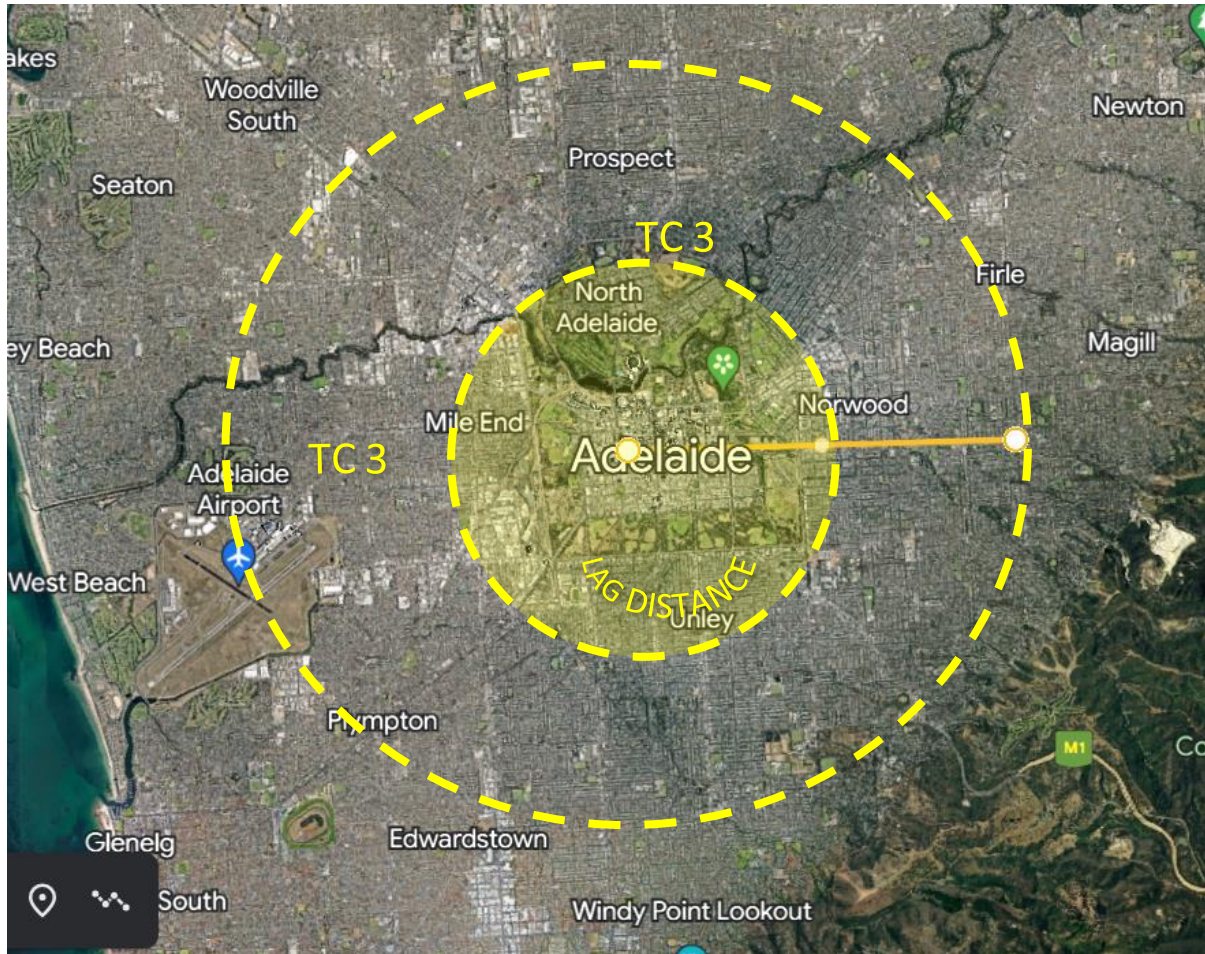


Figure 4: Satellite image of the site and surrounding terrain

1.3 Environmental Wind Effects

1.3.1 Atmospheric Boundary Layer

As wind flows over the earth, it encounters various roughness elements and terrain such as water, forests, houses and buildings. To varying degrees, these elements reduce the mean wind speed at low elevations and increase air turbulence. The wind above these obstructions travels with un-attenuated velocity, driven by atmospheric pressure gradients. The resultant increase in wind speed with height is known as a wind velocity profile. The terminology used to describe the wind flow patterns around the proposed development is based on the aerodynamic mechanism, direction and nature of the wind flow. Typical flow patterns are defined and illustrated below.

1.3.2 Downwash

The flow of air down the exposed face of a Tower. A tall Tower can deflect a fast moving wind at higher elevations downwards.

1.3.3 Corner Accelerations

When wind flows around the corner of a building it tends to accelerate in a similar manner to airflow over the top of an airplane wing.

1.3.4 Flow separation

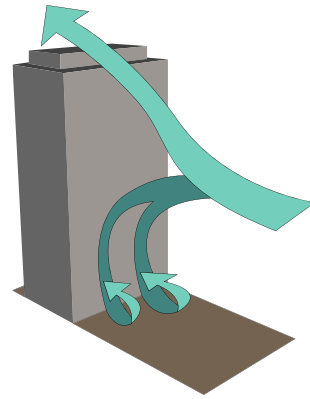
When wind flowing along a surface suddenly detaches from that surface and the resultant energy dissipation produces increased turbulence in the flow.

1.3.5 Flow Channeling

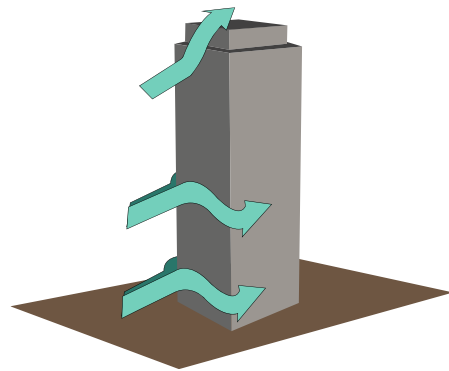
The well-known “street canyon” effect occurs when a large volume of air is funnelled through a constricted pathway. To maintain flow continuity the wind must speed up as it passes through the constriction.

1.3.6 Direct Exposure

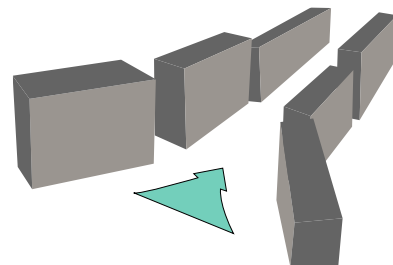
A location with little upstream shielding for a wind direction of interest. The location will be exposed to the unabated mean wind and gust velocity. Piers and open water frontage may have such exposure.



A. Downwash



B. Corner Accelerations



C. Channel Flow

2. WIND CLIMATE

Weather records from Adelaide Airport meteorological stations, Station 023123 and Station 023124 have been obtained from the Australian Bureau of Meteorology [4]. The directional and frequency distributions of the two stations are shown in Figure 5 and Figure 6. It can be observed that, the general frequency of wind is from northeast directions. However, considering the strength of wind, the southwest direction is the most frequent wind direction.

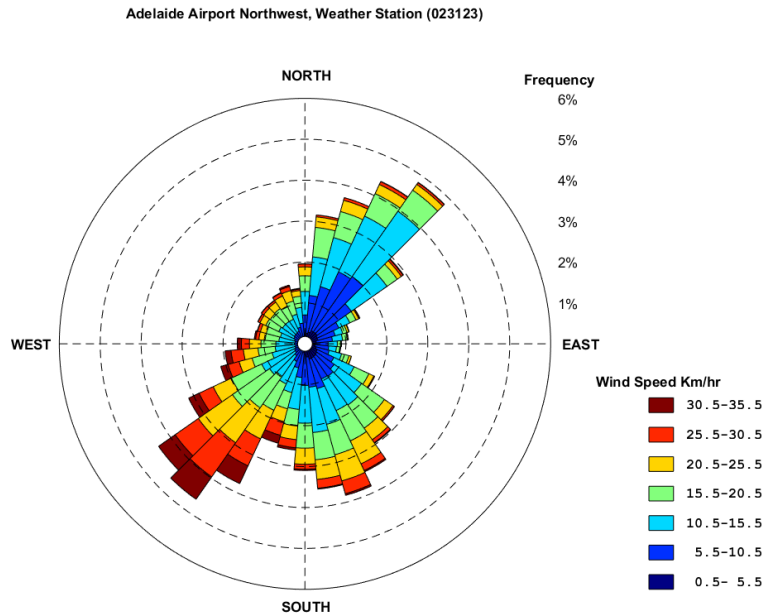


Figure 5: Directional and magnitude distributions of wind for Station 023123

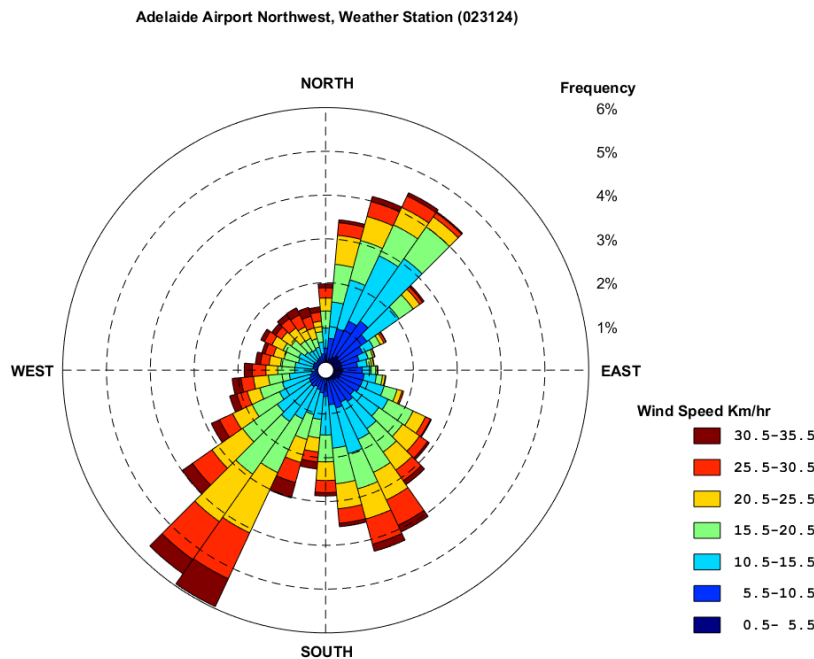


Figure 6: Directional and magnitude distributions of wind for Station 023124

3. ASSESSMENT CRITERIA

To assess pedestrian wind safety and comfort, a 3 second gust criteria is used as detailed in the Australasian Wind Engineering Society’s Guidelines for Pedestrian Wind Effects Criteria for safety [5]. A set of annual maximum peak 3-second gust velocities is derived from meteorological data for the geographical location under consideration, for all wind directions to be assessed. For all these possible wind directions and speeds, the regions where each of the wind speed criteria may be exceeded are then considered.

From a wind perspective, most people will consider a site unacceptable for a given activity if the gust velocities in that area during the average annual maximum synoptic wind event exceed the annual maximum wind speed criterion for that activity. The site would also be likely to be considered excessively windy for that activity during more moderate winds.

The threshold gust velocity criteria [2] are:

Table 1: Wind Comfort and Safety Gust Criteria for Adelaide Area	
Annual Maximum 3 second Gust Speed	Result on Perceived Pedestrian Comfort
>23m/s	Unsafe (frail pedestrians knocked over)
<16 m/s	Acceptable for Walking (steady steps for most pedestrians)
<13 m/s	Acceptable for Short Standing (window shopping, vehicle drop off, queuing)
<10 m/s	Acceptable for Long Standing, Sitting (outdoor cafés, pool area, gardens)

3.1 Recommended Comfort Criteria

Table 2 lists the specific areas adjacent to the development and the corresponding recommended criteria. The assessment areas are also shown from Figure 7 to Figure 14. with the recommended criteria overlaid.

Table 2: Recommended application of criteria	
Area	Recommended Criteria
Public Footpaths	Recommended to fulfil criterion for walking
Building Entrances	Recommended to fulfil criterion for standing
Balconies, Podium roof, Roof Terraces	Recommended to fulfil criterion for walking (<i>refer to the discussion below</i>)

3.2 Discussion on Recommended Balconies and Terrace Areas

Balconies and terrace areas are not intended for use all the time. People should be safe and comfortable to walking around these areas or when deciding whether to use the area for other recreational activities. Therefore, the walking criterion can be applied to the area since:

- The use of these areas is optional.
- The use of these areas can be avoided during a high wind events; and
- These areas are not public spaces and their use is not required all the time.

It is likely to be difficult to achieve wind conditions meeting a more stringent criterion than the walking criterion on the balcony areas of the proposed development due to their exposure, form and proximity of adjacent developments.

The walking criterion is recommended as minimum requirement for these areas. However, it should be noted that meeting the walking criterion on elevated recreational areas may not guarantee that occupants will find the wind conditions in these areas acceptable at all times.

In our experience, it is preferable that outdoor recreational areas meet the criterion for sitting comfort in order that the majority of reasonable people consider such areas acceptable for their intended use from a wind point-of-view. Wind conditions that exceed the sitting criterion will tend to result in a perceived reduction in amenity of the area. This perception may be due to:

- The cooling effect of the wind on the human body, particularly for pool deck areas on Level 7 (communal pool).
- It being impractical to have lightweight items such as towels, serviettes, newspapers, lightweight furniture (eg. plastic banana lounges) in these areas and
- Difficulty hearing other people speak.

Wind conditions meeting the criterion for walking may still result in the removal of lightweight furniture whilst the balconies/terraces are unoccupied.

3.3 Intended Use of Ground Level Areas

The main building entrances on the ground floor of the proposed development are highlighted in yellow in Figure 7. It is recommended that the criterion for standing be satisfied for this area. Public footpaths adjacent to or in close proximity to the proposed development are highlighted in red in Figure 7. It is recommended that the walking criterion be satisfied for these areas.

Balconies of the proposed development are highlighted in red from Figure 8 to Figure 14. It is recommended that the criterion for walking be satisfied for this area (Refer to Section 3.2).

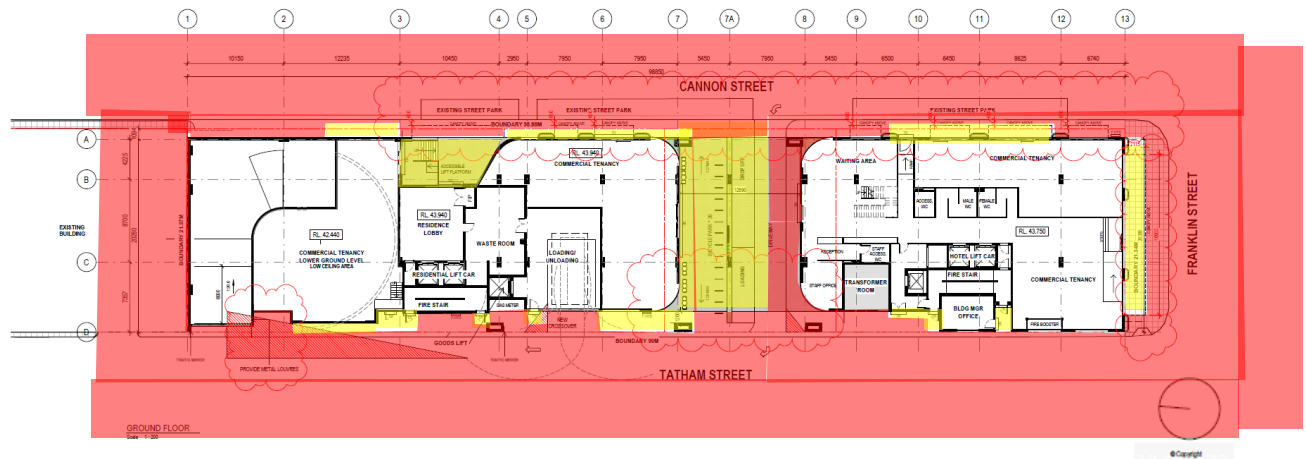
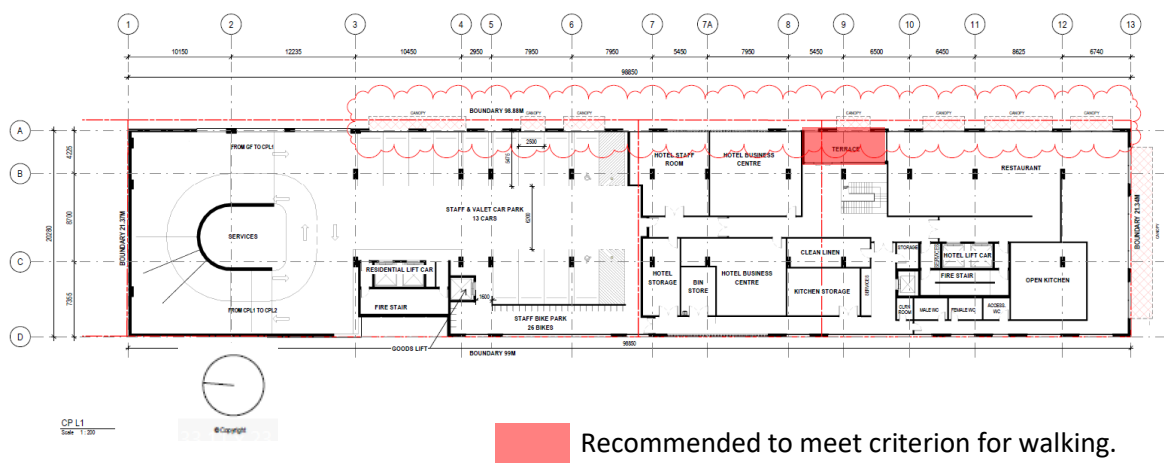


Figure 7: Schematic plan view of proposed development with recommended wind criteria overlaid on ground level.

- Recommended to meet criterion for standing
- Recommended to meet criterion for walking



Recommended to meet criterion for walking.

Figure 8: Schematic plan view of proposed development with recommended wind criteria overlaid on Level 1

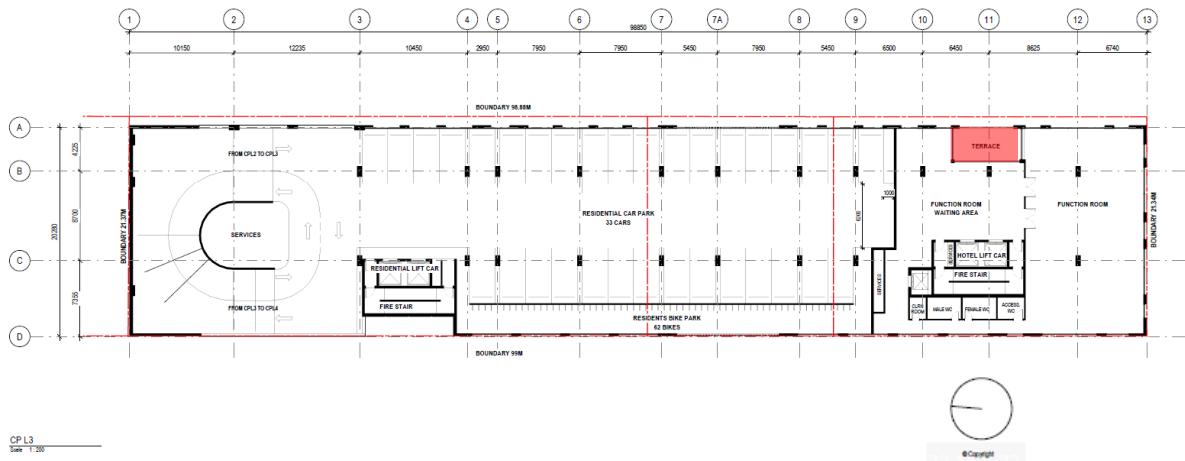


Figure 9: Schematic plan view of proposed development with recommended wind criteria overlaid on Level 3

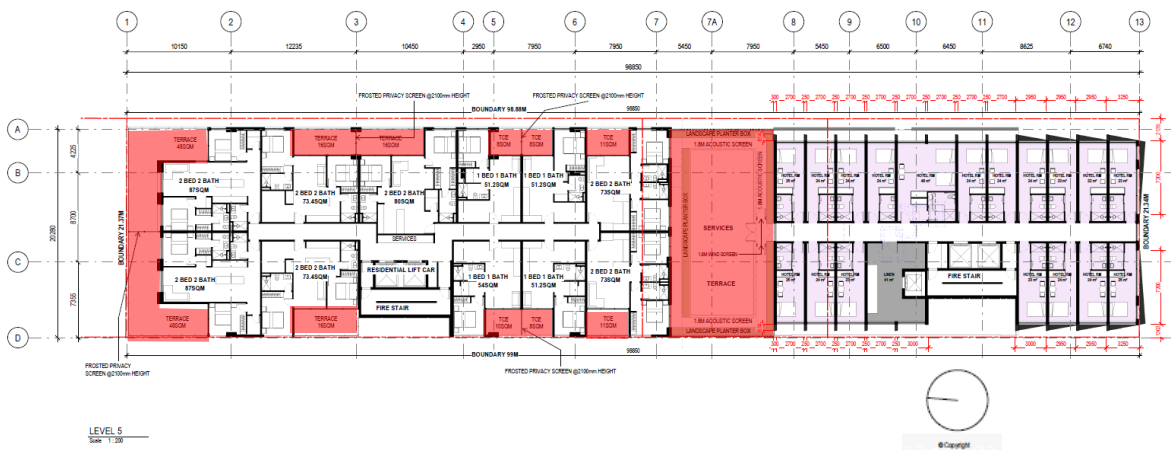
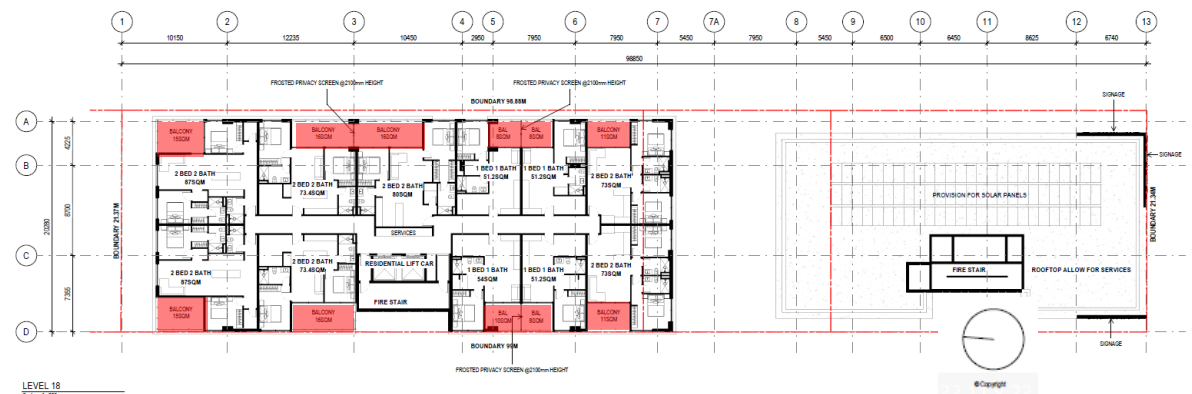


Figure 10: Schematic plan view of proposed development with recommended wind criteria overlaid on Level 5



 Recommended to meet criterion for walking.

Figure 11: Schematic plan view of proposed development with recommended wind criteria overlaid on Level 6-17



 Recommended to meet criterion for walking.

Figure 12: Schematic plan view of proposed development with recommended wind criteria overlaid on Level 18



Figure 13: Schematic plan view of proposed development with recommended wind criteria overlaid on Level 19

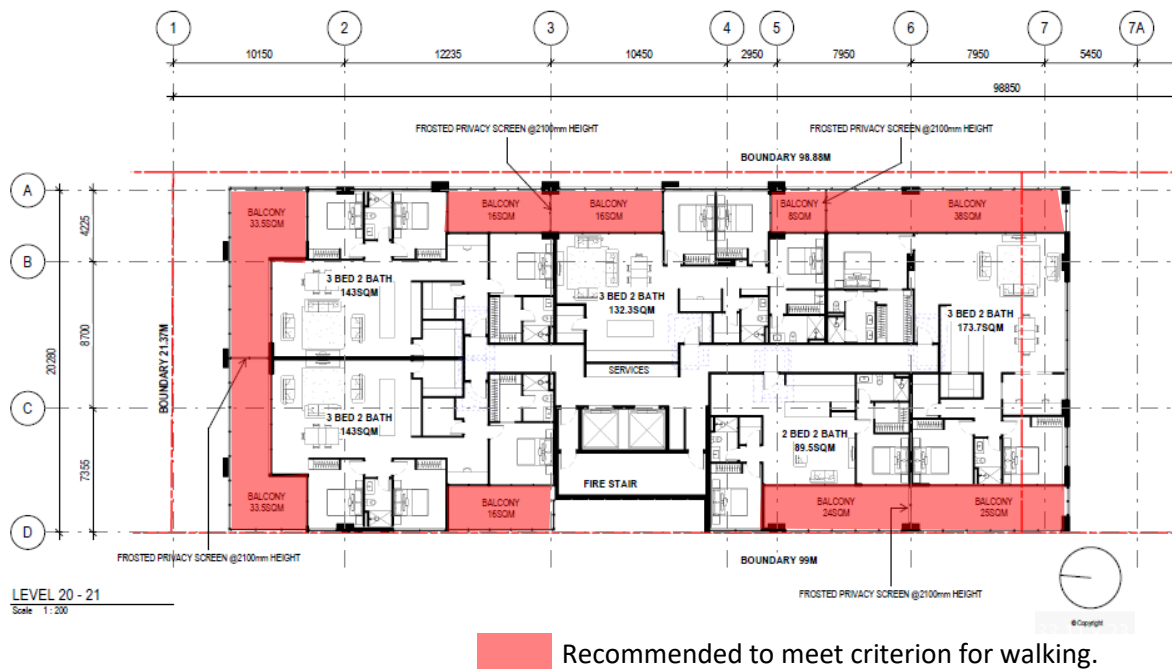


Figure 14: Schematic plan view of proposed development with recommended wind criteria overlaid on Level 20-21

4. WIND ENVIRONMENT ANALYSIS

The wind profile of the site can be factored for height above ground, estimated local terrain roughness, local turbulence and the influence of buildings to produce estimated annual average maximum 3-second moving average gust wind speeds adjacent to the proposed development. These estimates can then be compared with the selected criteria to determine whether they would be acceptable or not. Estimates of wind speeds have been made based on the Adelaide region wind climate data, empirical aerodynamics data and upstream exposure.

Impacts on Adjoining Properties & Footpaths

Considering the articulation of the building on top level, canopy and the locations of buildings to adjoining properties and footpaths, it is predicted that the surrounding areas will not be adversely impacted by the proposed development.

Main Building Entrances

The main entrances to the proposed building are located on the eastern and western faces. The exposure in these locations is to the strong southwesterly and northeasterly winds of the Adelaide region. The Adelaide region is characterized by frequent strong southwest wind and, while not as strong nor as frequent, the northeast wind. These descriptions can be appreciated in Figure 5 and Figure 6; showing that the southeastern wind is also strong, albeit less frequent than the NE or SW directions. As the entrances are set back beneath the building line of levels above and will therefore not be affected by downwash, it is predicted these areas will satisfy the recommended standing criterion and no further recommendations have been made.

Pedestrian Walkway between Cannon Street and Tatham Street

The pedestrian walkway between Cannon Street and Tatham Street is located in the centre of the proposed development. This walkway will be subjected to the pressure difference between the east and west faces of the development, which may cause wind flow acceleration along the pedestrian link.

The two important wind directions that can increase wind speeds in the pedestrian walkway are the northeast and southwest. The following two scenarios are anticipated from these wind directions:

1. **Northeast Wind:** When the wind approaches the pedestrian walkway from the northeast, it will flow over the outdoor parking and Cannon Street. The northeast face of the building will experience positive pressure, while the opposite face, facing Tatham Street, will experience negative pressure. The pressure difference between these faces will influence the wind speed through the walkway.

Should wind speeds at the pedestrian link exceed recommended criteria at the time of testing during detailed design, this can be readily rectified through wind control mechanisms such as an air curtain.

2. **Southwest Wind:** When the wind approaches the pedestrian walkway from the southwest, over Tatham Street, the southwest entrance to the walkway will experience positive pressure, while the Cannon Street side will experience negative pressure. To mitigate wind acceleration through the walkway, the momentum of the southwest wind must be reduced.

Should wind speeds at the pedestrian link exceed recommended criteria at the time of testing during detailed design, this can be readily rectified through wind control mechanisms such as an air curtain.

These suggestions should be verified through computational fluid dynamics (CFD) simulations or wind tunnel testing during the detailed design phase.

Balconies

The proposed building has balconies from level 1 to level 21 and terrace on level 5. The balconies on eastern and western facades and corner balconies face the strongest wind from southwest and northeast. Considering the balconies' height and the strong wind directions of Adelaide, recommendation is provided to fulfill the recommended criteria.

It is also predicted that conditions may exceed the recommended walking criterion during infrequent wind events on corner balconies. On the terrace of level 5. The phenomenon of elevated wind velocities resulting in discomfort to the users on corner balconies and terrace areas is a common occurrence for similar developments. Accelerated corner flows result in standing vortices and high exposure to corner balconies often result in a windy environment that may result in less frequent use of the balconies. Thus, owners of corner apartments will consider the balcony areas as acceptable for their intended use most of the time.

5. RECOMMENDATIONS

Level 5 terrace

The designed 1.8 m high balustrades are expected to provide a shielding to fulfill the recommended walking criteria. However, it is recommended to provide a shielding screen in the gap between the terrace door and the door of the building as shown below. If it is open, wind will accelerate in the gap and possible to create wind noise.

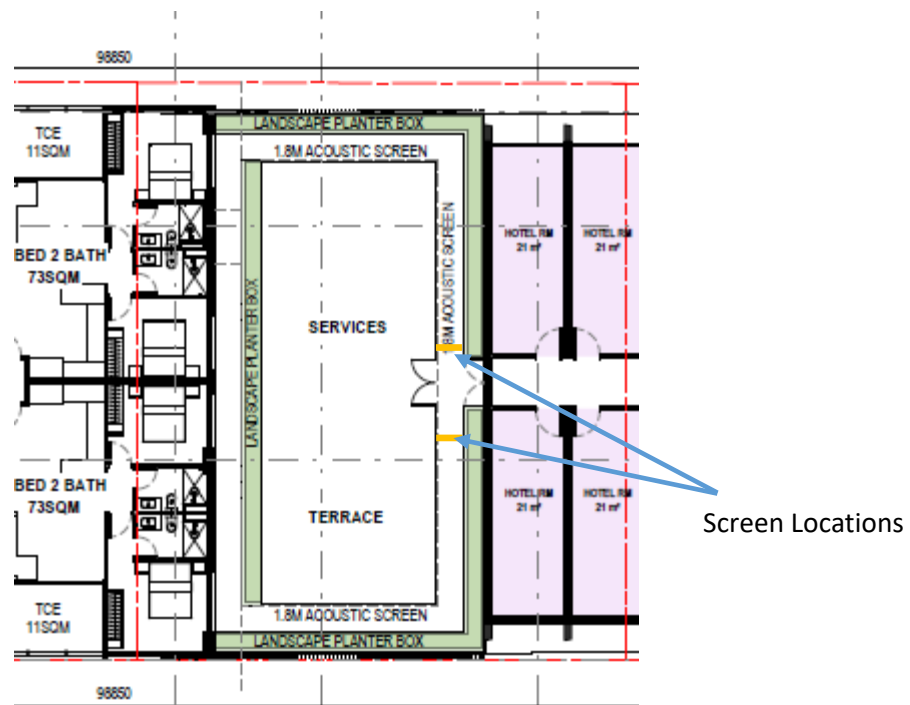


Figure 15: Recommended wind screen in Level 5

Level 1-19 balconies

It is recommended that minimum 1.2 m high balustrades be constructed on the balconies for level 1 to level 19 to fulfill the recommended walking criteria.

Level 20-21 balconies.

It is recommended that minimum 1.5 m high balustrades be constructed on the balconies for level 20 and level 21 to fulfill the recommended walking criteria.

6. CONCLUSION

GWTS has carefully evaluated the wind environment around the proposed building by considering its form and exposure, the nearby existing developments, the local wind climate and the proposed use of ground level areas and elevated recreational areas in and adjacent to the proposed development. Based on our experience and empirical formulae for calculating wind speeds at pedestrian/recreational areas, and the above consideration, the expected wind speeds around the proposed building have been predicted and assessed against widely accepted and used criteria for comfort and safety.

A summary of the study is as follows:















- Only minor increases in wind speeds were predicted to occur at pedestrian level as a result of the proposed development with the recommended comfort criteria for public footpaths and building entrances being met.
- If wind speeds at the pedestrian link between Cannon Street and Tatham Street, located in the centre of the proposed development, exceed recommended criteria during detailed design testing, they can be readily mitigated using wind control mechanisms such as an air curtain.
- Wind speeds on the apartment balconies and terrace areas were predicted to meet the recommended comfort criterion subject to implementation of the recommended minimum balustrade heights.

Please note that this is an opinion statement and is not based on wind tunnel testing.

7. References

- [1] "Australian Standard 1170.2:1989, Wind actions".
- [2] W.H., "Criteria for Environmental Wind Conditions," *Jour. Industrial Aerodynamics*, vol. 3, pp. 241-249, 1978.
- [3] Australian Wind Engineering Society, "Cladding Pressure and Environmental Wind Studies," Quality Assurance Manual, 2001.
- [4] "AS/NZS 1170.2 Supplement 1:2011".
- [5] Australasian Wind Engineering Society, "Guidelines for Pedestrian Wind Effects Criteria," September 2014.
- [6] developmentactivity.melbourne.vic.gov.au. (2018), "Development Activity Model," [Online]. Available: <https://developmentactivity.melbourne.vic.gov.au/> . [Accessed 16 Oct 2018].

APPENDIX A – DRAWING FILES

 2024-10-08 N-21058 108 Franklin Street Mixed Use Development - Issue For A... 	15/10/2024 2:43 PM	Adobe Acrobat D...	129,398 KB
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BESTEC[®]

BRINGING BUILDINGS TO LIFE

108 FRANKLIN STREET, ADELAIDE
MIXED-USE DEVELOPMENT

ENVIRONMENTAL NOISE ASSESSMENT

CJI:KEH
57138/6/1
2 August 2024

Auta
L3 South 33 Franklin Street
ADELAIDE SA 5000

Attention: Mr J Apostolou

Dear Sir

**108 FRANKLIN STREET, ADELAIDE MIXED USE DEVELOPMENT
ENVIRONMENTAL NOISE ASSESSMENT**

As requested, we enclose a copy of our design report on the Acoustic Services for the above project.

We trust that the report provides sufficient information for your immediate purpose, and we would be most pleased to further discuss any aspect upon your request.

Yours faithfully
BESTEC PTY LTD



**LOW CHYI JIE (CJ)
ACOUSTIC SERVICES ENGINEER**

REPORT ISSUE REGISTER

REVISION	DATE	REVISION DESCRIPTION
00	08.03.2024	Initial Issue
01	02.08.2024	Planning Reissue

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Introduction

BESTEC Pty Ltd has been engaged to provide acoustic engineering services for the proposed mixed-use development at 108 Franklin St, Adelaide SA 5000. This document presents the methodology and results of our attended noise survey, the results of our assessment of the environmental noise impact to the nearest noise sensitive receivers resulting from operation of the proposed development as well as recommendations for acoustic treatments where required to ensure compliance with the proposed acoustic design criteria.

Executive Summary

In summary:

- The architectural concept drawings of the proposed mixed-use development were reviewed.
- An attended acoustic survey was conducted at the site of the proposed development on the 5th of March 2024 to determine the existing ambient noise levels and dominant sources of noise.
- Appropriate acoustic design criteria were nominated based on the proposed development plan, SA Environment Protection (Commercial and Industrial Noise) Policy 2023 and Ministerial Building Standard MBS 010.
- Architectural acoustics design recommendations to achieve the selected criteria were provided.
- The assessment of the environmental noise impact to the nearest noise sensitive receivers resulting from the proposed mixed-use development on 108 Franklin St has been conducted. Based on the results of the assessment, we note:
 - Noise generating activities such as deliveries and rubbish collection are recommended to strictly operate within the EPA stipulated day time only (i.e., after 07:00 and before 22:00).

Based on the above, we conclude that the desired outcome (DO 1 – The development to be located and designed to mitigate adverse effects on or from neighbouring and proximate uses) stipulated in the Assessment Provisions (Section Interface between Land Uses of the SA Planning and Design Code) will be achieved.

For explanation of acoustic terms, please refer to the Glossary of Acoustic Terminology attached to this document (Appendix A).

Acoustic Analysis

References

The following documents have been referenced within the preparation of this acoustic report.

- [1] SA Environment Protection (Commercial and Industrial Noise) Policy 2023.
- [2] EPA Guidelines for Development Proposal Assessment for Venues Where Music May be Played, 2015.
- [3] SA Planning and Design Code, 2024.
- [4] World Health Organisation (1999) "Guidelines for Community Noise".
- [5] AS/NZS 2107:2016 "Acoustics – Recommended design sound levels and reverberation times for building interiors".
- [6] Ministerial Building Standard MBS 010 "Construction requirements for the control of external sound", May 2023.
- [7] Architectural Drawings provided by Cheeseman Architects, dated 1 August 2024.
- [8] AS ISO 140.4–2006 "Acoustics – Measurement of sound insulation in buildings and of building elements. Part 4: Field measurements of airborne sound insulation between rooms".
- [9] ISO 140-5:1998 "Acoustics – Measurement of sound insulation in buildings and building elements. Part 5: Field measurements of airborne sound insulation of façade elements and facades".
- [10] Laurence Nicol and Paul Johnson "Prediction of parking area noise in Australian conditions" Report, Proceedings of Acoustics, Australia, 2011.

Proposed Development

A new mixed-use building comprises the following components:

- Basement – Services, waste room and linen stores.
- Ground Floor – Commercial tenancies, residence lobby, waste room, transformer room, building manager office, waiting area, loading dock and carpark entrance;
- CP L1: Restaurant, stores, hotel staff room, hotel storage, hotel business centre, amenities, services and carpark.
- CP L2: Carpark, services and residential storage area.
- CP L3: Function room, waiting area, carpark, amenities and services.
- CP L4: Hotel gym, residential gym, sauna, amenities, stores, carpark and services.
- Level 5: Residential apartments, hotel rooms, stores and terrace services.
- Levels 6 – 17: Residential apartments and hotel rooms.
- Levels 18 – 21: Residential apartments.

The site of the proposed development is located on land zoned Capital City (CC) with respect to the SA Planning and Design Code [3] with the noise sensitive receivers located in close proximity on land zoned Capital City (CC):

- YHA Adelaide Central on Waymouth St;
- Y-Suites on Waymouth St;
- The approved development on 124 Franklin St;

The boundaries of the proposed development are as follow:

- North – Adjacent commercial development located on the same land zone.
- South – Franklin St separating the proposed mixed-use development from commercial properties located on the same land zone.
- West – Tatham St separating the proposed mixed-use development from commercial properties location on the same land zone.
- East – Cannon St separating the proposed mixed-use development from commercial properties located on the same land zone.

Conditions

The SA Planning and Design Code [3] sets the Desired Outcome (DO) for developments, which might affect sensitive receivers in adjacent areas as follows:

DO 1 Development is located and designed to mitigate adverse effects on or from neighbouring and proximate uses.

The following requirements (performance outcomes) of the SA Planning and Design Code [3] are relevant to the design and siting of the proposed developments (Section Interface Between Land Uses):

PO 1.1 Sensitive receivers are designed and sited to protect residents and occupants from adverse impacts generated by lawfully existing land uses (or lawfully approved land uses) and land uses desired in the zone.

PO 1.2 Development adjacent to a site containing a sensitive receiver (or lawfully approved sensitive receiver) or primarily intended to accommodate sensitive receivers is designed to minimise adverse impacts.

PO 2.1 Non-residential development does not unreasonably impact on the amenity of sensitive receivers (or lawfully approved sensitive receivers), or an adjacent zone primarily for sensitive receivers through its hours of operation having regard to:

- a) The nature of the development*
- b) Measures to mitigate off-site impacts*
- c) The extent to which the development is desired in the zone*
- d) Measures that might be taken in an adjacent zone primarily for sensitive receivers that mitigate adverse impacts without unreasonably compromising the intended use of that land.*

A non-residential development is deemed to satisfy the above requirement if the noise emissions that affect the noise sensitive receivers achieves the relevant Environment Protection (Commercial and Industrial Noise) Policy criteria (DTS/DPF 4.1).

PO 4.1 Development that emits noise (other than music) does not unreasonably impact the amenity of sensitive receivers (or lawfully approved) sensitive receivers.

A non-residential development is deemed to satisfy the above requirement if its operating hours are within 7am to 9pm (Mon to Fri) and 8am to 5pm (Sat and Sun) (DTS/DPF 2.1)

PO 4.2 Areas for the on-site manoeuvring of service and delivery vehicles, plant and equipment, outdoor workspaces (and the like) are designed and sited to not unreasonably impact the amenity of adjacent sensitive receivers (or lawfully approved sensitive receivers) and zones primarily intended to accommodate sensitive receivers due to noise and vibration by adopting techniques including:

- a) locating openings of buildings and associated services away from the interface with the adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers*
- b) when sited outdoors, locating such areas as far as practicable from adjacent sensitive receivers and zones primarily intended to accommodate sensitive receivers*
- c) housing plant and equipment within an enclosed structure or acoustic enclosure*
- d) providing a suitable acoustic barrier between the plant and / or equipment and the adjacent sensitive receiver boundary or zone.*

Noise Survey

Attended Noise Survey

Attended noise surveys were conducted on 5 March 2024 from 12:20 – 13:00 and 22:00 – 22:35 to determine the traffic noise levels over 15-minute intervals. The survey was conducted using a Brüel & Kjær handheld Analyser Type 2270 Sound Level Meter (Serial Number: 3006966, last calibrated on 21 November 2023, due for calibration 21 November 2024) fitted with an approved windshield. The calibration of the analyser was spot checked before and after the measurement. A-weighted Equivalent Continuous Noise Levels (L_{Aeq}), Maximum Noise Levels (L_{Amax}) and percentile noise levels (L_{A10} , L_{A90}) were measured over a 15-minute interval with the results summarised in Table 1 and Figure 1 highlighting the measurement locations.



Figure 1: Measurement Locations During the Attended Noise Survey [7]

Location	Time		L_{Aeq} , dB(A)	L_{Amax} , dB(A)	L_{A10} , dB(A)	L_{A90} , dB(A)	Notes
	Daytime	Nighttime					
1	12:20 PM		66.2	88.8	67.3	54.3	Traffic noise from Waymouth St dominant
		10:00 PM	60.2	76.9	64	51.6	Traffic noise from Waymouth St dominant
2	12:35 PM		67.1	84	70.4	57.2	Traffic noise from Franklin St dominant
		10:20 PM	61.8	76.7	66.6	48.1	Traffic noise from Franklin St dominant

Table 1: Summary of Attended Noise Survey for the proposed development (5th March 2024)

Design Criteria

Environmental Noise

Continuous Noise

This criterion will be relevant to noise emitted from the proposed development resulting from operation of engineering services plant, car park, deliveries, rubbish collections etc.

As the Deemed-to-Satisfy/Designed Performance Feature (DTS/DPF 4.1) refers to compliance with relevant Environment Protection (Commercial and Industrial Noise) Policy criteria, the environmental noise assessment has been conducted against the criteria set by the Environment Protection (Commercial and Industrial Noise) Policy 2023 [1].

The Environment Protection (Commercial and Industrial Noise) Policy 2023 [1], sets out the maximum allowable continuous noise in terms of A-weighted Equivalent Continuous Noise Level (L_{Aeq}) based on the time of day and zoning / use of land in which the noise source and receiver are located. With reference to the SA planning and Design Code [3], we note that the proposed development is located within a land zoned City Centre (CC) with the nearest noise sensitive receiver located in the same land zone. Based on the SA Planning and Design Code [3], the "Capital City (CC)" zone is a commercial and residential zone therefore, the criteria derived in accordance with the Environment Protection (Commercial and Industrial Noise) Policy 2023 [1] should be based on the average of the indicative noise levels for different land categories. Table 2

details the indicative noise factors based on time of day and land-use as stipulated in Table 2 of the Environment Protection (Commercial and Industrial Noise) Policy 2023 [1].

Land Use Category	Day Time (7:00 – 22:00)	Night Time (22:00-7:00)
Residential	52	45
Commercial	62	55

Table 2: Indicative noise factors based on time of day and land use.

We note that for planning purposes, the predicted noise level (continuous) for a new development (in this case the proposed mixed-use development) should not exceed the relevant indicative noise level, minus 5dBA. Therefore, the environmental noise criteria for assessment of the noise impact from the proposed development become:

- Day time (7:00 am to 10:00 pm): 52dBA
- Night time (10:00 pm to 7:00 am): 45dBA

Note that if noise emitted by the proposed development contains any tones, modulation, impulsive, or low frequency characteristics, the continuous noise level of the noise source must be adjusted as follows:

- Noise containing 1 characteristic – 5dBA penalty added to source continuous noise level.
- Noise containing 2 characteristics – 8dBA penalty added to source continuous noise level.
- Noise containing 3 or 4 characteristics – 10dBA penalty added to source continuous noise level.

Intermittent Noise

This criterion will be relevant to noise emitted from the proposed development resulting from short term or transient noise events including car doors slam, rubbish collection, etc.

The criteria provided in the above section relate to continuous noise sources and do not cater for intermittent noise events, such as impacts during loading/unloading, car horns sounding, etc. We recommend the use of the World Health Organisation (WHO) Guidelines [4], which recommends a maximum A-weighted noise level L_{Amax} , of 45dBA in a bedroom, which is equivalent to approximately 55dBA to 60dBA at the façade of the residential building with windows partially open.

In addition, the SA Environment Protection (Commercial and Industrial Noise) Policy 2023 [1] provides assessment criterion of L_{Amax} of 60dBA for night-time for the proposed development (for application for development authorisation), which agrees with the criterion stipulated by the WHO [4].

Music Noise

We understand that only background music¹ will be played in the restaurant and therefore, assessment against the EPA Guidelines for Development Proposal Assessment for Venues Where Music May be Played [2] is not warranted.

Building Acoustics

The level of background and transient/intermittent noise, the speech privacy rating and the room acoustics define the quality of the acoustics within a building. The recommended criteria for each space are shown in Table 3 below. Please refer to each individual section below for interpretation of the criteria.

¹ Background music is defined by music being played at sound pressure levels lower than human speech where the average human speech pressure levels at normal level is 65dBA at 1m.

Type of occupancy/activity	Background Noise L_{Aeq} , dBA	Reverberation Time, sec	Airborne Sound Insulation		Weighted Sound Level Difference, D_w
			Weighted Sound Reduction Index, R_w	Weighted Sound Reduction Index with Spectrum Adaptation Term, R_w+C_{tr}	
Apartments			50^2	50^3	
Bedrooms	35 – 40				
Living areas	35 – 45				
Commercial office tenancies	40 – 45	0.4 – 0.6			40
Gymnasium	< 50	Minimise as practical			40
Residence lobby/ waiting area	40 – 45	0.8 – 1.0			40
Restaurant	40 – 50	0.6 – 0.8			40
Function room	40 – 45	0.8 – 1.0			40
corridors	45 – 50	Minimise as practical			N/A
Multi story car park	< 55	N/A			N/A
Hotel staff and Office	40 – 45	0.4 – 0.7			40
Sauna	45 – 50	N/A			35
Stores	< 50	N/A			35
Engineering services	N/A	N/A			45 ⁴

Table 3: Proposed building acoustic design criteria for 108 Franklin St

Background Noise

AS/NZS 2107-2016

AS/NZS 2107-2016 [5] sets the criteria for background noise in terms of A-weighted equivalent continuous sound pressure level over the measurement interval ($L_{Aeq, T}$) in accordance with the use of the spaces and the location of the buildings. Recommendations for each space are provided in Table 3 in terms of an averaged A-weighted sound pressure level (L_{Aeq}) with Table 4 detailing the subjective response of individuals to the proposed sound levels for interpretation of the recommendations.

Average Sound Pressure Levels (dBA)	Subjective Rating
35 – 40	Audible but unobtrusive
40 – 45	Moderate but unobtrusive
45 – 50	Unobtrusive with low levels of surrounding activities
50 – 55	Unobtrusive with high levels of surrounding activities

Table 4: Subjective ratings for various average sound pressure levels

Ministerial Building Standard MBS 010

In addition, the Ministerial Building Standard MBS 010 [6] stipulates that the attenuation provided by the building envelope must be sufficient to provide sufficient attenuation of traffic noise so the internal sound levels do not exceed the internal sound criteria values stated in Table 2 of the Standard [6] as follows:

² Between apartments and a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification.

³ Between apartments.

⁴ The level of sound insulation will be confirmed once the engineering plant specification is available.

Type of room	Sound Source	Internal sound criteria	
		Building design target averaged over the total number of such rooms in the building	Maximum allowable for individual rooms in the building
Bedroom	Road and rail	30dBA $L_{eq, night}$	35dBA $L_{eq, night}$
Other habitable rooms	Road and rail	35dBA $L_{eq, night}$	40dBA $L_{eq, night}$

Table 5: Ministerial Building Standard MBS 010 criteria for noise intrusion (Table 3.1 of Ministerial Building Standard MBS 010 reproduced)

The Standard also nominates the traffic noise levels to be used in the assessment (Ministerial Building Standard MBS 010, Table A1.2: Sound source levels for Road and rail) in accordance with the road type, determined in by the relevant Development Plan. In accordance with SAPPA, Franklin St where the proposed development is located is identified as neither a Type A, Type B nor Type R road. Therefore, the noise levels measured in the noise survey (Table 1) have been used in this assessment.

Room Acoustics

AS 2107-2016 [5] sets out the design criteria for reverberation times within occupied spaces. The reverberation time defines the time taken for sound to decay within a space and thus the degree of intelligibility of both unassisted speech and sound reinforcement systems. The criterion for a given space depends on the volume of the space, with Table 6 outlining the subjective impression for spaces with varying volume. Criteria considered appropriate for the various spaces involved within the project scope are listed in Table 3 above.

Reverberation Time (sec)			Subjective Rating
Small (100m ³)	Medium (1,000 m ³)	Large (10,000m ³)	
< 0.3	0.3 - 0.5	0.6 - 0.8	Dead
0.3 - 0.5	0.5 - 0.7	0.8 - 1.0	Medium dead
0.5 - 0.7	0.7 - 1.0	1.0 - 1.5	Average
0.7 - 1.0	1.0 - 1.5	1.5 - 2.5	Medium live
1.0 - 2.0	1.5 - 2.5	2.5 - 4.5	Live

Table 6: Subjective response to various reverberation times and room volumes

Assessment and Recommendations

General

Acoustic Sealants

We note that for the acoustic integrity of building elements to be maintained, all gaps and interfaces along the junctions and joints of linings must be sealed with an appropriate acoustic grade sealant. Penetrations for mechanical or electrical services must be properly caulked and sealed around the ductwork and cabling to ensure the intended acoustic rating of the partition is retained.

Appropriate acoustic caulking products include:

- Bostik Firemastic.
- Bostik Seal-n-flex 2637.
- Pyropanel Multiflex.
- Boral Fyreflex.
- Dow-Corning 790 Silicone.
- Dow-Corning 795 Silicone.
- Sika Sikaflex-11 FC.
- Fosroc Flamex 3.

Cavity Infill

Where a cavity infill is recommended, equivalent alternatives are:

- Fibreglass – 50mm, 12kg/m³.
- Rockwool – 50mm, 38kg/m³.
- Polyester – 900gsm.

Ceiling Overlay

Where a ceiling overlay is recommended, equivalent alternatives are:

- Glasswool – 100mm, 12kg/m³.
- Rockwool – 100mm, 38kg/m³.
- Polyester – 100mm, 32kg/m³.

Building Envelope

Based on the architectural drawings [7] and the results of our assessment, we make the following preliminary recommendations for construction of the building envelope.

- Façade
 - The structural drawings indicate precast concrete, and we recommend at least 150mm thick precast concrete and consider it acceptable from acoustic point of view, however internal plasterboard lining, and fibrous cavity insulation might be required to meet the thermal requirements.
- External glazing
 - Ground level (Commercial tenancies) – we recommend minimum double glazing constructed of 6mm glass – 12mm air space – 6mm glass.
 - Restaurant (CPL1) – we recommend minimum double glazing constructed of 6mm glass – 12mm air space – 6mm glass.
 - Function room (CPL3) – we recommend minimum 10.38mm laminated glass or double glazing constructed of 6mm glass – 12mm air space – 6.38mm laminated glass.
 - Gym (CPL4) – we recommend minimum 6.38mm laminated glass.
 - Hotel (levels 5 to 17) – we recommend double glazing constructed of minimum 6mm glass – 12mm air space – 6.38mm laminated glass.
 - Residential (levels 5 to 21) – we recommend double glazing constructed of minimum 6mm glass – 12mm air space – 6mm glass.

We note that the residential rooms (levels 18 – 19) will be facing the hotel rooftop services, we note that the services serving the building is currently not known and this section will be revised once selection of units is known.

Where glazing is operable it should be fitted with acoustic seals (Raven or Schlegel ranges).

- Roof structure – the architectural drawings indicate concrete slab, and we recommend minimum thickness of 200mm, however, this will be confirmed once details of the roof mounted plant are available.

The above preliminary recommendations will be revised once building elevations and engineering plant selections are available.

Environmental Noise

Continuous Noise

Noise Associated with Mechanical Plant

Details of the engineering plant that will be serving the development are not available yet, however, we note that the airborne noise associated with engineering services will be controlled by design of appropriate attenuators, duct lagging and acoustic enclosures. The vibration and structure borne noise will be controlled by design of appropriate vibration isolators (double deflection mounts, spring isolators etc.).

Noise Associated with Waste Collection

We assume that the rubbish will be stored in the waste room on the ground floor, with the rubbish collection vehicles to access the at the loading/unloading dock from Tatham St, collect the rubbish and then leave via Tatham St. We assessed the noise impact on the nearest residential properties resulting from noise emissions from typical rubbish collection vehicle including the following activities:

- Rubbish collection vehicle accessing the waste loading zone (including reverse alarm).
- Rubbish collection.
- Rubbish collection vehicle departing.

We calculated the A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ($L_{Aeq,15min}$) assuming the following activity durations and measured noise levels from similar activities on a previous project:

- Rubbish collection vehicle accessing the waste loading zone (including reverse alarm) – 30 seconds, 70dBA at 5m.

- Rubbish collection – 10 minutes, 65dBA at 5m.
- Rubbish collection vehicle departing – 30 seconds, 73dBA at 5m.
- The balance of a 15-minute interval – 4 minutes, 52dBA (ambient noise level).

The calculated A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ($L_{Aeq,15min}$) resulting from loading / unloading activities, which we used in the assessment was 65dBA at 5m. Taking into account that the nearest residential noise receiver (approx. 40m), we calculated the A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ($L_{Aeq,15min}$) at the façade of the nearest residence as 50dBA. The calculated 50dBA achieves the daytime criteria for continuous environmental noise and we recommended that waste collection be restricted to the EPA stipulated day time only (i.e., after 07:00 and before 22:00).

Continuous Noise Associated with Multi Story Carpark

We have investigated the environmental noise impact the car park movements will have on the surrounding noise sensitive receivers, considering the following:

- Vehicle Ignition
- Vehicle door slamming
- Vehicle idle and take off from carpark.

The calculated A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ($L_{Aeq, 15min}$), assuming 20 vehicles either entering or exiting the car park during a peak period, which we used in the assessment was 70dBA at 1m. Therefore, the predicted noise levels at the nearest noise sensitive receivers would be 51dBA, which achieves the daytime criteria for continuous environmental noise. Given the fact that the car movements in the carpark will be significantly less during night time (possible less than 1 movement per a 15-minute interval), we consider the amenity of the nearest noise sensitive receivers will not be affected.

Noise Associated with the Deliveries

We assume that deliveries take place in the loading and unloading dock and calculated the A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ($L_{Aeq,15min}$) assuming the following activity durations and measured noise levels from similar activities on a previous project:

- Delivery vehicle accessing the loading dock (including reverse alarm) – 30 seconds, 70dBA at 4m.
- Loading/unloading activities including noise from refrigeration unit on the delivery vehicle – 10 minutes, 68dBA at 4m.
- Delivery vehicle departing – 30 seconds, 68dBA at 4m.
- The balance of a 15-minute interval – 4 minutes, 54dBA (ambient noise level).

The calculated A-weighted Equivalent Continuous Noise Level over a typical 15-minute interval ($L_{Aeq, 15min}$) resulting from delivery vehicle activities, which we used in the assessment was 65dBA at 5m.

Based on the above, we predict incident noise levels of 50dBA at the nearest residential noise sensitive receiver (approx. 40m). We note that the noise emissions due to the delivery vehicle activities achieve the daytime environmental noise criteria and would not affect the amenity of the nearest residential noise sensitive receiver and we recommended that deliveries be restricted to the EPA stipulated day time only (i.e., after 07:00 and before 22:00).

Intermittent Noise

The intermittent noise criterion relates to sleep disturbance and is applicable to night time only. With the recommendations above limiting waste collection to day time only; the car door slams; car engine start and tyre screeching in the carpark during night time will be the only sources of intermittent noise impacting at the nearest noise sensitive boundaries.

We assessed the noise levels at the nearest noise sensitive boundary based on noise levels (L_{Amax}) measured during previous projects as follows:

- Car door slam and engine start – 87dBA at 1m;
- Car tyre squealing due to skidding – 68dBA measured at 3m.

Using the above noise measurement results, the predicted intermittent noise levels would be 60dBA we calculated the noise level at the nearest noise sensitive boundary (the existing residential developments on western side) and note that nominated intermittent noise criterion will be achieved.

Conclusion

The assessment of the environmental noise impact to the nearest noise sensitive receivers resulting from the proposed mixed-use development on 108 Franklin St has been conducted. Based on the results of the assessment, we note:

-
- Noise generating activities such as deliveries and rubbish collection are recommended to strictly operate within the EPA stipulated day time only (i.e., after 07:00 and before 22:00).

Based on the above, we conclude that the desired outcome (DO 1 – The development to be located and designed to mitigate adverse effects on or from neighbouring and proximate uses) stipulated in the Assessment Provisions (Section Interface between Land Uses of the SA Planning and Design Code) will be achieved.

Appendix A
Glossary of Acoustic Terminology

dB(A) Also referred to as dBA. A unit of measurement, decibels(A), of sound pressure level which has its frequency characteristics modified by a filter ("A-weighted") so as to more closely approximate human ear response at a loudness level of 40 phons. The table below outlines the subjective rating of different sound pressure levels.

Noise Level (dBA)	Subjective Rating
25-30	Barely audible and very unobtrusive.
30-35	Audible but very unobtrusive.
35-40	Audible but unobtrusive.
40-45	Moderate but unobtrusive.
45-50	Unobtrusive with low levels of surrounding activity.
50-55	Unobtrusive with high levels of surrounding activity.

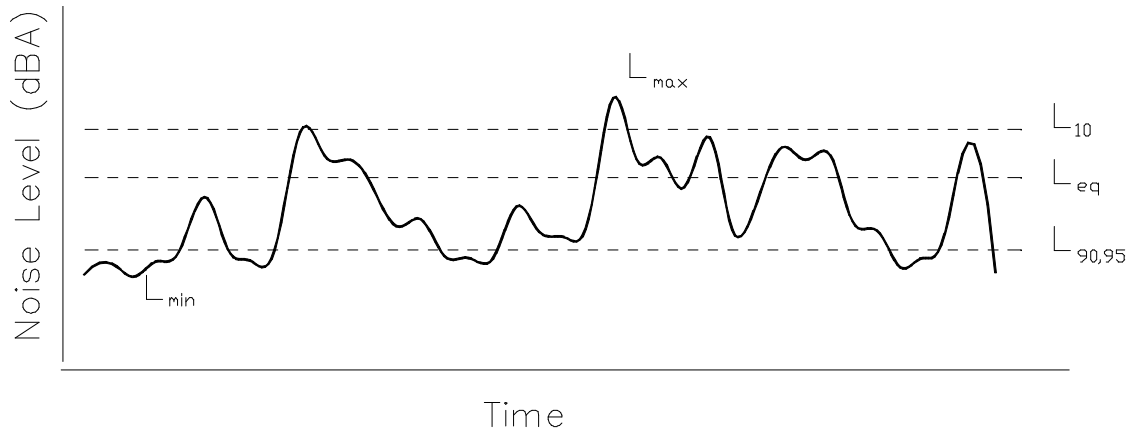
L₁ The noise level which is equalled or exceeded for 1% of the measurement period. L₁ is an indicator of the impulse noise level, and is used in Australia as the descriptor for intrusive noise (usually in dBA).

L₁₀ The noise level which is equalled or exceeded for 10% of the measurement period. L₁₀ is an indicator of the mean maximum noise level, and is used in Australia as the descriptor for intrusive noise (usually in dBA).

L₉₀, L₉₅ The noise level which is equalled or exceeded for 90% of the measurement period. L₉₀ or L₉₅ is an indicator of the mean minimum noise level, and is used in Australia as the descriptor for background or ambient noise (usually in dBA).

L_{eq} The equivalent continuous noise level for the measurement period. L_{eq} is an indicator of the average noise level (usually in dBA).

L_{max} The maximum noise level for the measurement period (usually in dBA).



Note: The subjective reaction or response to changes in noise levels can be summarised as follows: A 3dBA increase in sound pressure level is required for the average human ear to notice a change; a 5dBA increase is quite noticeable and a 10dBA increase is typically perceived as a doubling in loudness.

STC/R_w Sound Transmission Class or Weighted Sound Reduction Index. Provides a single number rating (from the sound transmission loss or sound reduction index for each frequency band) of the sound insulation performance of a partition. The higher the value, the better the performance of the partition. The subjective impression of different ratings is shown in the table below.

Type of noise source	STC/R _w Rating				
	40	45	50	55	60
Normal Speech	Audible	Just Audible	Not Audible		
Raised speech	Clearly Audible	Audible	Just Audible	Not Audible	
Shouting	Clearly Audible	Clearly Audible	Audible	Just Audible	Not Audible
Small television/small entertainment system	Clearly Audible	Clearly Audible	Audible	Just Audible	Not Audible
Large television/large hi-fi music system	Clearly Audible	Clearly Audible	Clearly Audible	Audible	Just Audible
DVD with surround sound	Clearly Audible	Clearly Audible	Clearly Audible	Audible	Audible
Digital television with surround sound	Clearly Audible	Clearly Audible	Clearly Audible	Audible	Audible

FSTC/R_w' The equivalent of STC/R_w, unit for sound insulation performance of a building element measured in the field.

C_i, C_{tr} The ratings (R_w, D_{nTw}, L_{nTw}) are weighted in accordance to a spectrum suited to speech. This term modifies the overall rating to account for noise with different spectra, such as traffic (C_{tr}) or footfalls (C_i). The ratings may be written as R_w+C_{tr}, or D_{nTw}/L_{nTw}+C_i.

NNIC/D_{nTw} Normalised Noise Isolation Class, or Weighted Standardised Sound Level Difference. Provides a single number rating of the sound level difference between two spaces, and incorporates the effects of flanking noise between two spaces. This rating is generally accepted to be about 5 points less than the STC/R_w rating.

IIC/L_{nw} Impact Insulation Class, or Weighted Normalised Impact Sound Level. L_{nw}=110-IIC. The higher the IIC rating, or the lower the L_{nw} rating the better the performance of the building element at insulating impact noise. The table below gives the subjective impression of different ratings:

IIC	L _{nw}	Subjective Rating
40	70	Clearly Audible
45	65	Clearly Audible
50	60	Audible
55	55	Audible
60	50	Just Audible
65	45	Inaudible

FIIC/L_{nTw}' The equivalent of IIC/L_{nw}, but the performance is for the building element measured in the field.

Schedule 2 — Site contamination declaration form

Site contamination declaration form
<p>Council area:</p> <p><u>City of Adelaide</u></p> <p>Regarding the land comprised in 108-122 Franklin Street, Adelaide, SA (the subject land*);</p> <p><u>I Ashley Moule per terms and conditions agreed and limitations outlined in the report on behalf of A.M. Environmental Consulting Pty Ltd, a site contamination consultant, certify the following details:</u></p>
<p>Part 1—Investigations</p> <p>(a) I have relied on the following reports to complete this statement:</p> <p><u>AME Report 2466 PSI 108-112 Franklin Street 180923 dated 18 September 2023</u></p> <p>(b) Investigations were conducted in accordance with the <i>National Environment Protection (Assessment of Site Contamination) Measure 1999</i>. (ASC NEPM) if investigations were not conducted in strict accordance with the ASC NEPM state why not</p>
<p>Part 2—Site contamination unlikely to exist (for the purposes of planning consent)*</p> <p>(a) A potentially contaminating activity (as defined in the <i>State Planning Commission Practice Direction 14 (Site Contamination Assessment)</i>) is not known to have occurred on the subject land*;</p> <p>(b) A class 1 activity (see the <i>State Planning Commission Practice Direction 14 (Site Contamination Assessment)</i>) is not known to have occurred on adjacent land*.</p>
<p>Part 3—Site contamination exists or may exist*</p> <p>(a) site contamination exists or may exist on or below the surface of the land* as a result of a class 1 activity (including where a class 1 activity exists or previously existed on adjacent land*), class 2 activity, class 3 activity (see the <i>State Planning Commission Practice Direction 14 (Site Contamination Assessment)</i>), or notification of site contamination of underground water (as shown on the South Australian Property and Planning Atlas) including where such a notification exists on adjacent land*;</p> <p>(b) the site contamination or potential site contamination originated or is likely to have originated—</p> <p>(i) on the subject land*—</p> <p>(A) as a result of the following activities carried on there</p> <p><u>Please see Appendix 2 of report as there are multiple potentially contaminating land uses referenced.</u></p> <p><u>These include garages and printers and publishers and multiple other manufacturers.</u></p> <p>(B) at the following location:</p> <p><u>Please see attached pages in report and Appendix 2 which references the land uses at the site. There are too many to list here.</u></p> <p>or</p> <p>(ii) on adjacent land* (i.e. class 1 activity or notification of site contamination of underground water (as shown on the South Australian Property and Planning Atlas))*—</p> <p>(A) as a result of the following activities carried on there</p> <p><u>Please see Appendix 2 of report as there are multiple potentially contaminating land uses referenced.</u></p> <p><u>These include garages and printers and publishers and multiple other manufacturers.</u></p>

(B) at the following location:

Please see attached pages in report and Appendix 2 which references the land uses at the site. There are too many to list here.

(C) ~~the subject site is impacted by a notification of site contamination of underground water originating from adjacent land*:~~ ~~*[insert or attach details of relevant investigations]*~~.

Part 4—Observations*

The subject land* is located on land within a *[select any that apply]*—

- groundwater prohibition area (as shown on the South Australian Property and Planning Atlas)
- subject of a notation under section 103P of the *Environment Protection Act 1993* on the relevant title that a site contamination audit report has been prepared in respect of the land.

Date

18/09/23

Signature of site contamination consultant



Name of consultant's company or business

Ashley Moule per terms and conditions agreed and limitations outlined in the report on behalf of A.M. Environmental Consulting Pty Ltd



PRELIMINARY SITE INVESTIGATION
(SITE HISTORY, RESULTS FROM SCREENING LEVEL SOIL AND
SOIL VAPOUR)

108-122 Franklin Street, Adelaide, SA

Prepared For: AUTA Group

18 September 2023



Document reference

2466 R1

Issue and revision record

Revision	Date	Originator	Checker	Description
A	18 September 2023	CM	AM	Final PSI report

Prepared by

A.M. Environmental Consulting Pty Ltd

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EXECUTIVE SUMMARY

A.M. Environmental Consulting Pty Ltd (AME) was commissioned by AUTA Group to conduct environmental site history research, soil and soil vapour assessment for the site at 108-122 Franklin Street, Adelaide, SA. ('the site').

The proposed use is for a mixed - Residential, Hotel and Retail development comprises of a basement to house the fire tank and pump room, a ground level commercial development, 5 levels of carparking and 21 upper levels of medium to high density residential apartments & hotel rooms. The buildings would be underlain with a concrete slab and base course gravel and fortecon. Service trenches would be filled with 500mm of imported clean fill (quarry supplied sands and gravels). There would be no significant domestic food production at the site. There would be no contact with subsurface soils once developed. Groundwater would not be abstracted for domestic use.

The aim of the work was to assess the potential for previous or current land uses to have resulted in gross or widespread soil contamination to exist and whether there are potential contamination aspects or impacts that may present potential liabilities or constraints on future development which would preclude the site from being made suitable for the proposed use.

The work was conducted in general accordance with the NEPC (1999), National Environment Protection (Assessment of Site Contamination) Measure, December 1999 (ASC NEPM) as amended in 2013.; Standards Australia. Guide to the investigation and sampling of sites with potentially contaminated soil – AS 4482.1-2005 and the SA EPA (2018 as amended in 2019). Guidelines for the Assessment and Remediation of Site Contamination (GAR) and SA Planning Commission Practice Direction 14 Site Contamination Assessment 2021 (PD14).

The site history information indicated that the site has been occupied by potentially contaminating activities. However, the preliminary screening level soil assessment, and soil vapour assessment did not indicate gross or widespread indicators of soil contamination such as fill, staining or odour or elevated chemicals concentrations which would result in a material risk to proposed land users at the site.

There were no fuel tanks observed at the site or encountered during the site visit. The site owner indicated that no above or underground fuel tanks were located at the site.

The land uses have been / were identified through the site history research using available methodology and information sources.

The rationale was explained in the report which looked at potentially unknown impacts at the site and potential volatilising organic chemicals as this was considered the key risk given that the site would be largely sealed, there would be no access to subsurface soils, produce would not be grown at the site and groundwater would not be abstracted for use.

On this basis, it is our view that the best screening approach was a soil and soil vapour screening level assessment supplemented with PID, visual and olfactory field observations i.e. if there was a risk it is considered that the soil and soil vapour sampling would pick this up and that in order for there to be a material risk soil vapour would need to be gross and widespread and it is assumed that this would be detected in the soil vapour as an indicator.

It is noted that there were areas of the site which could not be readily accessed and that post demolition it is recommended that further consideration be given to more detailed soil assessment as a minimum.



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1.0 Introduction

1.1 Background

A.M. Environmental Consulting Pty Ltd (AME) was commissioned by AUTA Group to conduct environmental site history research, soil and soil vapour assessment for the site at 108-122 Franklin Street, Adelaide, SA. ('the site').

A copy of the Certificate of Title is provided in Appendix A.

The site is situated in the City of Adelaide local government area. A map showing the site's regional context is provided in Figure 1.1 and the site and site boundary in Figure 1.2.

1.2 Proposed development

The proposed use is for a mixed - Residential, Hotel and Retail development comprising of a basement to house the fire tank and pump room, a ground level commercial development, 5 levels of carparking and 21 upper levels of medium to high density residential apartments & hotel rooms.

The proposed development plan is provided in Figures 1.3-1.10 below.

The buildings would be underlain with a concrete slab and base course gravel and fortecon. Service trenches would be filled with 500mm of imported clean fill (quarry supplied sands and gravels). There would be no significant domestic food production at the site. There would be no contact with subsurface soils once developed. Groundwater would not be abstracted for domestic use.

1.3 Aim

The aim was to assess the potential for gross or widespread soil and groundwater contamination to exist as a result of current or previous land uses at the site (Potentially Contaminating Activities) and whether there are potential soil contamination aspects or impacts that may present potential liabilities or constraints on the proposed future residential development which would preclude the site from being made suitable for the proposed use.



Figure 1.1: Map showing site location and regional context

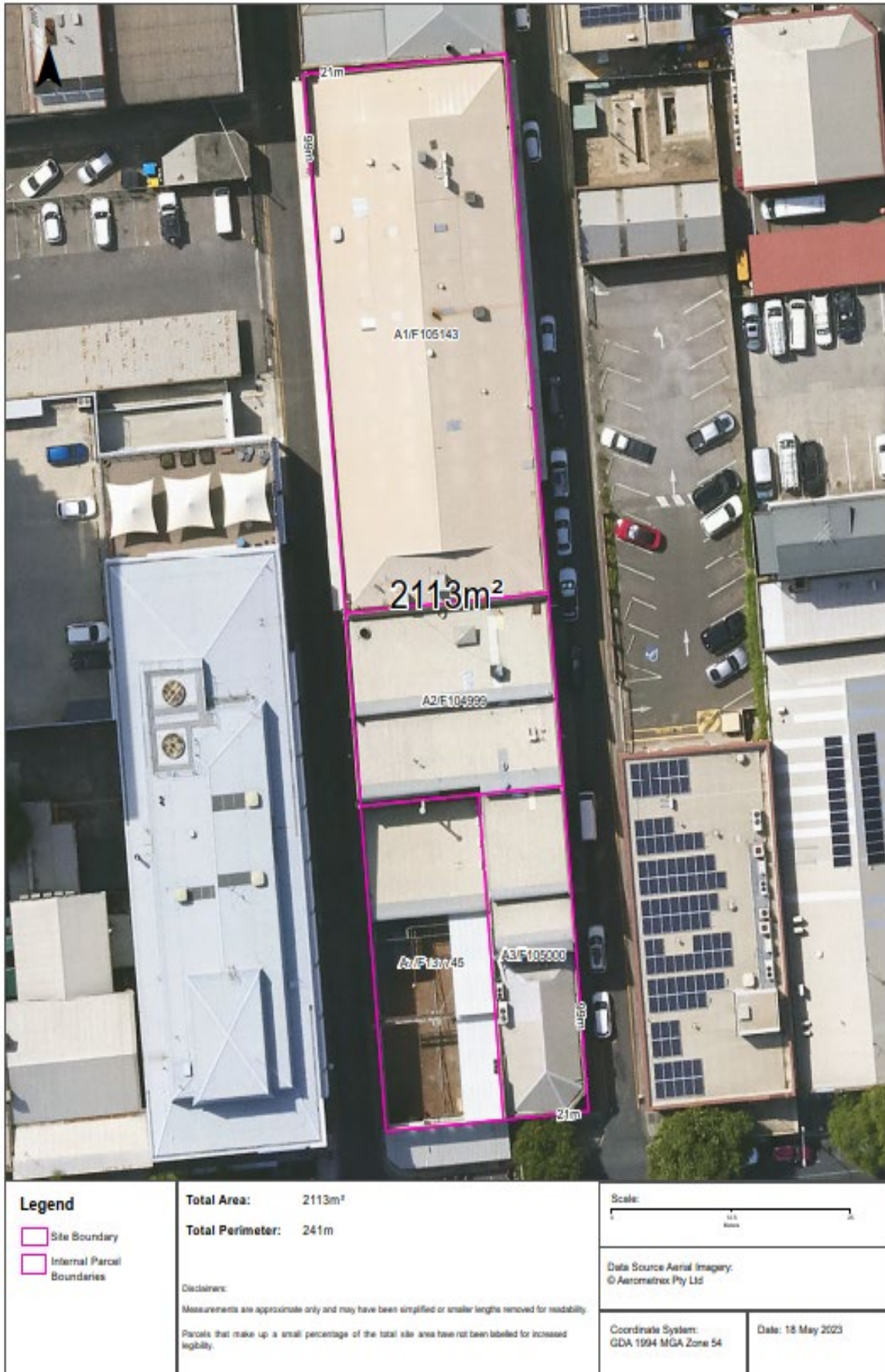


Figure 1.2: Site plan



CARPARK SUMMARY

CPL2:	31 CARPARKS
CPL3:	32 CARPARKS
CPL4:	32 CARPARKS
CPL5:	32 CARPARKS
CPL6:	32 CARPARKS
TOTAL:	159 CARPARKS
	7840 SQM (INCLUDE CAR RAMP)

HOTEL SUMMARY

LEVEL7:	24 HOTELS
LEVEL8:	25 HOTELS
LEVEL9:	25 HOTELS
LEVEL10:	25 HOTELS
LEVEL11:	25 HOTELS
LEVEL12:	25 HOTELS
LEVEL13:	25 HOTELS
LEVEL14:	19 HOTELS

SIZE	NO.	NET AREA	COMMENT
34	182	6188	Base
51	1	51	Exec Suite
53	8	424	Exec Suite
106	1	106	Deluxe Suite
179	1	179	Pres Suite

TOTAL:	193 HOTELS
	6948 SQM

APARTMENT SUMMARY

LEVEL 16:	12 APARTMENTS
LEVEL 17-27:	13 APARTMENTS
LEVEL 28:	6 APARTMENTS

TOTAL:	181 APARTMENTS
	16081 SQM (INCLUDE CAR RAMP)

TOTAL 1BED 1BATH:	48
TOTAL 2BED 2BATH:	109
TOTAL PENTHOUSE:	6

COMMERCIAL OFFICE SUMMARY

CPL1:	313 SQM
CPL2:	353 SQM
CPL3:	353 SQM
CPL4:	353 SQM
CPL5:	353 SQM
CPL6:	353 SQM

TOTAL:	2078 SQM
---------------	-----------------

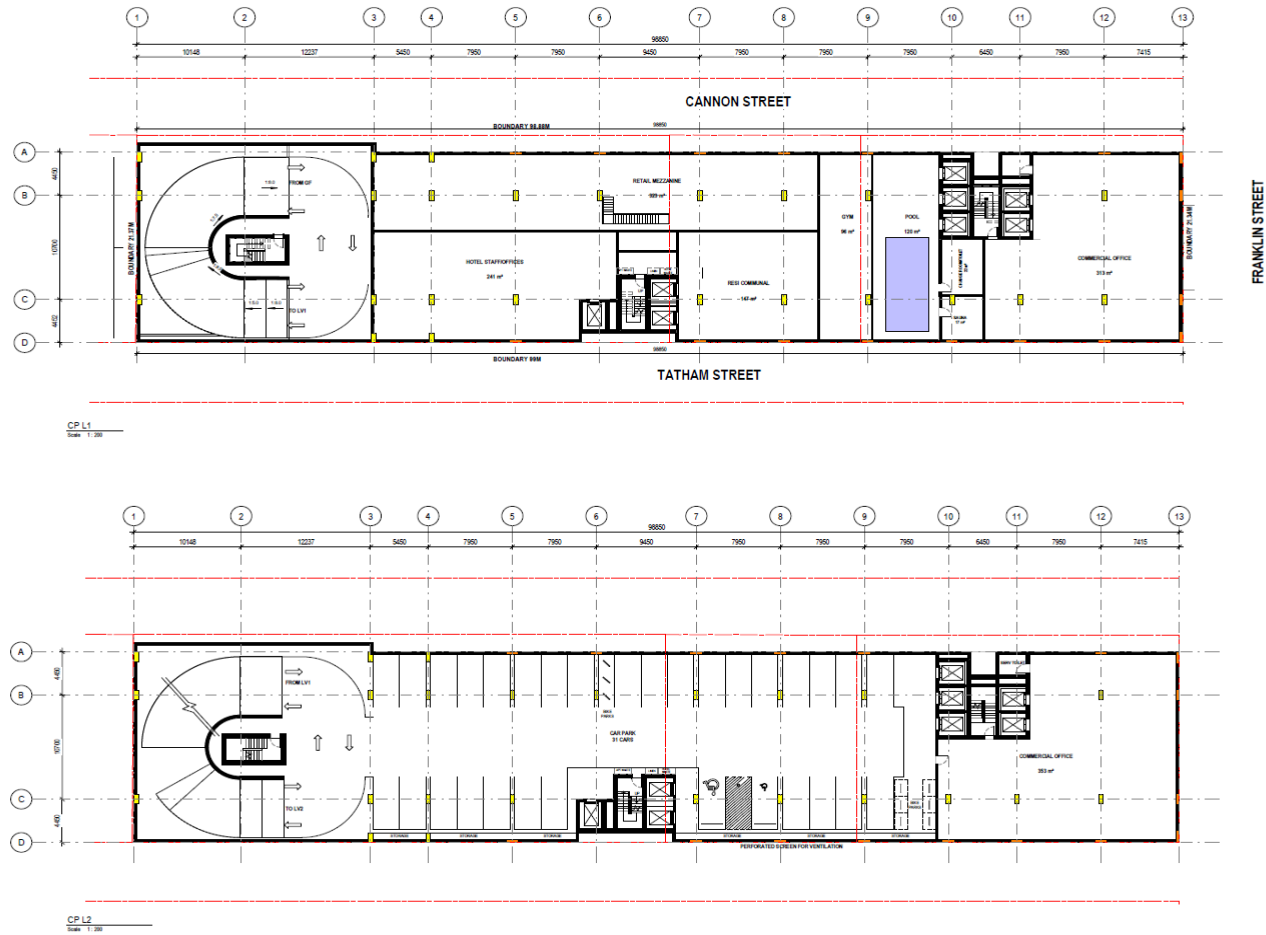


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PROPOSED BASEMENT & GROUND FLOOR PLAN

SCALE: 1 : 200 @A1 DATE: 2023-09-14 DRAWING NO: N-21058_SD021 NUMBER: 46

Figure 1.3: Proposed development plan concept (provided by client)



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Drawing
PROPOSED CP L1 TO CP L2 PLAN

Scale
1 : 200

Sheet
@A1

Date
2023-09-14

Drawing No.
N-21058_SD022

Revision
46



Figure 1.4: Proposed development plan concept (provided by client)



108 Franklin Street Mixed Use Development

PROPOSED CP L3 TO CP L4 PLAN

1:200

@A1

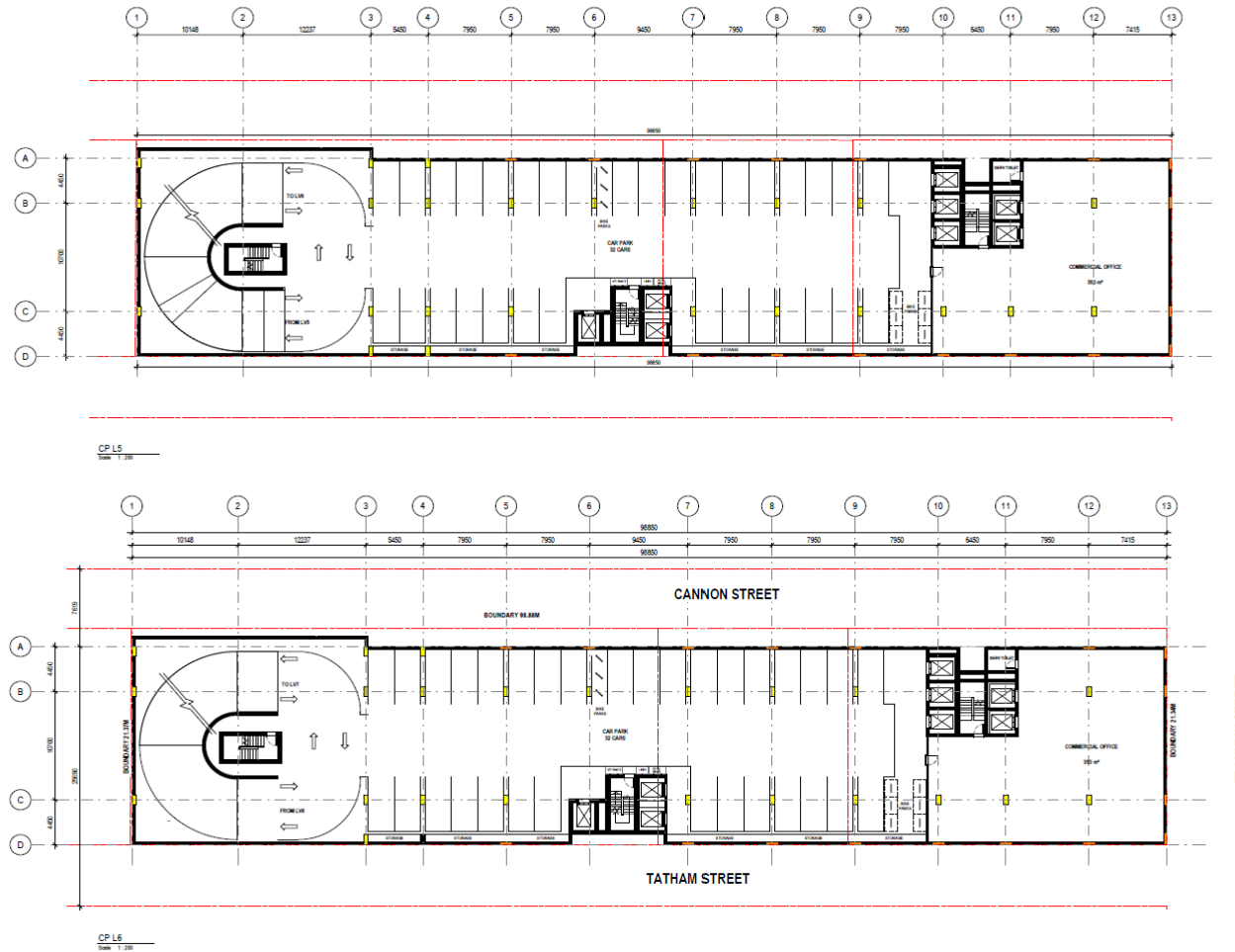
2023-09-14

N-21058_SD023

46



Figure 1.5: Proposed development plan concept (provided by client)



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PROPOSED CP L5 - CP L6

SCALE
1 : 200

DATE
@A1

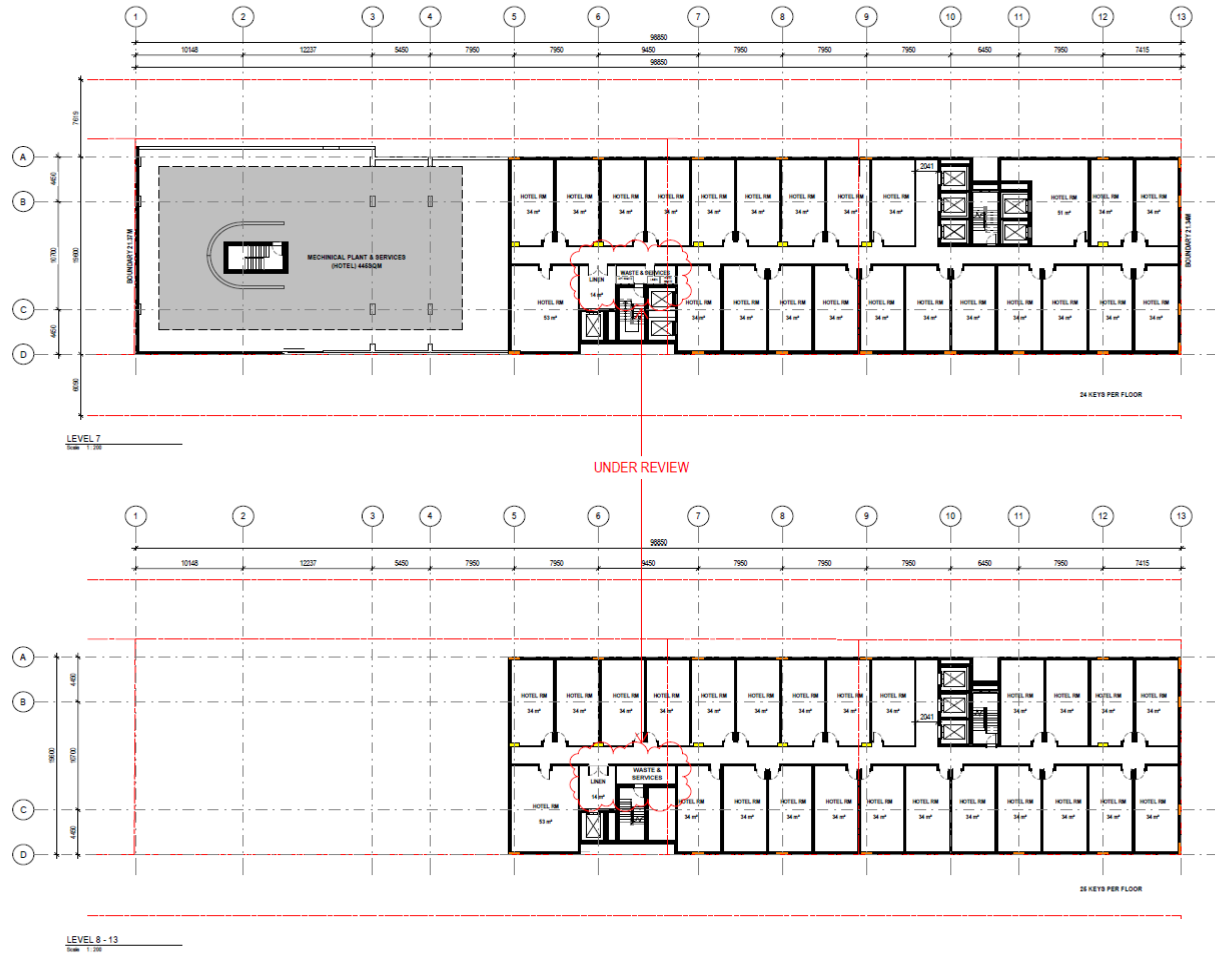
DATE
2023-09-14

PROJECT NO.
N-21058_SD024

PAGES
46



Figure 1.6: Proposed development plan concept (provided by client)



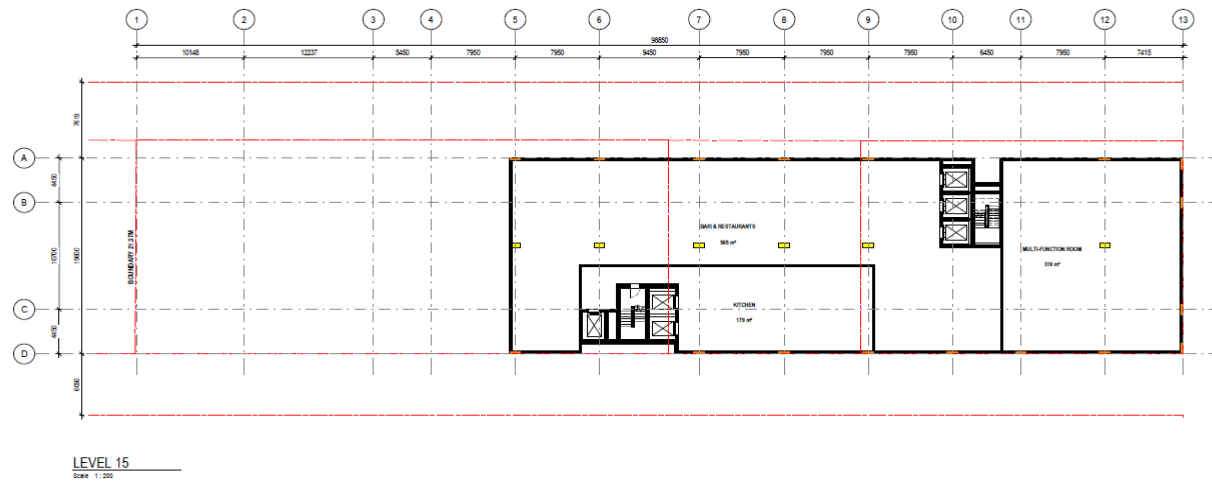
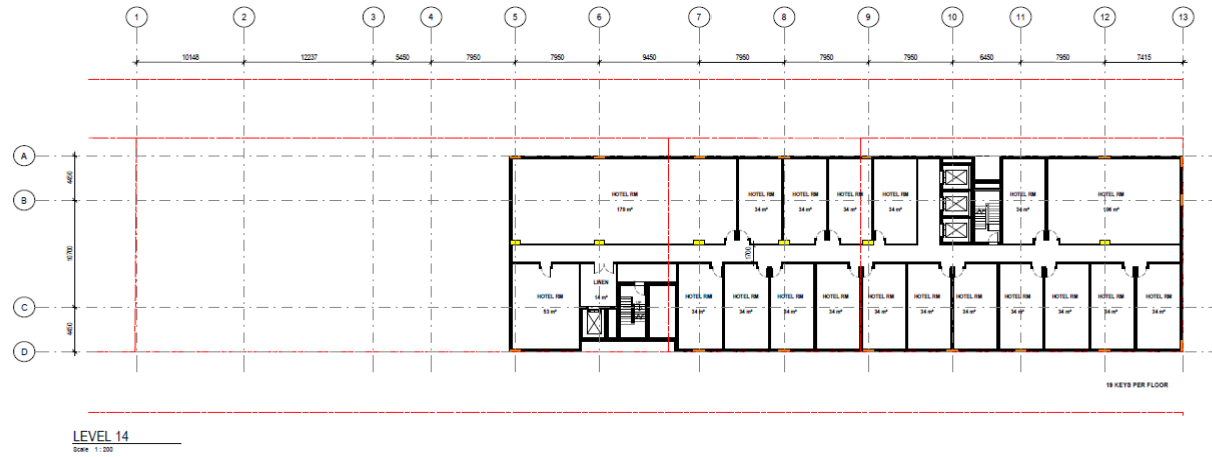
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108 Franklin Street Mixed Use Development

PROPOSED LEVEL 7 TO LEVEL 13 PLAN

Scale: 1 : 200
Date: @A1 2023-09-14
Drawing No: N-21058_SD025
Sheet: 46



Figure 1.7: Proposed development plan concept (provided by client)



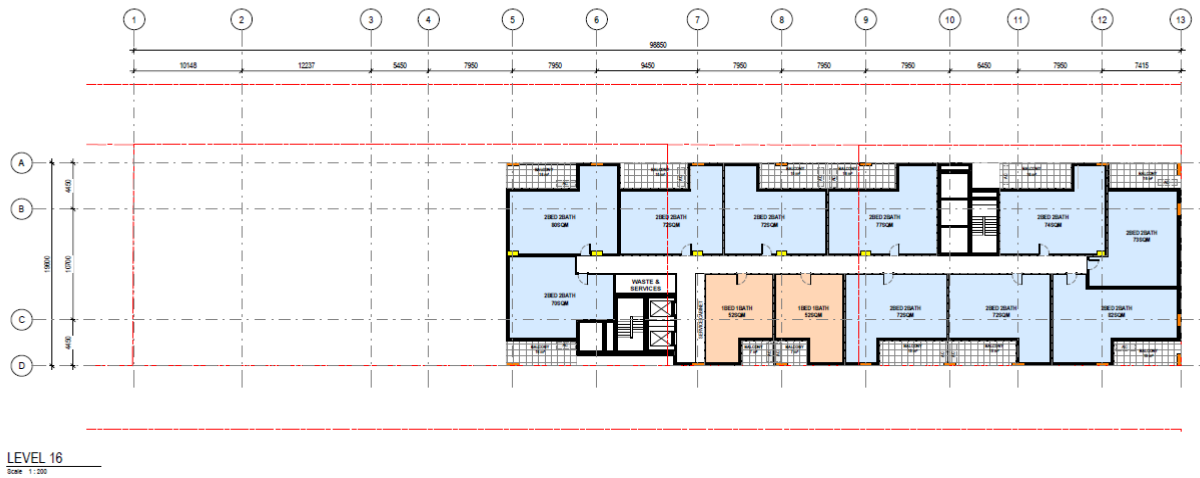
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PROPOSED LEVEL 14 TO LEVEL 15 PLAN

DATE: 1:200 @A1 DATE: 2023-09-14 DRAWING NO: N-21058_SD026 PAGE: 46



Figure 1.8: Proposed development plan concept (provided by client)



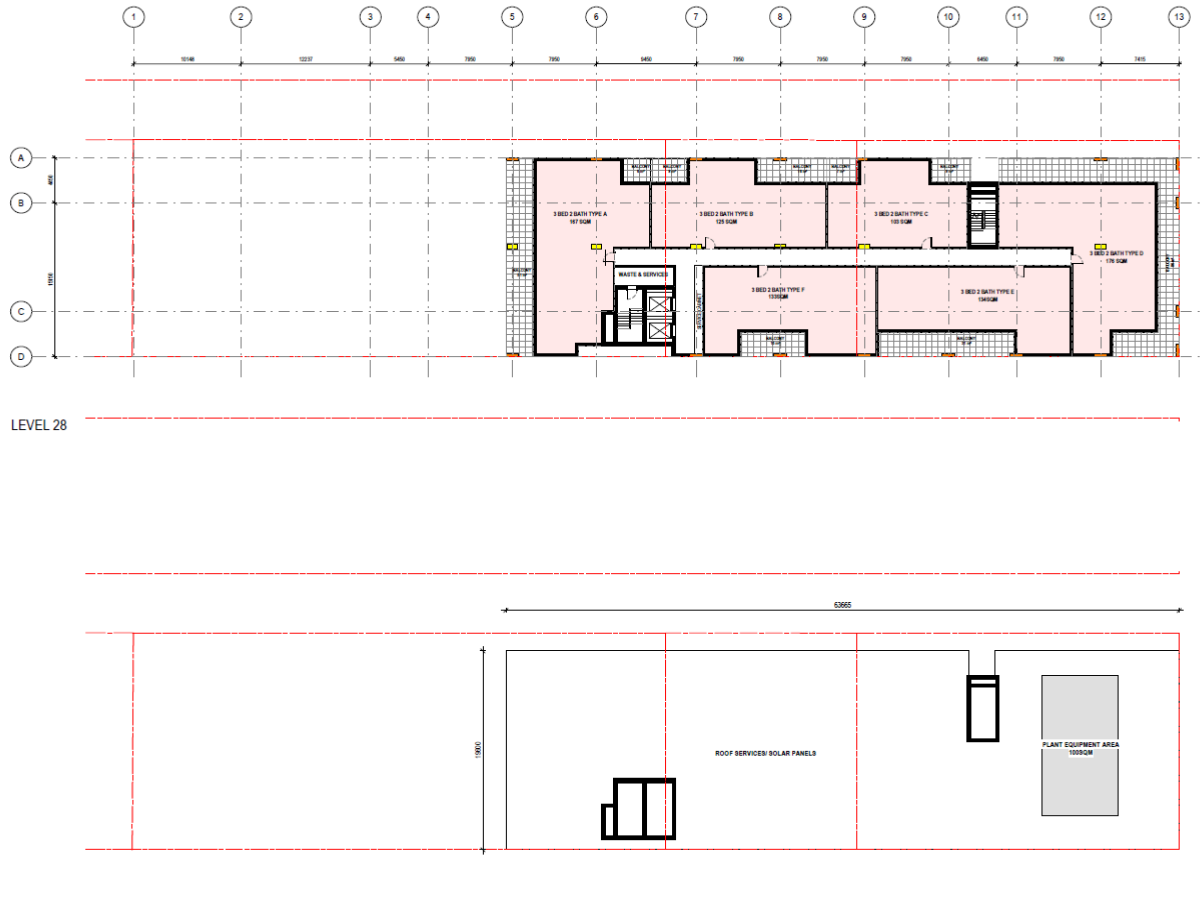
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PROPOSED LEVEL 16 TO LEVEL 27

SCALE 1 : 200
DATE @A1 2023-09-14
DRAWING NO. N-21058_SD027
SHEET NO. 46



Figure 1.9: Proposed development plan concept (provided by client)



ROOF

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PROPOSED LEVEL 28 & ROOF PLAN

Scale
1 : 200

@A1

Date
2023-09-14

Drawing No.
N-21058_SD028

Sheet
46



Figure 1.10: Proposed development plan concept (provided by client)



1.4 Scope of work

The following work scope was undertaken:

- Site history assessment, which included consideration of information from the following sources:
 - Site walkover
 - Consideration of information provided by client
 - Consideration of information provided in Lotsearch Report dated 18 May 2023 (Reference LS043588 EP) which has been provided in Appendix B. Relevant sections have been referenced and extracted and placed into the body of the report and/or provided as a separate appendix.
 - SafeWork SA Dangerous Goods Licence search (to be provided when available)
 - Environment Protection Authority (EPA) Section 7 search
 - Department of Planning, Transport and Infrastructure (DPTI) Property Assist Certificate of Title search
 - Department for Environment and Water (DEW) Mapland and Nearmap historical aerial photograph search
 - DEW WaterConnect groundwater database search
 - Historical Certificate of Title search via the Department of Planning, Transport and Infrastructure South Australian Integrated Land Information System
 - Information provided by current owner
 - SA EPA Public Register Directory – Site contamination index search
- Assessment of soils at the site, comprising:
 - 20 June 2023 from the installation of eight (8) soil boreholes;
 - Logging of the materials encountered
 - Screening of soil samples in the field using a Photo Ionisation Detector (PID) to assess the presence of volatile organic compounds
 - Chemical analysis of selected soil samples for key chemicals of interest
 - Implementation of a QA/QC program
 - Data interpretation and reporting.
- Assessment of Waterloo soil vapour samplers at the site, comprising:
 - Installation of eight (8) soil Waterloo sampler to a drilled depth of 1m bgl by In-Depth Drilling on 20 June 2023
 - Soil vapour sample retrieval on 12 July 2023
 - Chemical analysis of soil vapour for key chemicals of interest
 - Implementation of a QA/QC program
 - Data interpretation and reporting



2.0 Regulatory and Assessment Framework

2.1 Site contamination

Soil contamination has the potential to impact adversely on human health and the environment; however, in order for a significant or identifiable risk to be present, there must be an exposure pathway. The exposure pathway comprises the following:

- Source – The presence of a substance that may cause harm.
- Receptor – The presence of a receptor which might be harmed at an exposure point.
- Pathway – The existence of a means or mechanism of exposing a receptor to the source.

In the absence of a plausible exposure pathway there can be minimal risk. Therefore, the presence of ‘something measurable’ i.e. a concentration of a chemical does not necessarily imply that there is measurable human harm. It is necessary to have a significant source of contamination, an appropriate or effective pathway for this to be presented to a receptor, and the receptor must have a negative response to this exposure.

Hence, the nature and importance of sources, receptors and exposure routes will vary with every site, situation, intended end use and environmental setting.

It should also be noted that management measures to address any aspect of the above can reduce the significance of any risks.

2.2 SA Planning Commission Practice Direction 14 Site Contamination Assessment 2021

This instrument is certified pursuant to section 52(1) of the Planning, Development and Infrastructure Act 2016. This practice direction is issued by the State Planning Commission under sections 42 and 127 of the Planning, Development and Infrastructure Act 2016. Introduction Section 42 of the Planning, Development and Infrastructure Act 2016 allows the State Planning Commission (the “Commission”) to issue practice directions for the purposes of the Act.

Generally, practice directions specify procedural requirements or steps in connection with a matter arising under the Act. In certain cases, the Act provides that a particular matter may be addressed or dealt with by a practice direction. Section 4 of the Act sets out rules that relate to a change in the use of land, which is a form of development under the Act. This practice direction is part of a scheme that provides for requirements that apply in relation to the assessment of potential site contamination when land use changes to a more sensitive use or where a land division proposes a sensitive use.

Because site contamination is linked to land use, bringing about a change in land use can cause site contamination (under section 103D(2) of the Environment Protection Act 1993 and regulation 51 of the Environment Protection Regulations 2009) even though the person who brought about the change of use may not be the original polluter. In particular, this practice direction sets out some forms and related requirements that will support various requirements under the Planning, Development and Infrastructure (General) Regulations 2017 when a relevant authority is considering an application for planning consent where the application proposes a change in land use to a more sensitive use or, in the case of land division, the application proposes a sensitive use. This practice direction also provides specified conditions (pursuant to section 127(1)(b) of the Act) for development authorisations where remediation may be necessary before occupation or use of land the subject of the application.

2.3 Environment Protection Act, 1993

In South Australia, the assessment, management and remediation of site contamination is regulated by the *Environment Protection Act 1993* (EP Act). The EP Act defines site contamination in section 5B as follows:



(1) For the purposes of this Act, site contamination exists at a site if—

(a) chemical substances are present on or below the surface of the site in concentrations above the background concentrations (if any); and

(b) the chemical substances have, at least in part, come to be present there as a result of an activity at the site or elsewhere; and

(c) the presence of the chemical substances in those concentrations has resulted in—

(i) actual or potential harm to the health or safety of human beings that is not trivial, taking into account current or proposed land uses; or

(ii) actual or potential harm to water that is not trivial; or

(iii) other actual or potential environmental harm that is not trivial, taking into account current or proposed land uses.

(2) For the purposes of this Act, environmental harm is caused by the presence of chemical substances—

(a) whether the harm is a direct or indirect result of the presence of the chemical substances; and

(b) whether the harm results from the presence of the chemical substances alone or the combined effects of the presence of the chemical substances and other factors.

(3) For the purposes of this Act, site contamination does not exist at a site if circumstances of a kind prescribed by regulation apply to the site.

Based on the above, the first stage in determining whether site contamination exists is to assess whether chemical substances have been added to the site through an activity and whether these substances are above background concentrations. The second stage is to assess whether the chemical substances have resulted in actual or potential harm to the health or safety of human beings or the environment that is not trivial.

The professional assessment of site contamination and consequential risk to human health and the environment is guided by the *National Environment Protection (Assessment of Site Contamination) Measure* (NEPM), Australian Standards and several guidelines prepared by the EPA. The NEPM operates as an environment protection policy under the EP Act.

If site contamination is determined to be present at a site, the EP Act provides mechanisms to assign responsibility for the contamination and appropriate assessment and/or remediation of the contamination.

2.4 Assessment guidelines

The scope of works and methodology adopted for the assessment were generally based on the guidance provided in the following documents:

- SA EPA publication Guidelines for the assessment and remediation of site contamination (2018, amended 2019) (the GAR).
- ANZECC/NHMR.C (1992). Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites
- NEPC (1999). National Environment Protection (Assessment of Site Contamination) Measure, December 1999 (ASC NEPM) as amended in 2013
- Standards Australia. Guide to the investigation and sampling of sites with potentially contaminated soil – AS 4482.1-2005
- Environment Protection (Water Quality) Policy 2015
- ANZECC (2000). Australian and New Zealand Guidelines for Fresh and Marine Water Quality



2.5 Data quality objectives

The data quality objective (DQO) process is a seven-step iterative planning approach that is used to define the type, quantity and quality of data needed to inform decisions relating to the environmental condition of a site. A summary of the process is provided in Table 2.1 and 2.2.



Table 2.1: Data quality objectives

Step	Requirement	Comment
1	State the problem	The client requires information to understand whether widespread or gross soil or groundwater contamination is present at the site. The assessment aims to use multiple lines of evidence to screen for gross or widespread issues which present a potential liability and require remediation. Sufficient information is required to satisfy the requirements of the planning authority.
2	Identify the decision/goal of the study	Information is required in relation to the site's current and previous land use history as well as nearby potentially contaminating activities, shallow soils across the site and about the nature/status of groundwater. The goals of the assessment were to obtain screening level information on the potential for widespread or gross distribution of chemicals in soils and groundwater at or adjacent to the site which would have a bearing on the suitability of the site for the proposed redevelopment.
3	Identify the information inputs	<ul style="list-style-type: none"> ■ Information required to support decisions and recommendations includes details on the media e.g. fill/natural soil; field observations and measurements (e.g. PID) and chemical concentrations from soil and groundwater samples to be assessed against the adopted guidelines. The inputs required to address the study goals are also outlined in this report and include: ■ Previous site data ■ Proposed land uses and development boundaries ■ Appropriately experienced environmental staff ■ Geological data and information relevant to subsurface structures ■ Hydrogeological data ■ Site walkover ■ Consideration of information provided by client ■ Consideration of information provided in Lotsearch Report dated 27 May 2022 (reference: LS032671 EP) which has been provided in Appendix B. Relevant sections have been referenced and extracted and placed into the body of the report and/or provided as a separate appendix. ■ SafeWork SA Dangerous Goods Licence search (to be provided when available) ■ Environment Protection Authority (EPA) Section 7 search ■ Department of Planning, Transport and Infrastructure (DPTI) Property Assist Certificate of Title search ■ Department for Environment and Water (DEW) Mapland and Nearmap historical aerial photograph search ■ DEW WaterConnect groundwater database search ■ Historical Certificate of Title search via the Department of Planning, Transport and Infrastructure South Australian Integrated Land Information System ■ Anecdotal information ■ SA EPA Public Register Directory – Site contamination index search ■ Consideration of potential transport mechanisms



Step	Requirement	Comment
		<ul style="list-style-type: none"> ■ Consideration of potential exposure pathways ■ Quality assurance and quality control (QA/QC) data.
4	Define the boundaries of the study	<p>The fourth step involves specifying the spatial and temporal aspects of the environmental media that the data must represent to support decision(s). The matters to consider at this stage include:</p> <ul style="list-style-type: none"> ■ The nature of the proposed land use ■ Previous or current land uses with the potential to result in soil or groundwater contamination at or adjacent to the site. <p>Conditions can change with time; however, the temporal aspects of the site will be considered in terms of consideration of previous information against information to be obtained as part of this study.</p>
5	Develop the analytical approach	<p>The fifth step involves defining the parameter of interest, specifying the action level, and integrating information from Steps 1-4 into a single statement that gives a logical basis for choosing between alternative actions.</p> <p>Where there is a potential land use that has the potential to result in contamination at or adjacent to the site then the potential risks would be considered and recommendations to obtain soil, soil vapour or groundwater information to verify whether the risk is potential or actual.</p>
6	Specify performance or acceptance criteria	<p>At this stage, the considerations primarily relate to whether a potentially contaminating activity is present currently or historically at the site and/or adjacent locations.</p>
7	Develop the plan for obtaining data	<p>The seventh step involves identifying the most resource-effective sampling and analysis design for generating the data that is required to satisfy the DQOs.</p> <p>The collection of data was optimised by the development of an appropriate sampling and analytical strategy and included:</p> <ul style="list-style-type: none"> ■ The division of work into distinct sections for consideration ■ The consideration of the most suitable sampling and assessment methods and options ■ The selection of site assessment guidelines based on the site context and the optimisation of the site redevelopment at the time of assessment.

Table 2.2 Acceptable limits

DQI	Field	Laboratory	Acceptability Limits
Completeness	■ All critical locations sampled	■ All critical samples analysed and all analytes analysed according to SOPs	As per NEPC (1999)
	■ All samples collected (from grid and depth)	■ Appropriate methods	< nominated criteria
	■ Standard Operating Procedures (SOPs) appropriate and complied with	■ Appropriate practical quantitation limits (PQL)	As per NEPC (1999)
	■ Experienced sampler	■ Sample documentation complete	
	■ Documentation correct	■ Sample holding times complied with	
Comparability	■ Sample SOPs used on each occasion	■ Same analytical methods used (including clean-up)	As per NEPC (1999)
	■ Experienced sampler	■ Sample PQL (justify/quantify if different)	



	<ul style="list-style-type: none"> ■ Site climatic conditions ■ Same types of samples collected ■ Use of the same kinds of instruments 	<ul style="list-style-type: none"> ■ Same laboratories (NATA accredited) ■ Same units 	< nominated criteria
Representativeness	<ul style="list-style-type: none"> ■ Appropriate media sampled according to SOP ■ All relevant media sampled ■ The analytical suite targets the contaminants of concern 	All samples analysed according to SOP	
Precision	<ul style="list-style-type: none"> ■ SOPs appropriate and complied with ■ Collection of blind and split duplicate samples 	Analysis of: <ul style="list-style-type: none"> ■ Blind duplicate samples (1 in 10 samples) ■ Split duplicate samples (1 in 20 samples) ■ Laboratory duplicate samples ■ Laboratory prepared trip blank (1 sampling round) 	RPD of 30 to 50% RPD of 30 to 50% RPD of 30 to 50% Non-detect for COC
Accuracy	<ul style="list-style-type: none"> ■ SOPs appropriate and complied with ■ Collection of rinsate blanks ■ Field trip blanks ■ Field rinsates ■ Method blanks 	Analysis of: <ul style="list-style-type: none"> ■ Matrix spikes acceptability ranges ■ Matrix spike duplicates ■ Surrogate spikes ■ Laboratory control samples ■ Laboratory prepared spikes 	Typically 70 to 130% RPD of <30% 70 to 130% 70 to 130% 70 to 130%
Waterloo Soil Vapour Samplers	<ul style="list-style-type: none"> ■ Gloved hands, no nearby exhaust or potential sources. ■ Limited exposure of sampling equipment prior to installation and tight seal within borehole and capping. 	<ul style="list-style-type: none"> ■ Consideration of lab data and LOR in relation to monitoring time and conditions. 	<ul style="list-style-type: none"> ■ Results do not present a significant likelihood of soil vapour being present.



3.0 Site Information

3.1 Site description and photographs

A site visit was conducted by an AME representative on 24 July 2023.

Site walkover photographs are shown in Photos 3.1-3.14 below.

The site comprises a front portion which is being used for events. The central portion of the site has various amenities and is being used by a variety of social groups. The northern portion of the site is used for carparking, accessed by a roller door in north eastern corner.

The western portion of the northern part of the site was not accessible and it is understood that is used for warehousing.



Photo 3.1: Eastern side looking south



Photo 3.2: Eastern side looking north



Photo 3.3: Looking south east



Photo 3.4: Looking south



Photo 3.5: Looking south west



Photo 3.6: Looking west



Photo 3.7: Front of site looking east



Photo 3.8: Western side looking south

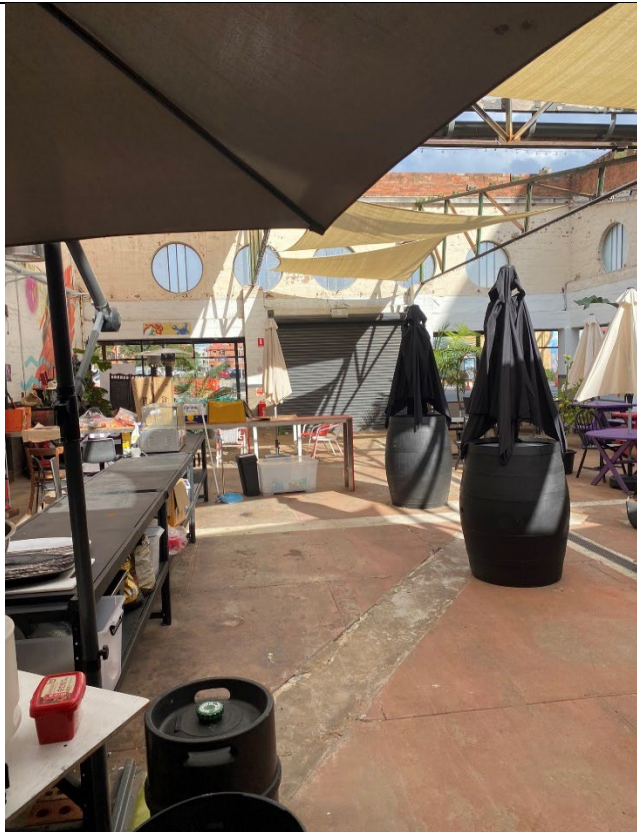


Photo 3.9: Inside front looking south



Photo 3.10: Inside front looking north

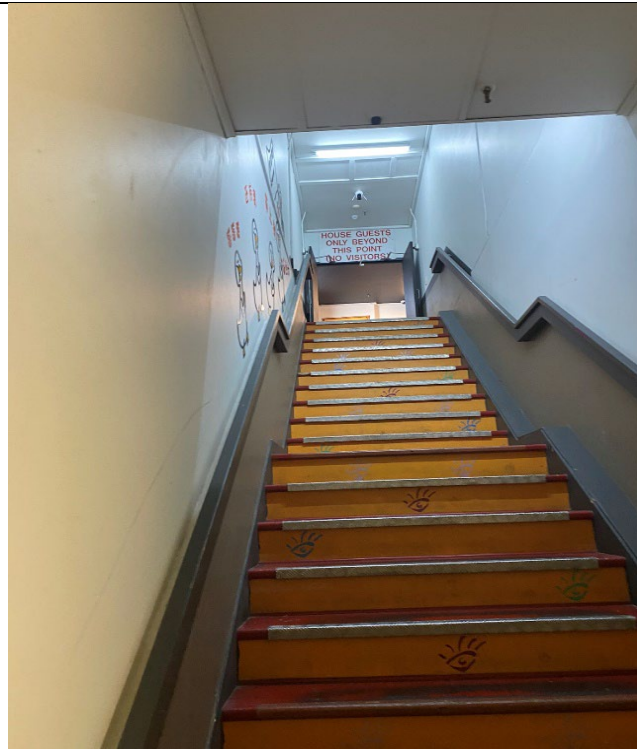


Photo 3.11: No access to upper level

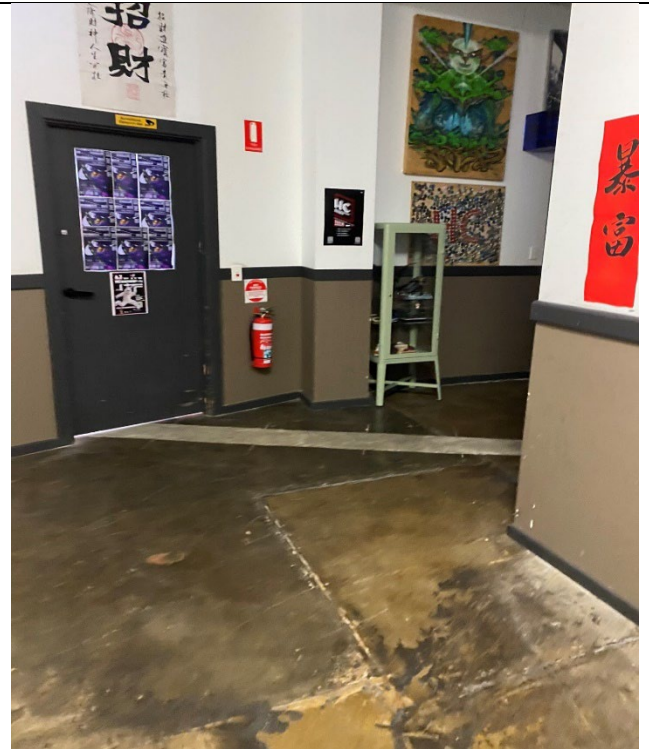


Photo 3.12: Internal

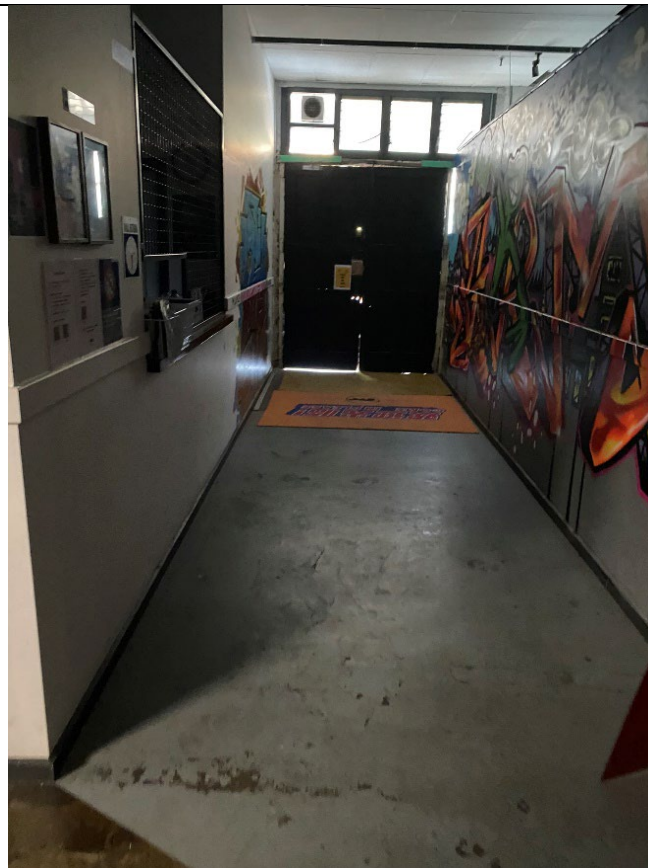


Photo 3.13: Internal

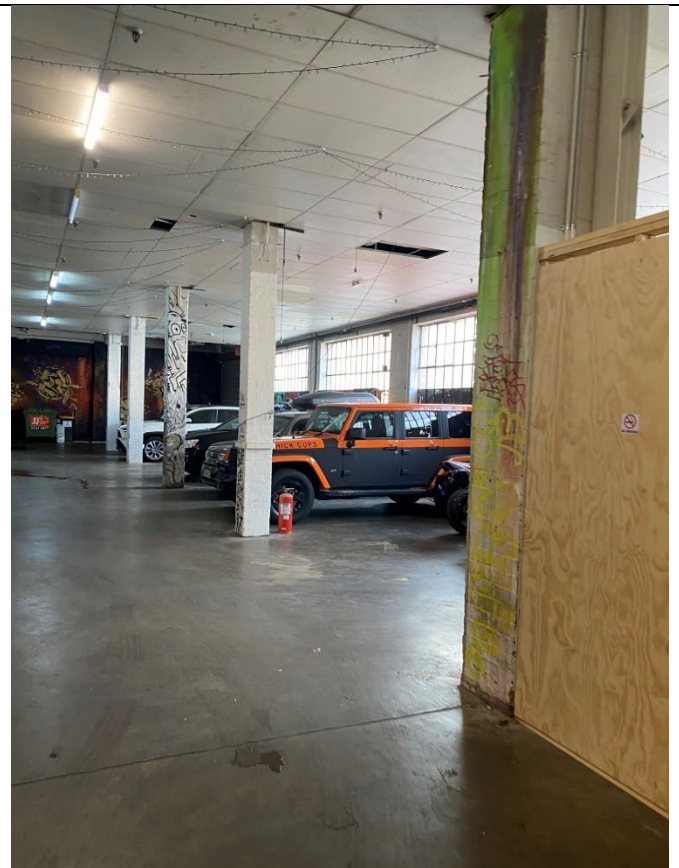


Photo 3.14: Internal carparking on northern portion

3.2 Aesthetic considerations

Aesthetic considerations relate to the presence of low-concern or non-hazardous inert foreign material (refuse) in soil or fill resulting from human activity. There are no specific numeric aesthetic guidelines; however, site assessment requires balanced



consideration of the quantity, type and distribution of foreign material or odours in relation to the specific land use and its sensitivity. The following observations were made in relation to aesthetic issues at the site:

- There were no significant odours (e.g. strong residual petroleum hydrocarbon odours)
- There was no hydrocarbon sheen on the site surface
- There were no discoloured chemical deposits or stains with chemical waste.
- There was no putrescible refuse, including material that may generate hazardous levels of methane, such as a deep-fill profile of green waste or large quantities of timber waste

3.3 Surrounding land use

The surrounding land use is summarised below:

- North: Commercial
- East: Public institution, utilities or industry, residential, non-private residential and commercial.
- South: Utilities or industry and vacant land.
- West: Commercial, non-private residential and utilities or industry.,

3.4 Surrounding Planning and Design Code Zones and Generalised Land use

Surrounding Planning and design Code Zones and Generalised Land use information is provided in Appendix B. The site is located per Figure 3.1 below. Figure 3.2 depicts generalised land use.



Figure 3.1: Surrounding land development zones

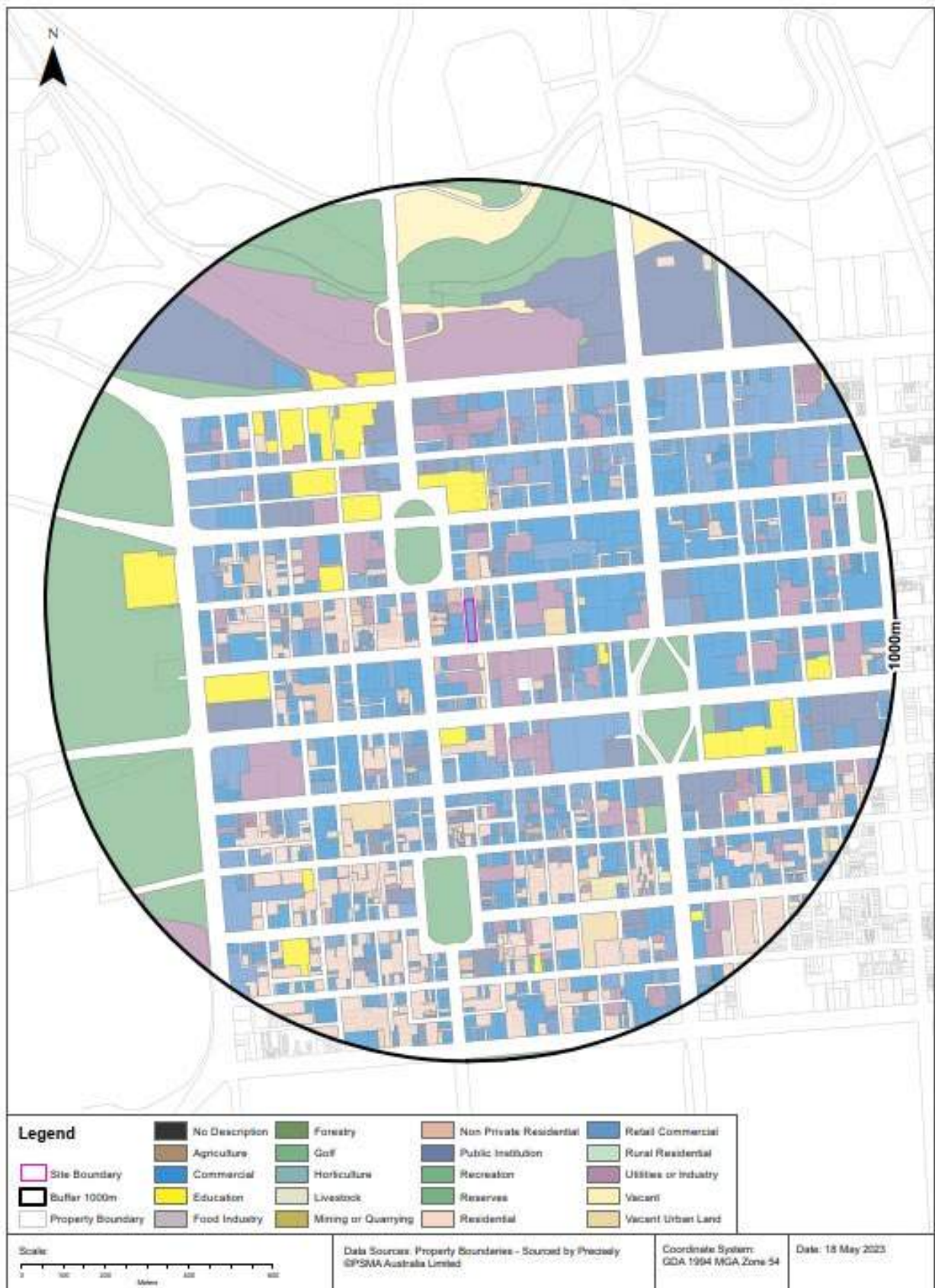


Figure 3.2: Generalised land use zones



3.5 Topographic features

The surrounding area is generally level. Figure 3.3 and 3.4 outlines the topography and elevation and this information is included in Appendix B.

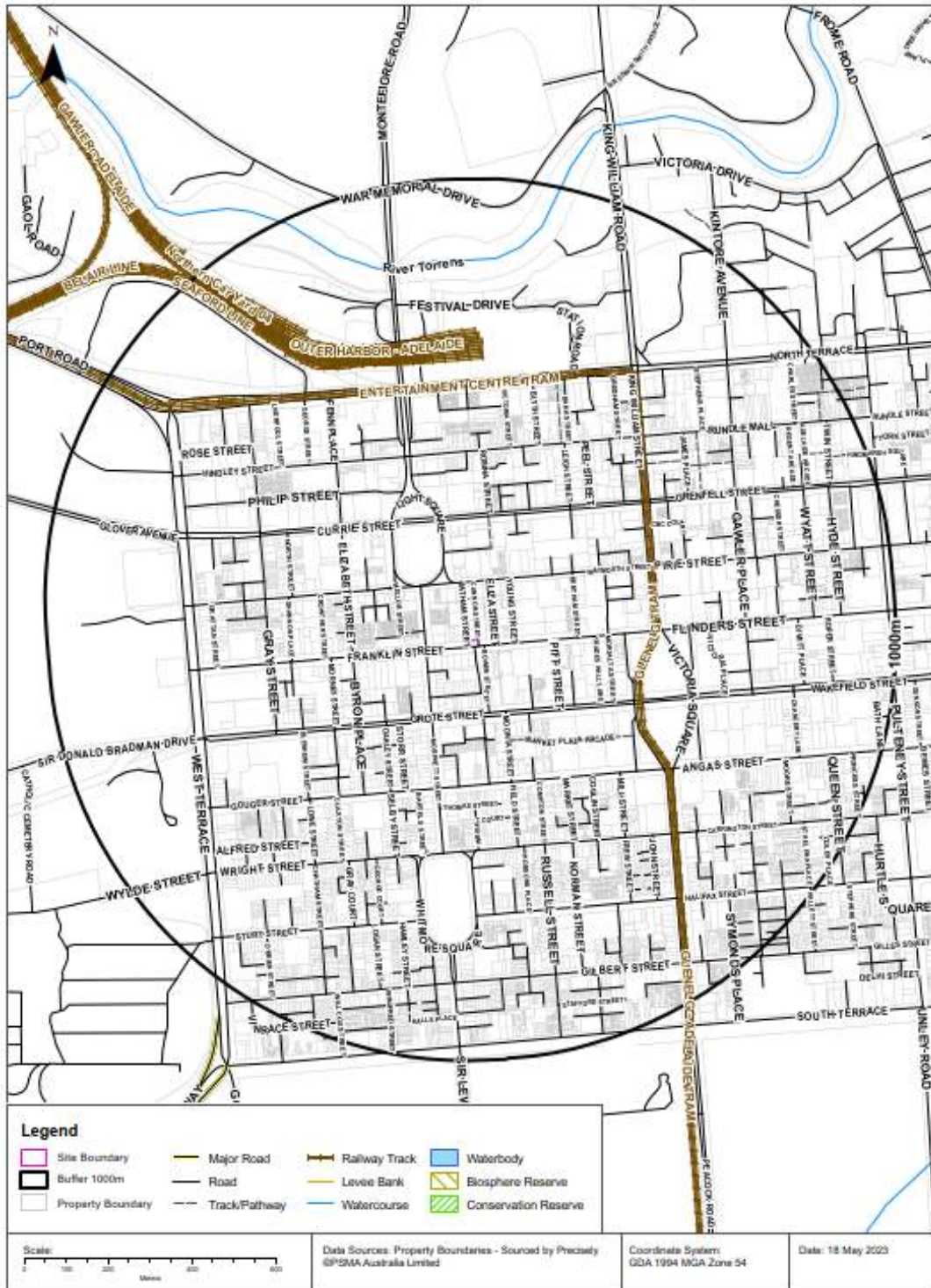


Figure 3.3: Topographic features

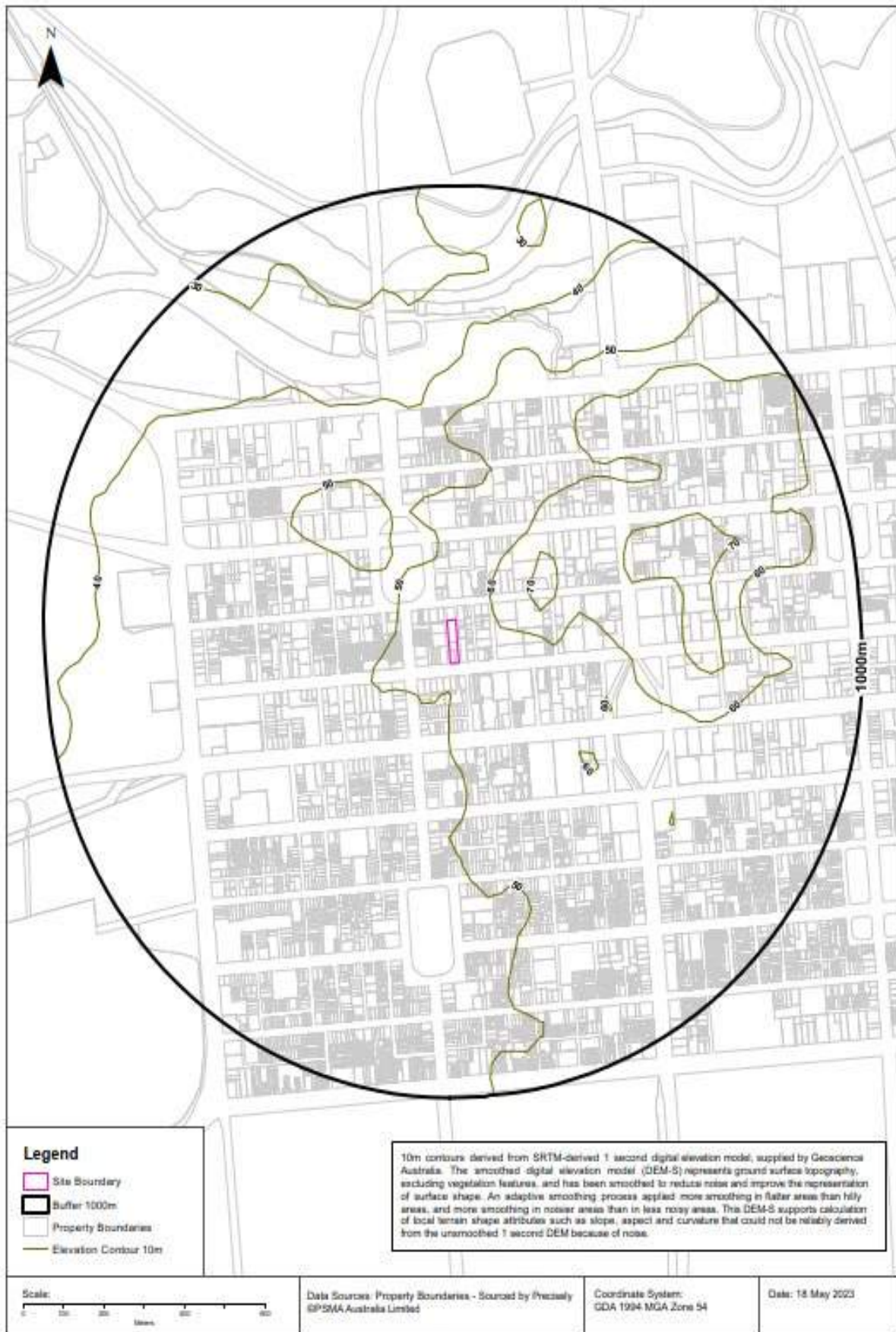


Figure 3.4 Elevation features



3.6 Regional soil, geology and hydrogeology

A summary of the regional soil, geology and hydrogeology is presented in Table 3.3 and Appendix C.

Table 3.3: Regional soil, geology and hydrogeology

Source	Detail
Geology	
Atlas of Australian Soils, ABARES	Outwash plains: hard alkaline red soils (Dr2.23 with small areas Dr2.33); small areas cracking clay soils (Ug5.15, Ug5.16, and Ug5.2), also hard alkaline yellow mottled soils (Dy3.43); minor areas (Um6.21) and (Uf6.11); various alluvial soils (unclassified) in the stream valleys.
Hydrogeology	
Department for Environment and Water (DEW) WaterConnect Groundwater Database	<p>A DEW groundwater database search did not indicate groundwater wells listed for the site.</p> <p>Where recorded, the purposes of nearby wells are listed in Appendix B.</p> <p>The drill hole plan shown in Appendix B.</p> <p>The groundwater data report and plan showing the locations, drilled depths, standing water level and TDS of the groundwater wells is provided in Appendix B.</p> <p>There are several wells within the dataset buffer. Within 500 m of the site, the standing water level (SWL) of groundwater varies from 1.70 m – 40.00 m below ground. The total dissolved solids are also variable, ranging from approximately 400 – 3,857 mg/L.</p> <p>The regional groundwater is expected to be variable and follow a muted reflection of localised topography.</p>

3.7 Acid sulphate soils

Acid sulphate soils as listed in Appendix A of the SA EPA Guidelines Site Contamination – Acid Sulphate Soil Materials (2007) are unlikely to be present at the site. The CSIRO Atlas of Australian Acid Sulphate Soils Atlas of Australian Acid Sulfate Soils indicates low potential for acid sulphate soils to exist. The map is included in Appendix B.

3.8 Groundwater Beneficial Use Assessment

The groundwater beneficial use assessment is included in Table 3.4 below.

Table 3.4: Protected environmental values and relevance to site

Potential Beneficial Use	Relevant to site?	Justification
Potable	No	Groundwater is not proposed for extraction at the site.
Primary contact recreational use	No	Groundwater is not proposed for extraction at the site.
Irrigation	No	Groundwater is not proposed for extraction at the site.
Livestock	No	Groundwater is not abstracted for use at the site or nearby.
Aquaculture	No	There is no existing aquaculture activity on the site or in the surrounding area.
Other potential	Relevant to site?	Justification



Potential Beneficial Use	Relevant to site?	Justification
exposure scenarios		
Vapour flux	Yes	Based on previous land use. However, no evidence of volatile or semi-volatile compounds in sufficient concentrations in soil or groundwater at the site to be likely to result in soil vapour as discussed in the balance of this report.



4.0 Historical Research

4.1 History of ownership

A history of ownership search was conducted through the DPTI South Australian Integrated Land Information System (SALIS) website for the certificates of title and was performed and supplied by Infotrack Pty Ltd. The full report is provided in Appendix C. The search results are summarised in Table 4.1.

Table 4.1 Historical certificate of title ownership search

<u>Date of Acquisition and term held</u>	<u>Registered Proprietor(s) & Occupations where available</u>	<u>Reference to Title at Acquisition and sale</u>
Description: - Allotment 1 in F.P. 105143, Allotment 2 in F.P. 104999, Allotment 7 in F.P. 137745 & Allotment 3 in F.P. 105000		
<u>Allotment 1 in F.P. 105143</u>		
08.07.1924 (1924 to 1956)	The Enterprise Shoe Company Limited	Volume 1334 Folio 152
29.03.1956 (1956 to 1969)	Rogerson's Trust Limited	Volume 1334 Folio 152
27.05.1969 (1969 to 1988)	Stock Journal Publishers Pty Ltd	Volume 1334 Folio 152
31.03.1988 (1988 to 1995)	R.M.N. Corporation (259) Pty Ltd	Volume 1334 Folio 152 Now Volume 5156 Folio 498
29.05.1995 (1995 to 2019)	Veremo Bay Pty Ltd	Volume 5156 Folio 498
24.12.2019 (2019 to 2022)	Adelaide 108 Pty Ltd	Volume 5156 Folio 498
16.11.2022 (2022 to Date)	# 108 Franklin Pty Ltd	Volume 5156 Folio 498
# Denotes current registered proprietor		
<u>Leases: -</u>		
<ul style="list-style-type: none"> • 18.04.1957 (19957877) to Advertiser Newspapers Limited for a term of 3 years commencing on 28.01.1957. • 24.04.1991 (7047368) to Central Budget Guesthouse Pty Ltd for a term of 6 years commencing 01.10.1990. • 01.12.1993 (7550116) to Trevor James Gooden. • 13.03.2001 (9050895) to Ilenka Pty Ltd. 		
<u>Easements: - Nil</u>		
<u>Allotment 2 in F.P. 104999</u>		
08.07.1924 (1924 to 1967)	Publishers Limited	Volume 1334 Folio 153
16.05.1967 (1967 to 1988)	Stock Journal Publishers Pty Ltd	Volume 1334 Folio 153
31.03.1988 (1988 to 1995)	R.M.N. Corporation (259) Pty Ltd	Volume 1334 Folio 153 Now Volume 5156 Folio 499
29.05.1995 (1995 to 2019)	Veremo Bay Pty Ltd	Volume 5156 Folio 499
24.12.2019 (2019 to 2022)	Adelaide 108 Pty Ltd	Volume 5156 Folio 499
16.11.2022 (2022 to Date)	# 108 Franklin Pty Ltd	Volume 5156 Folio 499
# Denotes current registered proprietor		



Leases: –

- 24.01.1991 (7047368) to Central Budget Guesthouse Pty Ltd for a term of 6 years commencing 01.10.1990.
- 01.12.1993 (7550116) to Trevor James Gooden.
- 28.03.1995 (7860374) to Tyremag Sales Pty Ltd.
- 13.03.2001 (9050895) to Ilenka Pty Ltd.

Easements: – Nil

Allotment 7 in F.P. 137745

16.08.1888 (1888 to 1888)	Thomas McNeil (Christian Minister) John Thorne (Christian Minister) Thomas Piper (Christian Minister) William Francis James (Christian Minister) Samuel James May (Chief Justice of South Australia) Samuel Coombe (Brickmaker) Edward John Coombs (Brickmaker) Ephraim Gould (Draper) Benjamin Gould (Grocer) Thomas Richards (Brickmaker) James Hosking (Inspector of Schools) Frederick James Beach (Confectioner) Joseph Ashton (Solicitor)	Volume 524 Folio 9
16.08.1888 (1888 to 1943)	The Right Honorable Sir Samuel James Way (Chief Justice of South Australia) Joseph Ashton (Solicitor) Edwin Davey (Miller) John Hill (Managing Director) John Jackett (Miller) Cephas Barker Keen (Draughtsman) Richard Hedley Lathlean (Solicitor) James Thorne Martin (Accountant) Milton Moss Maughan (Chief Inspector of Schools) Frederick William Richards (Doctor of Laws) Henry Thomas (Miller)	Volume 524 Folio 9 Now Volume 1810 Folio 162
20.03.1943 (1943 to 1948)	Cephas Barker Keen (Minister of Religion) Frederick William Richards (Minister of Religion) Samuel Forsyth (Minister of Religion) George Nesbit White (Minister of Religion) Joseph Wells Tayler (Clerk) Montague Finlay (Musician)	Volume 1810 Folio 162
08.12.1948 (1948 to 1959)	Adelaide Central Methodist Mission Incorporated	Volume 1810 Folio 162
17.03.1959 (1959 to 1967)	Publishers Limited	Volume 1810 Folio 162
16.05.1967 (1967 to 1988)	Stock Journal Publishers Pty Ltd	Volume 1810 Folio 162
31.03.1988 (1988 to 1995)	R.M.N. Corporation (259) Pty Ltd	Volume 1810 Folio 162 Now Volume 5253 Folio 876
29.05.1995 (1995 to 2019)	Veremo Bay Pty Ltd	Volume 5253 Folio 876
24.12.2019 (2019 to 2022)	Adelaide 108 Pty Ltd	Volume 5253 Folio 876
16.11.2022 (2022 to Date)	# 108 Franklin Pty Ltd	Volume 5253 Folio 876

Denotes current registered proprietor

Leases: –

- 03.12.1954 (1866249) to Westeels Industries Limited for a term of 5 years commencing on 01.01.1954.
- 28.03.1995 (7860374) to Tyremag Sales Pty Ltd.



<ul style="list-style-type: none"> 13.03.2001 (9050895) to Ilenka Pty Ltd. 		
<p><u>Easements: – Nil</u></p>		
<p><u>Allotment 3 in F.P. 105000</u></p>		
22.08.1871 (1871 to 1878)	Thomas Murphy (Police Constable)	Book 157 Folio 130
07.08.1878 (1878 to 1901)	John Minahan (Bootmaker)	Book 157 Folio 130
21.04.1901 (1901 to 1906)	Winnfred Minahan (Spinster) Patrick Higgins (Bootmaker)	Book 157 Folio 130
19.04.1906 (1906 to 1923)	William Lott Minahan (Railway repairer)	Book 157 Folio 130 Now Volume 1284 Folio 163
23.05.1923 (1923 to 1967)	Publishers Limited	Volume 1284 Folio 163
16.05.1967 (1967 to 1988)	Stock Journal Publishers Pty Ltd	Volume 1284 Folio 163
31.03.1988 (1988 to 1995)	R.M.N. Corporation (259) Pty Ltd	Volume 1284 Folio 163 Now Volume 5156 Folio 497
29.05.1995 (1995 to 2019)	Veremo Bay Pty Ltd	Volume 5156 Folio 497 Now Volume 5980 Folio 624
24.12.2019 (2019 to 2022)	Adelaide 108 Pty Ltd	Volume 5980 Folio 624
16.11.2022 (2022 to Date)	# 108 Franklin Pty Ltd	Volume 5980 Folio 624
<p><u># Denotes current registered proprietor</u></p>		
<p><u>Leases: –</u></p> <ul style="list-style-type: none"> 29.11.1990 (7020290) to Trevor James Gooden & Ruth Dawn Gooden for a term of 5 years commencing 01.06.1990 24.01.1991 (7047368) to Central Budget Guesthouse Pty Ltd for a term of 6 years commencing 01.10.1990. 01.12.1993 (7550116) to Trevor James Gooden. 13.03.2001 (9050895) to Ilenka Pty Ltd. 		
<p><u>Easements: – Nil</u></p>		

4.2 Aerial photographs

The aerial photograph data is presented in Appendix B and observations are presented in Table 4.2 below.

Table 4.2 Historical aerial photograph review

Year	Notes
1935	<p>The aerial photograph is presented in black and white and is of reasonable resolution.</p> <p>Site: The site consists of a building on the entire site.</p> <p>Surrounding area: The Site surrounds are primarily high density commercial and industrial buildings and businesses.</p>
1949	<p>The aerial photograph is presented in black and white and is of reasonable resolution.</p> <p>Site: The site appears similar to the previous photograph.</p> <p>Surrounding area: The site surrounds appear similar to previous photograph.</p>



Year	Notes
1959-1961	<p>The aerial photograph is presented in black and white and is of clear resolution.</p> <p>Site: The site appears to be similar to previous photograph.</p> <p>Surrounding area: The site surrounds appear similar to previous photograph.</p>
1968-1969	<p>The aerial photograph is presented in black and white and is of clear resolution.</p> <p>Site: The site appears to be similar to previous photograph.</p> <p>Surrounding area: The site surrounds appear similar to previous photograph, with some commercial development and a car park adjacent south.</p>
1979	<p>The aerial photograph is presented in colour and is of reasonable resolution.</p> <p>Site: The site appears to be similar to previous photograph.</p> <p>Surrounding area: The site surrounds appear similar to previous photograph, with commercial development including car parks to the west and south.</p>
1986-1989	<p>The aerial photograph is presented in colour and is of clear resolution.</p> <p>Site: The site appears to be similar to previous photograph.</p> <p>Surrounding area: The site surrounds appear similar to previous photograph.</p>
1997-1998	<p>The aerial photograph is presented in colour and is of reasonable resolution.</p> <p>Site: The site appears to be similar to previous photograph.</p> <p>Surrounding area: The site surrounds appear similar to previous photograph, with commercial development and a car park adjacent east and some high-rise development to the north east of the site.</p>
2002	<p>The aerial photograph is presented in colour and is of clear resolution.</p> <p>Site: The site appears to be similar to previous photograph.</p> <p>Surrounding area: The site surrounds appear similar to previous photograph.</p>
2004	<p>The aerial photograph is presented in colour and is of clear resolution.</p> <p>Site: The site appears to be similar to previous photograph.</p> <p>Surrounding area: The site surrounds appear similar to previous photograph.</p>
2008	<p>The aerial photograph is presented in colour and is of clear resolution.</p> <p>Site: The site appears to be similar to previous photograph.</p> <p>Surrounding area: The site surrounds appear similar to previous photograph, with upgrades to a building to the south east.</p>
2011	<p>The aerial photograph is presented in colour and is of clear resolution.</p> <p>Site: The site appears to be similar to previous photograph.</p> <p>Surrounding area: The site surrounds appear similar to previous photograph.</p>
2014	<p>The aerial photograph is presented in colour and is of clear resolution.</p> <p>Site: The site appears to be similar to previous photograph.</p>



Year	Notes
	<p>Surrounding area: The site surrounds appear similar to previous photograph, with commercial development to the south west, and high rise development to the north east of the site.</p>
2017	<p>The aerial photograph is presented in colour and is of clear resolution.</p> <p>Site: The site is similar to previous photograph.</p> <p>Surrounding area: The site surrounds appear similar to previous photograph, with high rise development to the west.</p>
2020	<p>The aerial photograph is presented in colour and is of clear resolution.</p> <p>Site: The site is similar to previous photograph.</p> <p>Surrounding area: The site surrounds appear similar to previous photograph, with high rise development to the north.</p>
2023	<p>The aerial photograph is presented in colour and is of clear resolution.</p> <p>Site: The site is similar to previous photograph.</p> <p>Surrounding area: The site surrounds appear similar to previous photograph.</p>

4.3 Lotsearch Report dated 18 May 2023 (Reference LS043588 EP)

Lotsearch provided the above reference report which is included in Appendix B and presented in Table 4.3.

Table 4.3 Summary of Lot Search Report

Lotsearch Report Reference	Summary	Activity of Interest	Relevance to site
EPA Contaminated Land	<p>The site is not listed on the EPA Site contamination index, and there are no authorisations or applications relevant to the site. There are several sites listed on the EPA site contamination index within the dataset buffer, the closest of which is 30 m south of the site. There are 7 environment protection orders within the dataset buffer, the closest of which is 418 m south of the site. There are several EPA licence authorisations or applications within the dataset buffer, the closest of which is 177 m south west of the site.</p>	<p>There are activities of interest listed at the site or nearby.</p>	<p>Relevant</p>
EPA Site Contamination Index			
EPA Public Register EPA Environment Protection and Clean Up Orders			
EPA Public Register EPA Authorisations and Applications			
EPA Authorisations and Applications			



Lotsearch Report Reference	Summary	Activity of Interest	Relevance to site																																																																																								
EPA Assessment Areas	<p>Sites on the EPA Contamination Index within the dataset buffer:</p> <table border="1" data-bbox="363 371 1182 943"> <thead> <tr> <th>Notification No</th> <th>Type</th> <th>Address</th> <th>Activity</th> <th>Status</th> <th>LocConf</th> <th>Dist</th> <th>Dir</th> </tr> </thead> <tbody> <tr> <td>10016</td> <td>Pre 1 July 2009 Audit Notification</td> <td>85-129 Franklin Street ADELAIDE SA 5000</td> <td>Not recorded</td> <td>Current EPA List</td> <td>Premise Match</td> <td>30m</td> <td>South</td> </tr> <tr> <td>10016 - 001</td> <td>Pre 1 July 2009 Audit Report</td> <td>85-129 Franklin Street ADELAIDE SA 5000</td> <td>Not recorded</td> <td>Current EPA List</td> <td>Premise Match</td> <td>30m</td> <td>South</td> </tr> <tr> <td>14295</td> <td>Pre 1 July 2009 Audit Termination</td> <td>85-129 Franklin Street ADELAIDE SA 5000</td> <td>Not recorded</td> <td>Current EPA List</td> <td>Premise Match</td> <td>30m</td> <td>South</td> </tr> <tr> <td>14295</td> <td>Pre 1 July 2009 Audit Notification</td> <td>85-129 Franklin Street ADELAIDE SA 5000</td> <td>Not recorded</td> <td>Current EPA List</td> <td>Premise Match</td> <td>30m</td> <td>South</td> </tr> <tr> <td>60117</td> <td>Audit Notification</td> <td>Franklin Street ADELAIDE SA 5000</td> <td>Not recorded</td> <td>Current EPA List</td> <td>Premise Match</td> <td>30m</td> <td>South</td> </tr> <tr> <td>60117</td> <td>Audit Termination</td> <td>Franklin Street ADELAIDE SA 5000</td> <td>Listed Substances (storage)</td> <td>Current EPA List</td> <td>Premise Match</td> <td>30m</td> <td>South</td> </tr> <tr> <td>12554</td> <td>Pre 1 July 2009 Audit Notification</td> <td>85-129 Franklin Street ADELAIDE SA 5000</td> <td>Not recorded</td> <td>Current EPA List</td> <td>Premise Match</td> <td>31m</td> <td>South East</td> </tr> <tr> <td>12554 - 001</td> <td>Pre 1 July 2009 Audit Report</td> <td>85-129 Franklin Street ADELAIDE SA 5000</td> <td>Not recorded</td> <td>Current EPA List</td> <td>Premise Match</td> <td>31m</td> <td>South East</td> </tr> <tr> <td>60101</td> <td>Audit Notification</td> <td>102 Waymouth Street ADELAIDE SA 5000</td> <td>Not recorded</td> <td>Current EPA List</td> <td>Premise Match</td> <td>72m</td> <td>North East</td> </tr> <tr> <td>60101 - 001</td> <td>Audit Report</td> <td>102 Waymouth Street ADELAIDE SA 5000</td> <td>Animal burial; Fill or soil importation; Scrap metal recovery</td> <td>Current EPA List</td> <td>Premise Match</td> <td>72m</td> <td>North East</td> </tr> </tbody> </table>	Notification No	Type	Address	Activity	Status	LocConf	Dist	Dir	10016	Pre 1 July 2009 Audit Notification	85-129 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	30m	South	10016 - 001	Pre 1 July 2009 Audit Report	85-129 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	30m	South	14295	Pre 1 July 2009 Audit Termination	85-129 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	30m	South	14295	Pre 1 July 2009 Audit Notification	85-129 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	30m	South	60117	Audit Notification	Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	30m	South	60117	Audit Termination	Franklin Street ADELAIDE SA 5000	Listed Substances (storage)	Current EPA List	Premise Match	30m	South	12554	Pre 1 July 2009 Audit Notification	85-129 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	31m	South East	12554 - 001	Pre 1 July 2009 Audit Report	85-129 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	31m	South East	60101	Audit Notification	102 Waymouth Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	72m	North East	60101 - 001	Audit Report	102 Waymouth Street ADELAIDE SA 5000	Animal burial; Fill or soil importation; Scrap metal recovery	Current EPA List	Premise Match	72m	North East		
Notification No	Type	Address	Activity	Status	LocConf	Dist	Dir																																																																																				
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PFAS Investigation and Management Programs	The site is not located within a PFAS Investigation or Management Programs or is located at or near an Australian Defence force site.	There are no activities of interest listed at the site or nearby.	Not material																																																																																								
Defence Sites Defence 3 Year Regional Contamination Investigation Program	The site is not located within a Defence management plan area or is located at or near an Australian Defence force site.	There are no activities of interest listed at the site or nearby.	Not material																																																																																								
Waste Management and Liquid Fuel Facilities	The site is not listed as having a Waste Management or Liquid fuel facility. There are 4 national liquid fuel facilities within the dataset buffer, the closest of which is 581 m west of the site.	There are no activities of interest listed at the site or nearby.	Not material																																																																																								
Historical Business Directories Business Directory Records 1910-1991 – Premise or Road Intersection Matches Business Directory Records 1910-1991 – Road or Area Matches	The site has historically been listed with reference to multiple potentially contaminating activities. Please consider the Lotsearch Report in Appendix 2 for more detail.	There are activities of interest listed at the site and nearby.	Relevant																																																																																								



Lotsearch
Report
Reference

Summary

Activity of
Interest

Relevance
to site

Historical Business Directories

108-112 Franklin Street, Adelaide, SA 5000





Lotsearch
Report
Reference

Summary

Activity of
Interest

Relevance
to site

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	Motor Tyre Dealers Retreaders &/or Vulcanisers	Kenny, Kevin Tyres, 110 Franklin St, Adelaide, 5000	28923	1991	Premise Match	0m	On-site
	Motor Wheel Aligning & Balancing Services	Kenny, Kevin Tyres, 110 Franklin St, Adelaide, 5000	29062	1991	Premise Match	0m	On-site
	Tyre Dealers &/or Retreaders &/or Vulcanisers	Kenny, Kevin Tyres, 110 Franklin St, Adelaide, 5000	35716	1991	Premise Match	0m	On-site
	Motor Engineers	y, Kevin Tyres, 110 Franklin St, Adelaide 5000.	27143	1991	Premise Match	0m	On-site
	Newspapers, Journals &/or Periodicals	Stock Journal Publishers Pty. Ltd., 11 Cannon St.	19410	1984	Premise Match	0m	On-site
	Printers & Publishers	STOCK JOURNAL PUBLISHERS PTY. LTD. 11 Cannon Street, Adelaide 5000	21170	1984	Premise Match	0m	On-site
	Printers - Offset	Stock Journal Publishers Pty. Ltd., 11 Cannon St.	21157	1984	Premise Match	0m	On-site
	Publishers	Stock Journal Publishers Pty. Ltd., 11 Cannon St.	21277	1984	Premise Match	0m	On-site
	PUBLISHERS	Stock Journal Publisher & Pty Ltd 110 - 112 Franklin st Adelaide	34702	1973	Premise Match	0m	On-site
	PRINTING & ALLIED TRADES	Stock Journal Publishers P/L 11 Cannon st Adelaide	33275	1973	Premise Match	0m	On-site
	PUBLISHERS	Publishers Ltd 110-112 Franklin st Adelaide	49810	1985	Premise Match	0m	On-site
	PRINTERS, PUBLISHERS and STATIONERS	PUBLISHERS LIMITED 110 Franklin Street	36641	1955	Premise Match	0m	On-site
	PUBLISHERS	Publishers Ltd 110 Franklin st Adelaide	38429	1955	Premise Match	0m	On-site
	DEVELOPING APPARATUS	Peter Pan Photos Limited., 110 Franklin Street, Adelaide	15509	1950	Premise Match	0m	On-site
	PHOTOGRAPHERS-CANDID	Peter Pan Photos Ltd., 110 Franklin St.	15404	1950	Premise Match	0m	On-site
	PHOTOGRAPHERS-GENERAL	Peter Pan Photos Ltd., 110 Franklin St.	15451	1950	Premise Match	0m	On-site
	PHOTOGRAPHIC EQUIPMENT & SUPPLIES	Peter Pan Photos Ltd., 110 Franklin St.	15474	1950	Premise Match	0m	On-site
	PRINTERS	Publishers Ltd., 110 Franklin St.	18107	1950	Premise Match	0m	On-site
	PRINTERS	Publishers Ltd., 110 Franklin St.	18050	1950	Premise Match	0m	On-site
	Printers And Allied Trades	Adelaide Stuck and Station Journal, 110 Franklin st	9064	1940	Premise Match	0m	On-site
Printers And Allied Trades	Publishers Ltd, 110 Franklin st	10040	1940	Premise Match	0m	On-site	
PRINTERS AND PUBLISHERS	Gossip (The), 110 Franklin St	4867	1930	Premise Match	0m	On-site	
PRINTERS AND PUBLISHERS	Publishers Ltd, 110 Franklin st	4931	1930	Premise Match	0m	On-site	
PRINTERS AND PUBLISHERS	S.A. Motor Journal, o/o Publishers Ltd, 110 Franklin st	5208	1930	Premise Match	0m	On-site	
2	IRON & STEEL MERCHANTS	Westcott Hazell Engineering & Steel Co. Ltd., 112 Franklin St.	10879	1950	Premise Match	0m	On-site

Lotsearch Pty Ltd ABN 89 600 168 018

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Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
2	MACHINERY MERCHANTS	Westcott, Hazel Engineering & Steel Ltd., 112 Franklin St.	11066	1950	Premise Match	0m	On-site
	IRON & STEEL MERCHANTS	Westcott, Hazell Engineering & Steel Ltd., 112 Franklin St.	10889	1950	Premise Match	0m	On-site
	Motor And Associated Assets	FRYMAN MOTORS LIMITED, 112	8415	1940	Premise Match	0m	On-site

The above is not clearly represented however there is sufficient detailed information in Appendix 2 to demonstrate multiple potentially contaminating land uses.

Dry Cleaners,
Motor Garages
& Service
Stations 1930-
1991 – Premise
or Road
Intersection
Matches

The site has been referenced with respect to a potentially contaminating land use. There are several historic listings for motor garages, dry cleaners or service stations within the dataset buffer per below:

Dry Cleaners,
Motor Garages
& Service
Stations 1930-

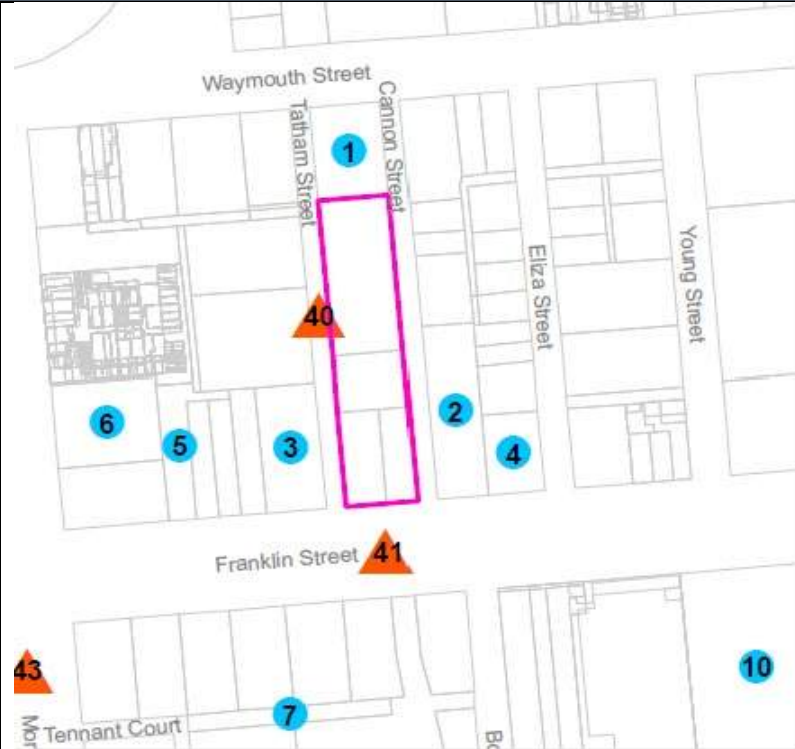
There are
activities of
interest
listed at the
site or
nearby.

Relevant



Lotsearch Report Reference	Summary	Activity of Interest	Relevance to site
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1991 – Road or Area Matches



Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	Motor Garages &/or Engineers &/or Service Stations	Cousin, Laurie Automotive, 127 Waymouth St.,	18285	1984	Premise Match	0m	North
2	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Car Park 102-104 Franklin st Adelaide	57805	1965	Premise Match	6m	South East
3	MOTOR GARAGES, ENGINEERS & SERVICE STATIONS	Kingsway Ltd., 118-120 Franklin St.	14030	1950	Premise Match	6m	South West
4	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Queens Bridge Motor & Engineering Co Pty Ltd 96-100 Franklin st Adelaide	6634	1965	Premise Match	22m	South East
5	Dry Cleaners, Dyers & Laundries	Tip Top Dry Cleaners 130 Franklin st Adel	50066	1965	Premise Match	32m	South West
6	Dry Cleaners & Pressers	Collinswood Dry Cleaners 188 Morphett St..	9628	1984	Premise Match	54m	West
7	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Car Park 117a Franklin st Adelaide	57806	1965	Premise Match	63m	South
8	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Car Park 20 Bowen st Adelaide	57808	1965	Premise Match	69m	South
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Western Motors 18 Bowen st Adelaide	9839	1965	Premise Match	69m	South
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Western Motors 18-20 Bowen st Adelaide	23027	1955	Premise Match	69m	South

Mines and Mineral Deposits	The site is not subject to any current or former mining tenements or operations.	There are no activities of interest listed at the site or nearby.	Not material
Heritage Commonwealth Heritage List	There were no indications from the heritage search of potentially contaminating activities. The site is not referenced under a heritage search. There is 1 Commonwealth heritage listed site, 1	There are no activities of interest listed at the	Not material



Lotsearch Report Reference	Summary	Activity of Interest	Relevance to site
National Heritage List	National Heritage listed site and several SA Heritage places within the dataset buffer, the closest of which is adjacent north of the site.	site or nearby.	
State Heritage Areas			
Aboriginal Land			
Natural Hazards	The site is not located within a high-risk bushfire or flooding zone.	There are no activities of interest listed at the site or nearby.	Not material
Bushfire Protection Areas			
Bushfires and Prescribed Burns History			
Ecological Constraints	There were no ecological constraints noted.	There are no activities of interest listed at the site or nearby.	Not material
Groundwater Dependent Ecosystems Atlas	There were no groundwater dependent ecosystems noted.	There are no activities of interest listed at the site.	Not material

4.4 SA EPA Section 7 Search

A Section 7 search was made under the Land and Business (Sales and Conveyancing) Act 1994. The information indicates that no current environmental Performance Agreements, Environment Protection Orders or Clean-up Orders are registered on the site. There was an historical EPA License 27303 related to the production of listed wastes per below from 2015 to 2020. This is included in Appendix C.

4.5 Dangerous goods search

Safework SA indicated that they no longer perform this search and that a FOI application is required to be placed with the Department of Treasury and Infrastructure. There was no visual or anecdotal information to indicate the presence of underground fuel storage tanks observed.

4.6 EPA Public Register

A limited amount of information was provided by the EPA Public Register. This information related primarily to work conducted on the Franklin Street Bus Depot. It does not appear that there are any potential off-site migration issues in soil, groundwater or soil vapour from the Depot site which would materially impact the subject site. This information is included in Appendix J.



5.0 Areas of Environmental Interest

Based on this environmental site history research, the chemicals presented in Table 5.1 are indicative of the potential historical and current land uses and also includes reference (based on Historical Directory searches of nearby land uses with the potential to result in soil, groundwater or soil vapour contamination. The chemicals listed are based on AS 4482.1-2005 Appendix J 'Chemical Contaminants Listed by Industry Type', and the Environment Protection Regulations 2009 (EP Regs) Schedule 3 and Part 1—Potentially contaminating activities (regulation 50) and SA Planning Commission Practice Direction 14 Site Contamination Assessment 2021 Schedule 1 in relation to Class 1, 2 and 3 activities.

An assessment/judgement has been made with reference to the likelihood of being present on the site (based on cross referencing the site history information) as well as likely materiality.

Table 5.1 Summary of potential areas and chemicals of interest

Activity of interest	Chemicals of environmental interest	Medium of interest	Likelihood	Preliminary assessment of material risk
Onsite				
Variety of Class 1 Activities per the details in Appendix B.	Broad Analytical Screen	Soil and soil vapour	Possible	High
Off-site				
There is evidence of potentially contaminating activities adjacent to the site but primarily in what is considered to be in a hydraulically downgradient location to the west of the site.	Volatile organics	Soil vapour / possible groundwater (but groundwater expected to be flowing away from the site)	Medium	Medium/High

These chemicals of environmental interest are not a prescriptive list for any further exploratory intrusive assessment that may be conducted, nor a statement of the presence of these chemicals, but rather a list to be given consideration. In addition, screening level testing may be conducted for analytes which are considered to represent the generally accepted basic suite of chemicals, which may then give rise to the need for more detailed or varied analysis. There are also land uses which have the potential to result in contamination but which do not correlate directly with PD14 land uses however we prefer to mention them.



6.0 Screening Level Soil Assessment

6.1 Rationale

Selected soil samples were obtained from accessible locations as a screening level assessment. This information was sought in order to see if there were any immediate higher level risk indicators i.e. soil observations, PID or soil concentrations which might indicate a broader issue at the site. The rationale was based on the assessment of the areas of environmental interest to assess for the presence of indicators of potential soil contamination and/or residual chemicals. This information would be compared to the site history research and preliminary assessment risk in order to assess the likelihood of potential site contamination impacts being present or not.

6.2 Methodology

Sample retrieval on 20 June 2023 from the installation of eight (8) soil boreholes using a truck mounted Geoprobe drilling rig and hand augers.

Samples were freighted directly to the NATA accredited laboratory. A chain of custody document was completed listing sample numbers, date of collection and analyses required and was signed by each person transferring and accepting custody.

The analytical methods used are described in the analytical laboratory certificate provided in Appendix F.

These sampling locations are approximately shown in Figure 6.1.

The detailed soil assessment methodology that was followed, including key elements of the quality assurance (QA) program, is presented in Table 6.1.

Table 6.1: Soil assessment methodology

Activity	Details
Field procedures	Field procedures were undertaken in general accordance with the NEPM (2013) and AS4482.1-2005.
Soil sampling	Representative soil samples were generally collected from the top of each soil horizon using Nitrile gloves. Samples were retrieved by an experienced AME representative. Soil logs are included in Appendix E.
Rinsate sample	A Rinsate sample was retrieved following equipment cleaning on each day of sampling with demineralised water and phosphate free detergent Decon90 and both were tested by Eurofins MGT for heavy metals.
Duplicate sampling	Field duplicate soil samples were collected to provide a check on sample variability, laboratory performance and accuracy. An intra-laboratory duplicate sample was retrieved and analysed at the primary laboratory and an inter-laboratory duplicate sample was retrieved and analysed at the secondary laboratory.
Trip blank	Trip blank samples accompanied the soil samples in the esky to the laboratory and was tested for BTEX.
Laboratories used and NATA accreditation	Eurofins MGT (primary laboratory) and Envirolab (secondary laboratory for QC purposes) are NATA accredited for the analyses undertaken. The laboratory analysis and chain of custody documentation and certified analytical certificates are included in Appendix F.
Sample preservation and storage	Samples were placed in laboratory supplied containers and stored in chilled eskies. Samples were then freighted to the NATA accredited laboratories of Eurofins MGT and Envirolab.
Sample labelling	A unique sample number was generally used to label and clearly identify each sample.
Sample tracking	Chain of custody documentation was used for the transport of all samples to the laboratory and is included in Appendix F. The chain of custody documentation was completed listing sample numbers,



Activity	Details
	date of collection and analyses required. This was signed by each person transferring and accepting custody.
Soil PID screening	All soil samples were screened in the field for the presence of volatile organic compounds using a PID, which was calibrated using isobutylene gas prior to use. The PID meter calibration certificate is presented in Appendix H.
EILs	NEPM EIL values were <u>not</u> calculated. However, a representative soil sample was analysed for clay content, pH, Fe, TOC and CEC. The results are retained on file for comparison with future assessment works when EIL's will be calculated.

The sampling location plan is provided in Figure 6.1 below.

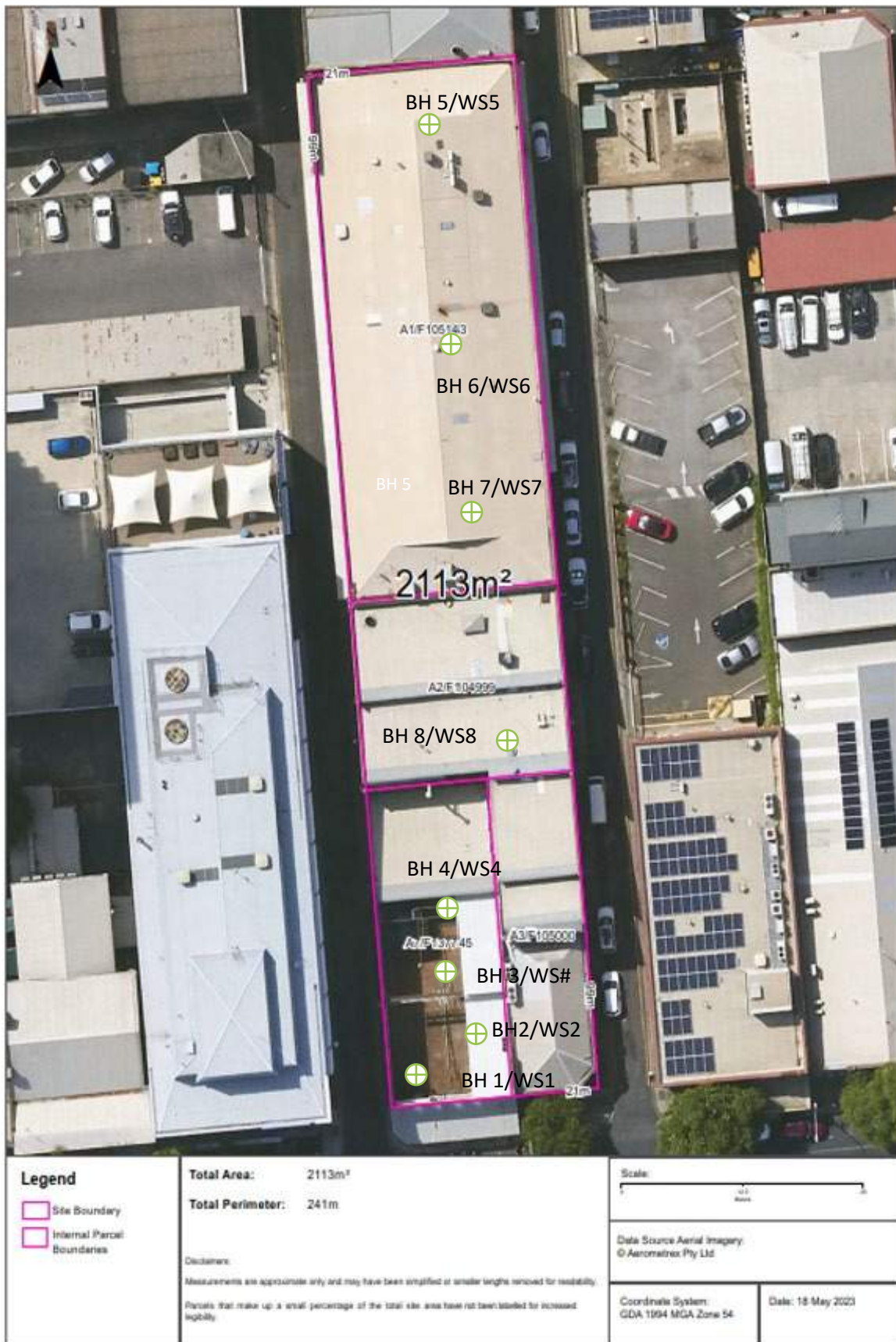


Figure 6.1: Sample retrieval location plan



6.3 Chemical analysis

The sample list and associated analytical testing is presented in the chain of custody documentation included in Appendix F. Select soil samples were tested for selected individual analytes. The analytical methods used are described on copies of the analytical laboratory certificates provided in Appendix F.

6.4 Guidelines

The guidelines used for the assessment of the analytical results are presented in Table 6.2.

Table 6.2: Applicable soil assessment guidelines

Criteria	Applicability
NEPM Health investigation levels (HILs)	
NEPM HIL D and A/B	Concentrations of a contaminant above which further evaluation would be required. HILs are generic to all soil types and generally apply to the top 3m of soil.
NEPM Ecological investigation levels (EILs)	
NEPM EIL (urban residential areas & public open space) – Aged in high traffic area	Concentrations of contaminants above which further appropriate investigation and evaluation would be required. EILs depend on specific soil physicochemical properties and land use scenarios and generally apply to the top 2m of soil. A contaminant incorporated in soil for at least two years is considered to be aged for the purpose of EIL derivation.
NEPM Petroleum hydrocarbon management limits	
NEPM management limits (residential, parkland & public open space) – fine	Limited to petroleum hydrocarbon compounds. They are maximum values that should remain in a site following evaluation of human health and ecological risks and risks to groundwater resources and apply to all soil depths based on site-specific considerations. These limits are to consider the formation of light non-aqueous phase liquids, fire and explosion risks and damage to buried infrastructure.
Ecological screening levels (ESLs) for petroleum hydrocarbons	
NEPM ESLs (urban residential & public open space) – fine	Concentrations above which further appropriate investigation and evaluation would be required. ESLs broadly apply to coarse- and fine-grained soils and various land uses. They are generally applicable to the top 2 m of soil. Note that the Benzo(a)pyrene NEPM ESL guidelines have been replaced by the updated CCME guidelines which are used in this assessment.
Health screening levels (HSLs) for petroleum hydrocarbons	
HSL A & B for Clay	Concentrations above which further appropriate investigation and evaluation would be required. HSLs depend on physicochemical properties of soil, as these affect hydrocarbon vapour movement in soil, and the characteristics of building structures. HSLs apply to different soil types, land uses and depths below surface to >4 m and have a range of limitations.

6.5 Results

6.5.1 Soil observations

The soils generally comprised a concrete seal, minor layer of gravels, shallow minor dark brown clayey sand/sandy clay (inferred former topsoil layer) and underlain by natural calcareous sandy clays. There were no visual or olfactory indicators of gross or widespread potential contamination that were noted apart from minor ash and cinders at some locations. Soil bore logs and photographs of core trays are include in Appendix E.

6.5.2 PID results

A PID was calibrated with isobutylene to broadly detect VOCs. The PID results from the soil samples retrieved were each measured at 0 ppm. This indicates that the likelihood of volatile gases being present in the soils assessed at the site is low.



6.5.3 Laboratory results

The laboratory results for soil are summarised in Appendix G. The results for each of the soil samples analysed for the chemicals of interest were generally below the adopted criteria with some minor exceptions.

6.6 Quality assurance/quality control

6.6.1 Data validation

A summary of the quality assurance/quality control (QA/QC) activities undertaken to ensure integrity of the soil data collected is provided in Table 6.5.

A trip blank was analysed for BTEX and Rinsate for heavy metals by MGT Eurofins Pty Ltd.

Table 6.5 Data validation

QA/QC requirement	Acceptable?	Comments
Samples collected in accordance with standard operating procedures, incorporating appropriate sections of AS 4482.1 – 2005 and AS 4482.2-1999 for sampling of non-volatile components.	Yes	None
Samples delivered to laboratory with correct preservative.	Yes	None
Samples delivered to laboratory within sample holding times.	Yes	None
All analyses NATA accredited.	Yes	None
Required number of sample duplicates analysed.	Yes	None
Sample duplicates reported RPDs within limits set by AS4482.1.	Yes	RPDs are discussed in Section 6.6.2 and summarised below the results from the heavy metal analysis in Appendix G.
Laboratory limits of reporting (LOR)	Yes	The LORs are presented in the laboratory certificates of analysis. All LORs are suitable for the purposes of this investigation.
Trip blank	Yes	Trip blank accompanied the soil samples in the esky to the laboratory and was tested for BTEX. The results were reported as below LOR.
Rinsate	Yes	Rinsate samples was tested by Eurofins MGT for heavy metals. The results were reported as below LOR or below criteria.



6.6.2 Duplicate analysis

Field duplicate (blind replicate) soil samples were collected to provide a check on sample variability and laboratory performance and accuracy.

Validation and interpretation of the quality control data was undertaken by calculating the relative percentage differences (RPDs) for the primary sample and duplicate sample concentrations. The RPD value for an analyte was calculated using the formula:

$$\text{RPD (\%)} = 100[(x1 - x2)/x] \quad \text{where } x1, x2 = \text{duplicate results and } x = \text{mean of duplicate results.}$$

According to AS4482.1-2005, typical RPD values for soils range from ± 30 to $\pm 50\%$; an RPD within the range of -50% to 50% is considered to show acceptable agreement and, conversely, data is considered to have poor agreement where an RPD is outside this range unless there are mitigating circumstances described.

RPD's are suitable for the purpose of this assessment.



7 Screening Level Soil Vapour Assessment

7.1 Rationale

A selected soil vapour sample was obtained from an area close the sealed portion of the site and beneath former buildings. The rationale was to provide a screening level assessment for Volatile Organic Compound (VOC) concentrations, as these are the chemicals considered to be the chemicals of a higher risk that could potentially impact the future site use, The locations were based on site features and in order to understand the potential distribution of soil vapour across the site and to allow more focussed assessment in specific areas if required.

7.2 Methodology

Waterloo soil samplers WS1-8 were installed on 20 June 2023 to a depth of 1m using a truck muted drilling rig and push tubes. The soil borelogs were provided in Appendix E and I. The samplers were collected on 12 July 2023.

Following push tube drilling to a depth of 1m the Waterloo locations were converted into soil vapour sampling points with the construction details provided in Appendix E and I. This comprised suspension of the sampler into the borehole on line, to just aboe the base of the hole and then plugged with the sleeve provided, sealed at the top with a plug and capped with an aluminium cover and soil to protect the surface.

The soil vapour sampling location is shown in Figure 7.1 below.

The waterloo sample was analysed by Eurofins MGT for TRH and Volatile Organic Compounds (VOCs).

Samples were freighted directly to the NATA accredited laboratory. A chain of custody document was completed listing sample numbers, date of collection and analyses required and was signed by each person transferring and accepting custody.

The analytical methods used are described in the analytical laboratory certificate provided in Appendix F.

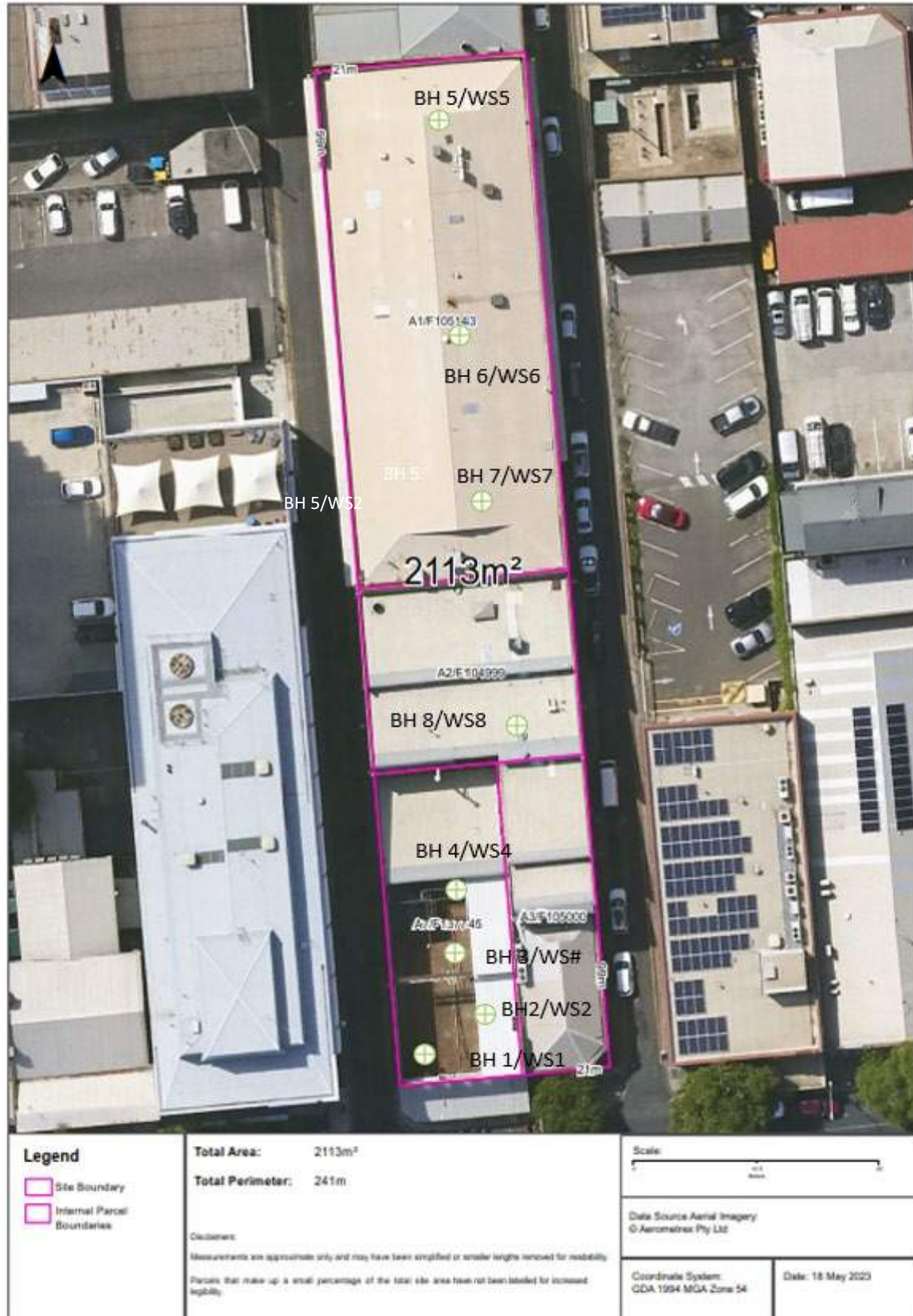


Figure 7.2: Sample retrieval location plan



7.3 Chemical analysis

The sample list and associated analytical testing conducted is presented in the chain of custody documentation included in Appendix F.

The soil vapour samplers were analysed for TRH and VOC's.

The analytical methods used are described on copies of the analytical laboratory certificates provided in each appendix.

7.4 Guidelines

The NEPM Interim soil vapour Health Investigation Levels (HILs) for Volatile Organic Chlorinated Compounds guidelines are used in the assessment of the analytical results.

The following guidelines were also considered:

- enHealth (2012) Environmental Health Risk Assessment, Guidelines for Assessing Human Health Risks from Environmental Hazards (enHealth 2012a)
- enHealth (2012) Australian Exposure Factor Guide (enHealth 2012b)
- NEPC 2016. National Environment Protection (Ambient Air Quality) Measure (NEPC 2016)
- NEPC 2011. National Environmental Protection (Air Toxics) Measure (NEPC 2011)
- Technical guidance in relation to the assessment of vapour risks (CRC CARE 2011, 2013; Davis et al. 2009) (as required)

The NEPM guidelines for vapour intrusion are outlined below (noting guidelines are expressed in mg/m^3):



Table 1A(5) Soil vapour HSLs for vapour intrusion (mg/m³)

CHEMICAL	HSL A & HSL B Low - high density residential					HSL C recreational/ open space					HSL D Commercial/ Industrial				
	0 m to <1 m	1 m to <2 m	2 m to <4 m	4 m to <8 m	8 m+	0 m to <1 m	1 m to <2 m	2 m to <4 m	4 m to <8 m	8 m+	0 m to <1 m	1 m to <2 m	2 m to <4 m	4 m to <8 m	8 m+
SAND															
Toluene	1300	3800	7300	15 000	29 000	NL	NL	NL	NL	NL	4800	16 000	39 000	84 000	NL
Ethylbenzene	330	1100	2200	4300	8700	NL	NL	NL	NL	NL	1300	4600	11 000	23 000	53 000
Xylenes	220	750	1500	3000	6100	NL	NL	NL	NL	NL	840	3200	8000	18 000	37 000
Naphthalene	0.8	3	6	10	25	410	NL	NL	NL	NL	3	15	35	75	150
Benzene	1	3	6	10	20	360	2400	4700	9500	19 000	4	10	30	65	130
P1 ⁽⁶⁾	180	640	1300	2600	5300	86 000	NL	NL	NL	NL	680	2800	7000	15 000	32 000
P2 ⁽⁶⁾	130	560	1200	2400	4800	NL	NL	NL	NL	NL	500	2400	NL	NL	NL
SILT															
Toluene	1400	14 000	32 000	69 000	140 000	NL	NL	NL	NL	NL	5700	63 000	NL	NL	NL
Ethylbenzene	380	4200	9700	21 000	43 000	NL	NL	NL	NL	NL	1500	19 000	54 000	NL	NL
Xylenes	260	2900	6800	15 000	30 000	NL	NL	NL	NL	NL	1000	13 000	38 000	NL	NL
Naphthalene	0.9	10	25	60	120	NL	NL	NL	NL	NL	4	50	150	350	750
Benzene	1	10	25	55	110	1600	12 000	24 000	48 000	97 000	4	50	140	320	670
P1 ⁽⁶⁾	210	2600	6000	13 000	26 000	NL	NL	NL	NL	NL	850	11 000	33 000	77 000	160 000
P2 ⁽⁶⁾	160	2300	5400	NL	NL	NL	NL	NL	NL	NL	670	NL	NL	NL	NL
CLAY															
Toluene	1600	23 000	53 000	110 000	NL	NL	NL	NL	NL	NL	6900	100 000	NL	NL	NL
Ethylbenzene	420	6800	16 000	35 000	NL	NL	NL	NL	NL	NL	1800	31 000	NL	NL	NL
Xylenes	280	4800	11 000	24 000	50 000	NL	NL	NL	NL	NL	1200	21 000	NL	NL	NL
Naphthalene	1	20	45	95	200	NL	NL	NL	NL	NL	4	55	240	560	1200
Benzene	1	15	40	90	180	3000	20 000	40 000	81 000	160 000	5	50	230	530	1100
P1 ⁽⁶⁾	230	4200	9900	21 000	44 000	NL	NL	NL	NL	NL	1000	19 000	55 000	130 000	270 000
P2 ⁽⁶⁾	180	3800	NL	NL	NL	NL	NL	NL	NL	NL	800	NL	NL	NL	NL

- Land use settings are equivalent to those described in Table 1A(1) Footnote 1 and Schedule 10. HSLs for vapour intrusion for high density residential assume residential occupation of the ground floor. If commercial car parks or commercial premises occupy the ground floor, HSL D should be used.
- The key limitations of the HSLs should be referred to prior to application and are presented in Friebel and Nadebaum (2011a and 2011b).
- Detailed assumptions in the derivation of the HSLs and information on how to apply the HSLs are presented in Friebel and Nadebaum (2011a and 2011b).
- The maximum possible soil vapour concentrations have been calculated based on vapour pressures of the pure chemicals. Where soil vapour HSLs exceed these values a soil-specific source concentration for a petroleum mixture could not exceed a level that would result in the maximum allowable vapour risk for the given scenario. For these scenarios, no HSL is presented for these chemicals and the HSL is shown as 'not limiting' or 'NL'.
- Soil vapour HSLs should be compared with measurements taken as closely as possible to the soil or groundwater sources of vapour (i.e. within or above vapour sources). Consideration is required of where the sample is taken, the current condition of the site and the likely future condition of the site. Shallow gas measurements in open space (less than 1 m below ground surface) may be subject to influences of weather conditions and moisture.
- The HSLs in the above table may be multiplied by a factor to account for biodegradation of vapour. A factor of 10 may apply for source depths from 2 m to <4 m or a factor of 100 for source depths of 4 m and deeper. To apply the attenuation factor for vapour degradation, a number of conditions must be satisfied. Firstly, the maximum length of the shorter side of the concrete slab and surrounding pavement cannot exceed 15 m, as this would prevent oxygen penetrating to the centre of the slab. Secondly, measurement of oxygen in the subsurface is required to determine the potential for biodegradation. Oxygen must be confirmed to be present at >5% to use these factors.
- For soil texture classification undertaken in accord with AS 1726, the classifications of sand, silt and clay may be applied as coarse, fine with liquid limit <40% and fine with liquid limit >40% respectively as the underlying properties to develop the HSLs may reasonably be selected to be similar. Where there is uncertainty, either a conservative approach may be adopted or laboratory analysis should be carried out.
- To obtain P1 subtract the sum of BTEX concentrations from the C₁₀-C₁₅ fraction.
- To obtain P2 subtract naphthalene from the >C₁₀-C₁₅ fraction.



7.5 Results

7.5.1 Soil observations

The soils generally comprised a concrete seal, minor layer of gravels, shallow minor dark brown clayey sand/sandy clay (inferred former topsoil layer) and underlain by natural calcareous sandy clays. There were no visual or olfactory indicators of gross or widespread potential contamination that were noted apart from minor ash and cinders at some locations. Soil bore logs and photographs of core trays are include in Appendix E.

7.5.2 PID results

A PID was calibrated with isobutylene to broadly detect VOCs. The PID results from the soil samples retrieved were generally each measured at 0 ppm.

7.5.3 Laboratory results

The laboratory results for each of the soil samples analysed for the chemicals of interest were below the adopted criteria. The analytical results are detailed in the certified laboratory certificates are provided in Appendix G. The results are summarised below in Table 7.1 (noting results expressed in $\mu\text{g}/\text{m}^3$):

Table 7.1: Soil Vapour Results ($\mu\text{g}/\text{m}^3$)

Chemical	WS1	WS2	WS3	WS4	WS5	WS5	WS7	WS8
CRC CARE TR 23 PVI								
>C10-C12	< 550	< 550	< 550	< 550	< 550	< 550	< 550	< 550
>C10-C12 minus Naphthalene (mod F2)	< 550	< 550	< 550	< 550	< 550	< 550	< 550	< 550
>C6-C10	< 2150	< 2150	< 2150	< 2150	< 2150	< 2150	< 2150	< 2150
>C6-C10 TRH minus BTEX (F1)	< 2150	< 2150	< 2150	< 2150	< 2150	< 2150	< 2150	< 2150
VOCs in Ambient Air (WMS Sampler)								
1.1.1-Trichloroethane	< 9.9	< 9.9	< 9.9	< 9.9	< 9.9	< 9.9	< 9.9	< 9.9
1.1.2.2-Tetrachloroethane	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
1.1.2-Trichloroethane	< 5.7	< 5.7	< 5.7	< 5.7	< 5.7	< 5.7	< 5.7	< 5.7
1.1-Dichloroethane	< 9.5	< 9.5	< 9.5	< 9.5	< 9.5	< 9.5	< 9.5	< 9.5
1.1-Dichloroethene	< 43	< 43	< 43	< 43	< 43	< 43	< 43	< 43
1.2.4-Trimethylbenzene	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2	< 2.2
1.2-Dichlorobenzene	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
1.2-Dichloroethane	< 6.6	< 6.6	< 6.6	< 6.6	< 6.6	< 6.6	< 6.6	< 6.6
1.3.5-Trimethylbenzene	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4	< 2.4
1.3-Dichlorobenzene	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1	< 2.1
1.4-Dichlorobenzene	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Benzene	< 27	< 27	< 27	< 27	< 27	< 27	< 27	< 27
Carbon Tetrachloride	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4
Chlorobenzene	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1	< 4.1
Chloroform	< 7.6	< 7.6	< 7.6	< 7.6	< 7.6	< 7.6	< 7.6	< 7.6
Chloromethane	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
cis-1.2-Dichloroethene	< 7.8	< 7.8	< 7.8	< 7.8	< 7.8	< 7.8	< 7.8	< 7.8
Ethylbenzene	< 3.5	< 3.5	< 3.5	< 3.5	< 3.5	12	< 3.5	< 3.5
Isopropyl benzene (Cumene)	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6
m,p-Xylene	< 3.5	4.6	< 3.5	6	18	67	9.6	4.6
Naphthalene	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3
o-Xylene	< 3.3	< 3.3	< 3.3	< 3.3	3.9	17	< 3.3	< 3.3
Propylbenzene	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6	< 2.6
Styrene	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3	< 3.3



Chemical	WS1	WS2	WS3	WS4	WS5	WS5	WS7	WS8
Tetrachloroethene	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8	< 3.8
Toluene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-Dichloroethene	< 18	< 18	< 18	< 18	< 18	< 18	< 18	< 18
Trichloroethene	< 5.6	< 5.6	< 5.6	< 5.6	< 5.6	< 5.6	< 5.6	< 5.6
Vinyl Chloride	< 48	< 48	< 48	< 48	< 48	< 48	< 48	< 48

Concentrations did not exceed the land use guidelines.

7.6 Quality assurance/quality control

The waterloo samplers were in place for 22 days from installation in order for LOR concentrations to reduce to below guideline concentrations. The residence times are considered suitable for the screening level purposes of this assessment.

It should be noted that WS1 had soft clay around the sampler and some moisture in the borehole. WS3 had water in the borehole. This would appear to be a consequence of the open nature of this front portion of the site and/or there appeared to have some pressure cleaning of the surfaces in this portion of the site which may have created water ingress.



8.0 Conceptual Site Model and Assessment of Risk

8.1 Purpose

The development of a Conceptual Site Model (CSM) is an essential part of all site assessments and provides the framework for identifying if and how a site may have become contaminated and how potential receptors may be exposed to contamination, either in the present or the future. The complexity of the CSM corresponds to the scale and complexity of the known or potential contamination impacts.

The CSM identifies complete and potential pathways between the known or potential contamination source(s) and receptor(s). Where the pathway between a source and a receptor is incomplete, the exposure to chemical substances via that pathway cannot occur, however the potential for that pathway to be completed (for example, by abstraction of groundwater or a change in land use) should also be considered in the assessment.

The CSM in Table 8.3 was developed based on an understanding of the site setting and the soil and groundwater assessment described in this report.

8.2 Context

The site setting, geology and hydrogeology, historical use and chemicals of environmental interest are outlined in earlier sections of this report.

8.3 Accuracy and Relevance of Information

The ASC NEPM outlines that consideration of the accuracy, relevance and whether data gaps are present or material to the assessment. Limited information was available with respect to a detailed understanding of historical offsite land uses. However, sufficient information is considered to have been obtained in relation to the site land use and likelihood of potentially contaminating activities being present at the site. The data obtained and supplied by others is considered to be accurate, independent and suitable for the purpose of this assessment.

8.4 Data Gaps and Constraints on the Assessment

There were some constraints related to site access and ongoing demolition works on a portion of the site. Supplementary visual soil assessment is recommended post demolition of all site buildings.

8.5 Risk analysis

The CSM in Table 8.3 ranks the residual environmental and human health risks posed by the site for the proposed use using the risk matrix in Figure 8.1 and Tables 8.1-8.2.

This risk assessment takes into account that the literal consideration of risk as an abstract term based on what may or may not be present also needs to be expressed in commercial terms. Commercial terms relate to the potential expenditure and time that a proponent may need to reach a final development and/or the costs of associated assessment and management measures. It is noted that when considering risk, a lower risk is not necessarily insignificant, but rather the issue whilst present is either manageable or materially would not impede/preclude the development, although there may still be items to consider and close out. Although this may entail time and expense, it is not considered material to the viability the project as a percentage of the overall development costs.

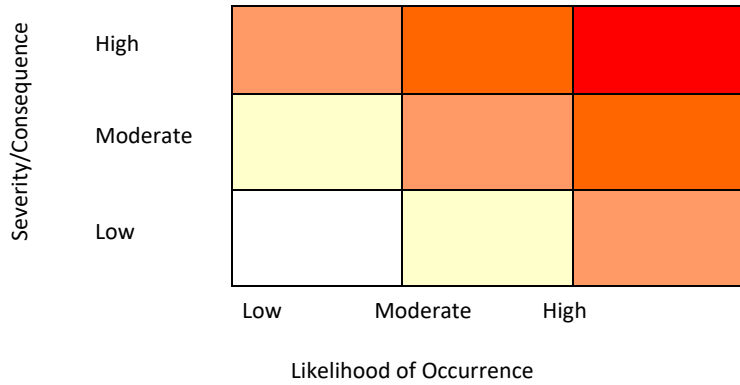


Figure 8.1 CSM residual risk matrix

Table 8.1 Severity/consequence definitions

Severity/consequence	Definition
Low	Negligible environmental and human health impacts, negligible threat to groundwater and negligible resultant soil vapour from known previous/current/adjacent land uses following site development which would reduce exposure pathways without significant management or remediation.
Moderate	If present, the nature of site contamination under some exposure scenarios could present an environmental or human health risk, threaten groundwater or result in soil vapour. Site development would reduce exposure pathways without significant management or remediation.
High	If site contamination is present, its nature is expected to present a significant environmental human health risk, threaten groundwater and/or result in soil vapour.

Table 8.2 CSM residual risk rating

Risk	Definition
Low	The concentrations reported do not exceed the adopted guidelines and the proposed site development is such that there would be no access to subsurface soils once developed and groundwater would not be abstracted for use, thereby the proposed development is conceptually of a negligible risk and no further work is considered warranted.
Low-Moderate	Individual and isolated concentrations of some chemicals exceed guideline concentrations, however when considered in conjunction with the exposure scenarios and the nature of the proposed development, there is no evidence to warrant more detailed assessment, remediation or mitigation.
Moderate	There are domain(s) at the site where individual concentration(s) and statistically averaged concentrations exceed the adopted guidelines and require either minor remedial measures or documented mitigation/management measures. For example, the risk profile within open space, garden or landscaped areas may be marginally higher than below sealed areas where there is no access to subsurface soils once developed. In this instance, supplementary assessment works may include vertical and horizontal delineation, offsite disposal/capping of some soils and associated qualitative human and/or environmental health risk assessment. Information may need to be documented with the Certificate(s) of Title.
Moderate-High	The adopted guidelines have been exceeded and more extensive remediation/mitigation is required. Demonstration of the acceptability of risk would require quantitative, human and/or environmental risk assessment. Information may need to be documented with the Certificate(s) of Title.
High	Concentrations of chemicals of interest are widespread and significantly exceed the adopted guideline concentrations. The risk profile is such that either the site is precluded from use or requires extensive and detailed remediation and environmental risk assessment. Information may need to be documented with the Certificate(s) of Title.



Table 8.3: Conceptual Site Model for proposed re-development (refer to Figure 8.1 and Tables 8.1-8.2 for risk analysis matrix used)¹

Transport/exposure mechanism	Potential receptor(s)	Unmitigated exposure pathway completeness	Unmitigated likelihood of occurrence	Unmitigated consequence severity	Unmitigated risk for undefined generic residential land use	Management measure(s) based on this assessment	Mitigated/residual likelihood of occurrence	Mitigated/residual consequence severity	Residual risk for proposed land use
Soil contamination									
Access to soils	Construction workers Residents Visitors Maintenance workers accessing service pits/manholes and/or landscaping.	The screening level soil and soil vapour assessment did not indicate gross or widespread issues.	Still possible when full site assessed.	High	High	Supplementary assessment postdemolition.	Low	Low	Low
Surficial runoff	Recreational users of local surface water Flora and fauna Biota supporting ecological processes	Stormwater runoff would be managed as part of council requirements.	Low	Low	Low	Adhere to appropriate EMP which includes management of dust, stormwater runoff and tracking out onto road.	Low	Low	Low
Vapour	Construction workers Residents Maintenance workers accessing service pits/manholes Future visitors	The screening level soil and soil vapour assessment did not indicate gross or widespread issues.	Still possible when full site assessed.	High	High	Supplementary assessment post demolition.	Low	Low	Low
Use by plants	Flora and fauna	Not applicable for the nature of the proposed development.	Low	Low	Low	Not required.	Low	Low	Low
Groundwater contamination									
Extraction and use of groundwater at the site for potable and/or recreational use	Residents Visitors Landscaping workers	Incomplete exposure pathway as any groundwater use would be assessed for its suitability.	Low	Low	Low	No abstraction for domestic consumption.	Low	Low	Low
Extraction and use of groundwater off-site for potable and/or recreational use	Existing or potential domestic users of downgradient groundwater	Likely incomplete exposure pathway as any groundwater use would be assessed for its suitability.	Low	Low	Low	Not required.	Low	Low	Low
Vapour	Construction workers Residents Maintenance workers accessing service pits/manholes Future visitors	The screening level soil and soil vapour assessment did not indicate gross or widespread issues.	Still possible when full site assessed.	High	High	Supplementary assessment post demolition.	Low	Low	Low
Use by plants	Flora and fauna	Unlikely, groundwater beyond reach of shallow rooted plants and no abstraction for use.	Low	Low	Low	Not required.	Low	Low	Low

¹ CSM based on proposed future land use



9.0 Conclusion

A.M. Environmental Consulting Pty Ltd (AME) was commissioned by AUTA Group to conduct environmental site history research, soil and soil vapour assessment for the site at 108-122 Franklin Street, Adelaide, SA. ('the site').

The proposed use if for a mixed - Residential, Hotel and Retail development comprises of a basement to house the fire tank and pump room, a ground level commercial development, 5 levels of carparking and 21 upper levels of medium to high density residential apartments & hotel rooms. The buildings would be underlain with a concrete slab and base course gravel and fortecon. Service trenches would be filled with 500mm of imported clean fill (quarry supplied sands and gravels). There would be no significant domestic food production at the site. There would be no contact with subsurface soils once developed. Groundwater would not be abstracted for domestic use.

The aim of the work was to assess the potential for previous or current land uses to have resulted in gross or widespread soil contamination to exist and whether there are potential contamination aspects or impacts that may present potential liabilities or constraints on future development which would preclude the site from being made suitable for the proposed use.

The work was conducted in general accordance with the NEPC (1999), National Environment Protection (Assessment of Site Contamination) Measure, December 1999 (ASC NEPM) as amended in 2013.; Standards Australia. Guide to the investigation and sampling of sites with potentially contaminated soil – AS 4482.1-2005 and the SA EPA (2018 as amended in 2019). Guidelines for the Assessment and Remediation of Site Contamination (GAR) and SA Planning Commission Practice Direction 14 Site Contamination Assessment 2021 (PD14).

The site history information indicated that the site has been occupied by potentially contaminating activities. However, the preliminary screening level soil assessment, and soil vapour assessment did not indicate gross or widespread indicators of soil contamination such as fill, staining or odour or elevated chemicals concentrations which would result in a material risk to proposed land users at the site.

There were no fuel tanks observed at the site or encountered during the site visit. The site owner indicated that no above or underground fuel tanks were located at the site.

The land uses have been / were identified through the site history research using available methodology and information sources.

The rationale was explained in the report which looked at potentially unknown impacts at the site and potential volatilising organic chemicals as this was considered the key risk given that the site would be largely sealed, there would be no access to subsurface soils, produce would not be grown at the site and groundwater would not be abstracted for use.

On this basis, it is our view that the best screening approach was a soil and soil vapour screening level assessment supplemented with PID, visual and olfactory field observations i.e. if there was a risk it is considered that the soil and soil vapour sampling would pick this up and that in order for there to a be material risk soil vapour would need to be gross and widespread and it is assumed that this would be detected in the soil vapour as an indicator.

It is noted that there were areas of the site which could not be readily accessed and that post demolition it is recommended that further consideration be given to more detailed soil assessment as a minimum.



There is no remediation required based on the results obtained. If any observations are made post demolition and/or during the site preparation such as stained or odorous soils there is an approach and management plan in place to assess this.

Based on the work conducted, it is our opinion as environmental consultants, that the risk of site contamination precluding the proposed use is low, considering the nature of the proposed development and the information obtained to date.

If soils are imported to the site, then it is recommended that these soils meet SA EPA Waste Fill Guidelines. It is recommended that if groundwater were to be considered for use that appropriate assessment should be conducted in order to demonstrate suitability for its intended use. If there are any soils which are observed to be different to natural soils, appear to be associated with or stained or odorous encountered during development works then it is recommended that you contact AME to discuss.



10.0 Important Information

AME has prepared this report based on generally accepted practices and standards in operation at the time that it was prepared. No other warranty is made as to the professional advice included in this report. All parties should satisfy themselves that the scope of work conducted and reported herein meets their specific needs before relying on this document.

AME believes that its opinions have been developed according to the professional standard of care for the environmental consulting profession at the date of this document. That standard of care may change as new methods and practices of exploration, testing, analysis and remediation develop in the future, which may produce different results.

Environmental conditions are created by natural processes and human activity, and as such may change over time e.g. groundwater levels may rise or fall, contamination may migrate and fill may be added to the site. This report therefore presents a point in time assessment of the site, and as such can only be valid for the time at which the investigation was undertaken.

Any investigation such as that contained in this report can examine only a fraction of the subsurface conditions at the site. There remains a risk that pockets of contamination or other hazards may not be identified as investigations are necessarily based on sampling at localised points. Certain indicators or evidence of hazardous substances or conditions may have been outside the portion of the subsurface investigated or monitored, and thus may not have been identified or their full significance appreciated. As such, the identified environmental conditions reported are only valid at the points of direct sampling and any derived or interpolated conditions may differ from these targeted locations and cannot be assumed to be indicative of the remainder of the site.

The methodology adopted and the sources of information used are outlined in this report. AME has limited its investigation to the scope agreed for this contract and it is possible that additional sampling and analysis could produce different results and/or opinions. AME has made no independent verification of this information beyond the agreed scope of works and assumes no responsibility for any inaccuracies or omissions.

This assessment assumes that the proposed development meets requirements as outlined in the Building Code of Australia and Australian Standards. If these recommendations are not met, there is potential for the exposure and therefore risk to building users to be higher than that presented in this assessment.

The soil descriptions contained in this report have not been prepared for engineering design purposes and the reinstatement of any sampling locations were not conducted in accordance with any supervised filling or geotechnical standard. The term suitable has been used in the context of a request from the planning authority and means that the concentrations reported did not exceed the guideline concentrations adopted for the proposed land use/exposure pathway.

This report does not include the assessment or consideration of hazardous building materials, including asbestos. Such materials should be assessed and managed by a qualified and licensed assessor/contractor. It also does not include assessment of airborne pollution, microbiology, or mould.

In general, the available scientific information pertaining to contamination is insufficient to provide a thorough understanding of all of the potential toxic properties of chemicals to which humans may be exposed. The majority of the



toxicological knowledge of chemicals comes from experiments with laboratory animals, where there may be interspecies differences in chemical absorption, metabolism, excretion and toxic response. There may also be uncertainties concerning the relevance of animal studies using exposure routes that differ from human exposure routes. In addition, the frequent necessity to extrapolate results of short-term or sub chronic animal studies to humans exposed over a lifetime has inherent uncertainty. Therefore, in order to conduct an environmental assessment, it is necessary to take into account these inherent uncertainties and extrapolate information from the data that is available, considered current and endorsed as acceptable for the assessment of risks to human health. There is therefore inherent uncertainty in the process, and to compensate for uncertainty, conservative assumptions are often made that result in an overestimation rather than an underestimation of risk.

All advice, opinions or recommendations contained in this document should be read and relied upon only in the context of the document as a whole. This report does not purport to give legal advice as this can only be given by qualified legal practitioners. This document does not represent a Site Contamination Audit Report.



11.0 References

- ANZECC/NHMR.C (1992). Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites
- Department for Environment and Water. Groundwater Database website. Available at: <https://www.waterconnect.sa.gov.au>
- Department of Planning, Transport and Infrastructure. Property Assist website. Available at: <http://maps.sa.gov.au/plb/>
- *Environment Protection Act 1993*
- *Environment Protection Regulations 2009*
- NEPM (1999) (as amended 2013) National Environment Protection (Assessment of Site Contamination) Measure. National Environment Protection Council, Australia
- NHMRC (2011 updated 2017). Australian Drinking Water Guidelines 6, Version 3.4 Updated October 2017, National Water Quality Management Strategy, National Health and Medical Research Council and Natural Resource Management Ministerial Council, Commonwealth of Australia.
- SA EPA Public Register Directory – Site contamination index. Available: http://www.epa.sa.gov.au/data_and_publications/site_contamination_index/search-the-contamination-register
- Standards Australia. Guide to the investigation and sampling of sites with potentially contaminated soil – AS 4482.1-2005.
- EPA publication Guidelines for the assessment and remediation of site contamination (2018, amended 2019) (the GAR).



12.0 Appendix

Appendix A: Certificate of title

Certificate of Title - Volume 5156 Folio 499

Parent Title(s) CT 1334/153
Creating Dealing(s) CONVERTED TITLE
Title Issued 22/11/1993 Edition 9 Edition Issued 24/12/2019

Estate Type

FEE SIMPLE

Registered Proprietor

ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
OF CARE BOSS PRIVATE CLIENTS PTY. LTD. LEVEL 2 42B LITTLE BOURKE STREET MELBOURNE VIC 3000

Description of Land

ALLOTMENT 2 FILED PLAN 104999
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

Dealing Number	Description
13230161	MORTGAGE TO NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
13230885	CAVEAT BY BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
13230886	CAVEAT BY BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)

Notations

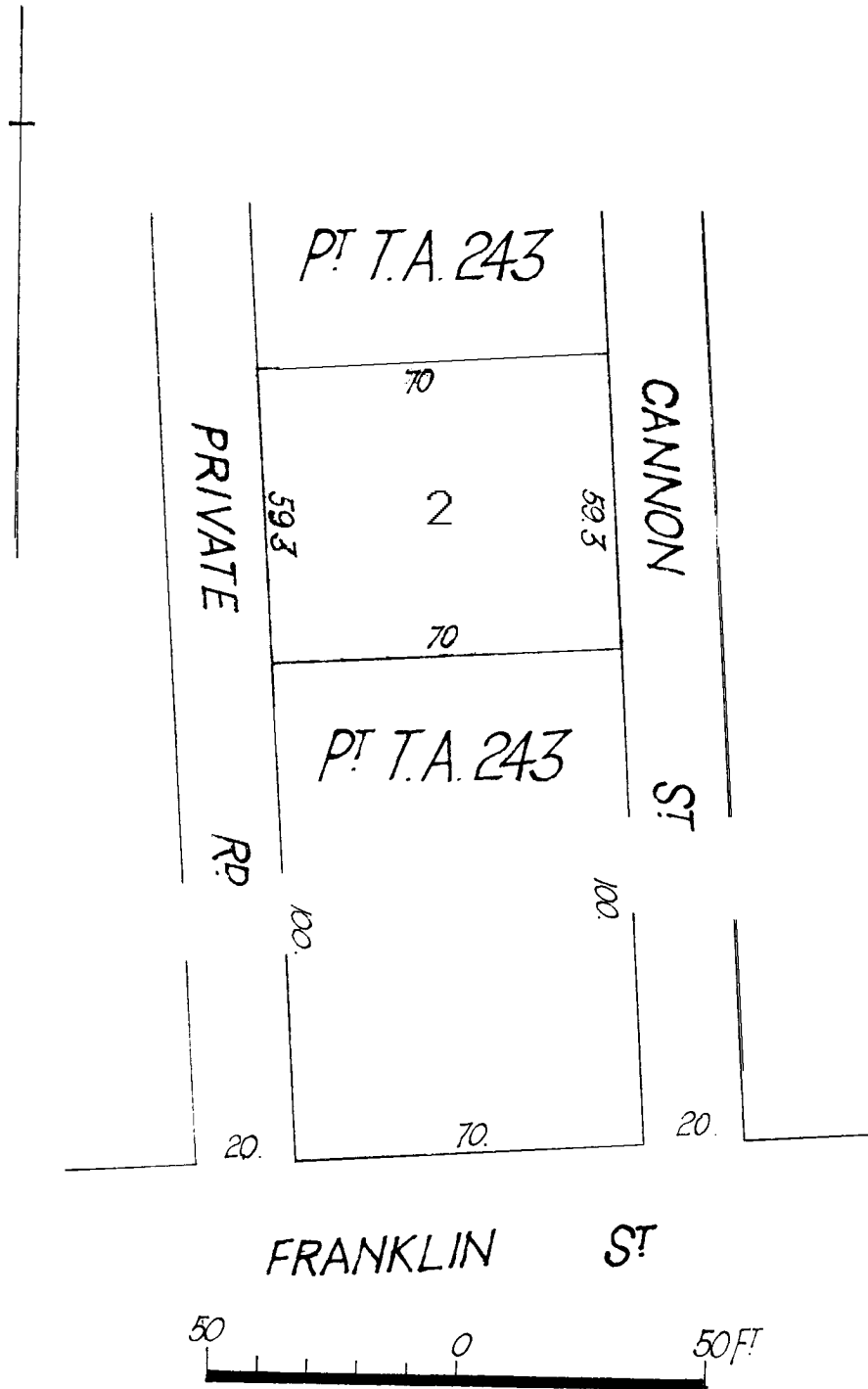
Dealings Affecting Title NIL
Priority Notices NIL
Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G717/1990

Administrative Interests NIL

This plan is scanned from Certificate of Title 1334/153



DISTANCES ARE IN FEET AND INCHES FOR METRIC CONVERSION	
1 FOOT	= 0.3048 metres
1 INCH	= 0.0254 metres

Note: Subject to all lawfully existing plans of division

Certificate of Title

Title Reference: CT 5156/499
 Status: CURRENT
 Parent Title(s): CT 1334/153
 Dealing(s) Creating Title: CONVERTED TITLE
 Title Issued: 22/11/1993
 Edition: 9

Dealings

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
24/12/2019	30/12/2019	13230886	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
24/12/2019	30/12/2019	13230885	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
20/12/2019	24/12/2019	13230161	MORTGAGE	REGISTERED	NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
20/12/2019	24/12/2019	13230160	TRANSFER	REGISTERED	ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
20/12/2019	24/12/2019	13230159	DISCHARGE OF MORTGAGE	REGISTERED	12654394
19/12/2016	10/01/2017	12654394	MORTGAGE	REGISTERED	COMMONWEALTH BANK OF AUSTRALIA (ACN: 123 123 124)
15/08/2003	22/08/2003	9660753	DISCHARGE OF MORTGAGE	REGISTERED	8601002
27/02/2001	13/03/2001	9050895	LEASE	REGISTERED	ILENKA PTY. LTD. (ACN: 067 502 872)
14/12/1998	22/12/1998	8601002	MORTGAGE	REGISTERED	STATE BANK OF NEW SOUTH WALES LTD.
13/09/1995	20/09/1995	7991580	TRANSFER OF LEASE	REGISTERED	ILENKA PTY. LTD. (ACN: 067 502 872) 7860374
26/04/1995	29/05/1995	7910503	TRANSFER	REGISTERED	VEREMO BAY PTY. LTD. (ACN: 067 853 034)
26/04/1995	29/05/1995	7910502	DISCHARGE OF MORTGAGE	REGISTERED	7298808
26/04/1995	29/05/1995	7910501	DISCHARGE OF MORTGAGE	REGISTERED	6508323
15/03/1995	20/03/1995	7888546	AMENDMENT TO TEXT	REGISTERED	7550116

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
20/01/1995	28/03/1995	7860374	LEASE	REGISTERED	TYREMAG SALES PTY. LTD.
30/09/1993	01/12/1993	7583886	RE-ENTRY OF LEASE	REGISTERED	7047368
04/08/1993	01/12/1993	7550116	LEASE	REGISTERED	TREVOR JAMES GOODEN
19/05/1992	24/06/1992	7298808	MORTGAGE	REGISTERED	
24/01/1991	24/04/1991	7047369	MORTGAGE OF LEASE	REGISTERED	7047368
24/01/1991	24/04/1991	7047368	LEASE	REGISTERED	
31/03/1988	04/05/1988	6508323	MORTGAGE	REGISTERED	

Certificate of Title - Volume 5253 Folio 876

Parent Title(s) CT 1810/162
Creating Dealing(s) CONVERTED TITLE
Title Issued 10/03/1995 Edition 7 Edition Issued 24/12/2019

Estate Type

FEE SIMPLE

Registered Proprietor

ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
OF CARE BOSS PRIVATE CLIENTS PTY. LTD. LEVEL 2 42B LITTLE BOURKE STREET MELBOURNE VIC 3000

Description of Land

ALLOTMENT 7 FILED PLAN 137745
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

NIL

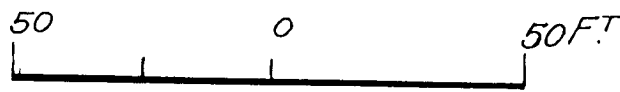
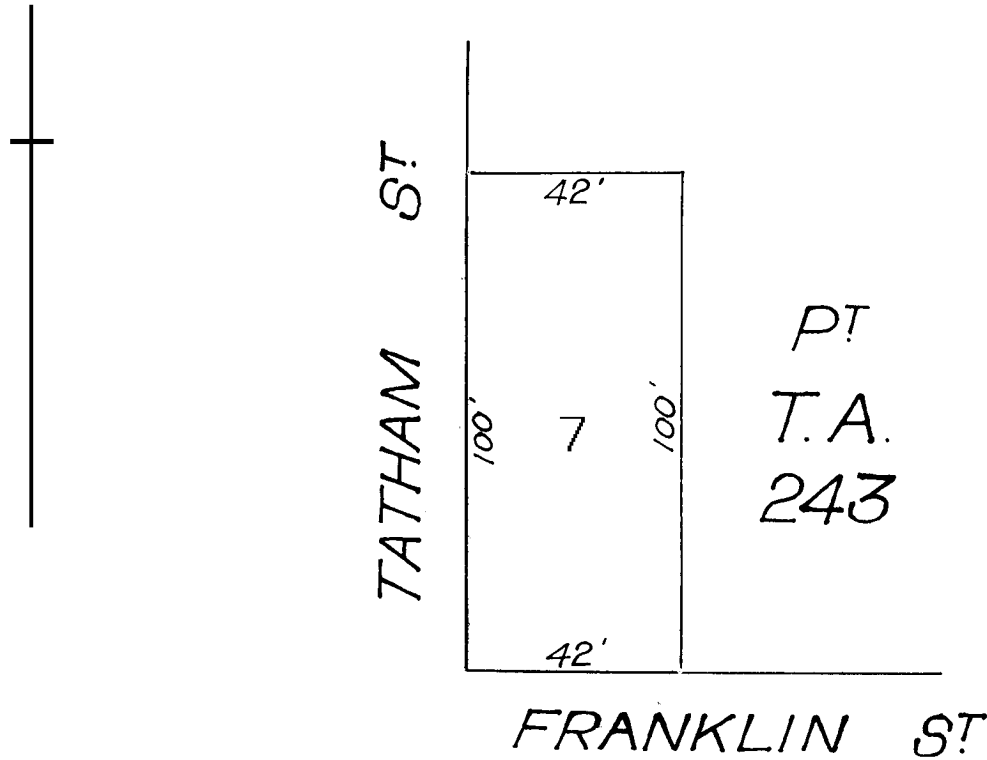
Schedule of Dealings

Dealing Number	Description
13230161	MORTGAGE TO NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
13230885	CAVEAT BY BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
13230886	CAVEAT BY BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)

Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL

This plan is scanned for Certificate of Title 1810/162



DISTANCES ARE IN FEET AND INCHES FOR METRIC CONVERSION	
1 FOOT =	0.3048 metres
1 INCH =	0.0254 metres

Note : Subject to all lawfully existing plans of division

Certificate of Title

Title Reference: CT 5253/876
Status: CURRENT
Parent Title(s): CT 1810/162
Dealing(s) Creating Title: CONVERTED TITLE
Title Issued: 10/03/1995
Edition: 7

Dealings

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
24/12/2019	30/12/2019	13230886	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
24/12/2019	30/12/2019	13230885	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
20/12/2019	24/12/2019	13230161	MORTGAGE	REGISTERED	NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
20/12/2019	24/12/2019	13230160	TRANSFER	REGISTERED	ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
20/12/2019	24/12/2019	13230159	DISCHARGE OF MORTGAGE	REGISTERED	12654394
19/12/2016	10/01/2017	12654394	MORTGAGE	REGISTERED	COMMONWEALTH BANK OF AUSTRALIA (ACN: 123 123 124)
15/08/2003	22/08/2003	9660753	DISCHARGE OF MORTGAGE	REGISTERED	8601002
27/02/2001	13/03/2001	9050895	LEASE	REGISTERED	ILENKA PTY. LTD. (ACN: 067 502 872)
14/12/1998	22/12/1998	8601002	MORTGAGE	REGISTERED	STATE BANK OF NEW SOUTH WALES LTD.
13/09/1995	20/09/1995	7991580	TRANSFER OF LEASE	REGISTERED	ILENKA PTY. LTD. (ACN: 067 502 872) 7860374
26/04/1995	29/05/1995	7910503	TRANSFER	REGISTERED	VEREMO BAY PTY. LTD. (ACN: 067 853 034)
26/04/1995	29/05/1995	7910502	DISCHARGE OF MORTGAGE	REGISTERED	7298808
26/04/1995	29/05/1995	7910501	DISCHARGE OF MORTGAGE	REGISTERED	6508323
20/01/1995	28/03/1995	7860374	LEASE	REGISTERED	TYREMAG SALES PTY. LTD.

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
19/05/1992	24/06/1992	7298808	MORTGAGE	REGISTERED	
31/03/1988	04/05/1988	6508323	MORTGAGE	REGISTERED	



The Registrar-General certifies that this Title Register Search displays the records maintained in the Register Book and other notations at the time of searching.



Certificate of Title - Volume 5980 Folio 624

Parent Title(s) CT 5156/497
Creating Dealing(s) RT 10579934
Title Issued 15/02/2007 Edition 2 Edition Issued 24/12/2019

Estate Type

FEE SIMPLE

Registered Proprietor

ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
OF CARE BOSS PRIVATE CLIENTS PTY. LTD. LEVEL 2 42B LITTLE BOURKE STREET MELBOURNE VIC 3000

Description of Land

ALLOTMENT 3 FILED PLAN 105000
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

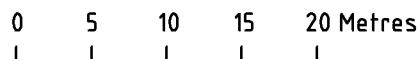
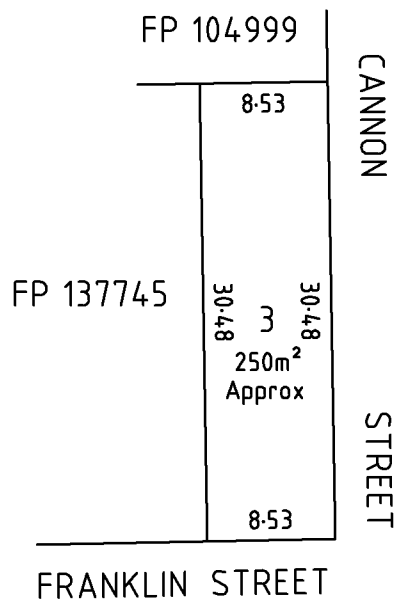
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Schedule of Dealings

Dealing Number	Description
13230161	MORTGAGE TO NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
13230885	CAVEAT BY BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
13230886	CAVEAT BY BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)

Notations

Dealings Affecting Title	NIL
Priority Notices	NIL
Notations on Plan	NIL
Registrar-General's Notes	NIL
Administrative Interests	NIL



Certificate of Title

Title Reference: CT 5980/624
Status: CURRENT
Parent Title(s): CT 5156/497
Dealing(s) Creating Title: RT 10579934
Title Issued: 15/02/2007
Edition: 2

Dealings

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
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24/12/2019	30/12/2019	13230885	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
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20/12/2019	24/12/2019	13230160	TRANSFER	REGISTERED	ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
20/12/2019	24/12/2019	13230159	DISCHARGE OF MORTGAGE	REGISTERED	12654394
19/12/2016	10/01/2017	12654394	MORTGAGE	REGISTERED	COMMONWEALTH BANK OF AUSTRALIA (ACN: 123 123 124)
27/02/2001	13/03/2001	9050895	LEASE	REGISTERED	ILENKA PTY. LTD. (ACN: 067 502 872)

Appendix B: Lotsearch Report



LOTSEARCH

LOTSEARCH ENVIRO PROFESSIONAL

Date: 18 May 2023 14:10:28

Reference: LS043588 EP

Address: 108-112 Franklin Street, Adelaide, SA 5000

Disclaimer:

The purpose of this report is to provide an overview of some of the site history, environmental risk and planning information available, affecting an individual address or geographical area in which the property is located. It is not a substitute for an on-site inspection or review of other available reports and records. It is not intended to be, and should not be taken to be, a rating or assessment of the desirability or market value of the property or its features.

You should obtain independent advice before you make any decision based on the information within the report.

The detailed terms applicable to use of this report are set out at the end of this report.

Dataset Listing

Datasets contained within this report, detailing their source and data currency:

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Cadastre Boundaries	Precisely	23/03/2023	23/03/2023	Quarterly	-	-	-	-
EPA Site Contamination Index	EPA South Australia	04/05/2023	04/05/2023	Monthly	1000m	0	10	226
EPA Environmental Protection Orders	EPA South Australia	05/05/2023	05/05/2023	Monthly	1000m	0	0	7
EPA Environmental Authorisations	EPA South Australia	05/05/2023	05/05/2023	Monthly	1000m	0	0	40
EPA Assessment Areas	EPA South Australia	02/05/2023	02/05/2023	Quarterly	1000m	0	0	0
EPA Groundwater Prohibition Areas	EPA South Australia	05/05/2023	20/08/2022	Monthly	1000m	0	0	0
Defence PFAS Investigation & Management Program - Investigation Sites	Department of Defence	09/05/2023	09/05/2023	Monthly	2000m	0	0	0
Defence PFAS Investigation & Management Program - Management Sites	Department of Defence	09/05/2023	09/05/2023	Monthly	2000m	0	0	0
Airservices Australia National PFAS Management Program	Airservices Australia	09/05/2023	09/05/2023	Monthly	2000m	0	0	0
Defence 3 Year Regional Contamination Investigation Program	Department of Defence	02/09/2022	02/09/2022	Quarterly	2000m	0	0	0
National Waste Management Facilities Database	Geoscience Australia	26/05/2022	07/03/2017	Annually	1000m	0	0	0
EPA Collection Depots	EPA South Australia	30/03/2023	20/08/2022	Quarterly	1000m	0	0	0
National Liquid Fuel Facilities	Geoscience Australia	23/08/2022	15/03/2012	Annually	1000m	0	0	4
Historical Business Directories (Premise & Intersection Matches)	Hardie Grant, Sands & McDougall			Not required	50m	29	-	460
Historical Business Directories (Road & Area Matches)	Hardie Grant, Sands & McDougall			Not required	50m	-	-	464
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Premise & Intersection Matches)	Hardie Grant, Sands & McDougall			Not required	250m	0	16	71
UBD Business Directory Dry Cleaners & Motor Garages/Service Stations (Road & Area Matches)	Hardie Grant, Sands & McDougall			Not required	250m	-	8	15
Mines and Mineral Deposits	Department for Energy and Mining	13/02/2023	13/02/2023	Quarterly	1000m	0	0	0
Hydrogeology Map of Australia	Commonwealth of Australia (Geoscience Australia)	20/03/2023	19/08/2019	As required	1000m	1	1	1
Groundwater Aquifers	Department for Environment and Water	29/03/2021	01/01/2008	Annually	1000m	1	1	1
Drillholes	Department for Environment and Water	19/10/2022	07/10/2022	Quarterly	2000m	0	13	1507
Surface Geology 1:100,000	Department for Energy and Mining	12/07/2018	01/07/2018	As required	1000m	1	1	4
Geological Linear Structures 1:100,000	Department for Energy and Mining	12/07/2018	01/07/2018	As required	1000m	0	0	0
Atlas of Australian Soils	ABARES	19/05/2017	17/02/2011	As required	1000m	1	1	1
Soil Types	Department for Environment and Water	12/07/2018	01/07/2009	As required	1000m	1	1	1
Atlas of Australian Acid Sulfate Soils	CSIRO	19/01/2017	21/02/2013	As required	1000m	1	1	2
Acid Sulfate Soil Potential	Department for Environment and Water	06/04/2022	18/02/2020	Annually	1000m	1	1	1
Soil Salinity - Watertable Induced	Department for Environment and Water	23/06/2022	09/06/2016	Annually	1000m	1	1	1
Soil Salinity - Non-watertable	Department for Environment and Water	19/04/2022	18/02/2020	Annually	1000m	1	1	1

Dataset Name	Custodian	Supply Date	Currency Date	Update Frequency	Dataset Buffer (m)	No. Features On-site	No. Features within 100m	No. Features within Buffer
Soil Salinity - Non-watertable (magnesia patches)	Department for Environment and Water	19/04/2022	18/02/2020	Annually	1000m	1	1	1
Planning and Design Code - Zones	Attorney-General's Department	09/05/2023	16/03/2023	Monthly	1000m	1	2	18
Planning and Design Code - Subzones	Attorney-General's Department	09/05/2023	16/03/2023	Monthly	1000m	0	0	14
Land Use Generalised 2020	Department of Planning, Transport and Infrastructure	18/10/2022	07/03/2022	Annually	1000m	1	8	12
Commonwealth Heritage List	Australian Government Department of Agriculture, Water and the Environment	03/06/2022	13/04/2022	Annually	500m	0	0	1
National Heritage List	Australian Government Department of Agriculture, Water and the Environment	03/06/2022	13/04/2022	Annually	500m	0	1	1
State Heritage Areas	Department for Environment and Water	06/04/2022	18/02/2020	Annually	500m	0	0	0
SA Heritage Places	Department for Environment and Water	19/10/2022	23/09/2021	Quarterly	500m	0	8	163
Aboriginal Land	Department for Energy and Mining	06/04/2022	08/04/2018	Annually	500m	0	0	0
Planning and Design Code - Overlays - Bushfire	Attorney-General's Department	09/05/2023	09/05/2023	Monthly	1000m	0	0	0
Bushfires and Prescribed Burns History	Department for Environment and Water	06/04/2022	24/02/2020	Annually	1000m	0	0	0
Planning and Design Code - Overlays - Flooding	Attorney-General's Department	09/05/2023	09/05/2023	Monthly	1000m	1	1	2
Native Vegetation Floristic Areas - NVIS - State-wide	Department for Environment and Water	21/03/2023	14/02/2022	As required	1000m	0	0	0
Groundwater Dependent Ecosystems Atlas	Bureau of Meteorology	28/10/2022	26/10/2022	Annually	1000m	0	0	0
Inflow Dependent Ecosystems Likelihood	Bureau of Meteorology	28/10/2022	26/10/2022	Annually	1000m	0	0	0
Ramsar Wetland Areas	Department for Environment and Water	09/05/2023	01/11/2022	Annually	1000m	0	0	0

Site Diagram

108-112 Franklin Street, Adelaide, SA 5000



Legend Site Boundary Internal Parcel Boundaries	Total Area: 2113m ² Total Perimeter: 241m	Scale:
	Disclaimers: Measurements are approximate only and may have been simplified or smaller lengths removed for readability. Parcels that make up a small percentage of the total site area have not been labelled for increased legibility.	Data Source Aerial Imagery: © Aerometrex Pty Ltd
		Date: 18 May 2023

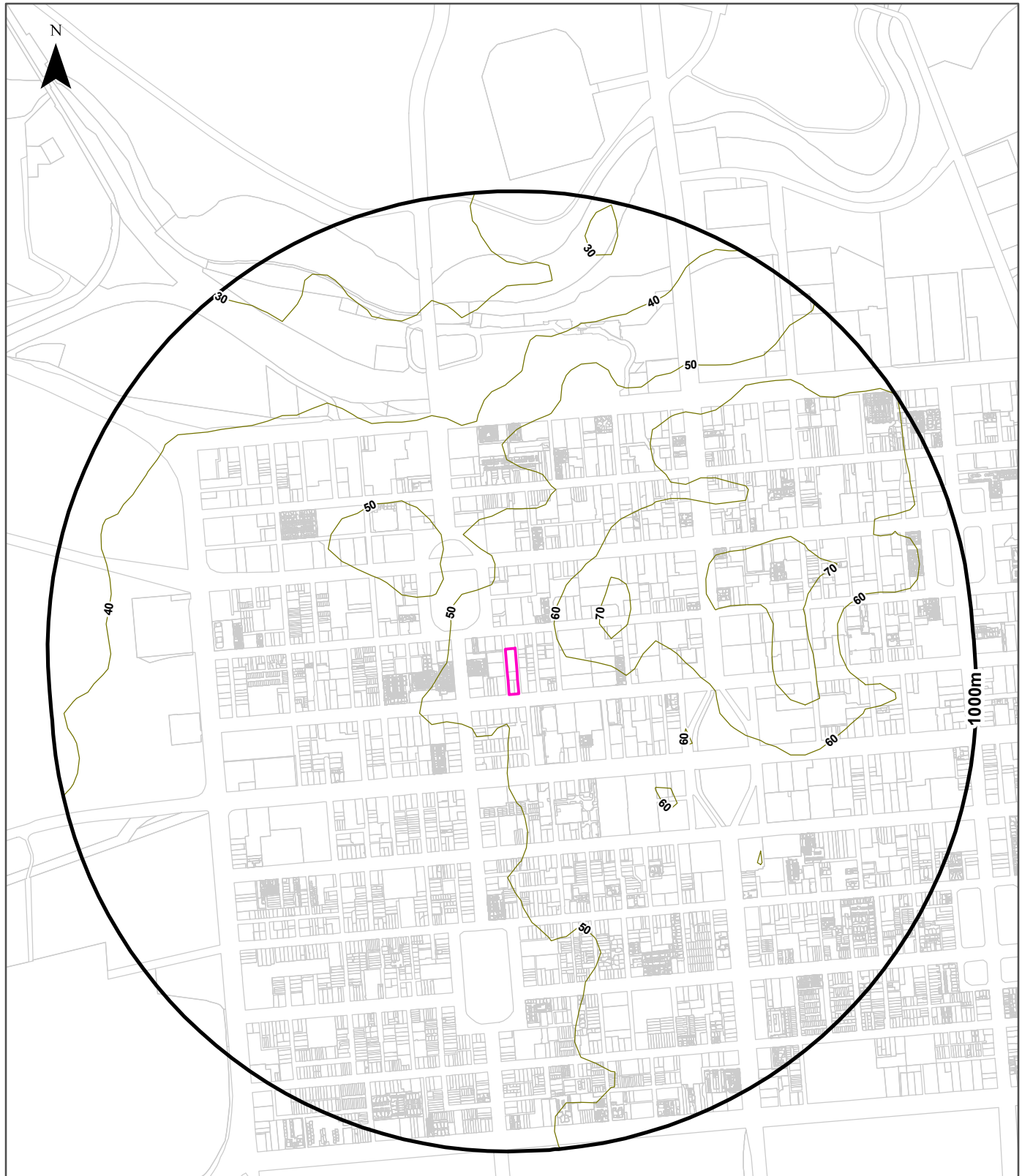
Topographic Features

108-112 Franklin Street, Adelaide, SA 5000



Elevation Contours

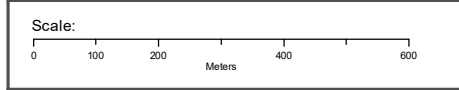
108-112 Franklin Street, Adelaide, SA 5000



Legend

- Site Boundary
- Buffer 1000m
- Property Boundaries
- Elevation Contour 10m

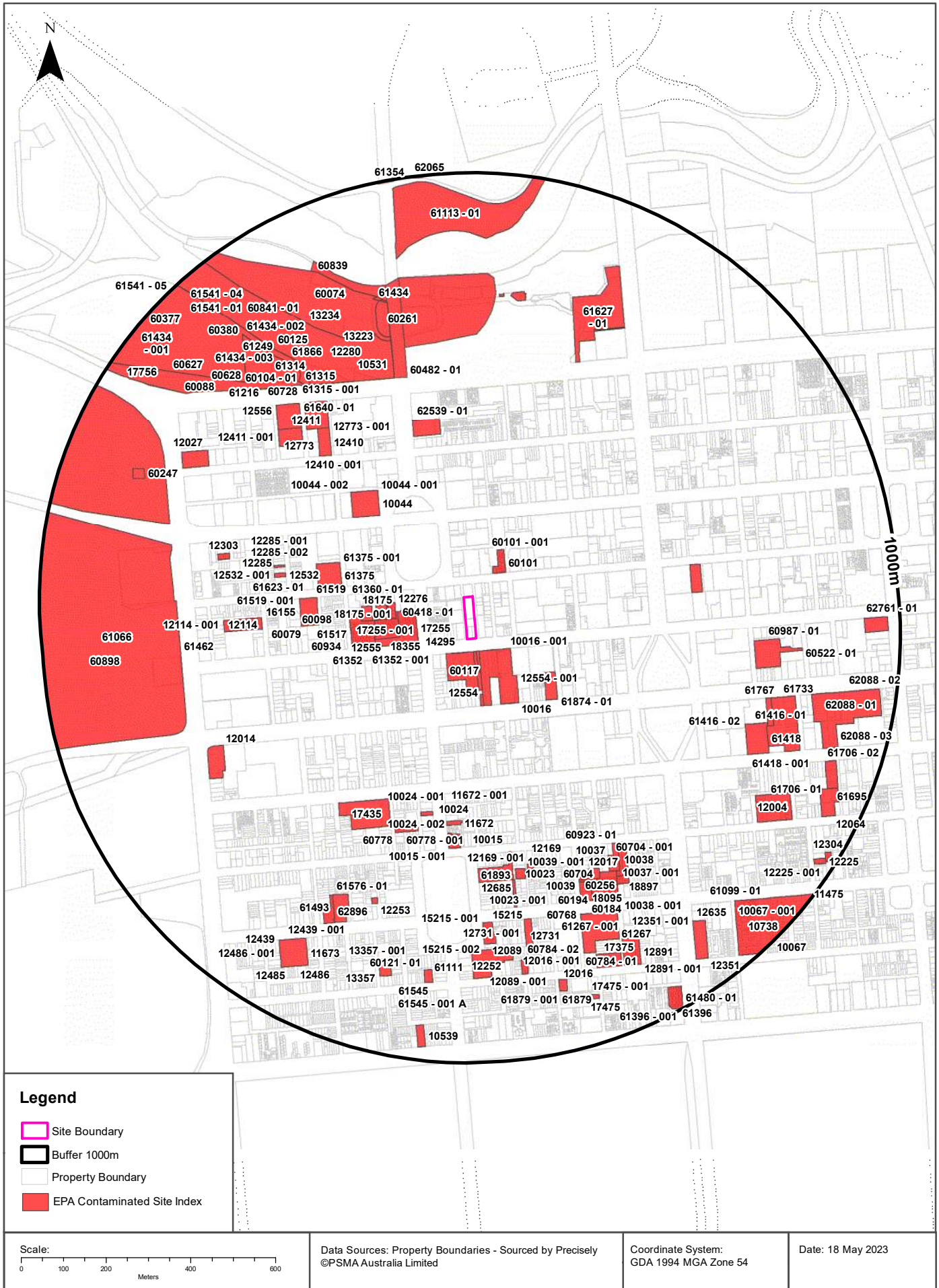
10m contours derived from SRTM-derived 1 second digital elevation model, supplied by Geoscience Australia. The smoothed digital elevation model (DEM-S) represents ground surface topography, excluding vegetation features, and has been smoothed to reduce noise and improve the representation of surface shape. An adaptive smoothing process applied more smoothing in flatter areas than hilly areas, and more smoothing in noisier areas than in less noisy areas. This DEM-S supports calculation of local terrain shape attributes such as slope, aspect and curvature that could not be reliably derived from the unsmoothed 1 second DEM because of noise.



Data Sources: Property Boundaries - Sourced by Precisely
©PSMA Australia Limited

Coordinate System:
GDA 1994 MGA Zone 54

Date: 18 May 2023



EPA Contaminated Land

108-112 Franklin Street, Adelaide, SA 5000

EPA Site Contamination Index

Sites on the EPA Contamination Index within the dataset buffer:

Notification No	Type	Address	Activity	Status	LocConf	Dist	Dir
10016	Pre 1 July 2009 Audit Notification	85-129 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	30m	South
10016 - 001	Pre 1 July 2009 Audit Report	85-129 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	30m	South
14295	Pre 1 July 2009 Audit Termination	85-129 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	30m	South
14295	Pre 1 July 2009 Audit Notification	85-129 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	30m	South
60117	Audit Notification	Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	30m	South
60117	Audit Termination	Franklin Street ADELAIDE SA 5000	Listed Substances (storage)	Current EPA List	Premise Match	30m	South
12554	Pre 1 July 2009 Audit Notification	85-129 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	31m	South East
12554 - 001	Pre 1 July 2009 Audit Report	85-129 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	31m	South East
60101	Audit Notification	102 Waymouth Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	72m	North East
60101 - 001	Audit Report	102 Waymouth Street ADELAIDE SA 5000	Animal burial; Fill or soil importation; Scrap metal recovery	Current EPA List	Premise Match	72m	North East
12276	Pre 1 July 2009 Audit Notification	Lot 200 Ranelagh Street, Portion of Lots 100 & 203 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	117m	West
17255	Pre 1 July 2009 Audit Notification	Lot 100, D75675 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	117m	West
17255 - 001	Pre 1 July 2009 Audit Report	Lot 100, D75675 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	117m	West
60098	Audit Termination	142-184 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	117m	West
60098	Audit Notification	142-184 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	117m	West
60934	Audit Termination	142-184 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	117m	West
60934	Audit Notification	142-184 Franklin Street ADELAIDE SA 5000	Fill or soil importation; Liquid organic chemical substances-storage	Current EPA List	Premise Match	117m	West
60418 - 01	S83A Notification	Franklin Street ADELAIDE SA 5000	Listed Substances (storage)	Current EPA List	Premise Match	147m	West
12276	Pre 1 July 2009 Audit Termination	Lot 200 Ranelagh Street, Portion of Lots 100 & 203 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	159m	West
12555	Pre 1 July 2009 Audit Notification	Lot 200 Ranelagh Street, Portion of Lots 100 & 203 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	159m	West
12555	Pre 1 July 2009 Audit Termination	Lot 200 Ranelagh Street, Portion of Lots 100 & 203 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	159m	West
18175	Pre 1 July 2009 Audit Notification	Lot 200 Ranelagh Street, Portion of Lots 100 & 203 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	159m	West
18175 - 001	Pre 1 July 2009 Audit Report	Lot 200 Ranelagh Street, Portion of Lots 100 & 203 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	159m	West
18355	109 Notification	Lot 200 Ranelagh Street, Portion of Lots 100 & 203 Franklin Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	159m	West
61874 - 01	S83A Notification	58 Grote Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	178m	South East

Notification No	Type	Address	Activity	Status	LocConf	Dist	Dir
61352	Audit Notification	Lots 1, 201 & 186-190 Franklin Street & Lots 45 & 46 Mellor Street ADELAIDE SA 5000	Fill or soil importation; Listed Substances (storage)	Current EPA List	Premise Match	215m	West
61352	Audit Termination	Lots 1, 201 & 186-190 Franklin Street & Lots 45 & 46 Mellor Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	215m	West
61352 - 001	Audit Report	Lots 1, 201 & 186-190 Franklin Street & Lots 45 & 46 Mellor Street ADELAIDE SA 5000	Fill or soil importation; Listed Substances (storage)	Current EPA List	Premise Match	215m	West
61517	Audit Notification	186-190 FRANKLIN Street ADELAIDE SA 5000	Fill or soil importation	Previous EPA List	Premise Match	259m	West
10044	Pre 1 July 2009 Audit Notification	Cnr Currie Street & Light Square ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	278m	North West
10044 - 001	Pre 1 July 2009 Audit Report	Cnr Currie Street & Light Square ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	278m	North West
10044 - 002	Pre 1 July 2009 Audit Report	Cnr Currie Street & Light Square ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	278m	North West
61360 - 01	S83A Notification	224-228 Wymouth Street ADELAIDE SA 5000	Motor vehicle repair or maintenance	Current EPA List	Premise Match	288m	West
61375	Audit Notification	Lot 100 Wymouth Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	288m	West
61375 - 001	Audit Report	Lot 100 Wymouth Street ADELAIDE SA 5000	Fill or soil importation; Motor vehicle repair or maintenance; Printing works; Service stations; Transport depots or loading sites	Current EPA List	Premise Match	288m	West
16155	Pre 1 July 2009 Audit Notification	Cnr Wymouth & Crowther Streets ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	346m	West
16155	Pre 1 July 2009 Audit Termination	Cnr Wymouth & Crowther Streets ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	346m	West
60079	Audit Termination	231-241 Wymouth and 17 Crowther Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	346m	West
60079	Audit Notification	231-241 Wymouth and 17 Crowther Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	346m	West
61519	Audit Notification	231-241 Wymouth Street and 17 Crowther Street ADELAIDE SA 5000	Motor vehicle repair or maintenance	Current EPA List	Premise Match	346m	West
61519 - 001	Audit Report	231-241 Wymouth Street and 17 Crowther Street ADELAIDE SA 5000	Dry cleaning; Motor vehicle repair or maintenance	Current EPA List	Premise Match	346m	West
61623 - 01	S83A Notification	231-235 & 237-241 Wymouth Street and 17 Crowther Street ADELAIDE SA 5000	Motor vehicle repair or maintenance	Current EPA List	Premise Match	346m	West
62539 - 01	S83A Notification	22-32 Morphett Street ADELAIDE BC SA 5000	Service stations	Current EPA List	Premise Match	388m	North
10024	Pre 1 July 2009 Audit Notification	293 Morphett Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	414m	South
10024 - 001	Pre 1 July 2009 Audit Report	293 Morphett Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	414m	South
10024 - 002	Pre 1 July 2009 Audit Report	293 Morphett Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	414m	South
17435	Pre 1 July 2009 Audit Notification	171-203 Gouger St & Lot 649 Selby Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	420m	South West
17435	Pre 1 July 2009 Audit Termination	171-203 Gouger St & Lot 649 Selby Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	420m	South West
12532	Pre 1 July 2009 Audit Notification	27 North Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	422m	West
12532 - 001	Pre 1 July 2009 Audit Report	27 North Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	422m	West
11672	Pre 1 July 2009 Audit Notification	302 Morphett Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	427m	South
11672 - 001	Pre 1 July 2009 Audit Report	302 Morphett Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	427m	South
12285	Pre 1 July 2009 Audit Notification	21 North Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	428m	West
12285 - 001	Pre 1 July 2009 Audit Report	21 North Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	428m	West
12285 - 002	Pre 1 July 2009 Audit Report	21 North Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	428m	West

Notification No	Type	Address	Activity	Status	LocConf	Dist	Dir
60778	Audit Notification	22-26 Selby Street ADELAIDE SA 5000	Fill or soil importation; Motor vehicle repair or maintenance; Spray painting	Current EPA List	Premise Match	451m	South
60778 - 001	Audit Report	22-26 Selby Street ADELAIDE SA 5000	Fill or soil importation; Motor vehicle repair or maintenance; Spray painting	Current EPA List	Premise Match	451m	South
10015	Pre 1 July 2009 Audit Notification	320 Morphett Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	458m	South
10015 - 001	Pre 1 July 2009 Audit Report	320 Morphett Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	458m	South
12410	Pre 1 July 2009 Audit Notification	Southern Part Allotment 501, DP 46982 Fenn Place ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	458m	North West
12410 - 001	Pre 1 July 2009 Audit Report	Southern Part Allotment 501, DP 46982 Fenn Place ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	458m	North West
12773	Pre 1 July 2009 Audit Notification	47-53 North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	458m	North West
12773 - 001	Pre 1 July 2009 Audit Report	47-53 North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	458m	North West
12114	Pre 1 July 2009 Audit Notification	133-139 Gray Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	479m	West
12114 - 001	Pre 1 July 2009 Audit Report	133-139 Gray Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	479m	West
61893	S83 Notification	14 Whitmore Square ADELAIDE SA 5000	Electrical substations	Current EPA List	Premise Match	510m	South
61627 - 01	S83A Notification	Lots 1 & 748 North Terrace, Lot 100 King William Road, Lot 3 Station Road and 25 Pirie Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	515m	North East
12411	Pre 1 July 2009 Audit Notification	Southern Part Allotment 500 DP 46982 George Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	530m	North West
12411 - 001	Pre 1 July 2009 Audit Report	Southern Part Allotment 500 DP 46982 George Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	530m	North West
12556	109 Notification	37-44 North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	530m	North West
61640 - 01	S83A Notification	37-44 North Terrace ADELAIDE SA 5000	Service stations	Current EPA List	Premise Match	530m	North West
60482 - 01	S83A Notification	Festival Drive ADELAIDE SA 5000	Listed Substances (storage); Railway operations	Current EPA List	Road Match	537m	North
13223	Pre 1 July 2009 Audit Notification	Lot 101 Montefiore Road ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	543m	North West
17756	Pre 1 July 2009 Audit Notification	Pieces 5 & 6 DP 46426 and Allotments 50, 51, 53, 54 & 72; DP 56872 ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	543m	North West
17756	Pre 1 July 2009 Audit Termination	Pieces 5 & 6 DP 46426 and Allotments 50, 51, 53, 54 & 72; DP 56872 ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	543m	North West
60088	Audit Termination	North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	543m	North West
60088	Audit Notification	North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	543m	North West
60627	Audit Notification	Lot 10 North Tce and Lot 60 Port Road ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	543m	North West
60627	Audit Termination	Lot 10 North Tce and Lot 60 Port Road ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	543m	North West
61434	Audit Notification	Lot 11 (D85638) and Lots 10 & 60 (D85645) North Terrace ADELAIDE SA 5000	Railway operations	Current EPA List	Premise Match	543m	North West
61434 - 001	Audit Report	Lot 11 (D85638) and Lots 10 & 60 (D85645) North Terrace ADELAIDE SA 5000	Railway operations	Current EPA List	Premise Match	543m	North West

Notification No	Type	Address	Activity	Status	LocConf	Dist	Dir
61434 - 002	Audit Report	Lot 11 (D85638) and Lots 10 & 60 (D85645) North Terrace ADELAIDE SA 5000	Animal saleyards; Battery manufacture, recycling or disposal; Coal handling or storage; Fill or soil importation; Gasworks; Motor vehicle repair or maintenance; Oil recycling works; Pest control works; Railway operations; Transport depots or loading sites; Wastewater storage, treatment or disposal; Works depots	Current EPA List	Premise Match	543m	North West
61541 - 01	S83A Notification	Lot 10 North Terrace ADELAIDE SA 5000	Railway operations	Current EPA List	Premise Match	543m	North West
61541 - 04	S83A Notification	Lot 10 North Terrace ADELAIDE SA 5000	Railway operations	Current EPA List	Premise Match	543m	North West
10531	SAHC	Lot 101 Montefiore Road ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	543m	North West
12280	109 Notification	Part Allotment Piece 5, DP 46426 Port Road ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	543m	North West
13223	Pre 1 July 2009 Audit Termination	Lot 101 Montefiore Road ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	543m	North West
60074	Audit Termination	Lot 101 Montefiore Road ADELAIDE SA 5000	Railway operations	Current EPA List	Premise Match	543m	North West
60074	Audit Notification	Lot 101 Montefiore Road ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	543m	North West
60841 - 01	S83A Notification	Lot 101 Montefiore Road ADELAIDE SA 5000	Railway operations	Current EPA List	Premise Match	543m	North West
12169	Pre 1 July 2009 Audit Notification	12-20 Hobsons Place ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	547m	South
12169 - 001	Pre 1 July 2009 Audit Report	12-20 Hobsons Place ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	547m	South
10023	Pre 1 July 2009 Audit Notification	13-19 Hobsons Place ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	551m	South
10023 - 001	Pre 1 July 2009 Audit Report	13-19 Hobsons Place ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	551m	South
12303	Pre 1 July 2009 Audit Notification	A486, FP 181328, Hundred of Adelaide 11 Kings Court ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	559m	West
12303	Pre 1 July 2009 Audit Termination	A486, FP 181328, Hundred of Adelaide 11 Kings Court ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	559m	West
60377	Audit Notification	North Terrace ADELAIDE SA 5000	Fill or soil importation; Incineration; Listed Substances (storage); Motor vehicle repair or maintenance; Railway operations; Waste depots; Wastewater storage, treatment or disposal	Current EPA List	Premise Match	572m	North West
60377	Audit Termination	North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	572m	North West
12685	109 Notification	Public Road Sultram Place ADELAIDE SA 5000	Not recorded	Current EPA List	Road Match	575m	South
60184	Audit Termination	Sturt Street Carpark Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	579m	South East
60184	Audit Notification	Sturt Street Carpark Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	579m	South East
60256	Audit Termination	Sturt Street Carpark Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	579m	South East
60256	Audit Notification	Sturt Street Carpark Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	579m	South East
60704 - 001	Audit Report	Sturt Street (Former Sturt St Carpark) ADELAIDE SA 5000	Fill or soil importation; Motor vehicle repair or maintenance; Works depots	Current EPA List	Premise Match	579m	South East
60923 - 01	S83A Notification	35-37 Wright Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	585m	South East
10037	Pre 1 July 2009 Audit Notification	19 Stamford Court ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	604m	South East
10037 - 001	Pre 1 July 2009 Audit Report	19 Stamford Court ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	604m	South East

Notification No	Type	Address	Activity	Status	LocConf	Dist	Dir
60261	Audit Notification	Former Adelaide Rail Yards Festival Drive ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	604m	North
10039	Pre 1 July 2009 Audit Notification	24 Norman Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	605m	South East
10039 - 001	Pre 1 July 2009 Audit Report	24 Norman Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	605m	South East
61434 - 003	Audit Report	Lot 11 (D85638) and Lots 10 & 60 (D85645) North Terrace ADELAIDE SA 5000	Railway operations	Current EPA List	Premise Match	618m	North West
61541 - 05	S83A Notification	Lot 10 North Terrace ADELAIDE SA 5000	Railway operations	Current EPA List	Premise Match	618m	North West
18897	Pre 1 July 2009 Audit Notification	Sturt Street Carpark Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	623m	South East
18897	Pre 1 July 2009 Audit Termination	Sturt Street Carpark Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	623m	South East
60194	Audit Notification	Sturt Street Carpark Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	623m	South East
60194	Audit Termination	Sturt Street Carpark Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	623m	South East
60704	Audit Notification	Sturt Street (Former Sturt St Carpark) ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	623m	South East
12017	SAHC	Corner Sturt and Norman Streets ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	624m	South East
18095	109 Notification	Corner Sturt and Norman Streets ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	624m	South East
12014	S83 Notification	111 West Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	627m	South West
10038	Pre 1 July 2009 Audit Notification	Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	628m	South East
10038 - 001	Pre 1 July 2009 Audit Report	Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	628m	South East
60104 - 01	S83A Notification	Lots 20 & 30 North Terrace ADELAIDE SA 5000	Listed Substances (storage); Railway operations	Current EPA List	Premise Match	642m	North West
60125	Audit Termination	Lot 20 North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	642m	North West
60125	Audit Notification	Lot 20 North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	642m	North West
60728	Audit Termination	Lot 20 North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	642m	North West
60728	Audit Notification	Lot 20 North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	642m	North West
61249	Audit Notification	Lot 20 North Terrace ADELAIDE SA 5000	Railway operations	Current EPA List	Premise Match	642m	North West
61249	Audit Termination	Lot 20 North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	642m	North West
61315	Audit Notification	Lot 20 North Terrace ADELAIDE SA 5000	Railway operations	Current EPA List	Premise Match	642m	North West
61315 - 001	Audit Report	Lot 20 North Terrace ADELAIDE SA 5000	Asphalt or bitumen works; Fill or soil importation; Railway operations	Current EPA List	Premise Match	642m	North West
61866	Audit Notification	A20 North Terrace ADELAIDE SA 5000	Fill or soil importation; Railway operations	Current EPA List	Premise Match	643m	North West
12253	SAHC	Lot 8 29 George Court ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	645m	South
13234	109 Notification	Lot 104 MONTEFIORE Road ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	647m	North
60522 - 01	S83A Notification	172-190 Gawler Place ADELAIDE SA 5000	Transport depots or loading sites	Current EPA List	Premise Match	653m	East
60987 - 01	S83A Notification	172-190 Gawler Place ADELAIDE SA 5000	Transport depots or loading sites	Current EPA List	Premise Match	653m	East
61416 - 01	S83A Notification	34 Angas Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	663m	South East
61416 - 02	S83A Notification	34 Angas Street ADELAIDE SA 5000	Fill or soil importation	Current EPA List	Premise Match	663m	South East

Notification No	Type	Address	Activity	Status	LocConf	Dist	Dir
61418	Audit Notification	34 Angas Street ADELAIDE SA 5000	Fill or soil importation; Listed Substances (storage); Metal processing, smelting, refining or metallurgical works; Motor vehicle manufacture	Current EPA List	Premise Match	663m	South East
61418 - 001	Audit Report	34 Angas Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	663m	South East
61493	Audit Termination	200 Petronella Lane ADELAIDE SA 5000	Fill or soil importation	Current EPA List	Premise Match	663m	South West
61493	Audit Notification	200 Petronella Lane ADELAIDE SA 5000	Fill or soil importation	Current EPA List	Premise Match	663m	South West
61576 - 01	S83A Notification	200 Petronella Lane ADELAIDE SA 5000	Fill or soil importation	Current EPA List	Premise Match	663m	South West
15215	Pre 1 July 2009 Audit Notification	54 Whitmore Square ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	669m	South
15215 - 001	Pre 1 July 2009 Audit Report	54 Whitmore Square ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	669m	South
15215 - 002	Pre 1 July 2009 Audit Report	54 Whitmore Square ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	669m	South
12731	Pre 1 July 2009 Audit Notification	105 Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	672m	South
12731 - 001	Pre 1 July 2009 Audit Report	105 Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	672m	South
12027	SAHC	15-20 West Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	676m	North West
60898	109 Notification	Piece 61 Deposited Plan 73209, Hundred of Adelaide ADELAIDE SA 5000	Wastewater storage, treatment or disposal	Current EPA List	Premise Match	676m	West
61066	109 Notification	Lots 60, 61 & 66 West Terrace ADELAIDE SA 5000	Fill or soil importation	Current EPA List	Premise Match	676m	West
61462	109 Notification	Lot 65 and Portion of Piece 61, Deposited Plan 73209 ADELAIDE SA 5000	Fill or soil importation	Current EPA List	Premise Match	676m	West
60380	Audit Notification	North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	678m	North West
60380	Audit Termination	North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	678m	North West
60628	Audit Termination	Lot 30 North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	678m	North West
60628	Audit Notification	Lot 30 North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	678m	North West
61216	Audit Notification	Lot 30 North Terrace ADELAIDE SA 5000	Listed Substances (storage); Railway operations	Current EPA List	Premise Match	678m	North West
61216	Audit Termination	Lot 30 North Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	678m	North West
61314	Audit Notification	Lot 30 North Terrace ADELAIDE SA 5000	Listed Substances (storage); Railway operations	Current EPA List	Premise Match	678m	North West
62896	Audit Notification	200-204 Sturt Street ADELAIDE SA 5000	Fill or soil importation	Current EPA List	Premise Match	682m	South West
60839	SAHC	Various Properties North Tce & Montefiore Road ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	690m	North West
60768	Audit Notification	43-69 Sturt Street ADELAIDE SA 5000	Electrical or electronics component manufacture; Spray painting	Current EPA List	Premise Match	695m	South
60768	Audit Termination	43-69 Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	695m	South
60784 - 01	S83A Notification	43-69 Sturt Street ADELAIDE SA 5000	Electrical or electronics component manufacture; Spray painting	Current EPA List	Premise Match	695m	South
60784 - 02	S83A Notification	43-69 Sturt Street ADELAIDE SA 5000	Electrical or electronics component manufacture; Spray painting	Current EPA List	Premise Match	695m	South

Notification No	Type	Address	Activity	Status	LocConf	Dist	Dir
61267	Audit Notification	43-69 Sturt Street ADELAIDE SA 5000	Electrical or electronics component manufacture; Electrical transformer or capacitor works; Foundry; Listed Substances (storage); Metal coating, finishing or spray painting; Motor vehicle repair or maintenance; Spray painting	Current EPA List	Premise Match	695m	South
61267 - 001	Audit Report	43-69 Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	695m	South
61767	109 Notification	47-49 Wakefield Street ADELAIDE SA 5000	Listed Substances (storage); Motor vehicle repair or maintenance	Current EPA List	Premise Match	695m	East
61733	109 Notification	53 Wakefield Street ADELAIDE SA 5000	Fill or soil importation	Current EPA List	Premise Match	707m	East
12252	SAHC	Hocking Court ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	734m	South
12004	SAHC	Area bounded by Seymour & Penney Places and Carrington & Moore Streets ADELAIDE SA 5000	Liquid organic chemical substances-storage	Current EPA List	Premise Match	754m	South East
12089	Pre 1 July 2009 Audit Notification	112-114 Gilbert Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	767m	South
12089 - 001	Pre 1 July 2009 Audit Report	112-114 Gilbert Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	767m	South
13357	Pre 1 July 2009 Audit Notification	28 & 28A Logan Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	777m	South
13357 - 001	Pre 1 July 2009 Audit Report	28 & 28A Logan Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	777m	South
60121 - 01	S83A Notification	172-176 Gilbert Street ADELAIDE SA 5000	Service stations	Current EPA List	Premise Match	783m	South
61111	Audit Notification	172-176 Gilbert Street ADELAIDE SA 5000	Service stations	Current EPA List	Premise Match	783m	South
61111	Audit Termination	172-176 Gilbert Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	783m	South
61545	Audit Notification	172-176 Gilbert Street ADELAIDE BC SA 5000	Motor vehicle repair or maintenance; Service stations	Current EPA List	Premise Match	783m	South
61545 - 001 A	Audit Report	172-176 Gilbert Street ADELAIDE BC SA 5000	Motor vehicle repair or maintenance; Service stations	Current EPA List	Premise Match	783m	South
12891	Pre 1 July 2009 Audit Notification	30 & 40 Gilbert Street and 10,12,14,16 & 18 Myers Lane ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	786m	South East
12891 - 001	Pre 1 July 2009 Audit Report	30 & 40 Gilbert Street and 10,12,14,16 & 18 Myers Lane ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	786m	South East
12016	Pre 1 July 2009 Audit Notification	42-60 Gilbert Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	797m	South
12016 - 001	Pre 1 July 2009 Audit Report	42-60 Gilbert Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	797m	South
62088 - 01	S83A Notification	97 Wakefield Street ADELAIDE SA 5000	Fire stations; Fire training areas	Current EPA List	Premise Match	800m	East
62088 - 02	S83A Notification	97 Wakefield Street ADELAIDE SA 5000	Fire stations; Fire training areas	Current EPA List	Premise Match	800m	East
62088 - 03	S83A Notification	97 Wakefield Street ADELAIDE SA 5000	Fire stations; Fire training areas	Current EPA List	Premise Match	800m	East
11673	Pre 1 July 2009 Audit Termination	Lot 1 221-239 Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	801m	South West
11673	Pre 1 July 2009 Audit Notification	Lot 1 221-239 Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	801m	South West
12439	Pre 1 July 2009 Audit Notification	221-239 Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	801m	South West
12439 - 001	Pre 1 July 2009 Audit Report	221-239 Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	801m	South West
12485	Pre 1 July 2009 Audit Termination	221-239 Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	801m	South West
12485	Pre 1 July 2009 Audit Notification	221-239 Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	801m	South West
12486	Pre 1 July 2009 Audit Notification	221-239 Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	801m	South West

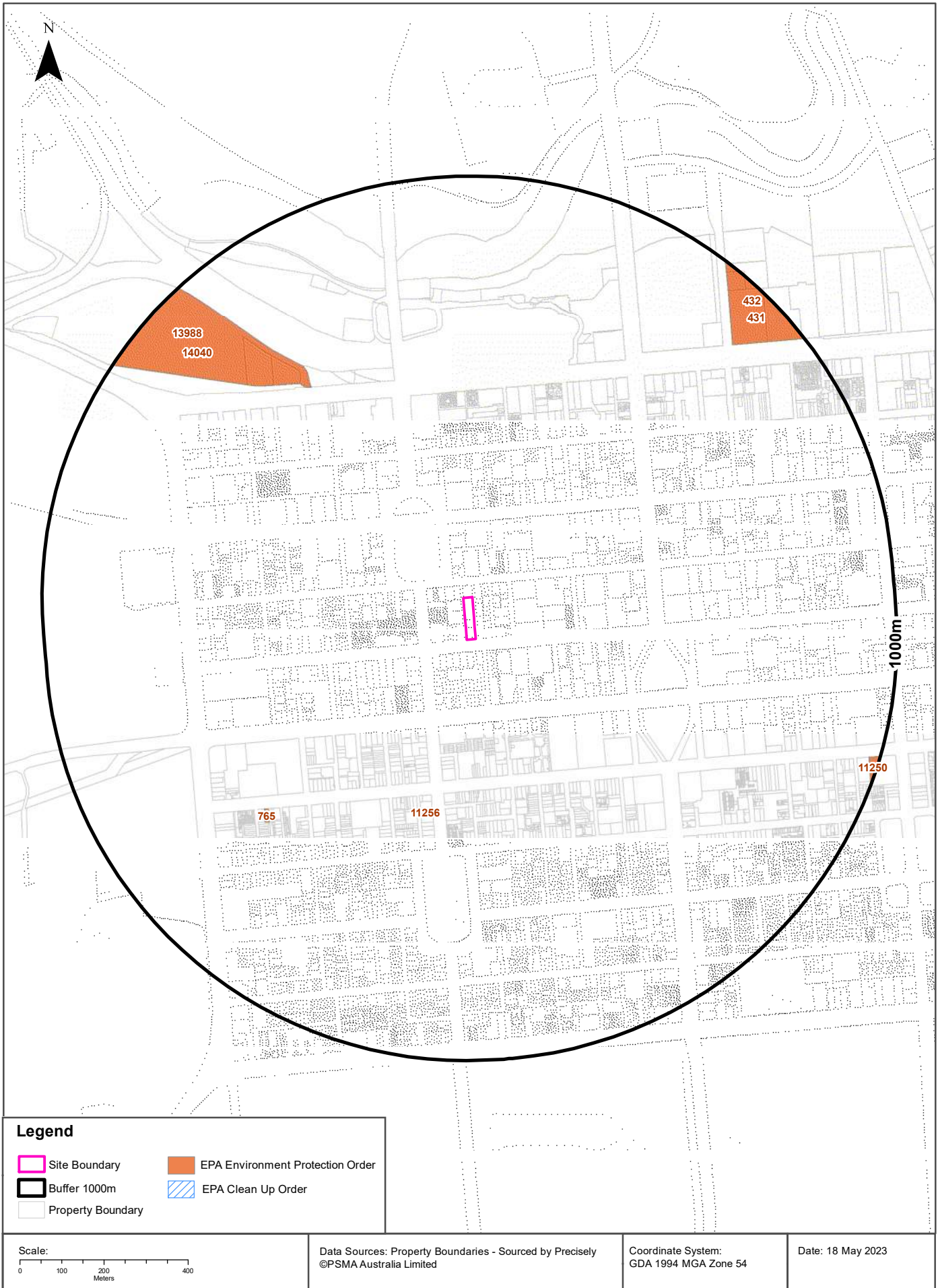
Notification No	Type	Address	Activity	Status	LocConf	Dist	Dir
12486 - 001	Pre 1 July 2009 Audit Report	221-239 Sturt Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	801m	South West
60247	S83 Notification	West Parklands to Hindley Street 66Kv underground powerline ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	803m	North West
61113 - 01	S83A Notification	Hundred Plan 106100 Section 1639 ADELAIDE SA 5000	Fill or soil importation	Current EPA List	Premise Match	814m	North
17375	109 Notification	30-40 Gilbert Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	826m	South East
61879	Audit Notification	85-87 Gilbert Street ADELAIDE BC SA 5000	Fill or soil importation	Current EPA List	Premise Match	828m	South
61879 - 001	Audit Report	85-87 Gilbert Street ADELAIDE BC SA 5000	Fill or soil importation	Current EPA List	Premise Match	828m	South
12351	Pre 1 July 2009 Audit Notification	400 King William Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	839m	South East
12351 - 001	Pre 1 July 2009 Audit Report	400 King William Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	839m	South East
12635	109 Notification	400 King William Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	839m	South East
10067	Pre 1 July 2009 Audit Notification	ACC Depot Halifax Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	867m	South East
10067 - 001	Pre 1 July 2009 Audit Report	ACC Depot Halifax Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	867m	South East
10738	SAHC	Halifax, Gilles, Symonds, Hallet Streets ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	867m	South East
11475	109 Notification	ACC Depot Halifax Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	867m	South East
61099 - 01	S83A Notification	Halifax Street and adjacent allotments ADELAIDE SA 5000	Works depots	Current EPA List	Premise Match	867m	South East
61695	Audit Notification	87-93 Angus Street ADELAIDE SA 5000	Dry cleaning; Fill or soil importation; Motor vehicle repair or maintenance; Plastics manufacture works	Current EPA List	Premise Match	870m	South East
61695	Audit Termination	87-93 Angus Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	870m	South East
61706 - 01	S83A Notification	87-93 Angus Street ADELAIDE SA 5000	Dry cleaning; Fill or soil importation; Motor vehicle repair or maintenance; Plastics manufacture works	Current EPA List	Premise Match	870m	South East
61706 - 02	S83A Notification	87-93 Angus Street ADELAIDE SA 5000	Dry cleaning; Fill or soil importation; Motor vehicle repair or maintenance	Current EPA List	Premise Match	870m	South East
12064	SAHC	Carrington & Queen Streets ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	882m	South East
17475	Pre 1 July 2009 Audit Notification	15-17 O'Halloran Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	883m	South
17475 - 001	Pre 1 July 2009 Audit Report	15-17 O'Halloran Street ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	883m	South
62761 - 01	S83A Notification	207-209 Pulteney St, Adelaide 207-209 Pulteney Street ADELAIDE SA 5000	Metal coating, finishing or spray painting; Motor vehicle repair or maintenance; Rubber manufacture or processing; Service stations; Wood preservation works	Current EPA List	Premise Match	914m	East
10539	SAHC	70 South Terrace ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	915m	South
61396	Audit Notification	411-427 King William Street ADELAIDE SA 5000	Fill or soil importation; Motor vehicle repair or maintenance; Service stations	Current EPA List	Premise Match	938m	South East
61396 - 001	Audit Report	411-427 King William Street ADELAIDE SA 5000	Fill or soil importation; Motor vehicle repair or maintenance; Service stations	Current EPA List	Premise Match	938m	South East
61480 - 01	S83A Notification	411-427 King William Street ADELAIDE SA 5000	Fill or soil importation; Motor vehicle repair or maintenance; Service stations	Current EPA List	Premise Match	938m	South East

Notification No	Type	Address	Activity	Status	LocConf	Dist	Dir
12225	Pre 1 July 2009 Audit Notification	26-28 St Helena Place ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	950m	South East
12225 - 001	Pre 1 July 2009 Audit Report	26-28 St Helena Place ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	950m	South East
12304	Pre 1 July 2009 Audit Notification	A116, DP 57613, Hundred of Adelaide 15-19 Colby Place ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	964m	South East
12304	Pre 1 July 2009 Audit Termination	A116, DP 57613, Hundred of Adelaide 15-19 Colby Place ADELAIDE SA 5000	Not recorded	Current EPA List	Premise Match	964m	South East
62065	109 Notification	Portion Lots 100 & 129 War Memorial Drive NORTH ADELAIDE SA 5006	Fill or soil importation	Current EPA List	Premise Match	995m	North
61354	109 Notification	Adjacent to City of Adelaide Golf Club Montefiore Road NORTH ADELAIDE SA 5006	Fill or soil importation	Current EPA List	Road Match	996m	North

Site Contamination Index Data Source: EPA South Australia

EPA Environment Protection and Clean Up Orders

108-112 Franklin Street, Adelaide, SA 5000



EPA Public Register

108-112 Franklin Street, Adelaide, SA 5000

EPA Environment Protection and Clean Up Orders

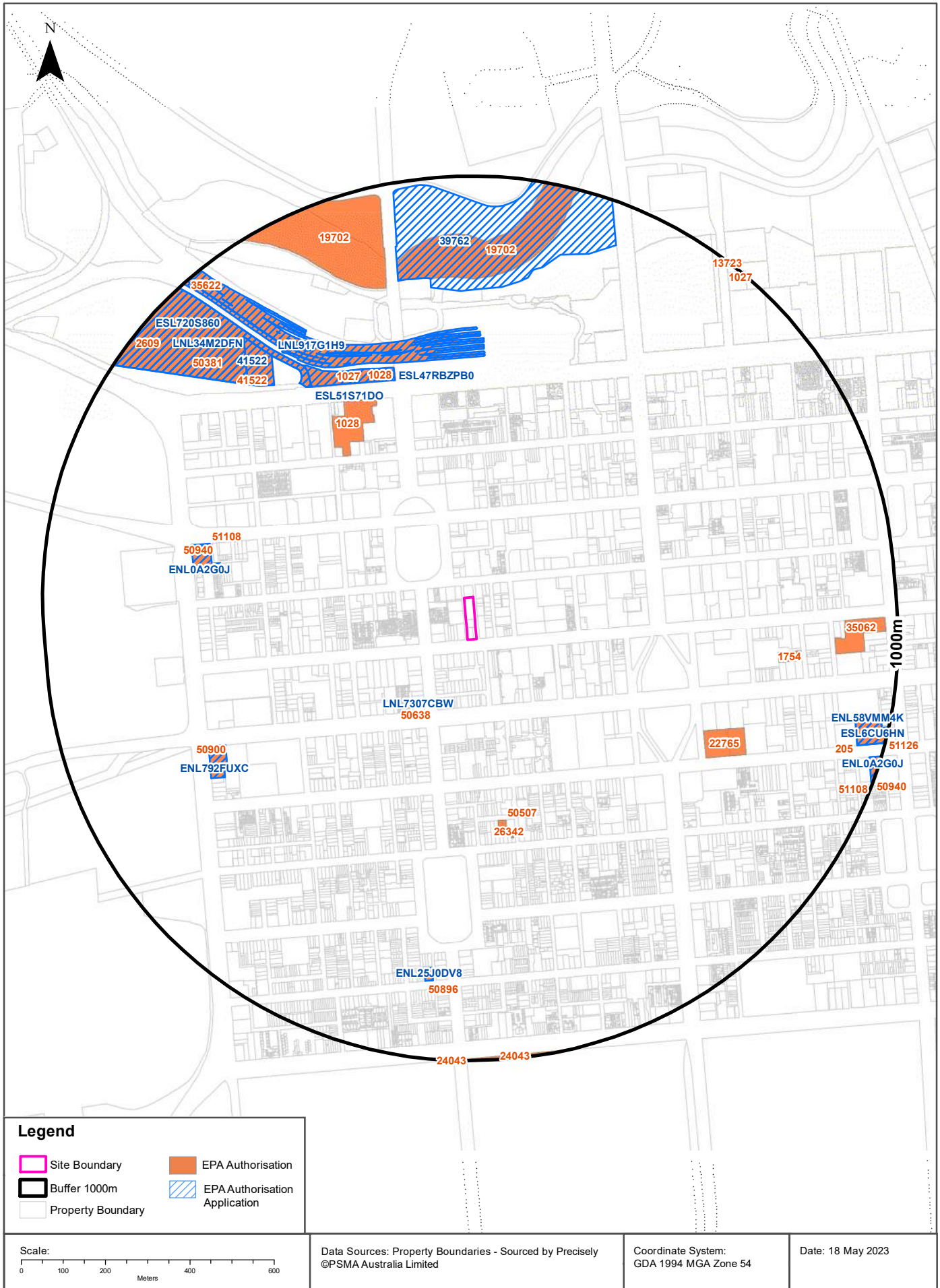
EPA Environment Protection and Clean Up Orders, within the dataset buffer:

Record No.	Record Type	Record Status	Entity	Site Address	Activity	EPA Register Status	LocConf	Dist	Dir
11256	ENVIRONMENT PROTECTION ORDER	COMPLIED		Bartels Street, Adelaide SA 5000	Discharged wastewater, sediment and concrete slurry onto footpaths, kerbing/gutters, roadways and the stormwater drainage systems adjacent to or near the building site.	Current EPA Register	Premise Match	418m	South
13988	ENVIRONMENT PROTECTION ORDER	ISSUED	TransAdelaide	North Terrace, Adelaide SA 5000	Discharged diesel to soil.	Current EPA Register	Premise Match	618m	North West
14040	ENVIRONMENT PROTECTION ORDER	COMPLIED	TransAdelaide	North Terrace, Adelaide SA 5000	Discharged diesel to soil and waters.	Current EPA Register	Premise Match	618m	North West
765	ENVIRONMENT PROTECTION ORDER	COMPLIED		Gouger Street, Adelaide SA 5000	Caused environmental nuisance in the form of noise from air conditioners.	Current EPA Register	Premise Match	620m	South West
431	ENVIRONMENT PROTECTION ORDER	COMPLIED	THE UNIVERSITY OF ADELAIDE	North Terrace, Adelaide SA 5000	Caused environmental nuisance in the form of noise.	Current EPA Register	Premise Match	860m	North East
432	ENVIRONMENT PROTECTION ORDER	COMPLIED	The University of Adelaide, Adelaide University Union	North Terrace, Adelaide SA 5000	Caused environmental nuisance in the form of noise.	Current EPA Register	Premise Match	860m	North East
11250	ENVIRONMENT PROTECTION ORDER	ISSUED		Angas Street, Adelaide SA 5000	Discharged wastewater from the pre-washing of motor vehicles outside of the area which drains to the existing wash bay.	Current EPA Register	Premise Match	973m	East

Authorisations Data Source: EPA South Australia

EPA Authorisations and Applications

108-112 Franklin Street, Adelaide, SA 5000



EPA Public Register

108-112 Franklin Street, Adelaide, SA 5000

EPA Authorisations and Applications

EPA Authorisations and Authorisation Applications within the dataset buffer:

Record No.	Record Type	Record Status	Entity	Site Address	Activity	EPA Register Status	LocConf	Dist	Dir
50638	LICENCE	Issued	AUSTRALIAN COFFEE DISTRIBUTORS PTY LTD	233-237 Morphett Street, ADELAIDE SA 5000	roasting or drying),Produce processing works (deep fat frying	Current EPA Register	Premise Match	177m	South West
LNL730 7CBW	LICENCE APPLICATION	Authorisation Updated	AUSTRALIAN COFFEE DISTRIBUTORS PTY LTD	233-237 Morphett Street, ADELAIDE SA 5000	roasting or drying),Produce processing works (deep fat frying	Current EPA Register	Premise Match	177m	South West
1028	LICENCE	Issued	UNIVERSITY OF SOUTH AUSTRALIA	City East Campus, North Terrace, ADELAIDE SA 5000	Activities producing listed wastes	Current EPA Register	Premise Match	432m	North West
26342	LICENCE	Transferred	ANGELAKIS BROS. PTY. LTD.	34-38 Wright Court, ADELAIDE SA 5000	Fish processing works	Current EPA Register	Premise Match	433m	South
50507	LICENCE	Surrendered	KNOLL CONSULTANTS & INVESTMENTS PTY. LTD.	34-38 Wright Court, ADELAIDE SA 5000	Fish processing works	Current EPA Register	Premise Match	433m	South
1027	LICENCE	Issued	THE UNIVERSITY OF ADELAIDE	Adelaide Health and Medical School, North Terrace, Adelaide SA 5000	Activities producing listed wastes	Current EPA Register	Premise Match	543m	North West
1028	LICENCE	Issued	UNIVERSITY OF SOUTH AUSTRALIA	Lot 101 North Terrace, ADELAIDE SA 5000	Activity producing listed waste	Current EPA Register	Premise Match	543m	North
ESL47 RBZPB 0	LICENCE APPLICATION	Authorisation Updated	UNIVERSITY OF SOUTH AUSTRALIA	Lot 101 North Terrace, ADELAIDE SA 5000	Activity producing listed waste	Current EPA Register	Premise Match	543m	North
35622	LICENCE	Surrendered	LAING O'ROURKE AUSTRALIA CONSTRUCTION PTY LTD	Various Locations Along The Adelaide Metropolitan Rail Network, SA	Railway operations	Current EPA Register	Network of Features	569m	North West
LNL917 G1H9	LICENCE APPLICATION	Authorisation Updated	BOWMANS RAIL PTY LTD	Various Locations across Inner and Outer Harbour of the Port of Adelaide	Railway operations	Current EPA Register	Network of Features	569m	North West
ESL51 S71DO	LICENCE APPLICATION	Authorisation Updated	THE UNIVERSITY OF ADELAIDE	Adelaide Health and Medical School North Terrace Adelaide SA 5000	Activities producing listed wastes	Current EPA Register	Premise Match	572m	North West
22765	LICENCE	Issued	SOUTH AUSTRALIAN WATER CORPORATION	242-260 Victoria Square, ADELAIDE SA 5000	Activities producing listed wastes	Current EPA Register	Premise Match	579m	South East
50940	LICENCE	Transferred	SHAHIN ENTERPRISES PTY. LTD.	41-49 West Terrace, ADELAIDE SA 5000	Petrol stations	Current EPA Register	Premise Match	581m	West
51108	LICENCE	Issued	ON THE RUN PTY LTD	41-49 West Terrace, ADELAIDE SA 5000	Petrol stations	Current EPA Register	Premise Match	581m	West
ENL0A 2G0J	LICENCE APPLICATION	Authorisation Updated	SHAHIN ENTERPRISES PTY. LTD.	41-49 West Terrace, ADELAIDE SA 5000	Petrol stations	Current EPA Register	Premise Match	581m	West
2609	LICENCE	Issued	SA PATHOLOGY	1 Port Road, ADELAIDE SA 5000	Activities producing listed wastes	Current EPA Register	Premise Match	618m	North West
50381	LICENCE	Issued	CENTRAL ADELAIDE LOCAL HEALTH NETWORK	North Terrace ADELAIDE SA 5000	Activities producing listed wastes,Fuel burning not coal or wood,Helicopter landing facilities	Current EPA Register	Premise Match	618m	North West
ESL720 S860	LICENCE APPLICATION	Authorisation Updated	SA PATHOLOGY	1 Port Road, Adelaide SA 5000	Activities producing listed wastes	Current EPA Register	Premise Match	618m	North West

Record No.	Record Type	Record Status	Entity	Site Address	Activity	EPA Register Status	LocConf	Dist	Dir
LNL34 M2DFN	Licence Application	Authorisation Updated	CENTRAL ADELAIDE LOCAL HEALTH NETWORK	North Terrace ADELAIDE SA 5000	Activities producing listed wastes, Fuel burning not coal or wood, Helicopter landing facilities	Current EPA Register	Premise Match	618m	North West
50900	LICENCE	Transferred	EUREKA OPERATIONS PTY LTD	101-112 West Terrace, ADELAIDE SA 5000	Petrol stations	Current EPA Register	Premise Match	627m	South West
ENL79 2FUXC	LICENCE APPLICATION	Authorisation Updated	EUREKA OPERATIONS PTY LTD	101-112 West Terrace, ADELAIDE SA 5000	Petrol stations	Current EPA Register	Premise Match	627m	South West
41522	LICENCE APPLICATION	Proceed To Authorisation	South Australian Health and Medical Research Institute Limited	Allotment 30 (DP 85645) North Terrace, Adelaide SA 5000	Activities producing listed wastes	Current EPA Register	Premise Match	678m	North West
41522	LICENCE	Issued	SOUTH AUSTRALIAN HEALTH AND MEDICAL RESEARCH INSTITUTE LIMITED	Allotment 30 (DP 85645) North Terrace, ADELAIDE, 5001, SA	Activities producing listed wastes	Current EPA Register	Premise Match	678m	North West
1754	LICENCE	Issued	MINISTER FOR JUSTICE	21 Divett Place, ADELAIDE SA 5000	Activities producing listed wastes	Current EPA Register	Premise Match	715m	East
39762	LICENCE APPLICATION	Proceed To Authorisation	McConnell Dowell Constructors (Aust) Pty Ltd	Torrens River, Elder Park, Adelaide SA 5000	Dredging - for each day on which dredging occurs during the licence period, Earthworks drainage - for each day on which earthworks drainage takes place during the licence period	Current EPA Register	Premise Match	728m	North
19702	LICENCE	Surrendered	CORPORATION OF THE CITY OF ADELAIDE	Allotments 4 & 5 (FP 41835), Section 1640 (H106100), Allotment 3 (FP 41835), Hundred of Adelaide, SA	Discharges to marine or inland waters (heat or antibiotic or chemical water treatments)	Current EPA Register	Premise Match	756m	North
50896	LICENCE	Issued	SILVERS AUTOCENTRE PTY. LTD.	172-176 Gilbert Street, ADELAIDE SA 5000	Petrol stations	Current EPA Register	Premise Match	783m	South
ENL25J 0DV8	LICENCE APPLICATION	Authorisation Updated	SILVERS AUTOCENTRE PTY. LTD.	172-176 Gilbert Street, ADELAIDE SA 5000	Petrol stations	Current EPA Register	Premise Match	783m	South
35062	LICENCE	Cancelled	TELSTRA CORPORATION LIMITED, SILCAR PTY LTD	115 Flinders Street, ADELAIDE SA 5000	Fuel burning not coal or wood	Current EPA Register	Premise Match	848m	East
205	LICENCE	Issued	CLINPATH LABORATORIES PTY. LTD.	110-132 Angas Street, Adelaide SA 5000	Activity producing listed waste	Current EPA Register	Premise Match	917m	East
51126	LICENCE	Issued	CALVARY HEALTH CARE ADELAIDE LIMITED	120 Angas Street, Adelaide SA 5000	Activity producing listed waste	Current EPA Register	Premise Match	917m	East
ENL58 VMM4K	LICENCE APPLICATION	Authorisation Updated	CALVARY HEALTH CARE ADELAIDE LIMITED	120 Angas Street, Adelaide SA 5000	Activity producing listed waste	Current EPA Register	Premise Match	917m	East
ESL6C U6HN	LICENCE APPLICATION	Authorisation Updated	CLINPATH LABORATORIES PTY. LTD.	110-132 Angas Street, Adelaide SA 5000	Activity producing listed waste	Current EPA Register	Premise Match	917m	East
50940	LICENCE	Transferred	SHAHIN ENTERPRISES PTY. LTD.	281-301 Pulteney Street, ADELAIDE SA 5000	Petrol stations	Current EPA Register	Premise Match	973m	East
51108	LICENCE	Issued	ON THE RUN PTY LTD	281-301 Pulteney Street, ADELAIDE SA 5000	Petrol stations	Current EPA Register	Premise Match	973m	East
ENL0A 2G0J	LICENCE APPLICATION	Authorisation Updated	SHAHIN ENTERPRISES PTY. LTD.	281-301 Pulteney Street, ADELAIDE SA 5000	Petrol stations	Current EPA Register	Premise Match	973m	East
24043	EXEMPTION	Cancelled	CORPORATION OF THE CITY OF ADELAIDE		Chemical Dosing of Treated Wastewater	Current EPA Register	Premise Match	991m	South

Record No.	Record Type	Record Status	Entity	Site Address	Activity	EPA Register Status	LocConf	Dist	Dir
1027	LICENCE	Issued	THE UNIVERSITY OF ADELAIDE	Adelaide Campus, North Terrace, ADELAIDE SA 5000	Activities producing listed wastes	Current EPA Register	Premise Match	994m	North East
13723	LICENCE	Issued	COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION	Gate 13, Kintore Avenue, ADELAIDE SA 5000	Activities producing listed wastes	Current EPA Register	Premise Match	994m	North East
31182	LICENCE	Issued	ADELAIDE CITY COUNCIL	Various Locations Within The Corporation of The City of Adelaide Boundaries, SA	Dredging - for each day on which dredging occurs during the licence period	Current EPA Register	Suburb Match	-	-

Authorisations Data Source: EPA South Australia

EPA Assessment and Groundwater Prohibition Areas

108-112 Franklin Street, Adelaide, SA 5000

EPA Assessment Areas

EPA Assessment Areas within the dataset buffer:

Map Id	Supplied Ref	Area Name	Map Link	Status	Location Confidence	Distance	Direction
N/A	No records in buffer						

Assessment Areas Data Source: EPA South Australia

EPA Assessment and Groundwater Prohibition Areas

108-112 Franklin Street, Adelaide, SA 5000

EPA Groundwater Prohibition Areas

EPA Groundwater Prohibition Areas within the dataset buffer:

Map Id	Site Name	Location Confidence	Distance	Direction
N/A	No records in buffer			

Groundwater ProhibitionAreas Data Source: EPA South Australia

PFAS Investigation & Management Programs

108-112 Franklin Street, Adelaide, SA 5000

Defence PFAS Investigation & Management Program Investigation Sites

Sites being investigated by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Location Confidence	Distance	Direction
N/A	No records in buffer				

Defence PFAS Investigation & Management Program Data Custodian: Department of Defence, Australian Government

Defence PFAS Investigation & Management Program Management Sites

Sites being managed by the Department of Defence for PFAS contamination within the dataset buffer:

Map ID	Base Name	Address	Location Confidence	Distance	Direction
N/A	No records in buffer				

Defence PFAS Investigation & Management Program Data Custodian: Department of Defence, Australian Government

Airservices Australia National PFAS Management Program

Sites being investigated or managed by Airservices Australia for PFAS contamination within the dataset buffer:

Map ID	Site Name	Impacts	Location Confidence	Distance	Direction
N/A	No records in buffer				

Airservices Australia National PFAS Management Program Data Custodian: Airservices Australia

Defence Sites

108-112 Franklin Street, Adelaide, SA 5000

Defence 3 Year Regional Contamination Investigation Program

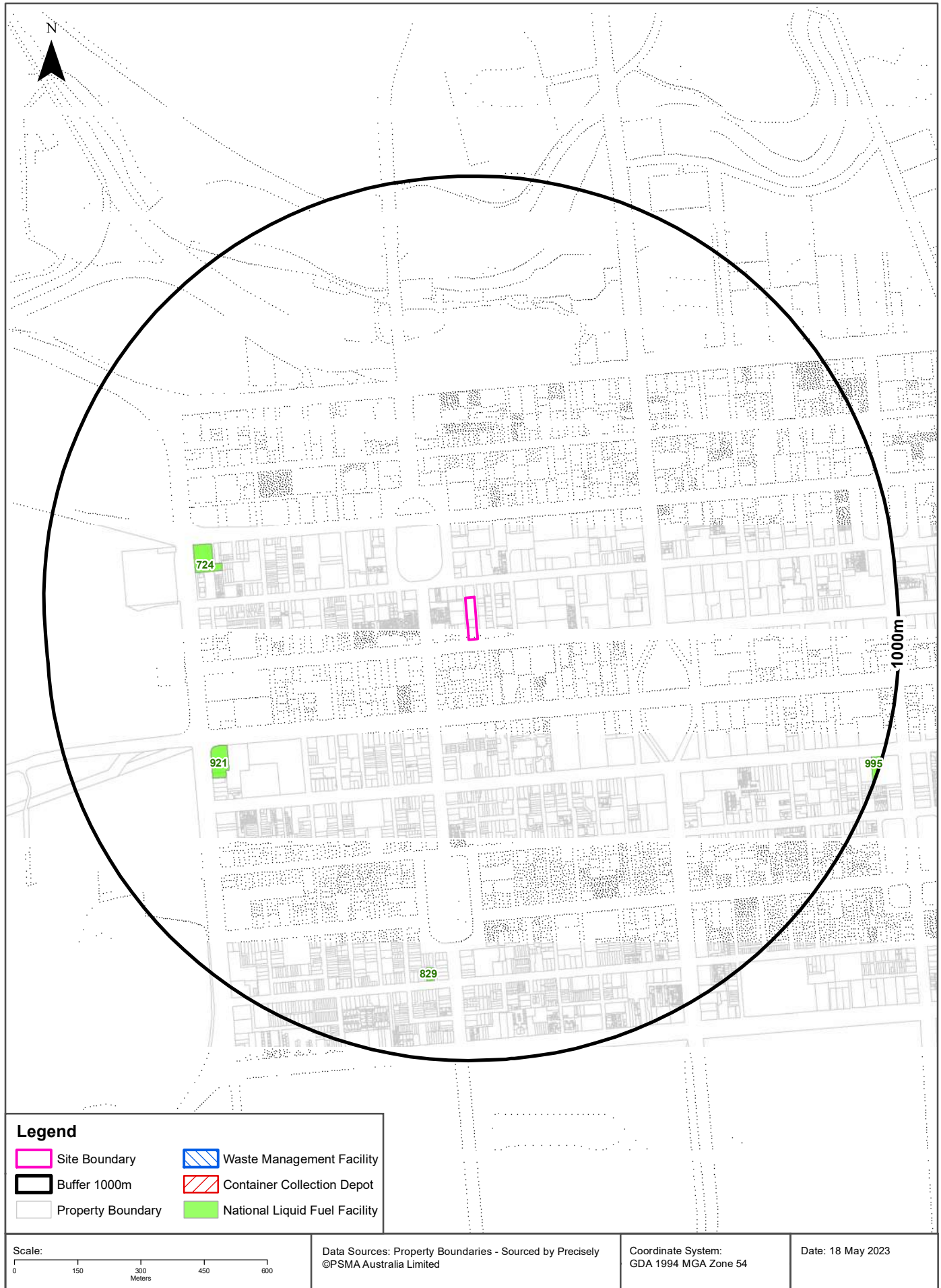
Sites which have been assessed as part of the Defence 3 Year Regional Contamination Investigation Program within the dataset buffer:

Property ID	Base Name	Address	Known Contamination	Loc Conf	Dist	Dir
N/A	No records in buffer					

Defence 3 Year Regional Contamination Investigation Program, Data Custodian: Department of Defence, Australian Government

Waste Management & Liquid Fuel Facilities

108-112 Franklin Street, Adelaide, SA 5000



Waste Management and Liquid Fuel Facilities

108-112 Franklin Street, Adelaide, SA 5000

National Waste Management Site Database

Sites on the National Waste Management Site Database within the dataset buffer:

Site Id	Owner	Name	Address	Suburb	Class	Revised Date	Location Confidence	Distance	Direction
N/A	No records in buffer								

Waste Management Facilities Data Source: Australian Government Geoscience Australia
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EPA Approved Container Collection Depots

EPA approved container collection depots within the dataset buffer:

MapId	Name	Address	Suburb	Loc Conf	Distance	Direction
N/A	No records in buffer					

Collection Depot Data Source: EPA South Australia

National Liquid Fuel Facilities

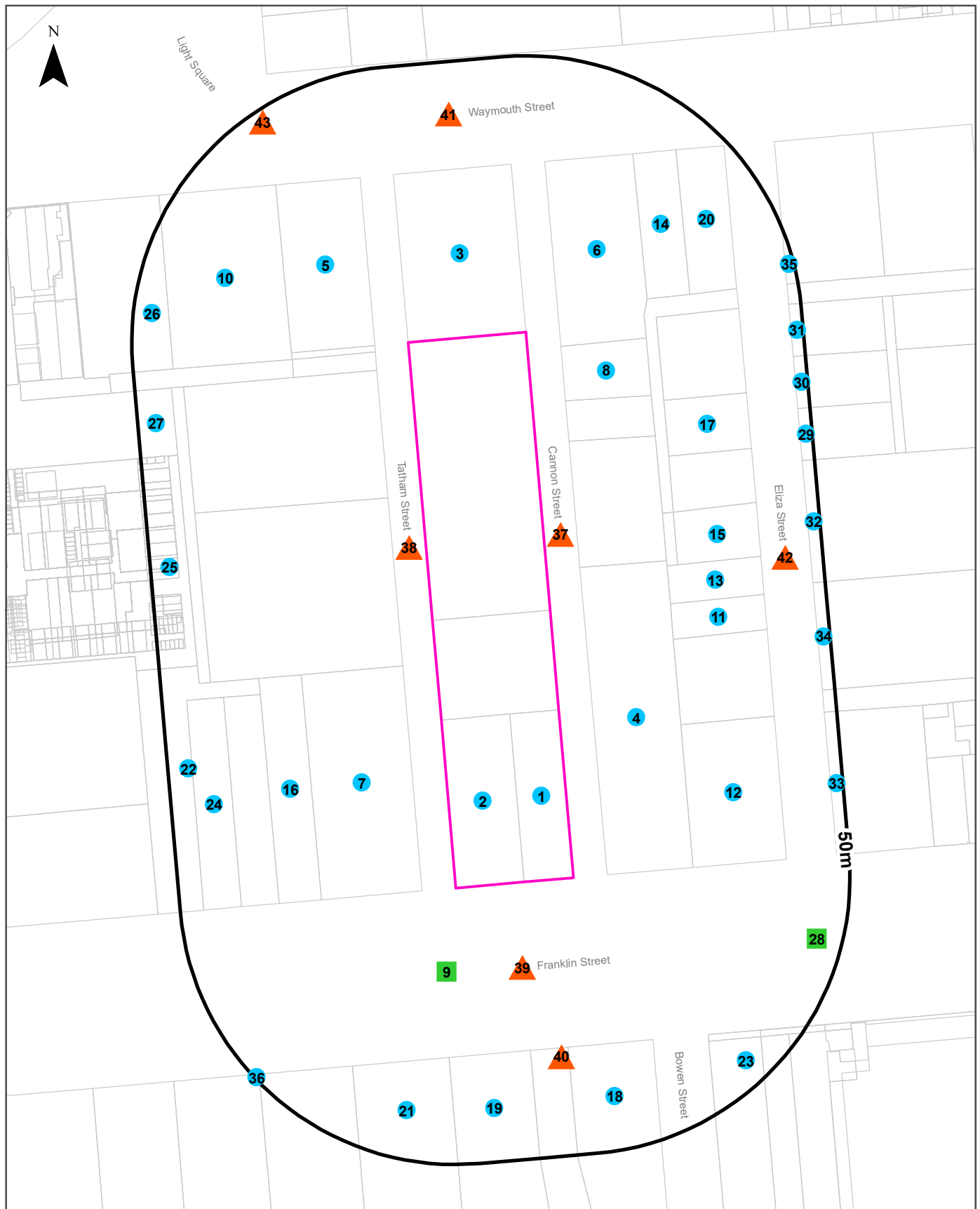
National Liquid Fuel Facilities within the dataset buffer:

Map Id	Owner	Name	Address	Suburb	Class	Operational Status	Operator	Revision Date	Loc Conf	Dist	Dir
724	Peregrine Corporation	BP On The Run West Terrace	41-49 West Terrace	Adelaide	Petrol Station	Operational		13/07/2012	Premise Match	581m	West
921	Shell	Coles Express West Terrace	111 West Terrace	Adelaide	Petrol Station	Operational		25/07/2011	Premise Match	627m	South West
829	Caltex	Independent Adelaide	172 Gilbert Street	Adelaide	Petrol Station	Operational		25/07/2011	Premise Match	783m	South
995	Peregrine Corporation	Mobil On The Run Adelaide	139 Angus Street	Adelaide	Petrol Station	Operational		13/07/2012	Premise Match	973m	East

National Liquid Fuel Facilities Data Source: Geoscience Australia
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Historical Business Directories

108-112 Franklin Street, Adelaide, SA 5000



Legend Site Boundary Buffer 50m Property Boundary Business directory records mapped to a specific premise Business directory records mapped to a road intersection Business directory records mapped to a road corridor Business directory records mapped to a general area	Scale: 	Coordinate System: GDA 1994 MGA Zone 54
	Date: 18 May 2023	Data Sources: Reproduced with permission of UBD and Hardie Grant Media Pty Ltd DD 01/08/2018 Sands & McDougall's Directory - Digitised by State Library Victoria Property Boundaries - Sourced by Precisely. ©PSMA Australia Limited 2023 www.psm.com.au/psma-data-copyright-and-disclaimer

Historical Business Directories

108-112 Franklin Street, Adelaide, SA 5000

Business Directory Records 1910-1991 Premise or Road Intersection Matches

Universal Business Directory and Sands & McDougall Directory records, from years 1991, 1984, 1973, 1965, 1955, 1950, 1940, 1930, 1920 & 1910, mapped to a premise or road intersection within the dataset buffer:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	Motor Tyre Dealers Retreaders &/Or Vulcanisers	Kenny, Kevin Tyres, 110 Franklin St, Adelaide, 5000	28923	1991	Premise Match	0m	On-site
	Motor Wheel Aligning & Balancing Services	Kenny, Kevin Tyres, 110 Franklin St, Adelaide, 5000	29062	1991	Premise Match	0m	On-site
	Tyre Dealers &/or Retreaders &/or Vulcanisers	Kenny, Kevin Tyres, 110 Franklin St, Adelaide, 5000	35716	1991	Premise Match	0m	On-site
	Motor Engineers	y, Kevin Tyres, 110 Franklin St., Adelaide 5000.	27143	1991	Premise Match	0m	On-site
	Newspapers, Journals &/or Periodicals	Stock Journal Publishers Pty, Ltd., 11 Cannon St,	19410	1984	Premise Match	0m	On-site
	Printers & Publishers	STOCK JOURNAL PUBLISHERS PTY. LTD. 11 Cannon Street, Adelaide 5000	21170	1984	Premise Match	0m	On-site
	Printers - Offset	Stock Journal Publishers Pty. Ltd., 11 Cannon St.,	21157	1984	Premise Match	0m	On-site
	Publishers	Stock Journal Publishers Pty. Ltd., 11 Cannon St.,	21277	1984	Premise Match	0m	On-site
	PUBLISHERS	Stock Journal Publisher & Pty Ltd 110 - 112 Franklin st Adelaide	34702	1973	Premise Match	0m	On-site
	PRINTING & ALLIED TRADES	Stock Journal Publishers P/L 11 Cannon st Adelaide	33275	1973	Premise Match	0m	On-site
	PUBLISHERS	Publishers Ltd 110-112 Franklin st Adelaide	49810	1965	Premise Match	0m	On-site
	PRINTERS, PUBLISHERS and STATIONERS	PUBLISHERS LIMITED 110 Franklin Street	36641	1955	Premise Match	0m	On-site
	PUBLISHERS	Publishers Ltd 110 Franklin st Adelaide	38429	1955	Premise Match	0m	On-site
	DEVELOPING APPARATUS	Peter Pan Photos Limited., 110 Franklin Street, Adelaide	15509	1950	Premise Match	0m	On-site
	PHOTOGRAPHERS-CANDID	Peter Pan Photos Ltd., 110 Franklin St.	15404	1950	Premise Match	0m	On-site
	PHOTOGRAPHERS-GENERAL.	Peter Pan Photos Ltd., 110 Franklin St.	15451	1950	Premise Match	0m	On-site
	PHOTOGRAPHIC EQUIPMENT & SUPPLIES	Peter Pan Photos Ltd., 110 Franklin St.	15474	1950	Premise Match	0m	On-site
	PRINTERS	Publishers Ltd., 110 Franklin St.	16107	1950	Premise Match	0m	On-site
	PRINTERS	Publishers Ltd., 110 Franklin St.	16050	1950	Premise Match	0m	On-site
	Printers And Allied Trades	Adelaide Stuck and Station Journal, 110 Franklin st	9664	1940	Premise Match	0m	On-site
	Printers And Allied Trades	Publishers Ltd, 110 Franklin st	10040	1940	Premise Match	0m	On-site
	PRINTERS AND PUBLISHERS	Gossip (The). 110 Franklin St	4867	1930	Premise Match	0m	On-site
	PRINTERS AND PUBLISHERS	Publishers Ltd, 110 Franklin st	4931	1930	Premise Match	0m	On-site
PRINTERS AND PUBLISHERS	S.A. Motor Journal, c/o Publishers Ltd, 110 Franklin st	5208	1930	Premise Match	0m	On-site	
2	IRON & STEEL MERCHANTS	Westcott Hazell Engineering & Steel Co. Ltd., 112 Franklin St.	10879	1950	Premise Match	0m	On-site

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
2	MACHINERY MERCHANTS	Westcott, Hazel Engineering & Steel Ltd., 112 Franklin St.	11668	1950	Premise Match	0m	On-site
	IRON & STEEL MERCHANTS	Westcott, Hazell Engineering & Steel Ltd., 112 Franklin St.	10889	1950	Premise Match	0m	On-site
	Motor And Accessory Agents	FREEMAN MOTORS LIMITED, 112 Franklin St.	6415	1940	Premise Match	0m	On-site
	Boardinghouse, Lodginghouse, And Apartment Keepers	Miller, Mrs L, 112 Franklin st	5642	1930	Premise Match	0m	On-site
3	Fireplace &/Or Accessory Mfrs &/Or Dists.	Federation Trading, 127 Weymouth St., Adelaide. 5000	21553	1991	Premise Match	0m	North
	Delicatessens &/Or Mixed Businesses	C'Estcibon Snack Bar 133 Weymouth St,	6623	1984	Premise Match	0m	North
	Motor Car &/or Truck Dealers - New &/or Used	Cousin, Laurie Automotive, 127 Weymouth St	17730	1984	Premise Match	0m	North
	Motor Garages &/or Engineers &/or Service Stations	Cousin, Laurie Automotive, 127 Weymouth St.,	18285	1984	Premise Match	0m	North
	Safe Makers &/Or Merchants	Cousin, Laurie Automotive, 127 Weymouth St.,	22526	1984	Premise Match	0m	North
	Delicatessens & Ham & Beef Shops	C'Est C Bon 133 Weymouth st Adelaide	4267	1973	Premise Match	0m	North
	CAFES & RESTAURANTS	Lakin M M 133 Weymouth st Adelaide	31076	1973	Premise Match	0m	North
	LOCKSMITHS	Robinson Motor Co 127 Weymouth st Adelaide	38576	1973	Premise Match	0m	North
	MOTOR ENGINEERS & REPAIRERS	Robinson Motor Co 127-131 Weymouth st Adel	13296	1973	Premise Match	0m	North
	Used Car Dealers	Robinson Motor Co 127-131 Weymouth st Adel	8762	1973	Premise Match	0m	North
	Delicatessens & Ham & Beef Shops	C'Est Ci Bon 133 Weymouth st Adelaide	40602	1965	Premise Match	0m	North
	USED CAR DEALERS	Robinson Motor Co 127-131 Weymouth st Adel	9480	1965	Premise Match	0m	North
	HARDWARE MERCHANTS & IRONMONGERS	Bridgewater Supplies 133 Weymouth st Adel	13001	1955	Premise Match	0m	North
	USED CAR DEALERS	Robinson Motor Co 127 Weymouth st Adelaide	6903	1955	Premise Match	0m	North
	JUSTICES OF THE PEACE-CITY OF ADELAIDE	Kearns, P, J., 133 Woymouth St.	11217	1950	Premise Match	0m	North
	AIR COMPRESSOR UNIT MANUFACTURERS AND DISTRIBUTORS	Perkins (Aust.) Pty. Ltd., 133 Weymouth St.	312	1950	Premise Match	0m	North
	EARTH MOVING EQUIPMENT & MACHINERY	Perkins (Aust.) Pty. Ltd., 133 Weymouth St.	6162	1950	Premise Match	0m	North
	MACHINERY MERCHANTS	Perkins (Aust.) Pty. Ltd., 133 Weymouth St.	11661	1950	Premise Match	0m	North
	ENGINES-DIESEL	Perkins (Aust.), Pty. Ltd., 133 Weymouth St.	7072	1950	Premise Match	0m	North
	MOTOR CAR & TRUCK DEALERS-USED	Robinson Motor Co., 127 Weymouth St.	13657	1950	Premise Match	0m	North
	SAFE MAKERS & MERCHANTS	Robinson Motor Co., 127 Weymouth St.	16616	1950	Premise Match	0m	North
	Dealers (General) and Hawkers	Mutual Trading Co, 127-133 Weymouth st	15721	1930	Premise Match	0m	North
Dealers (General) and Hawkers	Black, Mrs, 129 Weymouth st	6017	1920	Premise Match	0m	North	
4	Marking & Coding Equipment	Better Marking, 102 Franklin St,	16904	1984	Premise Match	6m	South East
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Car Park 102-104 Franklin st Adelaide	57805	1965	Premise Match	6m	South East
	SILK SCREEN PROCESS PRINTERS	Displaycraft (S.A.), 104 Franklin St.	17336	1950	Premise Match	6m	South East
	WINDOW DISPLAY SPECIALISTS	Displaycraft., 104 Franklin St.	19033	1950	Premise Match	6m	South East
	WINDOW AND DISPLAY SERVICE ETC.	Displaycraft., 104 Franklin Street S.A.	19037	1950	Premise Match	6m	South East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
4	Motor and Cycle Makers, Importers and Agents	Bsteup, Geo, 102 Franklin st	12985	1920	Premise Match	6m	South East
	Electroplaters	Dingle, I. S, 102 Franklin st	7234	1920	Premise Match	6m	South East
5	Associations, Societies &/Or Boards	Betting Control Board Tinsmiths Bldg 135 Waymouth St	1081	1984	Premise Match	6m	North West
	Associations, Societies &/Or Boards	Migrant Education Centre, Tinsmiths Bldg 135 Waymouth St	1130	1984	Premise Match	6m	North West
	Buildings	Tinsmiths House. 135 Waymouth St.,	3208	1984	Premise Match	6m	North West
	Government Departments -State	Woods & Forests Dept., 135 Waymouth St.,	13148	1984	Premise Match	6m	North West
	ACCOUNTANTS & COMPANY SECRETARIES	Cope M E & Co 139 Waymouth st Adelaide	17183	1965	Premise Match	6m	North West
	ACCOUNTANTS & COMPANY SECRETARIES	Denton G E & Rawnsley 135-139 Waymouth st Adelaide	17258	1965	Premise Match	6m	North West
	ACCOUNTANTS AND AUDITORS	Cope, M. E., & Co., 139 Waymouth St.	36	1950	Premise Match	6m	North West
	ACCOUNTANTS AND AUDITORS	Stanford, R. C. P., 135 Waymouth St.	143	1950	Premise Match	6m	North West
	MERCHANTS, IMPORTERS, AND WAREHOUSEMEN	Ingram A. & Co., 135 Waymouth st	23795	1930	Premise Match	6m	North West
	Accountants and Agents	Ingram, A, & Co, 135 Waymouth st	821	1930	Premise Match	6m	North West
	SIGNWRITERS	May, L., 137 Waymouth st	7316	1930	Premise Match	6m	North West
	Fancy Repositories	James, G, and Co, 139 Waymouth st	7065	1910	Premise Match	6m	North West
	Drapers	James, Geo, & Co., 139 Waymouth st	6135	1910	Premise Match	6m	North West
	6	Barristers &/or Solicitors	Daenke, J A, 123 Waymouth St	1622	1984	Premise Match	6m
Barristers &/or Solicitors		Genders, A F 123 Waymouth St	1682	1984	Premise Match	6m	North
Barristers &/or Solicitors		Genders, Wilson & Partners 123 Waymouth St	1683	1984	Premise Match	6m	North
Barristers &/or Solicitors		Gilfillan, D 123 Waymouth St	1689	1984	Premise Match	6m	North
Buildings		Shakespeare Chambers 123 Waymouth St..	3197	1984	Premise Match	6m	North
Barristers &/or Solicitors		Wilson Keith, 123 Waymouth St	2050	1984	Premise Match	6m	North
BUILDERS & CONTRACTORS		Allco Civil Constructions P/L 123 Waymouth st Adelaide	23454	1973	Premise Match	6m	North
BAKERS, CAKE SHOPS & CATERERS		Glover Gibbs 123-125 Waymouth st Adelaide	36870	1955	Premise Match	6m	North
PASTRYCOOKS		Glover Gibbs., 123 Waymouth St.	15343	1950	Premise Match	6m	North
CAFES AND RESTAURANTS		Gibbs, G., 123-125 Waymouth st	15738	1940	Premise Match	6m	North
PASTRYCOOKS AND CATERERS		Gibbs, James, 123 Waymouth st	9038	1940	Premise Match	6m	North
ELECTRICAL APPLIANCES		S.A. Electric Supplies, 123 Waymouth st	20384	1940	Premise Match	6m	North
Restaurants and Wine Saloons		Gibbs, J, 123-125 Waymouth st	5823	1930	Premise Match	6m	North
Wireworkers		Cyclone Proprietary Ltd, 123-125 Waymouth st	579	1920	Premise Match	6m	North
Hotels and Public Houses		Shakespeare; Frith, Mrs E. B, 121 Waymouth st	10141	1920	Premise Match	6m	North
7		USED CAR DEALERS	Motors Ltd 118 Franklin st Adelaide	9446	1965	Premise Match	6m
	MOTORS & ACCESSORIES	Auto Auctions Ltd 118-120 Franklin st Adel	23630	1955	Premise Match	6m	South West
	MOTORS & ACCESSORIES	National Motors Ltd 118-120 Franklin st Adel	23797	1955	Premise Match	6m	South West
	MOTORS & ACCESSORIES	National Motors Services Ltd 118-120 Franklin st Adelaide	23798	1955	Premise Match	6m	South West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
7	CAR AND TRACTOR DISTRIBUTORS	Kingsway Limited., 118-119 Franklin Street, Adelaide	13685	1950	Premise Match	6m	South West
	MOTOR CAR & TRUCK IMPORTERS, DISTRIBUTORS & AGENTS	Kingsway Ltd., 118-120 Franklin St.	13721	1950	Premise Match	6m	South West
	MOTOR GARAGES, ENGINEERS & SERVICE STATIONS	Kingsway Ltd., 118-120 Franklin St.	14030	1950	Premise Match	6m	South West
	TRACTOR IMPORTERS, DEALERS & SERVICEMEN	Kingsway Ltd., 118-120 Franklin St.	18475	1950	Premise Match	6m	South West
	TRACTOR IMPORTERS, DEALERS & SERVICEMEN	Kingsway, Ltd., 118-120 Franklirt St.	18493	1950	Premise Match	6m	South West
	Storekeepers (General)	Beilby, S. O., 118 Franklin st	13255	1940	Premise Match	6m	South West
	CHEMISTS, DRUGGISTS, AND MANUFACTURING CHEMISTS	Douglas Drug Co., 118 Franklin st	17737	1940	Premise Match	6m	South West
	MOTOR AND ACCESSORY AGENTS, CYCLE MAKERS AND IMPORTERS	CHENEY, S.A. (South Aus.), LTD.118 Franklin Street, Adelaide.	511	1930	Premise Match	6m	South West
	Boardinghouse-keepers	Heggarty, Mrs, 118 Franklin-st	1177	1920	Premise Match	6m	South West
	Boardinghouse-keepers	Williams, Mrs M. A, 120 Franklin-st	1398	1920	Premise Match	6m	South West
	Boardinghouse-keepers	O'Loughlin, Mrs Annie, 120 Franklin st	1079	1910	Premise Match	6m	South West
8	SHINE TOOLS	H. G., 14 Cannon St.	11623	1950	Premise Match	6m	North East
	ENGINEERS-GENERAL, MECHANICAL & MANUFACTURING	Hogan, H. G., 14 Cannon St.	6818	1950	Premise Match	6m	North East
	GEAR CUTTING SPECIALISTS	Hogan, H. G., 14 Cannon St.	8380	1950	Premise Match	6m	North East
	WOODWORKING MACHINERY & TOOLS	Hogan, H. G., 14 Cannon St.	19261	1950	Premise Match	6m	North East
9	Civil Engineers	Mayo, G. G, Tatham and Franklin sts	4485	1910	Road Intersection	16m	South
10	TYPEWRITER SALES AND SERVICES	Accounting & Business Machine Co Ltd 143 Waymouth st Adelaide	7194	1973	Premise Match	21m	North West
	TYPEWRITER SALES AND SERVICE	Accounting & Business Machine Co Ltd 143 Waymouth st Adelaide	7294	1965	Premise Match	21m	North West
	REFRIGERATOR MAKERS & MERCHANTS	LIGHT TRADING CO145 Waymouth st Adelaide	39191	1955	Premise Match	21m	North West
	CARRIERS & CARTAGE CONTRACTORS	Gordon's Transport., 141 Waymouth St	3435	1950	Premise Match	21m	North West
	MOTOR ELECTRICAL ENGINEERS	ittrall, W., 141 Woymouth St.	13827	1950	Premise Match	21m	North West
	MOTOR CAR & TRUCK DEALERS-USED	Langton Motors Ltd., 141Waymouth St.	13639	1950	Premise Match	21m	North West
	CARRIERS & CARTAGE CONTRACTORS	Langton Transport., 141 Waymouth St.	3486	1950	Premise Match	21m	North West
	AIR CONDITIONING EQUIPMENT	Light Trading Co., 145 Waymouth St.	316	1950	Premise Match	21m	North West
	ENGINEERS-AIR CONDITIONING	Light Trading Co., 145 Waymouth St.	6668	1950	Premise Match	21m	North West
	REFRIGERATOR DEALERS & ENGINEERS	Light Trading Co., 145 Waymouth St.	16490	1950	Premise Match	21m	North West
	Motor And Accessory Agents	Oldham, H. K., 141 Wymth st	6543	1940	Premise Match	21m	North West
	MERCHANTS, IMPORTERS, AND WAREHOUSEMEN	Habib, N, and Son, 141 Waymouth st	23757	1930	Premise Match	21m	North West
	Ham And Bacon Curers	Harrison, H, & Son, 145 Waymouth st	19778	1930	Premise Match	21m	North West
	MOTOR AND ACCESSORY AGENTS, CYCLE MAKERS AND IMPORTERS	Morris A. E. & Co., 141-143 Waymouth st	1070	1930	Premise Match	21m	North West
Motor and Cycle Makers, Importers and Agents	Sphinx Motor Garage, 141-143 Waymouth st	13185	1920	Premise Match	21m	North West	

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
10	Pianoforte Tuners	Dixon, A. C., 141 Waymouth st	12343	1910	Premise Match	21m	North West
	BAG AND SACK DEALERS	Penno and Co, 143 Waymouth st	17343	1910	Premise Match	21m	North West
	BAG AND SACK DEALERS	SACK EXCHANGE Co, 143 Waymouth. st, Adelaide	17339	1910	Premise Match	21m	North West
11	Trophy Mfrs &/or Suppliers	AJ Trophies, 27 Eliza St, Adelaide 5000	35524	1991	Premise Match	22m	East
	Trophy Mfrs &/or Suppliers	Speedie Trophy Service, 25 Eliza St Adelaide 5000	35536	1991	Premise Match	22m	East
	Trophy Suppliers - Sporting	AJ Trophies Pty, Ltd 27 Eliza St,	25446	1984	Premise Match	22m	East
	Embroidery Mfrs. &/or Specialists	Scheiss, H. & Sons. 27 Eliza St..	10336	1984	Premise Match	22m	East
	Embroidery Mfrs. &/or Specialists	Speedie Services. 27 Eliza St.,	10337	1984	Premise Match	22m	East
	Trophy Suppliers - Sporting	Speedie Trophy Service 27 Eliza St,	25451	1984	Premise Match	22m	East
	FOOD SPECIALISTS	Heinz H J Co Pty Ltd, 27 Eliza st, Adelaide	39524	1955	Premise Match	22m	East
	PRINTERS, PUBLISHERS and STATIONERS	South Aust Worker (The) 27 Eliza st Adelaide	37479	1955	Premise Match	22m	East
	MOTOR PAINTERS	Hume, Fred L., 27 Elizo St.	14288	1950	Premise Match	22m	East
	IRON AND STEEL MERCHANTS	McKenzie, D., 27 Eliza st	20807	1930	Premise Match	22m	East
12	Motor Car Hire Services	Thrifty Car Rentals, 100 Franklin St.. Adelaide. 5000.	26704	1991	Premise Match	22m	South East
	Motor Hire Services - Drive Yourself &/or Rental	Thrifty Rent-A-Car Pty. Ltd., 100 Franklin St.,	18615	1984	Premise Match	22m	South East
	Motor Hire Services - Drive Yourself &/or Rental	Thrifty Rent A Car Pty Ltd, 96-100 Franklin Street Adelaide.5000	18612	1984	Premise Match	22m	South East
	HOTELS	Hotel Franklin Ltd 96 Franklin st Adelaide	40892	1965	Premise Match	22m	South East
	MACHINERY MERCHANTS	Marweight Equipment Pty Ltd 96-100 Franklin st Adelaide	45991	1965	Premise Match	22m	South East
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Queens Bridge Motor & Engineering Co Pty Ltd 96-100 Franklin st Adelaide	6634	1965	Premise Match	22m	South East
	MOTORS & ACCESSORIES	Franklin Motors Ltd 96-100 Franklin st Adel	23709	1955	Premise Match	22m	South East
	MOTOR CAR & TRUCK IMPORTERS, DISTRIBUTORS & AGENTS	City Tractors Limited., 96-100 Franklin St.	13678	1950	Premise Match	22m	South East
	MOTOR CAR & TRUCK IMPORTERS, DISTRIBUTORS & AGENTS	City Tractors Limited., 96-100 Franklin St.	13703	1950	Premise Match	22m	South East
	TRACTOR IMPORTERS, DEALERS & SERVICEMEN	City Tractors Limited., 96-100 Franklin St.	18473	1950	Premise Match	22m	South East
	TRACTOR IMPORTERS, DEALERS & SERVICEMEN	City Tractors, Ltd., 96-100 Franklin St.	18486	1950	Premise Match	22m	South East
	Motor And Accessory Agents	Barbour, P., 96 Franklin st	6323	1940	Premise Match	22m	South East
	Storekeepers (General)	Henderson, Mrs Jas M, 96 Franklin st	14159	1910	Premise Match	22m	South East
13	SEWING MACHINE SALES & SERVICE	Singer Sewing Machine Co 25 Eliza st Adelaide	39921	1955	Premise Match	22m	East
	ARCHITECTS	Bardolph', K. E. J., 25 Eliza St.	391	1950	Premise Match	22m	East
	Motor And Accessory Agents	Rowe, A. P., & Sons , 25 Eliza st	6574	1940	Premise Match	22m	East
	Printers And Allied Trades	S.A. Worker (The), 25 Eliza st	10061	1940	Premise Match	22m	East
14	Stationers - Manufacturing & Wholesale	Hogbin, Clive (Sth Aust) Pty, Ltd, 119 Waymouth St,	23592	1984	Premise Match	23m	North East
	PUMPS (INDUSTRIAL AND IRRIGATION EQUIPMENT)	Mono Pumps (Aust) Pty Ltd 119 Waymouth st Adelaide	49834	1965	Premise Match	23m	North East
	REFRIGERATION & MAINTENANCE	McKeown J 119 Waymouth st Adelaide	39154	1955	Premise Match	23m	North East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
14	Motor And Accessory Agents	Shueard Motor House, 119 Waymouth st	6583	1940	Premise Match	23m	North East
	Merchants and Importers	Solomon, M, 119 Waymouth st	11542	1910	Premise Match	23m	North East
15	Motor Engine Reconditioners	Coulthard Welding Pty Ltd .21 Eliza St. Adelaide. 5000	26910	1991	Premise Match	24m	East
	Welders	Coulthard Welding Pty Ltd, 21 Eliza St, Adelaide, 5000	36262	1991	Premise Match	24m	East
	Welders	Coukhard Welding Pty Ltd, 21 Eliza St	25961	1984	Premise Match	24m	East
	WELDERS	Coulthard G G 21 Eliza st Adelaide	13838	1973	Premise Match	24m	East
	WELDERS	Coulthard G G 21 Eliza st Adelaide	13925	1965	Premise Match	24m	East
	Welders	Coulthard G G 21 Eliza st Adelaide	10112	1955	Premise Match	24m	East
	WELDERS-ELECTRIC AND OXY-ACETYLENE	Coulthard, G. G, 21 Eliza st	17007	1940	Premise Match	24m	East
	WELDERS-ELECTRIC AND OXY-ACETYLENE	Coulthard, G. G, 21 Eliza st	13667	1930	Premise Match	24m	East
16	Newspapers, Journals &/or Periodicals	Fairfax, John & Sons Ltd, 124 Franklin St, Adelaide, 5000	29302	1991	Premise Match	24m	South West
	Publishers	Fairfax, John & Sons Ltd., 124 Franklin St., Adelaide 5000.	31725	1991	Premise Match	24m	South West
	Associations, Societies &/Or Boards	Christian Life Movement Fountain House 124 Franklin St,	1089	1984	Premise Match	24m	South West
	Consuls &/Or Consulates	Consulate General of Greece Fountain House, 124 Franklin St,	6177	1984	Premise Match	24m	South West
	Associations, Societies &/Or Boards	Tertiary Young Christian Students, Fountain House, 124 Franklin St,	1211	1984	Premise Match	24m	South West
	Associations, Societies &/Or Boards	Young Christian Students, Fountain House, 124 Franklin St,	1228	1984	Premise Match	24m	South West
	Associations, Societies &/Or Boards	Young Christian Workers Movement, Fountain House, 124 Franklin St	1229	1984	Premise Match	24m	South West
	MERCHANTS, EXPORTERS, IMPORTERS AND WAREHOUSEMEN	Service Supplies Pty Ltd 124-126 Franklin st Adelaide	7748	1973	Premise Match	24m	South West
	Boardinghouse, Lodginghouse, And Apartment Keepers	Bridgland, A. J., 126 Frnkln st	10974	1940	Premise Match	24m	South West
	Boardinghouse, Lodginghouse, And Apartment Keepers	Monaghan, Miss I., 124 Franklin st	11402	1940	Premise Match	24m	South West
	Boardinghouse, Lodginghouse, And Apartment Keepers	Conlin M. G, 126 Franklin st	5465	1930	Premise Match	24m	South West
	Boardinghouse, Lodginghouse, And Apartment Keepers	Monaghan J. A, 124 Franklin st	5645	1930	Premise Match	24m	South West
	Grocers and Provision Dealers	Jenkins, T, 126 Franklin st	8874	1920	Premise Match	24m	South West
	Boardinghouse-keepers	Sutton, Mrs J. P, 124 Franklin st	1152	1910	Premise Match	24m	South West
17	Motor Painters &/or Panel Beaters	Eliza Street Crash Repairs. 15 Eliza St.,	18671	1984	Premise Match	24m	North East
	ENGINEERS (GENERAL MNFCTRNG. MECHANICAL)	Ramsay Bros Pty Ltd 15 Eliza st Adelaide	12913	1973	Premise Match	24m	North East
	ENGINEERS (Mechanical & General)	Ramsay Brothers Pty Ltd 15 Eliza st Adelaide	7556	1965	Premise Match	24m	North East
	ENGINEERS (Mechanical & General)	Ramsay Bros 15 Eliza st Adelaide	37112	1955	Premise Match	24m	North East
	ENGINEERS-GENERAL, MECHANICAL & MANUFACTURING	Ramsay Bros., 15 Eliza St.	6869	1950	Premise Match	24m	North East
	ENGINEERS-GENERAL, MECHANICAL & MANUFACTURING	Ramsay Bros., 15 Eliza St.	6754	1950	Premise Match	24m	North East
	SHEET METAL WORKERS	Ramsay Bros., 15 Eliza St.	17133	1950	Premise Match	24m	North East
	ENGINEERS (Mechanical) AND MACHINISTS	Ramsay Bros., 15 Eliza st	20606	1940	Premise Match	24m	North East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
17	Motor And Accessory Agents	Ramsay Bros., 15 Eliza st	6561	1940	Premise Match	24m	North East
	MOTOR AND ACCESSORY AGENTS, CYCLE MAKERS AND IMPORTERS	Ramsay, G. C, 15 Eliza st, off Wymouth st	1141	1930	Premise Match	24m	North East
	ENGINEERS (Mechanical) AND MACHINISTS	Ramsay, Geo C, 15 Eliza st, off Wymouth st	17210	1930	Premise Match	24m	North East
18	Bus Operators	Bus Australia, 101 Franklin St., Adelaide 5000.	39391	1991	Premise Match	30m	South
	Motor Bus Tours	Adelaide Bus Terminal 105 Franklin St,	17672	1984	Premise Match	30m	South
	Motor Bus Charter Services	Adelaide Bus Terminal, 105 Franklin St,	17651	1984	Premise Match	30m	South
	Motor Bus Tours	Ansett - Pioneer Travel Service, 101 Franklin St,	17673	1984	Premise Match	30m	South
	Air Service Booking Agents	Ansett Pioneer Travel Service, 101 Franklin St,	602	1984	Premise Match	30m	South
	Motor Bus Charter Services	Ansett-Pioneer Travel Service 101 Franklin St,	17653	1984	Premise Match	30m	South
	Motor Bus Services	Ansett-Pioneer Travel Service 101 Franklin St,	17664	1984	Premise Match	30m	South
	Travel &/Or Tourist Services	Ansett-Pioneer Travel Service, 101 Franklin St,	25378	1984	Premise Match	30m	South
	AIRWAYS SERVICES	Ansett Pioneer 101 Franklin st Adelaide	15288	1973	Premise Match	30m	South
	TAXIS, PRIVATE BUSES AND OTHER HIRE SERVICES	Ansett Pioneer 101 Franklin st Adelaide	1535	1973	Premise Match	30m	South
	MOTORS & ACCESSORIES	Ford Motor Co of Aust Ltd 101-107 Franklin st Adelaide	12116	1965	Premise Match	30m	South
	USED CAR DEALERS	Petney J R 101-107 Franklin st Adelaide	6892	1955	Premise Match	30m	South
	MOTOR AND ACCESSORY AGENTS, CYCLE MAKERS AND IMPORTERS	Drummonds Autos Ltd, 101-107 Franklin st	560	1930	Premise Match	30m	South
19	PLUMBERS	Gray W F & Co 111 Franklin st Adelaide	43098	1965	Premise Match	30m	South
	Boardinghouse-keepers	Dutton, Mrs C, 111 Franklin st	923	1910	Premise Match	30m	South
20	PLUMBERS	Gray W F & Co 115 Wymouth st Adelaide	35070	1955	Premise Match	30m	North East
	TAILORS, MERCERS & MEN'S WEAR	Kaderes C 117 Wymouth st Adelaide	2325	1955	Premise Match	30m	North East
	PLUMBERS	Gray, W. F., & Co., 115 Wymouth St.	15813	1950	Premise Match	30m	North East
	TAILORS-LADIES' & GENTS	Kaderes, C., 117 Wymouth St.	17771	1950	Premise Match	30m	North East
	PLUMBERS AND GASFITTERS	Gray, W. F, & Co, 115 Wymouth st	9566	1940	Premise Match	30m	North East
	PLUMBERS AND GASFITTERS	Gray, W. F, & Co, 115 Wymouth st	4669	1930	Premise Match	30m	North East
	Butchers	Chettle, W. J, 115 Wymouth st	2878	1910	Premise Match	30m	North East
21	Carriers &/or Cartage Contractors	Bus Freight, 111 Franklin St., Adelaide. 5000.	40025	1991	Premise Match	31m	South
	Bus Operators	Central Bus Station Pty. Ltd., 111 Franklin St., Adelaide 5000.	39392	1991	Premise Match	31m	South
	Bus Services - Charter & Tours	Greyhound Australia Pty. Ltd., 111 Franklin St., Adelaide. 5000	39416	1991	Premise Match	31m	South
	Bus Operators	Greyhound Australia Pty. Ltd., 111 Franklin St., Adelaide. 5000.	39394	1991	Premise Match	31m	South
	Bus Operators	Mount Gambier Motor Service Pty. Ltd., 111 Franklin St., Adelaide. 5000	39397	1991	Premise Match	31m	South
	Bus Operators	Murray Bridge Bus Lines, 111 Franklin St., Adelaide. 5000.	39398	1991	Premise Match	31m	South
	Bus Services - Charter & Tours	Premier Roadlines Pty. Ltd., 111 Franklin St., Adelaide. 5000.	39419	1991	Premise Match	31m	South
	Bus Operators	Stateliner Pty. Ltd., 111 Franklin St., Adelaide. 5000	39400	1991	Premise Match	31m	South

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
21	Bus Services - Charter & Tours	Stateliner Pty. Ltd., 111 Franklin St., Adelaide. 5000.	39420	1991	Premise Match	31m	South
	Motor Bus Services	Central Bus Station Pty Ltd, 111 Franklin St,	17667	1984	Premise Match	31m	South
	Motor Bus Services	Greyhounds Coaches Pty Ltd 111 Franklin St,	17668	1984	Premise Match	31m	South
	Motor Bus Charter Services	Greyhounds Coaches Pty Ltd, 111 Franklin St,	17657	1984	Premise Match	31m	South
	Motor Bus Services	Mount Gambier Motor Service Pty Ltd, 111 Franklin St	17669	1984	Premise Match	31m	South
	Motor Bus Charter Services	Premier Roadknet Pty Ltd 111 Franklin St,	17658	1984	Premise Match	31m	South
	Motor Bus Charter Services	Stateliner Pty Ltd 111 Franklin St,	17659	1984	Premise Match	31m	South
	Motor Bus Services	Stateliner Pty Ltd 111 Franklin St,	17670	1984	Premise Match	31m	South
	Motor Bus Charter Services	Yorke Peninsula Bus Lines 111 Franklin St,	17660	1984	Premise Match	31m	South
	Motor Bus Services	Yorke Peninsula Bus Lines 111 Franklin St,	17671	1984	Premise Match	31m	South
22	Printers - General	Bridge Printing Office, 130 Franklin St., Adelaide. 5000.	31218	1991	Premise Match	32m	South West
	Newspapers, Journals &/or Periodicals	Country Press Association of SA Inc, 130 Franklin St, Adelaide, 5000	29301	1991	Premise Match	32m	South West
	Advertising Agencies	SA Country Newspapers Ltd, 130 Franklin St, Adelaide 5000	36904	1991	Premise Match	32m	South West
	Newspapers, Journals &/or Periodicals	South Australian Newspapers, 130 Franklin St, Adelaide, 5000	29311	1991	Premise Match	32m	South West
	Newspapers, Journals &/or Periodicals	Venture Publications, 130 Franklin St, Adelaide, 5000	29312	1991	Premise Match	32m	South West
	Newspapers, Journals &/or Periodicals	Country Newspapers (S.A.) Ltd., 130 Franklin St.,	19402	1984	Premise Match	32m	South West
	LAND AGENTS	Saville W Pty Ltd 130 Franklin st Adelaide	37614	1973	Premise Match	32m	South West
	LAND BROKERS	Saville William Pty Ltd 130 Franklin st Adel	38387	1973	Premise Match	32m	South West
	FINANCIERS	Sullivans Ltd 130 Franklin st Adelaide	14721	1973	Premise Match	32m	South West
	FINANCIERS	Sullivans Ltd 130 Franklin st Adelaide	11554	1965	Premise Match	32m	South West
	Dry Cleaners, Dyers & Laundries	Tip Top Dry Cleaners 130 Franklin st Adel	50066	1965	Premise Match	32m	South West
	Land Brokers & Estate Agents	William Saville Pty Ltd 130 Franklin st Adel	45036	1965	Premise Match	32m	South West
	BRICKMAKERS	Littlehampton Brick Co Ltd 130 Franklin st Adelaide	4754	1955	Premise Match	32m	South West
	PRINTERS & ALLIED TRADES	Provincial Press Co-op Co of S A Ltd 130 Franklin st Adelaide	38337	1955	Premise Match	32m	South West
	Boardinghouse, Lodginghouse, And Apartment Keepers	Reid, Miss, 130 Franklin st	11436	1940	Premise Match	32m	South West
Boardinghouse, Lodginghouse, And Apartment Keepers	Reid, Miss R, 130 Franklin st	5689	1930	Premise Match	32m	South West	
23	MOTOR CARS, TRUCKS & ACCESSORIES	O'Donnell Bros Ltd 91-97 Franklin st Adelaide	11864	1973	Premise Match	37m	South East
	WELDERS	Oxy Welding Co 85 Franklin st Adelaide	15019	1973	Premise Match	37m	South East
	TELEVISION EQUIPMENT	Television Engineering Pty Ltd 90 Grote st Adelaide	3034	1973	Premise Match	37m	South East
	CERAMIC AND GLASS TILERS	Turner J W 85 Franklin st Adelaide	37993	1973	Premise Match	37m	South East
	TELEVISION EQUIPMENT	EIL Service Pty Ltd 90 Grote st Adelaide	2011	1965	Premise Match	37m	South East
	CLOTHING MANUFACTURERS	Haddad H Ltd 84 Grote st Adelaide	35269	1965	Premise Match	37m	South East
	MOTORS & ACCESSORIES	O'Donnell Bros Ltd 91-97 Franklin st Adelaide	13291	1965	Premise Match	37m	South East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
23	WELDERS	Oxy Welding Co 85 Franklin st Adelaide	18166	1965	Premise Match	37m	South East
	TELEVISION EQUIPMENT	Television Engineering Pty Ltd 90 Grote st Adelaide	2035	1965	Premise Match	37m	South East
	PLUMBERS	Turner J W 85 Franklin st Adelaide	45295	1965	Premise Match	37m	South East
	Electrical Appliances	Electronic Industries 90 Grote st Adelaide	29468	1955	Premise Match	37m	South East
	CLOTHING MANUFACTURERS	Haddad Clothing Manufacturing Co 84 Grote st Adelaide	23826	1955	Premise Match	37m	South East
	BOOTMAKERS, REPAIRERS & FOOTWEAR STORES	Jonson M & Co 99 Franklin st Adelaide	3493	1955	Premise Match	37m	South East
	MOTORS & ACCESSORIES	O'Donnell Bros Ltd 91-97 Franklin st Adelaide	23801	1955	Premise Match	37m	South East
	Welders	Oxy Welding Co 85 Franklin st Adelaide	8696	1955	Premise Match	37m	South East
	REFRIGERATOR MAKERS & MERCHANTS	Servex (SA) Ltd 90 Grote st Adelaide	39197	1955	Premise Match	37m	South East
	Plumbers	Turner J W 85 Franklin st Adelaide	36553	1955	Premise Match	37m	South East
	MOTOR ELECTRICAL ENGINEERS	Donnell Bros., 91-97 Franklin St.	13839	1950	Premise Match	37m	South East
	MOTOR TRAILER BUILDERS	Donnell Bros., 91-97 Franklin St.	14395	1950	Premise Match	37m	South East
	BOOTMAKERS-SURGICAL	Jonson, M., & Co., 99 Franklin St.	1836	1950	Premise Match	37m	South East
	BOOT & SHOE RETAILERS	Jonson, M., & Co., 99 Franklin St. .	1798	1950	Premise Match	37m	South East
	RADIO DEALERS & SERVICEMEN	National Radio Corporation Ltd., 9Q Grote St.	16318	1950	Premise Match	37m	South East
	MOTOR TRAILER & CARVAN BUILDERS SUPPLIES	O'donnell Bros. Ltd., 91-97 Franklin St.	14377	1950	Premise Match	37m	South East
	HOME LIGHTING PLANTS	O'Donnell Bros., 91-97 Franklin St.	9953	1950	Premise Match	37m	South East
	MOTOR ACCESSORIES & SPARE PARTS-RETAIL	O'Donnell Bros., 91-97 Franklin St.	13445	1950	Premise Match	37m	South East
	WELDERS-ELECTRIC & OXY-ACETYLENE	Oxy Welding Co., 85 Franklin St.	18934	1950	Premise Match	37m	South East
	PLUMBERS	Turner, J. W., 85 Franklin St.	15923	1950	Premise Match	37m	South East
	Radio Merchants And Dealers	A.Z. Radio Pty Ltd, 90 Grte st	10192	1940	Premise Match	37m	South East
	TOBACCO AND CIGAR MANUFACTURERS	Burley Tobacco Coy., 86 Grote st	14987	1940	Premise Match	37m	South East
	Bootmakers And Boot Shops	Jonson, M. & Co, 99 Franklin street	12606	1940	Premise Match	37m	South East
	Motor And Accessory Agents	O'Donnell Bros. Ltd., 91-97 Franklin st	6541	1940	Premise Match	37m	South East
	Plumbers And Gasfitters	Turner, J. W., 85 Franklin st	9240	1940	Premise Match	37m	South East
	CAFES AND RESTAURANTS	Wilson, H., 88 Grote st	16216	1940	Premise Match	37m	South East
	Builders, Carpenters and Masons	Dick G. F, 89 Franklin st	7817	1930	Premise Match	37m	South East
	ELECTRICAL ENGINEERS, ELECTRICIANS, AND ELECTRIC LIGHT CONTRACTORS	ELLIS & CLARK LTD., 93-97 Franklin Street	16993	1930	Premise Match	37m	South East
	ENGINEERS (Mechanical) AND MACHINISTS	ELLIS & CLARK LTD., 93-97 Franklin Street	17133	1930	Premise Match	37m	South East
	Brassfounders (Proprietors only)	Ellis & Clark, 95, 97 Franklin street	7649	1930	Premise Match	37m	South East
	WELDERS-ELECTRIC AND OXY-ACETYLENE	ELLIS & CLARK, LTD., 93-97 Franklin Street, Adelaide	13670	1930	Premise Match	37m	South East
	MERCHANTS, IMPORTERS, AND WAREHOUSEMEN	Goode Durrant & Co Ltd, 84 Grote st	23744	1930	Premise Match	37m	South East
Tailors, Clothiers and Mercers	Goode, Durrant & Co. 84 Grote St	11533	1930	Premise Match	37m	South East	

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
23	MIXED BUSINESSES	Maley, H. H, 89 Franklin st	106	1930	Premise Match	37m	South East
	MERCHANTS, IMPORTERS, AND WAREHOUSEMEN	Rose, G. W, Son, & Co, 99 Franklin st	23900	1930	Premise Match	37m	South East
	Merchants, Importers and Warehousemen	Clisby, H. L, 90 Grote st	12450	1920	Premise Match	37m	South East
	Tailors, Clothiers and Mercers	Clisby, H. L, 90 Grote st	17609	1920	Premise Match	37m	South East
	Brassfounders (Proprietors only)	ELLIS & CLARK, 95, 97 Franklin-street, Adelaide	2128	1920	Premise Match	37m	South East
	Electrical Engineers	ELLIS & CLARK, 95-97 Franklin Street	7191	1920	Premise Match	37m	South East
	ENGINEERS (Mechanical) AND MACHINISTS	ELLIS & CLARK, 95-97 Franklin Street	7289	1920	Premise Match	37m	South East
	Electric Light Contractors	ELLIS & CLARK, 95-97 Franklin Street.	7176	1920	Premise Match	37m	South East
	Marine Gardeners and Horticulturists (Proprietors only)	Ellis & Clark, 95-97, Franklin St., Adelaide	12030	1920	Premise Match	37m	South East
	Billiard Saloons	ELLIS & CLARK,95-97 FRANKLIN ST., ADELAIDE	19563	1920	Premise Match	37m	South East
	Electricians	ELLIS and CLARK, 95-97 Franklin Street	7220	1920	Premise Match	37m	South East
	Electroplaters	ELLIS and CLARK, 95-97 Franklin Street	7236	1920	Premise Match	37m	South East
	Storekeepers (General)	Maley, H. H, 91 Franklin st	16288	1920	Premise Match	37m	South East
	Boardinghouse-keepers	Pasquill, Mrs Mary, 85 Franklin-st	1293	1920	Premise Match	37m	South East
	Grocers and Provision Dealers	Maskell, A. W, 99 Franklin st	8229	1910	Premise Match	37m	South East
	Boardinghouse-keepers	McMahon, Mrs M, 85 Franklin st	1045	1910	Premise Match	37m	South East
24	Taxation Consultants &/or Specialists	H. & R. BLOCK INC., 128 Franklin Street, Adelaide. 5000	34734	1991	Premise Match	39m	South West
	Insurance Brokers	Stevens, David & Associates Pty. Ltd., 128 Franklin St.,	15647	1984	Premise Match	39m	South West
	Insurance Brokers	Trans Commercial Insurances Pty. Ltd., 128 Franklin St.,	15649	1984	Premise Match	39m	South West
	INSURANCE BROKERS	Embank Insurance Brokers P/L 128 Franklin st Adelaide	34538	1973	Premise Match	39m	South West
	PRINTERS & ALLIED TRADES	Berwen-Paine Advertising 128 Franklin st Adel	46273	1965	Premise Match	39m	South West
	ELECTRICAL APPLIANCES	Electrical Supply & Service Co 128 Franklin st Adelaide	51033	1965	Premise Match	39m	South West
	PRINTERS & ALLIED TRADES	Berwen-Paine Advertising 128 Franklin st Adel	37571	1955	Premise Match	39m	South West
	GUEST HOUSES, BOARDING HOUSES, ETC.	McEntree, Mrs. A., 128 Franklin St,	9248	1950	Premise Match	39m	South West
	Boardinghouse, Lodginghouse, And Apartment Keepers	Ball, Mrs. J., 128 Franklin st	10959	1940	Premise Match	39m	South West
	Boardinghouse, Lodginghouse, And Apartment Keepers	Lewis, Mrs G. H, 128 Franklin street	5594	1930	Premise Match	39m	South West
25	Accountants & Auditors	Doyle J M, 176 Morphett St,	85	1984	Premise Match	43m	West
	Accountants & Auditors	Wellington C & Associations, 176 Morphett St	222	1984	Premise Match	43m	West
	WINE & SPIRIT MERCHANTS	Cleland G F & Sons P/L 176 Morphett st Adel	17020	1973	Premise Match	43m	West
	WINE & SPIRIT MERCHANTS	CLELAND, G. F. & SONS PTY.LTD.176-186 Morphett Street, Adelaide 5000.	17019	1973	Premise Match	43m	West
	PRODUCE MERCHANTS	Crystal Brook Producers Ltd 176-180 Morphett st Adelaide	34071	1973	Premise Match	43m	West
	PLASTERERS	Gommers R 186 Morphett st Adelaide	30807	1973	Premise Match	43m	West
	ELECTRICAL APPLIANCES	Centralesco Electric Supply & Service Corp (Aust) Pty Ltd 182-186 Morphett st Adelaide	51013	1965	Premise Match	43m	West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
25	ELECTRICAL APPLIANCES	Centralessco Electric Supply & Service Co 182-186 Morphett st Adelaide	51014	1965	Premise Match	43m	West
	PRODUCE MERCHANTS	Crystal Brook Producers Ltd 176-180 Morphett st Adelaide	49646	1965	Premise Match	43m	West
	BOARDINGHOUSES, GUEST HOMES, APARTMENTS & FLATS	Gommers Mrs E M 186 Morphett st Adelaide	38371	1965	Premise Match	43m	West
	PLASTERERS	Gomrnrs R 186 Morphett st Adelaide	38742	1965	Premise Match	43m	West
	SALT REFINERS & EXPORTERS	Pacific Salt Co 176-100 Morphett st Adelaide	51870	1965	Premise Match	43m	West
	PRODUCE MERCHANTS	Crystal Brook Producers Ltd 176-180 Mcrphett st Adelaide	38351	1955	Premise Match	43m	West
	BOARDINGHOUSES, GUEST HOMES, APARTMENTS & FLATS	Gommers Mrs E M 186 Morphett st Adelaide	382	1955	Premise Match	43m	West
	PLASTERERS	Gommers R 186 Morphett st Adelaide	33413	1955	Premise Match	43m	West
	PRODUCE MERCHANTS	HALL A. E. & CO. LTD 176 Morphett Street Adelaide	38357	1955	Premise Match	43m	West
	PRODUCE MERCHANTS	Hall A E & Co Ltd 176-180 Morphett st Adelaide	38358	1955	Premise Match	43m	West
	SALT REFINERS & EXPORTERS	Pacific Salt Co 176-180 Morphett st Adelaide	39855	1955	Premise Match	43m	West
	POULTRY AUCTIONEERS	Hall, A. E., & Co. Limited., 176 Morphett St.	16006	1950	Premise Match	43m	West
	WASHING MACHINE SALES & SERVICE	Kallin, Sven, Motor Co., 176 Morphett St.	18872	1950	Premise Match	43m	West
	Boardinghouse, Lodginghouse, And Apartment Keepers	Kennedy, Mrs. J., 182-186 Morphett st	11086	1940	Premise Match	43m	West
	Boardinghouse, Lodginghouse, And Apartment Keepers	Lucas, Mrs. L., 186 Morphett st	11372	1940	Premise Match	43m	West
	Boardinghouse, Lodginghouse, And Apartment Keepers	Schack, Mrs. P. A., 184 Morphett st	11454	1940	Premise Match	43m	West
26	Health Centres &/or Clinics	McNallys Health Studios, 149 Wymouth St.,	14562	1984	Premise Match	43m	North West
	PUBLISHERS	Meat Industry Digest 147-151 Wymouth st Adelaide	34674	1973	Premise Match	43m	North West
	HARDWARE MERCHANTS & IRONMONGERS	Wymouth Hardware & Electrical Store 147-151 Wymouth st Adelaide	32964	1973	Premise Match	43m	North West
	WOOL SCOURERS	Wool Scourers SA Pty Ltd 147-149 Wymouth st Adelaide	18258	1973	Premise Match	43m	North West
	Tanners, Curriers and Fellmongers	Fellmongers (SA) Co 149 Wymouth st Adelaide	59456	1965	Premise Match	43m	North West
	BUTCHERS	Master Butchers Ltd 147 Wymouth st Adelaide	921	1965	Premise Match	43m	North West
	REFRIGERATOR MAKERS & MERCHANTS	Master Refrigeration Co 147 Wymouth st Adel	51731	1965	Premise Match	43m	North West
	PUBLISHERS	Meat Industry Digest 147-151 Wymouth st Adelaide	49787	1965	Premise Match	43m	North West
	WOOL SCOURERS	Wool Scourers SA Pty Ltd 147-149 Wymouth st Adelaide	21018	1965	Premise Match	43m	North West
	WOOL SCOURERS	Wool Scourers SA Ltd 147-149 Wymouth st Adelaide	11087	1955	Premise Match	43m	North West
	MERCHANTS-GENERAL	ister Butchers Ltd., 147-149 Wymouth St.	12230	1950	Premise Match	43m	North West
	ASSOCIATIONS, SOCIETIES & BOARDS	Master Butchers Ltd., 147-149 Wymouth St.	618	1950	Premise Match	43m	North West
	AUCTIONEERS	Master Butchers Ltd., 147-149 Wymouth St.	723	1950	Premise Match	43m	North West
	BUTCHERS' SUPPIIES	Master Butchers Ltd., 147-149 Wymouth St.	2959	1950	Premise Match	43m	North West
	EXSORTERS	Master Butchers Ltd., 147-149 Wymouth St.	7141	1950	Premise Match	43m	North West
	HARDWARE-RETAIL	Master Butchers Ltd., 147-149 Wymouth St.	9779	1950	Premise Match	43m	North West

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
26	IMPORTERS	Master Butchers Ltd., 147-149 Waymouth St.	10621	1950	Premise Match	43m	North West
	TALLOW REFINERS & MERCHANTS	Master Butchers Ltd., 147-149 Waymouth St.	17840	1950	Premise Match	43m	North West
	SMELTERS & REFINERS	Master Butchers Ltd., 147-149 Woymouth St	17373	1950	Premise Match	43m	North West
	ASSOCIATIONS, SOCIETIES & BOARDS	Meat and Allied Trades Federation of Australia (S.A. Division), 147-149 Waymouth St.	620	1950	Premise Match	43m	North West
	BUTCHERS	Master Butchers Ltd, 149 Waymouth st	14668	1940	Premise Match	43m	North West
	AUCTIONEERS	Master Butchers Ltd., 149 Waymouth st	8838	1940	Premise Match	43m	North West
	HIDE AND SKIN STORES	Master Butchers Ltd., 149 Waymouth st	2285	1940	Premise Match	43m	North West
	MERCHANTS, IMPORTERS, AND WAREHOUSEMEN	Master Butchers Ltd., 149 Waymouth st.	5346	1940	Premise Match	43m	North West
	Wool Brokers (Selling)	Master Butchers, Ltd , 149 Waymouth st	17477	1940	Premise Match	43m	North West
	Butchers	Master Butchers Ltd, 149 Waymouth st	10791	1930	Premise Match	43m	North West
	Wool Brokers (Selling)	Master Butchers, Ltd, 149 Waymouth st	13890	1930	Premise Match	43m	North West
	Coach and Carriage Builders	Austral Carriage Woodware Co , 151 Waymouth st	4576	1920	Premise Match	43m	North West
	27	PRINTERS & ALLIED TRADES	Specialty Printers Ltd 172-174 Morphett st Adelaide	48290	1965	Premise Match	43m
MERCHANTS, IMPORTERS & WAREHOUSEMEN		Master Butchers Ltd 172-174 Morphett st Ad	16352	1955	Premise Match	43m	North West
PAPER BAG MANUFACTURERS		GABB, CHAS R, and CO, 172-174 Morphett Street, Adelaide.	8992	1940	Premise Match	43m	North West
PAPER MERCHANTS		GABB, CHAS. R., and CO, 172-174 Morphett Street, Adelaide,	9003	1940	Premise Match	43m	North West
28	MOTOR AND ACCESSORY AGENTS, CYCLE MAKERS AND IMPORTERS	REO MOTOR SALES LTD, Corner Franklin and Eliza Streets, Adelaide.	1150	1930	Road Intersection	46m	South East
29	Welders	Juncken, Trevor Engineering, 16 Eliza St, Adelaide, 5000	36293	1991	Premise Match	48m	North East
	Motor Engine Reconditioners	TREVOR JUNCKEN ENGINEERING 16 Eliza Street, Adelaide. 5000	26884	1991	Premise Match	48m	North East
30	Electroplaters	Langechrome, 14 Eliza St, Adelaide 5000	19885	1991	Premise Match	48m	North East
	Metal Polishers &/or Grinders	Langechrome, 14 Eliza St, Adelaide, 5000	25836	1991	Premise Match	48m	North East
	Chrome Platers	Lange. R. & Son. 12 Eliza St.	5074	1984	Premise Match	48m	North East
	Motor Painters &/or Panel Beaters	Lange. R. & Son. 12 Eliza St.,	18722	1984	Premise Match	48m	North East
	Electroplaters	Lange. R. & Son. 12 Eliza St..	10316	1984	Premise Match	48m	North East
	CRASH REPAIRS	Lange R & Son 10-18 Eliza st Adelaide	2749	1973	Premise Match	48m	North East
	ELECTROPLATERS	Lange R & Son 10-18 Eliza st Adelaide	11193	1973	Premise Match	48m	North East
	MOTOR REPAIRS	Lange R & Sons 10-18 Eliza st Adelaide	18659	1973	Premise Match	48m	North East
	ENGINEERS (GENERAL MNFCTRNG. MECHANICAL)	Saphor Trading Co 14 Eliza st Adelaide	13466	1973	Premise Match	48m	North East
	ELECTROPLATERS	Lange R & Sons 12-14 Eliza st Adelaide	57200	1965	Premise Match	48m	North East
	BRASSFOUNDERS	Wheatley & Williams Ltd 12-14 Eliza st Adel	43272	1965	Premise Match	48m	North East
	BRASSFOUNDERS	Wheatley & Williams 12-14 Eliza st Adelaide	4149	1955	Premise Match	48m	North East
	31	Motor Panel Beaters &/or Spray Painters	Scott, Jim Motor Body Repairs, 12 Eliza St, Adelaide, 5000	28339	1991	Premise Match	48m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
31	USED CAR DEALERS	Rowe A H 10 Eliza st Adelaide	6904	1955	Premise Match	48m	North East
32	Hotel &/or Motel Brokers	Coding. C. & Co Pty. Ltd., 19 Young St.,	15017	1984	Premise Match	48m	East
	Auctioneers - Real Estate	Codling C & Co Pty Ltd, 19 Young St	1275	1984	Premise Match	48m	East
	Valuers - General	Codling C & Co Pty Ltd, 19 Young St,	25620	1984	Premise Match	48m	East
	Real Estate Agents	Codling. C. & Co. Pty. Ltd., 19 Young St.,	21613	1984	Premise Match	48m	East
	Barristers &/or Solicitors	Jervis Smith & Co, 19 Young St	1755	1984	Premise Match	48m	East
	TIMBER MERCHANTS	Sapior Tiimber Mills Ltd 19-21 Young st Adel	3841	1973	Premise Match	48m	East
	TIMBER MERCHANTS	South Eastern Timber Co Ltd 19-21 Young st Adelaide	3848	1973	Premise Match	48m	East
	TIMBER MERCHANTS	Saplor Timber Mills Ltd 19-21 Young st Adel	3090	1965	Premise Match	48m	East
	TIMBER MERCHANTS	South Eastern Timber Co Ltd 19-21 Young st Adelaide	3099	1965	Premise Match	48m	East
	TIMBER MERCHANTS	Sapfor Timber Mills Ltd 19-21 Young st Adel	4538	1955	Premise Match	48m	East
	TIMBER MERCHANTS	South Eastern Timber Co Ltd 19-21 Young st Adelaide	4544	1955	Premise Match	48m	East
	MOTOR CAR & TRUCK DEALERS-USED	City Car Exchange., 19 Young St.	13599	1950	Premise Match	48m	East
	Motor And Accessory Agents	City Car Wreckers Co, 23 Young street	6363	1940	Premise Match	48m	East
	MOTOR AND ACCESSORY AGENTS, CYCLE MAKERS AND IMPORTERS	Exchange Motors, 23 Young st	584	1930	Premise Match	48m	East
	MOTOR AND ACCESSORY AGENTS, CYCLE MAKERS AND IMPORTERS	O'Neill, P., 19 Young st, off waymouth st	1101	1930	Premise Match	48m	East
	JAM AND CONDIMENT MANUFACTURERS	Swallow & Ariell Ltd, 19 Young st, off Waymouth st	20931	1930	Premise Match	48m	East
	Motor and Cycle Makers, Importers and Agents	Anders & Wilson, 19 Young st	12975	1920	Premise Match	48m	East
Dressmakers and Milliners	Coombs, Mrs E. B, 19 Young st, K.T.	6683	1920	Premise Match	48m	East	
33	Hotels - Licensed	Hotel Franklin, 92 Franklin St.,	15142	1984	Premise Match	48m	South East
	HOTELS	Hotel Franklin 92 Franklin st Adelaide	33702	1973	Premise Match	48m	South East
	ADVERTISING MEDIA REPRESENTATIVES	Commercial Publications of South Australia 88 Franklin st Adelaide	24275	1965	Premise Match	48m	South East
	HOTELS	Hotel Franklin 92 Franklin st Adelaide	13708	1955	Premise Match	48m	South East
	HOTELS-LICENSED	Hotel Franklin (Harold Mulcahy, Manager)., 90 Franklin St.	10139	1950	Premise Match	48m	South East
	HOTEL-LICENSED	Mel Franklin (Harold Mulcahy, Mgr.), 90 Franklin St.	10250	1950	Premise Match	48m	South East
	Billiard Saloons	Bristol Billiard Saloon, 88-90 Franklin st	3581	1930	Premise Match	48m	South East
	HOTELS	Bristol-Mrs. A. DeLany, 92 Franklin st	20687	1930	Premise Match	48m	South East
	Hotels and Public Houses	Bristol; Hall, Edwin, 92 Franklin st	9684	1920	Premise Match	48m	South East
34	Barristers &/or Solicitors	Noswerthy ID, 29 Young St,	1887	1984	Premise Match	48m	East
	Barristers &/or Solicitors	Ross McCarthy & Nosworthy, 29 Young St	1949	1984	Premise Match	48m	East
	Buildings	Young Street Chambers, 29 Young St.,	3230	1984	Premise Match	48m	East
	MERCHANTS, EXPORTERS, IMPORTERS AND WAREHOUSEMEN	Gollin & Company Ltd 29 Young st Adelaide	7057	1973	Premise Match	48m	East
	PHOTOGRAPHIC SUPPLIES	Gollin Graphics 29 Young st Adelaide	29149	1973	Premise Match	48m	East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
34	ENVELOPE & STATIONERY MANUFACTURERS	Spicers (Aust) Pty Ltd 29 Young st Adelaide	10442	1965	Premise Match	48m	East
	PAPER RULERS	Spicers (Australia) Ltd 29 Young st Adelaide	27653	1965	Premise Match	48m	East
	ENVELOPE & STATIONERY MANUFACTURERS	SPICERS (AUSTRALIA) PTY. LIMITED 29 Young Street, Adelaide	10443	1965	Premise Match	48m	East
	PAPER MERCHANTS & PAPER PROCESSERS	SPICERS (Australia) PTY. LIMITED 29 Young Street, Adelaide.	27644	1965	Premise Match	48m	East
	PAPER BAG MANUFACTURERS	SPICERS (Australia) PTY. LTD 29 Young Street, Adelaide.	27621	1965	Premise Match	48m	East
	STATIONERS (Wholesale)	Spicers (Aust) Ltd 29 Young st Adelaide	634	1955	Premise Match	48m	East
	PAPER RULERS	Spicers (Australia) Ltd 29 Young st Adelaide	29076	1955	Premise Match	48m	East
	OFFICE APPLIANCES & SUPPLIES	SPICERS (Australia) LTD. 29 Young Street.	24739	1955	Premise Match	48m	East
	ACCOUNT BOOK MANUFACTURERS	SPicers (Australia) Ltd., 29 Young St.	177	1950	Premise Match	48m	East
	BOOKBINDERS & PAPER RULERS	SPicers (Australia) Ltd., 29 Young St.	1504	1950	Premise Match	48m	East
	BOOKSELLERS-WHOLESALE	SPicers (Australia) Ltd., 29 Young St.	1582	1950	Premise Match	48m	East
	OFFICE SUPPLIES & EQUIPMENT	Spicers (Australia) Ltd., 29 Young St.	14852	1950	Premise Match	48m	East
	OFFICE SUPPLIES & EQUIPMENT	Spicers (Australia) Ltd., 29 Young St.	14833	1950	Premise Match	48m	East
	PAPER BAG MANUFACTURERS & WHOLESALERS	Spicers (Australia) Ltd., 29 Young St.	15245	1950	Premise Match	48m	East
	PAPER BAG MANUFACTURERS & WHOLESALERS	Spicers (Australia) Ltd., 29 Young St.	15250	1950	Premise Match	48m	East
	STATIONERS-MANUFACTURING & WHOLESALE.	Spicers (Australia) Ltd., 29 Young St.	17516	1950	Premise Match	48m	East
	STATIONERS-MANUFACTURING & WHOLESALE.	Spicers (Australia) Ltd., 29 Young St.	17498	1950	Premise Match	48m	East
	WAXED PAPER MERCHANTS	Spicers (Australia) Ltd., 29 Young St.	18892	1950	Premise Match	48m	East
	PAPER MERCHANTS	Spicers (Australia) Ltd., 29 Young St. '	15269	1950	Premise Match	48m	East
	PAPER MERCHANTS	Spicers (Australia) Ltd., 29 Young St.,	15258	1950	Premise Match	48m	East
	CELLULOSE PACKAGING & WRAPPINGS	SPicers (Australia) Ltd., 29 Young St.	3693	1950	Premise Match	48m	East
	BOOK-BINDERS AND PAPER RULERS	Spicers & Detmold Ltd, 29 Young st, off Waymouth st	11537	1940	Premise Match	48m	East
	BOOKSELLERS, STATIONERS, AND NEWSAGENTS	Spicers & Detmold Ltd, 29 Young st, off Waymouth st	12052	1940	Premise Match	48m	East
	Boardinghouse, Lodginghouse, And Apartment Keepers	Clarke Miss E. L, 27-29 Young st, Kent Town	5196	1930	Premise Match	48m	East
	BOOK-BINDERS AND PAPER RULERS	Spicers & Detmold Ltd, 29 Young st, off Waymouth st	6070	1930	Premise Match	48m	East
	BOOKSELLERS, STATIONERS, AND NEWSAGENTS	Spicers & Detmold Ltd, 29 Young st, off Waymouth st	6134	1930	Premise Match	48m	East
35	Hotels - Licensed	Waymouth Tavern. 109 Waymouth St.	15267	1984	Premise Match	48m	North East
	HOTELS	Lord Raglan 107-111 Waymouth st Adelaide	40967	1965	Premise Match	48m	North East
	HOTELS	Lord Raglan 107-111 Waymouth st Adelaide	13766	1955	Premise Match	48m	North East
	HOTEL-LICENSED	Lord Raglan Hotel., 111 Waymouth St.	10273	1950	Premise Match	48m	North East
	HOTELS	Lord Raglan-H. N. Bailey, 109-111 Waymouth st	2804	1940	Premise Match	48m	North East
	CONFECTIONERS (Retail), AND COOL DRINKS	Panos, P., 107 Waymouth st	18217	1940	Premise Match	48m	North East

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
35	HOTELS	Lord Raglan-H. N. Bailey, 109-111 Waymouth st	20334	1930	Premise Match	48m	North East
	CONFECTIONERS (Retail), AND COOL DRINKS	Panos, Peter, 107 Waymouth st	14427	1930	Premise Match	48m	North East
	Greengrocers and Fruiterers	Panos, Peter, 107 Waymouth st	18656	1930	Premise Match	48m	North East
	Hotels and Public Houses	Lord Raglan; Mildren, Mrs M. A, 111 Weymouth st	9954	1920	Premise Match	48m	North East
	Hairdressers	Sturtzel, A. W, 109 Weymouth st	9307	1920	Premise Match	48m	North East
	Hotels and Public Houses	Lord Raglan ; Jennings, Mrs F, 111 Waymouth st	9010	1910	Premise Match	48m	North East
	Coachpainters & Coachtrimmers	Stewart Jno, 109 Waymouth st	4587	1910	Premise Match	48m	North East
36	BOARDINGHOUSES, GUEST HOMES, APARTMENTS & FLATS	Gauci S 127 Franklin st Adelaide	38361	1965	Premise Match	49m	South West
	BOARDINGHOUSES, GUEST HOMES, APARTMENTS & FLATS	Old Miss M 127 Franklin st Adelaide	39284	1965	Premise Match	49m	South West
	BOARDINGHOUSES, GUEST HOMES, APARTMENTS & FLATS	Old Miss M 127 Franklin st Adelaide	516	1955	Premise Match	49m	South West
	Boardinghouse-keepers	Old, Mrs A, 127 Franklin-st	1286	1920	Premise Match	49m	South West
	Boardinghouse-keepers	Old, Mrs A, 127 Franklin st	1076	1910	Premise Match	49m	South West

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Business Directory Records 1910-1991 Road or Area Matches

Universal Business Directory and Sands & McDougall Directory records, from years 1991, 1984, 1973, 1965, 1955, 1950, 1940, 1930, 1920 & 1910, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published:

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
37	REFRIGERATION SERVICE & MAINTENANCE	Allan's Limited Cannon st Adelaide	35448	1973	Road Match	1m
	PHOTOGRAPHERS (Commercial)	Colorcraft Studios Cannon st Adelaide	28463	1973	Road Match	1m
	TAXIS, PRIVATE BUSES AND OTHER HIRE SERVICES	Du Rieu H H Cannon st Adelaide	2160	1973	Road Match	1m
	REFRIGERATION SERVICE & MAINTENANCE	Allan's Limited Cannon st Adelaide	50829	1965	Road Match	1m
	PHOTOGRAPHERS (Commercial)	Colorcraft Studios Cannon st Adelaide	28609	1965	Road Match	1m
	TAXIS, PRIVATE BUSES AND OTHER HIRE SERVICES	Du Rieu H H Cannon st Adelaide	59632	1965	Road Match	1m
	BOOTMAKERS, REPAIRERS & FOOTWEAR STORES	Alma Shoes Ltd Cannon st Adelaide	2671	1955	Road Match	1m
	SIGN WRITERS	Battle C E Cannon st Adelaide	40046	1955	Road Match	1m
	PHOTOGRAPHERS (Commercial)	Colorcraft Studios Cannon st Adelaide	29103	1955	Road Match	1m
	BOOTMAKERS, REPAIRERS & FOOTWEAR STORES	Enterprise Shoe Co Ltd Cannon st Adel	2840	1955	Road Match	1m
	Bootmakers And Boot Shops	Enterprise Shoe Co Ltd, Cannon st, off Waymouth St	12511	1940	Road Match	1m
	ENGINEERS (Mechanical) AND MACHINISTS	Hogan, H. C., Cannon st	20568	1940	Road Match	1m
	TANNERS, CURRIERS, AND FELLMONGERS.	Peacock & Co. Ltd., Cannon st	14867	1940	Road Match	1m
	Bootmakers And Boot Shops	Enterprise Shoe Co Ltd (The) Cannon st, off Waymouth st	6644	1930	Road Match	1m
	Cab and Omnibus Proprietors	Munro, W, Cannon st	3446	1910	Road Match	1m
38	USED CAR DEALERS	Auto Auctions Ltd Tatham st Adelaide	9283	1965	Road Match	1m
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Robinson Motor Co Tatham st Adelaide	6755	1965	Road Match	1m
	USED CAR DEALERS	Auto Auctions Ltd Tatham st Adelaide	6268	1955	Road Match	1m
	MOTORS & ACCESSORIES	National Motor Services Ltd Tatham st Adel	23799	1955	Road Match	1m
	Land Brokers and Agents	Mayo, G. G, Tatham st	9586	1910	Road Match	1m
39	Tool Importers &/or Distributors	international Enterprises Pty Ltd, Franklin St,	25064	1984	Road Match	13m
	Tool - Hand Mfrs &/Or Dists.	International Enterprises Pty Ltd, Franklyn St,	25056	1984	Road Match	13m
	Hand Tools Mfrs. &/or Dists.	International Enterprises Pty. Ltd., Franklin St.,	14375	1984	Road Match	13m
	Hand Tools Mfrs. &/or Dists.	Kingcraft Hand Tools. Franklin St.	14376	1984	Road Match	13m
	Tool - Hand Mfrs &/Or Dists.	Kingtraft Hand Tools, Franklin St,	25057	1984	Road Match	13m
	STOCK & STATION AGENTS	Southern Farmers Co-operative Limited Franklin st Adelaide	40529	1973	Road Match	13m
	USED CAR DEALERS	Freeman Motors Ltd Franklin st Adelaide	9367	1965	Road Match	13m
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Metropolitan Parking Station Franklin st Adelaide	4332	1965	Road Match	13m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
39	WHOLESALE- SUPPLIERS OF NUTCHERS AND BAKERS REQUISITES	Henry Berry & Co. (Aust.) Ltd., Franklin Street, Adelaide	9237	1950	Road Match	13m
	HALLS	Parkside Pentecostal Half., Franklin St.	9598	1950	Road Match	13m
	CAR PARKING STATIONS	A.B.C. Prkng Stn, Franklin st	16225	1940	Road Match	13m
	Federal Institute Of Accountants, Associates	Adam, A. J., c/o Walter & Morris, Ltd., Franklin Street	20755	1940	Road Match	13m
	OIL REFINERIES	Adelaide Exploration Co Ltd, 6 Darling's bldngs, Franklin st	8029	1940	Road Match	13m
	Federal Institute Of Accountants, Associates	Clarke, R. F., c/o Nestle Milk Co., Franklin Street	20887	1940	Road Match	13m
	MERCHANTS, IMPORTERS, AND WAREHOUSEMEN	Crosby, Mann & Co Ltd , Darling bldngs, Franklin st	5242	1940	Road Match	13m
	Agents	Crosby, Mann & Co, Franklin st	7719	1940	Road Match	13m
	MILLERS	Crosby, Mann & Co. Ltd., Darling bldngs, Franklin st	5447	1940	Road Match	13m
	Printers And Allied Trades	Jones & Bowen, Franklin st	9724	1940	Road Match	13m
	TIMBER MERCHANTS	Lion Timber Mills, Franklin st	14913	1940	Road Match	13m
	Motor And Accessory Agents	Lynas & Fenwick Ltd., Franklin street	6495	1940	Road Match	13m
	WELDERS-ELECTRIC AND OXY-ACETYLENE	Oxywelders Ltd., Franklin st	17014	1940	Road Match	13m
	Motor And Accessory Agents	Petney, J. R., Franklin st	6550	1940	Road Match	13m
	Federal Institute Of Accountants, Associates	Ramster, A. H., c/o S.A. Farmers' Union. Ltd., Franklin St., Adel.	21327	1940	Road Match	13m
	MILLERS	S.A. Co-op Wheat Pools Ltd, Darling bldngs, Franklin st	5484	1940	Road Match	13m
	MILLERS	S.A. Farmers' Co-op Union Ltd, Franklin st	5485	1940	Road Match	13m
	AUCTIONEERS	S.A. FARMERS' CO-OPERATIVE UNION LTD (THE), Franklin Street, Adelaide	8856	1940	Road Match	13m
	AGRICULTURAL IMPLEMENT MAKERS AND IMPORTERS	S.A. Farmers' Co-operative Union Ltd, Franklin st	8426	1940	Road Match	13m
	Wool Brokers (Selling)	S.A. FARMERS' CO-OPERATIVE UNION LTD. (The), Franklin Street, Adelaide	17478	1940	Road Match	13m
	MERCHANTS, IMPORTERS, AND WAREHOUSEMEN	S.A. Farmers' Co-operative Union Ltd., Franklin st	5384	1940	Road Match	13m
	Agents	South Australian Farmers' Co operative Union, Franklin st.	8312	1940	Road Match	13m
	Educational Establishments (Private)	St Mary's Dominican Priory Convent Schls, Frnkln st	20343	1940	Road Match	13m
	IRON AND STEEL MERCHANTS	Walter & Morris Ltd., Franklin street	3274	1940	Road Match	13m
	MANTELPIECE MAKERS	Walter and Morris Ltd. Franklin st	3893	1940	Road Match	13m
	Federal Institute Of Accountants, Associates	Wiener, R. E. A., c/o S.A. Farmers Union, Ltd., Franklin St., Adel.	21516	1940	Road Match	13m
	OIL REFINERIES	Adelaide Exploration Co Ltd, 6 Darling's bldngs, Franklin st	2566	1930	Road Match	13m
	MOTOR AND ACCESSORY AGENTS, CYCLE MAKERS AND IMPORTERS	Adelaide Motor Wrecking Co Ltd, 37 Commonwealth chmbrs Franklin St	254	1930	Road Match	13m
	MANUFACTURERS' AGENTS	Burnett, J. B., Franklin st	21487	1930	Road Match	13m
	Wireless Apparatus	Central Broadcasters, Franklin street	13861	1930	Road Match	13m
	OIL REFINERIES	Chilian Oilfields Ltd, 7 Darling's buildings, Franklin st	2578	1930	Road Match	13m
	Accountants and Agents	Cohen's Agncy, 8 Darling bldngs, Franklin st	393	1930	Road Match	13m
	Accountants and Agents	Creaser & Marriott, third floor, Darling bldngs, Franklin st	404	1930	Road Match	13m
Accountants and Agents	Crosby, Mann & Co , Franklin st	407	1930	Road Match	13m	

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
39	MILLERS	Crosby, Mann and Co Ltd, Darling bldngs, Franklin st.	24017	1930	Road Match	13m
	MUSIC TEACHERS	Culver, Miss M, 6 Central Mission chmbrs, Franklin st	1616	1930	Road Match	13m
	MOTOR AND ACCESSORY AGENTS, CYCLE MAKERS AND IMPORTERS	Drive-er-ur-self Ltd, Franklin st	559	1930	Road Match	13m
	MUSIC TEACHERS	Finlay, Fred, 7-8 Central Mission chmbrs, Franklin st, p.r.	1653	1930	Road Match	13m
	MUSIC TEACHERS	Finlay, M, 7-8 Central Mission chmbrs, Franklin st	1655	1930	Road Match	13m
	MUSIC TEACHERS	Finlay, Miss, 7-8 Central Mission chmbrs, Franklin s, p.r.	1659	1930	Road Match	13m
	PHOTOGRAPHERS	Fulford, M. A, Commonwealth chmbrs, Franklin st	4208	1930	Road Match	13m
	WATCHMAKERS AND JEWELLERS	Grove-Jones, H., Franklin st	13292	1930	Road Match	13m
	Timber Merchants	Lion Timber Mills, Franklin st	11635	1930	Road Match	13m
	MOTOR AND ACCESSORY AGENTS, CYCLE MAKERS AND IMPORTERS	Mason, Geo., Ltd., Duncan bldg, Franklin st	1032	1930	Road Match	13m
	Oil and Color Merchants	Munro & Co., Franklin st	2558	1930	Road Match	13m
	Accountants and Agents	Oswald, R. J. & Co, Surrey chmbrs, Franklin st	963	1930	Road Match	13m
	Associates	Ramster, A. H., c/o S.A. Farmers' Union, Ltd., Franklin st., Adel	1971	1930	Road Match	13m
	MILLERS	S.A. Co-op Wheat Pools Ltd, Darling bldngs, Franklin st	24079	1930	Road Match	13m
	MILLERS	S.A. Farmers' Co-op Union Ltd, Franklin st	24080	1930	Road Match	13m
	Auctioneers	S.A. FARMERS' CO-OPERATIVE UNION LTD (THE), Franklin Street. Adelaide	2472	1930	Road Match	13m
	AGRICULTURAL IMPLEMENT MAKERS AND IMPORTERS	S.A. Farmers' Co-operative Union Ltd, Franklin st	1472	1930	Road Match	13m
	Wool Brokers (Selling)	S.A. FARMERS' CO-OPERATIVE UNION LTD. (The), Franklin Street, Adelaide	13891	1930	Road Match	13m
	MERCHANTS, IMPORTERS, AND WAREHOUSEMEN	S.A. Farmers' Co-operative Union Ltd., Franklin st	23904	1930	Road Match	13m
	Accountants and Agents	South Australian Farmers' Cooperative Union, Franklin st	1312	1930	Road Match	13m
	Educational Establishments (Private)	St Mary's Dominican Convent Schools, Franklin st	16941	1930	Road Match	13m
	OIL REFINERIES	Standard Oil Coy of Aus Ltd Darling's bldngs, Franklin st	2583	1930	Road Match	13m
	MOTOR AND ACCESSORY AGENTS, CYCLE MAKERS AND IMPORTERS	Turner, H. W, Franklin st	1217	1930	Road Match	13m
	MOTOR AND ACCESSORY AGENTS, CYCLE MAKERS AND IMPORTERS	Vivian Lewis Ltd, Franklin st	1228	1930	Road Match	13m
	IRON AND STEEL MERCHANTS	Walter & Morris Ltd, Franklin st	20817	1930	Road Match	13m
	IRONMONGERS (Wholesale)	Walter and Morris Ltd, Franklin st	20906	1930	Road Match	13m
	CHARTERED ACCOUNTANTS	Whiting, J. A. C., Central Mission bldng, Franklin st	13405	1930	Road Match	13m
	Accountants and Agents	Whiting, J. A., Central Mission bldngs, Franklin st	1362	1930	Road Match	13m
	Associates	Wiener, R. E. A., c/o S.A. Farmers' Union, Ltd., Franklin St., Adel	2335	1930	Road Match	13m
	MUSIC TEACHERS	Wordie, Miss E. Central Mission chmbrs, Franklin st	2146	1930	Road Match	13m
	ENGINEERS (Mechanical) AND MACHINISTS	Wormald Bros, Ltd, 9-10 Darling's bldngs, Franklin st	17258	1930	Road Match	13m
	Wholesale Grocers	Berry, Hy, and Co Propty Ltd, Franklin st	250	1920	Road Match	13m
	Bootmakers And Boot Shops	Bosse, Jno, Franklin-st	1640	1920	Road Match	13m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
39	Billiard Saloons	Bristol Billiard Saloon-Edwin Hall, Franklin st	19551	1920	Road Match	13m
	LOAN OFFICES	Commonwealth Loan and Discount Co. Commonwealth chambers, Franklin st	10885	1920	Road Match	13m
	Builders, Carpenters and Masons	Dick, G. F., Franklin-st	2376	1920	Road Match	13m
	Tyre (Rubber) Manufacturers, Importers, Repairers and Agents	Duncan and Fraser Ltd, Franklin st	18734	1920	Road Match	13m
	Music Teachers	Finlay, Fred, 7 and 8 Central Mission chambers, Franklin st	13287	1920	Road Match	13m
	Music Teachers	Finlay, M, 7 and 8 Central Mission, chambers, Franklin st	13288	1920	Road Match	13m
	Music Teachers	Finlay, Miss, 7 and 8 Central Mission chambers, Franklin st	13290	1920	Road Match	13m
	Educational Establishments (Private)	Free Kindergarten School, Franklin st	7081	1920	Road Match	13m
	Drapers	Hallel, F, Franklin st	6410	1920	Road Match	13m
	AGRICULTURAL IMPLEMENT MAKERS AND IMPORTERS	Horwood J. A, and Co, Franklin st	17991	1920	Road Match	13m
	Coppersmiths	Horwood, J. H, & Co, Franklin st	5515	1920	Road Match	13m
	Printers	Jennings, Fred J, Sport office, Franklin st	14376	1920	Road Match	13m
	Furniture Manufacturers and Dealers	Lewis, L. P. and Co, Franklin st	8032	1920	Road Match	13m
	Timber Merchants	Lion Timber Mills, Franklin st	18178	1920	Road Match	13m
	Tailors, Clothiers and Mercers	Morris, R, 9 Central Meth Mission bldng, Franklin st	17737	1920	Road Match	13m
	Blacksmiths and Farriers	Pomeroy, A. R, Franklin-st	810	1920	Road Match	13m
	Wool Brokers (Buyers)	Prevost, Selth & Co, 28-30 Darling's bldngs, Franklin st	597	1920	Road Match	13m
	Merchants, Importers and Warehousemen	Proctor, Geo, Darling bldngs, Franklin st	12710	1920	Road Match	13m
	Manufacturers' Agents	Proctor, Gep, Darling bldngs, Franklin st	11027	1920	Road Match	13m
	LIVERY STABLES (not Hotelkeepers)	Radford, H. G, Franklin st	10868	1920	Road Match	13m
	Machinery Merchants	Robinson, T, and Co Proprietary, Franklin st	10928	1920	Road Match	13m
	Land Brokers & Estate Agents	S.A. Farmers' Co - operative Union Ltd, Franklin St, Adelaide	10659	1920	Road Match	13m
	AGRICULTURAL IMPLEMENT MAKERS AND IMPORTERS	S.A. Farmers' Co-operative Union LTD, Franklin st	18002	1920	Road Match	13m
	Merchants, Importers and Warehousemen	S.A. Farmers' Co-operative Union Ltd, Franklin st	12733	1920	Road Match	13m
	Wool Brokers (Selling)	S.A. FARMERS' CO-OPERATIVE UNION Ltd, Franklin Street, Adelaide	611	1920	Road Match	13m
	Auctioneers	S.A. FARMERS' CO-OPERATIVEUNION Ltd. Franklin Street, Adelaide	18508	1920	Road Match	13m
	BAG AND SACK DEALERS	SACK EXCHANGE Co Darling's Buildings, Franklin Street	18549	1920	Road Match	13m
	Accountants and Agents	South Australian Farmers' Co-operative Union, Franklin st	17519	1920	Road Match	13m
	Educational Establishments (Private)	St Mary's Dominican Convent Schools, Franklin st	7160	1920	Road Match	13m
	Dressmakers and Milliners	Vincent, Mrs, Franklin st	6995	1920	Road Match	13m
	Timber Merchants	Walter & Morris Ltd, Franklin st	18189	1920	Road Match	13m
	Iron and Steel Merchants	Walter & Morris LW, Franklin st	10361	1920	Road Match	13m
	IRONMONGERS (Wholesale)	Walter and Morris Ltd, Franklin st	10424	1920	Road Match	13m
	Accountants and Agents	Whiting, J. A, Franklin st	17869	1920	Road Match	13m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
39	Hotels and Public Houses	Windsor Castle; Kerrison, Claude, Franklin st	10256	1920	Road Match	13m
	Music Teachers	Wordie, Miss A, Central Mission chambers, Franklin st	13448	1920	Road Match	13m
	Dressmakers and Milliners	Adelaide Dressmaking College (Colquhoun, Miss), Franklin st	6276	1910	Road Match	13m
	Hotels and Public Houses	Bristol ; McGann, G. A, Franklin st	8734	1910	Road Match	13m
	Merchants and Importers	Darling, Jno, and Son, Franklin st	11337	1910	Road Match	13m
	Millers Including Corn & Grain Merchants	Darling, Jno, and Son, Franklin st	11625	1910	Road Match	13m
	Accountants and Agents	Darling, Jno, and Son, Franklin st	16479	1910	Road Match	13m
	Accountants and Agents	Dewdney, Richd, Franklin st	16491	1910	Road Match	13m
	Cycle and Motor Car Makers, Importers and Agents	Duncan & Fraser, Franklin st	5352	1910	Road Match	13m
	Electrical Engineers	Duncan, R. A, Franklin st	6835	1910	Road Match	13m
	Dealers (General)	Elliott, R. V, Franklin st	5825	1910	Road Match	13m
	Engravers	Excelsior Engraving Co, Franklin st	7005	1910	Road Match	13m
	Dressmakers and Milliners	Gion, Miss C, Franklin st	6397	1910	Road Match	13m
	Printers	Hales Bros, Franklin st	12566	1910	Road Match	13m
	Sharebrokers	Hales Bros, Franklin st	13314	1910	Road Match	13m
	Printers	Hassell, George, and Son, Franklin st	12570	1910	Road Match	13m
	Builders, Carpenters and Masons	Hofmeyer, C. H, Franklin st	2353	1910	Road Match	13m
	Cabinetmakers and Furniture Manufacturers	Holt, W. G, and Son, Franklin st	3542	1910	Road Match	13m
	Timber Merchants	Honey, Richard, Franklin st	15503	1910	Road Match	13m
	Foundries	Horwood, J. H, and Co, Franklin st	7394	1910	Road Match	13m
	Machinery Merchants	Horwood, J. H, and Co, Franklin st	9842	1910	Road Match	13m
	Coppersmiths	Horwood, J. H, Franklin st	5222	1910	Road Match	13m
	Engineers and Machinists	Horwood; J. H, and Co, Franklin st	6938	1910	Road Match	13m
	Dairies and Milk Vendors	Johns, J. H, Franklin st	5620	1910	Road Match	13m
	Accountants and Agents	Johnson, L. G, Franklin st	16643	1910	Road Match	13m
	Educational Establishments (Private)	Kindergarten Union of S.A., Franklin st	6739	1910	Road Match	13m
	Engineers and Machinists	MacBey, Patrick Jno, Franklin st	6950	1910	Road Match	13m
	Engineers and Machinists	Mellor J, F, Franklin st	6956	1910	Road Match	13m
	Music Teachers	Naylor, Edwin, Franklin st	11837	1910	Road Match	13m
	BISCUIT MAKERS	Phoenix Biscuit Coy - McPherson, Malcolm, mgr, Franklin st	130	1910	Road Match	13m
	Blacksmiths and Farriers	Pomeroy, J. H, Franklin st	617	1910	Road Match	13m
	Bootmakers	Poulson, A, Franklin st	1777	1910	Road Match	13m
	LIVERY STABLES (not Hotelkeepers)	Radford, H. G, Franklin st	9802	1910	Road Match	13m
Wool Brokers (Buyers)	Robinson, T. & Co, Proprietary, Franklin st	16321	1910	Road Match	13m	
Machinery Merchants	Robinson, T. and Co, Franklin st	9848	1910	Road Match	13m	
Land Brokers and Agents	S.A, Farmers' Co-operative Union Ltd, Franklin st	9618	1910	Road Match	13m	

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
39	Millers Including Corn & Grain Merchants	S.A. Farmers' Co-op. Union Ltd, Franklin st	11685	1910	Road Match	13m
	Machinery Merchants	S.A. Farmers' Co-operative Union Ltd, Franklin st	9849	1910	Road Match	13m
	Auctioneers	S.A. Farmers' Co-operative Union Ltd, Franklin st,	17303	1910	Road Match	13m
	Wool Brokers (Selling)	S.A. Farmers' Co-operative Union Ltd, Franklin st, Adelaide	16335	1910	Road Match	13m
	AGRICULTURAL IMPLEMENT MAKERS AND IMPORTERS	S.A. Farmers' Co-operative Union, Ltd, Franklin st	17095	1910	Road Match	13m
	Produce Merchants	S.A. Farmers' Co-operative Union, Franklin st	12691	1910	Road Match	13m
	Timber Merchants	Smith, W. C, Franklin st	15511	1910	Road Match	13m
	Educational Establishments (Private)	St Mary's Dominican Convent Schools, Franklin st	6805	1910	Road Match	13m
	LIVERY STABLES (not Hotelkeepers)	Stephens, Jos, Franklin st	9811	1910	Road Match	13m
	Dressmakers and Milliners	Stokes, Mrs H. C. and Miss B, Franklin st	6622	1910	Road Match	13m
	Firewood Merchants	Sutherland, W. B, jun, off Franklin st	7271	1910	Road Match	13m
	Coach and Carriage Builders	Wallis, Wm, Franklin st	4553	1910	Road Match	13m
	Timber Merchants	Walter & Morris, Ltd, Franklin st	15514	1910	Road Match	13m
	MANTELPIECE MAKERS	Walter and Morris Ltd, Franklin st	9856	1910	Road Match	13m
	IRONMONGERS (Wholesale)	Walter and Morris, Ltd, Franklin st	9435	1910	Road Match	13m
	Merchants and Importers	Walter and Morris, Ltd, Franklin st	11576	1910	Road Match	13m
	Hotels and Public Houses	Windsor Castle ; Steinhauser, H, Franklin st	9333	1910	Road Match	13m
40	ENGINEERS (Mechanical & General)	Halliday R H Bowen st Adelaide	4454	1965	Road Match	15m
	MOTOR CYCLE AGENTS & DEALERS	Side Car Sales & Service 14 Bowen st Adel	18903	1955	Road Match	15m
	MOTOR CAR & TRUCK WRECKERS	Franklin Wrecking., 14 Bowen St.	13747	1950	Road Match	15m
	MOTOR CYCLE WRECKERS	Franklin Wrecking., 14 Bowen St.	13817	1950	Road Match	15m
	Motor And Accessory Agents	Franklin Wrecking, 14 Bowen st	6412	1940	Road Match	15m
	Laundries	Beniseh, Mrs K, Bowen st	9671	1910	Road Match	15m
	Basketmakers & Wickerworkers	Quantrell, G, Bowen st	58	1910	Road Match	15m
41	Hotels - Licensed	Cumberland Arms Hotel, Waymouth St.,	15078	1984	Road Match	39m
	BUILDERS AND GENERAL CONTRACTORS	South Australian Gas Co Waymouth st Adel	27339	1973	Road Match	39m
	RADIO STATIONS	"THE ADVERTISER" Broadcasting Network WAYMOUTH STREET ADELAIDE	39108	1955	Road Match	39m
	BROADCASTING STATIONS	Advertiser Broadcasting Network., Waymouth St.	1932	1950	Road Match	39m
	BROADCASTING STATIONS	Advertiser Broadcasting Network., Waymouth St.	1935	1950	Road Match	39m
	HOTELS-LICENSED	Cumberland Arms Hotel., Waymouth St.	10185	1950	Road Match	39m
	INSURANCE COMPANIES	London Assurance, The ., Waymouth St.	10743	1950	Road Match	39m
	JUSTICES OF THE PEACE-CITY OF ADELAIDE	Moore, E. J., Sun Insurance., Waymouth St.	11246	1950	Road Match	39m
	JUSTICES OF THE PEACE-CITY OF ADELAIDE	Palmer, W. E., Waymouth St.	11254	1950	Road Match	39m
	Printers And Allied Trades	Advertiser Printing Office, Waymouth st	9663	1940	Road Match	39m
	Produce Merchants	HALL, A. E., & CO. LTD., off Waymouth Street, Adelaide	10133	1940	Road Match	39m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
41	Federal Institute Of Accountants, Associates	Hockett, A. F., c/o A. E. & F. Tolley, Ltd., Waymouth Street	21088	1940	Road Match	39m
	Agents	Landseer, A. H, Ltd, 49-52 Albion House, Waymouth st	7869	1940	Road Match	39m
	SURVEYORS (Licensed)	Matters, S. W. Waymouth st	14289	1940	Road Match	39m
	WOOL BROKERS (Buying)	McGregor. J. W. & Sons Ltd, Insurance House, Waymouth st	17465	1940	Road Match	39m
	SURVEYORS	S.W. MATTERS , c/o Matters & Co., Waymouth St.	11284	1940	Road Match	39m
	CEMENT MANUFACTURERS	Southern Portland Cement Co., Waymouth st	17541	1940	Road Match	39m
	Printers And Allied Trades	Specialty Printers Ltd., Waymouth st	10066	1940	Road Match	39m
	WINE AND SPIRIT MERCHANTS	TOLLEY LIMITED, A.. E, and F, Waymouth St., Adelaide.	17151	1940	Road Match	39m
	Motor And Accessory Agents	Waymouth Motor Co. Ltd, Waymouth st	6639	1940	Road Match	39m
	TOBACCO AND CIGAR MANUFACTURERS	Wills, W. D. & H. O. (Australia) Ltd Waymouth st	14991	1940	Road Match	39m
	Advertising Agents	Anderson, Miss S, Waymouth st	1383	1930	Road Match	39m
	LAND BROKERS AND ESTATE AGENTS	Badger and Co., 19 Albion House, Waymouth st	20961	1930	Road Match	39m
	Accountants and Agents	Bannon A. P, 4 Willcox bldngs, Waymouth st	316	1930	Road Match	39m
	IRONMONGERS	Bridgland, E. T, Waymouth st	20825	1930	Road Match	39m
	DRIED FRUIT MERCHANTS	CLARE FRUIT PACKERS LTD. Norwich Union Insurance Company Buildings, Waymouth Street, Adelaide.	16772	1930	Road Match	39m
	PHOTOGRAPHERS	Collett, R. E, Fourth flr, Albion House, Waymouth st	4202	1930	Road Match	39m
	REINFORCED CONCRETE WORKS	Concrete & Steel Ltd, 45 Albion hse, Waymouth st	14090	1930	Road Match	39m
	TYPISTS AND SHORT HAND WRITERS	Furner, Misses M. & E, Waymouth st	12248	1930	Road Match	39m
	FURNITURE MANUFACTURERS AND FURNISHERS	Furnishing & Manufacturing Co, Waymouth st	18059	1930	Road Match	39m
	MERCHANTS, IMPORTERS, AND WAREHOUSEMEN	Gilbert-Lodge & Co, Ltd, Waymouth st	23721	1930	Road Match	39m
	MUSIC WAREHOUSES	Gladiola Phonograph Co, Weymouth st	2167	1930	Road Match	39m
	PRODUCE MERCHANTS	HALL, A. E, & CO LTD, off Waymouth Street, Adelaide.	5305	1930	Road Match	39m
	EXPORTERS	Hall. A. E, & Co Ltd, off Waymouth st	17289	1930	Road Match	39m
	WOOL BROKERS (Buying)	Haughton, W, and Co, Waymouth st	13871	1930	Road Match	39m
	Accountants and Agents	Landseer, A. H, Ltd, 49 & 52 Albion House, Weymouth st	857	1930	Road Match	39m
	Carters and Carriers	Landseer, A. H, Ltd, Albion House, Waymouth st	12425	1930	Road Match	39m
	MANUFACTURERS' AGENTS	Lapp, E., Waymouth st	21559	1930	Road Match	39m
	SURVEYORS (Licensed)	Matters, S. W, Waymouth St	10673	1930	Road Match	39m
	Oil and Color Merchants	McGlew & Co, Limited, Waymouth st	2557	1930	Road Match	39m
	WOOL BROKERS (Buying)	McGregor, J. W. & Sons Ltd, Waymouth chmbrs, Waymouth st	13875	1930	Road Match	39m
	MERCANTILE BROKERS	Osborne, F. C, Waymouth st	23559	1930	Road Match	39m
	Accountants and Agents	Phillips & Bromley, Marlborough chmbrs, Waymouth st	1243	1930	Road Match	39m
	Advertising Agents	Runge, W. H, 9 Willcox bldngs, Waymouth st	1401	1930	Road Match	39m
	Billiard Saloons	Ryan L. J, Union bldngs, Waymouth st	3915	1930	Road Match	39m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
41	Chemical and Fertilizer Manufacturers	S.A. Mineral Sulphate of Ammonia Co Ltd, Waymouth st	13436	1930	Road Match	39m
	Surveyors	S.W. MATTERS, Waymouth St.	7359	1930	Road Match	39m
	Salt Refiners and Exporters	Standard Salt and Alkali Limited, Waymouth chmbrs, Waymouth st Edithburgh	6802	1930	Road Match	39m
	Accountants and Agents	Stockbridge, H. D. & Co, Union bldngs, Waymouth st	1327	1930	Road Match	39m
	Outdoor Advertising Organization	TAYLOR, CLEM, ADVERTISING SERVICE LIMITED, 31-32 Albion House, Waymouth Street	3128	1930	Road Match	39m
	Wine And Spirit Merchants	TOLLEY LIMITED, A. E, and F, Waymouth Street, Adelaide	13853	1930	Road Match	39m
	LAND BROKERS AND ESTATE AGENTS	Virgo C., Waymouth st	21220	1930	Road Match	39m
	ENGRAVERS AND DIE SINKERS	Vrai Ltd, 86 Alfred Masonic bldngs, Waymouth st	17275	1930	Road Match	39m
	LIVERY STABLES (not Hotelkeepers)	Waples, Wm, & Son, Criterion Stables, off Waymouth st	21393	1930	Road Match	39m
	MOTOR AND ACCESSORY AGENTS, CYCLE MAKERS AND IMPORTERS	Waymouth Motor Co. Ltd., Waymouth st	1504	1930	Road Match	39m
	PRODUCE MERCHANTS	Webb, Thos H, 53-54 Albion House, Weymouth st	5376	1930	Road Match	39m
	TOBACCO AND CIGAR MANUFACTURERS	Wills, W. D. & H. O. (Australia) Ltd, Waymouth st	11732	1930	Road Match	39m
	HOTEL BROKERS	Winnall & Dean, Scottish House, Waymouth st	20131	1930	Road Match	39m
	Land Brokers & Estate Agents	Addison, H. M, Santo bldngs, Waymouth st	10460	1920	Road Match	39m
	Institute of Surveyors	ADDISON, H. M., SANTO CHAMBERS, WAYMOUTH STREET, ADELAIDE.	10334	1920	Road Match	39m
	Produce Merchants	Adelaide Chilled Butter and Produce Co Ltd (The)Waymouth st	14473	1920	Road Match	39m
	Greengrocers and Fruiterers	Adrei, A, 172a Waymouth st	8117	1920	Road Match	39m
	Dealers (General) and Hawkers	Ali, Norman, Waymouth st	6005	1920	Road Match	39m
	Produce Merchants	Anderson, M. G, Waymouth st	14475	1920	Road Match	39m
	Accountants and Agents	Barrett & Barrett, 3.5 Willcox bldngs, Weymouth st	16477	1920	Road Match	39m
	Land Brokers & Estate Agents	Barrett, R, Willcox bldngs, Waymouth st	10472	1920	Road Match	39m
	MARINE STORE DEALERS	Beaumont, Harry, Waymouth st	12289	1920	Road Match	39m
	Land Brokers & Estate Agents	Blakeway, A. J, Monteflore chmbrs, Waymouth st	10482	1920	Road Match	39m
	Ironmongers	Bridgland E. T, Waymouth st	10368	1920	Road Match	39m
	Blacksmiths and Farriers	Brown, Wltr, and Son, Waymouth-st	293	1920	Road Match	39m
	Motor and Cycle Makers, Importers and Agents	CHENEY MOTOR COMPANY LIMITED. Waymouth Street, Adelaide	13009	1920	Road Match	39m
	Coach and Carriage Builders	Clarke Brothers, Waymouth st	4590	1920	Road Match	39m
	Hotels and Public Houses	Cumberland Arms; Keast, Miss S. J, Waymouth st	9767	1920	Road Match	39m
	Aerated Water and Cordial Manufacturers	Downer and Co, Waymouth st	17928	1920	Road Match	39m
	Wine and Spirit Merchants	Downer and Co, Waymouth st	543	1920	Road Match	39m
	Ham and Beef Shops	Dunnicliffe, Arth H, Weymouth st	9406	1920	Road Match	39m
	Accountants and Agents	Duval, J,Way-mouth st	16864	1920	Road Match	39m
	Dentists	Edward, Meyer, Waymouth st	6211	1920	Road Match	39m
	Typists and Shorthand Writers	Furner, Misses M. & E Waymouth st	18723	1920	Road Match	39m
	Architects	Good, C. T. ,Albion Chmbrs, Waymouth-st.	18036	1920	Road Match	39m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
41	HIDE AND SKIN STORES	Haughton & Co, Weymouth st	9521	1920	Road Match	39m
	Wool Brokers (Buyers)	Haughton, W, and Co, Weymouth st	590	1920	Road Match	39m
	Grocers and Provision Dealers	Hourigan, Mrs Mary,Weymouth st	8865	1920	Road Match	39m
	Coal Merchants and Importers	Howard Smith Co Ltd, Weymouth chmbrs, Weymouth st	4690	1920	Road Match	39m
	Institute of Surveyors	HOWELL, F. A., SANTO CHAMBERS, WAYMOUTH STREET, ADELAIDE.	10342	1920	Road Match	39m
	Storekeepers (General)	Hutchinson, David, Weymouth st	16108	1920	Road Match	39m
	LOAN OFFICES	Imperial Loan and Discount Office-Marlborough chambers, Weymouth st	10888	1920	Road Match	39m
	Merchants, Importers and Warehousemen	King & Co, Marlborough chambers, Weymouth st	12615	1920	Road Match	39m
	Manufacturers' Agents	King and Co, Marlborough chmbrs, Weymouth st	10999	1920	Road Match	39m
	Manufacturers' Agents	LAWRENCE, PERCY J. A, 32 34 Anster Chambers, Weymouth Street, Adelaide.	11002	1920	Road Match	39m
	Wholesale Grocers	Marjoram, A. & Co, Willcox bldngs,Weymouth st	260	1920	Road Match	39m
	Merchants, Importers and Warehousemen	Marjoram, A. and Co, Willcox bldngs, Weymouth st	12646	1920	Road Match	39m
	Wool Brokers (Selling)	Master Butchers, Ltd, Weymouth st	610	1920	Road Match	39m
	Drapers	Matte, A, 172 Weymouth st	6483	1920	Road Match	39m
	Merchants, Importers and Warehousemen	McGlew and Co, 17 Weymouth chambers, Weymouth st	12664	1920	Road Match	39m
	Land Brokers & Estate Agents	Moody, Winnall & Stace, 8 Scottish House, Weymouth st	10621	1920	Road Match	39m
	Institute of Surveyors	PACKARD, J. H., GREEN & CO., WAYMOUTH STREET, ADELAIDE.	10346	1920	Road Match	39m
	Accountants and Agents	Ramsay's Medical Agency-J. B. Pitcher, Santo bldngs, Weymouth St	17448	1920	Road Match	39m
	Ham and Beef Shops	Raw, W. H, Weymouth st	9459	1920	Road Match	39m
	Federal Institute of Accountants	REID, W. B., c/o S.A. Gas Company, Weymouth Street, Adelaide	7554	1920	Road Match	39m
	Customs and Shipping Agents	Rofe and Co. Marlborough Chambers, Weymouth Street	5609	1920	Road Match	39m
	Carters and Carriers	ROPE & Co, Marlborough Chambers,Weymouth Street	4141	1920	Road Match	39m
	Plumbers and Gasfitters	S.A. Gas Co, Weymouth st	14233	1920	Road Match	39m
	Institute of Surveyors	SEDDON, A. J. G., GREEN & CO., WAYMOUTH STREET, ADELAIDE.	10350	1920	Road Match	39m
	INDENT AGENTS	Stack and Co, Weymouth st	10323	1920	Road Match	39m
	Merchants, Importers and Warehousemen	Stockbridge Bros & Co, Weymouth st	12755	1920	Road Match	39m
	Produce Merchants	Taylor Bros, Weymouth st	14561	1920	Road Match	39m
	Hotels and Public Houses	Thistle; Whelan, Michl,Weymouth st	10192	1920	Road Match	39m
	Federal Institute of Accountants	THOMSON, R. S..c/o Cheney Motor Co. Ltd., Weymouth Street, Adelaide	7567	1920	Road Match	39m
	Wine and Spirit Merchants	TOLLEY Limited, A. E. & F, Weymouth Street, Adelaide	573	1920	Road Match	39m
	Merchants, Importers and Warehousemen	Tolley, A. E. and F, Ltd, Weymouth st	12769	1920	Road Match	39m
	Accountants and Agents	Tuil and Lindsay, Anster chambers, Weymouth st	17831	1920	Road Match	39m
	Foundries	Whitehill, W. Chas, Weymouth st	7919	1920	Road Match	39m
	Electrical Engineers	Whitehill, Wm C, Ranelagh st, off Weymouth st	7216	1920	Road Match	39m
	WHOLESALE DRUGGISTS	Wilkinson, A, Weymouth st	249	1920	Road Match	39m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
41	Architects	Williams, D., Albion Chambers, Weymouth-st.	18052	1920	Road Match	39m
	Land Brokers and Agents	Addison, H. M, Weymouth st	9479	1910	Road Match	39m
	Produce Merchants	Adelaide Chilled Butter and Produce Co Ltd (The), Weymouth street	12638	1910	Road Match	39m
	Contractors	Ashman, J. J, Weymouth chmbrs, Weymouth st	4838	1910	Road Match	39m
	Aerated Water and Cordial Manufacturers	Bickford, A. M, and Sons Ltd, Weymouth st	17029	1910	Road Match	39m
	Limeburners	Brighton Lime Depot, Weymouth st,	9736	1910	Road Match	39m
	Blacksmiths and Farriers	Brown, Wm and Son, Weymouth st	195	1910	Road Match	39m
	Saddlers and Harnessmakers	Caire, Walter, Weymouth st	13024	1910	Road Match	39m
	Land Brokers and Agents	Carroll, P, Weymouth st	9513	1910	Road Match	39m
	SHIPOWNERS	China Navigation Co Ltd (Hong Kong), Weymouth st	13422	1910	Road Match	39m
	Blacksmiths and Farriers	Clark, Henry Geo, Weymouth st	235	1910	Road Match	39m
	MARBLE WORKERS AND MONUMENTAL MASONS	Cleveland, F. A, Weymouth st	9995	1910	Road Match	39m
	Land Brokers and Agents	Colliver, W. H, Weymouth st	9519	1910	Road Match	39m
	Accountants and Agents	Court, Wm, Weymouth st	16459	1910	Road Match	39m
	Coach and Carriage Builders	Cox and Witherick, Weymouth st	4506	1910	Road Match	39m
	Hotels and Public Houses	Cumberland Arms; Keast Miss S. J, Weymouth st	8814	1910	Road Match	39m
	Manufacturers' Agents	Davenport and Co, Weymouth st	9913	1910	Road Match	39m
	Galvanized Iron Workers	Dawson, Thos, & Sons, Weymouth st	7489	1910	Road Match	39m
	Music Teachers	Dixon, A. C, Weymouth st	11763	1910	Road Match	39m
	Coach and Carriage Builders	Dodd, E. and F, Weymouth St	4508	1910	Road Match	39m
	Wine and Spirit Merchants	Downer and Co, Weymouth st	16273	1910	Road Match	39m
	Aerated Water and Cordial Manufacturers	Downer and Co, Weymouth st	17032	1910	Road Match	39m
	Accountants and Agents	Downing and Moyle, Weymouth st	16501	1910	Road Match	39m
	Hotel Brokers	Downing and Moyle, Weymouth st	8670	1910	Road Match	39m
	MARBLE WORKERS AND MONUMENTAL MASONS	Draysey & Co, Weymouth st	9999	1910	Road Match	39m
	Accountants and Agents	Evan, C. B, Weymouth st	16513	1910	Road Match	39m
	Accountants and Agents	Fitzpatrick, Jos, Weymouth st	16528	1910	Road Match	39m
	Merchants and Importers	Flag Tea Agency, Weymouth st	11358	1910	Road Match	39m
	Limeburners	Gawler Lime Co, Weymouth st	9742	1910	Road Match	39m
	Carters and Carriers	Grimwood, P. and L, Weymouth st	3810	1910	Road Match	39m
	Printers	Halliday Bros, off Weymouth st	12567	1910	Road Match	39m
	PHOTO-ENGRAVERS	Halliday Bros, Union bldgs, Weymouth st	12273	1910	Road Match	39m
	Lithographers	Halliday Bros, Weymouth st	9762	1910	Road Match	39m
	Coach and Carriage Builders	Harris, C, Weymouth st	4518	1910	Road Match	39m
	Sharebrokers	Hillman and Co, Weymouth st	13316	1910	Road Match	39m
	Grocers and Provision Dealers	Holder, Mark, Weymouth st	8181	1910	Road Match	39m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
41	Hairdressers	Holder, Mark, Wymouth st	8494	1910	Road Match	39m
	Storekeepers (General)	James, Geo and Co, Wymouth st	14239	1910	Road Match	39m
	Blacksmiths and Farriers	Jones and Flynn, Wymouth st	445	1910	Road Match	39m
	Land Brokers and Agents	Killicoat, Isaac R, Wymouth st	9568	1910	Road Match	39m
	Coach and Carriage Builders	Kruger, C. Aug, Wymouth st	4529	1910	Road Match	39m
	MARBLE WORKERS AND MONUMENTAL MASONS	Laycock, Wm, Wymouth st	10007	1910	Road Match	39m
	Butchers	Lean, A. W Wymouth st	3094	1910	Road Match	39m
	Accountants and Agents	Lorimer, Rome and Co, Wymouth st	16690	1910	Road Match	39m
	Sharebrokers	Lucas, H. de N, Wymouth st	13335	1910	Road Match	39m
	Land Brokers and Agents	Maddeford & Co, Wymouth st	9579	1910	Road Match	39m
	Merchants and Importers	Malpas, E, Wymouth st	11461	1910	Road Match	39m
	Storekeepers (General)	McCormack, Mrs J, Wymouth st	14427	1910	Road Match	39m
	Hotel Brokers	Moody, Winnall & Stace, Wymouth st	8671	1910	Road Match	39m
	Land Brokers and Agents	Moody, Winnall & Stace, Wymouth st	9592	1910	Road Match	39m
	Accountants and Agents	Moody, Winnall and Stace, Wymouth st	16746	1910	Road Match	39m
	Artists (Not Photographers)	Moore, Miss May B, Wymouth st	17188	1910	Road Match	39m
	Accountants and Agents	Moores, L., Wymouth st	16749	1910	Road Match	39m
	Hairdressers	O'Rielly, J. J, Wymouth st	8559	1910	Road Match	39m
	SHIPOWNERS	Orient Line of Royal Mail Steamers, Wymouth st	13440	1910	Road Match	39m
	Cycle and Motor Car Makers, Importers and Agents	Rasheed. P. M, Wymouth st	5414	1910	Road Match	39m
	Accountants and Agents	Rees; Arth, Wymouth st	16828	1910	Road Match	39m
	Accountants and Agents	Reid, C. M, Wymouth st	16829	1910	Road Match	39m
	Merchants and Importers	Reid, Chas M, Wymouth st	11507	1910	Road Match	39m
	Cab and Omnibus Proprietors	Reid, Jno, and Co, Wymouth st	3455	1910	Road Match	39m
	LIVERY STABLES (not Hotelkeepers)	Reid, Jno, and Co, Wymouth st	9804	1910	Road Match	39m
	LIVERY STABLES (not Hotelkeepers)	Richardson, W. S, Thistle Inn Stables, off Wymouth st	9805	1910	Road Match	39m
	Accountants and Agents	Riley, J. A, Wymouth st	16834	1910	Road Match	39m
	Music Teachers	Romano, P, Wymouth st	11871	1910	Road Match	39m
	Watchmakers and Jewellers	Rosenhain, Carl P, Montefiore chambers, Wymouth st	16078	1910	Road Match	39m
	Accountants and Agents	Rosenhain, E. & A, Wymouth st	16845	1910	Road Match	39m
	Merchants and Importers	Rosenhain, E. and A, Wymouth st	11520	1910	Road Match	39m
	Land Brokers and Agents	Sayers, D. M, Wymouth st	9625	1910	Road Match	39m
	Accountants and Agents	Sayers, D. M., Wymouth st	16862	1910	Road Match	39m
	Bootmakers	Sellick B. J, and Son, Wymouth st	1832	1910	Road Match	39m
Music Teachers	Setaro, Frank, Wymouth st	11878	1910	Road Match	39m	
Hotels and Public Houses	Shakespeare ; Frith, Mrs E. B, Wymouth st	9209	1910	Road Match	39m	

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
41	LIVERY STABLES (not Hotelkeepers)	Smith, C, Waymouth st	9810	1910	Road Match	39m
	Land Brokers and Agents	Smythe, H. R, Waymouth st	9634	1910	Road Match	39m
	Sharebrokers	Smythe, H. R., Waymouth st	13364	1910	Road Match	39m
	Merchants and Importers	Stockbridge Bros & Co, Waymouth st	11548	1910	Road Match	39m
	Accountants and Agents	Stockbridge Bros, & Co, Waymouth st	16910	1910	Road Match	39m
	Hotels and Public Houses	Thistle Inn ; Whelan, Michael, Waymouth st	9268	1910	Road Match	39m
	Auctioneers	Thyer, Willcox & Co, Waymouth st	17322	1910	Road Match	39m
	MARBLE WORKERS AND MONUMENTAL MASONS	Tillett, Jno, Waymouth st	10019	1910	Road Match	39m
	Land Brokers and Agents	Town & Country Business Exchange, Waymouth st	9650	1910	Road Match	39m
	Artists (Not Photographers)	Tute, C. E, Waymouth st	17202	1910	Road Match	39m
	LIVERY STABLES (not Hotelkeepers)	Waples, Wm, Criterion Stables, off Waymouth st	9814	1910	Road Match	39m
	Hotels and Public Houses	West Terrace; Meyer, Mrs Emma, Waymouth st	9310	1910	Road Match	39m
	Printers	Wildy, C. H, Weymouth st	12633	1910	Road Match	39m
	Architects	Williams and Good, Waymouth st	17151	1910	Road Match	39m
	Bootmakers	Williams, W. R, Waymouth st	1917	1910	Road Match	39m
	BISCUIT MAKERS	Williamson, E. and Co, Ltd, Waymouth st	132	1910	Road Match	39m
	Blacksmiths and Farriers	Wilson, J. T, Waymouth st	811	1910	Road Match	39m
	42	MOTOR REPAIRS	Squires Lloyd R 7 Eliza st Adelaide	11938	1965	Road Match
MOTOR REPAIRS		Lange R & Son 94 Eliza st Adelaide	23562	1955	Road Match	41m
MOTOR REPAIRS		Squires Lloyd R 7 Eliza st Adelaide	23586	1955	Road Match	41m
Radio Merchants And Dealers		Adelaide Radio Co., 7 Eliza st	10187	1940	Road Match	41m
Motor Body Builders		Cooper, C., Eliza st	6661	1940	Road Match	41m
Carters and Carriers		Transport Service Coy., Eliza st	17401	1940	Road Match	41m
ELECTROPLATERS		Wheatley & Williams, Eliza st.	20506	1940	Road Match	41m
Brassfounders (Proprietors only)		WHEATLEY & WILLIAMS, Eliza Street, off Waymouth Street, Adelaide	13177	1940	Road Match	41m
COACH AND MOTOR PAINTERS AND TRIMMERS		Waddell, H, Eliza st, off Waymouth st	14064	1930	Road Match	41m
Brassfounders (Proprietors only)		Wheatley & Williams, Eliza st, off Waymouth st	7666	1930	Road Match	41m
ELECTROPLATERS		Wheatley & Williams, Eliza st, off Waymouth st	17072	1930	Road Match	41m
ENGINEERS (Mechanical) AND MACHINISTS		Ramsay, Geo C, Eliza st, off Waymouth st	7344	1920	Road Match	41m
Basketmakers and Wickerworkers		Varcoe and Co, Eliza st, off Waymouth st	19483	1920	Road Match	41m
Basketmakers & Wickerworkers		Wiese & Varcoe, Eliza st, off Gouger st	61	1910	Road Match	41m
43		MOTOR ENGINEERS & REPAIRERS	North West Parking Station 29 Light sq Adel	13259	1973	Road Match
	FOOD SPECIALISTS	Sanders A J Ltd 24 Light sq Adelaide	16498	1973	Road Match	45m
	BOOKBINDERS	Vellum Bindery 22 Light sq Adelaide	20578	1973	Road Match	45m
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Cowan & Thorpe Light sq Adelaide	57954	1965	Road Match	45m

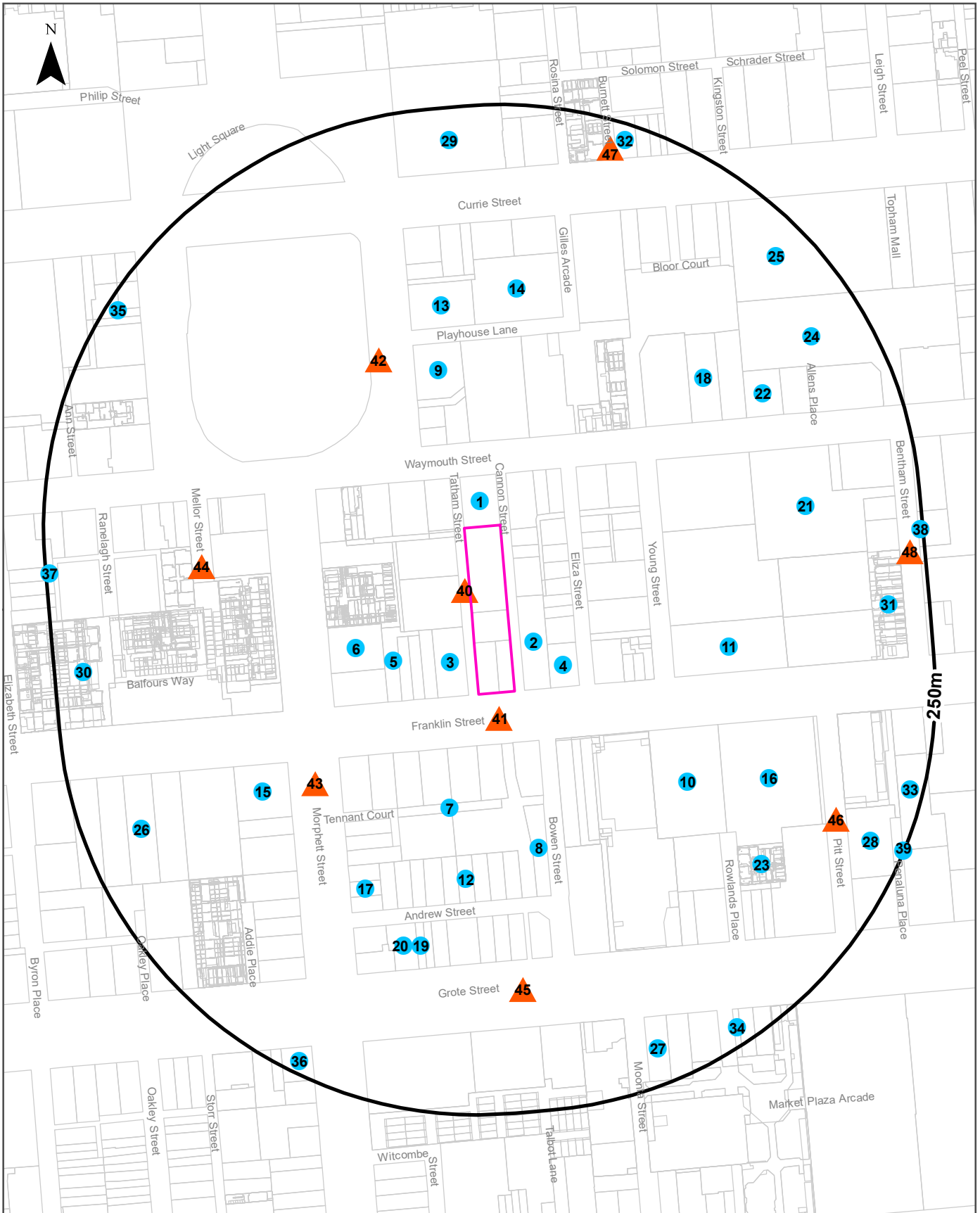
Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
43	Agents, Manufacturers' Agents & Indent Agents	Kornblums (SA) Ltd Light sq Adelaide	26252	1965	Road Match	45m
	FOOD SPECIALISTS	Sanders A J Ltd 24 Light sq Adelaide	13565	1965	Road Match	45m
	SCALES & WEIGHING MACHINE MAKERS & REPAIRERS	Alford J W C & Co 30 Light sq Adelaide	39903	1955	Road Match	45m
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Bolitho E A Light sq Adelaide	19344	1955	Road Match	45m
	PRINTERS & ALLIED TRADES	Pritchard & Bartholomew Limited Light sq Adel	38335	1955	Road Match	45m
	STATIONERS (Wholesale)	SANDS & McDOUGALL PTY. LTD,Light Square	631	1955	Road Match	45m
	Carriers & Haulage Contractors	Willsmore Carrying Co Ltd 24 Light sq Adel	20908	1955	Road Match	45m
	SCALES REPAIRERS	Alford, J. W. G. & Co, Light sq	10817	1940	Road Match	45m
	WEIGHING MACHINES AND SCALES	Alford, J. W. G. & Co, Light sq	16998	1940	Road Match	45m
	WELDERS-ELECTRIC AND OXY-ACETYLENE	Alford, J. W. G. & Co, Light sq	17002	1940	Road Match	45m
	ICE MANUFACTURERS	Government Produce and Export Dept., Light sq	3112	1940	Road Match	45m
	Printers And Allied Trades	Pritchard & Bartholomew, off Light sq	10039	1940	Road Match	45m
	BOOKSELLERS, STATIONERS, AND NEWSAGENTS	Pritchard and Bartholomew, 30 Light sq	12015	1940	Road Match	45m
	HARDWARE MERCHANTS & IRONMONGERS	Robinson, J. Sankey , Light sq	2242	1940	Road Match	45m
	MERCHANTS, IMPORTERS, AND WAREHOUSEMEN	Crapp & .Hawkes, 96 Light sq	23656	1930	Road Match	45m
	HIDE AND SKIN STORES	Dalgety & Co Ltd, 115 Light sq	19970	1930	Road Match	45m
	PETROL STORAGE SYSTEMS AND SERVICE STATIONS	Drummond's Auto Ltd, 89 Light square	3809	1930	Road Match	45m
	HIDE AND SKIN STORES	Elder, Smith & Co Ltd, 99 Light sq	19972	1930	Road Match	45m
	EXPORTERS	Government Export Produce Depot. Light sq	17287	1930	Road Match	45m
	AGRICULTURAL IMPLEMENT MAKERS AND IMPORTERS	Jones, J. W, 128 Light sq	1465	1930	Road Match	45m
	BOOKSELLERS, STATIONERS, AND NEWSAGENTS	Pritchard and Bartholomew, 90 Light sq	6113	1930	Road Match	45m
	SAFE MAKERS (Iron)	ROBINSON J. SANKEY , Light Square east	6796	1930	Road Match	45m
	FIRE RESISTING SAFE MAKERS	ROBINSON, J. SANKEY , Light Square East	17645	1930	Road Match	45m
	IRON AND STEEL MERCHANTS	ROBINSON, J. SANKEY, Light Square East	20812	1930	Road Match	45m
	Blacksmiths and Farriers	Abbott Bros & Hill, Light sq	19608	1920	Road Match	45m
	Merchants, Importers and Warehousemen	Chalinder, H, propr, Ortox Manufacturing Co, Light sq, off Morphett st	12438	1920	Road Match	45m
	HIDE AND SKIN STORES	Dalgety & Co Ltd, Light sq	9519	1920	Road Match	45m
	Millers	Denton and Co (Israel Taylor), Light sq west	12863	1920	Road Match	45m
	HIDE AND SKIN STORES	Elder, Smith & Co Ltd, Light sq	9520	1920	Road Match	45m
	Exporters	Government Export Produce Depot,Light sq	7405	1920	Road Match	45m
	Butchers	Government Meat-store, Light sq	3219	1920	Road Match	45m
	AGRICULTURAL IMPLEMENT MAKERS AND IMPORTERS	Jones, J. W, Light sq	17994	1920	Road Match	45m
	Blacksmiths and Farriers	Jones, J. W, Light sq	625	1920	Road Match	45m
Firewood Merchants	Kennedy, Thos, Light sq	7683	1920	Road Match	45m	

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
43	ENGINEERS (Mechanical) AND MACHINISTS	Moncrieff Engineering Co, Garage E. L. Moncrieff, Light sq, off Morphett st	7330	1920	Road Match	45m
	Butchers	Producers' Wholesale Meat Co Ltd, Light sq	3452	1920	Road Match	45m
	Blacksmiths and Farriers	Abbott, M, Light sq east	133	1910	Road Match	45m
	Blacksmiths and Farriers	Black, J, Gilles Arcade, Light sq	172	1910	Road Match	45m
	Tobacco & Cigar Manufacturers	British Australasian Tobacco Co, Light sq west	15581	1910	Road Match	45m
	Millers Including Corn & Grain Merchants	Denton and Co, Light sq	11635	1910	Road Match	45m
	Chaff Cutters and Dealers	Denton and Co, Light sq W.	4233	1910	Road Match	45m
	Plumbers and Gasfitters	James, L, Light sq	12458	1910	Road Match	45m
	AGRICULTURAL IMPLEMENT MAKERS AND IMPORTERS	Jones, J. W. and Co, Light sq east	17083	1910	Road Match	45m
	Blacksmiths and Farriers	Jones, J.W., & Co, Light sq	446	1910	Road Match	45m
	Artists (Not Photographers)	SANDS & McDOUGALL, Light sq	17196	1910	Road Match	45m
	Booksellers, Stationers, and News Agents	SANDS & McDOUGALL, Light sq	1344	1910	Road Match	45m
	Box Makers	SANDS & McDOUGALL, Light sq	1939	1910	Road Match	45m
	Lithographers	Sands & McDougall, Light sq	9765	1910	Road Match	45m
	Bookbinders	SANDS & McDOUGALL, Light sq	1222	1910	Road Match	45m
	Engravers	SANDS and McDOUGALL, Light sq	7017	1910	Road Match	45m
	Rubber Stamp Manufacturers	SANDS and McDOUGALL, Light sq	12987	1910	Road Match	45m
	Coopers	Schahinger, W, Light sq	5216	1910	Road Match	45m
	Limeburners	Stansbury Lime Depot (The), Light sq east-Pitt, A. W. G.	9755	1910	Road Match	45m

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Dry Cleaners, Motor Garages & Service Stations

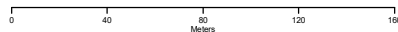
108-112 Franklin Street, Adelaide, SA 5000



Legend

- Site Boundary
- Buffer 250m
- Property Boundary
- Business directory records mapped to a specific premise
- Business directory records mapped to a road intersection
- ▲ Business directory records mapped to a road corridor
- Business directory records mapped to a general area

Scale:



Coordinate System:
GDA 1994 MGA Zone 54

Date: 18 May 2023

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Historical Business Directories

108-112 Franklin Street, Adelaide, SA 5000

Dry Cleaners, Motor Garages & Service Stations 1930-1991 Premise or Road Intersection Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories and Sands & McDougall's Directories, from years 1991, 1984, 1973, 1965, 1955, 1950, 1940 & 1930, mapped to a premise or road intersection, within the dataset buffer.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
1	Motor Garages &/or Engineers &/or Service Stations	Cousin, Laurie Automotive, 127 Waymouth St.,	18285	1984	Premise Match	0m	North
2	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Car Park 102-104 Franklin st Adelaide	57805	1965	Premise Match	6m	South East
3	MOTOR GARAGES, ENGINEERS & SERVICE STATIONS	Kingsway Ltd., 118-120 Franklin St.	14030	1950	Premise Match	6m	South West
4	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Queens Bridge Motor & Engineering Co Pty Ltd 96-100 Franklin st Adelaide	6634	1965	Premise Match	22m	South East
5	Dry Cleaners, Dyers & Laundries	Tip Top Dry Cleaners 130 Franklin st Adel	50066	1965	Premise Match	32m	South West
6	Dry Cleaners & Pressers	Collinswood Dry Cleaners 188 Morphett St..	9628	1984	Premise Match	54m	West
7	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Car Park 117a Franklin st Adelaide	57806	1965	Premise Match	63m	South
8	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Car Park 20 Bowen st Adelaide	57808	1965	Premise Match	69m	South
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Western Motors 18 Bowen st Adelaide	9839	1965	Premise Match	69m	South
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Western Motors 18-20 Bowen st Adelaide	23027	1955	Premise Match	69m	South
9	MOTOR GARAGES & SERVICE STATIONS	Caltex Service Station 62 Light sq Adelaide	14411	1973	Premise Match	78m	North
	MOTOR GARAGES & SERVICE STATIONS	Light Square Service Station 62 Light sq Adel	16621	1973	Premise Match	78m	North
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Light Square Service Station 62-72 Light sq Adelaide	3292	1965	Premise Match	78m	North
10	Motor Engineers, Garages And Service Stations	Devonshire Motors Ltd., 71 Franklin st	6785	1940	Premise Match	83m	South East
11	Motor Garages &/or Engineers &/or Service Stations	United Motors, 72 Franklin St.,	18571	1984	Premise Match	95m	East
12	Motor Garages & Service Stations	XJ Motors, 12 Andrew St, Adelaide, 5000	27959	1991	Premise Match	96m	South
13	Motor Garages &/or Engineers &/or Service Stations	Champions Pty. Ltd., 52 Light Sq.,	18280	1984	Premise Match	120m	North
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Champion's Limited 52-58 Light sq Adelaide	19500	1955	Premise Match	120m	North
14	MOTOR GARAGES, ENGINEERS & SERVICE STATIONS	Champion's Ltd., Service Station, 123-127 Currie St.	13932	1950	Premise Match	120m	North
	Motor Engineers, Garages And Service Stations	Dale, R. W., 123-125 Currie st	6777	1940	Premise Match	120m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
15	PETROL STORAGE SYSTEMS AND SERVICE STATIONS	Advance Tyre Service Station, 201 Morphett st	3772	1930	Premise Match	121m	South West
16	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Devonshire Motors Car Park 18-20 Rowlands pl Adelaide	58878	1965	Premise Match	122m	South East
	MOTOR GARAGES, ENGINEERS & SERVICE STATIONS	Hannan Bros., 63 Franklin St.	13998	1950	Premise Match	122m	South East
	Motor Engineers, Garages And Service Stations	Dingle Motor Co, 63 Frnkln st	6788	1940	Premise Match	122m	South East
17	Motor Engineers, Garages And Service Stations	Fox Motor Coy, 226 Morphett st	6826	1940	Premise Match	125m	South West
	PETROL STORAGE SYSTEMS AND SERVICE STATIONS	Senn, N. M, 226 Morphett st	3867	1930	Premise Match	125m	South West
18	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Parking Station 88 Waymouth st Adelaide	5689	1965	Premise Match	129m	North East
19	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Capurso G 128a Grote st Adelaide	57804	1965	Premise Match	139m	South
20	MOTOR GARAGES & SERVICE STATIONS	Mobil Oil Aust Ltd 130 Grote st Adelaide	16660	1973	Premise Match	141m	South
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Mobil Service Station 130 Grote st Adelaide	4366	1965	Premise Match	141m	South
21	Motor Engineers, Garages And Service Stations	Hunt Bros., 69 Waymouth st	6889	1940	Premise Match	151m	East
22	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Haywoods Parking Station 76-78 Waymouth st Adelaide	1190	1965	Premise Match	160m	North East
23	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Campbell L C 16 Rowlands pl Adelaide	19465	1955	Premise Match	161m	South East
24	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Waymouth Street Parking Station Ltd 42-48 Waymouth st Adelaide	9792	1965	Premise Match	171m	North East
25	Dry Cleaners, Dyers & Laundries	Barker Bros 73-77 Currie st Adelaide	48935	1965	Premise Match	193m	North East
	Motor Engineers, Garages And Service Stations	State Motors Ltd., 73-77 Currie st	7095	1940	Premise Match	193m	North East
26	Motor Garages & Service Stations	Franklin Motors Pty Ltd, 163 Franklin St, Adelaide, 5000	27682	1991	Premise Match	200m	South West
27	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Hubbard Motors Ltd 8 Moonta st Adelaide	1311	1965	Premise Match	208m	South
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Hubbard Motors Ltd 8 Moonta st Adelaide	20621	1955	Premise Match	208m	South
28	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Car Park 24-26 Pitt st Adelaide	57809	1965	Premise Match	209m	South East
29	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Cowan & Thorpe 130 Currie st Adelaide	19578	1955	Premise Match	211m	North
	MOTOR GARAGES, ENGINEERS & SERVICE STATIONS	Cowan & Thorpe., 130 Currie St.	13952	1950	Premise Match	211m	North
	MOTOR GARAGES, ENGINEERS & SERVICE STATIONS	Cowan And Thorpe., 128-130 Currie St.	13859	1950	Premise Match	211m	North
	Motor Engineers, Garages And Service Stations	Cowan & Thorpe, 130 Currie st	6763	1940	Premise Match	211m	North

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
30	Motor Engineers, Garages And Service Stations	Sandercock & McDonald, 180 Franklin st	7066	1940	Premise Match	215m	West
31	MOTOR GARAGES, ENGINEERS & SERVICE STATIONS	South Australian Farmers' Co-operative Union Ltd., 36 Franklin St.	14133	1950	Premise Match	216m	East
32	Motor Engineers, Garages And Service Stations	Power Plant Ltd., 98 Currie st	7035	1940	Premise Match	228m	North
33	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Caldwell R L 16-20 Penaluna pl Adelaide	56989	1965	Premise Match	229m	South East
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Caldwell R L 16 Penaluna pl Adelaide	19457	1955	Premise Match	229m	South East
34	Motor Engineers, Garages And Service Stations	Harris, A. E., 69 Grote st	6860	1940	Premise Match	229m	South East
35	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Wills G & R & Co Ltd 147-149 Currie st Adel	9906	1965	Premise Match	230m	North West
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Wills G & R & Co Ltd 147-149 Currie st Adel	23078	1955	Premise Match	230m	North West
	MOTOR GARAGES, ENGINEERS & SERVICE STATIONS	Wills, G. & R., 143-149 Currie St.	14184	1950	Premise Match	230m	North West
	Motor Engineers, Garages And Service Stations	Bolitho, E. A., 147 Currie st	6714	1940	Premise Match	230m	North West
36	MOTOR GARAGES & SERVICE STATIONS	Kelly's Service Station 145 Grote st Adelaide	15803	1973	Premise Match	231m	South West
	MOTOR GARAGES & SERVICE STATIONS	Kelly's Service Station 241-245 Morphett st Adelaide	15804	1973	Premise Match	231m	South West
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Esso Service Station Brown st Adelaide	59036	1965	Premise Match	231m	South West
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Kelly Service Station 3-5 Brown st Adelaide	2283	1965	Premise Match	231m	South West
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Kelly's Service Station 145 Grote st Adelaide	2285	1965	Premise Match	231m	South West
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Kellys Service Station 3-5 Brown st Adelaide	2284	1965	Premise Match	231m	South West
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Kelly Service Station 3-5 Brown st Adelaide	21011	1955	Premise Match	231m	South West
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Kelly's Service Station 145 Grote st Adelaide	21012	1955	Premise Match	231m	South West
	Motor Engineers, Garages And Service Stations	Kelly's Service Station, 145 Grote st	6909	1940	Premise Match	231m	South West
	Motor Engineers, Garages And Service Stations	Kelly's Service Station, 3 Brown st	6908	1940	Premise Match	231m	South West
	PETROL STORAGE SYSTEMS AND SERVICE STATIONS	Collyer's Service Station, 3 Brown st	3796	1930	Premise Match	231m	South West
	PETROL STORAGE SYSTEMS AND SERVICE STATIONS	Kelly's Service Station, 145 Grote st	3832	1930	Premise Match	231m	South West
	PETROL STORAGE SYSTEMS AND SERVICE STATIONS	Kelly's Service Station, 3 Brown st	3831	1930	Premise Match	231m	South West
	37	Motor Garages & Service Stations	Bill's Auto Repairs, 52 Elizabeth St, Adelaide, 5000	27505	1991	Premise Match	245m

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Property Boundary or Road Intersection	Direction
37	Motor Garages &/or Engineers &/or Service Stations	Bill's Auto Repairs 52 Elizabeth St,	18202	1984	Premise Match	245m	West
38	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Central Garage 20 Bentham st Adelaide	19494	1955	Premise Match	247m	East
39	MOTOR GARAGES, ENGINEERS & SERVICE STATIONS	Flinders Motor Panel Works., 12-14 Penaluna PL	13973	1950	Premise Match	249m	South East

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Dry Cleaners, Motor Garages & Service Stations 1930-1991 Road or Area Matches

Dry Cleaners, Motor Garages & Service Stations from UBD Business Directories and Sands & McDougall's Directories, from years 1991, 1984, 1973, 1965, 1955, 1950, 1940 & 1930, mapped to a road or an area, within the dataset buffer. Records are mapped to the road when a building number is not supplied, cannot be found, or the road has been renumbered since the directory was published.

Map Id	Business Activity	Premise	Ref No.	Year	Location Confidence	Distance to Road Corridor or Area
40	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Robinson Motor Co Tatham st Adelaide	6755	1965	Road Match	1m
41	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Metropolitan Parking Station Franklin st Adelaide	4332	1965	Road Match	13m
42	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Cowan & Thorpe Light sq Adelaide	57954	1965	Road Match	45m
	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Bolitho E A Light sq Adelaide	19344	1955	Road Match	45m
	PETROL STORAGE SYSTEMS AND SERVICE STATIONS	Drummond's Auto Ltd, 89 Light square	3809	1930	Road Match	45m
43	MOTOR GARAGES & SERVICE STATIONS	Burke J P 321 Morphett st Adelaide	14405	1973	Road Match	99m
	MOTOR GARAGES, ENGINEERS & SERVICE STATIONS	Coventry Motors., 43 Brown St.	13951	1950	Road Match	99m
	MOTOR GARAGES, ENGINEERS & SERVICE STATIONS	ppbell, L. C., 13 Brown St.	13923	1950	Road Match	99m
44	Motor Engineers, Garages And Service Stations	Conway, C., Mellor st	6758	1940	Road Match	155m
45	Dry Cleaners, Dyers & Laundries	Glenelg Dry Cleaning & Dyeing Works Limited, Cowell Buildings, Grote Street	28739	1955	Road Match	173m
46	MOTOR ENGINEERS, GARAGES & SERVICE STATIONS	Eclipse Motors Pty Ltd Pitt st Adelaide	58981	1965	Road Match	182m
47	Motor Engineers, Garages And Service Stations	Fordson Service Stn, Burnett st	6819	1940	Road Match	216m
48	Dry Cleaners, Dyers & Laundries	GLENELG DRY CLEANING & DYEING WORKS LIMITED,33 Adelaide Arcade, T. & G. Buildings, Bentham Street	28738	1955	Road Match	239m
	Dry Cleaners, Dyers & Laundries	Glenelg Dyeing & Dry Cleaning Works Ltd 7 Bentham st Adelaide	29319	1955	Road Match	239m
	Motor Engineers, Garages And Service Stations	Central Garage, Bentham st	6743	1940	Road Match	239m

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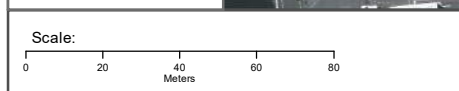
Aerial Imagery 2023

108-112 Franklin Street, Adelaide, SA 5000



Legend

- Site Boundary
- Buffer 150m



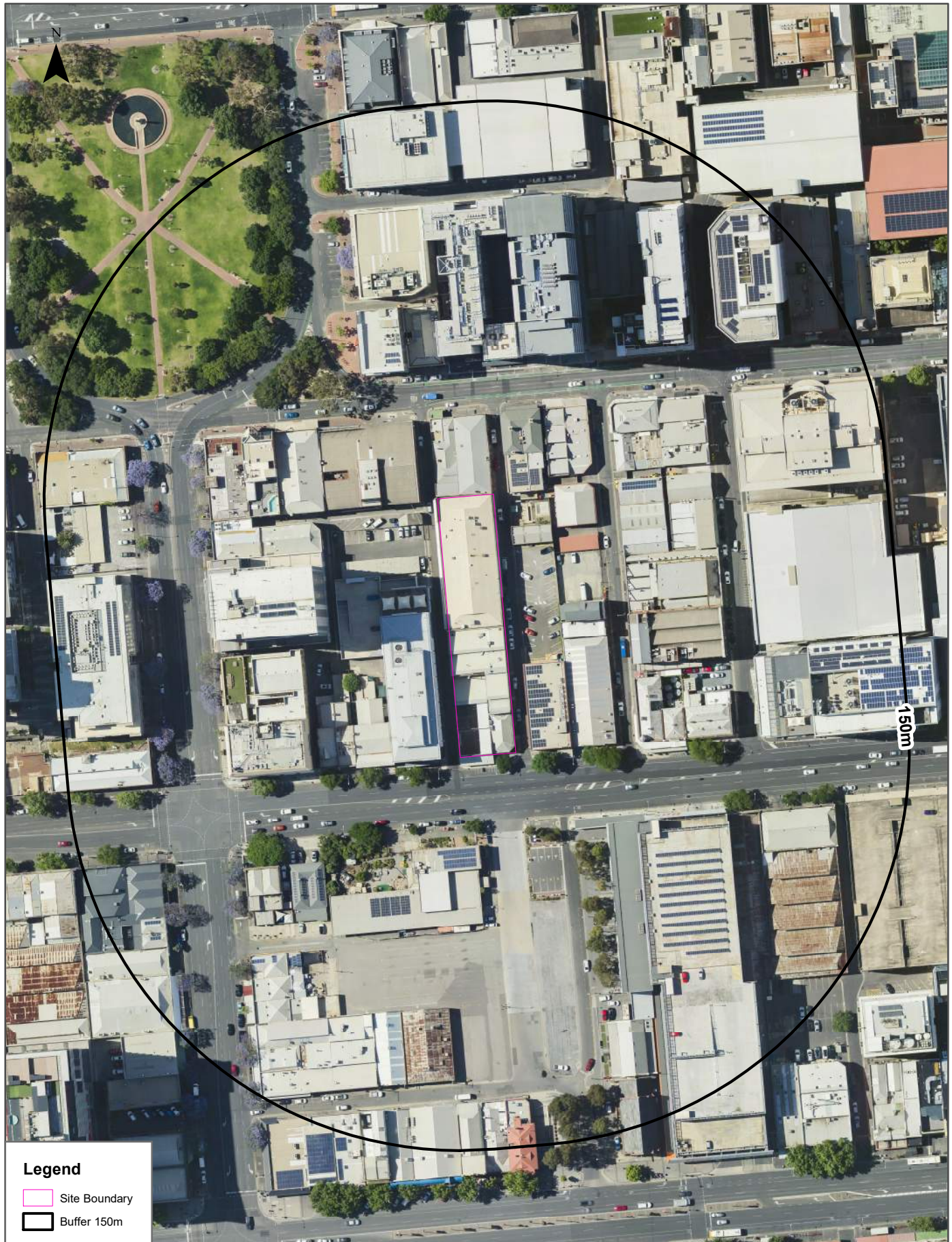
Data Source Aerial Imagery:
© Aerometrex Pty Ltd

Coordinate System:
GDA 1994 MGA Zone 54

Date: 18 May 2023

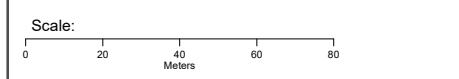
Aerial Imagery 2020

108-112 Franklin Street, Adelaide, SA 5000



Legend

- Site Boundary
- Buffer 150m



Data Source Aerial Imagery:
© Aerometrex Pty Ltd

Coordinate System:
GDA 1994 MGA Zone 54



Date: 18 May 2023

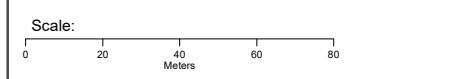
Aerial Imagery 2017

108-112 Franklin Street, Adelaide, SA 5000



Legend

-  Site Boundary
-  Buffer 150m



Data Source Aerial Imagery:
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Coordinate System:
GDA 1994 MGA Zone 54

Date: 18 May 2023



Aerial Imagery 2014

108-112 Franklin Street, Adelaide, SA 5000

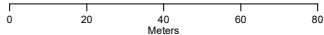


150m

Legend

-  Site Boundary
-  Buffer 150m

Scale:



Data Source Aerial Imagery:
© Aerometrex Pty Ltd

Coordinate System:
GDA 1994 MGA Zone 54



Date: 18 May 2023

Aerial Imagery 2011

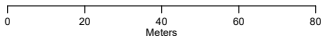
108-112 Franklin Street, Adelaide, SA 5000



Legend

-  Site Boundary
-  Buffer 150m

Scale:



Data Source Aerial Imagery:
© Aerometrex Pty Ltd

Coordinate System:
GDA 1994 MGA Zone 54



Date: 18 May 2023

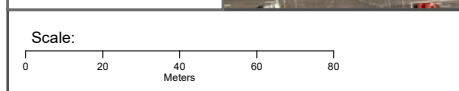
Aerial Imagery 2008

108-112 Franklin Street, Adelaide, SA 5000



Legend

-  Site Boundary
-  Buffer 150m



Data Source Aerial Imagery:
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Coordinate System:
GDA 1994 MGA Zone 54



Date: 18 May 2023

Aerial Imagery 2004


108-112 Franklin Street, Adelaide, SA 5000



Legend

-  Site Boundary
-  Buffer 150m

Scale:



0 20 40 60 80
Meters

Data Source Aerial Imagery:
© Aerometrex Pty Ltd

Coordinate System:
GDA 1994 MGA Zone 54



Date: 18 May 2023

Aerial Imagery 2002

108-112 Franklin Street, Adelaide, SA 5000



Legend

-  Site Boundary
-  Buffer 150m



Data Source Aerial Imagery:
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Coordinate System:
GDA 1994 MGA Zone 54

Date: 18 May 2023

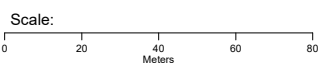
Aerial Imagery 1997-1998

108-112 Franklin Street, Adelaide, SA 5000



Legend

-  Site Boundary
-  Report Buffer



Data Sources: Aerial Imagery:
© South Australia Department for Environment & Water

Coordinate System:
GDA 1994 MGA Zone 54

Date: 18 May 2023



Aerial Imagery 1986-1989

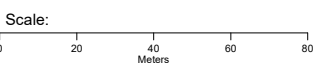
108-112 Franklin Street, Adelaide, SA 5000



150m

Legend

-  Site Boundary
-  ReportBuffer



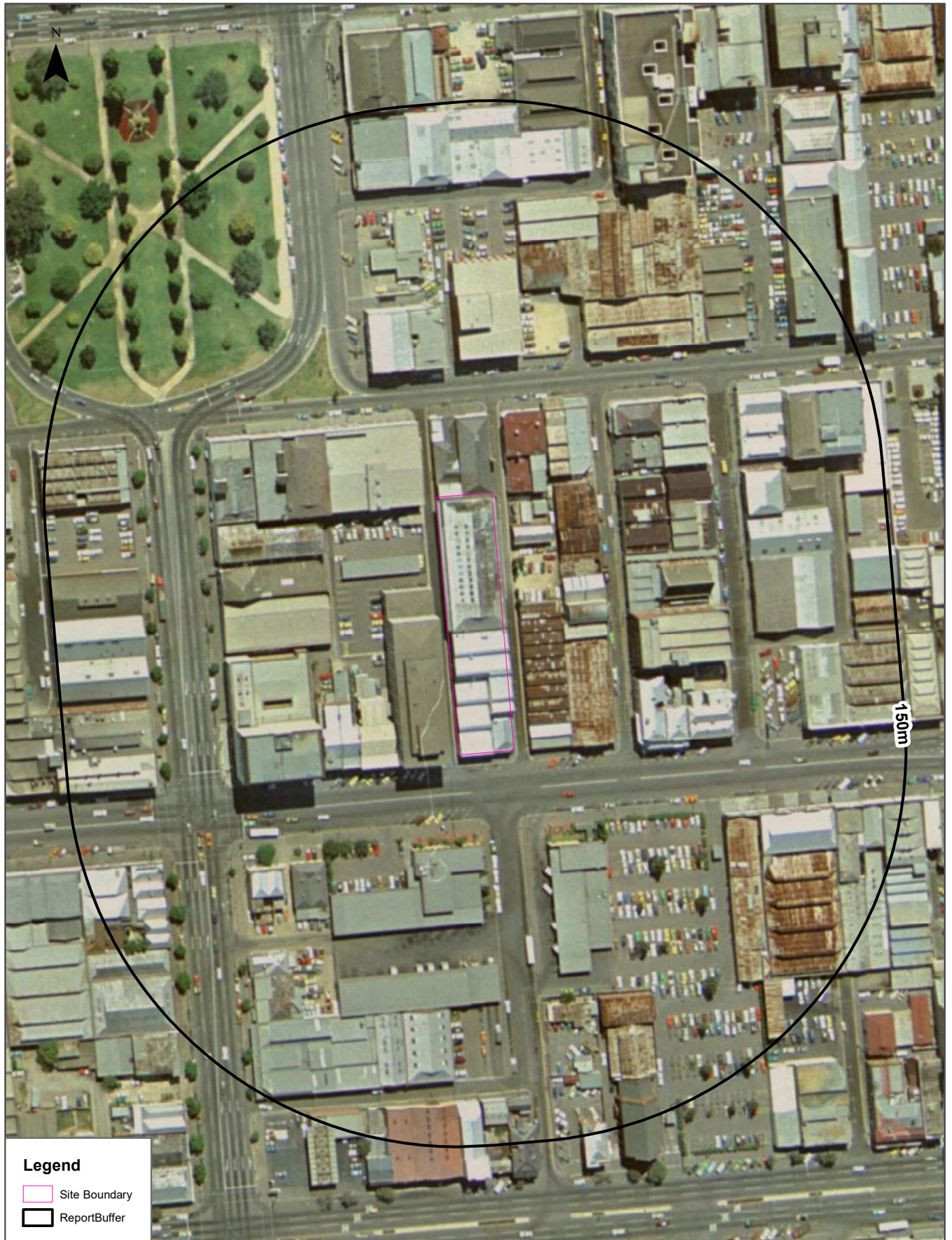
Data Sources: Aerial Imagery:
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Coordinate System:
GDA 1994 MGA Zone 54



Date: 18 May 2023

Aerial Imagery 1979

108-112 Franklin Street, Adelaide, SA 5000



Legend

-  Site Boundary
-  ReportBuffer

Scale:



0 20 40 60 80
Meters

Data Sources: Aerial Imagery:
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Coordinate System:
GDA 1994 MGA Zone 54



Date: 18 May 2023

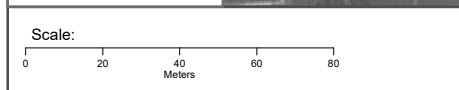
Aerial Imagery 1968-1969

108-112 Franklin Street, Adelaide, SA 5000



Legend

-  Site Boundary
-  ReportBuffer



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Coordinate System:
GDA 1994 MGA Zone 54



Date: 18 May 2023

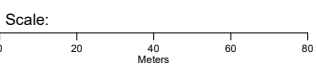
Aerial Imagery 1959-1961

108-112 Franklin Street, Adelaide, SA 5000



Legend

-  Site Boundary
-  ReportBuffer



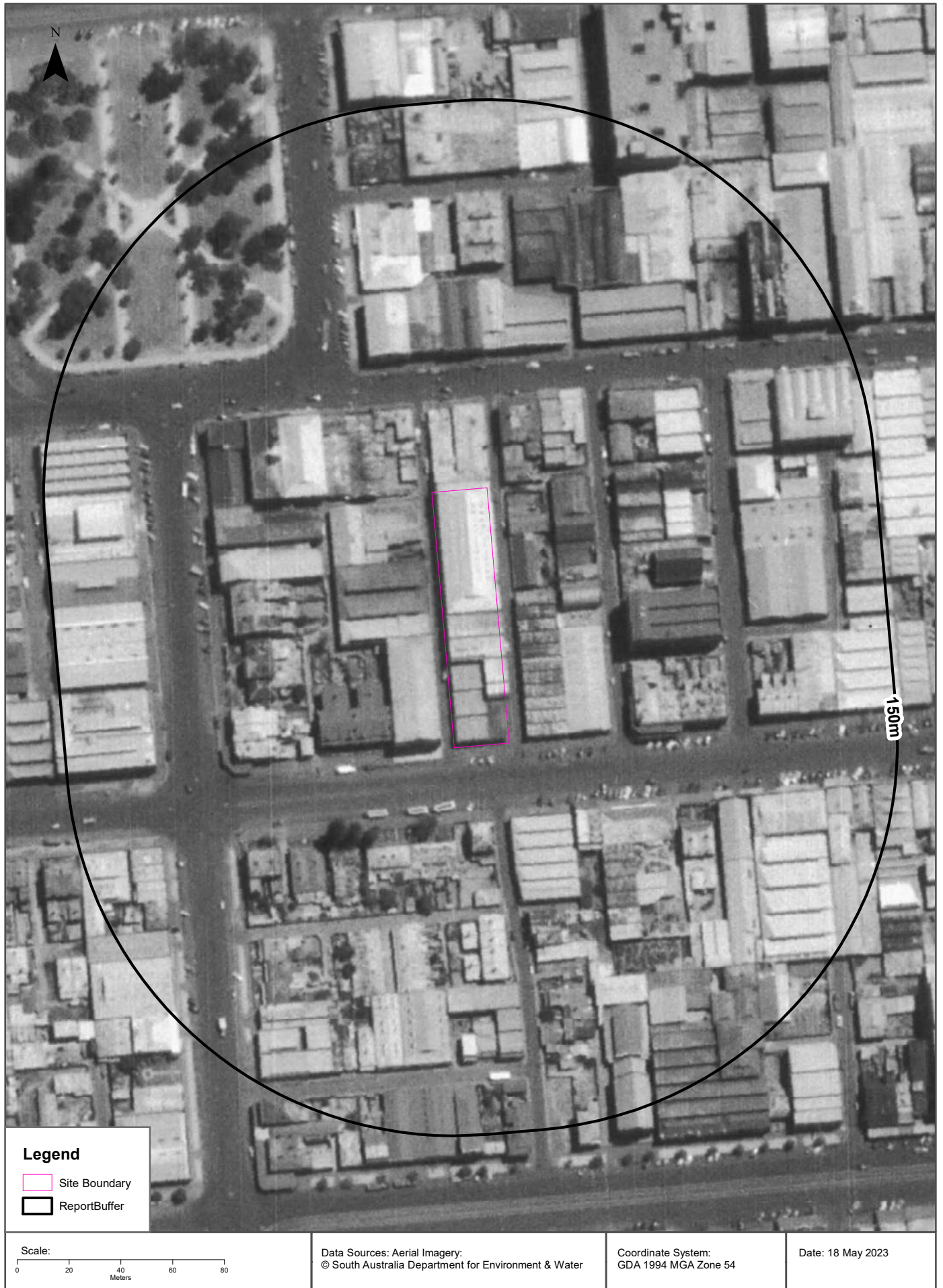
Data Sources: Aerial Imagery:
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Coordinate System:
GDA 1994 MGA Zone 54

Date: 18 May 2023

Aerial Imagery 1949

108-112 Franklin Street, Adelaide, SA 5000





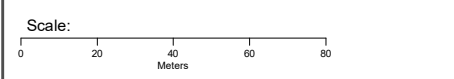
Aerial Imagery 1935

108-112 Franklin Street, Adelaide, SA 5000



Legend

-  Site Boundary
-  Buffer 150m



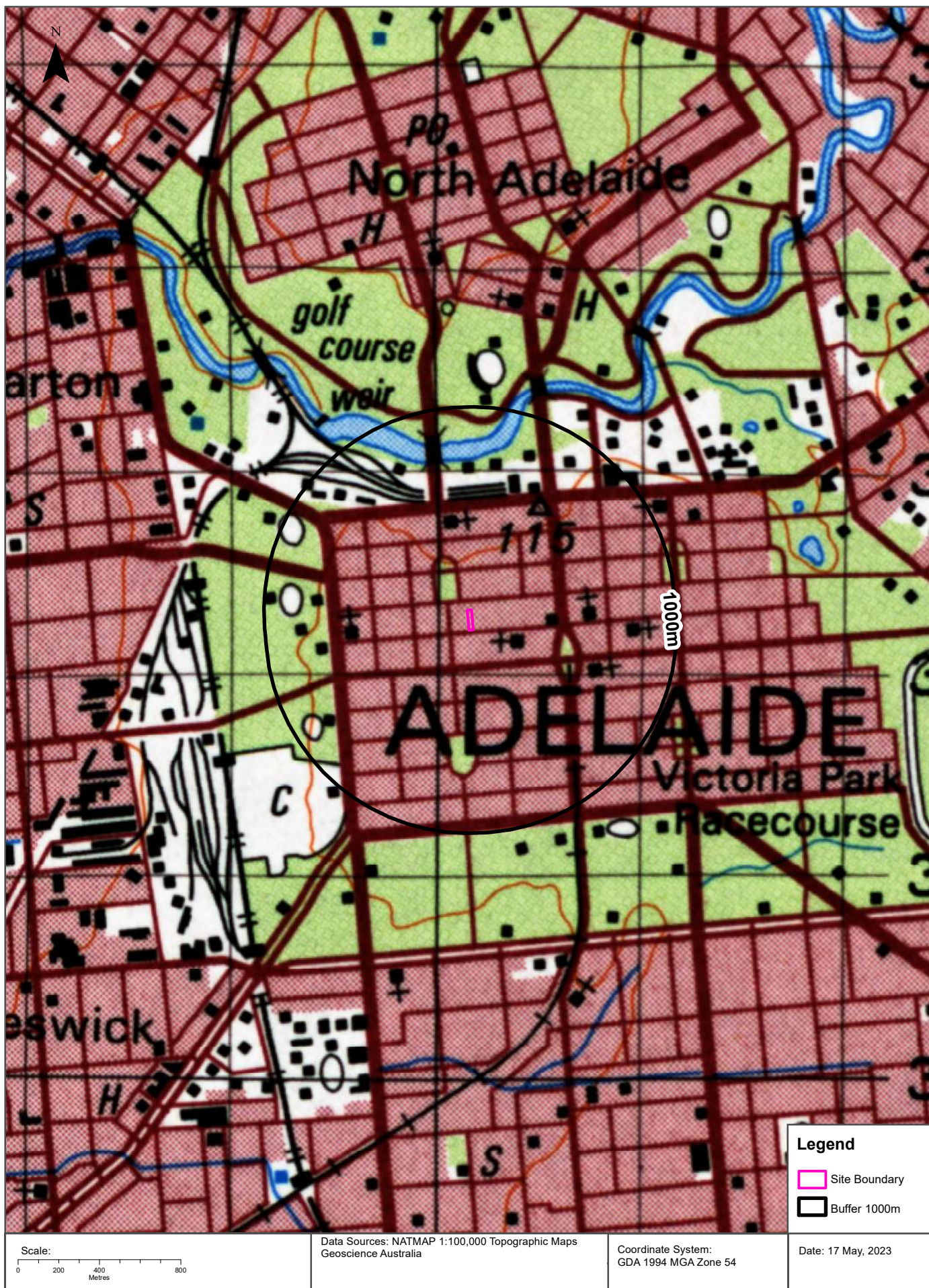
Data Source Aerial Imagery: © 2023 Geoscience Australia

Coordinate System:
GDA 1994 MGA Zone 54

Date: 17 May 2023

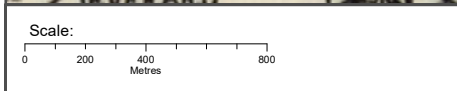
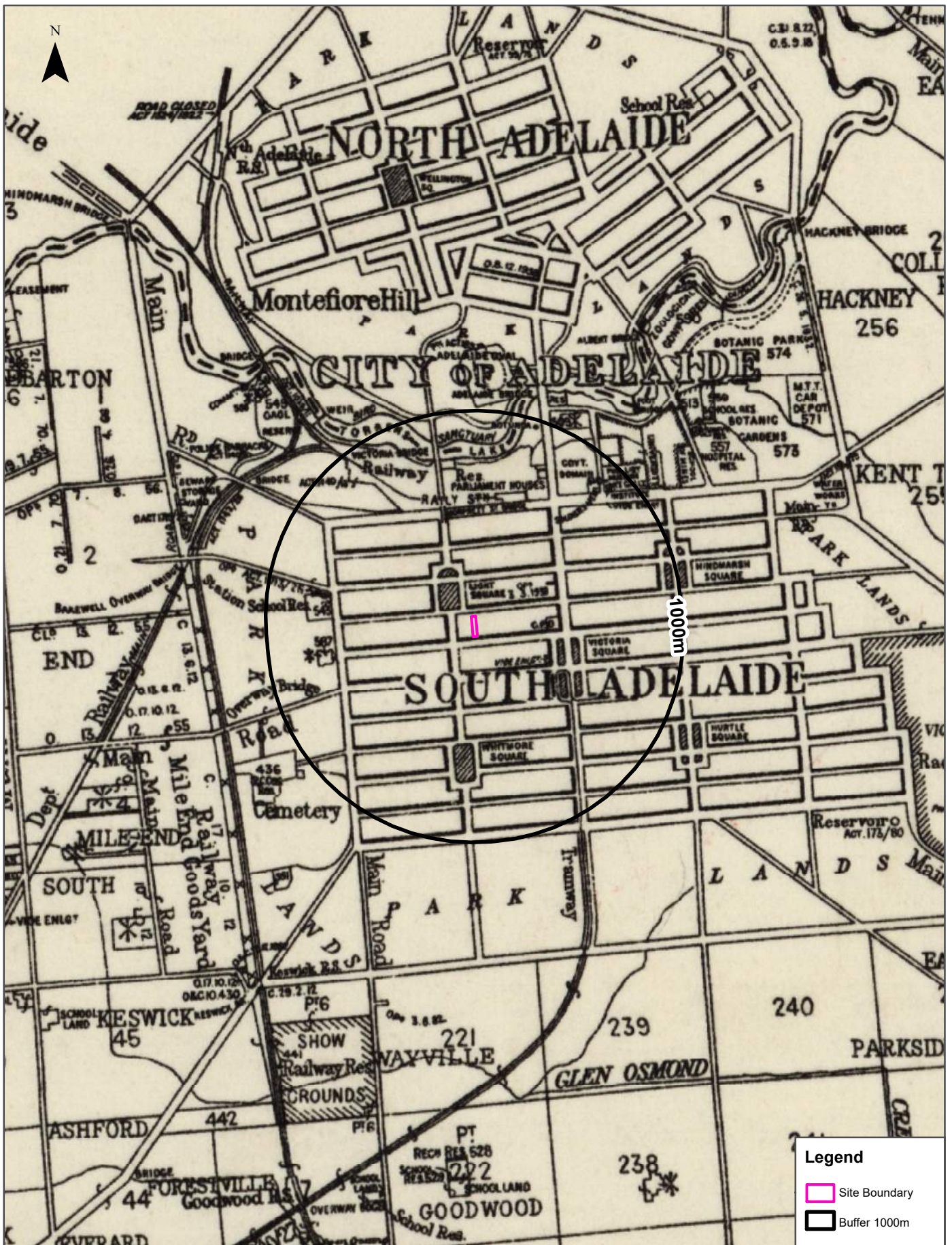
Historical Map 1982

108-112 Franklin Street, Adelaide, SA 5000



Historical Map 1959

108-112 Franklin Street, Adelaide, SA 5000



Data Sources: Hundred Map - Adelaide
Surveyor General's Office, Adelaide

Coordinate System:
GDA 1994 MGA Zone 54

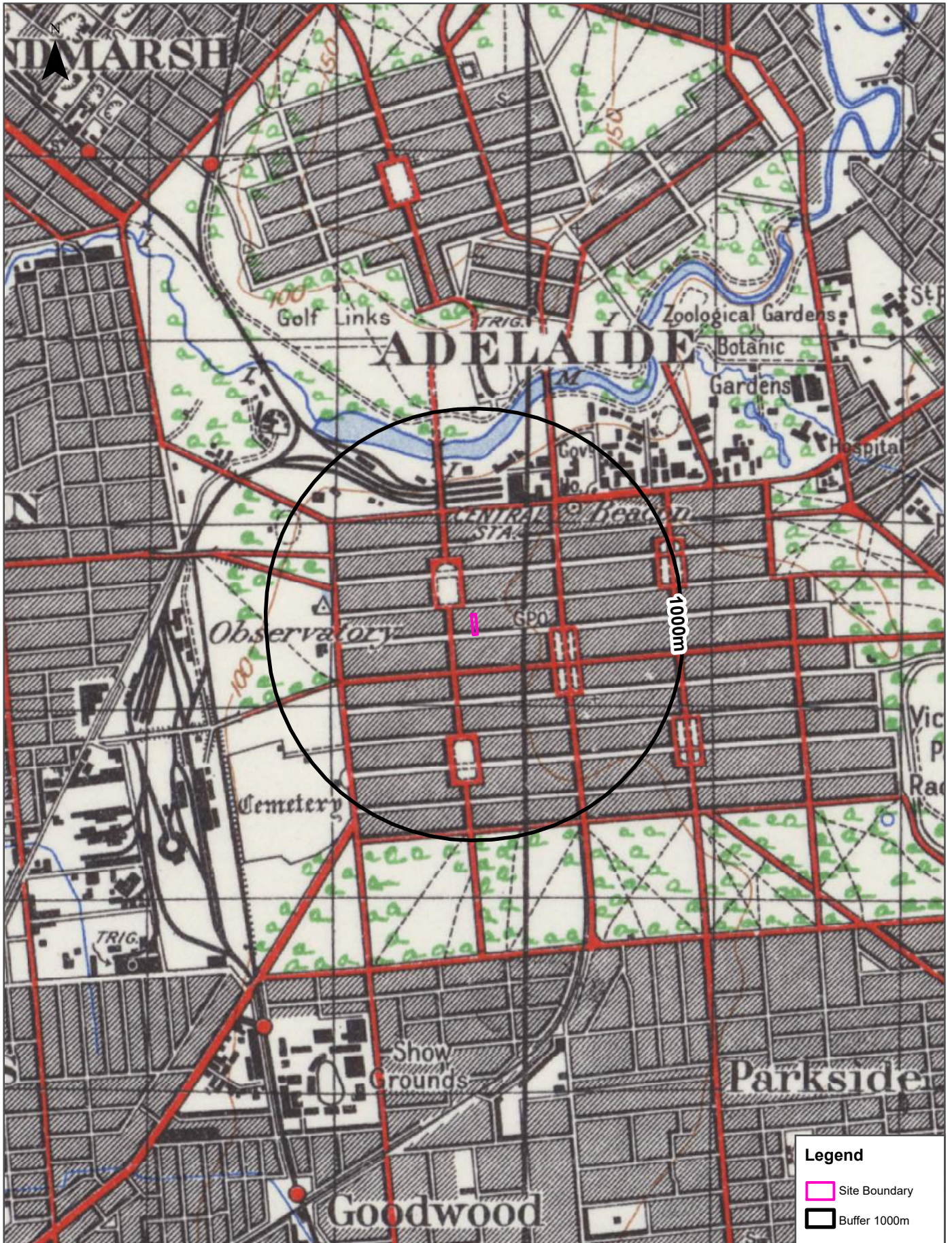
Date: 17 May, 2023

Legend



- Site Boundary
- Buffer 1000m

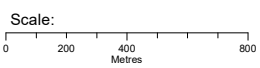
Historical Map c.1937

108-112 Franklin Street, Adelaide, SA 5000



Legend

-  Site Boundary
-  Buffer 1000m



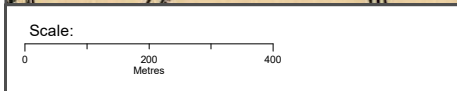
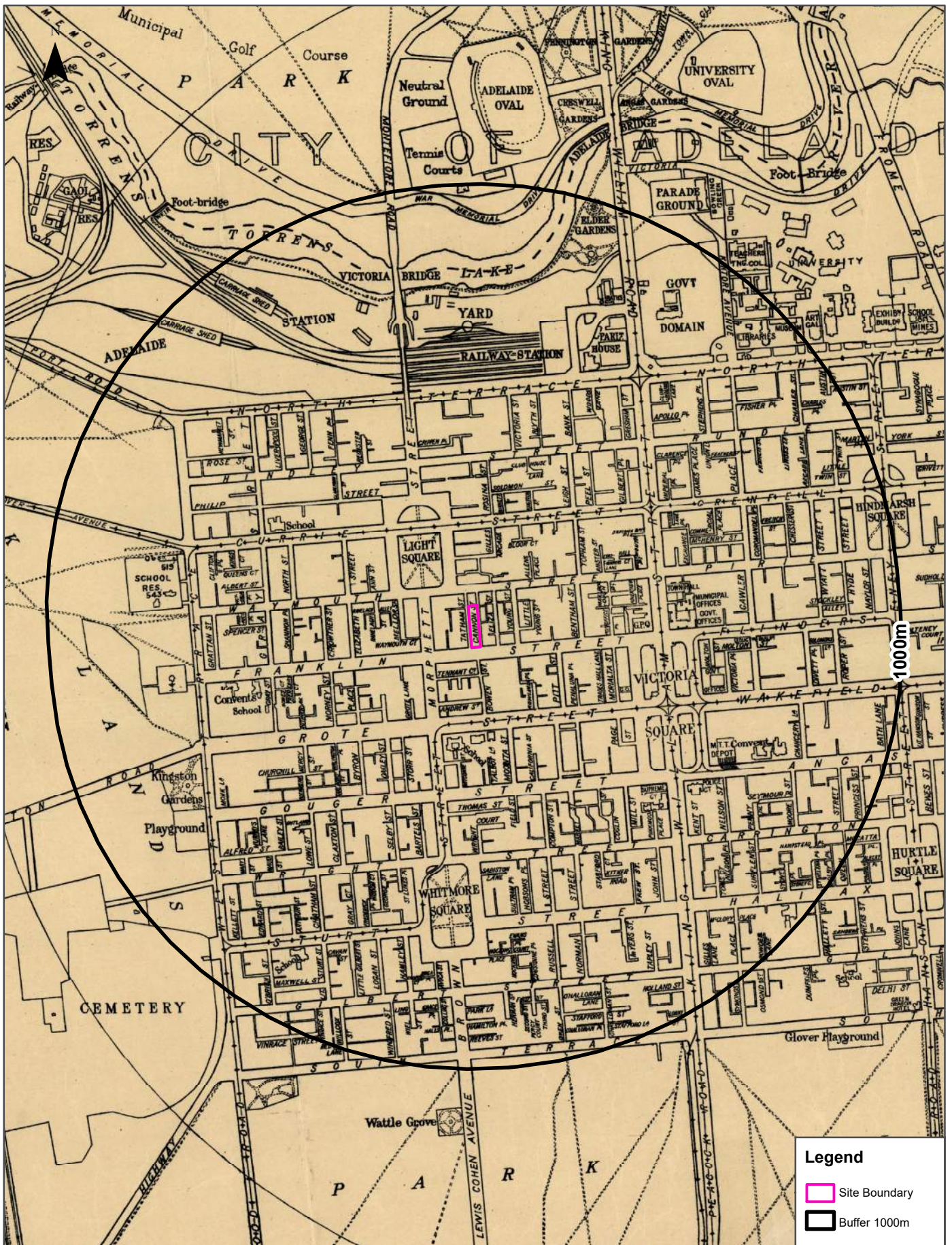
Data Sources: Australia 1:63,360
Prepared by Commonwealth Section Imperial General Staff

Coordinate System:
GDA 1994 MGA Zone 54

Date: 17 May, 2023

Historical Map 1927

108-112 Franklin Street, Adelaide, SA 5000



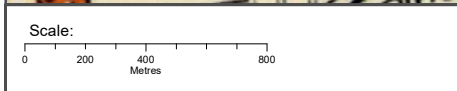
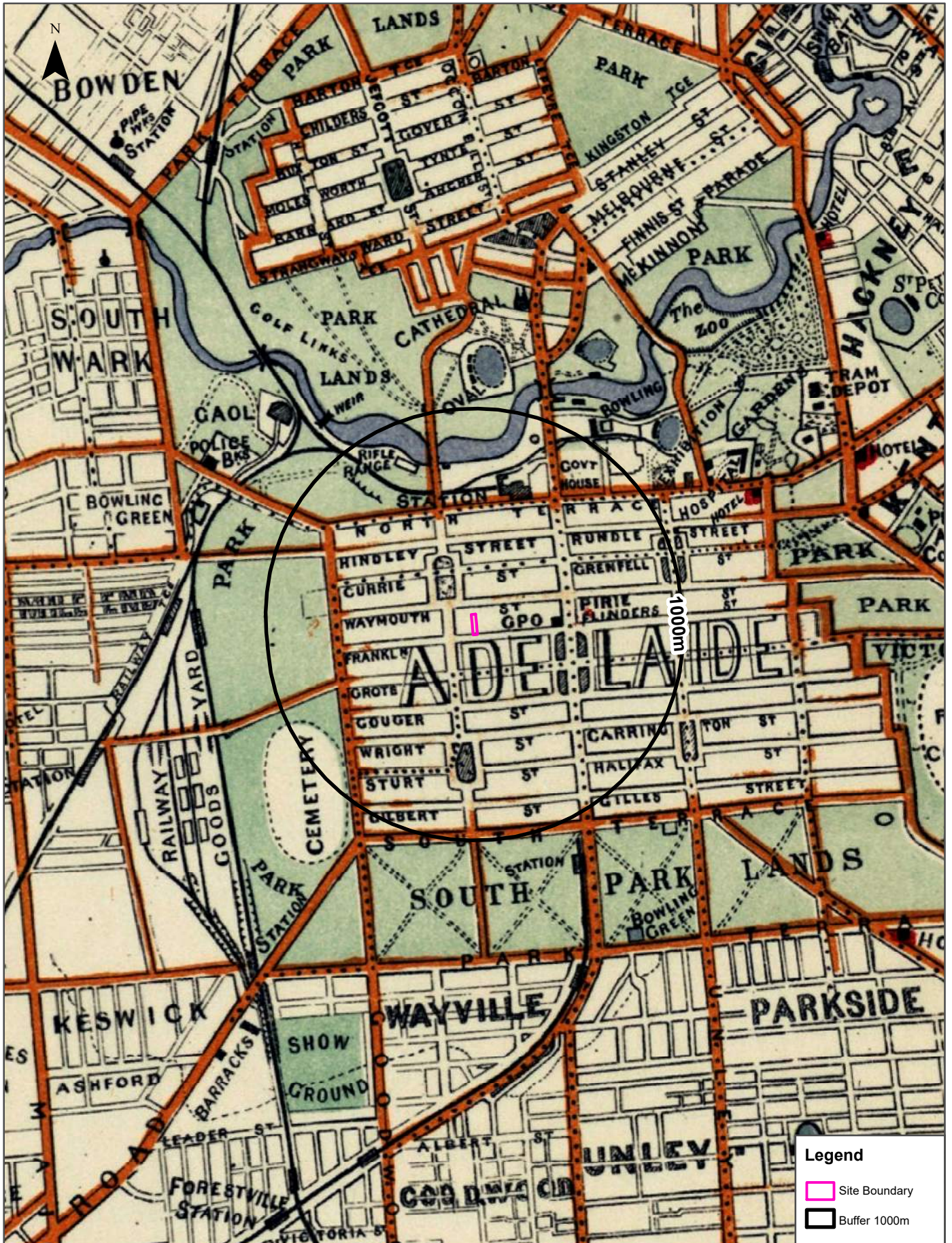
Data Sources: Map of Adelaide and Suburbs
 Shewing Streets and Allotments
 Compiled under the direction of Theo. E. Day,
 Surveyor General

Coordinate System:
 GDA 1994 MGA Zone 54

Date: 17 May, 2023

Historical Map 1926

108-112 Franklin Street, Adelaide, SA 5000





Data Sources: Sheet No 4 - Henley
Topographic Maps of South Australia
Compiled from Reconnaissance Surveys by W.H. Edmunds

Coordinate System:
GDA 1994 MGA Zone 54

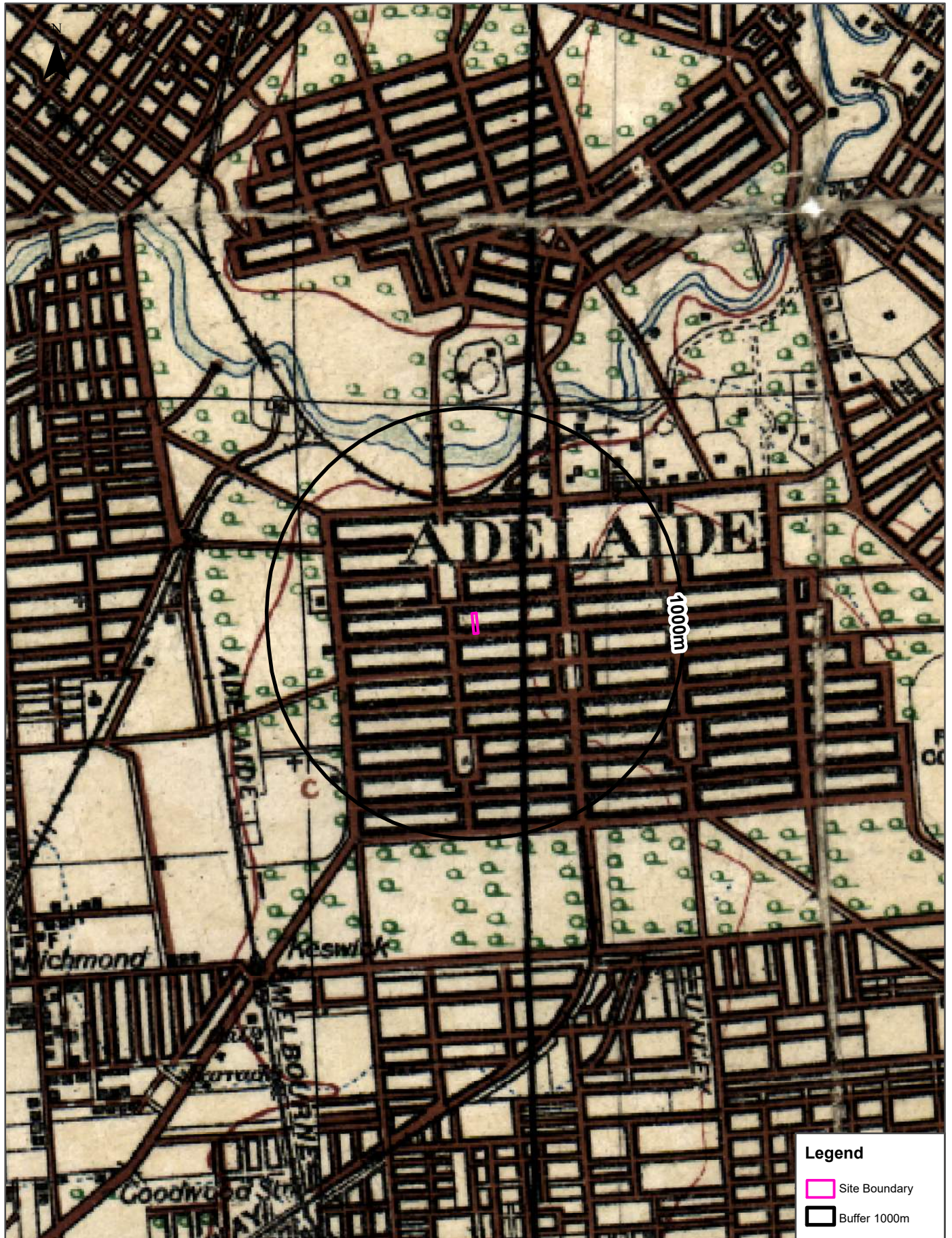
Date: 17 May, 2023

Legend

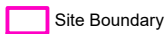
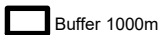
-  Site Boundary
-  Buffer 1000m

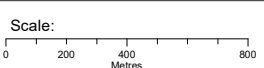
Historical Map c.1914

108-112 Franklin Street, Adelaide, SA 5000



Legend

-  Site Boundary
-  Buffer 1000m



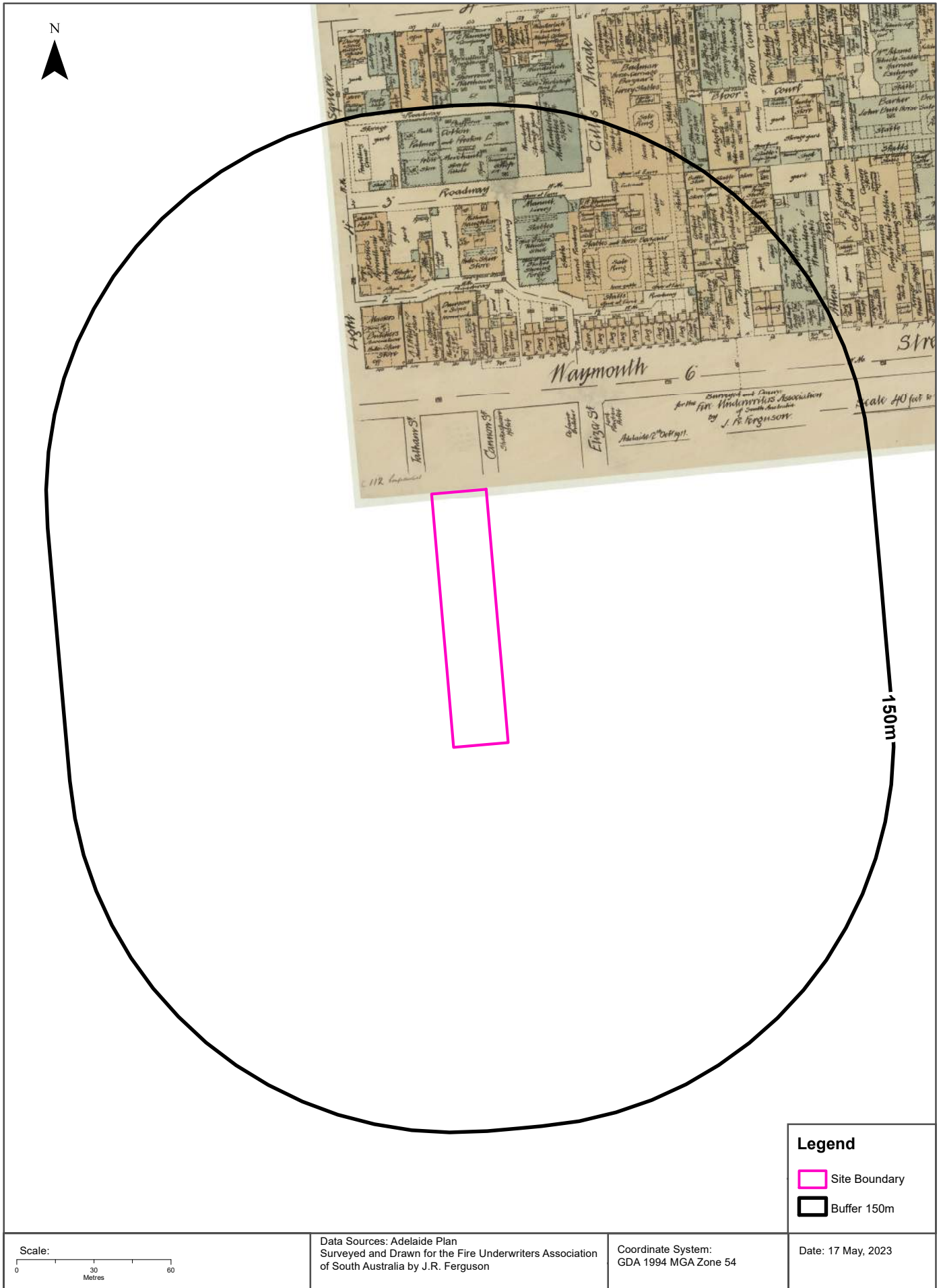
Data Sources: Australia 1:63,360
Prepared by Commonwealth Section Imperial General Staff

Coordinate System:
GDA 1994 MGA Zone 54

Date: 17 May, 2023

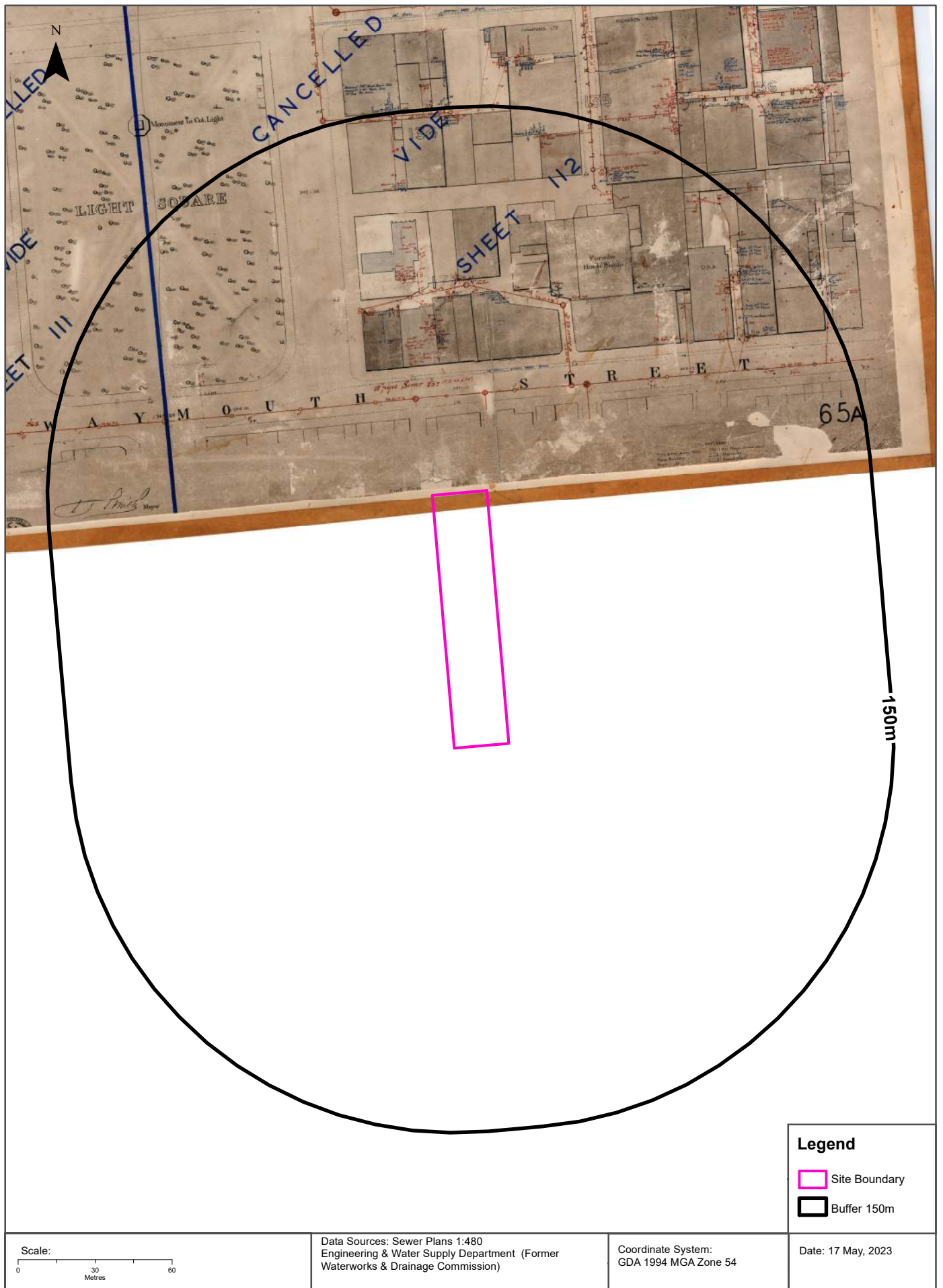
Historical Map 1911-1914

108-112 Franklin Street, Adelaide, SA 5000



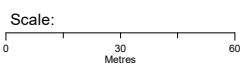
Historical Map 1900-1970

108-112 Franklin Street, Adelaide, SA 5000



Legend

-  Site Boundary
-  Buffer 150m



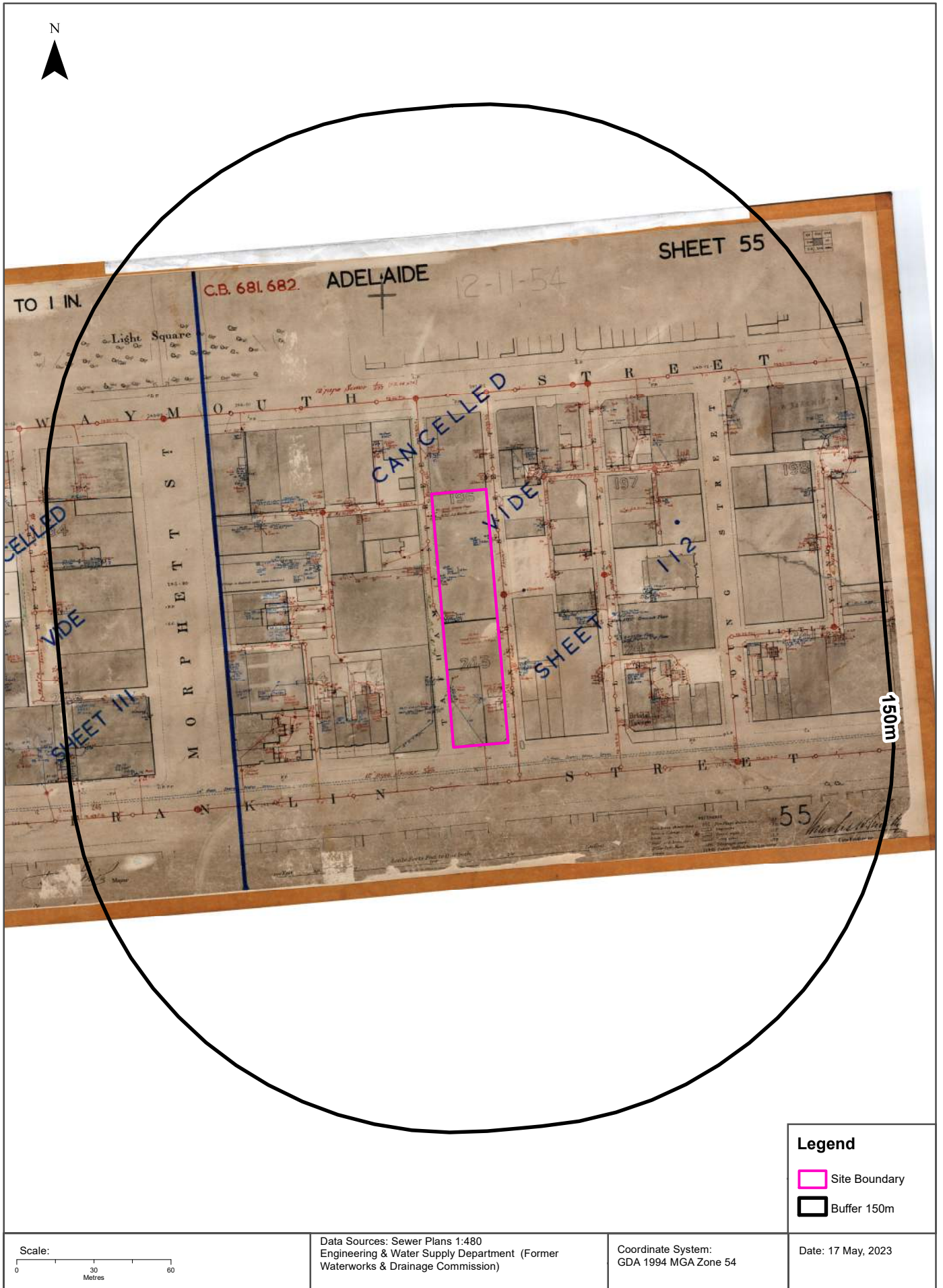
Data Sources: Sewer Plans 1:480
Engineering & Water Supply Department (Former
Waterworks & Drainage Commission)

Coordinate System:
GDA 1994 MGA Zone 54

Date: 17 May, 2023

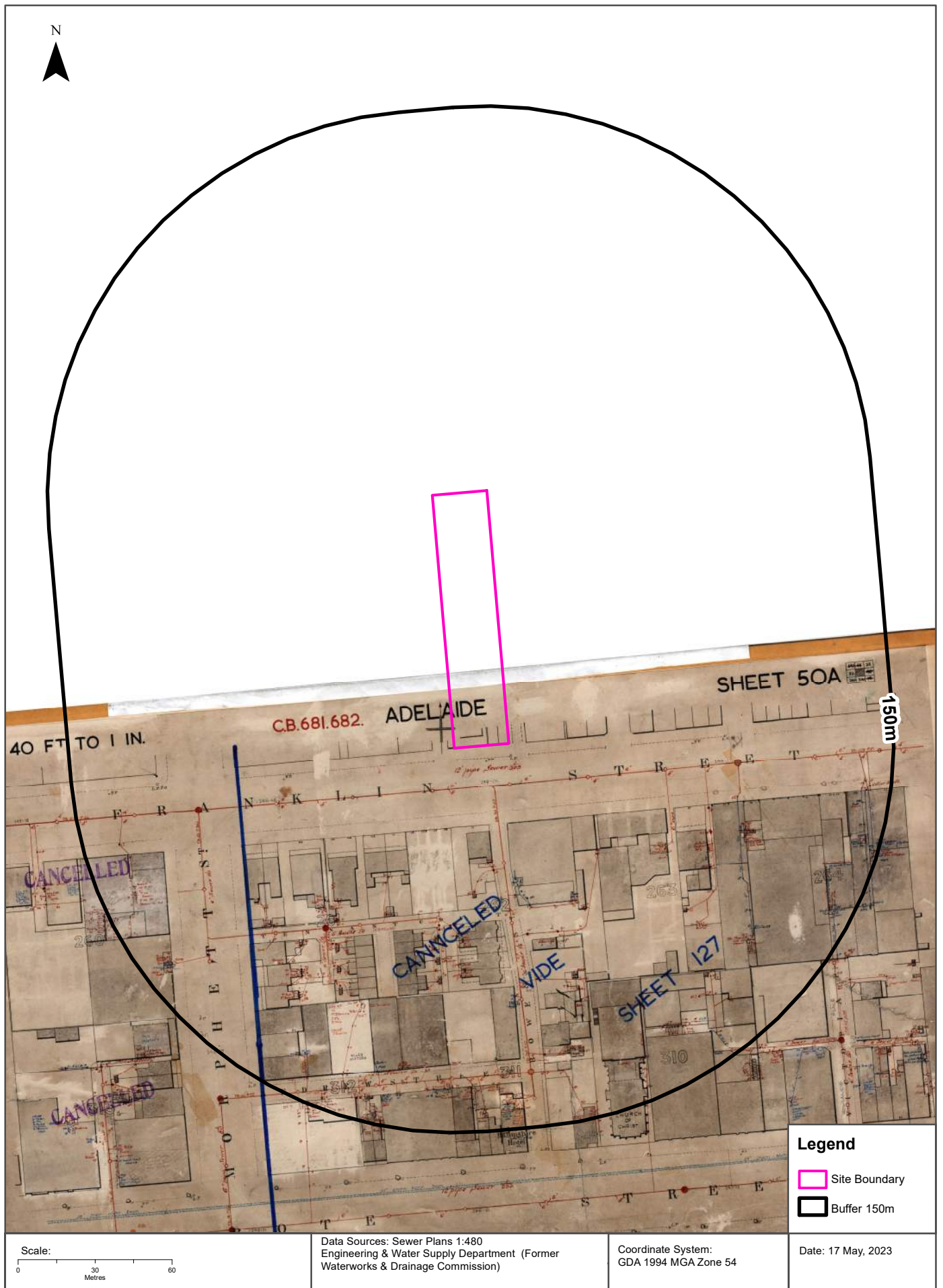
Historical Map 1900-1970

108-112 Franklin Street, Adelaide, SA 5000



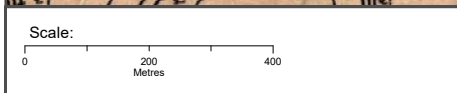
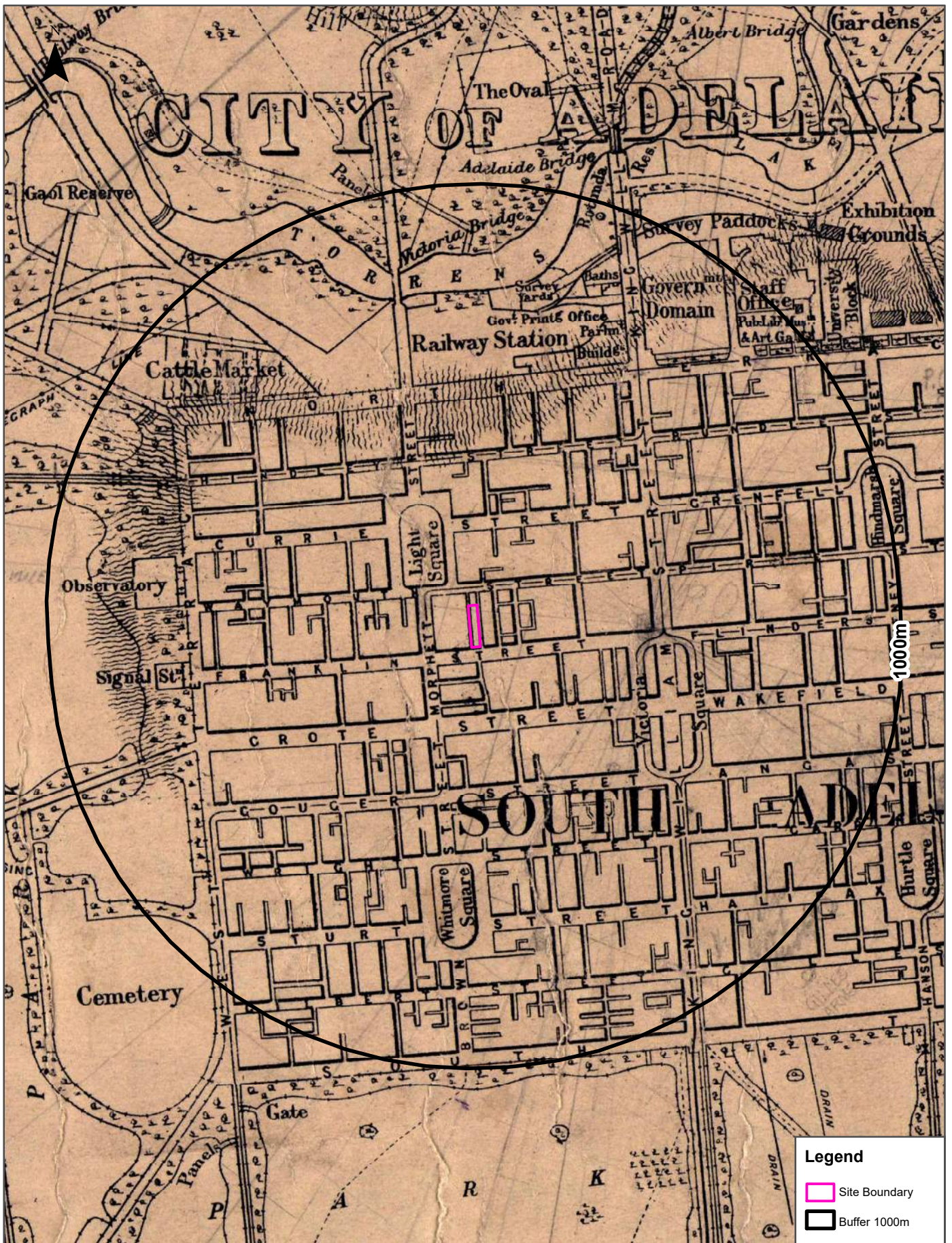
Historical Map 1900-1970

108-112 Franklin Street, Adelaide, SA 5000



Historical Map 1889

108-112 Franklin Street, Adelaide, SA 5000



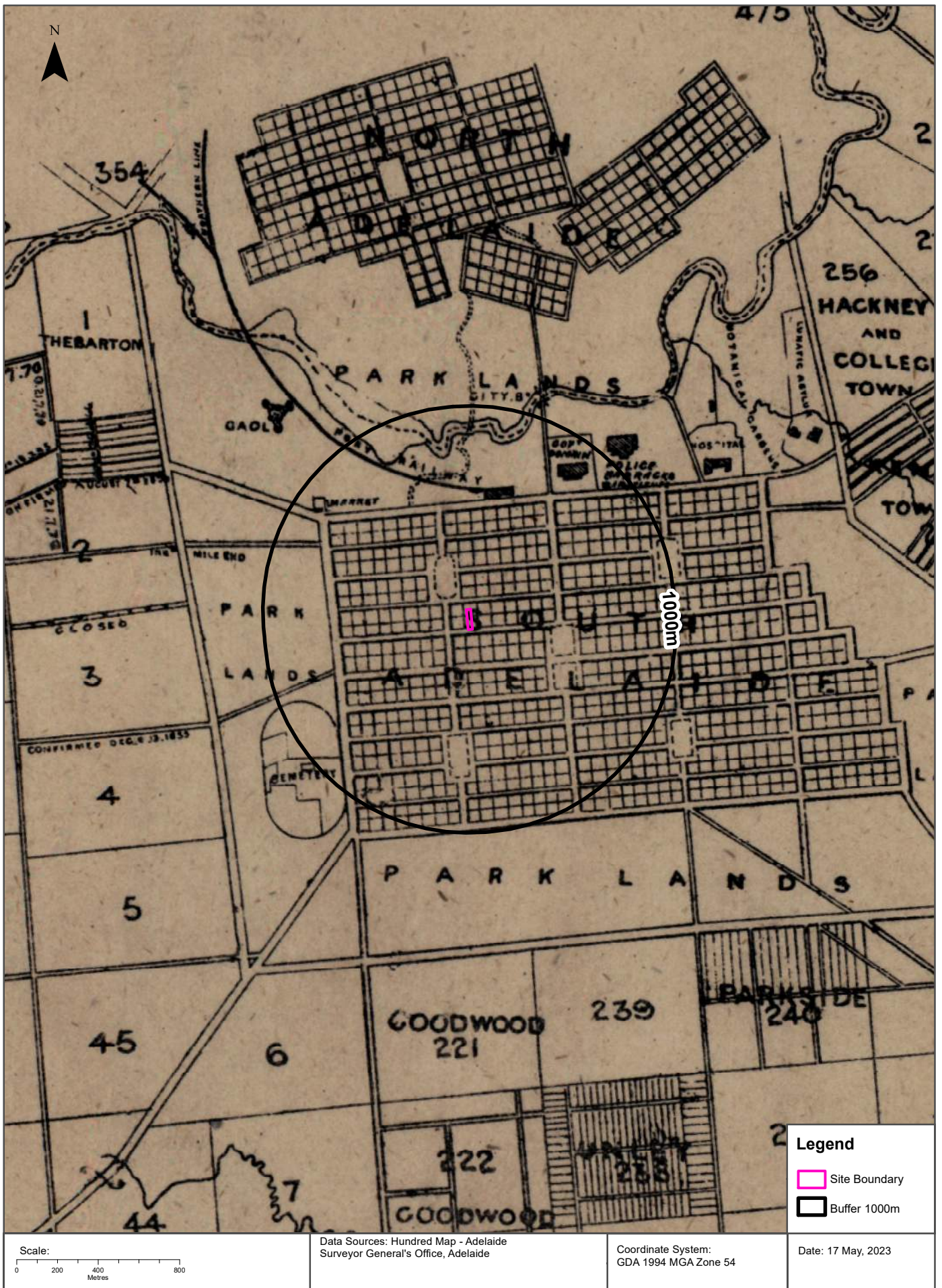
Data Sources:
Military Map
Compiled in the Surveyor General's Office 1889

Coordinate System:
GDA 1994 MGA Zone 54

Date: 17 May, 2023

Historical Map 1873

108-112 Franklin Street, Adelaide, SA 5000



Mining

108-112 Franklin Street, Adelaide, SA 5000

Mines and Mineral Deposits

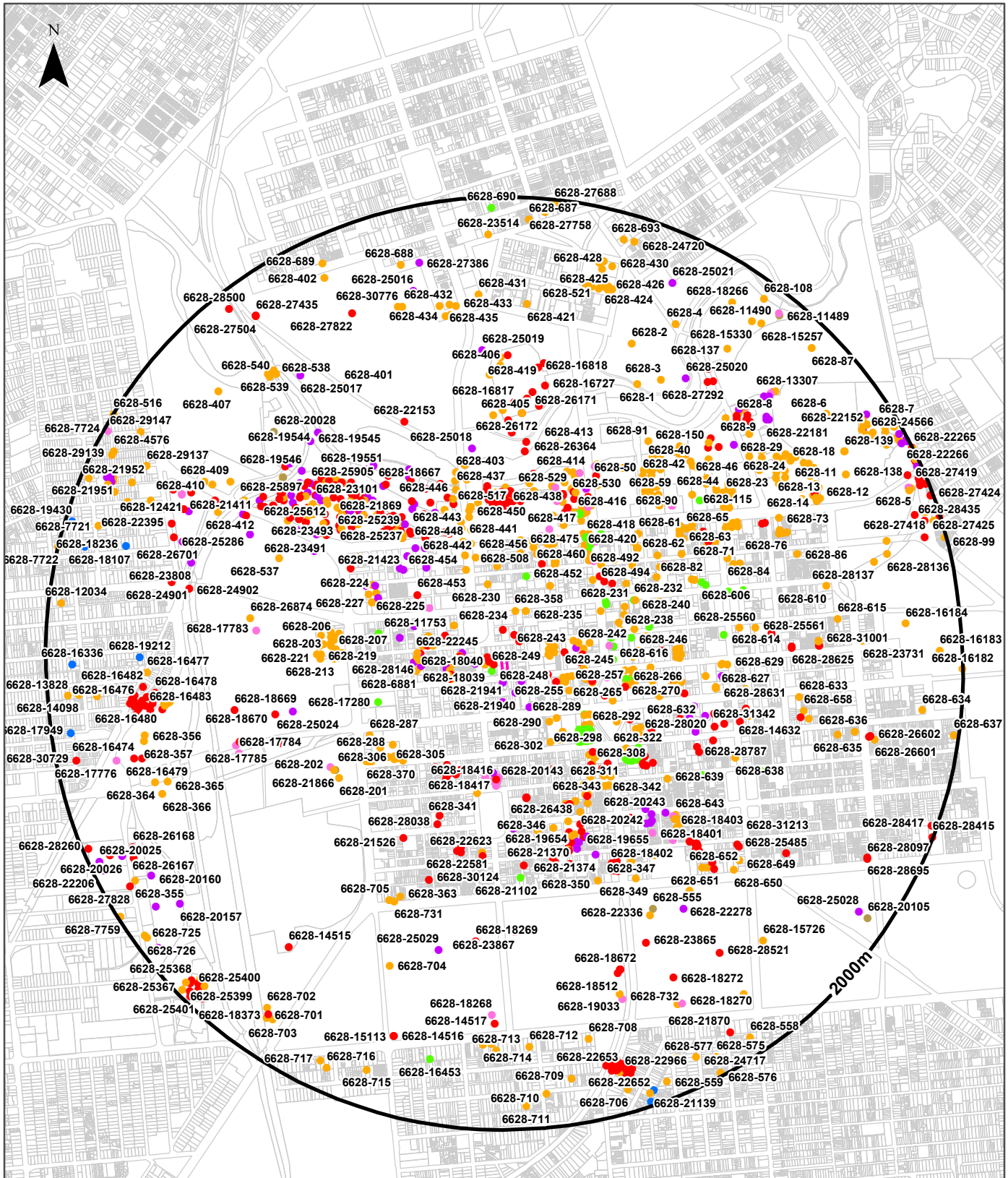
Mines and mineral deposits within the dataset buffer:

Deposit No.	Name	Class	Status	Commodity	Year	Description	Dist	Dir
N/A	No records in buffer							

All Mines and Mineral Deposits Data Source: Dept. of State Development, Resources and Energy - South Australia
Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

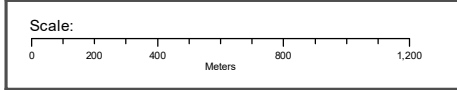
Drillholes

108-112 Franklin Street, Adelaide, SA 5000



Legend

- Site Boundary
- Buffer 2000m
- Property Boundary
- Domestic
- Drainage
- Investigation
- Irrigation
- Monitoring
- Observation
- Other



Data Sources: Property Boundaries - Sourced by Precisely
©PSMA Australia Limited

Coordinate System:
GDA 1994 MGA Zone 54

Date: 18 May 2023

Hydrogeology & Groundwater

108-112 Franklin Street, Adelaide, SA 5000

Hydrogeology

Description of aquifers within the dataset buffer:

Description	Distance	Direction
Porous, extensive highly productive aquifers	0m	On-site

Hydrogeology Map of Australia : Commonwealth of Australia (Geoscience Australia)
Creative Commons 4.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/4.0>

Groundwater Aquifers

Groundwater aquifers within the dataset buffer:

Aquifer Code	Description	Distance	Direction
20	Sedimentary Rocks - basins include limestone, often cavernous, sandstone, sand shale and clay	0m	On-site

Groundwater Aquifers Data Source: Dept. of Environment, Water and Natural Resources - South Australia
Creative Commons 3.0 © Commonwealth of Australia <http://creativecommons.org/licenses/by/3.0/au/deed.en>

Drillholes

Drillholes within the dataset buffer:

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-21944	202238	MW 6		Monitoring	2004-08-28	22.00		42.29					17.40	17.40	24.89	34m	South
6628-28651	290713			Investigation	2017-01-10	35.00										36m	West
6628-18040	162222	MBA 6	Unknown		1957-05-14	6.10		41.77								46m	West
6628-248	47348			Drainage	1960-03-24	21.95		41.91								46m	South West
6628-27141	278585			Investigation	2014-01-13	18.00										55m	West
6628-27142	278586			Investigation	2014-01-10	18.00										62m	West
6628-21943	202237	MW 8	Backfilled	Monitoring	2004-08-26	19.60		42.88					17.70	17.70	25.18	69m	South East
6628-24929	252952	MW 3		Investigation	2009-10-08	20.50										74m	North East
6628-18039	162221	MBA 1	Unknown		1957-05-09	6.10		41.69								75m	West
6628-24928	252951	MW 1		Investigation	2009-10-06	25.00										84m	North
6628-21940	202234	MW 7	Backfilled	Monitoring	2004-08-24	21.90		42.69					17.70	17.70	24.99	89m	South
6628-24927	252950	MW 2		Investigation	2009-10-07	21.00										91m	North East
6628-29888	313880			Investigation	2018-12-13	25.00										96m	North
6628-22243	206417		Dry	Monitoring	2005-07-18	15.00		41.62								115m	West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-21941	202235	MW 5		Monitoring	2004-08-23	20.30		42.70					17.20	17.20	25.50	121m	South
6628-22247	206422		Backfilled	Monitoring	2005-07-15	22.00		41.55					19.00	19.00	22.55	142m	West
6628-23080	234232			Investigation	2007-07-19	17.30		41.56								142m	West
6628-26859	275265	MW 46		Investigation	2012-10-29	26.00							18.40	18.40		159m	West
6628-23719	241390	MW 25		Investigation	2008-03-26	20.00		41.58					18.00	18.00	23.58	162m	West
6628-22245	206420		Dry	Monitoring	2005-02-21	15.00		41.42								170m	West
6628-21942	202236	MW 9	Backfilled	Monitoring	2004-08-23	19.20		43.06					17.00	17.00	26.06	173m	South East
6628-28593	290325			Investigation	2016-10-20	25.00										176m	East
6628-23718	241389	MW 24			2008-03-23	20.00		41.51					18.00	18.00	23.51	182m	West
6628-26860	275266	MW 47		Investigation	2012-10-30	25.50							18.50	18.50		182m	West
6628-234	47334				1961-11-01	12.95		41.44								183m	North
6628-249	47349	PHONE EXCHANGE 1	Unknown		1965-08-20	45.72		44.06								187m	East
6628-253	47353	PHONE EXCHANGE 5	Unknown		1968-03-19	25.50		43.96								190m	East
6628-30987	352545		Backfilled													190m	West
6628-251	47351	PHONE EXCHANGE 3	Unknown		1968-04-06	24.38		44.13								192m	East
6628-250	47350	PHONE EXCHANGE 2	Unknown		1965-08-25	23.01		43.77								196m	North East
6628-235	47335				1914-06-19	27.43		41.73		1456	2629	1.5200	21.34	21.34	20.39	200m	North
6628-252	47352	PHONE EXCHANGE 4	Unknown		1968-03-18	26.21		44.23								212m	East
6628-23717	241388	MW 23			2008-03-26	20.00		41.72					18.00	18.00	23.72	213m	West
6628-254	47354	PHONE EXCHANGE 6	Unknown		1967-03-21	27.20		44.09								215m	East
6628-28594	290326			Investigation	2016-10-21	25.00										217m	East
6628-28908	295109	MW 1B	Backfilled	Investigation	2017-06-07	23.60							20.50	20.50		222m	West
6628-27764	285089		Backfilled		2015-04-23	13.00							12.50	12.50		225m	West
6628-28903	295104	MW 32A	Backfilled	Investigation	2017-06-05	23.30							20.50	20.50		225m	West
6628-23715	241386	GMW 21		Investigation	2008-03-27	18.30		41.94					17.20	17.20	24.74	231m	West
6628-23716	241387	MW 22			2008-03-27	19.50		41.87					18.00	18.00	23.87	231m	West
6628-28906	295107	MW 49	Backfilled	Investigation	2017-06-03	23.70							19.30	19.30		236m	West
6628-11753	58722		Abandoned			12.55		41.12	8.50	882	1600		6.35	6.35	34.77	237m	North West
6628-28904	295105	MW 64A	Backfilled	Investigation	2017-05-31	15.00										238m	West
6628-28905	295106	MW 40A	Backfilled	Investigation	2017-05-31	24.00							19.00	19.00		238m	West
6628-31722	367620		Backfilled			23.50										238m	West
6628-22244	206419			Monitoring	2005-07-19	21.00		41.75					19.00	19.00	22.75	240m	West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-28402	289373			Investigation	2016-04-05	25.00										240m	North
6628-22246	206421			Monitoring	2005-07-20	22.00		41.84					19.00	19.00	22.84	243m	West
6628-255	47355	CIC 4	Unknown		1957-01-29	12.80		44.38								244m	East
6628-260	47360	CIC 2	Unknown		1957-01-24	12.80		44.31								244m	East
6628-258	47358	CIC 3	Unknown		1957-01-25	12.80		44.41								253m	East
6628-27532	281052		Backfilled	Investigation	2014-11-20	19.50							18.80	18.80		255m	North West
6628-261	47361	CIC 1	Unknown		1957-01-23	12.80		44.38								257m	East
6628-29501	307349		Decommissioned	Investigation	2018-01-30	25.00										259m	East
6628-257	47357	CIC 5	Unknown		1957-01-29	12.80		44.48								262m	East
6628-28907	295108	MW 65A	Backfilled	Investigation	2017-06-08	15.00										270m	West
6628-22020	203235				2005-02-23	24.90		44.95								278m	East
6628-290	47390	CENTRAL MARKET 2	Unknown		1964-04-03	27.43	44.00									278m	South East
6628-262	47362				1971-01-12	15.47		44.38								280m	East
6628-263	47363				1971-01-13	7.62		44.59								282m	East
6628-289	47389	CENTRAL MARKET 1	Unknown		1964-04-09	18.29	44.20									289m	South East
6628-28004	287357	MW 6	Backfilled		2014-10-31	20.60										299m	West
6628-230	47330				1905-01-01	83.82		38.02		1856	3343	3.1600	17.98	17.98	20.04	303m	North
6628-243	47343	ADVERTISER BUILDING	Backfilled		1962-04-12	13.72		44.69					10.97	10.97	33.72	303m	East
6628-21525	198203			Monitoring	2003-09-19	18.00		45.05				0.0100	15.80	15.80	29.25	309m	East
6628-27515	280909	MW 2	Backfilled	Investigation	2014-07-14	4.30							1.70	1.70		322m	West
6628-21955	202822	BH 3			2004-12-23	26.55		44.98								323m	East
6628-28005	287358	MW 7	Backfilled													324m	West
6628-27516	280910	MW 3	Backfilled	Investigation	2014-07-14	4.00							1.80	1.80		325m	West
6628-27622	284356		Backfilled		2014-11-11	20.50							18.50	18.50		326m	West
6628-28756	291841			Investigation	2017-02-24	16.90										326m	East
6628-28007	287360	MW 11	Backfilled			2.50										328m	West
6628-264	47364				1954-08-05	22.86		44.97								335m	East
6628-29192	303717		Decommissioned													335m	East
6628-29200	303736		Decommissioned													335m	East
6628-28006	287359	MW 9	Backfilled			2.50							2.00	2.00		336m	West
6628-28755	291840			Investigation	2017-02-24	17.00										336m	East
6628-21954	202821	BH 2			2004-12-23	22.70		45.20								342m	East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-25936	265259	MW 4	Backfilled	Investigation	2014-08-25	21.00							18.50	18.50		342m	West
6628-27514	280908	MW 1	Backfilled		2014-07-14	3.80							1.80	1.80		343m	West
6628-265	47365				1954-10-07	22.86		44.89					18.29	18.29	26.60	344m	East
6628-452	47549		Operational	Drainage	1959-01-29	17.07	38.00					0.450	14.33	14.33	23.67	344m	North
6628-300	47400				1934-10-03	23.09	44.00			1014	1837	0.510				351m	South East
6628-358	47458							41.03								351m	North East
6628-24624	245776			Investigation	2008-03-06	20.20		41.68								352m	West
6628-24909	252813	BH 3		Investigation	2008-07-07	20.10										352m	West
6628-302	47402	CENTRAL MARKET 4	Unknown		1964-04-20	19.20	43.89						14.63	14.63	29.26	352m	South East
6628-28146	288463	GW 1		Monitoring	2016-02-03	21.50							19.20	19.20		353m	West
6628-28244	288750					20.00										357m	West
6628-13444	60413				1984-11-29	160.00		41.68				2.000	20.00	20.00	21.68	361m	West
6628-28145	288462	GW 2	Backfilled	Monitoring	2016-02-02	22.00							19.10	19.10		362m	West
6628-28143	288460	GW 4	Backfilled	Monitoring	2016-02-04	21.50							19.20	19.20		363m	West
6628-28245	288751	MW 1				24.00										363m	West
6628-28483	289610	MW 5	Backfilled			20.70										366m	West
6628-301	47401	CENTRAL MARKET 3	Unknown		1964-04-14	27.49		44.34								367m	South East
6628-24903	252790	BH 2		Investigation	2008-07-08	20.00										368m	West
6628-368	47468		Backfilled	Observation	1976-09-13	113.00		41.79	7.60	2802	4768		40.00	40.00	1.79	369m	North West
6628-28484	289611	MW 2	Backfilled			23.00										370m	West
6628-21953	202820	BH 1			2004-12-24	22.40		45.05								371m	East
6628-27171	279158		Dry		2013-11-28	11.00										375m	East
6628-27637	284484			Investigation	2015-02-03	20.50				3857	6850		19.00	19.00		375m	East
6628-6881	53850		Backfilled		1978-03-28	100.00		41.66	7.80	2404	4310	0.380	18.00	18.00	23.66	375m	West
6628-509	47606					3.66	34.00			400	727	0.010				376m	North
6628-291	47391	GOVT OFFICE WEST 1	Converted to WW	Drainage	1970-03-10	36.42		44.57								381m	South East
6628-292	47392	GOVT OFFICE OBS 1	Unknown		1970-04-02	4.57		44.56								382m	South East
6628-28144	288461			Monitoring	2016-02-02	22.00							19.20	19.20		384m	West
6628-453	47550	MORPHEE BRIDGES 1	Unknown		1964-06-23	18.23		34.53								393m	North
6628-11728	58697		Operational	Drainage	1981-05-13	16.00		44.41	7.70	1832	3300		13.50	13.50	30.91	397m	South East
6628-22663	219297			Monitoring	2005-11-03	20.00		41.77					19.00	19.00	22.77	397m	West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-293	47393	GOVT OFFICE WEST 2	Converted to WW		1970-03-07	30.18		44.72	7.50	1130	2045					399m	South East
6628-294	47394	GOVT OFFICE OBS 2	Unknown		1970-03-16	4.57		44.71								399m	South East
6628-11729	58698		Operational	Drainage	1981-05-13	16.50		44.49	7.60	1832	3300		14.00	14.00	30.49	403m	South East
6628-295	47395	GOVT OFFICE WEST 4	Converted to WW		1970-02-20	24.69		44.47	7.50	2001	3600					405m	South East
6628-296	47396	GOVT OFFICE OBS 4	Unknown		1970-03-06	4.57		44.47								406m	South East
6628-11746	58715		Operational	Drainage	1981-05-15	15.10		44.55	8.00	1776	3200		12.50	12.50	32.05	410m	South East
6628-11730	58699		Operational	Drainage	1981-05-13	16.00		44.57	7.60	1832	3300		13.50	13.50	31.07	411m	South East
6628-11742	58711		Operational	Drainage	1981-05-14	15.00		44.50	7.70	1788	3220		12.50	12.50	32.00	411m	South East
6628-11726	58695		Operational	Drainage	1981-05-11	17.50		44.60	7.60	1804	3250		15.00	15.00	29.60	414m	South East
6628-28157	288499			Investigation	2016-02-08	20.00							5.40	5.40		418m	North
6628-11727	58696		Operational	Drainage	1981-05-13	17.00		44.64	7.50	1810	3260		14.50	14.50	30.14	421m	South East
6628-11732	58701		Operational	Drainage	1981-05-13	19.00		44.65	8.10	1804	3250		16.50	16.50	28.15	421m	South East
6628-11741	58710		Operational	Drainage	1981-05-14	15.00		44.57	7.60	1776	3200		12.50	12.50	32.07	421m	South East
6628-297	47397	GOVT OFFICE WEST 3	Converted to WW		1970-02-23	29.87		44.59	7.50	1832	3300					424m	South East
6628-298	47398	GOVT OFFICE OBS 3	Unknown		1970-03-11	4.57		44.59								424m	South East
6628-11740	58709		Operational	Drainage	1981-05-14	15.00		44.61	7.70	1776	3200		12.50	12.50	32.11	428m	South East
6628-31234	355061		Dry	Environmental	2021-04-12	15.20										430m	North
6628-11733	58702		Operational	Drainage	1981-05-13	19.00		44.72	7.70	1804	3250		16.50	16.50	28.22	432m	South East
6628-20143	180521			Monitoring	2000-05-17	10.00		43.16				0.0100	5.50	5.50	37.66	435m	South
6628-11102	58071	DEPT OF TRASIT		Observation	1979-09-13	19.80	45.12						18.05	18.05	27.07	437m	East
6628-457	47554				1968-12-03	14.63		37.54								437m	North
6628-11101	58070	GH 155	Abandoned	Investigation ; Observation	1979-08-14	15.06	45.03						11.04	11.04	33.99	438m	East
6628-11734	58703		Operational	Drainage	1981-05-13	19.00		44.75	7.70	1804	3250		16.50	16.50	28.25	438m	South East
6628-11745	58714		Operational	Drainage	1981-05-15	15.00		44.70	8.00	1776	3200		12.50	12.50	32.20	439m	South East
6628-507	47604	SBSA 54 1	Unknown		1954-03-05	18.29	37.60									440m	North East
6628-26014	266440	MW 1	Backfilled	Investigation	2011-09-17	24.50										442m	North West
6628-11743	58712		Operational	Drainage	1981-05-15	19.00		44.77	7.50	1776	3200		16.50	16.50	28.27	443m	South East
6628-11735	58704		Operational	Drainage	1981-05-13	14.50		44.76	7.90	1810	3260		12.00	12.00	32.76	445m	South East
6628-11744	58713		Operational	Drainage	1981-05-15	15.00		44.76	7.50	1776	3200		12.50	12.50	32.26	446m	South East
6628-11739	58708		Operational	Drainage	1981-05-14	19.00		44.80	8.10	1776	3200		17.50	17.50	27.30	449m	South East
6628-21176	196337			Monitoring	2002-09-30	25.00		41.38					19.66	19.66	21.72	449m	West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-18418	164477			Observation	1997-03-20	4.50		43.23								450m	South
6628-504	47601	SBSA 564	Unknown		1956-04-23	16.76		39.98								450m	North East
6628-508	47605	GROSVE NOR 1	Unknown		1955-12-19	3.96	65.68									450m	North
6628-11731	58700		Operational	Drainage	1981-05-12	18.00		44.80	7.80	1832	3300		15.50	15.50	29.30	451m	South East
6628-501	47598	SBSA 561	Unknown		1956-04-12	15.62		39.97								451m	North East
6628-502	47599	SBSA 562	Unknown		1956-04-17	18.29		39.97								451m	North East
6628-503	47600	SBSA 563	Unknown		1956-04-19	16.81		39.97								451m	North East
6628-505	47602	SBSA 565	Unknown		1956-04-26	16.92		39.96								451m	North East
6628-454	47551	MORPHE TT BRIDGES 2	Unknown		1964-06-16	17.07		32.78								454m	North
6628-11104	58073	KW 4	Unknown		1979-09-01	13.80	44.94									455m	North East
6628-11103	58072	DEPT OF TRANS		Observation	1979-09-13	30.00	45.31						17.92	17.92	27.39	456m	East
6628-11737	58706		Operational	Drainage	1981-05-13	19.50		44.84	7.80	1815	3270		17.00	17.00	27.84	458m	South East
6628-11738	58707		Operational	Drainage	1981-05-14	16.50		44.83	7.60	1821	3280		14.00	14.00	30.83	458m	South East
6628-18419	164478			Observation	1997-03-20	4.50		42.89								458m	South
6628-24932	252966	GW 1		Investigation	2009-08-14	23.00							16.00	16.00		461m	South West
6628-27853	285445			Investigation	2015-05-18	21.00										462m	South
6628-29585	307621			Investigation	2018-06-15	25.00										464m	South East
6628-31040	353599	SB10/MW 1		Investigation	2008-03-11	17.00	41.84	41.91					13.70	13.77	28.14	467m	South West
6628-18417	164476			Observation	1997-03-20	4.50		43.15								468m	South
6628-244	47344			Drainage		21.03	45.00			882	1600	1.0100	19.51	19.51	25.49	468m	East
6628-11736	58705		Operational	Drainage	1981-05-13	19.00		44.87	7.90	1810	3260		16.50	16.50	28.37	469m	South East
6628-247	47347			Drainage		22.86	45.00					3.0300	20.12	20.12	24.88	469m	East
6628-511	47608	SBSA 543	Unknown		1954-04-04	20.90	38.00					1.8900				469m	North East
6628-18416	164475			Observation	1996-08-06	3.80		43.04					2.18	2.18	40.86	470m	South
6628-18420	164479			Observation	1997-03-20	3.50		42.87								470m	South
6628-245	47345			Drainage		22.10	45.00					3.4100	19.05	19.05	25.95	474m	East
6628-286	47386	PUB. BLDGS. DEPT			1965-07-30	9.14		45.50								476m	East
6628-461	47558	GROSVE NOR 3	Unknown		1956-01-10	8.53	69.68									476m	North
6628-29586	307622			Investigation	2018-06-15	30.00										477m	South East
6628-500	47597	SBSA 542	Unknown		1954-03-18	18.29	37.35					0.2500				478m	North East
6628-31041	353600	SB17/MW 3		Investigation	2008-03-13	20.80	42.17	42.32					16.90	17.05	25.27	484m	South West
6628-237	47337			Drainage		32.61		44.70								488m	North East
6628-497	47594	SBSA 566	Unknown		1956-05-01	15.85		38.63								488m	North East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-498	47595	SBSA 567	Unknown		1956-05-04	16.76		38.82								488m	North East
6628-31039	353598	SB6/MW2		Investigation	2008-03-12	20.00	41.81	41.87					16.90	16.95	24.91	490m	South West
6628-18415	164474			Observation	1996-08-06	3.80		43.06					3.32	3.32	39.74	491m	South
6628-499	47596	SBSA 568	Unknown		1956-05-08	16.76		38.85		860	1560					491m	North East
6628-236	47336			Drainage		20.88	42.00					1.0100	19.51	19.51	22.49	492m	North East
6628-456	47553	MORPHE TT BRIDGES 16	Unknown		1964-06-30	15.24		31.50								495m	North
6628-458	47555	SZ 76			1968-01-01	12.80	2.00									495m	North
6628-21425	197913	MWA		Monitoring	2003-08-01	5.40		38.29					3.00	3.00	35.29	496m	North West
6628-231	47331				1970-12-01	23.01		42.48								496m	North East
6628-24933	252967	GW 2		Investigation	2009-08-14	21.00							17.00	17.00		499m	South West
6628-24934	252968	GW 3		Investigation	2009-08-17	20.00							16.50	16.50		499m	South West
6628-459	47556	GROSVENOR 2	Unknown		1955-12-20	7.70	69.68									501m	North
6628-24935	252969	GW 4		Investigation	2009-08-17	20.00							16.50	16.50		504m	South West
6628-308	47408	WESTERN COURTS 2	Unknown		1972-07-11	25.80		45.10	6.50	1957	3520	0.2500				505m	South East
6628-26997	275998	BH 3		Investigation	2013-11-17	40.00							12.50	12.50		506m	South East
6628-460	47557	GROSVENOR 4	Unknown		1956-03-06	20.73	34.00					0.5100				507m	North
6628-471	47568	BFBS 4	Unknown		1960-01-22	3.15	34.00									509m	North
6628-474	47571	ANA 3	Unknown		1956-09-24	15.24		37.12								509m	North
6628-359	47459							44.54								512m	East
6628-455	47552	MORPHE TT BRIDGES 4	Unknown		1964-06-26	15.24		30.82								512m	North
6628-23786	241567	MW 1		Investigation	2008-08-22	19.00		41.96					16.00	16.00	25.96	513m	South West
6628-470	47567	ANA 4	Unknown		1956-09-27	15.09		36.40								513m	North
6628-360	47460							44.56								514m	East
6628-309	47409	WESTERN COURTS 3	Unknown		1972-08-23	57.00		45.13	6.50	1130	2045	0.6300	21.00	21.00	24.13	515m	South East
6628-267	47367	RESERVE BANK 1	Unknown		1960-05-12	25.22		45.48		1200	2172		16.76	16.76	28.72	517m	East
6628-472	47569	BFBS 3	Unknown		1960-01-22	15.24	34.00									517m	North
6628-266	47366	RESERVE BANK 2	Unknown		1960-05-23	25.60		45.74		1230	2225		17.22	17.22	28.52	519m	East
6628-473	47570	BFBS 9	Unknown		1960-01-29	2.39	34.00									519m	North
6628-5552	52521	PUB. BLDGS. DEPT		Investigation	1964-02-03	25.91		45.92								520m	East
6628-467	47564	BFBS 5	Unknown		1960-01-25	2.59	34.00									521m	North

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-23787	241568	MW 2		Investigation	2008-08-22	19.00		41.94					16.00	16.00	25.94	523m	South West
6628-466	47563	ANA 2	Unknown		1956-09-18	10.67		35.84								523m	North
6628-11114	58083	KW 14	Unknown		1979-09-03	16.75	44.74									524m	South East
6628-276	47376	PUB. BLDGS. DEPT			1963-12-17	60.96		45.93					19.81	19.81	26.12	524m	East
6628-278	47378			Drainage	1966-11-04	24.38	45.00					0.5100	16.15	16.15	28.85	524m	East
6628-280	47380			Drainage	1966-10-25	24.38	45.00					0.5700	18.59	18.59	26.41	526m	East
6628-281	47381				1966-12-13	10.67		45.92					7.19	7.19	38.73	526m	East
6628-468	47565	BFBS 2	Unknown		1960-01-19	18.29	35.50					1.5200				526m	North
6628-11105	58074	GH 156	Abandoned	Investigation ; Observation	1979-08-20	31.65	43.77						19.09	19.09	24.68	530m	North East
6628-311	47411	SUPREME COURT 2	Unknown		1956-08-03	14.10		45.26								530m	South East
6628-312	47412	SUPREME COURT 1	Unknown		1956-07-20	30.48		45.23								531m	South East
6628-469	47566	BFBS 8	Unknown		1960-01-27	3.79	34.00									531m	North
6628-18012	161253			Observation	1996-06-10	7.20		34.67								532m	North
6628-31289	355216		Decommissioned	Investigation	2021-05-12	26.00										532m	North East
6628-462	47559	BFBS 6	Unknown		1960-01-26	2.74	34.00									532m	North
6628-341	47441					33.53		42.61								534m	South
6628-463	47560	BFBS 1	Unknown		1960-01-11	15.24	34.00									535m	North
6628-275	47375	PUB. BLDGS. DEPT			1964-03-04	27.74		45.96								539m	East
6628-464	47561	BFBS 7	Unknown		1960-01-26	3.35	34.00									539m	North
6628-310	47410	WESTERN COURTS 1	Unknown		1972-07-05	34.00		45.37		10601	18029					540m	South East
6628-26995	275995	BH 1		Investigation	2013-11-24	40.00							18.00	18.00		542m	South East
6628-496	47593				1968-12-19	15.62		41.01								542m	North East
6628-13227	60196		Operational	Drainage	1985-01-01	9.00		41.16								543m	West
6628-268	47368	RESERVE BANK 5	Unknown		1963-01-30	24.92		45.60								544m	East
6628-465	47562	ANA 1	Unknown		1956-09-14	10.72		35.76								544m	North
6628-239	47339				1972-07-19	37.40		45.02	12.00	1245	2252	0.2500	21.60	21.60	23.42	546m	East
6628-270	47370	RESERVE BANK 6	Unknown		1963-02-04	24.38		45.81								546m	East
6628-277	47377	PUB. BLDGS. DEPT			1964-02-13	24.38		46.00								547m	East
6628-27190	279267	MW 3		Investigation	2014-01-29	13.20							10.60	10.60		548m	South
6628-27189	279266	MW 4		Investigation	2014-01-30	13.00							10.50	10.50		549m	South

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-283	47383	PUB. BLDGS. DEPT			1964-02-14	4.27		46.01								549m	East
6628-27191	279268	MW 2		Investigation	2013-10-22	3.40										550m	South
6628-27192	279269	MW 1		Investigation	2013-10-22	3.40										550m	South
6628-274	47374	PUB. BLDGS. DEPT			1964-01-29	39.62		45.96								551m	East
6628-448	47545	MORPHE TT BRIDGES 17	Unknown		1964-06-10	19.81		29.44								551m	North
6628-269	47369	RESERVE BANK 3	Unknown		1960-06-03	27.28		45.63	7.50	787	1427		16.92	16.92	28.71	553m	East
6628-272	47372	PUB. BLDGS. DEPT			1964-03-13	27.43		45.85								553m	East
6628-284	47384	PUB. BLDGS. DEPT			1964-02-14	8.53		46.02								553m	East
6628-11107	58076	DEPT OF TRANS.		Observation	1979-09-13	22.25	42.82						16.97	16.97	25.85	555m	North East
6628-246	47346			Drainage	1936-01-01	9.14		45.19		2390	4290					555m	East
6628-30786	342094		Dry	Investigation	2020-07-26	30.00										555m	North East
6628-233	47333					17.07	157.87									556m	North East
6628-26134	267005	BH 4			2011-01-22	21.20										556m	East
6628-285	47385	PUB. BLDGS. DEPT			1964-02-17	15.24		46.03								556m	East
6628-442	47539	MORPHE TT BRIDGES 5	Unknown		1964-06-05	38.10		29.68		1140	2063					556m	North
6628-271	47371	RESERVE BANK 4	Unknown		1960-06-17	36.58		45.81		1015	1838		16.92	16.92	28.89	557m	East
6628-282	47382				1966-09-13	24.38		46.02					17.98	17.98	28.04	558m	East
6628-238	47338				1972-10-05	43.50		45.15	7.50	876	1590		15.80	15.80	29.35	559m	North East
6628-279	47379			Drainage	1966-09-06	24.38		45.86					17.98	17.98	27.88	559m	East
6628-21424	197912	MWB		Monitoring	2003-08-01	13.20		40.32					8.00	8.00	32.32	560m	North West
6628-495	47592					33.53		40.44								560m	North East
6628-17280	150964			Drainage	1994-05-06	21.60		40.74								561m	West
6628-22260	206467			Monitoring	2005-09-06	20.00		33.77		2245	4030		13.00	13.00	20.77	566m	North West
6628-27805	285258	GW 3	Decommissioned	Investigation	2015-03-24	12.00							6.80	6.80		566m	North West
6628-11106	58075	KW 6	Unknown		1979-09-01	21.30	43.07									568m	North East
6628-443	47540	MORPHE TT BRIDGES 6	Unknown		1964-07-04	12.34		29.28					6.86	6.86	22.42	570m	North
6628-288	47388	MAIL EXCHANGE 5	Unknown		1970-10-02	45.72		40.90	7.00	1295	2340	0.2500				571m	South West
6628-441	47538	ADELAIDE COUNCIL			1964-07-06	5.33		29.26	7.40	381	693					571m	North
6628-18011	161252			Observation	1996-06-10	7.50		33.70								572m	North

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-20424	183454	TB 13		Investigation	2000-08-25	23.00		45.87					17.33	17.33	28.54	572m	South East
6628-242	47342				1970-04-29	14.94		45.26					1.83	1.83	43.43	574m	East
6628-21704	200139			Monitoring		12.00		40.45					7.07	7.07	33.38	575m	North West
6628-420	47517			Drainage	1919-01-01	40.84		40.12								577m	North East
6628-26133	267004	BH 3			2011-01-21	21.00										578m	East
6628-27803	285256	GW 1	Decommissioned		2015-03-23	12.00							8.20	8.20		578m	North West
6628-27804	285257	GW 2	Decommissioned	Investigation	2015-03-23	12.00							6.80	6.80		578m	North West
6628-30775	341956			Backfilled												578m	South West
6628-26998	275999	BH 4	Backfilled		2013-11-19	40.00										580m	South East
6628-484	47581				1964-09-17	23.37		39.51								581m	North East
6628-26996	275997	BH 2	Backfilled	Investigation	2013-11-14	40.00										586m	South East
6628-351	47451	LAW COURTS 1	Unknown		1968-01-04	28.04	76.81									588m	South East
6628-21423	197911	MWC		Monitoring	2003-08-01	4.00		37.70					1.00	1.00	36.70	589m	North West
6628-26449	270986	MW 10	Backfilled													589m	South East
6628-26999	276000	BH 5		Investigation	2013-11-21	40.00							18.00	18.00		590m	South East
6628-31622	363688			Monitoring	2021-11-24	20.00										590m	North West
6628-22261	206468			Monitoring	2005-09-06	19.00		35.48		2194	3940		13.00	13.00	22.48	591m	North West
6628-26441	270978	MW 4	Decommissioned													593m	South East
6628-26442	270979	MW 4	Decommissioned													593m	South East
6628-26443	270980	MW 4	Decommissioned													593m	South East
6628-30773	341954			Backfilled												593m	South West
6628-306	47406	MAIL EXCHANGE 2	Unknown		1969-02-19	27.74		40.96	8.00	1515	2734	0.1300	17.37	17.37	23.59	598m	South West
6628-444	47541	MORPHEE BRIDGES 7	Unknown		1964-07-17	18.67		28.55								598m	North
6628-27367	280364			Investigation		19.00										601m	North West
6628-492	47589			Drainage	1966-03-31	10.06		39.80					8.69	8.69	31.11	602m	North East
6628-307	47407	MAIL EXCHANGE 4	Unknown		1970-09-17	45.72		40.96	7.50	1479	2670	0.2500	16.46	16.46	24.50	603m	South West
6628-225	47325				1915-03-01	52.43		41.52				1.2600	19.81	19.81	21.71	605m	North West
6628-352	47452	LAW COURTS 3	Unknown		1968-01-10	21.51	76.87									605m	South East
6628-226	47326				1915-02-01	30.48		41.42					3.66	3.66	37.76	606m	North West
6628-227	47327				1939-07-01	23.77		41.42		2798	5005					606m	North West
6628-228	47328				1938-03-01	21.34		41.42		3184	5684		17.98	17.98	23.44	606m	North West
6628-229	47329				1938-05-01	22.86		41.42		2984	5332		19.81	19.81	21.61	606m	North West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-240	47340			Drainage		19.36	44.00					4.5500	15.54	15.54	28.46	607m	North East
6628-232	47332				1921-01-01	15.24	44.00					1.6400				608m	North East
6628-612	47701		Abandoned		1970-04-29	12.57		45.58								608m	East
6628-449	47546	MORPHE TT BRIDGES 19	Unknown		1964-07-30	21.56		27.71								609m	North
6628-22963	231155	SITE 1	Backfilled			16.60		46.01								611m	South East
6628-536	47633							35.07								612m	North East
6628-11283	58252	PUBLIC BULD DEPT	Backfilled		1961-06-09	48.77		45.83								613m	South East
6628-477	47574				1964-09-30	9.14		38.92								613m	North East
6628-481	47578			Drainage	1966-03-10	9.14		38.88					8.38	8.38	30.50	613m	North East
6628-241	47341				1970-11-24	23.77		45.41								614m	North East
6628-322	47422			Drainage	1965-06-03	6.10		45.85								614m	South East
6628-475	47572				1964-10-14	5.49		38.90								614m	North East
6628-476	47573				1964-10-14	30.48		38.90					16.76	16.76	22.14	614m	North East
6628-478	47575				1964-10-18	5.49		38.90								614m	North East
6628-479	47576				1964-10-30	60.81		38.93					15.24	15.24	23.69	614m	North East
6628-480	47577			Drainage	1966-03-09	9.60		38.90					7.62	7.62	31.28	614m	North East
6628-482	47579				1966-03-11	9.45		38.90					7.92	7.92	30.98	614m	North East
6628-488	47585			Drainage	1966-03-28	9.45		38.90					7.92	7.92	30.98	614m	North East
6628-489	47586			Drainage	1966-03-29	10.06		38.90					8.53	8.53	30.37	614m	North East
6628-486	47583				1964-10-11	24.38		38.88								615m	North East
6628-491	47588			Drainage	1966-03-14	6.71		38.91					5.18	5.18	33.73	615m	North East
6628-353	47453	LAW COURTS 2	Unknown		1968-01-10	21.49	76.87									616m	South East
6628-487	47584				1966-03-24	6.71		38.86								616m	North East
6628-490	47587			Drainage	1966-04-01	8.53		38.86					7.92	7.92	30.94	616m	North East
6628-305	47405	MAIL EXCHANGE 3	Unknown		1969-02-28	24.38	41.00		8.00	3100	5536	0.1300	17.98	17.98	23.02	619m	South West
6628-27000	276001	BH 6	Backfilled		2013-11-27	40.00										620m	South East
6628-323	47423			Drainage	1965-06-03	6.10		45.92								620m	South East
6628-613	47702	STATE BANK			1908-01-01	21.34		45.77								620m	East
6628-485	47582				1964-09-24	20.22		38.13								622m	North East
6628-26446	270983	MW 7	Backfilled													624m	South East
6628-31630	363699			Monitoring	2021-11-22	23.00										624m	North West
6628-11108	58077	DEPT OF TRANS		Observation	1979-09-13	19.20	42.27						16.96	16.96	25.31	625m	North East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-303	47403	MAIL EXCHANGE 6	Unknown		1970-10-26	27.43		40.62	8.00	2067	3715	0.1300				626m	South West
6628-494	47591					18.29		42.81								626m	North East
6628-22964	231156	SITE 2	Backfilled			16.10		46.21								627m	South East
6628-324	47424			Drainage	1965-06-01	6.10		45.98								627m	South East
6628-22756	228162	MW 46		Investigation	2007-01-25	9.00		25.57					6.40	6.40	19.17	628m	North
6628-26448	270985	MW 9	Backfilled													628m	South East
6628-626	47715		Abandoned		1973-10-24	30.60		46.03	7.50	2309	4145	0.1300	16.20	16.20	29.83	628m	East
6628-22759	228166	MW 45		Investigation	2007-02-18	9.00		25.61					6.40	6.40	19.21	629m	North
6628-445	47542	MORPHEE BRIDGES 11	Unknown		1964-05-27	35.36		27.86		715	1298					630m	North
6628-22757	228163	MW 44		Investigation	2007-02-18	9.00		25.69					6.40	6.40	19.29	631m	North
6628-26447	270984	MW 8	Backfilled													632m	South East
6628-26440	270977	MW 3	Backfilled													633m	South East
6628-26895	275639	MW 8		Investigation	2012-01-16	20.00							17.50	17.50		633m	South East
6628-315	47415			Drainage	1965-05-04	22.86	45.00					0.4500	16.61	16.61	28.39	633m	South East
6628-325	47425			Drainage	1965-06-02	6.40		46.04								633m	South East
6628-513	47610	SA RAILWAYS			1966-08-26	6.25		32.58					4.27	4.27	28.31	633m	North
6628-224	47324				1915-01-01	137.77		41.10					24.38	24.38	16.72	634m	North West
6628-26439	270976	MW 2	Backfilled													634m	South East
6628-26894	275638	MW 7		Investigation	2011-12-14	19.00							17.00	17.00		634m	South East
6628-26444	270981	MW 5	Backfilled													635m	South East
6628-483	47580				1964-10-01	17.20		38.92								637m	North East
6628-625	47714		Abandoned		1973-10-17	19.60	46.00		7.50	1295	2340	0.1300	16.20	16.20	29.80	637m	East
6628-29857	313806	SOPN332 823 SITE 2		Observation	2018-11-09	12.00				1340	2420		7.60	7.60		638m	North
6628-316	47416			Drainage	1965-04-15	10.67		46.08								638m	South East
6628-340	47440			Drainage	1965-06-16	0.61		46.07								638m	South East
6628-450	47547	MORPHEE BRIDGES 20	Unknown		1964-08-07	22.25		26.92		685	1244					638m	North
6628-506	47603			Drainage	1965-06-16	0.61		46.07								638m	South East
6628-510	47607					1.83		41.27		642	1167					638m	North West
6628-26893	275637	MW 9		Investigation	2011-12-15	7.00							3.60	3.60		639m	South East
6628-329	47429			Drainage		18.82		46.08		171	311					639m	South East
6628-354	47454	LAW COURTS 4	Unknown		1968-01-18	19.51	76.90									639m	South East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-22965	231157	SITE 3	Backfilled			15.30		46.18								640m	South East
6628-321	47421			Drainage	1965-05-11	22.86	45.00					0.4500	16.56	16.56	28.44	640m	South East
6628-611	47700		Operational	Drainage		32.92		45.89								640m	East
6628-287	47387				1914-10-27	34.14		40.44				1.2600	18.29	18.29	22.15	643m	South West
6628-20425	183455	TB 14		Investigation	2000-08-25	20.00		46.17					17.00	17.00	29.17	644m	South East
6628-304	47404	MAIL EXCHANGE 1	Unknown		1969-02-12	27.74		40.66	8.00	1515	2734					644m	South West
6628-326	47426			Drainage	1965-05-05	4.88		46.13								645m	South East
6628-319	47419			Drainage	1965-05-25	23.47	45.00					0.4500	16.46	16.46	28.54	648m	South East
6628-27485	280762	RW 46		Investigation	2013-08-09	5.00							2.70	2.70		649m	North
6628-328	47428			Drainage	1965-05-14	6.10		46.17								649m	South East
6628-515	47612				1926-10-07	29.57		25.35								649m	North
6628-27484	280761	RW 45		Investigation	2013-08-09	5.00							2.70	2.70		650m	North
6628-27486	280763	RW 47		Investigation	2013-08-12	5.00										650m	North
6628-27487	280764	RW 48		Investigation	2013-08-12	5.00							2.70	2.70		650m	North
6628-342	47442	NCR 2	Unknown		1955-09-08	12.19		45.66								650m	South East
6628-27488	280765	RW 49		Investigation		5.00							2.70	2.70		651m	North
6628-27489	280766	RW 50		Investigation		5.00							2.70	2.70		651m	North
6628-27490	280767	RW 51		Investigation	2013-08-13	5.00										651m	North
6628-27491	280768	RW 52		Investigation	2013-08-13	5.00							2.70	2.70		652m	North
6628-313	47413			Drainage	1965-04-12	21.34		46.18					16.76	16.76	29.42	652m	South East
6628-27492	280769	RW 53		Investigation	2013-08-14	5.00										653m	North
6628-27493	280770	RW 54		Investigation	2013-08-14	5.00							2.70	2.70		653m	North
6628-32029	371286		Dry	Investigation	2022-09-12	18.00										653m	East
6628-517	47614	ADELAIDE COUNCIL			1964-07-13	9.45		26.37					7.16	7.16	19.21	653m	North
6628-518	47615		Abandoned		1964-07-07	9.45		26.37								653m	North
6628-519	47616	ADELAIDE COUNCIL			1964-07-08	9.45		26.37					7.16	7.16	19.21	653m	North
6628-520	47617	ADELAIDE COUNCIL			1964-07-10	9.14		26.37								653m	North
6628-29432	306829		Backfilled	Investigation	2018-03-27	30.00										654m	North West
6628-27494	280771	RW 55		Investigation		5.00										655m	North
6628-327	47427			Drainage	1965-05-07	7.01		46.21								655m	South East
6628-330	47430			Drainage		21.59		46.22		4426	7834					655m	South East
6628-317	47417			Drainage	1965-04-22	21.34		46.21					16.76	16.76	29.45	656m	South East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-27482	280759	RW 43				5.00							2.70	2.70		658m	North
6628-27479	280756	RW 40				5.00										659m	North
6628-27480	280757	RW 41		Investigation	2013-08-08	5.00							2.70	2.70		659m	North
6628-27481	280758	RW 42		Investigation		5.00							2.70	2.70		659m	North
6628-27483	280760	RW 44		Investigation	2013-08-09	5.00							2.70	2.70		659m	North
6628-320	47420			Drainage	1965-05-17	21.34	45.00					0.4500	16.76	16.76	28.24	659m	South East
6628-27200	279284	MB 70		Investigation	2014-03-04	6.00										660m	North
6628-27476	280753	RW 37		Investigation		5.00							2.70	2.70		660m	North
6628-27477	280754	RW 38		Investigation	2013-08-07	5.00							2.70	2.70		660m	North
6628-27478	280755	RW 39		Investigation		5.00							2.70	2.70		660m	North
6628-337	47437			Drainage	1965-06-09	6.10		46.24								660m	South East
6628-339	47439		Backfilled	Drainage	1965-06-15	12.80		46.25					2.59	2.59	43.66	660m	South East
6628-27475	280752	RW 36		Investigation		5.00							2.70	2.70		661m	North
6628-29855	313804	SOPN332 821 SITE 1	Dry	Observation	2018-11-08	8.70										661m	North East
6628-31621	363687			Monitoring	2021-11-23	23.00										661m	North West
6628-343	47443	NCR 1	Unknown		1955-09-06	12.19		45.82								661m	South East
6628-25766	263889	T75AB/MW75	Backfilled	Investigation	2009-07-29	20.00							17.70	17.70		662m	North West
6628-25945	265268	T32/MW66			2009-07-29	20.00							17.50	17.50		662m	North West
6628-27474	280751	RW 35				5.00							2.70	2.70		663m	North
6628-29850	313799	SOPN332 816 SITE 1		Observation	2018-11-07	23.00				718	1302		13.31	13.31		663m	North East
6628-314	47414				1965-04-13	9.45		46.27								663m	South East
6628-338	47438	SZ 74	Backfilled	Drainage	1965-06-11	9.40	3.00						4.88	4.88	-1.88	663m	South East
6628-367	47467			Drainage	1965-06-16	12.80		46.28								663m	South East
6628-25237	256123	SB/MW42	Backfilled	Investigation	2009-01-29	17.00							14.90	14.90		664m	North West
6628-27473	280750	RW 34		Investigation	2013-08-05	5.00							2.70	2.70		664m	North
6628-29854	313803	SOPN332 820 SITE 1		Observation	2018-11-26	41.50				1698	3060		13.21	13.21		664m	North East
6628-318	47418	DD 22		Drainage	1965-05-31	21.34		46.29					16.46	16.46	29.83	665m	South East
6628-440	47537							37.07		1242	2247					665m	North East
6628-27201	279285	MB 71		Investigation	2014-03-04	6.00										666m	North
6628-514	47611				1912-01-01			25.35								666m	North
6628-27033	276116	RW 23		Investigation	2013-07-31	5.00							2.70	2.70		667m	North
6628-27034	276117	RW 24		Investigation	2013-07-31	5.00							2.70	2.70		667m	North
6628-27035	276118	RW 25		Investigation		5.00							2.70	2.70		667m	North

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-336	47436			Drainage	1965-06-10	6.10		46.32								667m	South East
6628-27036	276119	RW 26			2013-08-01	5.00							2.70	2.70		668m	North
6628-27037	276120	RW 27		Investigation	2013-08-01	5.00							2.70	2.70		668m	North
6628-27038	276121	RW 28		Investigation	2013-08-01	5.00							2.70	2.70		668m	North
6628-27468	280745	RW 29		Investigation		5.00							2.70	2.70		668m	North
6628-493	47590			Drainage	1904-01-01	40.84		40.13		1270	2298					668m	North East
6628-608	47697					22.25		45.51					17.98	17.98	27.53	668m	North East
6628-8986	55955	PUB. BLDGS. DEPT		Exploration	1979-01-26	12.00	35.30									668m	North East
6628-26445	270982	MW 6	Backfilled													669m	South East
6628-27469	280746	RW 30		Investigation	2013-08-02	5.00							2.70	2.70		669m	North
6628-28381	289344	GWH		Investigation	2016-02-27	11.00							9.56	9.56		669m	North
6628-30778	341959		Backfilled													669m	North West
6628-27470	280747	RW 31		Investigation	2013-08-02	5.00							2.70	2.70		670m	North
6628-27471	280748	RW 32		Investigation		5.00							2.70	2.70		670m	North
6628-11606	58575	STATE TRANSP ORT	Abandoned		1980-12-21	15.10		27.18								671m	North
6628-332	47432			Drainage	1965-06-04	6.10		46.34								671m	South East
6628-27472	280749	RW 33		Investigation	2013-08-05	5.00							2.70	2.70		672m	North
6628-22755	228161	MW 38		Investigation	2007-01-25	7.50		25.05					5.00	5.00	20.05	673m	North
6628-512	47609				1966-09-28	9.86		44.67								674m	North East
6628-632	47721	MOTOR VEHICLES 3	Unknown		1972-09-20	30.40	44.98									675m	East
6628-27029	276112	RW 19		Investigation	2013-07-29	5.00							2.70	2.70		676m	North
6628-27030	276113	RW 20		Investigation	2013-07-30	5.00							2.70	2.70		676m	North
6628-27031	276114	RW 21		Investigation	2013-07-30	5.00							2.70	2.70		676m	North
6628-27032	276115	RW 22		Investigation	2013-07-30	5.00							2.10	2.10		676m	North
6628-19548	175521	TORBH 1		Monitoring	1996-09-05	9.00		27.34	7.46	1205	2180		7.45	7.45	19.89	677m	North West
6628-27027	276110	RW 17		Investigation	2013-07-29	5.00							2.70	2.70		677m	North
6628-27028	276111	RW 18		Investigation	2013-07-29	5.00										677m	North
6628-19241	172406	A 2		Monitoring	1998-08-21	15.00		43.56					10.17	10.17	33.39	678m	South
6628-27025	276108	RW 15		Investigation	2013-07-26	5.00							2.70	2.70		678m	North
6628-27026	276109	RW 16		Investigation	2013-07-26	5.00							2.70	2.70		678m	North
6628-335	47435			Drainage	1965-06-08	6.10		46.41								678m	South East
6628-20423	183453	TB 12		Investigation	2000-08-24	15.30		46.63					11.38	11.38	35.25	679m	South East
6628-27024	276107	RW 14		Investigation	2013-07-26	5.00							2.70	2.70		679m	North

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-28037	287438	GW 3		Investigation	2015-10-18	19.40							16.00	16.00		679m	South West
6628-27023	276106	RW 13		Investigation	2013-07-25	5.00							2.70	2.70		680m	North
6628-27765	285093		Backfilled			19.80										680m	North West
6628-26533	272017			Investigation	2012-05-02	12.00							8.00	8.00		681m	North
6628-27022	276105	RW 12		Investigation	2013-07-25	5.00							2.70	2.70		681m	North
6628-415	47512	PUB. BLDGS DEPT.			1974-02-01	19.45		35.49	7.80	1508	2720		10.70	10.70	24.79	681m	North East
6628-8985	55954	PUB. BLDGS. DEPT		Exploration	1979-01-26	6.50	30.00									681m	North East
6628-27095	278450		Backfilled	Investigation	2013-08-23	20.00										683m	East
6628-26438	270975	MW 1	Backfilled													684m	South East
6628-27011	276094	RW 1		Investigation	2013-07-22	5.00							2.70	2.70		684m	North
6628-27012	276095	RW 2		Investigation	2013-07-22	5.00							2.70	2.70		685m	North
6628-27013	276096	RW 3		Investigation	2013-07-22	5.00							2.70	2.70		685m	North
6628-27014	276097	RW 4		Investigation	2013-07-23	5.00							2.70	2.70		685m	North
6628-27015	276098	RW 5		Investigation	2013-07-23	5.00							2.70	2.70		685m	North
6628-331	47431			Drainage	1965-04-07	21.34	45.00					0.0300	16.46	16.46	28.54	685m	South East
6628-333	47433			Drainage	1965-06-07	6.10		46.46								685m	South East
6628-334	47434			Drainage	1965-06-08	6.10		46.46								685m	South East
6628-27016	276099	RW 6		Investigation	2013-07-23	5.00							2.70	2.70		686m	North
6628-27017	276100	RW 7		Investigation	2013-07-24	5.00							2.70	2.70		686m	North
6628-438	47535	SAR INSTITUTE 1	Unknown		1970-01-30	18.29	57.91									686m	North
6628-27018	276101	RW 8		Investigation	2013-07-24	5.00							2.70	2.70		687m	North
6628-27019	276102	RW 9		Investigation	2013-07-24	5.00							2.70	2.70		687m	North
6628-27094	278449		Backfilled		2013-08-22	20.00										687m	East
6628-373	47473	ELECTR OLUX 5	Unknown		1956-01-01	3.66		40.42								687m	South West
6628-544	47641			Drainage	1976-03-16	8.53		36.45								687m	North East
6628-545	47642			Drainage	1976-03-23	5.18		36.45								687m	North East
6628-546	47643			Drainage	1976-04-03	9.14		36.45								687m	North East
6628-27020	276103	RW 10		Investigation	2013-07-25	5.00										688m	North
6628-27021	276104	RW 11		Investigation	2013-07-23	5.00							2.70	2.70		689m	North
6628-28382	289345	GWF	Not Located	Investigation	2016-02-24	12.00							9.56	9.56		689m	North
6628-416	47513	PUB. BLDGS DEPT.			1974-02-06	12.22		36.01								689m	North East
6628-543	47640			Drainage	1976-03-04	6.70		36.42								689m	North East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-22754	228160	MW 39		Investigation	2007-01-25	7.50		24.77					4.80	4.80	19.97	690m	North
6628-374	47474	ELECTR OLUX 6	Unknown		1956-01-01	3.66		40.42								690m	South West
6628-29431	306828		Backfilled	Investigation	2018-03-29	30.00										691m	North West
6628-25238	256124	SB/MW 43		Investigation	2009-01-30	11.20							4.90	4.90		695m	North West
6628-25767	263890	G20/MW6 7	Backfilled	Investigation	2009-07-30	19.00										695m	North West
6628-25946	265269	G20/MW6 7		Monitoring	2009-07-30	19.00							17.90	17.90		695m	North West
6628-222	47322	PUB BLDGS DEPT			1941-05-01	7.62		40.01								696m	West
6628-223	47323	PUB BLDGS DEPT			1941-05-01	7.62		39.36								696m	West
6628-371	47471	ELECTR OLUX 3	Unknown		1956-01-01	3.66		40.35								697m	South West
6628-22753	228159	MW 40		Investigation	2007-01-25	7.10		25.93					4.00	4.00	21.93	698m	North
6628-29858	313807	SOPH332 824 SITE 3		Observation	2018-11-09	12.00				1222	2210		8.16	8.16		698m	North
6628-417	47514	PUBLIC BLDGS DPT	Abandoned		1974-02-08	14.50		37.01								698m	North East
6628-22130	204721		Backfilled		2005-05-30	12.00		44.05		8870	15250	0.0000	10.20	10.20	33.85	699m	South
6628-26034	266533	MB 70		Investigation	2011-10-25	8.50										700m	North
6628-26035	266534	MB 71			2011-10-25	8.50										700m	North
6628-30774	341955		Backfilled													700m	North West
6628-372	47472	ELECTR OLUX 4	Unknown		1956-01-01	3.66		40.35								700m	South West
6628-27716	284940	MW 7			2015-03-19	20.00							17.93	17.93		701m	South
6628-344	47444	SOIL ENG. LABS.			1960-05-25	5.94		46.04								701m	South East
6628-22752	228158	MW 41			2007-01-29	7.10		24.43					4.50	4.50	19.93	702m	North
6628-25770	263893	G25/MW7 2			2009-06-19	10.50										702m	North West
6628-25948	265271	G25/MW7 2		Monitoring	2009-06-19	10.50							8.50	8.50		702m	North West
6628-26534	272018				2012-05-02	12.00										703m	North
6628-30332	325468			Investigation	2019-08-21	30.00										703m	South East
6628-346	47446				1914-11-24	43.59		44.39		929	1685					703m	South
6628-22760	228167	MW 42		Investigation		7.30		24.31					4.40	4.40	19.91	704m	North
6628-535	47632		Not Located					31.91								704m	North
6628-22758	228165	MW 43		Investigation	2007-01-29	7.00		24.04					4.40	4.40	19.64	707m	North
6628-369	47469	ELECTR OLUX 1	Unknown		1956-01-01	3.35		40.28								708m	South West
6628-609	47698					63.70		45.99								709m	East
6628-25259	256154	BH 1	Backfilled	Investigation	2009-10-20	20.00										710m	North West
6628-370	47470	ELECTR OLUX 2	Unknown		1956-01-01	3.66		40.29								710m	South West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-418	47515	PUB. BLDGS DEPT.			1974-02-07	19.90		37.22	7.70	2182	3920		14.35	14.35	22.87	711m	North East
6628-25729	263649	BH 3	Backfilled	Investigation	2009-12-15	25.00										712m	North West
6628-29927	314474			Investigation	2018-10-15	30.00										712m	South East
6628-345	47445	SOIL ENG. LABS.			1960-05-25	6.10		46.07								712m	South East
6628-27135	278553	RW 57		Investigation	2013-08-17	6.00							3.20	3.20		713m	North
6628-218	47318	PUB BLDGS DEPT			1941-03-01	2.21		40.07								714m	West
6628-25771	263894	G19/MW7 1			2009-06-23	17.50							15.50	15.50		714m	North West
6628-25947	265270	G19/MW7 1		Investigation	2009-06-23	17.50							14.70	14.70		714m	North West
6628-216	47316	PUB BLDGS DEPT			1941-01-01	2.41		38.88								715m	West
6628-220	47320	PUB BLDGS DEPT			1941-05-01	7.62		38.87								715m	West
6628-28038	287439	GW 1		Investigation	2015-10-18	20.80							16.16	16.16		716m	South West
6628-30372	325554			Investigation	2019-08-27	30.00										716m	South East
6628-532	47629							26.29								717m	North
6628-631	47720	MOTOR VEHICLES 2	Unknown		1972-08-29	30.25	45.54		7.50	2253	4045		15.90	15.90	29.64	717m	East
6628-23107	234354	MW 7		Investigation	2006-04-19	10.50		26.02					7.30	7.30	18.72	720m	North
6628-542	47639		Not Located		1974-09-27	11.00		36.18								720m	North East
6628-27134	278552	RW 56		Investigation	2013-08-17	6.00							3.20	3.20		721m	North
6628-212	47312	PUB BLDGS DEPT			1941-04-10	5.18		38.60								723m	West
6628-437	47534	SAR INSTITUTE 2	Unknown		1970-02-11	15.24	57.91									724m	North
6628-210	47310	PUB BLDGS DEPT			1941-04-10	6.40		39.01		853	1547					725m	West
6628-30772	341953		Backfilled													726m	North West
6628-23105	234352	MW 5		Investigation	2006-03-16	10.00		26.60					7.30	7.30	19.30	727m	North West
6628-26586	272273	MW 2		Investigation	2012-08-17	4.50				1917	3450		2.00	2.00		727m	East
6628-214	47314	PUB BLDGS DEPT			1941-04-10	4.57		39.80								728m	West
6628-26585	272272	MW 1		Investigation	2012-08-17	4.50				1889	3400		2.20	2.20		728m	East
6628-29943	314500			Investigation	2018-10-11	30.00										730m	South East
6628-27136	278554	RW 58		Investigation	2013-08-17	6.00							3.20	3.20		732m	North
6628-28384	289347	GWC	Not Located	Investigation	2016-02-12	13.00							9.70	9.70		732m	North
6628-211	47311	PUB BLDGS DEPT			1941-04-10	4.88		38.26								733m	West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-213	47313	PUB BLDGS DEPT			1941-04-10	5.18		39.65								733m	West
6628-27691	284581		Backfilled	Investigation	2015-02-19	20.00										734m	South East
6628-27897	285710				2013-04-18	4.50				2386	4280		2.30	2.30		734m	East
6628-29856	313805	SOPH332 822 SITE 7		Observation	2018-11-13	19.00				1558	2810		15.04	15.04		734m	North East
6628-209	47309	PUB BLDGS DEPT			1941-04-10	6.40		39.04								736m	West
6628-21869	201054	MW 38		Investigation	2004-02-05	18.00		26.57					17.50	17.50	9.07	736m	North West
6628-10910	57879	BIRKS BUILDING	Abandoned		1961-03-13	11.58		43.80								737m	North East
6628-10911	57880	BIRKS BUILDING	Abandoned		1961-03-14	11.43		43.80								737m	North East
6628-10912	57881	BIRKS BUILDING	Abandoned		1961-03-14	11.58		43.80								737m	North East
6628-10913	57882	BIRKS BUILDING	Abandoned		1961-03-15	11.58		43.80								737m	North East
6628-10914	57883	BIRKS BUILDING	Abandoned		1961-03-15	11.43		43.80								737m	North East
6628-10915	57884	BIRKS BUILDING	Abandoned		1961-03-16	11.58		43.80								737m	North East
6628-10916	57885	BIRKS BUILDING	Abandoned		1961-03-16	11.58		43.80								737m	North East
6628-10917	57886	BIRKS BUILDING	Abandoned		1961-03-17	11.43		43.80								737m	North East
6628-10918	57887	BIRKS BUILDING	Abandoned		1961-03-17	11.43		43.80								737m	North East
6628-10919	57888	BIRKS BUILDING	Abandoned		1961-03-18	11.58		43.80								737m	North East
6628-10920	57889	BIRKS BUILDING	Abandoned		1961-03-18	11.43		43.80								737m	North East
6628-10921	57890	BIRKS BUILDING	Abandoned		1961-03-19	11.58		43.80								737m	North East
6628-10922	57891	BIRKS BUILDING	Abandoned		1961-03-19	11.58		43.80								737m	North East
6628-10923	57892	BIRKS BUILDING	Abandoned		1961-03-20	11.58		43.80								737m	North East
6628-10924	57893	BIRKS BUILDING	Abandoned		1961-03-20	13.72		43.80								737m	North East
6628-10925	57894	BIRKS BUILDING	Abandoned		1961-03-21	13.72		43.80								737m	North East
6628-10926	57895	BIRKS BUILDING	Abandoned		1961-03-21	13.72		43.80								737m	North East
6628-10927	57896	BIRKS BUILDING	Abandoned		1961-03-22	13.72		43.80								737m	North East
6628-10928	57897	BIRKS BUILDING	Abandoned		1961-03-22	13.72		43.80								737m	North East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-10929	57898	BIRKS BUILDING	Abandoned		1961-03-23	13.72		43.80								737m	North East
6628-25730	263650	BH 4		Investigation	2009-12-17	25.00										737m	North West
6628-28158	288503		Not Located	Investigation	2016-02-12	25.00										737m	North
6628-25239	256125	SB/MW 44		Investigation	2009-01-21	18.00							16.00	16.00		738m	North West
6628-28383	289346	GWE	Not Located	Investigation	2016-02-26	12.00							9.56	9.56		738m	North East
6628-25926	265249	MW 41		Monitoring	2004-01-30	18.00										739m	North West
6628-446	47543	MORPHEE BRIDGES 12	Unknown		1964-05-18	27.43		25.37		1430	2583					739m	North
6628-23526	238605		Backfilled			8.50										740m	North East
6628-62	47162		Abandoned		1970-09-04	23.62		43.32								742m	North East
6628-27699	284691	BH 10	Backfilled	Investigation	2015-02-21	30.00										743m	South
6628-621	47710	SCOTS CHURCH A 5	Unknown		1956-11-09	12.19		46.76								745m	East
6628-11109	58078	KW 9	Unknown		1979-09-04	12.50	37.74									746m	North East
6628-616	47705	SCOTS CHURCH A 3	Unknown		1956-10-30	12.19		46.73								746m	East
6628-207	47307	PUB BLDGS DEPT			1941-04-10	6.71		37.89								747m	West
6628-208	47308	PUB BLDGS DEPT			1941-04-10	6.40		38.03								747m	West
6628-620	47709	SCOTS CHURCH A 6	Unknown		1956-11-09	12.19		46.75								747m	East
6628-30371	325553			Investigation	2019-08-23	30.00										748m	South East
6628-206	47306	PUB BLDGS DEPT			1941-04-10	7.01		37.72								749m	West
6628-26482	271046		Backfilled			16.50										749m	North
6628-27807	285261	GW 1			2015-04-14	22.00										750m	North West
6628-215	47315	PUB BLDGS DEPT			1914-01-01	15.24		37.61								752m	West
6628-27808	285262	GW 2		Investigation	2015-04-15	21.00							18.50	18.50		754m	North West
6628-29851	313800	SOPN332 817 SITE 4		Observation	2018-11-10	12.00				1075	1945		7.65	7.65		754m	North
6628-19549	175522	TORBH 2		Monitoring	1996-09-05	10.00		27.19	7.62	1233	2230		7.79	7.79	19.40	755m	North West
6628-531	47628							28.31								758m	North
6628-619	47708	SCOTS CHURCH A 4	Unknown		1956-11-08	12.19		46.84								759m	East
6628-624	47713	SCOTS CHURCH A 2	Unknown		1956-10-30	12.19		46.86								759m	East
6628-27715	284939	MW 6			2015-03-19	16.00							11.61	11.61		762m	South
6628-25240	256126	SB/MW 45		Investigation	2009-01-22	17.00										763m	North West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-28159	288504		Not Located	Investigation	2016-02-10	25.00										763m	North
6628-617	47706	SCOTS CHURCH A 1	Unknown		1956-10-30	12.19		46.84								763m	East
6628-618	47707	SCOTS CHURCH P 2	Unknown		1956-11-27	15.44		46.85								763m	East
6628-27903	285765	MW 10		Investigation	2015-06-23	14.00							11.40	11.40		764m	South East
6628-28385	289348	GWB	Backfilled		2016-02-09	13.00										764m	North East
6628-28591	290323	MW 11			2016-10-12	20.00							16.60	16.60		765m	South
6628-630	47719	MOTOR VEHICLES 1	Unknown		1972-08-15	59.00	41.13		7.50	1356	2450	0.6300	21.50	21.50	19.63	765m	East
6628-25260	256155	BH 2		Investigation	2009-10-21	25.00										768m	North West
6628-622	47711	SCOTS CHURCH P 1	Unknown		1956-11-19	15.34		46.90								768m	East
6628-25732	263652	BH 6		Investigation	2009-12-11	15.00										769m	North West
6628-23106	234353	MW 4		Investigation	2006-03-15	10.50		27.01					7.30	7.30	19.71	770m	North West
6628-28153	288493			Investigation	2016-03-06	35.00										771m	North East
6628-534	47631							32.59		1351	2440					772m	North
6628-27905	285767	MW 9		Investigation	2015-06-23	12.50							10.10	10.10		773m	South
6628-26055	266583		Backfilled			13.90										774m	North East
6628-451	47548	MORPHEE BRIDGES 22	Unknown		1964-09-03	24.23		24.58								774m	North
6628-21372	197656			Monitoring	2003-03-14	12.00		44.38				0.0100	10.60	10.60	33.78	777m	South
6628-528	47625	ADELAIDE COUNCIL				9.45		24.92					7.16	7.16	17.76	778m	North
6628-205	47305	PUB BLDGS DEPT			1941-04-10	7.62		36.76								779m	West
6628-447	47544	MORPHEE BRIDGES 13	Unknown		1964-08-25	13.41		24.71		885	1605					781m	North
6628-22622	218969	GMW 3		Investigation	2006-09-06	18.00		42.19					15.25	15.25	26.94	782m	South
6628-32028	371285		Dry	Investigation	2022-09-08	17.50										782m	East
6628-61	47161		Abandoned		1970-09-02	23.77		42.89					11.28	11.28	31.61	783m	North East
6628-32032	371289		Dry	Investigation	2022-09-17	15.00										784m	East
6628-25549	262162	MW 12			2009-10-10	6.00										786m	South
6628-18667	167077			Investigation	1997-10-24	9.00		25.01		1423	2570		4.70	4.70	20.31	787m	North
6628-21373	197657			Investigation	2003-03-14	12.00		44.78				0.0100	10.60	10.60	34.18	787m	South East
6628-203	47303	PUB BLDGS DEPT			1941-04-10	7.32		37.04								788m	West
6628-27689	284579	BH 8	Backfilled	Investigation	2015-02-13	20.00										788m	South
6628-530	47627							30.87								788m	North

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-533	47630							32.59								788m	North
6628-129	47229		Not Located					45.08								789m	North East
6628-19653	176139			Monitoring	1999-04-17	10.80		44.76				0.0200	9.60	9.60	35.16	790m	South East
6628-19654	176140			Monitoring	1999-04-17	10.80		44.36				0.0200	9.60	9.60	34.76	791m	South
6628-23103	234350	MW 8		Investigation	2006-03-15	10.00		25.63					6.90	6.90	18.73	791m	North West
6628-26362	269872	BH 2	Decommissioned	Investigation	2012-02-25	36.00										792m	North
6628-217	47317	PUB BLDGS DEPT			1941-01-01	2.67		36.08								793m	West
6628-219	47319	PUB BLDGS DEPT			1941-01-01	1.60		37.11								793m	West
6628-22259	206466			Monitoring		15.00		44.90					9.00	9.00	35.90	793m	South East
6628-29853	313802	SOPN332 819 SITE 6	Backfilled	Observation	2018-11-14	17.84				1642	2960		12.68	12.68		795m	North East
6628-204	47304	PUB BLDGS DEPT			1941-04-10	9.45		36.19								796m	West
6628-26129	266997	BHA		Investigation	2011-07-03	18.45										797m	North East
6628-22581	218505	GMW 1		Investigation	2006-06-09	16.00		42.10					14.90	14.90	27.20	801m	South
6628-25550	262163	MW 12		Investigation	2009-10-10	6.00										801m	South
6628-25731	263651	BH 5		Investigation	2009-12-14	15.00										801m	North West
6628-25929	265252	MW 24	Backfilled	Monitoring	2000-05-12	15.50										801m	North West
6628-26119	266980	SB/MW 76	Backfilled	Investigation	2011-05-24	14.00							10.50	10.50		801m	North West
6628-30242	316764		Dry	Monitoring	2019-06-06	17.00										801m	North East
6628-22623	218970	GMW 2		Investigation	2006-09-06	18.00		42.19					15.12	15.12	27.07	802m	South
6628-19655	176141			Monitoring	1999-04-17	10.80		44.47				0.0200	9.60	9.60	34.87	803m	South East
6628-28160	288505				2016-02-16	35.00										804m	North
6628-26117	266978	SB/MW 77		Investigation	2011-05-23	12.50							11.20	11.20		805m	North West
6628-221	47321	PUB BLDGS DEPT			1941-05-01	7.62		36.31								806m	West
6628-21371	197655			Monitoring	2003-03-14	12.00		44.32				0.0100	10.60	10.60	33.72	807m	South
6628-27690	284580	BH 7	Backfilled	Investigation	2015-02-12	17.00										808m	South
6628-28386	289349	GWA	Not Located	Investigation		10.00							9.58	9.58		809m	North East
6628-25914	265232	RMW 41A	Backfilled	Investigation	2011-07-07	21.00										810m	North West
6628-26002	266428	MW 77	Backfilled			15.00										810m	North West
6628-25994	266420	W 34	Backfilled		2011-11-03	15.00										811m	North West
6628-26003	266429	MW 78	Backfilled			15.00										811m	North West
6628-26118	266979	SB/MW 78		Investigation	2011-05-25	13.00							11.40	11.40		815m	North West
6628-27904	285766	MW 8			2015-06-22	8.00							4.00	4.00		816m	South

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-130	47230							44.61								817m	North East
6628-27717	284941	MW 4			2015-03-18	16.00							10.87	10.87		817m	South
6628-403	47500	MORPHE TT BRIDGES 14	Unknown		1964-05-11	27.43		24.01		1100	1992					817m	North
6628-25999	266425	W 33	Backfilled			15.00										820m	North West
6628-31357	357305			Monitoring	2021-06-11	20.00										822m	East
6628-31954	370985			Investigation	2022-08-04	15.00										822m	East
6628-28592	290324	MW 12		Investigation	2016-10-12	13.50							10.40	10.40		824m	South
6628-21370	197654			Monitoring		12.00		44.24				0.0100	10.60	10.60	33.64	825m	South
6628-25909	265227	MW 20	Backfilled	Monitoring	2000-05-09	16.80							14.20	14.20		827m	North West
6628-529	47626							31.11								829m	North
6628-24568	245589			Investigation	2009-04-02	15.00		44.96								830m	South East
6628-28837	294425		Backfilled	Investigation	2017-05-19	21.00										831m	South
6628-31358	357306			Monitoring	2021-06-11	14.00										831m	East
6628-11110	58079	KW 10A	Unknown		1979-09-01	12.50	37.26									835m	North East
6628-527	47624							28.67								836m	North
6628-404	47501	MORPHE TT BRIDGES 24	Unknown		1964-08-18	30.02		22.98		1200	2172					839m	North
6628-639	47728		Abandoned		1963-09-27	6.55		45.97								839m	South East
6628-25918	265236	RW 23	Backfilled	Investigation	2011-07-02	17.00										840m	North West
6628-21526	198204			Investigation	2003-09-09	18.00		40.92				0.0100	16.20	16.20	24.72	841m	South West
6628-22995	231396			Investigation	2007-01-09	15.60		42.93					15.50	15.50	27.43	842m	South
6628-27152	278600	W 18	Backfilled													843m	North West
6628-27816	285314	CMW 13		Investigation	2015-05-05	14.50							12.27	12.27		843m	North West
6628-414	47511				1970-12-18	14.78		29.84					4.57	4.57	25.27	843m	North
6628-21566	198444			Irrigation	2003-11-13	78.00		37.35	7.27	2138	3840	7.8000	30.00	30.00	7.35	846m	South West
6628-20246	181067	HFMW 79A		Monitoring	2000-04-20	13.00		45.00								847m	South East
6628-23102	234349	MW 9		Investigation	2006-03-16	10.00		25.32					6.40	6.40	18.92	848m	North West
6628-201	47301		Abandoned		1968-02-22	112.78		38.42				0.2500	17.37	17.37	21.05	850m	South West
6628-21866	200942		Abandoned			19.00		37.89								851m	South West
6628-25990	266416	W 20	Backfilled			15.00										851m	North West
6628-29852	313801	SOPN332 818 SITE 5		Observation	2018-11-11	13.00				2114	3800		9.87	9.87		851m	North
6628-28838	294426		Decommissioned	Investigation	2017-05-19	19.50										853m	South
6628-25611	262436	SB/MW 47	Backfilled	Investigation	2009-03-04	15.00							13.30	13.30		855m	North West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-202	47302			Observation; Recreational	1972-01-01	121.92	38.47	38.30	7.50	1496	2700	11.3700	17.33	17.16	21.14	858m	South West
6628-31356	357304			Monitoring	2021-06-10	18.00										863m	East
6628-25906	265224	SB/MW12	Backfilled	Monitoring	2000-03-15	14.50							11.70	11.70		865m	North West
6628-11111	58080	GH 157	Abandoned	Investigation	1979-08-30	13.83	35.93									869m	North East
6628-19552	175525	TORBH 5		Monitoring	1996-09-05	11.00		25.07	6.95	1804	3250		9.61	9.61	15.46	869m	North West
6628-29197	303729				2017-11-08	22.00							18.00	18.00		870m	East
6628-25923	265246	MW 34	Backfilled	Monitoring	2000-07-01	9.90							6.60	6.60		873m	North West
6628-25613	262438	SB/MW 49	Backfilled	Investigation	2009-03-05	15.00							14.10	14.10		878m	North West
6628-29977	314573	GEOTECH BORE HOLE 1	Backfilled		2018-12-18	16.05										879m	North East
6628-24329	245269			Investigation	2008-11-27	17.50		43.51					11.00	11.00	32.51	880m	South
6628-21374	197658			Monitoring	2003-03-14	12.00		44.42				0.0100	10.60	10.60	33.82	882m	South East
6628-20244	181065	HFMW 78		Monitoring	2000-04-13	12.00		44.77								883m	South East
6628-26481	271045		Backfilled	Investigation	2012-10-08	11.00							3.00	3.00		884m	North
6628-82	47182				1915-01-01	31.70		45.28					31.09	31.09	14.19	884m	North East
6628-23493	238512		Backfilled	Investigation	2007-10-08	22.50		29.96								885m	North West
6628-25993	266419	W 27	Backfilled			15.00										885m	North West
6628-31342	357152			Monitoring	2021-06-07	15.00										887m	East
6628-29978	314574	GEOTECH BORE HOLE 2	Decommissioned		2018-12-17	18.10										889m	North East
6628-28787	293879	GW 2		Investigation	2016-11-03	14.50							13.00	13.00		891m	South East
6628-19550	175523	TORBH 3		Monitoring	1996-09-05	12.50		25.68					12.50	12.50	13.18	893m	North West
6628-23101	234348	MW 10		Investigation	2006-03-21	14.50		25.56					12.30	12.30	13.26	893m	North West
6628-25992	266418	W 35	Backfilled			15.00										894m	North West
6628-20245	181066	HFMW 79		Monitoring	2000-04-17	13.00		44.46								895m	South East
6628-21102	195434			Drainage	2002-10-14	18.00		42.49					10.00	10.00	32.49	895m	South
6628-25922	265245	MW 33		Monitoring	2000-07-01	22.00							11.80	11.80		897m	North West
6628-25930	265253	MW 25	Backfilled	Monitoring	2000-05-12	16.00							14.40	14.40		898m	North West
6628-19547	175520	TORBH 8		Monitoring	1996-09-06	7.00		24.49	7.10	1625	2930		3.15	3.15	21.34	900m	North West
6628-25772	263895	T104/MW 74	Backfilled	Investigation	2009-07-11	15.50							13.50	13.50		902m	North West
6628-11113	58082	DEPT-TRANSPORT		Observation	1979-08-02	16.00	35.58		7.10	994	1800		11.76	11.76	23.82	903m	North East
6628-25900	265218	RMW 33	Backfilled	Investigation	2011-07-01	17.00										903m	North West
6628-20325	182028	HFMW 75		Monitoring	2000-03-24	12.00		44.49					9.50	9.50	34.99	904m	South East
6628-25018	253366	GW 126		Monitoring	2009-11-21	5.50	22.16			1052	1904		2.40	2.40	19.76	904m	North
6628-18023	161848	LIBRARY PIER C1A	Unknown		1965-02-17	13.72		40.95								905m	North East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-20242	181063	HFMW 76		Monitoring	2000-04-13	13.00		44.42								905m	South East
6628-25901	265219	RMW 34	Backfilled	Investigation	2011-07-01	17.00										906m	North West
6628-27818	285316	CMW 15		Investigation	2015-05-05	20.00							16.02	16.02		906m	North West
6628-25908	265226	SB/MW19	Backfilled	Monitoring	2000-03-15	14.70							12.20	12.20		908m	North West
6628-25910	265228	MW 21	Backfilled	Monitoring	2000-05-10	15.00							11.50	11.50		908m	North West
6628-28786	293878	GW 1		Investigation	2016-11-03	14.50							11.00	11.00		909m	South East
6628-606	47695		Operational	Drainage		20.73	46.00			1318	2383	1.5100				913m	East
6628-11112	58081	KW 12	Unknown		1979-09-02	10.41	33.63									914m	North East
6628-28632	290459		Backfilled		2016-12-06	25.00										916m	East
6628-23104	234351	MW 6		Investigation	2006-03-17	5.00		25.14					3.50	3.50	21.64	917m	North West
6628-28631	290458				2016-12-07	25.00										917m	East
6628-63	47163	JOHN MARTINS	Abandoned		1967-07-11	11.33		44.64								917m	North East
6628-25865	264553	SB/MW 57	Backfilled	Investigation	2009-05-21	14.50							12.50	12.50		918m	North West
6628-25866	264554	SB/MW 58	Backfilled	Investigation	2009-05-22	14.50							12.50	12.50		920m	North West
6628-67	47167	JOHN MARTINS	Abandoned		1967-05-24	14.33		44.40								920m	North East
6628-18022	161847	LIBRARY PIER A6	Unknown		1965-02-13	11.43		40.58								921m	North East
6628-25915	265233	RMW 73	Backfilled	Investigation	2011-06-30	20.00										921m	North West
6628-20243	181064	HFMW 77		Monitoring	2000-04-13	12.00		44.57								924m	South East
6628-23491	238510		Backfilled	Investigation	2007-10-09	24.00		30.22								924m	North West
6628-31347	357161			Investigation	2021-06-09	18.00										924m	East
6628-66	47166	JOHN MARTINS	Abandoned		1967-06-08	14.63		44.26								924m	North East
6628-27149	278597	W 8	Backfilled													925m	North West
6628-26364	270097	BH 1	Backfilled	Investigation	2012-02-17	49.50							5.50	5.50		926m	North
6628-68	47168	JOHN MARTINS	Abandoned		1967-07-13	13.56		44.65								926m	North East
6628-607	47696		Operational	Drainage		21.03	46.00					7.5800				927m	East
6628-25907	265225	SB/MW13		Monitoring	2000-03-10	14.85							12.90	12.90		930m	North West
6628-64	47164	JOHN MARTINS	Abandoned		1967-05-29	15.39		43.99								931m	North East
6628-25927	265250	MW 22	Backfilled	Monitoring	2000-05-10	15.50										933m	North West
6628-11286	58255	DEPT. MINES	Backfilled		1965-01-27	18.23		41.86								934m	North East
6628-25024	253372	SBGW 48		Monitoring	2009-11-26	13.28	35.02									935m	West
6628-18021	161846	LIBRARY PIER A10	Unknown		1965-02-11	10.06		40.34								936m	North East
6628-18025	161850	LIBRARY PIER J1	Unknown		1965-01-27	18.23		41.43								936m	North East
6628-27146	278594	W 1	Backfilled													936m	North West
6628-28020	287374		Backfilled	Investigation	2015-09-30	25.00										938m	East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-27727	284998	S3	Backfilled	Investigation	2012-11-21	40.00										939m	North West
6628-25911	265229	RMW 13	Backfilled	Investigation	2011-07-04	17.00										940m	North West
6628-627	47716	PMG 1	Unknown		1959-03-13	12.19		47.93								940m	East
6628-18024	161849	LIBRARY PIER G5	Unknown		1965-02-22	10.67		41.03								942m	North East
6628-20252	181277			Monitoring	2000-05-27	13.00		48.14								942m	East
6628-413	47510							22.18		285	518					943m	North
6628-18401	164408			Observation	1996-01-29	22.00		44.06					17.00	17.00	27.06	944m	South East
6628-27725	284996	S1	Backfilled	Investigation	2012-11-15	40.00										944m	North West
6628-31744	367843		Dry	Environmental	2022-04-12	17.00										945m	East
6628-69	47169	JOHN MARTINS	Abandoned		1967-10-03	10.22		43.70								945m	North East
6628-23492	238511		Backfilled		2007-10-11	24.00		29.80								946m	North West
6628-25868	264556	SB/MW 60	Backfilled	Investigation	2009-05-14	15.00							12.50	12.50		948m	North West
6628-25869	264557	SB/MW 61	Backfilled	Investigation	2009-05-15	15.00							12.50	12.50		948m	North West
6628-32031	371288		Dry	Investigation	2022-09-16	14.50										948m	East
6628-27886	285625	MW 1		Investigation	2014-11-07	8.50							5.90	5.90		949m	South East
6628-25867	264555	SB/MW 59	Backfilled	Investigation	2009-05-13	15.00										950m	North West
6628-90	47190	LIBRARY DM 3	Unknown		1964-12-17	10.06		40.32								950m	North East
6628-27887	285626	MW 3		Investigation	2014-11-07	8.50							5.90	5.90		953m	South East
6628-27728	284999	S4	Backfilled	Investigation	2012-11-26	40.00										955m	North West
6628-88	47188	LIBRARY DM 1	Unknown		1964-12-16	12.98		40.58								955m	North East
6628-25612	262437	SB/MW 48	Backfilled	Investigation	2009-03-04	15.00							13.00	13.00		956m	North West
6628-439	47536				1966-08-02	5.79		36.37								956m	North East
6628-27148	278596	W 7	Backfilled													958m	North West
6628-18403	164410			Observation	1996-01-31	23.00		44.44					18.00	18.00	26.44	959m	South East
6628-30124	315883			Investigation	2019-03-06	4.00										959m	South
6628-27726	284997	S2	Backfilled	Investigation	2012-11-19	40.00										960m	North West
6628-27888	285627	MW 6		Investigation	2014-11-07	8.50							5.90	5.90		960m	South East
6628-65	47165	JOHN MARTINS	Abandoned		1967-06-13	10.97		43.93								960m	North East
6628-25920	265243	MW 30	Backfilled	Monitoring	2000-06-17	20.00										961m	North West
6628-26004	266430	W 21	Backfilled			15.00										961m	North West
6628-614	47703		Abandoned	Drainage		60.96		47.41								961m	East
6628-30392	325616			Investigation	2019-05-20	20.00										963m	North
6628-347	47447	WATERMAN 2	Unknown		1956-10-10	9.70		43.77								963m	South East
6628-18027	161852	LIBRARY PIER N6	Unknown		1965-03-01	12.95		41.22								964m	North East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-31348	357162			Investigation	2021-06-08	16.50										964m	East
6628-643	47732				1914-09-19	31.85		44.47		1485	2681	0.6300	18.29	18.29	26.18	964m	South East
6628-71	47171	JOHN MARTINS 3	Unknown		1966-12-13	30.02		44.63								964m	North East
6628-27889	285628	MW 7		Investigation	2014-11-07	8.50							5.90	5.90		965m	South East
6628-640	47729		Operational	Drainage	1962-10-22	26.52		46.01		8482	14638	0.3000	11.43	11.43	34.58	965m	South East
6628-25769	263892	G47/MW65		Investigation	2009-06-18	18.50							16.20	16.20		967m	North West
6628-629	47718	PMG 2	Unknown		1959-03-23	20.12		48.08								968m	East
6628-20256	181454		Abandoned	Environmental	2000-06-29	17.00		44.34					14.50	14.50	29.84	971m	South East
6628-89	47189	LIBRARY DM 2	Unknown		1964-12-17	4.88		40.62								971m	North East
6628-14078	61047			Observation	1980-01-01	12.25		42.07				0.0000	0.00	0.00	42.07	973m	North East
6628-14079	61048			Observation	1980-01-01	10.10		42.07				0.0000	0.00	0.00	42.07	973m	North East
6628-14080	61049			Observation	1980-01-01	10.10		42.07				0.0000	0.00	0.00	42.07	973m	North East
6628-14081	61050			Observation	1980-01-01	9.60		42.07				0.0000	0.00	0.00	42.07	973m	North East
6628-14082	61051			Observation	1980-01-01	9.90		42.07				0.0000	0.00	0.00	42.07	973m	North East
6628-14083	61052			Observation	1980-01-01	7.70		42.07				0.0000	0.00	0.00	42.07	973m	North East
6628-14084	61053			Observation	1980-01-01	7.15		42.07				0.0000	0.00	0.00	42.07	973m	North East
6628-14085	61054			Observation	1982-01-01	9.70		42.07				0.0000	0.00	0.00	42.07	973m	North East
6628-25917	265235	RW 5	Backfilled	Investigation	2011-07-13	20.00										974m	North West
6628-27890	285629	MW 10		Investigation	2014-11-07	8.50							5.90	5.90		976m	South East
6628-28021	287375		Backfilled	Investigation	2015-09-29	25.00										977m	East
6628-72	47172	JOHN MARTINS	Abandoned		1967-06-19	15.90		44.13								977m	North East
6628-25928	265251	MW 23	Backfilled	Monitoring	2000-05-11	20.30										980m	North West
6628-96	47196	FORENSIC LAB 2	Unknown		1967-01-18	16.69	39.11									980m	North East
6628-25614	262439	SB/MW 50	Backfilled	Investigation	2009-03-05	16.50							14.50	14.50		982m	North West
6628-27891	285630	MW 13		Investigation	2014-11-07	8.50							5.90	5.90		982m	South East
6628-12882	59851		Backfilled	Observation	1984-03-23	8.50		41.79								983m	North East
6628-12883	59852		Backfilled	Observation	1984-03-26	8.00		41.79								984m	North East
6628-12884	59853		Backfilled	Observation	1984-03-26	3.00		41.79								984m	North East
6628-12885	59854		Backfilled	Observation	1984-03-26	1.50		41.79								984m	North East
6628-12886	59855		Backfilled	Observation	1984-03-26	1.50		41.79								984m	North East
6628-12887	59856		Backfilled	Observation	1984-03-26	3.00		41.79								984m	North East
6628-20260	181458		Decommissioned	Environmental	2000-07-04	20.00		44.37								984m	South East
6628-12888	59857		Backfilled	Observation	1984-03-27	4.00		41.79								985m	North East
6628-12889	59858		Backfilled	Observation	1984-03-27	3.00		41.79								985m	North East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-12890	59859		Backfilled	Observation	1984-03-27	6.00		41.79								985m	North East
6628-12891	59860		Backfilled	Observation	1984-03-28	3.00		41.79								985m	North East
6628-12892	59861		Backfilled	Observation	1984-03-28	3.00		41.79								985m	North East
6628-12893	59862		Backfilled	Observation	1984-03-28	4.00		41.79								985m	North East
6628-18026	161851	LIBRARY PIER M13	Unknown		1965-01-28	11.28		40.75								985m	North East
6628-348	47448	WATERMAN 1	Unknown		1956-10-05	18.29		43.58								986m	South East
6628-350	47450		Abandoned		1914-10-09	10.67		42.99					9.75	9.75	33.24	989m	South East
6628-20261	181459		Decommissioned	Environmental	2000-07-05	20.00		44.34								990m	South East
6628-70	47170	JOHN MARTINS	Abandoned		1966-12-13	24.00		43.57								991m	North East
6628-27892	285631	MW 17		Investigation	2014-11-07	9.00							5.90	5.90		992m	South East
6628-25023	253371	GW 122		Monitoring	2009-11-25	13.20	23.94			955	1729		6.86	6.86	17.08	993m	North West
6628-81	47181	ANZ BANK				10.97		45.04					3.35	3.35	41.69	994m	North East
6628-27814	285312	CMW 17		Investigation	2015-05-05	18.00										995m	North West
6628-19551	175524	TORBH 4		Monitoring	1996-09-05	15.00		25.06	7.29	1027	1860		12.52	12.52	12.54	997m	North West
6628-27145	278593	W 3	Backfilled													1000m	North West
6628-20262	181460		Decommissioned	Environmental	2000-07-05	19.00		44.30								1001m	South East
6628-25916	265234	RW 2	Backfilled	Investigation	2011-07-04	24.00										1001m	North West
6628-20257	181455		Decommissioned	Environmental	2000-06-30	21.00		44.11								1003m	South East
6628-50	47150	ATTC 1	Unknown		1957-06-26	15.24		38.72								1003m	North East
6628-95	47195	FORENSIC LAB 1	Unknown		1966-12-08	6.71	39.11			2081	3740					1007m	North East
6628-641	47730		Operational	Drainage		22.86		46.47		1656	2987		12.19	12.19	34.28	1010m	South East
6628-18670	167080			Investigation	1997-10-22	9.00		32.44		2892	5170		0.50	0.50	31.94	1014m	West
6628-29177	302371			Investigation	2017-10-21	30.00							17.00	17.00		1014m	North East
6628-11099	58068			Drainage				46.14								1015m	East
6628-27147	278595	W 4	Backfilled													1015m	North West
6628-27731	285002	S7	Backfilled	Investigation	2012-12-06	40.00										1016m	North West
6628-28628	290447	BH 2	Backfilled	Investigation	2016-07-05	28.50										1017m	North East
6628-30393	325617		Dry	Investigation	2019-05-22	20.00										1017m	North
6628-51	47151	ATTC 2	Unknown			8.53		38.96		2770	4957					1017m	North East
6628-25905	265223	RW 29	Backfilled	Investigation	2011-07-06	20.00										1018m	North West
6628-27729	285000	S5	Backfilled	Investigation	2012-11-30	40.00										1018m	North West
6628-28445	289520				2016-08-23	25.00							16.00	16.00		1019m	North East
6628-25995	266421	W 29	Backfilled			15.00										1020m	North West
6628-25997	266423	W 10	Backfilled			15.00										1020m	North West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-20259	181457		Decommissioned	Environmental	2000-07-03	19.50		43.96								1022 m	South East
6628-25864	264552	SB/MW 56	Backfilled	Monitoring	2009-05-20	19.50							17.00	17.00		1022 m	North West
6628-27815	285313	CMW 19		Investigation	2015-05-06	18.00							15.98	15.98		1022 m	North West
6628-25863	264551	SB/MW 55	Backfilled	Investigation	2009-05-19	19.50							17.00	17.00		1023 m	North West
6628-25883	265139	R W 31		Investigation	2011-09-05	22.00							17.00	17.00		1023 m	North West
6628-52	47152	ATTC 3	Unknown		1957-07-31	7.62		39.47								1023 m	North East
6628-18671	167081			Investigation	1997-10-23	9.00		33.01		3046	5440		2.83	2.83	30.18	1024 m	West
6628-25938	265261	SB/MW 56	Backfilled		2009-05-20	19.50										1024 m	North West
6628-20258	181456		Decommissioned	Environmental	2000-07-01	15.00		44.02								1025 m	South East
6628-22235	206405	GW 1			2005-08-19	11.00		43.33					8.25	8.25	35.08	1025 m	South East
6628-27155	278603	W 31	Backfilled													1025 m	North West
6628-26001	266427	W 32B	Backfilled			15.00										1027 m	North West
6628-25765	263887	T104/MW 74	Backfilled	Investigation	2009-07-23	20.00										1028 m	North West
6628-25768	263891	T75AB/MW 72		Investigation	2009-07-28	18.00										1028 m	North West
6628-25902	265220	T123/MW 62	Backfilled	Investigation	2009-07-23	20.00							17.70	17.70		1028 m	North West
6628-18402	164409			Observation	1996-01-30	26.00		43.67					21.00	21.00	22.67	1029 m	South East
6628-27151	278599	W 17	Backfilled													1031 m	North West
6628-27732	285003	S8	Backfilled	Investigation	2012-12-10	40.00										1031 m	North West
6628-25560	262185	BH 1			2009-08-23	25.40										1032 m	East
6628-27730	285001	S6	Backfilled	Investigation	2012-12-04	40.00										1033 m	North West
6628-25884	265141	R W 13	Backfilled		2011-09-02	22.00							17.50	17.50		1034 m	North West
6628-25931	265254	MW 26	Backfilled	Monitoring	2000-06-16	19.00							16.90	16.90		1034 m	North West
6628-25903	265221	RW 14	Backfilled		2011-07-12	20.00										1038 m	North West
6628-25998	266424	W 13	Backfilled			15.00										1038 m	North West
6628-31077	353850		Backfilled	Investigation	2020-02-13	16.60										1041 m	East
6628-405	47502					9.75		23.14		1213	2196		6.71	6.71	16.43	1041 m	North
6628-25919	265242	MW 29	Backfilled	Monitoring	2000-06-17	20.00							16.00	16.00		1042 m	North West
6628-80	47180					29.87		44.46								1042 m	North East
6628-53	47153	ATTC 4	Unknown		1957-08-05	7.62		38.76		357	649		1.22	1.22	37.54	1045 m	North East
6628-31940	370723		Backfilled													1049 m	East
6628-59	47159	ATTC 10	Unknown		1957-07-23	30.48		39.55		1770	3190	1.2600	14.93	14.93	24.62	1050 m	North East
6628-25991	266417	W 32	Backfilled			15.00										1051 m	North West
6628-26172	267203		Backfilled	Investigation	2011-11-23	30.00							9.00	9.00		1051 m	North
6628-26173	267204				2011-11-30	10.00							8.00	8.00		1051 m	North

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-27154	278602	W 30	Backfilled													1051 m	North West
6628-27733	285004	S9	Backfilled	Investigation	2012-12-12	40.00										1052 m	North West
6628-25996	266422	M 22	Backfilled			15.00										1055 m	North West
6628-85	47185					6.40	45.00			2780	4975	2.0200	4.57	4.57	40.43	1056 m	North East
6628-25899	265217	RMW 32	Backfilled		2011-07-15	19.80										1057 m	North West
6628-54	47154	ATTC 5	Unknown		1957-08-02	7.62		37.68		457	831		2.13	2.13	35.55	1057 m	North East
6628-25886	265143	SV 87	Backfilled	Investigation	2011-09-05	22.00										1058 m	North West
6628-25924	265247	MW 39		Monitoring	2004-02-03	19.50							17.50	17.50		1058 m	North West
6628-32030	371287		Dry	Investigation	2022-09-13	17.00										1058 m	East
6628-537	47634					20.12		26.72		3198	5705					1058 m	North West
6628-84	47184	BRICKED WELL				18.29		45.33		1760	3172		4.98	4.98	40.35	1058 m	North East
6628-349	47449					11.58		42.80		10839	18467					1059 m	South East
6628-25885	265142	RMW 63	Backfilled	Investigation	2011-09-06	22.00							18.50	18.50		1061 m	North West
6628-26477	271041	BRICK WELL	Backfilled			2.70										1062 m	North
6628-58	47158	ATTC 9	Unknown		1957-07-29	7.92		38.69					1.22	1.22	37.47	1062 m	North East
6628-25950	265273	MW 32	Backfilled	Investigation	2000-06-30	23.50										1065 m	North West
6628-27826	285324	CMW 11		Investigation	2015-05-12	21.00							19.41	19.41		1065 m	North West
6628-25913	265231	RMW 39	Backfilled	Investigation	2011-07-05	19.50										1066 m	North West
6628-638	47727					10.06		47.73		3584	6380					1066 m	East
6628-27813	285311	CMW 20		Investigation	2015-05-06	18.00							16.13	16.13		1067 m	North West
6628-55	47155	ATTC 6	Unknown		1957-07-15	30.48		35.75		2370	4254	0.1300	12.19	12.19	23.56	1071 m	North East
6628-60	47160					1.76		40.47		1602	2890		1.76	1.76	38.71	1071 m	North East
6628-11285	58254	K.W.G.S MITH PTY	Backfilled		1975-10-08	19.00		45.40								1073 m	North East
6628-26000	266426	W 16	Backfilled			15.00										1073 m	North West
6628-27150	278598	W 12	Backfilled													1074 m	North West
6628-363	47463							40.50								1074 m	South West
6628-17783	156024	HB 18		Observation	1995-08-21	20.80		26.49	7.60	1569	2830		14.98	14.98	11.51	1077 m	West
6628-57	47157	ATTC 8	Unknown		1957-08-07	6.40		37.34								1077 m	North East
6628-31750	368476			Environmental	2022-04-22	14.00										1078 m	East
6628-11098	58067			Drainage				46.03								1079 m	East
6628-114	47214		Operational	Drainage	1935-09-10	28.35		40.90				0.8800				1080 m	North East
6628-31294	355262			Investigation	2020-12-15	15.00										1086 m	South East
6628-26174	267205	BH 2		Investigation	2011-11-22	30.00							8.50	8.50		1091 m	North
6628-25241	256127	SB/MW 51	Backfilled	Investigation	2009-02-03	18.50							17.10	17.10		1092 m	North West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-25862	264550	SB/MW 54	Backfilled	Investigation	2009-05-12	18.50							16.50	16.50		1093 m	North West
6628-25562	262187	BH 3			2009-08-27	25.40							18.40	18.40		1094 m	East
6628-56	47156	ATTC 7	Unknown		1957-08-08	6.10		35.75								1094 m	North East
6628-79	47179		Abandoned		1964-12-04	12.19		44.13					3.66	3.66	40.47	1095 m	North East
6628-25773	263896	SB73/MW 73		Investigation	2009-07-03	15.00										1096 m	North West
6628-25861	264549	SB/MW 53	Backfilled	Investigation	2009-05-11	18.50										1097 m	North West
6628-27153	278601	W 19	Backfilled													1097 m	North West
6628-16817	146778		Backfilled	Investigation	1994-07-13	40.00		25.02								1098 m	North
6628-27823	285321	CMW 29		Investigation	2015-05-13	21.00							18.80	18.80		1098 m	North West
6628-31295	355263			Investigation	2020-12-15	15.00										1098 m	South East
6628-22153	205641	N117C (NP1)	Operational	Investigation ; Monitoring	2005-05-13	128.00		19.49	7.80	13795	23048		0.40	0.40	19.09	1099 m	North
6628-23495	238514		Backfilled		2007-10-15	39.00		27.40								1100 m	North West
6628-25898	265216	MW 28	Backfilled	Monitoring	2000-06-16	21.00							16.70	16.70		1100 m	North West
6628-11284	58253	K.W.G.S MITH PTY.	Backfilled		1975-10-09	18.80		45.31								1101 m	North East
6628-25561	262186	BH 2			2009-08-25	26.40							15.40	15.40		1101 m	East
6628-27825	285323	CMW 25		Investigation	2015-05-12	21.50							20.20	20.20		1102 m	North West
6628-731	47805							40.31								1104 m	South West
6628-136	47236							43.27								1108 m	North East
6628-705	47779					23.47		40.19		3817	6784		15.24	15.24	24.95	1108 m	South West
6628-26874	275449	EMIGRATION SQUARE WELL				12.00										1111 m	West
6628-27824	285322	CMW 24		Investigation	2015-05-11	20.00							17.91	17.91		1113 m	North West
6628-31293	355261			Investigation	2020-12-15	15.00										1113 m	South East
6628-26171	267201		Backfilled	Investigation	2011-12-01	30.00							7.50	7.50		1115 m	North
6628-27517	280986	MW 7	Backfilled	Investigation	2014-09-16	15.00							9.00	9.00		1116 m	South East
6628-25904	265222	RW 19	Backfilled	Investigation	2011-07-08	20.00										1117 m	North West
6628-91	47191	CHEMISTRY BLDG 1	Unknown		1961-11-29	24.38		29.88		1999	3597		6.10	6.10	23.78	1117 m	North East
6628-25774	263897			Investigation	2009-07-21	20.00							14.30	14.30		1119 m	North West
6628-25897	265215	MW 27	Backfilled	Monitoring	2000-06-18	20.00							16.20	16.20		1121 m	North West
6628-47	47147	ADELAIDE UNI.	Abandoned		1969-04-16	27.43		38.97	7.00	1320	2387	0.1300	12.19	12.19	26.78	1121 m	North East
6628-25925	265248	MW 40	Backfilled	Monitoring	2004-02-03	22.00							17.60	17.60		1126 m	North West
6628-135	47235							42.78								1127 m	North East
6628-27512	280888	MW 5	Backfilled	Investigation	2014-07-11	3.13							1.34	1.34		1127 m	South East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-27511	280887	MW 4	Backfilled	Investigation	2014-06-26	3.26							1.92	1.92		1129 m	South East
6628-23867	241844			Investigation	2008-09-24	26.00		40.61					15.00	15.00	25.61	1130 m	South
6628-25242	256128	SB/MW 52	Backfilled	Investigation	2009-02-03	18.50							16.20	16.20		1130 m	North West
6628-27817	285315	CMW 22	Backfilled	Investigation	2015-05-07	18.00							16.28	16.28		1130 m	North West
6628-132	47232							42.96								1134 m	North East
6628-28864	294754															1134 m	North West
6628-27396	280466															1136 m	South East
6628-27510	280886	MW 3	Backfilled	Investigation	2014-06-26	3.00							1.48	1.48		1136 m	South East
6628-27518	280987	MW 8	Backfilled	Investigation		15.00							9.00	9.00		1137 m	South East
6628-27509	280885	MW 2	Backfilled	Investigation	2014-06-26	3.16							1.32	1.32		1141 m	South East
6628-149	47249	UNION B 3	Unknown		1968-07-11	6.20		31.31								1148 m	North East
6628-134	47234							42.53								1149 m	North East
6628-26170	267200		Backfilled	Investigation	2011-11-30	30.00							8.50	8.50		1149 m	North
6628-27513	280907	MW 6	Backfilled	Investigation		3.07							1.58	1.58		1149 m	South East
6628-48	47148	ADELAIDE UNI.	Abandoned		1969-03-19	15.39	39.00		7.50	262	476	0.1300	5.18	5.18	33.82	1149 m	North East
6628-27508	280884	MW 1	Backfilled	Investigation		15.00							8.50	8.50		1150 m	South East
6628-21412	197899	MW 36	Backfilled	Monitoring	2003-06-25	17.60		25.37					16.45	16.45	8.92	1151 m	North West
6628-127	47227		Abandoned		1966-08-26	9.14		41.67								1152 m	North East
6628-152	47252		Abandoned		1968-08-23	6.40		32.30								1153 m	North East
6628-153	47253		Abandoned		1968-08-23	8.53		32.30								1153 m	North East
6628-154	47254		Abandoned		1968-08-23	4.27		32.30								1153 m	North East
6628-155	47255		Abandoned		1968-08-23	6.71		32.30								1153 m	North East
6628-156	47256		Abandoned		1968-08-23	7.31		32.30								1153 m	North East
6628-25951	265274	MW 35	Backfilled	Monitoring	2000-07-01	19.50										1154 m	North West
6628-27821	285319	CMW 27		Investigation	2015-05-07	18.50							16.18	16.18		1154 m	North West
6628-49	47149	UNION UR 1	Unknown		1968-05-29	6.48		33.13								1154 m	North East
6628-131	47231							42.87								1157 m	North East
6628-42	47142	ADELAIDE UNI.	Abandoned		1969-04-22	21.49	36.00		7.00	2155	3874	0.1300	12.19	12.19	23.81	1158 m	North East
6628-118	47218		Abandoned		1959-09-03	9.14		41.32		2070	3722		7.77	7.77	33.55	1159 m	North East
6628-117	47217		Abandoned		1959-09-01	9.14		40.04		1856	3343		6.71	6.71	33.33	1160 m	North East
6628-146	47246	UNION UR 2	Unknown		1968-06-01	5.64		31.83								1161 m	North East
6628-25764	263886	SB63/MW 63		Investigation	2009-07-22	18.50										1162 m	North West
6628-133	47233							42.41								1165 m	North East
6628-40	47140	ADELAIDE UNI.	Abandoned		1969-05-02	25.91		33.01	7.00	1455	2627	0.1300	12.19	12.19	20.82	1165 m	North East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-46	47146	ADELAIDE UNI.	Abandoned		1969-03-14	27.43		36.46	7.50	1255	2271	0.2500	13.72	13.72	22.74	1166 m	North East
6628-116	47216		Abandoned		1959-09-09	12.19		39.18	7.50	1928	3470					1167 m	North East
6628-44	47144	ADELAIDE UNI.	Abandoned		1969-03-06	21.34	36.00		7.50	2155	3874	0.1300	13.11	13.11	22.89	1167 m	North East
6628-147	47247	UNION B 1	Unknown		1968-07-09	6.10		30.87								1168 m	North East
6628-124	47224		Abandoned		1962-07-06	15.24		41.64								1169 m	North East
6628-25944	265267	G139 MW64	Backfilled		2009-07-22	18.50							15.70	15.70		1169 m	North West
6628-31964	371063		Backfilled	Investigation	2022-07-26											1169 m	East
6628-126	47226		Abandoned		1962-07-04	15.24		40.58								1172 m	North East
6628-148	47248	UNION B 2	Unknown		1968-07-09	6.10		29.95								1173 m	North East
6628-115	47215				1959-09-24	25.60		37.66	7.40	1928	3470		10.36	10.36	27.30	1176 m	North East
6628-18269	164087		Abandoned	Investigation	1996-10-16	20.00		40.78								1179 m	South
6628-16727	145689		Decommissioned	Investigation	1994-07-19	39.10		26.63								1182 m	North
6628-19546	175519	TORBH 7		Monitoring	1996-09-06	16.00		24.77	7.08	999	1810		13.42	13.42	11.35	1182 m	North West
6628-27819	285317	CMW 28		Investigation	2015-05-08	19.00										1182 m	North West
6628-125	47225		Abandoned		1965-08-25	8.74		39.29								1183 m	North East
6628-150	47250	UNION B 5	Unknown		1968-07-13	4.88		28.68								1184 m	North East
6628-642	47731		Abandoned	Drainage		26.12		48.67								1187 m	South East
6628-18669	167079		Dry	Investigation	1997-10-21	9.00		25.62								1188 m	West
6628-25949	265272	RW 31	Backfilled	Investigation	2011-09-05	22.00										1188 m	North West
6628-30908	348609			Investigation	2020-10-06	15.00										1190 m	North West
6628-30909	348610			Investigation	2020-09-30	20.00										1190 m	North West
6628-151	47251	UNION B 6	Unknown		1968-05-13	7.92		28.50								1191 m	North East
6628-25912	265230	RMW 37	Backfilled	Investigation	2011-07-14	20.00										1191 m	North West
6628-18668	167078			Investigation	1997-10-20	9.00		28.51		1172	2120					1193 m	West
6628-27820	285318	CMW 26		Investigation	2015-05-08	17.00							15.41	15.41		1193 m	North West
6628-43	47143	ADELAIDE UNI.	Abandoned		1969-04-03	25.91		34.08	6.90	2966	5300	0.2500	12.19	12.19	21.89	1193 m	North East
6628-123	47223		Abandoned		1965-08-23	8.94		40.37								1196 m	North East
6628-31213	354761			Monitoring	2021-03-02	14.50										1202 m	South East
6628-652	47741	TRAVEL DGE MOTEL	Abandoned		1965-12-30	12.65		43.51								1204 m	South East
6628-121	47221		Abandoned		1961-12-06	9.14		39.12								1208 m	North East
6628-17784	156025	HB 15		Observation	1995-08-21	21.00		28.61	7.20	1468	2650		14.90	14.90	13.71	1208 m	West
6628-555	47652	PULTNEY GRAMMAR	Operational	Irrigation		29.26		41.28	6.50	1166	2110					1212 m	South East
6628-17785	156026	HB 17		Observation	1995-08-22	17.96		27.83	7.80	1676	3020		13.13	13.13	14.70	1213 m	West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-45	47145	ADELAIDE UNI.	Abandoned		1969-03-26	21.34	30.00		8.00	2085	3749	0.1300	12.19	12.19	17.81	1213 m	North East
6628-120	47220		Abandoned		1959-09-15	9.45		38.05		1172	2120					1214 m	North East
6628-25921	265244	MW 31		Monitoring	2000-06-30	22.50							14.90	14.90		1216 m	North West
6628-23494	238513		Backfilled	Investigation	2007-10-12	41.00		25.34								1218 m	North West
6628-122	47222		Abandoned		1961-12-04	24.38		38.73		2241	4025		5.79	5.79	32.94	1219 m	North East
6628-16087	63056		Operational	Recharge	1992-07-29	16.76		23.08	7.20	1894	3409					1220 m	North
6628-651	47740	TRAVEL DGE MOTEL	Abandoned		1965-12-22	12.27		43.60								1222 m	South East
6628-28523	289795			Investigation	2016-09-16	15.00										1223 m	South East
6628-119	47219		Abandoned		1959-09-04	9.14		36.47		1945	3500		7.62	7.62	28.85	1225 m	North East
6628-29292	305726			Irrigation	2018-01-29	18.50										1227 m	North West
6628-29275	305525		Backfilled			18.50										1228 m	North West
6628-41	47141	ADELAIDE UNI.	Abandoned		1969-05-08	18.29	30.00		7.00	1830	3297	0.2500	3.66	3.66	26.34	1228 m	North East
6628-22336	209644				2005-10-21	30.00		41.09		1384	2500	8.0000	12.00	12.00	29.09	1230 m	South East
6628-30941	350942			Investigation	2020-10-21	19.80										1234 m	North West
6628-25029	253377	SBGW 5		Monitoring	2009-12-04	20.40	40.16			1664	3000		15.91	15.91	24.25	1240 m	South
6628-22277	206491	SITE 1			2005-09-25	30.00		42.56		1452	2620	0.2500	11.00	11.00	31.56	1244 m	South East
6628-29291	305725			Monitoring	2018-01-25	21.00										1244 m	North West
6628-21868	201053	MW 37		Investigation	2004-02-05	19.50		24.80					15.00	15.00	9.80	1247 m	North West
6628-28522	289794			Investigation	2016-09-15	35.00										1247 m	South East
6628-19545	175518	TORBH 6		Monitoring	1996-09-06	18.00		24.98	7.20	1016	1840		13.94	13.94	11.04	1249 m	North West
6628-21411	197898	MW 31A	Backfilled	Monitoring	2003-06-27	18.50		24.93					15.96	15.96	8.97	1251 m	North West
6628-28024	287378			Investigation	2015-09-21	19.00										1251 m	North West
6628-28625	290444		Decommissioned	Investigation	2016-11-11	22.00										1253 m	East
6628-28627	290446	BH 2	Decommissioned	Investigation	2016-11-11	20.50										1253 m	East
6628-19544	175516	TORBH 9		Monitoring	1996-09-06	16.00		23.25	7.47	1928	3470		12.10	12.10	11.15	1255 m	North West
6628-25485	262037			Investigation	2010-10-08	16.00							9.00	9.00		1255 m	South East
6628-16818	146779		Backfilled	Investigation	1994-07-15	39.00		27.03								1257 m	North
6628-406	47503					8.53		24.78		1056	1913					1257 m	North
6628-29900	314333			Investigation	2019-01-18	21.00										1259 m	North East
6628-23259	236055	GMW 2		Investigation	2008-01-21	6.00		27.19					3.70	3.70	23.49	1264 m	North East
6628-25488	262042			Investigation	2010-10-08	15.50							10.00	10.00		1268 m	South East
6628-31656	364896		Backfilled	Investigation	2021-09-16	30.00										1269 m	North West
6628-22278	206492	SITE 2				60.00		42.48		1005	1820	1.5000	13.00	13.00	29.48	1272 m	South East
6628-30328	325444			Investigation	2019-08-14	20.00										1272 m	North East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-26175	267206		Decommissioned	Investigation	2011-11-24	30.00										1278 m	North
6628-25763	263835	BH 8			2011-01-10	19.80							5.00	5.00		1283 m	North East
6628-25027	253375	SBGW 57		Monitoring	2009-12-02	17.37	25.76									1285 m	North West
6628-633	47722	CELLAR				42.67		49.90		1157	2094					1286 m	East
6628-25026	253374	SBGW 17		Monitoring	2009-12-01	11.90	41.63			2465	4420		7.26	7.26	34.37	1288 m	South East
6628-419	47516				1914-01-01	10.36		24.49		2130	3829					1292 m	North
6628-23260	236057	GMW 1		Investigation	2008-01-21	6.00		27.01					3.70	3.70	23.31	1298 m	North East
6628-22747	228094	BH 4E		Investigation	2007-02-09	6.00		26.42					5.10	5.10	21.32	1300 m	North East
6628-14632	61601	GH 152	Abandoned	Investigation	1985-02-01	10.20	50.00									1302 m	East
6628-16728	145690			Investigation	1994-07-21	40.40		25.03								1302 m	North
6628-649	47738	PARK ROYAL HOTEL	Backfilled		1964-09-11	9.35		44.75								1304 m	South East
6628-78	47178	COLD STORES 3	Unknown		1962-12-20	4.57		42.70								1307 m	North East
6628-25314	257756	BH 14			2009-03-01	20.00										1308 m	North West
6628-1	47101	SUBWAY 3	Unknown		1974-07-10	30.00	28.00		6.90	4047	7179		6.00	6.00	22.00	1311 m	North East
6628-658	47747							50.11								1311 m	East
6628-650	47739	PARK ROYAL HOTEL	Backfilled		1964-09-14	9.35		44.34								1313 m	South East
6628-74	47174	CHEST CLINIC 2	Unknown		1971-10-18	18.29	42.00		8.00	2909	5200	0.1300				1318 m	North East
6628-23865	241835			Investigation	2008-12-18	25.00		40.72		1799	3240	3.0000	12.00	12.00	28.72	1328 m	South East
6628-77	47177	COLD STORES 2	Unknown		1962-12-20	5.64		42.62								1328 m	North East
6628-25019	253367	SBGW 59		Monitoring	2009-11-23	9.55	24.42			874	1585		6.65	6.65	17.77	1329 m	North
6628-73	47173	CHEST CLINIC 1	Backfilled		1971-10-13	20.42	41.00		8.00	2067	3715	0.1300				1336 m	North East
6628-657	47746							50.25								1337 m	East
6628-76	47176	COLD STORES 1	Unknown		1962-12-19	4.65		42.54								1343 m	North East
6628-86	47186				1934-06-15	21.34	43.00			2385	4281	6.3100	10.67	10.67	32.33	1352 m	East
6628-20686	187681	ADELAIDE UNIVERSITY 1		Monitoring	2001-06-15	154.00		27.58		2290	4110					1354 m	North East
6628-401	47498	SUBWAY 4	Unknown		1974-06-26	25.35	23.00		7.90	940	1703		6.14	6.14	16.86	1354 m	North West
6628-34	47134	RAH	Abandoned		1964-06-18	18.90	30.00			1210	2191	0.3800	6.10	6.10	23.90	1370 m	North East
6628-39	47139	PUB. BLDGS DEPT.			1966-08-02	5.79		29.16								1371 m	North East
6628-704	47778					55.00	38.53	38.23	7.30	1995	3590		16.05	15.75	22.48	1371 m	South
6628-31717	367611					17.00										1374 m	East
6628-30619	334434		Backfilled	Investigation	2020-01-08	17.00										1375 m	East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-30724	336597		Backfilled	Investigation	2020-01-19	17.00										1375 m	East
6628-31001	352960		Backfilled		2020-01-20	17.00										1375 m	East
6628-38	47138	RAH	Abandoned		1964-05-26	18.29		30.47		1671	3013		4.57	4.57	25.90	1376 m	North East
6628-3	47103	ADELAIDE UNIVERSITY OVAL	Abandoned			12.19		25.19		956	1733	9.4700	7.62	7.62	17.57	1377 m	North East
6628-75	47175	DENTAL CENTRE 1	Backfilled		1974-06-14	15.15	10.50		7.60	1686	3038					1385 m	North East
6628-412	47509		Backfilled		1914-10-01	18.90	24.00			1487	2685	0.7600				1386 m	North West
6628-18672	167087		Abandoned	Investigation ; Managed Aquifer Recharge (incl ASR)	1997-11-05	30.00		39.89	7.80	1496	2700	2.0000				1387 m	South
6628-18673	167088			Investigation	1997-11-05	30.00		39.89								1387 m	South
6628-18674	167089			Investigation	1997-11-05	30.00		39.89								1387 m	South
6628-18675	167090			Investigation	1997-11-05	30.00		39.89								1387 m	South
6628-20028	178065			Irrigation	1999-12-20	30.00		21.91					24.00	24.00	-2.09	1390 m	North West
6628-25283	256226	MW 10	Backfilled	Investigation	2010-05-24	23.00							21.05	21.05		1393 m	North West
6628-24902	252789	BH 4		Investigation	2005-09-07	20.00							17.50	17.50		1397 m	West
6628-18512	165714			Investigation	1997-04-10	29.00		39.81		1776	3200	4.0000	10.00	10.00	29.81	1399 m	South
6628-35	47135	RAH	Abandoned		1964-06-11	36.65		31.45		1100	1992	0.3800	4.57	4.57	26.88	1404 m	North East
6628-411	47508				1934-08-04	17.75	25.00					0.4500	1.22	1.22	23.78	1404 m	North West
6628-25	47125	RAH	Abandoned		1963-01-16	18.29		35.96					7.11	7.11	28.85	1410 m	North East
6628-23	47123	RAH	Abandoned		1963-01-08	18.29		35.07	7.50	1581	2851		7.80	7.80	27.27	1411 m	North East
6628-94	47194		Abandoned		1959-09-30	15.24	29.00			1070	1938	0.6300	5.99	5.99	23.01	1411 m	North East
6628-37	47137	PUBLIC BLDS. DPT	Abandoned		1964-05-28	18.29		30.16		1457	2631					1412 m	North East
6628-23808	241640	MW 1	Backfilled	Monitoring	2008-10-19	27.00		23.47					18.40	18.40	5.07	1416 m	West
6628-31658	364898		Backfilled	Investigation	2021-09-10	30.00										1420 m	North West
6628-23809	241641	MW 2	Backfilled	Monitoring	2008-10-18	25.82		23.77					22.00	22.00	1.77	1423 m	North West
6628-26	47126	RAH	Abandoned		1963-01-21	18.36		33.90					7.87	7.87	26.03	1428 m	North East
6628-31657	364897		Backfilled	Investigation	2021-09-14	30.00										1429 m	North West
6628-113	47213					60.96		29.49		1971	3547		3.10	3.10	26.39	1431 m	North East
6628-36	47136	RAH	Abandoned		1964-06-02	18.29	30.00			1160	2100	0.6300	4.57	4.57	25.43	1431 m	North East
6628-142	47242		Abandoned		1964-09-22	15.09		29.15		1597	2880		3.50	3.50	25.65	1436 m	North East
6628-25020	253368	SBGW 67		Monitoring	2009-11-23	11.87	28.24			1754	3160		7.43	7.43	20.81	1440 m	North East
6628-610	47699		Backfilled			32.00		43.62								1440 m	East
6628-32002	371213		Backfilled	Investigation	2022-08-23	35.00										1442 m	North East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-24	47124	RAH	Abandoned		1963-01-11	18.29		35.23					7.80	7.80	27.43	1448 m	North East
6628-22	47122	RAH	Abandoned		1963-01-02	30.48		36.83					9.14	9.14	27.69	1451 m	North East
6628-28110	288285			Investigation	2015-12-16	25.00							4.00	4.00		1451 m	North East
6628-8	47108	S.A.I.T.	Abandoned		1964-06-23	14.33		28.38					3.05	3.05	25.33	1452 m	North East
6628-27908	285939		Backfilled	Investigation	2015-08-25	22.70							6.00	6.00		1454 m	South East
6628-27	47127	RAH	Abandoned		1963-01-24	18.36		34.03					7.21	7.21	26.82	1461 m	North East
6628-9	47109	S.A.I.T.	Abandoned		1964-06-25	9.14		28.72					3.05	3.05	25.67	1462 m	North East
6628-2	47102				1934-11-01	9.14		26.16		2470	4429					1463 m	North
6628-31719	367617		Backfilled	Environmental	2022-03-16	10.00										1465 m	North East
6628-410	47507				1930-01-01	40.23		23.90		5340	9397	1.0100	15.24	15.24	8.66	1465 m	North West
6628-615	47704		Abandoned		1963-07-03	4.57		46.48								1465 m	East
6628-33	47133				1963-02-28	21.31		31.33								1466 m	North East
6628-29722	312767		Backfilled													1468 m	West
6628-32004	371215		Backfilled	Investigation	2022-08-30	35.00										1468 m	North East
6628-32003	371214		Backfilled	Investigation	2022-08-26	35.00										1474 m	North East
6628-635	47724					22.90	50.00		7.80	5118	9014	0.0600	13.70	13.70	36.30	1474 m	East
6628-22180	206187			Monitoring	2005-07-04	7.00		28.98		1580	2850		3.80	3.80	25.18	1478 m	North East
6628-24901	252788	BH 6		Investigation	2005-09-07	20.00							17.80	17.80		1478 m	West
6628-25281	256224	MW 8	Backfilled	Investigation	2010-05-21	22.00							19.00	19.00		1479 m	West
6628-26701	274281			Monitoring	2013-04-18	23.50							18.50	18.50		1479 m	West
6628-27292	280018	GW 3		Investigation	2014-06-17	5.00							2.30	2.30		1480 m	North East
6628-29717	312762		Backfilled													1480 m	West
6628-29723	312768		Backfilled													1481 m	West
6628-10	47110	S.A.I.T.	Abandoned		1964-09-18	5.03		29.38					3.35	3.35	26.03	1482 m	North East
6628-21	47121	RAH			1962-12-13	18.52		37.54	7.70	1021	1849		5.49	5.49	32.05	1483 m	North East
6628-29	47129	RAH	Abandoned		1963-02-05	18.36		32.20					7.11	7.11	25.09	1483 m	North East
6628-29718	312763		Backfilled		1996-07-26											1483 m	West
6628-28111	288286			Investigation	2015-12-15	25.00							4.00	4.00		1486 m	North East
6628-19033	169551				1992-11-01	23.00		39.77		2200	3952	3.7884				1488 m	South
6628-29720	312765		Backfilled													1491 m	West
6628-29721	312766		Backfilled													1491 m	West
6628-29719	312764		Backfilled													1493 m	West
6628-18268	164086			Observation	1996-10-16	20.00		38.27								1496 m	South
6628-27291	280017	GW 2		Investigation	2014-06-17	9.00							5.15	5.15		1497 m	North East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-434	47531	FESTIVAL NORTH 3	Unknown		1965-12-10	24.38	42.00									1497 m	North
6628-25017	253365	GW 121		Monitoring	2009-11-20	6.55	16.59			1939	3490		2.16	2.16	14.43	1500 m	North West
6628-436	47533	FESTIVAL NORTH 5	Unknown		1965-12-10	18.29	42.00									1500 m	North
6628-409	47506				1934-07-01	27.74		23.39		2084	3747	0.3800	20.42	20.42	2.97	1502 m	North West
6628-17909	156634	HB 25		Investigation	1995-12-01	18.00		20.26	7.30	1440	2600		15.36	15.36	4.90	1503 m	West
6628-23811	241643	MW 4	Backfilled	Monitoring	2008-10-17	24.50		22.73					19.80	19.80	2.93	1504 m	North West
6628-28	47128	RAH	Abandoned		1963-01-30	18.36		33.63		1010	1829		6.40	6.40	27.23	1506 m	North East
6628-32	47132	RAH	Abandoned		1963-02-22	30.48		32.52					8.18	8.18	24.34	1506 m	North East
6628-28112	288287			Investigation	2015-12-13	25.00							4.10	4.10		1511 m	North East
6628-732	47806			Observation	1976-07-02	123.00	40.40	39.50	7.50	2835	5070					1512 m	South
6628-15	47115	RADIOTHERAPY 5	Unknown		1955-05-04	12.57		38.90					5.79	5.79	33.11	1515 m	North East
6628-30	47130	RAH	Abandoned		1963-02-08	18.36		33.59					8.38	8.38	25.21	1516 m	North East
6628-14	47114	RADIOTHERAPY 4	Unknown		1955-04-28	20.04		39.60					7.16	7.16	32.44	1517 m	North East
6628-18272	164090		Abandoned	Investigation	1996-10-17	18.20		42.02								1517 m	South East
6628-25286	256229	MW 5		Investigation	2010-05-27	22.00							18.29	18.29		1521 m	West
6628-31720	367618		Backfilled	Environmental	2022-03-17	10.00										1521 m	North East
6628-14515	61484	GH 3	Abandoned	Investigation	1980-05-09	9.00	34.00									1522 m	South West
6628-31338	355493		Backfilled	Investigation	2021-06-18	24.95										1526 m	North East
6628-27290	280016	GW 1		Investigation	2014-06-17	9.00							5.50	5.50		1528 m	North East
6628-16478	138332			Investigation	1993-12-22	17.00		20.31					13.50	13.50	6.81	1529 m	West
6628-25282	256225	MW 6	Backfilled	Investigation	2010-05-24	22.50							19.45	19.45		1529 m	North West
6628-19	47119	RADIOTHERAPY 9	Unknown		1955-06-09	11.89		35.14					5.79	5.79	29.35	1530 m	North East
6628-17906	156631	HB 22		Investigation	1995-11-30	18.00		20.23	7.20	2227	4000		15.50	15.50	4.73	1531 m	West
6628-25284	256227	MW 11	Backfilled	Investigation	2010-05-26	22.00										1531 m	North West
6628-421	47518							30.14		2399	4304					1532 m	North
6628-14517	61486	GH 5	Abandoned	Investigation	1980-05-27	9.25	38.00									1534 m	South
6628-22181	206188			Monitoring	2005-07-04	7.00		30.40		1434	2590		4.00	4.00	26.40	1534 m	North East
6628-31	47131	PUBLIC BLDGS DPT	Abandoned		1963-02-13	18.29		34.59					5.79	5.79	28.80	1534 m	North East
6628-433	47530	FESTIVAL NORTH 2	Unknown		1965-12-30	56.39	43.00		6.70	3530	6285		24.22	24.22	18.78	1535 m	North
6628-13	47113	RADIOTHERAPY 3	Unknown		1955-04-19	30.48		39.02	8.40	1513	2729					1537 m	North East
6628-28521	289793			Investigation	2016-09-20	35.00										1538 m	South East
6628-17907	156632	HB 23		Investigation	1995-11-30	18.00		19.97	7.20	2493	4470		14.89	14.89	5.08	1542 m	West
6628-22182	206189			Monitoring	2005-07-04	7.00		30.55		1064	1925		4.00	4.00	26.55	1542 m	North East
6628-22183	206190			Monitoring	2005-07-05	7.00		30.52		1031	1867		4.00	4.00	26.52	1542 m	North East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-432	47529	FESTIVAL NORTH 1	Unknown		1965-12-12	25.91	42.00						23.62	23.62	18.38	1543 m	North
6628-435	47532	FESTIVAL NORTH 4	Unknown		1966-01-17	40.84	44.00									1545 m	North
6628-636	47725							51.39		4869	8594					1545 m	East
6628-16	47116	RADIOTH ERAPY 6	Unknown		1955-05-11	12.57		36.72								1546 m	North East
6628-365	47465	HILTON BRIDGE 2	Abandoned	Foundations	1975-12-17	24.10		23.89	7.90	2052	3690		9.95	9.95	13.94	1546 m	West
6628-11	47111	RADIOTH ERAPY 1	Unknown		1955-03-28	24.38		37.35	7.60	1788	3220					1551 m	North East
6628-18	47118	RADIOTH ERAPY 8	Unknown		1955-05-06	12.57		35.51					5.18	5.18	30.33	1551 m	North East
6628-25287	256230	MW 9		Investigation	2010-05-27	22.00							19.00	19.00		1552 m	North West
6628-12	47112	RADIOTH ERAPY 2	Unknown		1955-03-31	12.34		37.48					6.10	6.10	31.38	1553 m	North East
6628-17908	156633	HB 24		Investigation	1995-11-30	18.00		19.85	7.30	1664	3000		14.37	14.37	5.48	1554 m	West
6628-16477	138331				1993-12-16	18.00		20.00					13.30	13.30	6.70	1555 m	West
6628-16483	138337			Investigation	1993-12-22	22.00		19.84					13.50	13.50	6.34	1559 m	West
6628-31721	367619		Backfilled	Environmental	2022-03-16	10.00										1559 m	North East
6628-12422	59391	BORE B	Backfilled	Observation	1982-09-24	31.50		22.40	7.70	1032	1870		2.10	2.10	20.30	1562 m	North West
6628-12421	59390	BORE A	Backfilled	Observation	1982-08-07	20.00		22.40	7.70	1032	1870		2.10	2.10	20.30	1563 m	North West
6628-23731	241403				2007-12-07	32.00		47.68		1839	3310	32.0000	17.00	17.00	30.68	1566 m	East
6628-17912	156637	HB 28		Investigation	1996-01-09	18.00		19.93	7.50	1412	2550		15.44	15.44	4.49	1567 m	West
6628-17	47117	RADIOTH ERAPY 7	Unknown		1955-05-20	12.57		35.50								1568 m	North East
6628-539	47636	HIGHWAYS DEPT	Abandoned		1976-01-30	20.40		16.47								1570 m	North West
6628-431	47528		Abandoned		1934-11-13	74.68		41.34		1345	2431	0.1300	21.34	21.34	20.00	1574 m	North
6628-20	47120	RADIOTH ERAPY 10	Unknown		1955-06-27	30.48		35.93	7.00	1485	2680					1576 m	North East
6628-17905	156630	HB 21		Investigation	1995-11-29	18.00		19.75					16.39	16.39	3.36	1577 m	West
6628-30777	341958		Backfilled													1579 m	North
6628-16482	138336			Investigation	1993-12-22	27.00		19.89					13.50	13.50	6.39	1580 m	West
6628-540	47637	HIGHWAYS DEPT	Abandoned		1976-01-22	22.80		14.07								1580 m	North West
6628-30776	341957		Backfilled													1582 m	North
6628-366	47466	HILTON BRIDGE 3	Abandoned	Foundations	1975-12-19	24.00		24.55	7.20	2477	4440		9.40	9.40	15.15	1584 m	West
6628-19212	171913			Domestic	1998-10-22	21.00		19.69		2517	4510		14.00	14.00	5.69	1586 m	West
6628-17903	156628	HB 19		Investigation	1995-11-29	18.00		19.75	9.00	1261	2280		14.92	14.92	4.83	1588 m	West
6628-538	47635	HIGHWAYS DEPT	Abandoned		1976-01-13	7.20		15.35								1590 m	North West
6628-16475	138329			Investigation	1993-12-07	19.00		19.68					14.00	14.00	5.68	1593 m	West
6628-16481	138335			Investigation	1993-12-10	21.00		19.65					13.30	13.30	6.35	1594 m	West
6628-356	47456	MILE END 1	Unknown		1951-06-05	10.36		19.74								1594 m	West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-541	47638	HIGHWAYS DEPT	Abandoned		1975-12-23	10.60		13.96								1594 m	North West
6628-16480	138334			Investigation	1994-01-14	16.50		19.64					13.30	13.30	6.34	1596 m	West
6628-22178	206185			Monitoring	2005-07-05	7.00		30.35		979	1772		3.80	3.80	26.55	1598 m	North East
6628-364	47464	HILTON BRIDGE 1	Abandoned	Foundations	1975-12-04	24.00		20.64	7.60	2024	3639		9.50	9.50	11.14	1599 m	West
6628-357	47457	MILE END 2	Unknown		1951-06-23	19.81		19.67								1603 m	West
6628-17904	156629	HB 20		Investigation	1995-11-29	18.00		19.54					16.10	16.10	3.44	1605 m	West
6628-25285	256228	MW 7		Investigation	2010-05-26	22.00							20.05	20.05		1606 m	North West
6628-26603	272294	MW 3		Investigation	2012-06-15	13.50							11.80	11.80		1612 m	East
6628-22179	206186			Monitoring	2005-07-05	7.00		30.48		1337	2415		3.80	3.80	26.68	1613 m	North East
6628-17910	156635	HB 26		Investigation	1996-01-09	18.00		19.44					15.19	15.19	4.25	1615 m	West
6628-26602	272293	MW 2		Investigation	2012-06-15	13.50							11.80	11.80		1616 m	East
6628-762	47811					9.14		29.63		2159	3881					1616 m	North
6628-16690	144009			Investigation	1994-08-04	15.20		19.58					12.90	12.90	6.68	1619 m	West
6628-23810	241642	MW 3	Backfilled	Monitoring	2008-10-18	21.00		22.08					19.70	19.70	2.38	1619 m	North West
6628-15726	62695		Operational	Recreational	1991-11-09	54.00		42.93	7.70	972	1760	2.5000	12.50	12.50	30.43	1621 m	South East
6628-16476	138330			Investigation	1993-12-14	16.00		19.49					13.30	13.30	6.19	1623 m	West
6628-17911	156636	HB 27		Investigation	1996-01-09	18.00		19.44	7.30	1602	2890		15.20	15.20	4.24	1623 m	West
6628-4	47104					11.58		25.47								1623 m	North East
6628-29141	301199			Environmental	2017-07-14	19.00										1624 m	North West
6628-718	47792					12.19	36.00		7.00	2030	3652	1.1400	5.49	5.49	30.51	1625 m	South
6628-27822	285320	CMW 10		Investigation	2015-05-18	20.20							17.73	17.73		1626 m	North West
6628-13529	60498			Observation	1985-11-27	18.00	30.00		7.60	1334	2410	1.0000	5.00	5.00	25.00	1627 m	North East
6628-16479	138333			Investigation	1994-01-14	18.00		18.99					9.70	9.70	9.29	1627 m	West
6628-714	47788					18.00		37.08		2356	4229					1628 m	South
6628-552	47649		Operational	Town Water Supply (Public/Municipal)	1934-09-01	32.00		41.16		800	1451	2.5300	8.84	8.84	32.32	1629 m	South East
6628-16688	144007			Investigation	1994-08-03	16.00		19.45					12.70	12.70	6.75	1633 m	West
6628-13307	60276		Operational	Observation	1985-04-16	19.00	30.70	30.01	6.90	1199	2170	3.0000	4.13	3.44	26.57	1634 m	North East
6628-25016	253364	SBGW 99		Monitoring	2009-11-19	10.90	35.50									1634 m	North
6628-18270	164088			Observation	1996-10-17	18.50		41.01								1637 m	South East
6628-26601	272292	MW			2012-06-13	15.00							11.80	11.80		1637 m	East
6628-712	47786				1934-09-01	9.45		37.31		2313	4152		6.40	6.40	30.91	1638 m	South
6628-708	47782					44.81		38.74		2860	5114					1640 m	South
6628-16689	144008			Investigation	1994-08-04	16.00		19.34					12.10	12.10	7.24	1642 m	West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-523	47620				1969-10-01	31.24		32.68								1645 m	North
6628-521	47618	SZ 77			1969-10-01	31.24	0.00									1646 m	North
6628-522	47619				1969-10-01	23.16		32.27								1648 m	North
6628-13528	60497			Exploration; Observation	1985-11-22	18.00	30.00					0.5000	5.00	5.00	25.00	1649 m	North East
6628-137	47237	ADELAIDE ZOO	Operational	Recreational	1975-10-30	16.46	30.00		7.10	1005	1820	4.0000	7.62	7.62	22.38	1649 m	North East
6628-425	47522	PUB. BLDGS DEPT.			1960-12-09	10.67		30.03								1651 m	North
6628-713	47787							37.33		2216	3981					1651 m	South
6628-14516	61485	GH 4A	Abandoned	Investigation	1980-05-26	10.25	36.50									1657 m	South
6628-15113	62082	SZ 127		Investigation	1980-06-20	10.00	36.00									1657 m	South
6628-16474	138325			Investigation	1993-12-02	14.40		18.83					11.35	11.35	7.48	1659 m	West
6628-423	47520	PUB. BLDGS DEPT.			1960-12-05	36.58		29.81								1661 m	North
6628-424	47521	PUB. BLDGS DEPT.			1960-12-09	24.38		30.73								1663 m	North
6628-28137	288424	BH 55	Backfilled			14.75										1666 m	East
6628-426	47523	PUB. BLDGS DEPT.			1960-12-12	11.28		30.25								1666 m	North
6628-524	47621				1969-10-01	30.79		33.00								1669 m	North
6628-29140	301198			Environmental	2017-06-28	17.00										1677 m	North West
6628-525	47622				1969-10-01	23.62		32.95								1677 m	North
6628-526	47623				1969-10-01	30.94		31.81								1678 m	North
6628-138	47238	BOTANIC GARDENS						34.09		1742	3140					1686 m	North East
6628-407	47504		Backfilled		1949-12-08	97.54		19.82		8653	14933	1.2600	9.14	9.14	10.68	1688 m	North West
6628-18236	163035			Domestic	1997-02-01	28.00		19.77		2143	3850		15.00	15.00	4.77	1711 m	West
6628-16453	135726			Drainage	1993-09-14	21.00		35.65	8.00	1917	3450	0.2000				1719 m	South
6628-139	47239	BOTANIC GARDENS						34.39		1299	2349					1728 m	North East
6628-140	47240	BOTANIC GARDENS						34.39		1213	2196					1728 m	North East
6628-141	47241	BOTANIC GARDENS						34.39		1271	2300					1728 m	North East
6628-28136	288423	BH54 51	Backfilled			14.52										1730 m	East
6628-428	47525				1965-11-03	30.63		32.84	7.00	2980	5325		12.95	12.95	19.89	1734 m	North
6628-22395	210971				2005-12-21	20.00		20.22		1541	2780	0.5000	15.70	15.70	4.52	1736 m	North West
6628-17776	156017	HB 16	Backfilled	Observation	1995-08-21	21.10		18.93	7.30	705	1280					1738 m	West
6628-20157	180557			Monitoring	2000-03-02	15.70		21.68					12.70	12.70	8.98	1738 m	South West
6628-27431	280502	BH16	Backfilled		2014-08-07	15.00										1742 m	East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-16999	148163	SZ 1			1993-08-02	9.95	41.00									1745 m	South East
6628-22975	231188	MW 19		Investigation	2006-11-24	11.00		39.45					9.30	9.30	30.15	1746 m	South
6628-27386	280433	NCGRT 5A		Monitoring	2014-07-03	102.00	19.32	19.44	7.70	8657	14912	2.0000	11.78	11.90	7.54	1747 m	North
6628-6	47106	BOTANIC GARDENS			1914-10-01	6.86	32.00			942	1707	3.7900	3.66	3.66	28.34	1754 m	North East
6628-29137	300943			Environmental	2017-07-11	17.80										1757 m	North West
6628-429	47526				1965-11-05	14.17		34.14					12.95	12.95	21.19	1757 m	North
6628-430	47527	PUB. BLDGS DEPT.			1961-03-01	24.99		31.26					11.28	11.28	19.98	1757 m	North
6628-22978	231191	MW 20		Investigation	2006-11-24	11.00		39.41					9.30	9.30	30.11	1758 m	South
6628-688	47765							39.12		1183	2140		3.04	3.04	36.08	1758 m	North
6628-24612	245752	MW 40		Investigation	2009-02-05	14.00		39.70					11.00	11.00	28.70	1760 m	South
6628-684	47761	WEBBER & WILL.			1963-11-21	4.57		35.90								1760 m	North
6628-16184	63153		Operational	Town Water Supply (Public/Municipal)	1992-09-10	20.00		42.30	7.50	1765	3181	1.6000	1.70	1.70	40.60	1761 m	East
6628-22976	231189	MW 22		Investigation	2006-11-24	11.00		39.69					9.10	9.10	30.59	1762 m	South
6628-29154	301341			Environmental	2017-06-28	16.60						0.0000				1767 m	North West
6628-685	47762	KINNAIRD MILL			1965-10-25	21.34		34.44	6.70	2500	4482		14.33	14.33	20.11	1770 m	North
6628-686	47763	KINNAIRD HILL			1965-10-26	10.06		33.59								1770 m	North
6628-22977	231190	MW 21		Investigation	2006-11-24	11.00		39.33					9.30	9.30	30.03	1772 m	South
6628-28695	288501		Backfilled	Investigation	2015-12-01	25.00										1772 m	South East
6628-28097	288196		Decommissioned	Investigation	2015-12-01	25.00										1776 m	South East
6628-20160	180560			Monitoring	2000-03-01	15.00		19.97					12.40	12.40	7.57	1778 m	South West
6628-22972	231185	MW 16		Investigation	2006-11-22	11.00		39.63					9.20	9.20	30.43	1778 m	South
6628-25021	253369	SBGW 64		Monitoring	2009-11-24	13.33	28.95			1334	2410		8.31	8.31	20.64	1778 m	North East
6628-24609	245749	MW 37		Investigation	2009-02-04	14.00		39.83					11.30	11.30	28.53	1780 m	South
6628-22313	206680				2005-10-16	18.00		18.29		1524	2750	1.0000	10.00	10.00	8.29	1783 m	West
6628-29133	300939			Environmental	2017-06-28	17.50										1784 m	North West
6628-24608	245748	MW 36		Investigation	2009-02-04	14.00		39.93					11.40	11.40	28.53	1787 m	South
6628-22654	219268	GWM 9		Investigation	2006-11-20	11.00		39.94					9.10	9.10	30.84	1789 m	South
6628-22974	231187	MW 18		Investigation	2006-11-23	11.00		39.55					9.00	9.00	30.55	1789 m	South
6628-24602	245742	MW 30		Investigation	2009-02-02	14.00		39.79					11.40	11.40	28.39	1789 m	South
6628-24606	245746	MW 34		Investigation	2009-02-03	14.00		39.98								1794 m	South
6628-702	47776				1934-01-01	16.46	31.00			2675	4791	0.2500	14.94	14.94	16.06	1794 m	South West
6628-26168	267198	GW 2	Backfilled	Investigation	2011-09-20	16.00							12.20	12.20		1795 m	South West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-23801	241630	MW 28		Investigation	2008-07-11	14.00		39.85					12.00	12.00	27.85	1797 m	South
6628-24610	245750	MW 38		Investigation	2009-02-05	14.00		39.81					11.00	11.00	28.81	1797 m	South
6628-22967	231180	MW 11		Investigation	2006-11-21	11.00		39.99					9.10	9.10	30.89	1798 m	South
6628-24611	245751	MW 39		Investigation	2009-02-05	14.00		39.94					10.80	10.80	29.14	1798 m	South
6628-22653	219267	MW 8		Investigation	2006-11-21	11.00		39.77					9.25	9.25	30.52	1799 m	South
6628-709	47783				1914-10-01	14.94		37.98		2860	5114		8.23	8.23	29.75	1799 m	South
6628-22971	231184	MW 15		Investigation	2006-11-22	11.00		39.83					9.10	9.10	30.73	1800 m	South
6628-22973	231186	MW 17		Investigation	2006-11-23	11.00		39.51					9.20	9.20	30.31	1802 m	South
6628-22652	219256	GMW 7		Investigation	2006-09-14	10.10		39.81					9.10	9.10	30.71	1804 m	South
6628-24604	245744	MW 32		Investigation	2009-02-03	14.00		39.73					11.20	11.20	28.53	1805 m	South
6628-26167	267197	GW 3	Backfilled	Investigation	2011-09-19	16.00							12.30	12.30		1805 m	South West
6628-22968	231181	MW 12		Investigation	2006-11-21	11.00		39.71					9.20	9.20	30.51	1807 m	South
6628-23802	241631	MW 29		Investigation	2008-07-11	14.00		39.96					12.00	12.00	27.96	1809 m	South
6628-26169	267199	GW 1	Backfilled	Investigation	2011-09-19	16.00							12.50	12.50		1810 m	South West
6628-15330	62299	HOLE 2			1990-06-08	17.40		29.88	7.70	1407	2540	3.0000	7.00	7.00	22.88	1812 m	North East
6628-22969	231182	MW 13		Investigation	2006-11-22	11.00		39.79					9.10	9.10	30.69	1813 m	South
6628-18373	164331	MB 1		Investigation	1997-01-14	20.00		30.64					19.70	19.70	10.94	1814 m	South West
6628-24607	245747	MW 35		Investigation	2009-02-04	14.00		40.01					8.00	8.00	32.01	1814 m	South
6628-22970	231183	MW 14		Investigation	2006-11-22	11.00		40.04					9.20	9.20	30.84	1815 m	South
6628-23798	241627	MW 25		Investigation	2008-07-10	14.00		39.90					12.00	12.00	27.90	1816 m	South
6628-24605	245745	MW 33		Investigation	2009-02-03	14.00		40.19					10.10	10.10	30.09	1816 m	South
6628-23803	241632	MW 30			2008-07-11	14.00		39.81					12.00	12.00	27.81	1817 m	South
6628-23800	241629	MW 27		Investigation	2008-07-11	14.00		40.04					12.00	12.00	28.04	1819 m	South
6628-402	47499	SUBWAY 5	Backfilled		1974-07-06	20.50	36.00									1819 m	North West
6628-22966	231179	MW 10		Investigation	2006-11-21	11.00		39.99					9.10	9.10	30.89	1821 m	South
6628-703	47777				1949-10-07	48.77		31.17		1330	2404	1.7700	39.62	39.62	-8.45	1823 m	South West
6628-15257	62226		Backfilled		1990-05-10	30.00		29.57					7.20	7.20	22.37	1828 m	North East
6628-27435	280551	NCGRT 5C		Investigation	2014-08-27	12.00	22.22	22.27	8.00	2699	4831	0.2000	7.16	7.21	15.06	1828 m	North West
6628-27504	280820	NCGRT 5B		Investigation		66.00	22.21	22.26	7.70	17226	28285	1.0000	1.70	1.75	20.51	1828 m	North West
6628-18266	164084			Environmental; Recreational	1996-10-28	19.80		28.39		2238	4020	2.0000	8.00	8.00	20.39	1829 m	North East
6628-23799	241628	MW 26		Investigation	2008-07-10	14.00		40.03					12.00	12.00	28.03	1829 m	South
6628-24603	245743	MW 31		Investigation	2009-02-02	14.00		40.18					9.40	9.40	30.78	1829 m	South
6628-634	47723							50.32		1160	2100					1829 m	East
6628-701	47775					33.53		30.51		2030	3652		15.39	15.39	15.12	1830 m	South West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-20159	180559			Monitoring	2000-03-02	14.70		20.08					12.00	12.00	8.08	1832 m	South West
6628-715	47789					15.24		34.43		5290	9309					1836 m	South
6628-22898	230072	GMW 23		Investigation	2007-05-31	12.00		40.19					8.20	8.20	31.99	1837 m	South
6628-23514	238554				2008-08-27	80.00		45.67		2887	5160	0.1900	28.00	28.00	17.67	1837 m	North
6628-29132	300938			Environmental	2017-06-30	17.00										1837 m	North West
6628-577	47674				1934-01-01	9.14		39.34	7.00	2030	3652		3.66	3.66	35.68	1840 m	South East
6628-22897	230036	GMW 24		Investigation	2007-05-31	12.00		40.18					8.30	8.30	31.88	1842 m	South
6628-27272	279793	LAKE BORE 9				6.00	33.09	32.97					2.08	1.96	31.01	1843 m	North East
6628-27269	279790	LAKE BORE 6				6.00	33.26	33.11					3.42	3.27	29.84	1844 m	North East
6628-27069	277898				2013-09-19	30.00				682	1239	0.7000				1848 m	South East
6628-27268	279789	LAKE BORE 5				6.00	33.13	33.00					2.76	2.63	30.37	1849 m	North East
6628-22152	205640	N117B (BG1)	Controlled - shut in	Monitoring	2005-03-08	186.00		35.18	7.70	2460	4410		3.40	3.40	31.78	1851 m	North East
6628-355	47455				1914-09-16	49.68		19.49		1385	2502	9.4700	8.89	8.89	10.60	1851 m	South West
6628-21870	201056	MW 9		Investigation	2003-11-24	8.00		41.00								1852 m	South East
6628-20026	178063	MW 6		Monitoring	1999-12-21	13.50		19.04		2000	3599		10.87	10.87	8.17	1853 m	South West
6628-710	47784				1954-01-01	11.28		37.01		2044	3677		4.88	4.88	32.13	1853 m	South
6628-7721	54690					18.29		19.12		2101	3777					1853 m	West
6628-29147	301334			Environmental	2017-07-06	16.00										1854 m	North West
6628-29138	300944			Environmental	2017-07-13	18.00										1857 m	North West
6628-21952	202819	MW 1			2005-01-06	20.00		19.91								1859 m	North West
6628-27881	285612	BG IMP 2														1860 m	North East
6628-25028	253376	SBGW 26		Monitoring	2009-12-03	11.86	46.78			763	1384		5.17	5.17	41.61	1861 m	South East
6628-24566	245586	BG WEST BORE	Operational	Managed Aquifer Recharge (incl ASR)	2009-02-06	130.00		33.84		3218	5740	15.0000	5.60	5.60	28.24	1862 m	North East
6628-14098	61067			Stock	1987-12-04	20.10		17.64	7.30	2019	3630	0.9800	8.50	8.50	9.14	1864 m	West
6628-27267	279788	LAKE BORE 4				6.00	33.09	33.01					2.55	2.47	30.54	1864 m	North East
6628-21951	202818	MW 2			2005-01-06	20.00		19.89								1867 m	North West
6628-22233	206403	MW 7		Monitoring	2005-07-14	18.00		19.88								1867 m	North West
6628-27270	279791	LAKE BORE 7				6.00	33.37	33.19					3.26	3.08	30.11	1871 m	North East
6628-24717	247055				2008-09-06	25.00		39.81		603	1097	0.6666	7.50	7.50	32.31	1873 m	South East
6628-22232	206402	MW 6		Monitoring	2005-07-13	18.00		19.84					15.60	15.60	4.24	1876 m	North West
6628-27880	285611	BG IMP 1														1876 m	North East
6628-717	47791				1933-03-01	14.33		32.72		5133	9042		12.19	12.19	20.53	1876 m	South West
6628-29134	300940			Environmental	2017-06-29	17.00										1877 m	North West

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-27883	285614	BG IMP 4														1879 m	North East
6628-689	47766				1914-01-01	61.57		38.35		10953	18628					1880 m	North West
6628-22230	206400	MW 4		Monitoring	2005-07-12	19.00		19.82					15.40	15.40	4.42	1881 m	North West
6628-27266	279787	LAKE BORE 3				6.00	33.27	33.25					1.86	1.84	31.41	1881 m	North East
6628-27828	285330	GW 19		Investigation	2015-03-10	15.00							10.50	10.50		1882 m	South West
6628-26092	266944	MW 7	Backfilled		2011-09-14	5.00										1883 m	South West
6628-16336	134406			Domestic	1993-02-26	18.00		17.48	6.90	1866	3361		11.00	11.00	6.48	1884 m	West
6628-693	47770				1934-10-01	57.00		33.73		2059	3702		10.36	10.36	23.37	1884 m	North
6628-18107	162768		Abandoned	Domestic	1996-11-02	30.00		18.53		1996	3592	0.5000	11.00	11.00	7.53	1886 m	West
6628-22229	206395	MW 3		Monitoring	2005-07-11	18.00		19.78					15.20	15.20	4.58	1886 m	North West
6628-24720	247058				2008-10-01	22.00		29.16		1625	2930	0.0830	9.50	9.50	19.66	1887 m	North
6628-20027	178064	MW 7		Monitoring	1999-12-21	13.50		18.90		2200	3952		10.52	10.52	8.38	1891 m	South West
6628-22231	206401	MW 5		Monitoring	2005-07-13	19.50		19.76					15.40	15.40	4.36	1892 m	North West
6628-26093	266945	MW 8	Backfilled		2011-09-14	5.00										1893 m	South West
6628-716	47790				1933-03-01	13.11		32.73								1893 m	South West
6628-22236	206406			Monitoring	2005-08-29	18.00		19.74					15.30	15.30	4.44	1895 m	North West
6628-26300	269231	DW	Controlled - shut in	Monitoring	2008-09-03	180.00						2.5000	-7.34	-7.34		1895 m	North East
6628-87	47187	SUBWAY 2	Unknown		1974-06-06	25.10	29.00		7.40	1688	3042					1895 m	North East
6628-27759	285068	BH 34	Backfilled	Investigation	2015-03-25	15.00							4.00	4.00		1896 m	East
6628-28261	288815	GW 23		Investigation	2015-07-02	13.50							10.90	10.90		1897 m	South West
6628-706	47780							40.10		2713	4857					1899 m	South
6628-711	47785					9.14		36.15		2545	4563					1900 m	South
6628-687	47764	LUCAS PARKER 1	Unknown		1959-04-13	27.43		46.24		3331	5939					1902 m	North
6628-16183	63152		Backfilled		1992-09-09	24.00		42.44		1851	3332	0.5000	2.30	2.30	40.14	1903 m	East
6628-11489	58458		Operational	Irrigation; Stock	1978-06-30	28.00	30.00		7.30	1272	2300	3.1800	6.70	6.70	23.30	1904 m	North East
6628-27265	279786	LAKE BORE 2				6.00	33.49	33.37					1.82	1.70	31.67	1904 m	North East
6628-25404	258845	MW 15		Investigation	2010-06-09	5.50										1906 m	South West
6628-27430	280501	BH18	Backfilled	Investigation	2014-08-05	20.00										1907 m	East
6628-28135	288422	BH 51	Backfilled			34.65										1909 m	North East
6628-11754	58723		Abandoned	Observation		5.25	39.23		7.80	1552	2800		5.82	5.82	33.41	1910 m	North East
6628-30729	336968			Investigation	2020-02-15	10.00										1910 m	West
6628-13828	60797				1986-11-04	20.00		17.28	7.50	1714	3090		10.70	10.70	6.58	1911 m	West
6628-20105	178739			Irrigation	1999-12-23	90.00		46.52	7.40	320	581	2.5000	9.00	9.00	37.52	1911 m	South East
6628-11490	58459			Observation; Stock	1972-04-11	18.30	28.97	29.70	7.40	1250	2260	3.5600	5.93	6.66	23.04	1912 m	North East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-17949	159786			Domestic	1996-08-22	30.00		17.19	7.70	1575	2840	0.5000	9.00	9.00	8.19	1914 m	West
6628-29139	300945			Environmental	2017-07-11	17.00										1915 m	North West
6628-575	47672				1914-09-22	7.31	42.00					0.1900	5.18	5.18	36.82	1915 m	South East
6628-4576	51545	COCA COLA 4A			1977-11-02	125.00	18.63	18.81	7.59	443	805		14.36	14.54	4.27	1916 m	North West
6628-25368	258793	MW 6		Investigation	2010-04-13	5.50							4.30	4.30		1917 m	South West
6628-558	47655					9.75		41.90	7.00	800	1451		7.92	7.92	33.98	1918 m	South East
6628-108	47208		Operational	Recreational	1967-11-08	12.80	29.00		7.00	1658	2990	4.4200	6.40	6.40	22.60	1920 m	North East
6628-25400	258841	MW 10		Investigation	2010-06-07	6.00										1921 m	South West
6628-5	47105				1881-12-12	125.27		40.28		1671	3013		13.11	13.11	27.17	1921 m	North East
6628-559	47656					6.10		38.87	7.00	3385	6032					1923 m	South
6628-28500	289688			Investigation	2016-09-01	25.00							16.00	16.00		1924 m	North West
6628-27271	279792	LAKE BORE 8				6.00	34.34	34.28					3.43	3.37	30.91	1927 m	North East
6628-25399	258835	MW 9		Investigation	2010-06-07	6.00										1928 m	South West
6628-27425	280496	BH11	Backfilled	Investigation	2014-08-04	20.00										1928 m	East
6628-27419	280490	BH9	Decommissioned	Investigation	2014-07-28	15.00										1929 m	North East
6628-7	47107					6.71		34.80								1929 m	North East
6628-20158	180558			Monitoring	2000-03-02	16.50		19.79					12.20	12.20	7.59	1932 m	South West
6628-27884	285615	BG IMP 4														1937 m	North East
6628-21139	195742			Domestic	2002-02-19	17.00		38.75		1457	2630	0.8000	4.00	4.00	34.75	1938 m	South
6628-27758	285067		Decommissioned		2015-03-31	25.00										1938 m	North
6628-25403	258844	MW 14		Investigation	2010-06-09	5.50										1939 m	South West
6628-25647	262695	GMW 8	Backfilled													1939 m	South West
6628-27882	285613	BG IMP 3														1939 m	North East
6628-29142	301200			Environmental	2017-07-12	17.00										1941 m	North West
6628-23687	240314				2008-05-07	26.00		39.09		1117	2022	0.7000	6.00	6.00	33.09	1943 m	South
6628-726	47800		Abandoned		1915-03-11	90.40		19.42		1300	2351		1.22	1.22	18.20	1943 m	South West
6628-12034	59003				1981-11-02	14.60	17.00		7.70	1132	2050	0.4500	8.20	8.20	8.80	1944 m	West
6628-27418	280489	BH10			2014-07-29	20.00										1944 m	East
6628-725	47799				1915-04-10	48.16		19.35					6.10	6.10	13.25	1946 m	South West
6628-20025	178062			Monitoring	1999-12-21	13.50		18.15		1200	20298		10.35	10.35	7.80	1953 m	South West
6628-690	47767			Drainage	1966-04-07	32.00		47.15				0.2500	25.91	25.91	21.24	1953 m	North
6628-25402	258843	MW 12		Investigation	2010-06-07	4.50										1955 m	South West
6628-27264	279785	LAKE BORE 1				6.00	34.88	34.85					3.84	3.81	31.04	1955 m	North East
6628-22207	206335			Monitoring	2005-07-26	14.00		18.28		1325	2395		9.50	9.50	8.78	1958 m	South West

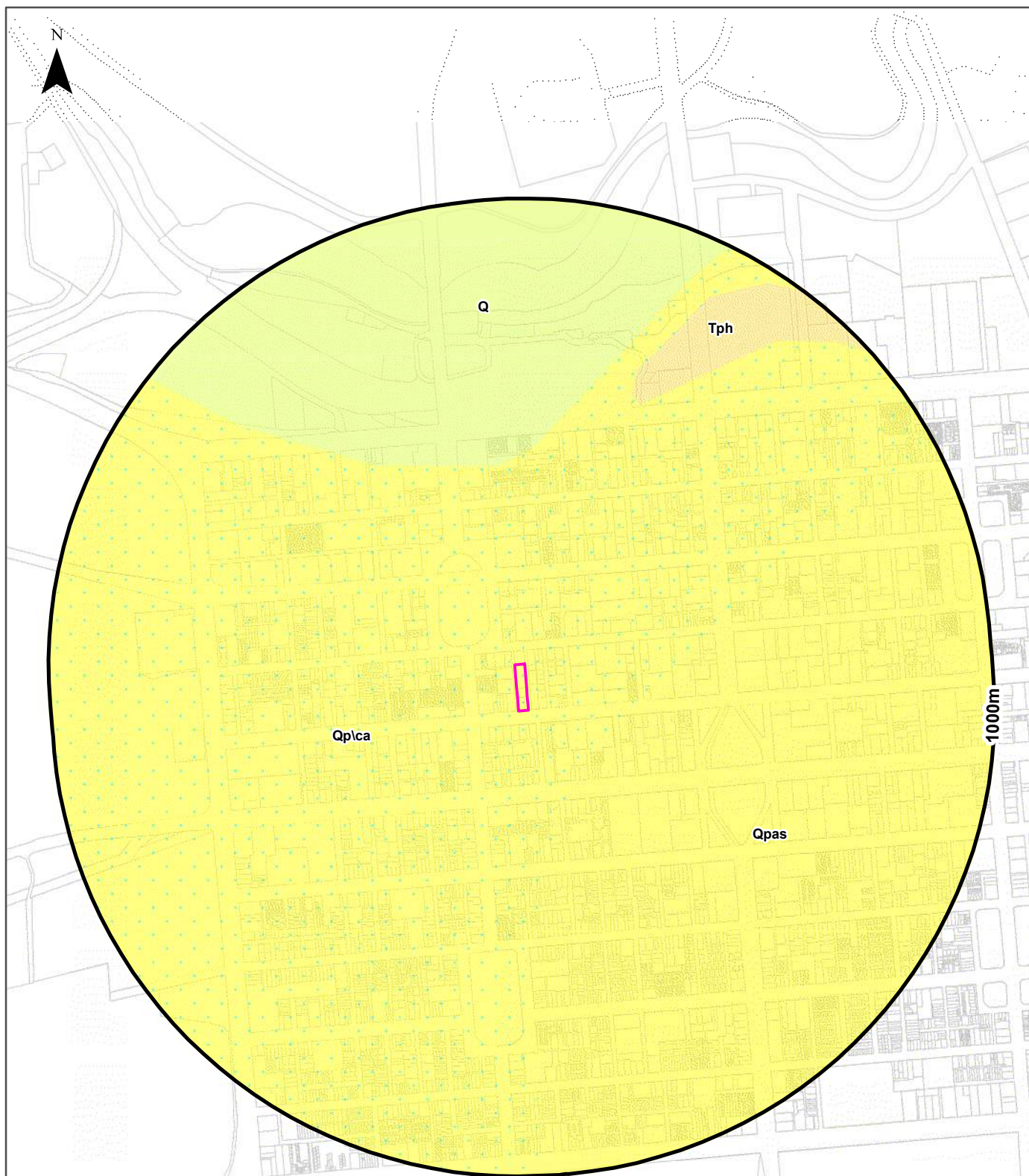
Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-25401	258842	MW 11		Investigation	2010-06-07	5.50										1958 m	South West
6628-27427	280498	BH15		Investigation	2014-07-30	20.00										1961 m	North East
6628-28134	288421	BH 49	Backfilled			29.10										1961 m	North East
6628-29761	313506			Monitoring	2018-10-24	8.00										1964 m	North East
6628-29136	300942			Environmental	2017-06-30	17.00										1965 m	North West
6628-27750	285059			Investigation	2015-03-25	15.00										1966 m	North East
6628-27428	280499	BH14		Investigation	2014-08-03	25.00										1968 m	North East
6628-28435	289490	MW 1			2016-08-08	10.00							8.00	8.00		1968 m	East
6628-28437	289492	MW 3			2016-08-08	9.50							7.50	7.50		1968 m	East
6628-19430	174355			Domestic	1999-03-09	24.00		18.56		1839	3310	1.0000	14.40	14.40	4.16	1969 m	West
6628-27751	285060			Investigation	2015-03-25	10.00										1969 m	North East
6628-24567	245587	BG EAST BORE	Operational	Managed Aquifer Recharge (incl ASR)	2009-02-26	183.00		33.48		2824	5050	12.0000	6.10	6.10	27.38	1970 m	North East
6628-24647	246833	SB/MW32		Investigation	2006-10-20	18.00		25.05					15.60	15.60	9.45	1970 m	South West
6628-25367	258792	MW 8			2010-01-13	17.00										1973 m	South West
6628-28260	288814	GW 22		Investigation	2015-07-02	13.30							10.50	10.50		1974 m	South West
6628-29759	313485			Monitoring	2018-10-24	7.00										1975 m	North East
6628-637	47726					10.36		50.16		5155	9081					1977 m	East
6628-28417	289410	GW 3		Investigation	2016-04-30	7.50							5.20	5.20		1978 m	East
6628-28638	290476	CH 1535		Monitoring	2016-10-27	10.80										1978 m	North East
6628-27688	284578		Decommissioned		2015-03-04	25.00										1980 m	North
6628-28635	290473	CH 1490		Monitoring	2016-10-27	13.30										1982 m	North East
6628-31203	354714			Domestic	2021-02-23	24.00				693	1259		8.00	8.00		1982 m	South
6628-7724	54693	COCA COLA 2	Rehabilitated	Observation	1969-11-21	155.45	17.95		7.20	1272	2300	15.1600	20.17	20.17	-2.22	1982 m	North West
6628-27420	280491	BH6		Investigation	2014-07-27	25.00										1986 m	North East
6628-27756	285065			Investigation	2015-03-22	20.00										1986 m	North East
6628-576	47673				1914-09-09	7.77	42.00					0.1500	5.18	5.18	36.82	1986 m	South East
6628-28022	287376		Backfilled	Investigation	2015-09-17	16.00										1987 m	North East
6628-28634	290472	CH 1460	Decommissioned		2016-11-29	14.30										1987 m	North East
6628-27749	285058			Investigation	2015-03-23	15.00										1988 m	North East
6628-7759	54728	SA COLD STORES	Operational	Industrial		103.02		18.68	7.20	2942	5257					1988 m	South West
6628-22206	206334			Monitoring	2005-07-26	14.00		17.97		1345	2430		10.20	10.20	7.77	1990 m	South West
6628-22266	206473	MW 6		Monitoring	2005-08-11	6.00		35.57								1990 m	North East
6628-27424	280495	BH13	Backfilled	Investigation	2014-08-08	15.00										1990 m	East

Unit No	Drillhole No	Name	Status	Purpose	Drill Date	Max Depth	Ref Elev	Ground Elev	PH	TDS	EC	Yield	DTW	SWL	RSWL	Dist	Dir
6628-27426	280497	BH17		Investigation	2014-08-06	20.00										1990 m	East
6628-22265	206472	MW 5		Monitoring	2005-08-11	6.00		35.78								1992 m	North East
6628-27421	280492	BH8		Investigation		25.00										1994 m	North East
6628-27755	285064			Investigation	2015-03-19	20.00										1994 m	North East
6628-28436	289491	MW 2		Investigation	2016-08-08	9.00							7.50	7.50		1994 m	East
6628-99	47199		Backfilled		1938-06-01	30.33		44.90		785	1424	3.7900	9.14	9.14	35.76	1995 m	East
6628-28637	290475	CH 1430		Monitoring	2016-10-31	13.30										1996 m	North East
6628-31549	362031			Investigation	2021-10-21	25.00										1997 m	East
6628-516	47613	COCA COLA 1	Rehabilitated		1964-06-04	137.77	18.66	18.66	7.70	794	1440	12.5000	19.63	19.63	-0.97	1997 m	North West
6628-16182	63151		Backfilled		1992-09-09	92.00		43.30								1998 m	East
6628-27753	285062			Investigation	2015-03-17	9.00										1998 m	North East
6628-28415	289408	GW 1		Investigation	2016-04-30	7.50							4.90	4.90		1998 m	East
6628-7722	54691				1914-12-01	13.41		17.82								1998 m	West
6628-28138	288426	BH 23			2015-03-18	15.00										1999 m	North East

Drillholes Data Source: Dept of Environment, Water and Natural Resources - South Australia
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Geology 1:100,000

108-112 Franklin Street, Adelaide, SA 5000



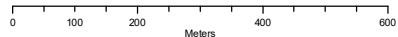
Legend

- Site Boundary
- Buffer 1000m
- Property Boundary

Linear Feature

- | | |
|--|--|
| Alluvial fan | Joint |
| Dyke | Lineament |
| Fault | Open cut quarry |
| Fold | Shear zone |
| Gilgai | Other Linear Feature |

Scale:



Data Sources: Property Boundaries - Sourced by Precisely
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Coordinate System:
GDA 1994 MGA Zone 54

Date: 18 May 2023

Geology

108-112 Franklin Street, Adelaide, SA 5000

Surface Geology 1:100,000

Surface Geology Units within the dataset buffer:

Map Unit Code	Name	Description	Parent Name	Province	Age	Min Age	Max Age	Dist	Dir
Qp\ca	Unnamed GIS Unit - see description	Undifferentiated Pleistocene calcrete.	Unnamed GIS Unit - see description	UNKNOWN	PLEISTOCENE	Pleistocene	Pleistocene	0m	On-site
Qpas	Keswick Clay	Clay, smectite-rich, grey-green, with red or yellow mottling and rare sand lenses.	Unnamed GIS Unit - see description	ST VINCENT BASIN	PLEISTOCENE	Pleistocene	Pleistocene	181m	South East
Q	Unnamed GIS Unit - see description	Undifferentiated Quaternary rocks.		UNKNOWN	PLEISTOCENE-HOLOCENE	Quaternary	Quaternary	428m	North
Tph	Hallett Cove Sandstone	Sandstone, calcareous; limestone, sandy, fossiliferous. Transgressive, shallow marginal marine.	Unnamed GIS Unit - see description	ST VINCENT BASIN	PLIOCENE	Pliocene	Pliocene	609m	North East

Geology Data Source: Dept of Environment, Water and Natural Resources - South Australia
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Linear Structures 1:100,000

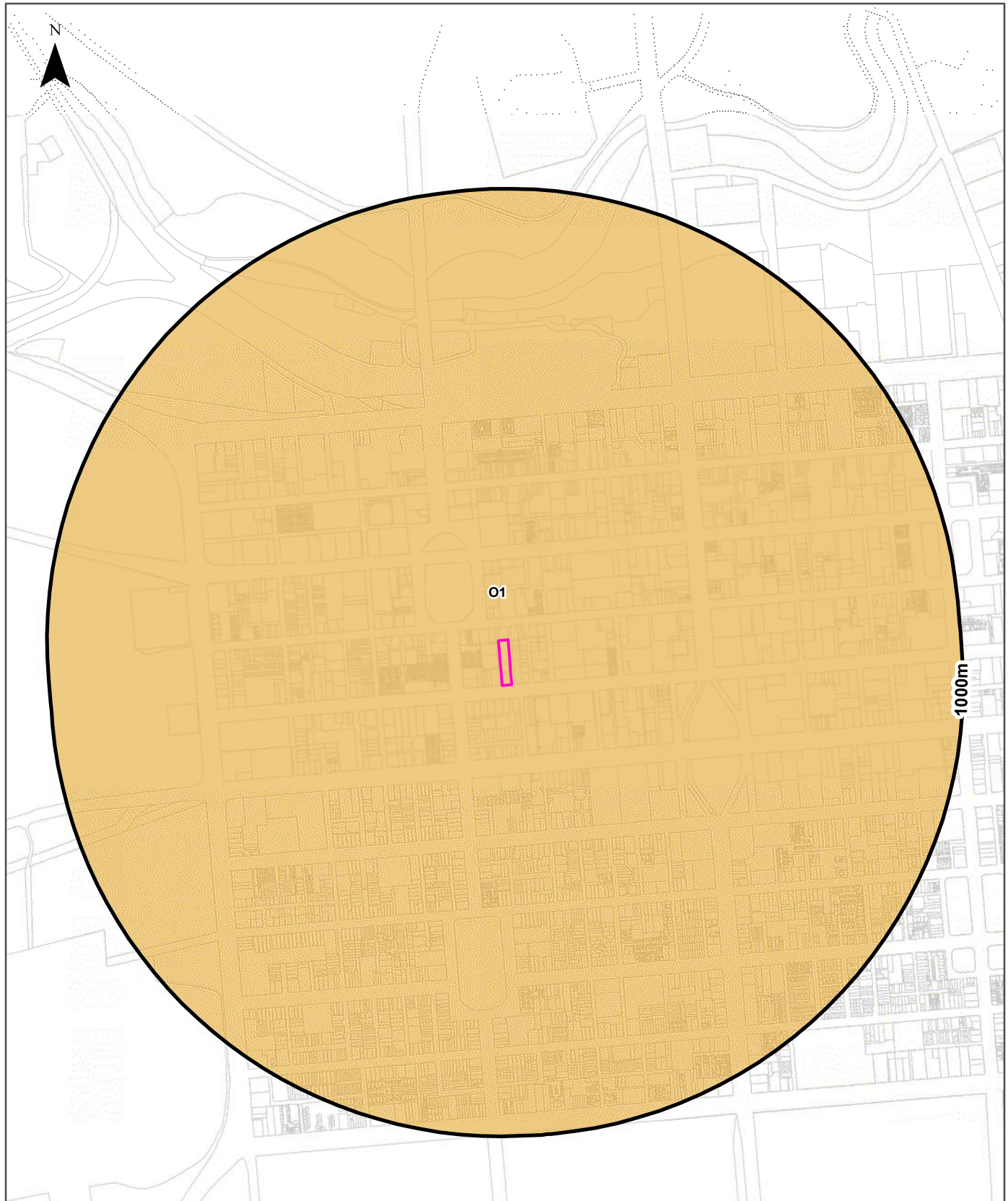
Linear geological structures within the dataset buffer:

Map Code	Description	Distance	Direction
N/A	No records in buffer		

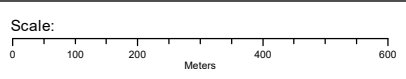
Geology Data Source: Dept of Environment, Water and Natural Resources - South Australia
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Atlas of Australian Soils

108-112 Franklin Street, Adelaide, SA 5000



Legend		Australian Soil Classification Orders					
Site Boundary	Anthroposol	Dermosol	Kandosol	Podosol	Tenosol	No Data	
Buffer 1000m	Calcarosol	Ferrosol	Kurosol	Rudosol	Vertosol		
Property Boundary	Chromosol	Hydrosol	Organosol	Sodosol	Lake		



Data Sources: Property Boundaries - Sourced by Precisely ©PSMA Australia Limited

Coordinate System: GDA 1994 MGA Zone 54

Date: 18 May 2023

Soils

108-112 Franklin Street, Adelaide, SA 5000

Atlas of Australian Soils

Soil mapping units and Australian Soil Classification orders within the dataset buffer:

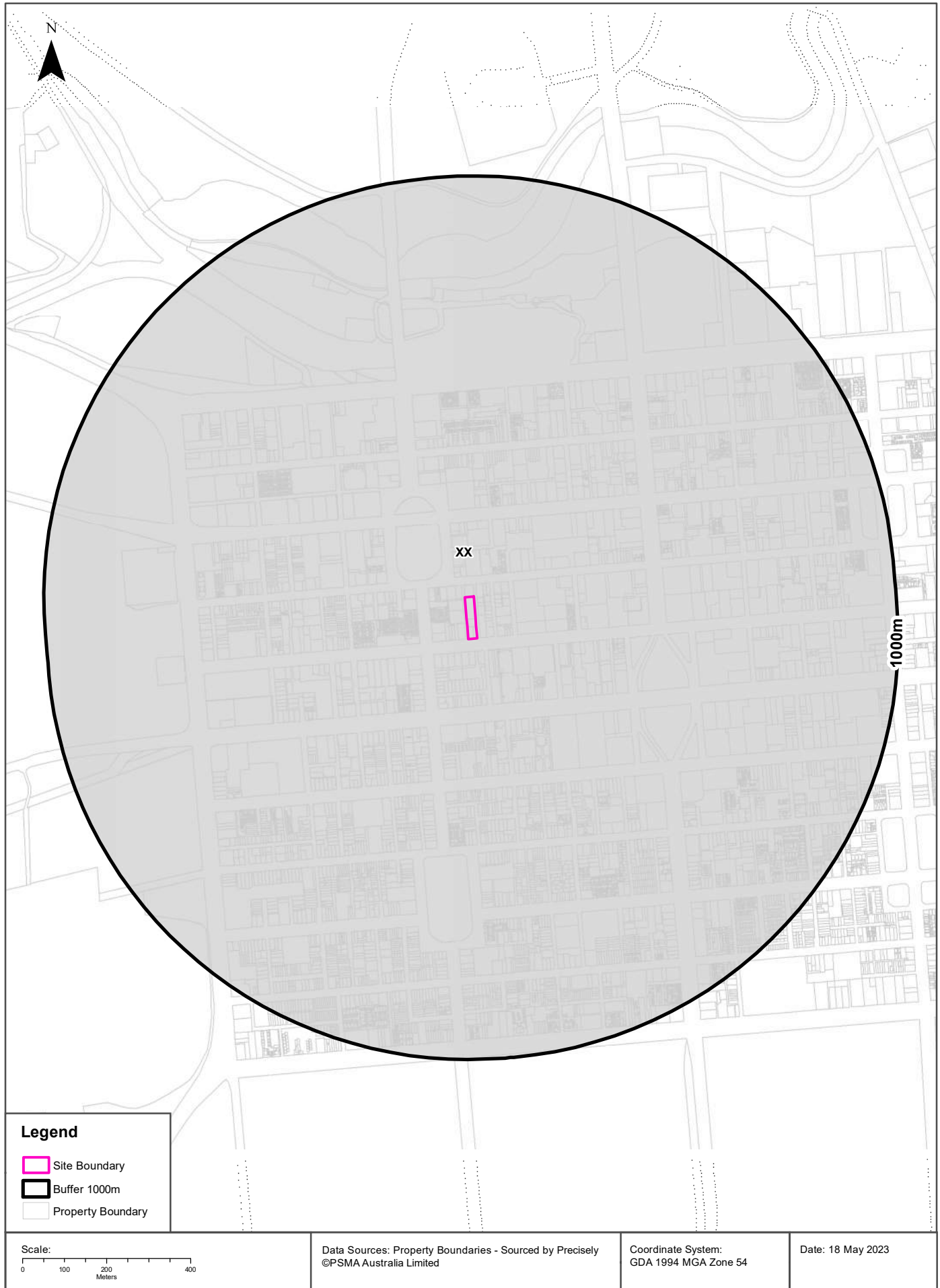
Map Unit Code	Soil Order	Map Unit Description	Distance	Direction
O1	Chromosol	Outwash plains: hard alkaline red soils (Dr2.23 with small areas Dr2.33); small areas cracking clay soils (Ug5.15, Ug5.16, and Ug5.2), also hard alkaline yellow mottled soils (Dy3.43); minor areas (Um6.21) and (Uf6.11); various alluvial soils (unclassified) in the stream valleys.	0m	On-site

Atlas of Australian Soils Data Source: CSIRO




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Soil Types

108-112 Franklin Street, Adelaide, SA 5000



Legend

-  Site Boundary
-  Buffer 1000m
-  Property Boundary

Scale:
0 100 200 400
Meters

Data Sources: Property Boundaries - Sourced by Precisely
©PSMA Australia Limited

Coordinate System:
GDA 1994 MGA Zone 54

Date: 18 May 2023

Soils

108-112 Franklin Street, Adelaide, SA 5000

Soil Types

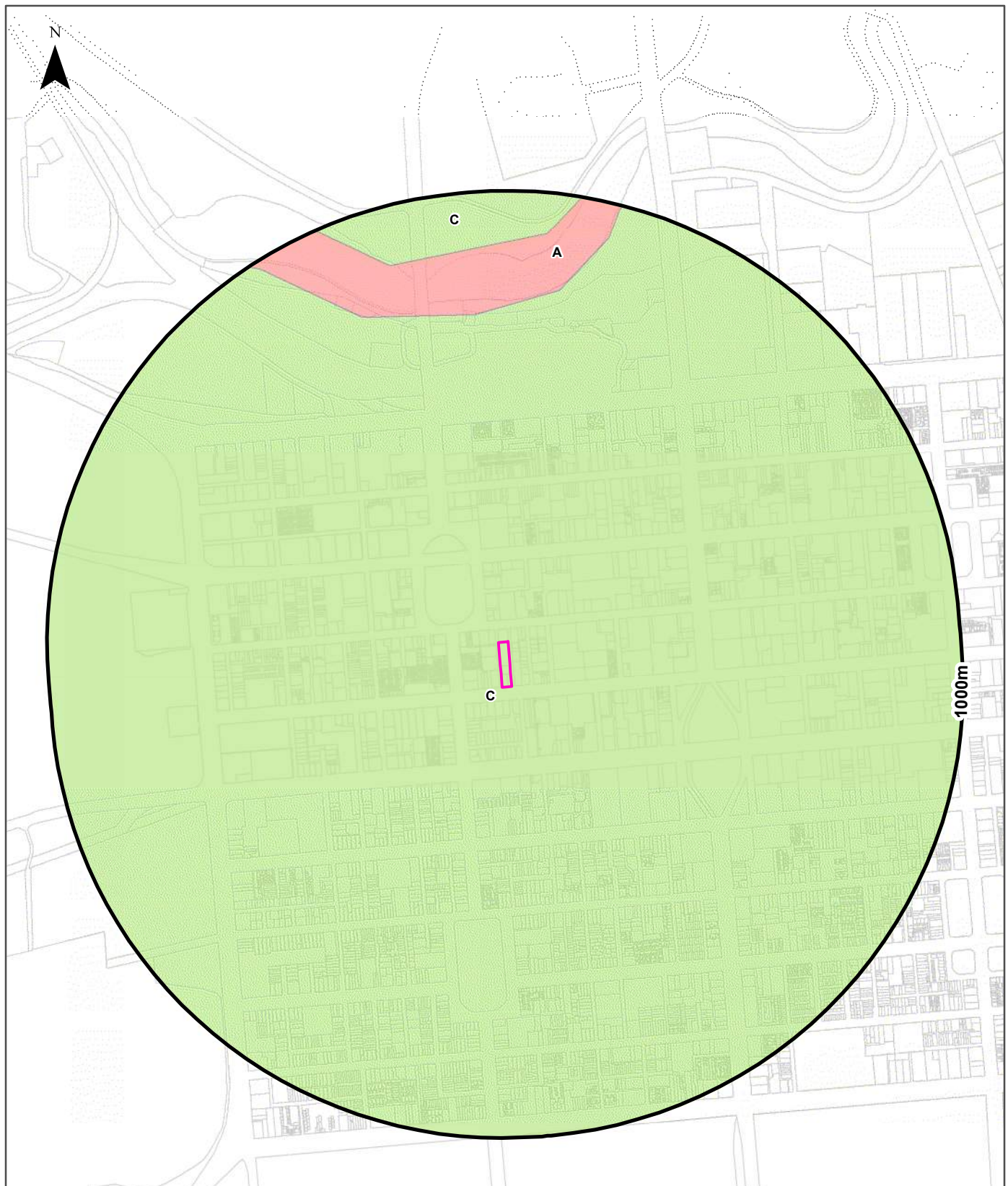
Soil types within the dataset buffer:

Map category code	Soil type description	Distance	Direction
XX	Not applicable - No assessment/analysis undertaken	0m	On-site

Soil Types Data Source: Dept of Environment, Water and Natural Resources - South Australia
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Atlas of Australian Acid Sulfate Soils

108-112 Franklin Street, Adelaide, SA 5000



Legend

Site Boundary

Buffer 1000m

Property Boundary

Probability of occurrence of Acid Sulfate Soils

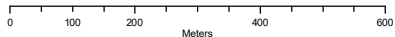
A. High (>70%)

B. Low (6-70%)

C. Extremely Low (1-5%)

D. No Chance (0%)

Scale:



Data Sources: Property Boundaries - Sourced by Precisely
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Coordinate System:
GDA 1994 MGA Zone 54

Date: 18 May 2023

Acid Sulfate Soils

108-112 Franklin Street, Adelaide, SA 5000

Atlas of Australian Acid Sulfate Soils

Atlas of Australian Acid Sulfate Soil categories within the dataset buffer:

Class	Description	Distance	Direction
C	Extremely low probability of occurrence. 1-5% chance of occurrence with occurrences in small localised areas.	0m	On-site
A	High Probability of occurrence. >70% chance of occurrence.	730m	North

Atlas of Australian Acid Sulfate Soils Data Source: CSIRO

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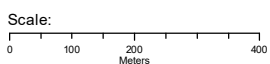
Acid Sulfate Soils Potential

108-112 Franklin Street, Adelaide, SA 5000



Legend

Proportion of land susceptible to the development of Acid Sulfate Soils		
Site Boundary	Negligible	30-60%
Buffer 1000m	1-10%	More than 60%
Property Boundary	10-30%	Incomplete data (usually wet inland areas)
		Not applicable - No assessment/analysis



Data Sources: Property Boundaries - Sourced by Precisely
©PSMA Australia Limited

Coordinate System:
GDA 1994 MGA Zone 54

Date: 18 May 2023

Acid Sulfate Soils

108-112 Franklin Street, Adelaide, SA 5000

Acid Sulfate Soil Potential

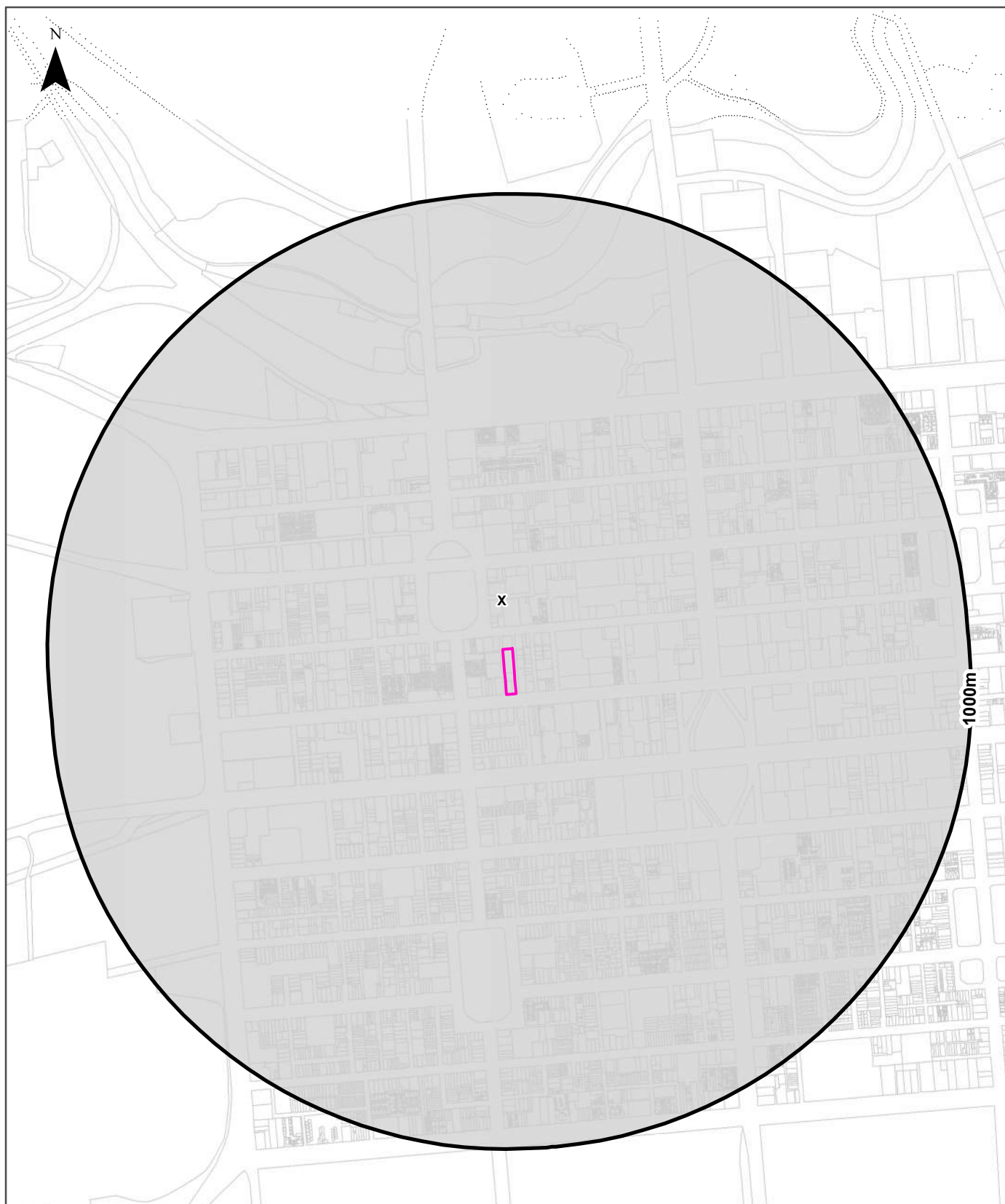
Acid sulfate soil potential within the dataset buffer:

Map category code	Proportion of land susceptible to the development of acid sulfate soils	Distance	Direction
X	Not applicable - No assessment/analysis undertaken	0m	On-site

Acid Sulfate Soils Data Source: Dept of Environment, Water and Natural Resources - South Australia
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Soil Salinity - Watertable Induced

108-112 Franklin Street, Adelaide, SA 5000



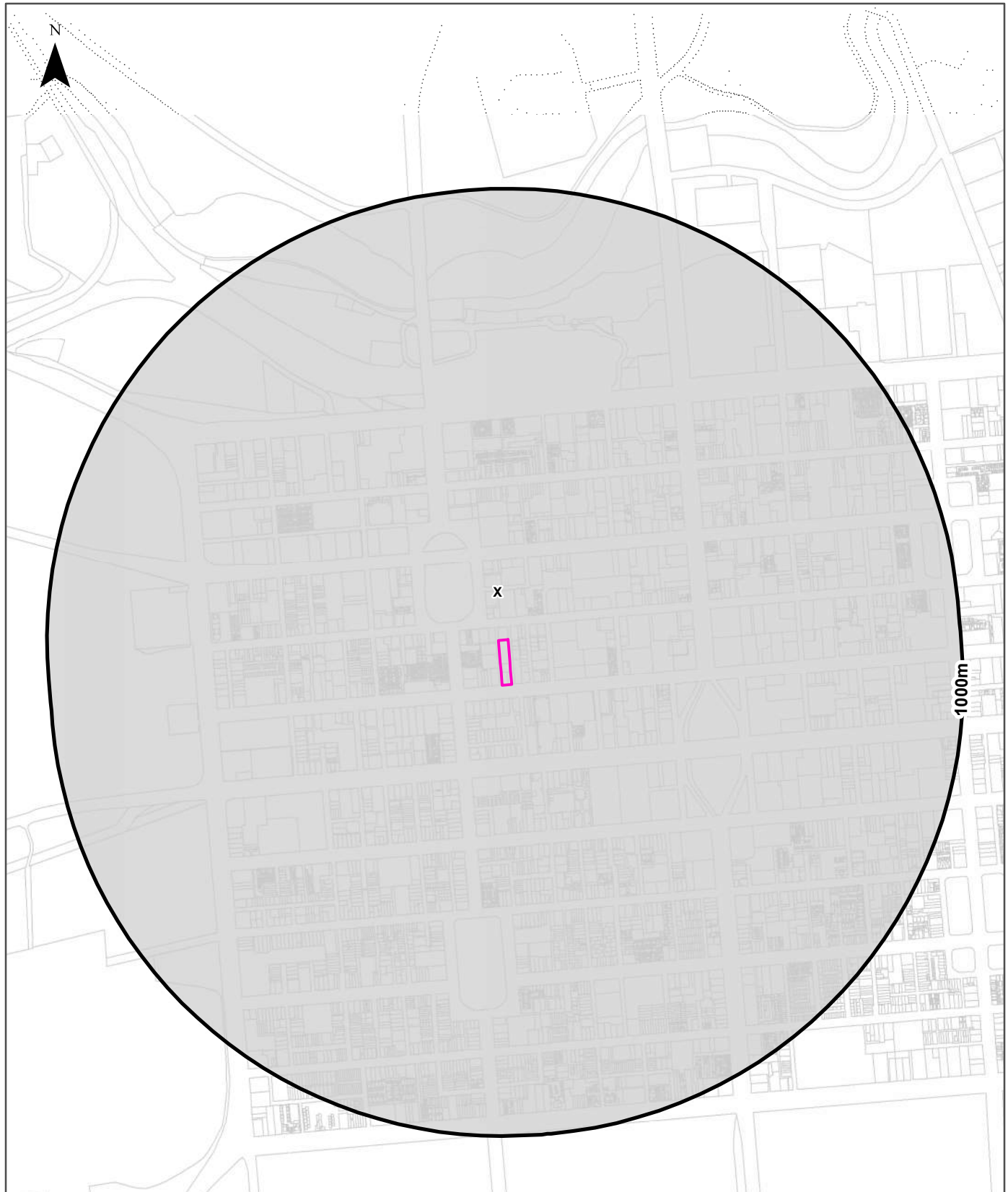
Legend		Severity of watertable induced soil salinity					
	Site Boundary		A. Negligible		D. Moderately high		G. Very high to extreme
	Buffer 1000m		B. Moderately low		E. Moderately high to high		X. Not applicable
	Property Boundary		C. Moderate		F. High		



Data Sources: Property Boundaries - Sourced by Precisely
©PSMA Australia Limited

Coordinate System:
GDA 1994 MGA Zone 54

Date: 18 May 2023



Legend		Severity of non-watertable induced soil salinity	
	Site Boundary		A. Low
	Buffer 1000m		B. Moderately low
	Property Boundary		C. Moderate
			D. Moderately high to high
			X. Not applicable



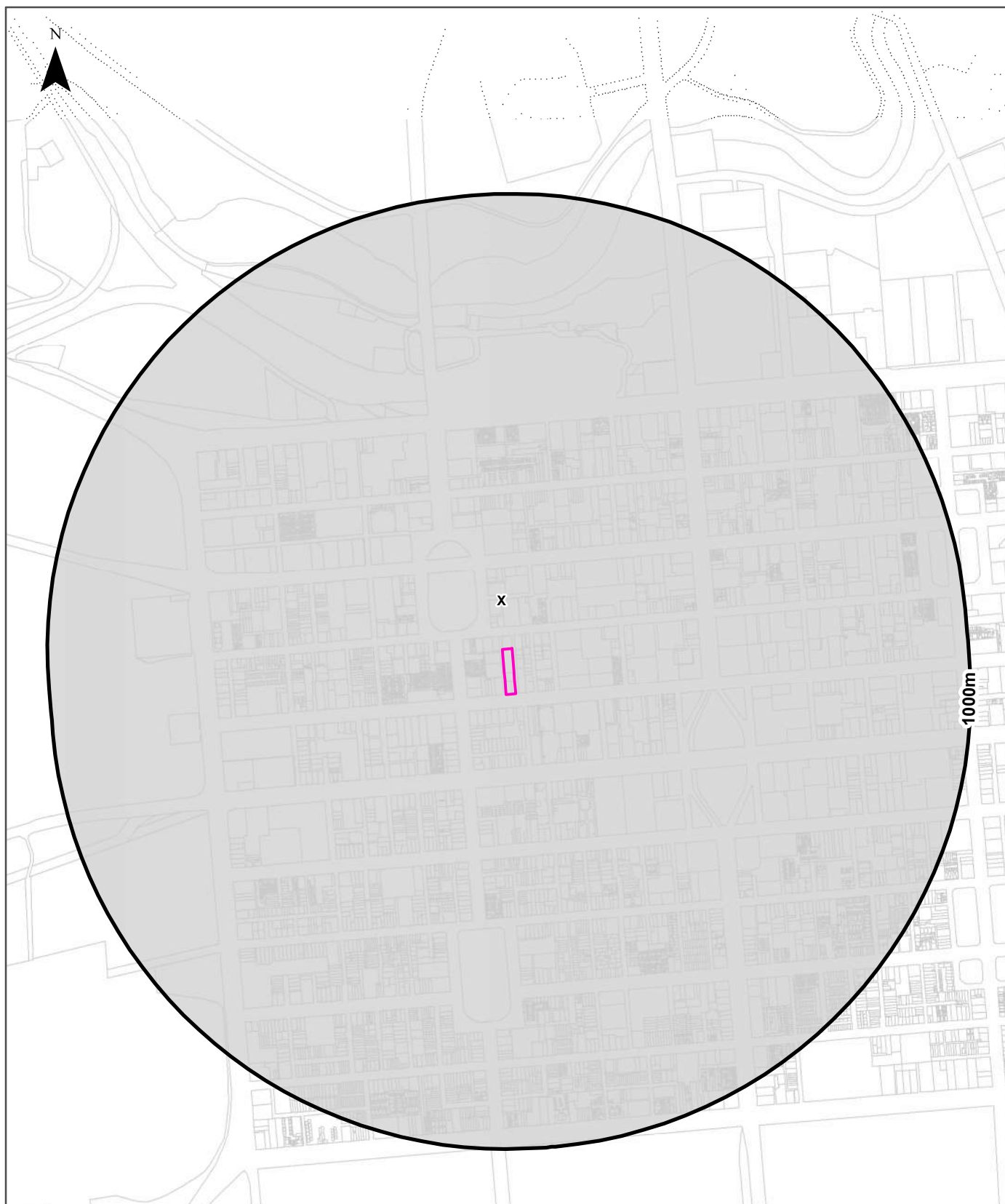
Data Sources: Property Boundaries - Sourced by Precisely
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Coordinate System:
 GDA 1994 MGA Zone 54

Date: 18 May 2023

Soil Salinity - Non-watertable (Magnesia Patches)

108-112 Franklin Street, Adelaide, SA 5000



Legend

Site Boundary	Proportion of land affected by magnesia patches		
Buffer 1000m	A. Negligible	C. 2-10%	E. More than 50%
Property Boundary	B. Up to 2%	D. 10-50%	X. Not applicable



Data Sources: Property Boundaries - Sourced by Precisely
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Coordinate System:
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Date: 18 May 2023

Soil Salinity

108-112 Franklin Street, Adelaide, SA 5000

Soil Salinity - Watertable Induced

Watertable induced soil salinity within the dataset buffer:

Map category code	Severity description	Distance	Direction
X	Not applicable - No assessment/analysis undertaken	0m	On-site

Salinity Watertable Induced Data Source: Dept of Environment, Water and Natural Resources - South Australia
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Soil Salinity - Non-Watertable

Non-watertable soil salinity within the dataset buffer:

Map category code	Severity description	Surface ECe (dS/m)	Subsoil ECe (dS/m)	Distance	Direction
X	Not applicable - No assessment/analysis undertaken			0m	On-site

Salinity Non-Watertable Data Source: Dept of Environment, Water and Natural Resources - South Australia
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Soil Salinity - Non-Watertable (Magnesia Patches)

Magnesia patches within the dataset buffer:

Map category code	Proportion of land affected by magnesia patches	Distance	Direction
X	Not applicable - No assessment/analysis undertaken	0m	On-site

Salinity Non-Watertable (Magnesia Patches) Data Source: Dept of Environment, Water and Natural Resources - South Australia
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Planning and Design Code Zones

108-112 Franklin Street, Adelaide, SA 5000



Planning

108-112 Franklin Street, Adelaide, SA 5000

Planning and Design Code - Zones

Planning and Design Code zones within the dataset buffer:

Map Id	Zone Code	Zone Name	Legal Start Date	Status	Distance	Direction
CC	Z0905	Capital City	19/03/2021	0	0m	On-site
APL	Z0302	Adelaide Park Lands	19/03/2021	0	38m	North West
CMS	Z0909	City Main Street	19/03/2021	0	187m	South East
CMS	Z0909	City Main Street	19/03/2021	0	272m	North
APL	Z0302	Adelaide Park Lands	19/03/2021	0	346m	East
CL	Z0908	City Living	19/03/2021	0	472m	South West
APL	Z0302	Adelaide Park Lands	19/03/2021	0	488m	South
CMS	Z0909	City Main Street	19/03/2021	0	498m	South
CR	Z0911	City Riverbank	08/12/2022	0	510m	North
CR	Z0911	City Riverbank	20/01/2022	0	520m	North West
CMS	Z0909	City Main Street	19/03/2021	0	584m	North East
APL	Z0302	Adelaide Park Lands	08/12/2022	0	653m	West
CR	Z0911	City Riverbank	20/01/2022	0	668m	North East
CL	Z0908	City Living	19/03/2021	0	696m	South
CMS	Z0909	City Main Street	19/03/2021	0	764m	South East
CL	Z0908	City Living	19/03/2021	0	771m	South East
CL	Z0908	City Living	19/03/2021	0	896m	South East
APL	Z0302	Adelaide Park Lands	19/03/2021	0	905m	East

Planning and Design Code Zones Data Source: Attorney-General's Department - South Australia
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Planning and Design Code - Subzones

Planning and Design Code subzones within the dataset buffer:

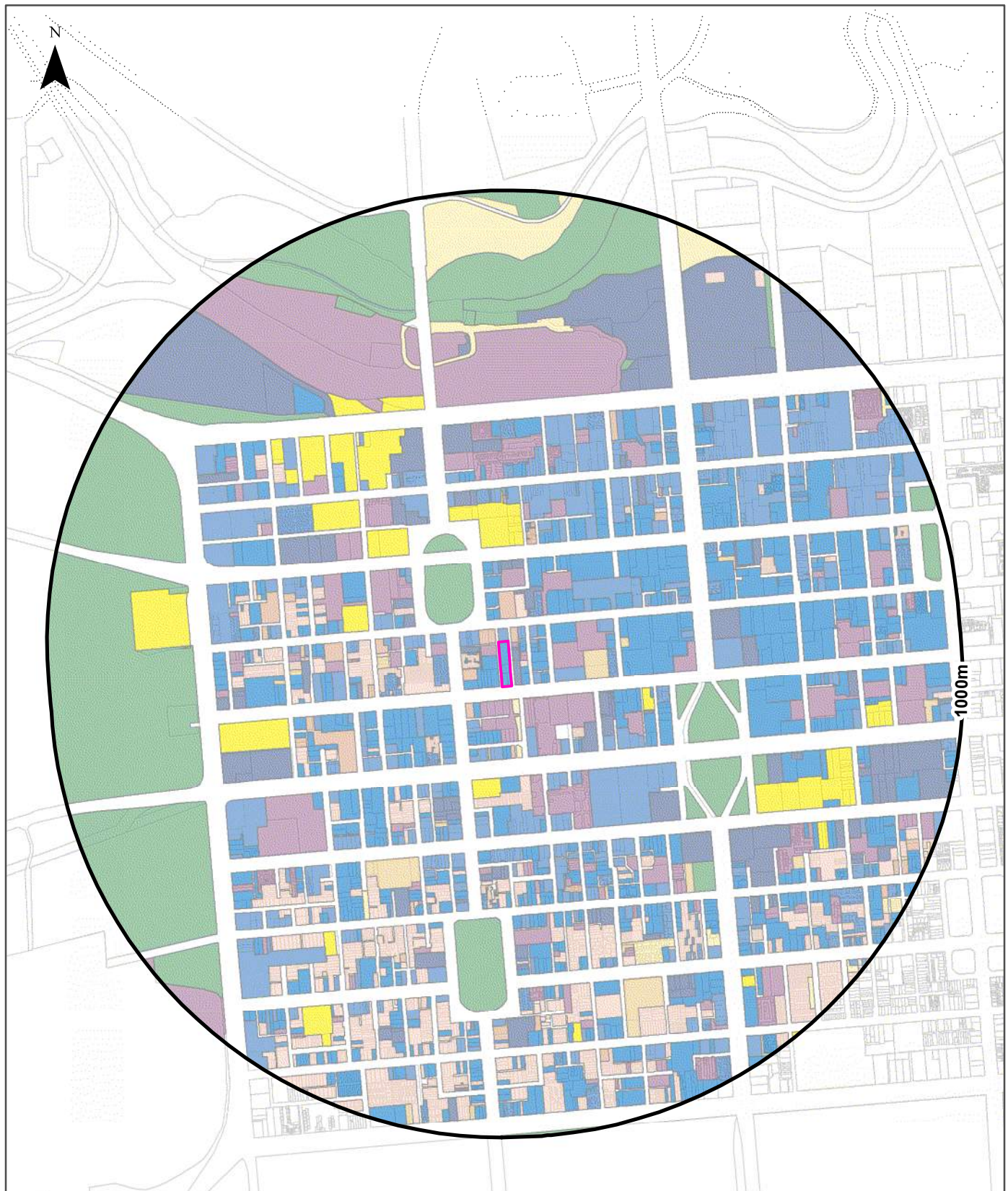
Map Id	Subzone Code	Subzone Name	Legal Start Date	Status	Distance	Direction
GGS	S2101	Gouger and Grote Street	19/03/2021	0	187m	South East
HS	S2403	Hindley Street	19/03/2021	0	271m	North
CiF	S0901	City Frame	19/03/2021	0	449m	South
MHI	S3902	Medium-High Intensity	19/03/2021	0	474m	South West
CiHS	S0903	City High Street	19/03/2021	0	499m	South
Ent	S1502	Entertainment	08/12/2022	0	510m	North

Map Id	Subzone Code	Subzone Name	Legal Start Date	Status	Distance	Direction
He	S2402	Health	20/01/2022	0	520m	North West
RMa	S5401	Rundle Mall	19/03/2021	0	582m	North East
Cul	S0902	Cultural Institutions	20/01/2022	0	668m	North East
MHI	S3902	Medium-High Intensity	19/03/2021	0	697m	South
CiHS	S0903	City High Street	19/03/2021	0	765m	South East
MHI	S3902	Medium-High Intensity	19/03/2021	0	771m	South East
MHI	S3902	Medium-High Intensity	19/03/2021	0	897m	South East
CiF	S0901	City Frame	19/03/2021	0	970m	South East

Planning and Design Code Subzones Data Source: Attorney-General's Department - South Australia
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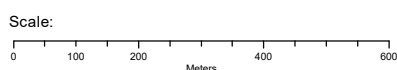
Land Use Generalised

108-112 Franklin Street, Adelaide, SA 5000



Legend

Site Boundary	Buffer 1000m	Property Boundary	No Description	Agriculture	Education	Food Industry	Forestry	Golf	Horticulture	Livestock	Mining or Quarrying	Non Private Residential	Public Institution	Recreation	Reserves	Residential	Retail Commercial	Rural Residential	Utilities or Industry	Vacant	Vacant Urban Land
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Data Sources: Property Boundaries - Sourced by Precisely
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Coordinate System:
GDA 1994 MGA Zone 54

Date: 18 May 2023

Planning

108-112 Franklin Street, Adelaide, SA 5000

Land Use Generalised

Land use classes within the dataset buffer:

Description	Distance	Direction
Commercial	0m	On-site
Retail Commercial	0m	North
Non Private Residential	6m	North
Public Institution	6m	East
Utilities or Industry	6m	North West
Residential	22m	East
Vacant	30m	South
Recreation	88m	North West
Vacant Urban Land	163m	East
Education	201m	South
Reserves	619m	South East
Golf	998m	North

Land Use Generalised Data Source: Dept of Planning, Transport and Infrastructure - South Australia
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Heritage

108-112 Franklin Street, Adelaide, SA 5000

Commonwealth Heritage List

What are the Commonwealth Heritage List Items located within the dataset buffer?

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
105518	Adelaide General Post Office	141 King William St, Adelaide SA	3/03/001/0010	Historic	Listed place	2004-06-22	360m	East

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
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National Heritage List

What are the National Heritage List Items located within the dataset buffer?

Note. Please click on Place Id to activate a hyperlink to online website.

Place Id	Name	Address	Place File No	Class	Status	Register Date	Distance	Direction
105758	The Adelaide Park Lands and City Layout	South Tce, Adelaide SA	3/03/001/0279	Historic	Listed place	2008-11-07	0m	South East

Heritage Data Source: Australian Government Department of the Environment and Energy - Heritage Branch
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State Heritage Areas

State Heritage Areas within the dataset buffer:

Heritage Id	Name	Distance	Direction
N/A	No records in buffer		

Heritage Areas Data Source: Dept of Environment, Water and Natural Resources - South Australia
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SA Heritage Places

SA Heritage Places within the dataset buffer:

Heritage No	Location	Heritage Class	Australian Class	Details	Auth Date	Distance	Direction
143	127-133 Waymouth Street ADELAIDE	Local	Business House - Offices	Federation Trading (former Aerated Bread Factory)	1/11/2001	0m	North
140	123 Waymouth Street 2 - 10 Cannon Street ADELAIDE	Local	Business House - Offices	Shakespeare Chambers	1/11/2001	6m	North
160	25 Eliza Street ADELAIDE	Local	Business: Commercial/Retail	Workshop	1/11/2001	22m	East
161	88-92 Franklin Street ADELAIDE	Local	Hotel - Motel - Inn	Hotel Franklin	1/11/2001	48m	South East
1323	25-29 Young Street ADELAIDE	State	Law Courts	Young Street Chambers (former William Detmold Ltd, later Spicers Australia Warehouse), including Delivery Area		48m	East
1630	82-86 Franklin Street ADELAIDE	State	Business House - Offices	Office (former Dwelling)		65m	East
1619	Gilles Arcade ADELAIDE	State	Theatre - Cinema	Former Queen's (sometime Royal Victoria) Theatre and Horse Bazaar		69m	North

Heritage No	Location	Heritage Class	Australian Class	Details	Auth Date	Distance	Direction
1566	96-100 Grote Street ADELAIDE	Local	Religious Building	Church of Christ and Church Hall	1/11/2001	98m	South
158	114 Grote Street ADELAIDE	Local	Restaurant - Cabaret - Nightclub	Restaurant	1/11/2001	132m	South
162	116 Grote Street ADELAIDE	Local	Business House - Offices	Office and Hall (Former Seventh Day Adventist Church and Liquor Trades Hall)	1/11/2001	132m	South
1321	110 Grote Street ADELAIDE	State	Hotel - Motel - Inn	Hampshire Hotel		132m	South
123	82 Waymouth Street ADELAIDE	Local	Business House - Offices	Former Tolley's Warehouse	1/11/2001	146m	North East
1628	Light Square ADELAIDE	State	Monument - Column - Cairn - Cross - Shrine - Marker - Statue	Colonel William Light's Grave and Monument, Light Square		166m	North West
1318	58 Grote Street ADELAIDE	State	Theatre - Cinema	Her Majesty's (previously The Opera) Theatre		178m	South East
25399	68-72 Waymouth Street ADELAIDE	Local		Union Hotel	27/03/2013	181m	North East
1310	79 Light Square ADELAIDE	State	Historic Sites (unclassified)	Office (former Sands & McDougall Warehouse)		188m	North West
1309	69 Light Square ADELAIDE	State	Restaurant - Cabaret - Nightclub	Former City Mission Hall		197m	North West
1320	101 Grote Street ADELAIDE	State	Historic Sites (unclassified)	Former Advanced School for Girls		200m	South
1322	109-119 Grote Street ADELAIDE	State	Historic Sites (unclassified)	Former Centre for Performing Arts (former Teachers Training School), including Northern and Western Boundary Walls		200m	South
1319	93-99 Grote Street ADELAIDE	State	Historic Sites (unclassified)	Star Car Park and shops (former Vardon Price Printing Works & Warehouse)		201m	South
1631	139 Grote Street ADELAIDE	State	Historic Sites (unclassified)	Former Grote Street Model School & Front Boundary Wall		201m	South
1308	63 Light Square ADELAIDE	State	Restaurant - Cabaret - Nightclub	Former Cobbs Restaurant		203m	North West
141	190-194 Waymouth Street ADELAIDE	Local	Business House - Offices	Offices	1/11/2001	211m	West
124	11-13 Bentham Street ADELAIDE	Local	Business House - Offices	Farmers' Trustee House	1/11/2001	216m	East
125	15-19 Bentham Street ADELAIDE	Local	Business House - Offices	Offices	1/11/2001	216m	East
1565	36-40 Franklin Street 21 - 39 Bentham Street ADELAIDE	Local	Business House - Offices	Former Eudunda Farmers Building	1/11/2001	216m	East
25460	75-79 Grote Street ADELAIDE	Local		Shops	27/03/2013	217m	South East
1317	42-46 Grote Street ADELAIDE	State	Hotel - Motel - Inn	Metropolitan Hotel		229m	South East
157	65-67 Grote Street ADELAIDE	Local	Business: Commercial/Retail	Shops and restaurant	1/11/2001	235m	South East
156	61-63 Grote Street ADELAIDE	Local	Business: Commercial/Retail	Shops	1/11/2001	241m	South East
1307	41 Light Square ADELAIDE	State	Hotel - Motel - Inn	Colonel Light Hotel (sometime Heritage Hotel)		243m	North West
1358	205 Waymouth Street ADELAIDE	State	Hotel - Motel - Inn	Cumberland Arms Hotel		245m	West
1296	28 Franklin Street ADELAIDE	State	Business House - Offices	Darling Building		247m	East
25323	47-49 Waymouth Street ADELAIDE	Local		Offices (Woodards House)	27/03/2013	247m	East
26326	47-49 Waymouth Street ADELAIDE	State	Buildings in general	Woodards House		247m	East
121	82-86 Currie Street 19 - 23 Kingston Street ADELAIDE	Local	Hotel - Motel - Inn	Duke of York Hotel	1/11/2001	249m	North East
21947	247 Morphett Street ADELAIDE	Local	House	Halifax House	30/08/2007	249m	South

Heritage No	Location	Heritage Class	Australian Class	Details	Auth Date	Distance	Direction
1567	Gouger Street ADELAIDE	Local	Business: Commercial/Retail	The Central Market (Former City Market Buildings) (Conservation site comprises that part of the above CT to a 12 metre depth of Town Acre 380 from the Gouger Street alignment)	1/11/2001	250m	South East
1568	Grote Street ADELAIDE	Local	Business: Commercial/Retail	The Central Market (Former City Market Buildings) (Conservation site comprises that part of the above CT to a 12 metre depth of Town Acre 333 from the Grote Street alignment)	1/11/2001	250m	South East
134	26-30 Grote Street ADELAIDE	Local	Business House - Offices	Sarnia Building	1/11/2001	280m	South East
25343	91-93 Hindley Street ADELAIDE	Local		Former Wests' Cinema	27/03/2013	285m	North
1302	17 Morialta Street ADELAIDE	State	Hall	Adelaide Benevolent and Strangers' Friend Society Hall		295m	East
199	12 Oakley Street ADELAIDE	Local	House	Row House	1/11/2001	297m	South West
163	122-130 Gouger Street ADELAIDE	Local	Business: Commercial/Retail	Shops and Studio	1/11/2001	298m	South
120	54 Currie Street ADELAIDE	Local	Business House - Offices	Commerce House	1/11/2001	302m	North East
154	82-84a Gouger Street ADELAIDE	Local	Business: Commercial/Retail	Attached Shop	1/11/2001	302m	South
103	111-115 Hindley Street 1 - 11Rosina Street ADELAIDE	Local	Restaurant - Cabaret - Nightclub	Rio's Nightclub	1/11/2001	304m	North
1283	27 Currie Street ADELAIDE	State	Business House - Offices	Elder House Offices		305m	North East
164	274-276 Morphett Street ADELAIDE	Local	Business: Commercial/Retail	Attached Shops (Excludes that part of the above CT to a depth of 15.5 metres from the Gouger Street alignment)	1/11/2001	306m	South
25478	278-280 Morphett Street ADELAIDE	Local		Shops	27/03/2013	306m	South
142	9-19 Light Square ADELAIDE	Local	Business House - Offices	Former Goldsbrough Mort Warehouse	1/11/2001	307m	North West
104	125-127 Hindley Street ADELAIDE	Local	Hotel - Motel - Inn	Royal Admiral Hotel	1/11/2001	309m	North
1299	141-159 King William Street ADELAIDE	State	Business House - Offices	Adelaide General Post Office (GPO), including the original 1872 building, remaining 1893 extensions, former Telephone Exchange (1907) and its 1914 extension		313m	East
25347	105-109 Hindley Street ADELAIDE	Local		Shops	27/03/2013	313m	North
203	20 Oakley Street ADELAIDE	Local	House	Row House	1/11/2001	317m	South West
1303	181-191 Victoria Square ADELAIDE	State	Business House - Offices	Beacon House (former MLC [Mutual Life and Citizens' Assurance Company Ltd] Building)		318m	East
153	78-80 Gouger Street ADELAIDE	Local	Business: Commercial/Retail	Attached Shop	1/11/2001	320m	South
25491	22-24 Oakley Street ADELAIDE	Local		Former Dwelling	27/03/2013	321m	South West
198	11-13 Oakley Street ADELAIDE	Local	House	Attached House	1/11/2001	322m	South West
122	27 Leigh Street ADELAIDE	Local	Business House - Offices	Woodchester House	1/11/2001	323m	North East
25341	81-89 Hindley Street ADELAIDE	Local		Plaza Hotel	27/03/2013	326m	North
200	15 Oakley Street ADELAIDE	Local	House	Attached House	1/11/2001	329m	South West
1305	199-201 Victoria Square ADELAIDE	State	Business House - Offices	Office (Facade of former SA Harbors Board Building)		329m	East
126	42-48 Currie Street ADELAIDE	Local	Business House - Offices	Anglican Church Office (formerly Bickfords Building) (Conservation site comprises that part of the above GM reference east of the Leigh Street alignment)	1/11/2001	331m	North East
201	17 Oakley Street ADELAIDE	Local	House	Attached House	1/11/2001	333m	South West

Heritage No	Location	Heritage Class	Australian Class	Details	Auth Date	Distance	Direction
202	17a Oakley Street ADELAIDE	Local	House	Attached House	1/11/2001	336m	South West
204	19 Oakley Street ADELAIDE	Local	House	Attached House	1/11/2001	340m	South West
191	28 Byron Place ADELAIDE	Local	House	Row House	1/11/2001	343m	South West
1620	23 Currie Street ADELAIDE	State	Business House - Offices	Former Commonwealth Bank, former Savings Bank of South Australia Head Office		343m	North East
205	21 Oakley Street ADELAIDE	Local	House	Attached House	1/11/2001	344m	South West
102	73a Hindley Street ADELAIDE	Local	Business: Commercial/Retail	Shop	1/11/2001	350m	North
106	13-17 Leigh Street ADELAIDE	Local	Business House - Offices	Aston House	1/11/2001	350m	North East
190	26 Byron Place ADELAIDE	Local	House	Row House	1/11/2001	350m	South West
206	23a Oakley Street ADELAIDE	Local	House	Attached House	1/11/2001	351m	South West
1285	26-28 Leigh Street ADELAIDE	State	Business House - Offices	State Records of South Australia Offices (former Megaw & Hogg Auction Rooms, former Warehouse)		351m	North East
101	73 Hindley Street ADELAIDE	Local	Business: Commercial/Retail	Shop	1/11/2001	353m	North
189	24 Byron Place ADELAIDE	Local	House	Row House	1/11/2001	353m	South West
188	22a Byron Place ADELAIDE	Local	House	Row House	1/11/2001	354m	South West
207	25 Oakley Street ADELAIDE	Local	House	Attached House	1/11/2001	356m	South West
1284	97 King William Street ADELAIDE	State	Business House - Offices	BankSA (former Savings Bank of South Australia Head Office)		356m	North East
187	22 Byron Place ADELAIDE	Local	House	Row House	1/11/2001	358m	South West
208	27 Oakley Street ADELAIDE	Local	House	Attached House	1/11/2001	359m	South West
155	91-93a Gouger Street 1 - 7 Field Street ADELAIDE	Local	Restaurant - Cabaret - Nightclub	Restaurant	1/11/2001	361m	South
1280	104-120 Hindley Street ADELAIDE	State	Restaurant - Cabaret - Nightclub	Former West's Coffee Palace		361m	North
26338	Victoria Square ADELAIDE	State	Monument - Column - Cairn - Cross - Shrine - Marker - Statue	Captain Charles Sturt Monument		361m	East
95	107-109 King William Street ADELAIDE	Local	Hotel - Motel - Inn	Ambassadors Hotel	1/11/2001	365m	North East
105	160-162 Hindley Street 34 - 40 Morphet Street ADELAIDE	Local	Hotel - Motel - Inn	New Century Hotel	1/11/2001	365m	North
27073	20-24 Leigh Street ADELAIDE	Local		Leigh Chambers	2/04/2015	367m	North East
25475	71-75 Gouger Street ADELAIDE	Local		Former Bank	27/03/2013	371m	South
113	18 Leigh Street ADELAIDE	Local	Restaurant - Cabaret - Nightclub	Restaurant	1/11/2001	379m	North East
152	65a-67 Gouger Street 2-6 Compton Street ADELAIDE	Local	Restaurant - Cabaret - Nightclub	Restaurant	1/11/2001	379m	South East
1353	32 North Street ADELAIDE	State	Hotel - Motel - Inn	Former White Conduit Hotel and Outbuilding		382m	West
1298	131 King William Street ADELAIDE	State	Business House - Offices	Electra House (former Citizens' Life Assurance Co, then Mutual Life and Citizens' Assurance Co. Ltd [MLC] and then Eastern Extension Australasia and China Telegraph Co. Building)		383m	East
25313	23-25 Peel Street ADELAIDE	Local		Former Warehouse	27/03/2013	383m	North East
1625	241-259 Victoria Square ADELAIDE	State	Law Courts	Sir Samuel Way Building (former Charles Moore Department Store)		385m	South East

Heritage No	Location	Heritage Class	Australian Class	Details	Auth Date	Distance	Direction
1357	18 Ruthven Avenue ADELAIDE	State	House	Office (former Dwelling)		387m	South West
107	14 Leigh Street ADELAIDE	Local	Business: Commercial/Retail	Part shop (part former Hooper's)	1/11/2001	388m	North East
1278	89-91 King William Street ADELAIDE	State	Business House - Offices	National Mutual Building (former Insurance Office)		388m	North East
1279	41-47 Hindley Street ADELAIDE	State	Business: Commercial/Retail	Former John's Emporium		388m	North East
25314	28 Peel Street ADELAIDE	Local		Former Warehouse	27/03/2013	388m	North East
93	111 King William Street ADELAIDE	Local	Business House - Offices	Office (former Mutual Chambers)	1/11/2001	390m	North East
1355	10-12 and 14-16 Ruthven Avenue ADELAIDE	State	House	Office (former Dwelling)		393m	South West
112	74-78 Hindley Street ADELAIDE	Local	Business: Commercial/Retail	Shops	1/11/2001	395m	North
1276	81 King William Street ADELAIDE	State	Business House - Offices	Goodlife Health Club (former Bank of Adelaide Head Office)		396m	North East
159	8 Compton Street ADELAIDE	Local	Business: Commercial/Retail	Former Shop	1/11/2001	400m	South East
26340	Victoria Square ADELAIDE	State	Monument - Column - Cairn - Cross - Shrine - Marker - Statue	Charles Cameron Kingston Monument		400m	East
209	251 Waymouth Street 2 - 8 Shannon Place ADELAIDE	Local	Historic Sites (unclassified)	Former Warehouse	1/11/2001	404m	West
216	293 Morphett Street ADELAIDE	Local	House	House and Former Shop	1/11/2001	414m	South
1316	73-78 North Terrace ADELAIDE	State	Business House - Offices	Lion Arts Factory (former Fowler's Lion Grocery Factory)		415m	North West
1356	17 Ruthven Avenue ADELAIDE	State	House	Office (former Dwelling)		415m	South West
111	58-60 Hindley Street ADELAIDE	Local	Hotel - Motel - Inn	Princes Berkeley Hotel	1/11/2001	420m	North East
91	82-90 North Terrace ADELAIDE	Local	Religious Building	Holy Trinity Church Hall	1/11/2001	426m	North
1611	87 North Terrace ADELAIDE	State	Religious Building	Holy Trinity Anglican Church		426m	North
1612	80 North Terrace ADELAIDE	State	Religious Building	Holy Trinity Anglican Church Rectory		426m	North
26252	Victoria Square ADELAIDE	State	General Inland Water Features	John Dowie's Three Rivers Fountain		428m	South East
1354	11 and 15 Ruthven Avenue ADELAIDE	State	House	Dwelling		429m	South West
25483	15-19 Market Street ADELAIDE	Local		Former Warehouse	27/03/2013	432m	South East
25302	27-29 Gilbert Place ADELAIDE	Local		Former Bank of South Australia stable yard	27/03/2013	437m	North East
219	261-265 Waymouth Street ADELAIDE	Local	Business: Commercial/Retail	Shops (Former Terrace Houses)	1/11/2001	440m	West
25301	17-25 Gilbert Place ADELAIDE	Local		Former Warehouse	27/03/2013	444m	North East
110	21-23a Hindley Street ADELAIDE	Local	Hotel - Motel - Inn	Adelaide City Central Motel (former Wine Saloon)	1/11/2001	446m	North East
100	42-46 Hindley Street 32 - 40 Bank Street ADELAIDE	Local	Restaurant - Cabaret - Nightclub	Restaurant	1/11/2001	448m	North East
1351	238 Grote Street ADELAIDE	State	House	Dwelling		448m	South West
226	21 Market Street ADELAIDE	Local	Restaurant - Cabaret - Nightclub	Adelaide Democratic Club	1/11/2001	450m	South East

Heritage No	Location	Heritage Class	Australian Class	Details	Auth Date	Distance	Direction
1621	142-160 King William Street ADELAIDE	State	Business House - Offices	Treasury on King William and Adina Apartment Hotel Adelaide Treasury (Former Treasury Building, including former Cabinet Room and Courtyard)		450m	East
1622	128-138 King William Street ADELAIDE	State	Council Offices	Adelaide Town Hall Complex - Comprising of Town Hall, Prince Alfred, Eagle and Gladstone Chambers		451m	East
1623	19 Pirie Street ADELAIDE	State	Law Courts	Queen's Chambers		451m	East
26339	Victoria Square ADELAIDE	State	Monument - Column - Cairn - Cross - Shrine - Marker - Statue	John McDouall Stuart Monument		451m	East
1349	182-186 Gray Street ADELAIDE	State	House	Dwelling		452m	South West
1629	208 Currie Street ADELAIDE	State	Law Courts	Adelaide Remand Centre (former Currie Street Model School)		454m	North West
26253	Victoria Square ADELAIDE	State	Monument - Column - Cairn - Cross - Shrine - Marker - Statue	Statue of Queen Victoria		457m	East
109	17-19 Hindley Street ADELAIDE	Local	Hotel - Motel - Inn	Tattersalls Hotel	1/11/2001	458m	North East
1350	188-190 Gray Street ADELAIDE	State	House	Dwelling		458m	South West
221	20 Market Street ADELAIDE	Local	House	Attached House	1/11/2001	459m	South East
210	268 Waymouth Street ADELAIDE	Local	House	House	1/11/2001	460m	West
1352	242-248 Grote Street ADELAIDE	State	House	Dwelling		461m	South West
214	122-124 Wright Street ADELAIDE	Local	House	House	1/11/2001	462m	South
215	134 Wright Street ADELAIDE	Local	House	House	1/11/2001	462m	South
1616	59 King William Street ADELAIDE	State	Business House - Offices	Edmund Wright House (former Bank of South Australia Head Office, later Union Bank, then ANZ Bank)		464m	North East
222	22 Market Street ADELAIDE	Local	House	Attached House	1/11/2001	466m	South East
92	20-22 Gilbert Place ADELAIDE	Local	Business House - Offices	Quelltaler House	1/11/2001	470m	North East
212	116 Wright Street ADELAIDE	Local	House	House	1/11/2001	471m	South
213	120 Wright Street ADELAIDE	Local	House	House	1/11/2001	471m	South
223	24 Market Street ADELAIDE	Local	House	House	1/11/2001	471m	South East
98	13-15 Hindley Street 2 - 8 Gilbert Street ADELAIDE	Local	Business House - Offices	Paringa Building	1/11/2001	475m	North East
225	88 Wright Street 34 - 40 Compton Street ADELAIDE	Local	Hotel - Motel - Inn	Old Queens Arms Hotel	1/11/2001	475m	South
1312	222-228 Hindley Street ADELAIDE	State	Business House - Offices	Office (former SA Brewing Company Offices)		476m	North West
224	26-30a Market Street ADELAIDE	Local	House	Row Houses	1/11/2001	477m	South East
1277	82 King William Street ADELAIDE	State	Business House - Offices	Quest on King William (former T&G [Australasian Temperance and General Mutual Life Assurance Society Ltd] Building)		477m	North East
218	273-277 Waymouth Street ADELAIDE	Local	Business: Commercial/Retail	Shop and Residence	1/11/2001	479m	West
1297	7 Gouger Street ADELAIDE	State	Law Courts	Jeffcott Chambers (former Supreme Court Hotel)		479m	South East
1635	273 Franklin Street ADELAIDE	State	Religious Building	St Mary's Dominican Convent (Catholic)		481m	West
217	2-8 Spencer Street ADELAIDE	Local	Historic Sites (unclassified)	Outbuilding	1/11/2001	484m	West
1139	162-170 Wright Street 317 - 319 Morphet Street ADELAIDE	Local	Hotel - Motel - Inn	Gothic Hotel	1/11/2001	485m	South

Heritage No	Location	Heritage Class	Australian Class	Details	Auth Date	Distance	Direction
1140	174-180 Wright Street , 33-39 Bartels Street ADELAIDE	Local	House	Former Attached Houses	1/11/2001	490m	South
1347	260 Grote Street ADELAIDE	State	Religious Building	St Patrick's Catholic Church		490m	South West
1605	10-14 Millers Court ADELAIDE	Local	Religious Building	Westcare Mission	1/11/2001	490m	South West
1607	202-212 Wright Street , 2-10 Millers Court ADELAIDE	Local	House	Row Houses	1/11/2001	490m	South West
99	16-22 Hindley Street ADELAIDE	Local	Business House - Offices	Former Miller Anderson Building	1/11/2001	494m	North East
1275	41-49 King William Street ADELAIDE	State	Business House - Offices	Mayfair Hotel, CML (Colonial Mutual Life Assurance Society Ltd) Building		495m	North East
1300	241-259 Victoria Square, corner of King William Street ADELAIDE	State	Law Courts	Local and District Court (former Police Court)		496m	South East
1626	241-299 Victoria Square, corner of Gouger Street ADELAIDE	State	Law Courts	Supreme Court (former Local and Insolvency Court)		496m	South East
1706	72-74 Wright Street 35 - 39 Market Street ADELAIDE	Local	Business House - Offices	Office (Former Deaf and Dumb Mission)	1/11/2001	500m	South East

Heritage Places Data Source: Dept of Environment, Water and Natural Resources - South Australia
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Aboriginal Land

Aboriginal Land within the dataset buffer:

Map Id	Grant Date	Address	Locality	Description	Title	Distance	Direction
N/A	No records in buffer						

Aboriginal Land Data Source: Department of State Development, Resources and Energy - South Australia

Natural Hazards

108-112 Franklin Street, Adelaide, SA 5000

Bushfire Overlays

Bushfire Overlays from the Planning and Design Code within the dataset buffer:

Overlay Id	Name	Description	Legal Start Date	Legal End Date	Distance	Direction
N/A	No records in buffer					

Bushfire Overlays Data Source: Attorney-General's Department - South Australia
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Bushfires and Prescribed Burns History

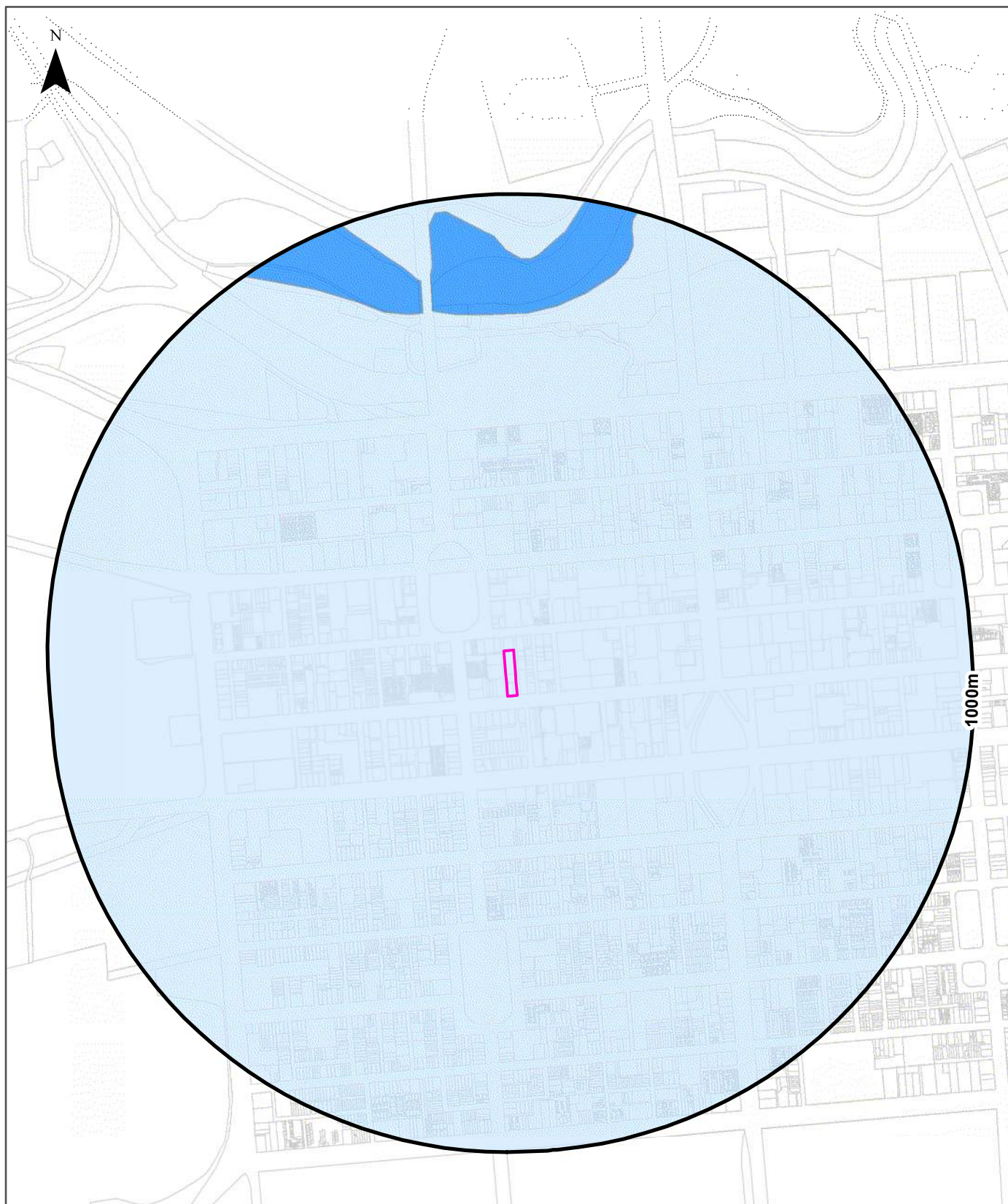
Bushfires and prescribed burns within the dataset buffer:

Map Id	Incident No.	Incident Name	Incident Type	Date of Fire	Area of Fire (ha)	Distance	Direction
N/A	No records in buffer						

Bushfires and Prescribed Burns History Data Source: Dept of Environment, Water and Natural Resources - South Australia
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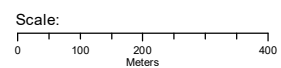
Natural Hazards - Flood

108-112 Franklin Street, Adelaide, SA 5000



Legend

- | | | |
|-------------------|------------------------------|-------------------------------------|
| Site Boundary | Flooding | Coastal Flooding |
| Buffer 1000m | Flooding - General | River Murray Flood Plain Protection |
| Property Boundary | Flooding - Evidence Required | |



Data Sources: Property Boundaries - Sourced by Precisely ©PSMA Australia Limited

Coordinate System: GDA 1994 MGA Zone 54

Date: 18 May 2023

Natural Hazards

108-112 Franklin Street, Adelaide, SA 5000

Flooding Overlays

Flooding Overlays from the Planning and Design Code within the dataset buffer:

Overlay Id	Name	Description	Legal Start	Legal End	Distance	Direction
O2416	Hazards (Flooding - Evidence Required)	The Hazards (Flooding - Evidence Required) Overlay adopts a precautionary approach to mitigate potential impacts of potential flood risk through appropriate siting and design of development.	10/11/2022		0m	On-site
O2403	Hazards (Flooding)	The Hazards (Flooding) Overlay seeks to minimise flood hazard risk to people, property, infrastructure and the environment.	10/11/2022		738m	North

Flooding Overlays Data Source: Attorney-General's Department - South Australia
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Ecological Constraints

108-112 Franklin Street, Adelaide, SA 5000

Native Vegetation

Record ID	Vegetation Group	Vegetation Group Percentage	Structural Formation Description	Species and Stratum Details	Description of the Environment	Ground Truth Methodology	Capture Scale	Distance	Direction
N/A	No records within the buffer								

Department for Environment and Water Data Source: Native Vegetation Floristic Areas - NVIS - State-wide
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Ecological Constraints

108-112 Franklin Street, Adelaide, SA 5000

Groundwater Dependent Ecosystems Atlas

Type	Name	GDE Potential	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
N/A	No records in buffer						

Groundwater Dependent Ecosystems Atlas Data Source: The Bureau of Meteorology
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Ecological Constraints

108-112 Franklin Street, Adelaide, SA 5000

Inflow Dependent Ecosystems Likelihood

Type	Name	IDE Likelihood	Geomorphology	Ecosystem Type	Aquifer Geology	Distance	Direction
N/A	No records in buffer						

Inflow Dependent Ecosystems Likelihood Data Source: The Bureau of Meteorology
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Ecological Constraints

108-112 Franklin Street, Adelaide, SA 5000

Ramsar Wetlands

What Ramsar wetland areas exist within the dataset buffer?

Wetland	Distance	Direction
No records in buffer		

Ramsar Wetlands Data Source: Dept of Environment, Water and Natural Resources - South Australia
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LC Code	Location Confidence
Premise Match	Georeferenced to the site location / premise or part of site
Area Match	Georeferenced to an approximate or general area
Road Match	Georeferenced to a road or rail corridor
Road Intersection	Georeferenced to a road intersection
Buffered Point	A point feature buffered to x metres
Adjacent Match	Land adjacent to a georeferenced feature
Network of Features	Georeferenced to a network of features
Suburb Match	Georeferenced to a suburb boundary
As Supplied	Spatial data supplied by provider

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 - (b) any loss of profit, loss of revenue, loss of interest, loss of data, loss of goodwill or loss of business opportunities, business interruption arising directly or indirectly out of or in relation to the Report or these Terms,irrespective of how that liability arises including in contract or tort, liability under indemnity or for any other common law, equitable or statutory cause of action or otherwise.
 12. These Terms are subject to New South Wales law.

Appendix C: Infotrack Report

SAPPA Parcel Report

Date Created: May 25, 2023

The South Australian Property and Planning Atlas is available at the Plan SA website <https://sappa.plan.sa.gov.au/>



Address Details

Unit Number:

Scale ≈ 1:1128 (on A4 page)

Street Number: 108

50 metres≈

Street Name: FRANKLIN

Street Type: ST

Suburb: ADELAIDE

Postcode: 5000

The information provided, is not represented to be accurate, current or complete at the time of printing this report.

Property Details:

Council: CITY OF ADELAIDE

The Government of South Australia accepts no liability for the use of this data, or any reliance placed on it.

State Electorate: ADELAIDE (2014), ADELAIDE (2018), ADELAIDE (2022)

Federal Electorate: ADELAIDE (2013), ADELAIDE (2016), ADELAIDE (2019)

Hundred: ADELAIDE

Valuation Number: 0201364054

This report and its contents are (c) copyright Government of South Australia.

Title Reference: CT5156/499

Plan No. Parcel No.: F104999A2

Zoning details next page



Government of South Australia
Attorney-General's Department

Zone Details

Zones

Capital City (Z0905) - CC

Overlays

Airport Building Heights (Regulated) (O0303) - All structures over 80 metres AHD

The Airport Building Heights (Regulated) Overlay seeks to ensure building height does not pose a hazard to the operation and safety requirements of commercial and military airfields.

Affordable Housing (O0306)

The Affordable Housing Overlay seeks to ensure the integration of a range of affordable dwelling types into residential and mixed use development.

Building Near Airfields (O0601)

The Building Near Airfields Overlay seeks to ensure development does not pose a hazard to the operational and safety requirements of commercial and military airfields.

Design (O1203)

The Design Overlay seeks to ensure significant development positively contributes to the liveability, durability and sustainability of the built environment through high-quality design.

Hazards (Flooding - Evidence Required) (O2416)

The Hazards (Flooding - Evidence Required) Overlay adopts a precautionary approach to mitigate potential impacts of potential flood risk through appropriate siting and design of development.

Noise and Air Emissions (O4201)

The Noise and Air Emissions Overlay seeks to protect new noise and air quality sensitive development from adverse impacts of noise and air emissions.

Prescribed Wells Area (O4804)

The Prescribed Wells Area Overlay seeks to ensure sustainable water use in prescribed wells areas.

Regulated and Significant Tree (O5404)

The Regulated and Significant Tree Overlay seeks to mitigate the loss of regulated trees through appropriate development and redevelopment.

Variations

Maximum Building Height (Metres) (V0002) - 53

Maximum building height is 53m

Concept Plan (V0006) - 79

Concept Plan 79 - Primary Pedestrian Area

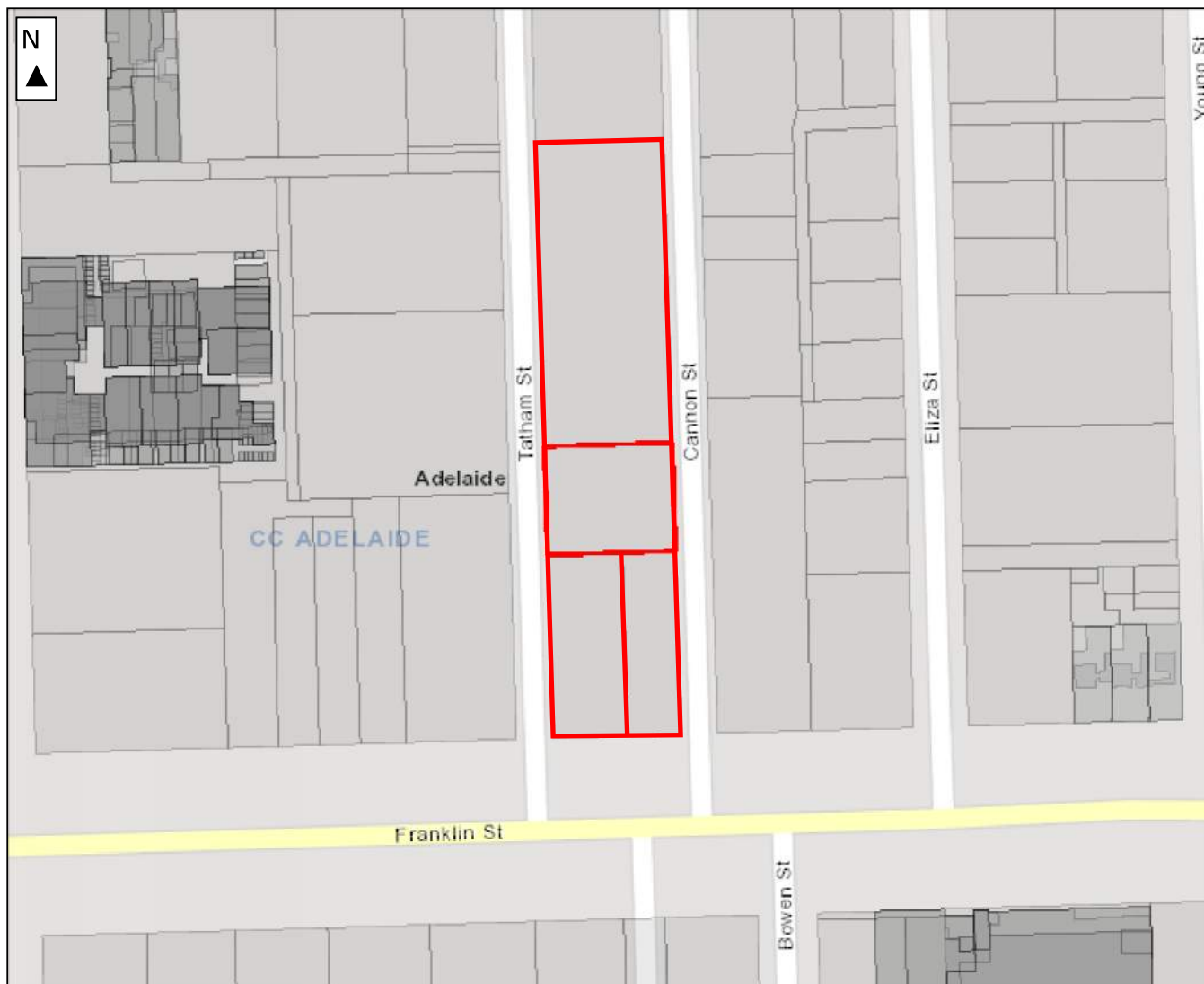
Minimum Building Height (Metres) (V0009) - 27

Minimum building height is 27m

SAPPA Parcel Report

Date Created: May 25, 2023

The South Australian Property and Planning Atlas is available at the Plan SA website <https://sappa.plan.sa.gov.au/>



Address Details

Unit Number:

Scale ≈ 1:1128 (on A4 page)

Street Number: 108

50 metres≈

Street Name: FRANKLIN

Street Type: ST

Suburb: ADELAIDE

Postcode: 5000

The information provided, is not represented to be accurate, current or complete at the time of printing this report.

Property Details:

Council: CITY OF ADELAIDE

State Electorate: ADELAIDE (2014), ADELAIDE (2018), ADELAIDE (2022)

Federal Electorate: ADELAIDE (2013), ADELAIDE (2016), ADELAIDE (2019)

Hundred: ADELAIDE

Valuation Number: 0201364054

The Government of South Australia accepts no liability for the use of this data, or any reliance placed on it.

This report and its contents are (c) copyright Government of South Australia.

Title Reference: CT5156/499

Plan No. Parcel No.: F104999A2

Zoning details next page



Government of South Australia
Attorney-General's Department

Zone Details

Zones

Capital City (Z0905) - CC

Overlays

Airport Building Heights (Regulated) (O0303) - All structures over 80 metres AHD

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Variations

Maximum Building Height (Metres) (V0002) - 53

Maximum building height is 53m

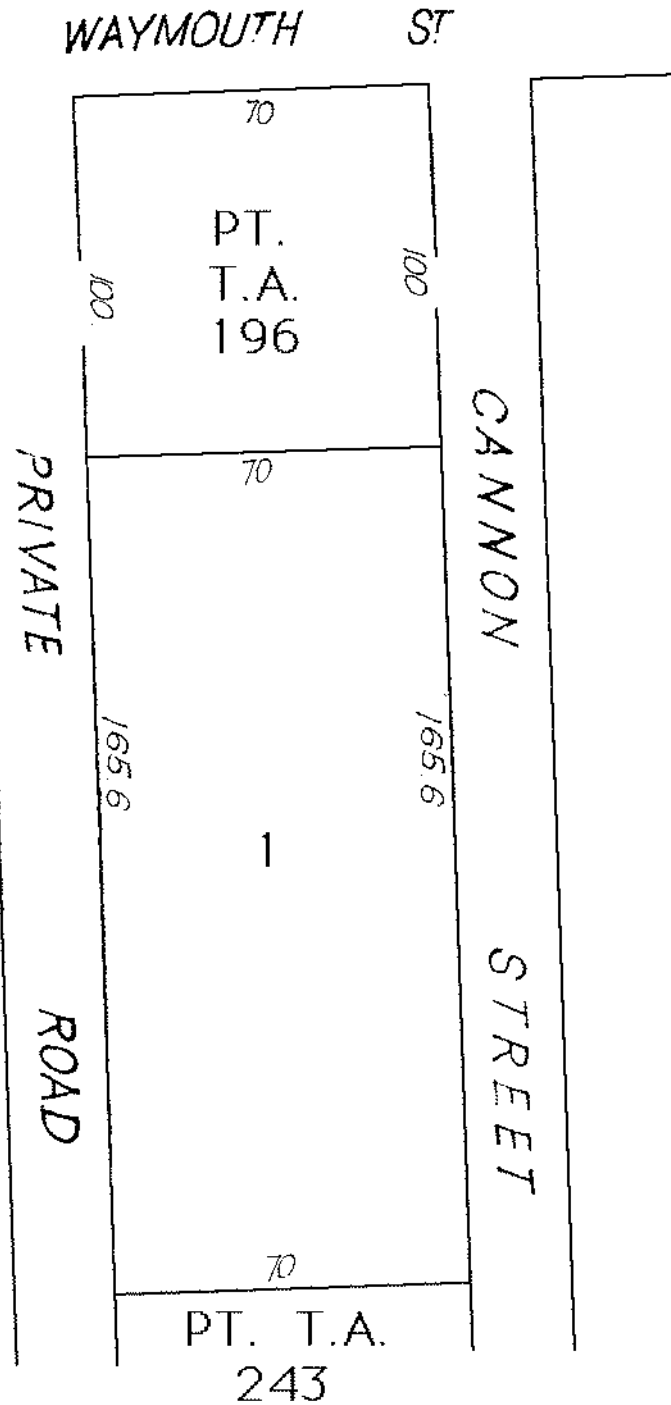
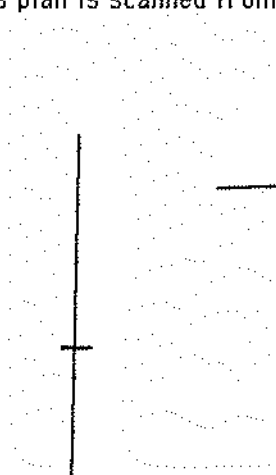
Concept Plan (V0006) - 79

Concept Plan 79 - Primary Pedestrian Area

Minimum Building Height (Metres) (V0009) - 27

Minimum building height is 27m

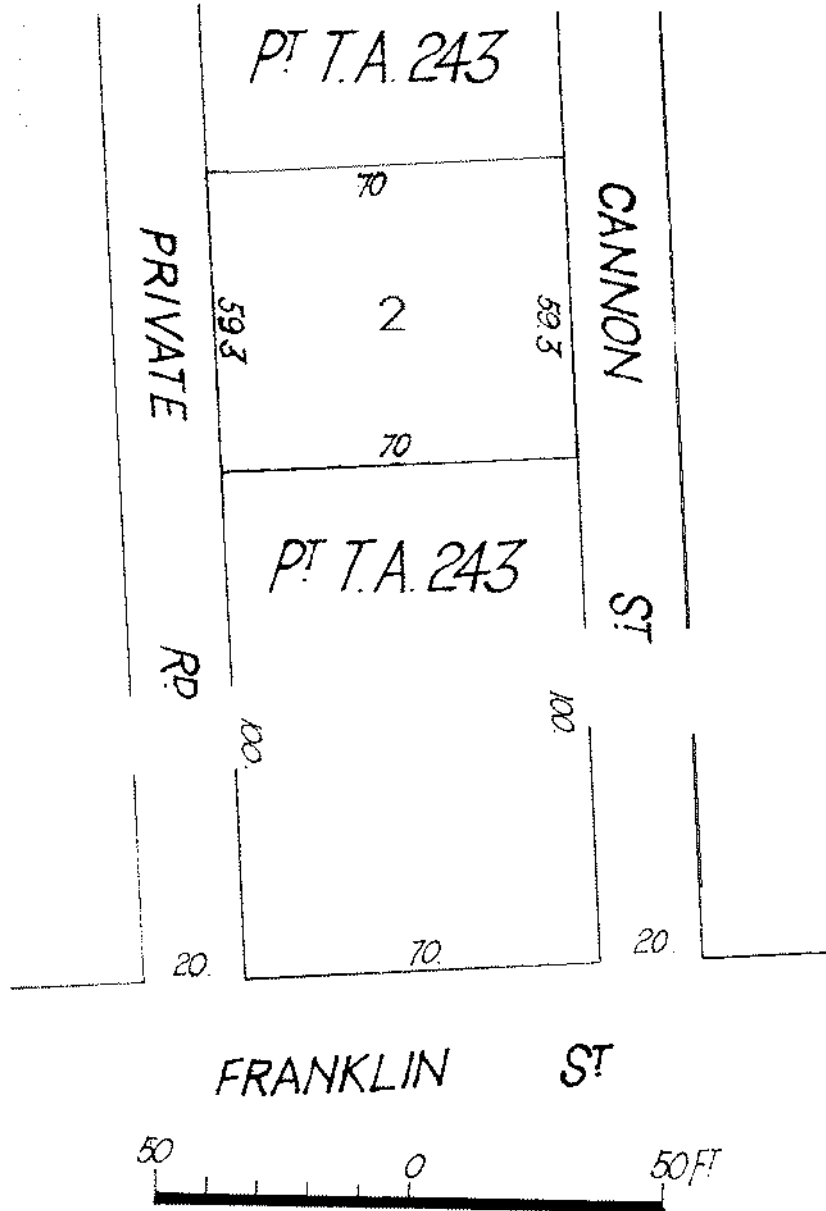
This plan is scanned from Certificate of Title 1334/152



DISTANCES ARE IN FEET AND INCHES FOR METRIC CONVERSION	
1 FOOT	= 0.3048 metres
1 INCH	= 0.0254 metres

Note: Subject to all lawfully existing plans of division

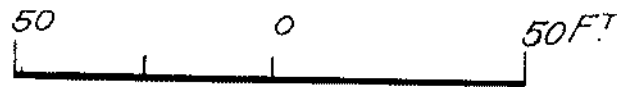
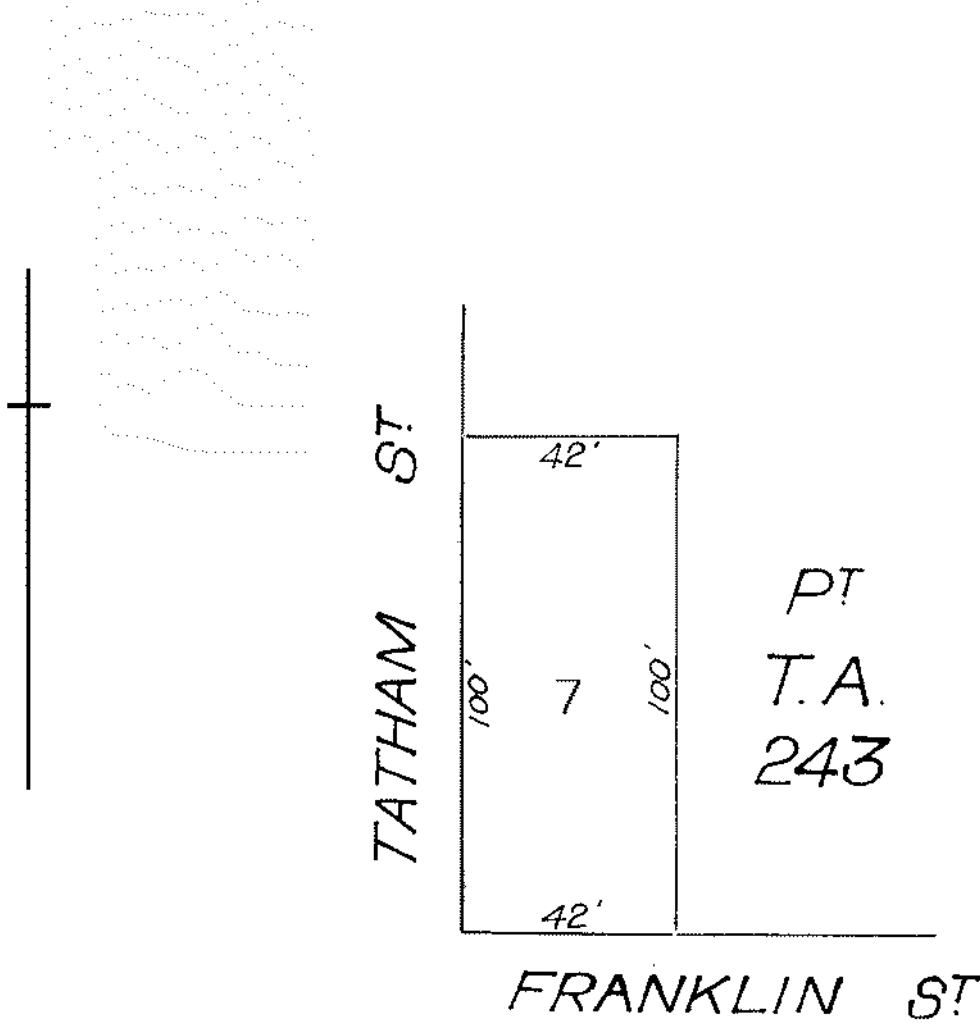
This plan is scanned from Certificate of Title 1334/153



DISTANCES ARE IN FEET AND INCHES FOR METRIC CONVERSION	
1 FOOT	= 0.3048 metres
1 INCH	= 0.0254 metres

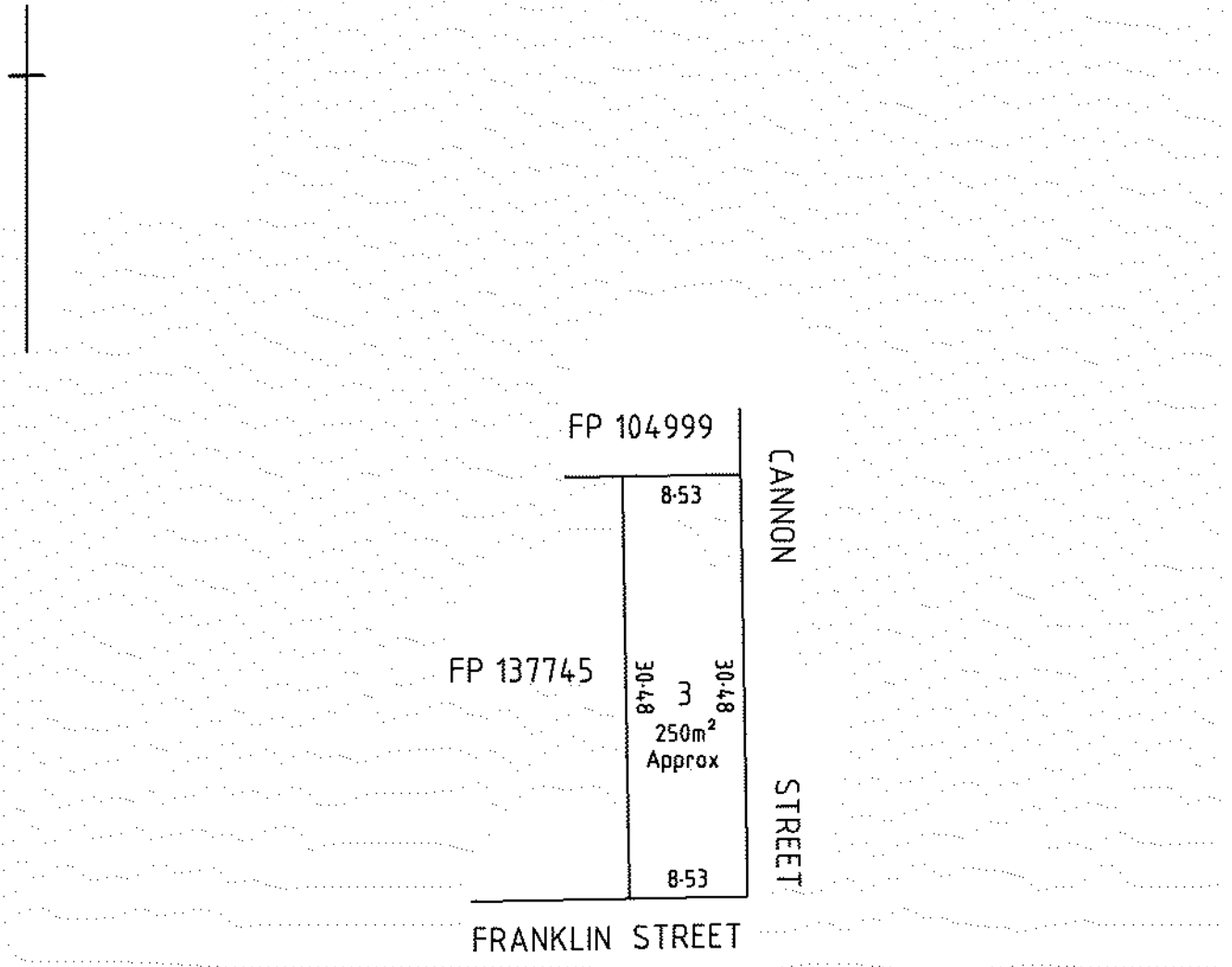
Note: Subject to all lawfully existing plans of division

This plan is scanned for Certificate of Title 1810/162



DISTANCES ARE IN FEET AND INCHES
FOR METRIC CONVERSION
1 FOOT = 0.3048 metres
1 INCH = 0.0254 metres

Note : Subject to all lawfully existing plans of division



South Australia.

(CERTIFICATE OF TITLE.)



Register Book,

Vol. 1334 Folio 152

Pursuant to Memorandum of Transfer No. 889090.

The Enterprise Shoe Company Limited whose registered office is situated at 103 Fowler Place Adelaide.

is the proprietor of an estate in fee simple.

subject nevertheless to such incumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in

That piece of land situated in the CITY OF ADELAIDE, being PORTION OF THE TOWN ACRES numbered 196 and 243 and bounded as appears in the plan in the margin hereof and therein colored green: Which said piece of land contains one rood and two perches or thereabouts and measures as well on the northerly side next other portion of the said Acre 196 as on the southerly side next other portion of the said Acre 243 seventy feet or thereabouts and as well on the easterly side next Cannon Street as on the westerly side next a Private Road one hundred and sixty five feet and six inches or thereabouts and is more particularly delineated in the said plan.

which said Town Acres are delineated in the public map of the said City deposited in the Lands and Survey Office at Adelaide.

In witness whereof I have hereunto signed my name and affixed my seal this eighth day of July 1950

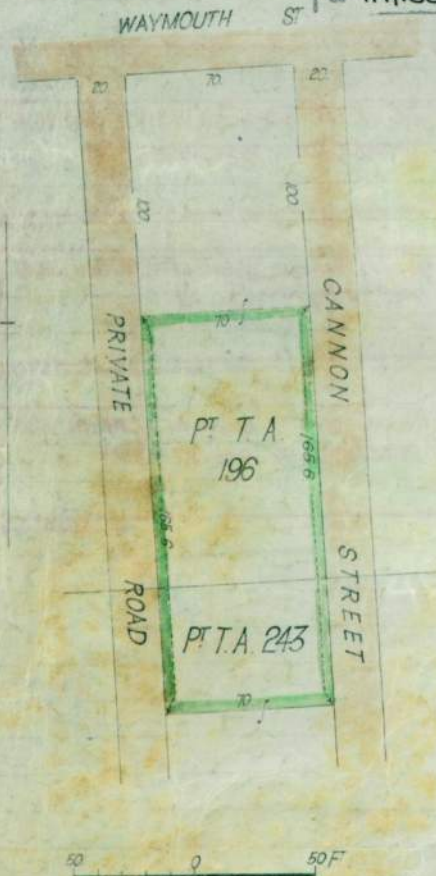
Signed the 8th day of July 1950, in the presence of

W. B. Shaw

W. M. McKinnell Registrar-General



PLAN FOR LEASING PURPOSES GP 717/1950



MORTGAGE No. 1616033 FROM The Enterprise Shoe Company Limited TO THE SAVINGS BANK OF SOUTH AUSTRALIA PRODUCED FOR REGISTRATION THE 5 DAY OF June 1950 AT 11.05 am

DISCHARGE OF THE WITHIN MORTGAGE No. 1616099 BY INDORSEMENT THEREON PRODUCED FOR REGISTRATION THE 29 DAY OF March 1956 AT 11.10 am

TRANSFER No. 1938835 FROM The Enterprise Shoe Company Limited to Rogerson's Trust Limited of 71-79 Franklin Street Adelaide OF AN ESTATE IN FEE SIMPLE IN THE WITHIN LAND PRODUCED FOR REGISTRATION THE 29 DAY OF March 1956 AT 11.10 am

L 1995777

LEASE No. **1995777** FROM
 Rogersons Trust Limited to
 Advertiser Newspapers Limited
 OF THE WITHIN LAND, TERM part Town Acre 243
 and parcel of part Town Acre 196
 and parcel of part Town Acre 196
 term 3 years commencing at noon on the
 28 day of January 1977 and expiring at
 noon on the 28 day of January 1980
 PRODUCED FOR REGISTRATION THE 18 DAY OF
 April 1977 AT 12:15 pm
 Wetherill
 DEP. REG. GENL.

73006710 1973006711

TRANSFER No. **3006710**
 To Stock Journal Publishers Pty. Ltd. of
 11 Hunter Street Adelaide 5000
 OF THE WITHIN LAND, PRODUCED 27.5.1969 AT 11:00 am
 J. Hughes
 DEP. REG. GENL.

MORTGAGE No. **3006711**
 TO THE BANK OF ADELAIDE, PRODUCED 27.5.1969 AT 11:10 am
 J. Hughes
 DEP. REG. GENL.

~~D3006711~~ ~~M3092059~~
 PA 2185600 ~~Summerville~~ DRG
 DISCHARGE OF MORTGAGE No. **3006711** BY
 ENDORSEMENT THEREON, PRODUCED 9.4.1970 AT 10:50 am
 Summerville
 DEP. REG. GENL.

MORTGAGE No. **3092054**
 TO COMMONWEALTH TRADING BANK OF AUSTRALIA
 PRODUCED 9.4.1970 AT 10:50 am
 Summerville
 (INCLUDING OTHER LAND)
 DEP. REG. GENL.

Dm 6045633
 PIA 4794436
 THE WITHIN LAND IS DISCHARGED FROM MORTGAGE
 No. **3092054** VIDE 6045633
 PRODUCED 5.7.1988 at 10:40
 Commonwealth Bank of Australia

TRANSFER No. **6508322** To
 R. M. P. Corporation (259) Pty. Ltd. of
 179 King William Road Hyde Park 5061
 OF THE WITHIN LAND PRODUCED 31.3.1988 AT 12:25 pm
 Commonwealth Bank of Australia

MORTGAGE No. **6508323** TO
 COMMONWEALTH BANK OF AUSTRALIA
 PRODUCED 31.3.1988 AT 12:25
 (INCLUDING OTHER LAND)
 Commonwealth Bank of Australia

LEASE No. **7047368** To Central Budget
 Guesthouse Pty. Ltd. of partion
 (being piece marked Hostel in GRO Plan 717/90)
 OF THE WITHIN LAND, TERM of 6 years
 commencing on 1.16.1990 and expiring at
 midnight on 30.9.1996
 PRODUCED 24.11.91 AT 11:30
 Commonwealth Bank of Australia

MORTGAGE No. **7047369** TO
 Carbin Manufacturing Company Pty. Ltd.
 of the within lease 7047368
 PRODUCED 24.11.1991 AT 11:30
 Commonwealth Bank of Australia

MORTGAGE No. **7298808**
 TO STATE BANK OF SOUTH AUSTRALIA
 PRODUCED 19.5.1992 AT 15:00
 Commonwealth Bank of Australia

LIEN **7390296** LODGED BY Premier
 Ceilings Pty. Ltd.
 OVER THE WITHIN LAND PRODUCED 26.10.1992 at
 G.R.O. No. 18373 10:45
 Commonwealth Bank of Australia

LIEN **7392294** LODGED BY SAFE FIRE
 ELECTRICAL PTY. LTD.
 OVER THE WITHIN LAND PRODUCED 28.10.1992 at
 G.R.O. No. 18379 at 15:15
 Commonwealth Bank of Australia

LIEN **7392285** LODGED BY S.A. Fire
 Enterprises Pty. Ltd.
 OVER THE WITHIN LAND PRODUCED 28.10.1992 at
 G.R.O. No. 18380 14:15
 Commonwealth Bank of Australia

LIEN **7411222** No. 7392294 HAS BEEN WITHDRAWN VIDE
 PRODUCED 1/2.1992 AT 10:55
 Commonwealth Bank of Australia

LIEN **7411223** No. 7392295 HAS BEEN WITHDRAWN VIDE
 PRODUCED 1/2.1992 AT 10:55
 Commonwealth Bank of Australia

LIEN **7411224** No. 7390296 HAS BEEN WITHDRAWN VIDE
 PRODUCED 1/2.1992 AT 10:55
 Commonwealth Bank of Australia

CANCELLED
 CONVERTED TO A COMPUTERISED TITLE
 Commonwealth Bank of Australia

Certificate of Title

Title Reference: CT 5156/498
Status: CURRENT
Parent Title(s): CT 1334/152
Dealing(s) Creating Title: CONVERTED TITLE
Title Issued: 22/11/1993
Edition: 11

Dealings

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
17/11/2022	22/11/2022	13919390	MORTGAGE	REGISTERED	LU INVESTMENTS (SA) PTY. LTD. (ACN: 166 553 224)
11/11/2022	16/11/2022	13915350	MORTGAGE	REGISTERED	NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
11/11/2022	16/11/2022	13915349	TRANSFER	REGISTERED	108 FRANKLIN PTY. LTD. (ACN: 654 854 547)
11/11/2022	16/11/2022	13915348	DISCHARGE OF MORTGAGE	REGISTERED	13230161
11/11/2022	16/11/2022	13915347	WITHDRAWAL OF CAVEAT	REGISTERED	13685506
20/12/2021	30/12/2021	13687198	WITHDRAWAL OF CAVEAT	REGISTERED	13230885
17/12/2021	23/12/2021	13685506	CAVEAT	REGISTERED	AZM GROUP PTY. LTD. (ACN: 643 599 722)
08/11/2021	11/11/2021	13652088	WITHDRAWAL OF CAVEAT	REGISTERED	13230886
24/12/2019	30/12/2019	13230886	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
24/12/2019	30/12/2019	13230885	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
20/12/2019	24/12/2019	13230161	MORTGAGE	REGISTERED	NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
20/12/2019	24/12/2019	13230160	TRANSFER	REGISTERED	ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
20/12/2019	24/12/2019	13230159	DISCHARGE OF MORTGAGE	REGISTERED	12654394
19/12/2016	10/01/2017	12654394	MORTGAGE	REGISTERED	COMMONWEALTH BANK OF AUSTRALIA (ACN: 123 123 124)
15/08/2003	22/08/2003	9660753	DISCHARGE OF MORTGAGE	REGISTERED	8601002

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
27/02/2001	13/03/2001	9050895	LEASE	REGISTERED	ILENKA PTY. LTD. (ACN: 067 502 872)
14/12/1998	22/12/1998	8601002	MORTGAGE	REGISTERED	STATE BANK OF NEW SOUTH WALES LTD.
26/04/1995	29/05/1995	7910503	TRANSFER	REGISTERED	VEREMO BAY PTY. LTD. (ACN: 067 853 034)
26/04/1995	29/05/1995	7910502	DISCHARGE OF MORTGAGE	REGISTERED	7298808
26/04/1995	29/05/1995	7910501	DISCHARGE OF MORTGAGE	REGISTERED	6508323
03/04/1995	06/04/1995	7898070	AMENDMENT TO TEXT	REGISTERED	
30/09/1993	01/12/1993	7583886	RE-ENTRY OF LEASE	REGISTERED	7047368
04/08/1993	01/12/1993	7550116	LEASE	REGISTERED	TREVOR JAMES GOODEN
19/05/1992	24/06/1992	7298808	MORTGAGE	REGISTERED	
24/01/1991	24/04/1991	7047369	MORTGAGE OF LEASE	REGISTERED	7047368
24/01/1991	24/04/1991	7047368	LEASE	REGISTERED	
31/03/1988	04/05/1988	6508323	MORTGAGE	REGISTERED	

Certificate of Title - Volume 5156 Folio 498

Parent Title(s) CT 1334/152

Creating Dealing(s) CONVERTED TITLE

Title Issued 22/11/1993 Edition 11 Edition Issued 16/11/2022

Estate Type

FEE SIMPLE

Registered Proprietor

108 FRANKLIN PTY. LTD. (ACN: 654 854 547)
OF 266 GLEN OSMOND ROAD FULLARTON SA 5063

Description of Land

ALLOTMENT 1 FILED PLAN 105143
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

Dealing Number	Description
13915350	MORTGAGE TO NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
13919390	MORTGAGE TO LU INVESTMENTS (SA) PTY. LTD. (ACN: 166 553 224)

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G717/1990
APPROVED FX257647

Administrative Interests NIL

CANCELLED
CONVERTED TO A COMPUTERISED TITLE



(CERTIFICATE OF TITLE.)

Register Book,
Vol. **1334** Folio **153**

— Balance Certificate of Title from Vol. 190 Folio 177 —
Publishers Limited whose registered office is at 110 Franklin Street Adelaide.

is the proprietor of an estate in fee simple.
subject nevertheless to such incumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in
That piece of land situated in the CITY OF ADELAIDE, being PORTION OF THE TOWN ACRE numbered
243 and bounded as appears in the plan in the margin hereof and therein colored green: Which said
piece of land contains *fifteen perches or thereabouts and measures as well on the northerly side*
on the southerly side next other portions of the said Town seventy feet or
thereabouts and as well on the easterly side next Cannon Street as on the westerly
side next a Private Road fifty nine feet and three inches or thereabouts and is
more particularly delineated in the said plan

which said Town Acre is delineated in the public map of the said City deposited in the Lands and Survey Office at Adelaide.

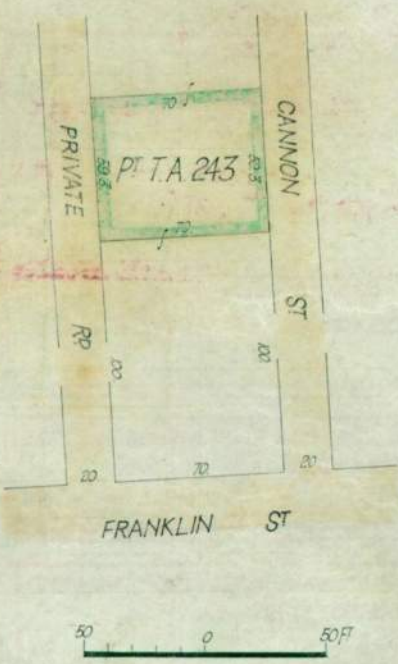
In witness whereof I have hereunto signed my name and affixed my seal this *Eighth* day of *July* 19 *24*

Signed the *8th* day of *July*
19 *24*, in the presence of *W. Shaw*

W. Shaw
Registrar-General.

PLAN FOR LEASING PURPOSES
GP 717/1930

Mortgage No. 853313 (Including other land) from
Publishers Limited to the Bank of New South Wales
Produced for registration the 29 day of *May* 19*23* at
2:55 p.m.
W. Shaw Reg. Genl.



DISCHARGE OF THE *within* MORTGAGE
No. *853313*
BY ENDORSEMENT THEREON
PRODUCED FOR REGISTRATION THE *30* DAY OF
July 19*28* AT *11:15 am*
W. Shaw DEP. REG. GENL.

Attorney No. 1009409
MORTGAGE No. *1044084* FROM
TO *Publishers Limited*
The Commercial Bank of
Australia Limited 30 DAY OF
PRODUCED FOR REGISTRATION THE *July* 19*28* AT *11:50 am* (Including
other land)
W. Shaw DEP. REG. GENL.

PA 153469-1 *see DRG*

DISCHARGE OF THE WITHIN MORTGAGE
No. 1044084
BY ENDORSEMENT THEREON
PRODUCED FOR REGISTRATION THE 9 DAY OF
February 1954 AT 11:15 am
Fuller
DEP. REG. GENL.

TRANSFER No. 6508322 To
R. M. Corporation (257) Pty. Ltd. of
179 King William Road Hyde Park 5061.
OF THE WITHIN LAND PRODUCED 31.3.1988 AT 12:25

MORTGAGE No. 1818824 FROM
Publishers limited to
The Bank of Adelaide
PRODUCED FOR REGISTRATION THE 9 DAY OF
February 1954 AT 11:15 am
(including other land)
Fuller
DEP. REG. GENL.

LEASE No. 7047368 To Central Budget
Guesthouse Pty. Ltd. of portion
Cocoon piece marked Hostel in G.R.O. Plan 717/90
OF THE WITHIN LAND TERM of 5 years
commencing on 1.10.1990 and expiring at
midnight on 30.9.1996
PRODUCED 24.1.1991 AT 11:30

~~DISCHARGE OF MORTGAGE No. 1818824 BY ENDORSEMENT THEREON. PRODUCED 6.5.1967 AT 11 am~~
K. Gordon
DEP. REG. GENL.

MORTGAGE No. 7047369 TO
Carfu manufacturing Company Pty. Ltd.
of the within lease 7047368
PRODUCED 24.1.1991 AT 11:30

TRANSFER No. 2821324 to *Stock Journal*
Publishers Pty. Ltd. of 11 Anster
Street Adelaide
OF THE WITHIN LAND PRODUCED 16.5.1967 at 11 am
K. Gordon
DEP. REG. GENL.

MORTGAGE No. 7298808
TO STATE BANK OF SOUTH AUSTRALIA
PRODUCED 14.5.1992 AT 16:00

MORTGAGE No. 2821325
TO THE BANK OF ADELAIDE. PRODUCED 16.5.1967 AT 11 am
(INCLUDING OTHER LAND)
K. Gordon
DEP. REG. GENL.

LIEN 7390296 LODGED BY Premier
Ceiling Pty. Ltd.
OVER THE WITHIN LAND PRODUCED 26.10.1992 at 10:45
G.R.O. No. 18373

~~DISCHARGE OF MORTGAGE No. 2821325 BY ENDORSEMENT THEREON. PRODUCED 9.4.1970 AT 10:50~~
Fuller
DEP. REG. GENL.

LIEN 7392294 LODGED BY Safe Fire
Electrical Pty. Ltd.
OVER THE WITHIN LAND PRODUCED 28.10.1992 at 14:15
G.R.O. No. 18379

MORTGAGE No. 3092054
TO COMMONWEALTH TRADING BANK OF AUSTRALIA
PRODUCED 9.4.1970 AT 10:50
(INCLUDING OTHER LAND)
Fuller
DEP. REG. GENL.

LIEN 7392295 LODGED BY S.A. Fire
Enterprises Pty. Ltd.
OVER THE WITHIN LAND PRODUCED 28.10.1992 at 14:15
G.R.O. No. 18380

Dmt 6045633
PA 4794436
THE WITHIN LAND IS DISCHARGED FROM MORTGAGE
No. 3092054 VIDE 6045633
PRODUCED 5.7.1988 at 10:40.

LIEN No. 7392294 HAS BEEN WITHDRAWN VIDE
7411222 PRODUCED 1.12.1992 AT 10:55

MORTGAGE No. 6508323 TO
COMMONWEALTH BANK OF AUSTRALIA
PRODUCED 31.3.1988 AT 12:25
(INCLUDING OTHER LAND)

LIEN No. 7392295 HAS BEEN WITHDRAWN VIDE
7411223 PRODUCED 1.12.1992 AT 10:55

LIEN No. 7390296 HAS BEEN WITHDRAWN VIDE
7411224 PRODUCED 1.12.1992 AT 10:55

Certificate of Title

Title Reference: CT 5156/499
Status: CURRENT
Parent Title(s): CT 1334/153
Dealing(s) Creating Title: CONVERTED TITLE
Title Issued: 22/11/1993
Edition: 12

Dealings

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
17/11/2022	22/11/2022	13919390	MORTGAGE	REGISTERED	LU INVESTMENTS (SA) PTY. LTD. (ACN: 166 553 224)
11/11/2022	16/11/2022	13915350	MORTGAGE	REGISTERED	NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
11/11/2022	16/11/2022	13915349	TRANSFER	REGISTERED	108 FRANKLIN PTY. LTD. (ACN: 654 854 547)
11/11/2022	16/11/2022	13915348	DISCHARGE OF MORTGAGE	REGISTERED	13230161
11/11/2022	16/11/2022	13915347	WITHDRAWAL OF CAVEAT	REGISTERED	13685506
20/12/2021	30/12/2021	13687198	WITHDRAWAL OF CAVEAT	REGISTERED	13230885
17/12/2021	23/12/2021	13685506	CAVEAT	REGISTERED	AZM GROUP PTY. LTD. (ACN: 643 599 722)
08/11/2021	11/11/2021	13652088	WITHDRAWAL OF CAVEAT	REGISTERED	13230886
24/12/2019	30/12/2019	13230886	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
24/12/2019	30/12/2019	13230885	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
20/12/2019	24/12/2019	13230161	MORTGAGE	REGISTERED	NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
20/12/2019	24/12/2019	13230160	TRANSFER	REGISTERED	ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
20/12/2019	24/12/2019	13230159	DISCHARGE OF MORTGAGE	REGISTERED	12654394
19/12/2016	10/01/2017	12654394	MORTGAGE	REGISTERED	COMMONWEALTH BANK OF AUSTRALIA (ACN: 123 123 124)
15/08/2003	22/08/2003	9660753	DISCHARGE OF MORTGAGE	REGISTERED	8601002

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
27/02/2001	13/03/2001	9050895	LEASE	REGISTERED	ILENKA PTY. LTD. (ACN: 067 502 872)
14/12/1998	22/12/1998	8601002	MORTGAGE	REGISTERED	STATE BANK OF NEW SOUTH WALES LTD.
13/09/1995	20/09/1995	7991580	TRANSFER OF LEASE	REGISTERED	ILENKA PTY. LTD. (ACN: 067 502 872) 7860374
26/04/1995	29/05/1995	7910503	TRANSFER	REGISTERED	VEREMO BAY PTY. LTD. (ACN: 067 853 034)
26/04/1995	29/05/1995	7910502	DISCHARGE OF MORTGAGE	REGISTERED	7298808
26/04/1995	29/05/1995	7910501	DISCHARGE OF MORTGAGE	REGISTERED	6508323
15/03/1995	20/03/1995	7888546	AMENDMENT TO TEXT	REGISTERED	7550116
20/01/1995	28/03/1995	7860374	LEASE	REGISTERED	TYREMAG SALES PTY. LTD.
30/09/1993	01/12/1993	7583886	RE-ENTRY OF LEASE	REGISTERED	7047368
04/08/1993	01/12/1993	7550116	LEASE	REGISTERED	TREVOR JAMES GOODEN
19/05/1992	24/06/1992	7298808	MORTGAGE	REGISTERED	
24/01/1991	24/04/1991	7047369	MORTGAGE OF LEASE	REGISTERED	7047368
24/01/1991	24/04/1991	7047368	LEASE	REGISTERED	
31/03/1988	04/05/1988	6508323	MORTGAGE	REGISTERED	

Certificate of Title - Volume 5156 Folio 499

Parent Title(s) CT 1334/153

Creating Dealing(s) CONVERTED TITLE

Title Issued 22/11/1993 Edition 12 Edition Issued 16/11/2022

Estate Type

FEE SIMPLE

Registered Proprietor

108 FRANKLIN PTY. LTD. (ACN: 654 854 547)
OF 266 GLEN OSMOND ROAD FULLARTON SA 5063

Description of Land

ALLOTMENT 2 FILED PLAN 104999
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

Dealing Number	Description
13915350	MORTGAGE TO NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
13919390	MORTGAGE TO LU INVESTMENTS (SA) PTY. LTD. (ACN: 166 553 224)

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

PLAN FOR LEASE PURPOSES VIDE G717/1990
APPROVED FX257647

Administrative Interests NIL



Register Book,

Vol. DXXIV Folio 9

Pursuant to Application No. 211014
Thomas McNeil of Adelaide, John Thorne of Adelaide, Thomas Piper of Adelaide, William Francis James
of Adelaide, Peter Christian Morison, Samuel James Way of Adelaide, Chief Justice of South Australia, Samuel Coombe and Edward
of Adelaide, Benjamin Gould Professor and Benjamin Gould of Adelaide, Thomas Richards
of Adelaide, Benjamin Gould, James Hastings of Adelaide, Inspector of Schools, Frederick James Beach of Adelaide, Confessor, and Joseph
Whitson of Adelaide, Solicitor, are the proprietors of an estate in fee simple as joint tenants.

subject nevertheless to such incumbrances, liens, and interests, as are notified by memorial underwritten or endorsed hereon, in
That piece of land situated in the City of Adelaide, being portion of the Town Acre numbered 243 and bounded as appears in the plan
in the margin hereof and therein colored green, which said piece of land contains eighteen perches or thereabouts and measures
as well on the north side next achen part of the said Town Acre as on the
south side next Franklin Street fortytwo feet or thereabouts and as well on the East side
next achen part of the said Town Acre as on the west side, next Tatham Street
one hundred feet or thereabouts as is more particularly delineated in the said plan

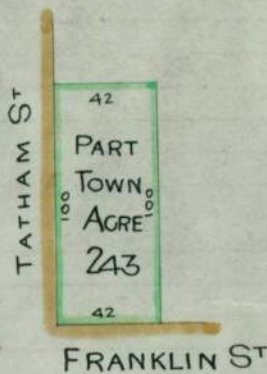
which said Town Acre 243 is delineated in the public map of the said city, deposited in the office of the Surveyor-General.

In witness whereof, I have hereunto signed my name and affixed
my seal this sixteenth day of August
one thousand eight hundred and eighty-eight in
presence of

Signed the sixteenth day of August 1888
in the presence of

Annulatta

M. Andrews
Registrar-General.



50 25 0 50 FT

CANCELLED
AND New
CERTIFICATE OF TITLE ISSUED
VIDE Letter N° 269 of 1943
VOL. 1910 FOL. 162
affiliated
DEP. REG. GENL.

X No 223849 dated the 16 day
August 1888 produced for registration
the 16 day August 1888 at 11 am
in presence of Dep. Reg. Genl.
The above caveat No 223849
is removed this 29 day of
January 1909 at 11 am
in presence of Dep. Reg. Genl.
No 481369 memorandum of
Appointment whereby the within
trust is now vested in
The Right Honourable Sir Samuel
James Way Baronet of Adelaide
Chief Justice of South Australia
Joseph Ashton of Adelaide
Solicitor Edwin Davey of Parkside
Miller John Hill of Kensington
Park Managing Director of John
Hill & Co Limited John Jekell
of Adelaide Miller Ephraim
Barber Heen of Goodwood
Wroughtonman Richard Hedley
Rathlean of Linley Park Solicitor
James Thorne Martin of
North Muley Accountant
Milroy Nelson Manager
of Parkside Deputy Inspector
of Schools Frederick Richards of
Walverley Doctor of Laws and
Henry Thomas of Walverley
Miller for an estate in fee
simple pursuant to the
Trustee Act 1893 Produced
for registration the 6 day of
January 1909 at 11.50 am
in presence of Dep. Reg. Genl.

South Australia.

(CERTIFICATE OF TITLE.)

CANCELLED
CONVERTED TO A COMPUTERISED TITLE



Register Book,
Vol. 1810 Folio 162

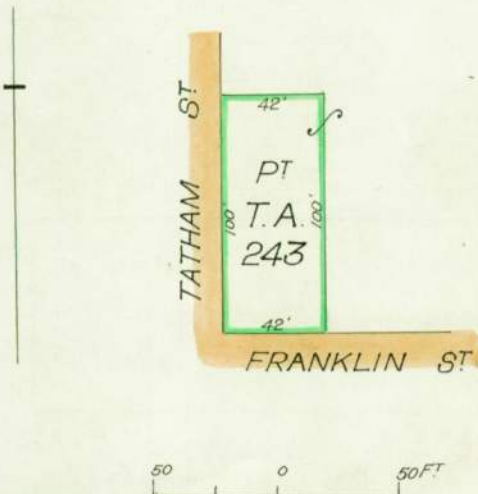
New Certificate of Title for the whole of the Land in Vol. 524 Folio 9

The Right Honorable Sir SAMUEL JAMES WAY Baronet of Adelaide
Chief Justice of South Australia JOSEPH ASHTON of Adelaide
Solicitor EDWIN DAVEY of Parkside Miller JOHN HILL of
Kensington Park Managing Director of John Hill & Co. Limited JOHN
JACKETT of Adelaide Miller CEPHAS BARKER KEEN of
Goodwood Draughtsman RICHARD HEDLEY LATHLEAN of Unley
Park Solicitor JAMES THORNE MARTIN of North Unley Accountant
MILTON MOSS MAUGHAN of Parkside Chief Inspector of Schools
FREDERICK WILLIAM RICHARDS of Unley Park Doctor of Laws
and HENRY THOMAS of Malvern Miller are the proprietors of an estate
in fee simple PURSUANT TO THE TRUSTEE ACT 1893 subject nevertheless to such
encumbrances liens and interests as are notified by memorial underwritten or
endorsed hereon in THAT PIECE of land situated in the CITY OF ADELAIDE being
PORTION OF THE TOWN ACRE NOD. 243 and bounded as appears in the plan in the margin
hereof and therein colored green WHICH said piece of land measures as well on the
northerly side next other portion of the said Acre as on the southerly side next
Franklin Street forty two feet or thereabouts and as well on the easterly side
next other portion of the said Acre as on the westerly side next Tatham Street
one hundred feet or thereabouts WHICH said Town Acre is delineated in the public
map of the said City deposited in the Land Office at Adelaide

In witness whereof I have hereunto signed my name and affixed my seal this *twelfth* day of *April* 19*43*

Signed the *12th* day of *April*
19*43*, in the presence of *Mo S. Lane*

[Signature]
Registrar-General.



Memorandum of Appointment No 1384879
whereby the within land is now vested in
the within named Cephas Barker Keen and
Frederick William Richards and Samuel
Forsyth and George Nesbit White both of
Adelaide Ministers of Religion Joseph Wells
Saylor of Wayville Clerk and Montague
Finlay of Goodwood musician for an
estate in fee simple pursuant to the
Trustee Act 1936-1941. Produced for
registration the 20 day of March 1943 at
11 am
[Signature]
Reg. Secy
over

MORTGAGE No. **1384881** FROM
 Samuel Forsyth, George Heabit White
 Frederick William Richards, Joseph
 Wells Taylor, Cephas Barker Keenan & Montague Finlay
 TO THE SAVINGS BANK OF SOUTH AUST-
 RALIA
 PRODUCED FOR REGISTRATION THE **20** DAY OF
 March 1943 AT 11 am
 (Including other land)
 DEP. REG. GENL.

A 1558200

Application No 1558200. The within land is vested for an estate in fee simple in Adelaide Central Methodist Mission Incorporated of Adelaide by virtue of the provisions of the Associations Incorporation Act 1929-1935 as appears by Certificate under seal of the Registrar of companies dated the 8 day of December 1948. Produced for registration the 20 day of December 1948 at 11 40 am.

[Signature] Dep. Reg. Genl.
 D 1384881 3/1/43

DISCHARGE OF THE WITHIN MORTGAGE
 No. 1384881
 BY ENDORSEMENT THEREON
 PRODUCED FOR REGISTRATION THE **31** DAY OF
 March 1954 AT 2.45 pm
 DEP. REG. GENL.

L 1866249

LEASE No. **1866249** FROM
 Adelaide Central Methodist Mission Incorporated to
 Westcoast Industries Limited
 OF THE WITHIN LAND. TERM commencing on
 the 1 day of January 1954 and
 expiring on the 31 day of December 1958
 PRODUCED FOR REGISTRATION THE **3** DAY OF
 December 1954 AT 11.45 am
 G. E. Gesswell DEP. REG. GENL.

T 2114372 M 2114372

TRANSFER No. **2114372** FROM Adelaide Central Methodist Mission Incorporated to Publishers Limited of 110 Franklin Street Adelaide
 OF THE WITHIN LAND PRODUCED 17/3/1959 AT 2.55 pm
 DEP. REG. GENL.

MORTGAGE No. **2114373** FROM
 Publishers Limited to Adelaide Central Methodist Mission Incorporated
 PRODUCED 17/3/1959 AT 2.55 pm
 DEP. REG. GENL.

L 2114372 M 2114373

DISCHARGE OF MORTGAGE No. 2114373 BY ENDORSEMENT THEREON. PRODUCED 6.5.1965 AT 11.15 am
 K. Gordon DEP. REG. GENL.

MORTGAGE No. **2624933**
 TO THE BANK OF ADELAIDE. PRODUCED 6.5.1965 AT 11.25 am
 K. Gordon DEP. REG. GENL.

D-2624933 72821324 M2821325
 P/A 2185600 K. Gordon
 DISCHARGE OF MORTGAGE No. 2624933 BY ENDORSEMENT THEREON. PRODUCED 16.5.1967 AT 11 am
 K. Gordon DEP. REG. GENL.

TRANSFER No. **2821324** to Stock Journal Publishers Pty Ltd of 11 Anster Street Adelaide
 OF THE WITHIN LAND. PRODUCED 16.5.1967 at 11 am
 K. Gordon DEP. REG. GENL.

MORTGAGE No. **2821325** (INCLUDING OTHER LAND)
 TO THE BANK OF ADELAIDE. PRODUCED 16.5.1967 AT 11 am
 K. Gordon DEP. REG. GENL.

D 2821325 M 2821325

P/A 2185600 *[Signature]* DRG
 DISCHARGE OF MORTGAGE No. 2821325 BY ENDORSEMENT THEREON. PRODUCED 9.4.1970 AT 10.50 am
 DEP. REG. GENL.

MORTGAGE No. **3092054**
 TO COMMONWEALTH TRADING BANK OF AUSTRALIA
 PRODUCED 9.4.1970 AT 10.50 am
 DEP. REG. GENL.

Dm 6045633 P/A 4794436

THE WITHIN LAND IS DISCHARGED FROM MORTGAGE No. 3092054 VIDE 6045633 PRODUCED 5.7.1985 at 10:40.

TRANSFER No. **6508322** to R. M. C. Corporation (259) Pty Ltd. of 179 King William Road Hyde Park 5001
 OF THE WITHIN LAND PRODUCED 31.3.1988 AT 12.25

MORTGAGE No. **6508323** TO COMMONWEALTH BANK OF AUSTRALIA
 PRODUCED 31.3.1988 at 12.25

MORTGAGE No. **7298808**
 TO STATE BANK OF SOUTH AUSTRALIA
 PRODUCED 19.5.1992 AT 16:00

NEW C.T. REQUIRED BEFORE FURTHER REGN.

Certificate of Title

Title Reference: CT 5253/876
Status: CURRENT
Parent Title(s): CT 1810/162
Dealing(s) Creating Title: CONVERTED TITLE
Title Issued: 10/03/1995
Edition: 10

Dealings

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
17/11/2022	22/11/2022	13919390	MORTGAGE	REGISTERED	LU INVESTMENTS (SA) PTY. LTD. (ACN: 166 553 224)
11/11/2022	16/11/2022	13915350	MORTGAGE	REGISTERED	NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
11/11/2022	16/11/2022	13915349	TRANSFER	REGISTERED	108 FRANKLIN PTY. LTD. (ACN: 654 854 547)
11/11/2022	16/11/2022	13915348	DISCHARGE OF MORTGAGE	REGISTERED	13230161
11/11/2022	16/11/2022	13915347	WITHDRAWAL OF CAVEAT	REGISTERED	13685506
20/12/2021	30/12/2021	13687198	WITHDRAWAL OF CAVEAT	REGISTERED	13230885
17/12/2021	23/12/2021	13685506	CAVEAT	REGISTERED	AZM GROUP PTY. LTD. (ACN: 643 599 722)
08/11/2021	11/11/2021	13652088	WITHDRAWAL OF CAVEAT	REGISTERED	13230886
24/12/2019	30/12/2019	13230886	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
24/12/2019	30/12/2019	13230885	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
20/12/2019	24/12/2019	13230161	MORTGAGE	REGISTERED	NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
20/12/2019	24/12/2019	13230160	TRANSFER	REGISTERED	ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
20/12/2019	24/12/2019	13230159	DISCHARGE OF MORTGAGE	REGISTERED	12654394
19/12/2016	10/01/2017	12654394	MORTGAGE	REGISTERED	COMMONWEALTH BANK OF AUSTRALIA (ACN: 123 123 124)
15/08/2003	22/08/2003	9660753	DISCHARGE OF MORTGAGE	REGISTERED	8601002

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
27/02/2001	13/03/2001	9050895	LEASE	REGISTERED	ILENKA PTY. LTD. (ACN: 067 502 872)
14/12/1998	22/12/1998	8601002	MORTGAGE	REGISTERED	STATE BANK OF NEW SOUTH WALES LTD.
13/09/1995	20/09/1995	7991580	TRANSFER OF LEASE	REGISTERED	ILENKA PTY. LTD. (ACN: 067 502 872) 7860374
26/04/1995	29/05/1995	7910503	TRANSFER	REGISTERED	VEREMO BAY PTY. LTD. (ACN: 067 853 034)
26/04/1995	29/05/1995	7910502	DISCHARGE OF MORTGAGE	REGISTERED	7298808
26/04/1995	29/05/1995	7910501	DISCHARGE OF MORTGAGE	REGISTERED	6508323
20/01/1995	28/03/1995	7860374	LEASE	REGISTERED	TYREMAG SALES PTY. LTD.
19/05/1992	24/06/1992	7298808	MORTGAGE	REGISTERED	
31/03/1988	04/05/1988	6508323	MORTGAGE	REGISTERED	

Certificate of Title - Volume 5253 Folio 876

Parent Title(s) CT 1810/162

Creating Dealing(s) CONVERTED TITLE

Title Issued 10/03/1995 Edition 10 Edition Issued 16/11/2022

Estate Type

FEE SIMPLE

Registered Proprietor

108 FRANKLIN PTY. LTD. (ACN: 654 854 547)
OF 266 GLEN OSMOND ROAD FULLARTON SA 5063

Description of Land

ALLOTMENT 7 FILED PLAN 137745
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

Dealing Number	Description
13915350	MORTGAGE TO NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
13919390	MORTGAGE TO LU INVESTMENTS (SA) PTY. LTD. (ACN: 166 553 224)

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

APPROVED FX257647

Administrative Interests NIL

1482

(C)



[CERTIFICATE OF TITLE.

Register Book,

Vol. CLVII Folio. 130

Thomas Murphy of Franklin Street Adelaide Police Constable is

now seized of an estate in fee simple, subject, nevertheless, to such encumbrances, liens, and interests as are notified by memorial underwritten or endorsed hereon, in That piece of land situated in the City of Adelaide, being portion of the Town Acre numbered 243, and bounded as appears in the plan in the margin hereof, and therein colored green, which said piece of land contains ten perches or thereabouts and measures as well on the North side next other part of the said acre as on the South side next Franklin Street twenty eight feet or thereabouts and as well on the East side next Cannon Street as on the West side next other part of the said acre one hundred feet or thereabouts the said West side being distant from the East boundary of the said acre seventy feet or thereabouts Together with a right of road in way for the said Thomas Murphy his heirs and assigns for all purposes and at all times over and along and across Cannon Street aforesaid

which said Town Acre is delineated in the public map of the said city, deposited in the office of the Surveyor-General, and was originally granted the Twenty third day of December, 1837, under the hand and seal of James Hurtle Fisher, Esquire, Resident Commissioner of the said Province, to David McEwen

In witness whereof, I have hereunto signed my name and affixed my seal this twenty second day of August one thousand eight hundred and twenty one

Signed, the 22nd day of Aug^r 1871, in presence of M. J. Payne

Manuel Catta Registrar-General



Transfer No 88961 from Thomas Murphy to John Minahan of Adelaide Bookmaster of the above land. Produced the 7th day August 1871 at 4 pm Manuel Catta Dep Registrar

Mortgage No 88962 from John Minahan to William Kay and Neville Blyth the present Trustees of the Permanent Equitable Building and Investment Society. Produced the 7th day August 1871 at 4 pm Manuel Catta Dep Registrar

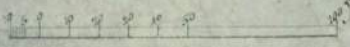
Discharge of the above Mortgage No 88962 by receipt endorsed thereon dated the 13 day May 1885. Entered the 16 day May 1885 at 11 am W. W. Cunningham Dep Registrar

Mortgage No 100648 from John Minahan to George Gibbs Mays and Richardson Reid. Produced the 8 day May 1885 at 11 am W. W. Cunningham Dep Registrar

Mortgage No 205449 from John Minahan to George Gibbs Mays, Richardson Reid Produced for registration the 13 day July 1886 at 12:55 pm Manuel Catta Dep Registrar



CANCELLED AND ISSUED BY DEPT. REG. GENL. vide Letter No 913 of 1923 VOL 1284 FOL 163 H. H. Sackes



The time for the payment of the within Mortgage No 126448 and 205449 is extended for 3 years from the 11th day May 1888 his copies by endorsement thereon produced for registration the 17th day December 1888 at 11.45 pm
(Mammale Light)

MP 17.5.88
 Mortgage No 435956 from William Lott Minahan to The South Australian United Ancient Order of Druids Friendly Society Sir James Barrington 110 B. Produced for registration the 19 day of April 1906 at 11 am.
(Mammale Light)

DISCHARGE OF THE above MORTGAGE No. 435956 BY RECEIPT ENDORSED THEREON. PRODUCED FOR REGISTRATION THE 22 DAY OF September 1911 AT 2.35 pm
(Mammale Light)
 DEP. REG. GENL.

Discharge of the within mortgages nos 190648 and 205449 by receipt endorsed thereon. Produced for registration the 10 day of January 1897 at 2.50 pm
(Mammale Light)

Mortgage No 266644 from John Minahan to George Gibbs Mayo and Richardson Reid Produced for registration the 10 day of January 1893 at 2.50 pm
(Mammale Light)

Mortgage No 544608 from William Lott Minahan to The South Australia United Ancient Order of Druids Friendly Society Sir James Barrington Lodge No 13. Produced for registration the 22 day of September 1911 at 2.35 pm
(Mammale Light)

Discharge of the within Mortgage No 266644 by receipt endorsed thereon. Produced for registration the 21 day July 1897 at noon
(Mammale Light)

Mortgage No 318536 from John Minahan to George Gibbs Mayo Produced for registration the 21 day July 1897 at noon
(Mammale Light)

Pursuant to Application No 408091 Thomefred Minahan of Franklin Street Adelaide Spinster and Patrick Higgins of Melbourne Street North Adelaide Butcher are PROPRIETOR OF AN ESTATE IN FEE SIMPLE IN THE WITHIN LAND AS THE EXECUTORS NAMED IN THE WILL DATED THE 22 DAY OF September 1902 OF THE WITHIN HUSBAND John Minahan of Minahan WHO DIED ON THE 25 DAY OF March 1901 AS APPEARS BY PROBATE DATED THE 14 DAY OF April 1901 PRODUCED FOR REGISTRATION ON THE 21 DAY OF April 1901
(Mammale Light)

Leen No 559007. Taken under the Workmen's Liens Act 1893 by Edward Willmott Produced for registration the 19 day of April 1912 at 3 pm (No 351)
(Mammale Light)

The within Leen No 559007 is withdrawn as appears by Memorandum No 813102. Produced for registration the 6 day of April 1922 at 2:35 pm
(Mammale Light)

DISCHARGE OF THE WITHIN MORTGAGE No. 318536 BY RECEIPT ENDORSED THEREON PRODUCED FOR REGISTRATION THE 31 DAY OF March 1902 AT 11.30 am
(Mammale Light)

DISCHARGE OF THE above MORTGAGE No. 544608 BY RECEIPT ENDORSED THEREON PRODUCED FOR REGISTRATION THE 21 DAY OF April 1912 AT 1.35 pm
(Mammale Light)

Transfer No 435955 from Thomefred Minahan and Patrick Higgins to William Lott Minahan of Franklin Street Adelaide Railway Repairer of an estate in fee simple in the within land produced for registration the 19 day of April 1906 at 11 am
(Mammale Light)

MORTGAGE NO. 814351 FROM William Lott Minahan TO THE SAVINGS BANK OF SOUTH AUSTRALIA PRODUCED FOR REGISTRATION THE 21 DAY OF April 1912 AT 1.35 pm
(Mammale Light)
 DISCHARGE OF THE above MORTGAGE No. 814351 BY RECEIPT ENDORSED THEREON PRODUCED FOR REGISTRATION THE 23 DAY OF May 1912 AT 2.50 pm
(Mammale Light)



Register Book,

Vol. 1284 Folio 163

New Certificate of Title for the whole of the land in Vol 1284 Folio 130
William Lott Minahan of Franklin Street Adelaide Railway
Reparier is

the proprietor of an estate in fee simple.
subject nevertheless to such incumbrances liens and interests as are notified by memorial underwritten or endorsed hereon in
That piece of land situated in the CITY OF ADELAIDE, being PORTION OF THE TOWN ACRE numbered
243 and bounded as appears in the plan in the margin hereof and therein colored green; Which said
piece of land contains ten perches or thereabouts and measures as well on the
northerly side next other portion of the said Acre as on the southerly
side next Franklin Street twenty eight feet or thereabouts and as
well on the easterly side next Cannon Street as on the westerly side
next other portion of the said Acre one hundred feet or thereabouts
and is more particularly delineated in the said plan Together
with a right of road or way for the said proprietor his heirs and
assigns for all purposes and at all times over along and across the
said Cannon Street

which said Town Acre is delineated in the public map of the said City deposited in the Lands and Survey Office at Adelaide.

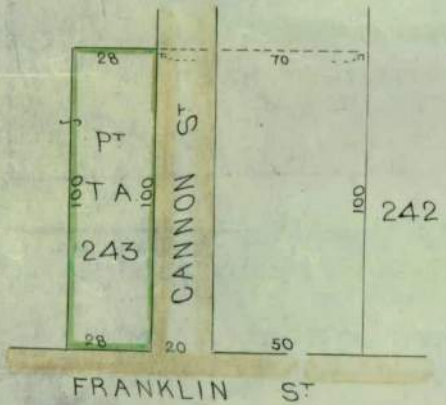
In witness whereof I have hereunto signed my name and affixed my seal this 12th day of July 1923

Signed the 12th day of July 1923, in the presence of Minahan

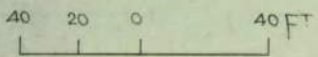
Registrar-General.



G.R.O. PLAN No. 468 of 1920 FOR LEASING PURPOSES DEPOSITED OVER WHOLE PORTION OF THE WITHIN LAND



PLAN FOR LEASING PURPOSES GP 717/1920



Transfer No 852654 from William Lott Minahan to Publishers Limited whose registered office is situated at Gode Street Adelaide of an estate in fee simple in the within land Produced for registration the 23 day of May 1923 at 2.50 pm

Mortgage No 853313 (Including other land) from Publishers Limited to the Bank of New South Wales Produced for registration the 29 day of May 1923 at 2.55 p.m.

DISCHARGE OF THE WITHIN MORTGAGE No. 853313 BY ENDORSEMENT THEREON PRODUCED FOR REGISTRATION THE 30 DAY OF July 1923 AT 11.15 AM

Attorney No 1009409

OK OVER

MORTGAGE No. **1044084** FROM
Publishers Limited
TO *The Commercial Bank of Australia Limited*
PRODUCED FOR REGISTRATION THE **30** DAY OF
July 1957 AT *11:50am* (including other land)
[Signature]
DEP. REG. GENL.

D 1044084 11/18/57
P/A 154 094 *Mr PRG*
DISCHARGE OF THE WITHIN MORTGAGE
No. **1044084**
BY ENDORSEMENT THEREON
PRODUCED FOR REGISTRATION THE **9** DAY OF
February 1952 AT *11:15am*
[Signature]
DEP. REG. GENL.

MORTGAGE No. **1818824** FROM
Publishers Limited to
The Bank of Adelaide
PRODUCED FOR REGISTRATION THE **9** DAY OF
February 1952 AT *11:15am* (including other land)
[Signature]
DEP. REG. GENL.

D 1818824 11/22/52
P/A 185600 K. Gordon P.R.G.
DISCHARGE OF MORTGAGE No. **1818824** BY ENDORSEMENT
THEREON. PRODUCED **16.5.1967** AT *11am*
K. Gordon DEP. REG. GEN.

TRANSFER No. **2821324** to *Stock Journal*
Publishers Pty. Ltd of 11 Conster Street
Adelaide
OF THE WITHIN LAND. PRODUCED **16.5.1967** at *11am*
K. Gordon DEP. REG. GEN.

MORTGAGE No. **2821325**
TO THE BANK OF ADELAIDE. PRODUCED **16.5.1967** AT *11am*
(including other land)
K. Gordon DEP. REG. GEN.

D 2821325 11/30/67
P/A 185600
DISCHARGE OF MORTGAGE No. **2821325** BY
ENDORSEMENT THEREON. PRODUCED **9.4.1970** AT *10:50*
[Signature] DEP. REG. GEN.

MORTGAGE No. **3092054**
TO COMMONWEALTH BANK OF AUSTRALIA
PRODUCED **9.4.1970** AT *10:50 am*
[Signature] (INCLUDING OTHER LAND)
DEP. REG. GEN.

D 3092054 11/18/65
P/A 479486
THE WITHIN LAND IS DISCHARGED FROM MORTGAGE
No. **3092054** VIDE **6045633**
PRODUCED AT **10:40**
5/11/65

TRANSFER No. **6508322** To
R. M. R. Corporation (259) Pty. Ltd. of
179 King William Road Hyde Park
5061
OF THE WITHIN LAND PRODUCED **31.3.1988** AT *12:25*

MORTGAGE No. **6508323** TO
COMMONWEALTH BANK OF AUSTRALIA
PRODUCED **31.3.1988** AT *12:25*.
(INCLUDING OTHER LAND).

LEASE No. **7020290** To *Trevor James*
Cooden and Ruth Dawn Cooden
OF THE WITHIN LAND. TERM of **5 years**
commencing on **1.6.1990**
PRODUCED **29.11.1990** AT *11:05*

LEASE No. **7247368** To *Central Budget*
Guesthouse Pty. Ltd. of portion
Cbeing piece marked Hotel in Geo Plan 70/90
OF THE WITHIN LAND. TERM of **6 years**.
commencing on **1.1.1990** and expiring at
midnight on **30.12.1995**
PRODUCED **24.1.1991** AT *11:30*

MORTGAGE No. **7047369** TO
Corfu Manufacturing Company Pty. Ltd.
of the within lease **7047368**
PRODUCED **24.1.1991** AT *11:30*

MORTGAGE No. **7298808**
STATE BANK OF SOUTH AUSTRALIA
PRODUCED **19.5.1992** AT *16:00*

TRANSFER No. **7434528** To *Dominic*
Cecere - Palazzo Michellina Cecere - Palazzo
and Lucia Taddeo
OF THE WITHIN LAND. PRODUCED **14.1.1993** AT *13:55*
Lease 7020290

CANCELLED
CONVERTED TO A COMPUTERISED TITLE

Certificate of Title

Title Reference: CT 5156/497
Status: CANCELLED
Parent Title(s): CT 1284/163
Dealing(s) Creating Title: CONVERTED TITLE
Title Issued: 22/11/1993
Title Cancelled: 15/02/2007
Child Title(s): CT 5980/624
Edition: 7

Dealings

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
08/11/2006	19/02/2007	10579934	REQUEST FOR NEW TITLES	REGISTERED	VEREMO BAY PTY. LTD. (ACN: 067 853 034)
15/08/2003	22/08/2003	9660753	DISCHARGE OF MORTGAGE	REGISTERED	8601002
27/02/2001	13/03/2001	9050895	LEASE	REGISTERED	ILENKA PTY. LTD. (ACN: 067 502 872)
14/12/1998	22/12/1998	8601002	MORTGAGE	REGISTERED	STATE BANK OF NEW SOUTH WALES LTD.
26/04/1995	29/05/1995	7910503	TRANSFER	REGISTERED	VEREMO BAY PTY. LTD. (ACN: 067 853 034)
26/04/1995	29/05/1995	7910502	DISCHARGE OF MORTGAGE	REGISTERED	7298808
26/04/1995	29/05/1995	7910501	DISCHARGE OF MORTGAGE	REGISTERED	6508323
03/04/1995	10/04/1995	7898069	AMENDMENT TO TEXT	REGISTERED	
30/09/1993	01/12/1993	7583886	RE-ENTRY OF LEASE	REGISTERED	7047368
04/08/1993	01/12/1993	7550116	LEASE	REGISTERED	TREVOR JAMES GOODEN
19/05/1992	24/06/1992	7298808	MORTGAGE	REGISTERED	
24/01/1991	24/04/1991	7047369	MORTGAGE OF LEASE	REGISTERED	7047368
24/01/1991	24/04/1991	7047368	LEASE	REGISTERED	
29/11/1990	13/02/1991	7020290	LEASE	REGISTERED	

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
31/03/1988	04/05/1988	6508323	MORTGAGE	REGISTERED	

Certificate of Title

Title Reference: CT 5980/624

Status: CURRENT

Parent Title(s): CT 5156/497

Dealing(s) Creating Title: RT 10579934

Title Issued: 15/02/2007

Edition: 5

Dealings

Lodgement Date	Completion Date	Dealing Number	Dealing Type	Dealing Status	Details
17/11/2022	22/11/2022	13919390	MORTGAGE	REGISTERED	LU INVESTMENTS (SA) PTY. LTD. (ACN: 166 553 224)
11/11/2022	16/11/2022	13915350	MORTGAGE	REGISTERED	NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
11/11/2022	16/11/2022	13915349	TRANSFER	REGISTERED	108 FRANKLIN PTY. LTD. (ACN: 654 854 547)
11/11/2022	16/11/2022	13915348	DISCHARGE OF MORTGAGE	REGISTERED	13230161
11/11/2022	16/11/2022	13915347	WITHDRAWAL OF CAVEAT	REGISTERED	13685506
20/12/2021	30/12/2021	13687198	WITHDRAWAL OF CAVEAT	REGISTERED	13230885
17/12/2021	23/12/2021	13685506	CAVEAT	REGISTERED	AZM GROUP PTY. LTD. (ACN: 643 599 722)
08/11/2021	11/11/2021	13652088	WITHDRAWAL OF CAVEAT	REGISTERED	13230886
24/12/2019	30/12/2019	13230886	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
24/12/2019	30/12/2019	13230885	CAVEAT	REGISTERED	BUIK HOLDINGS PTY. LTD. (ACN: 007 960 705)
20/12/2019	24/12/2019	13230161	MORTGAGE	REGISTERED	NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
20/12/2019	24/12/2019	13230160	TRANSFER	REGISTERED	ADELAIDE 108 PTY. LTD. (ACN: 635 133 925)
20/12/2019	24/12/2019	13230159	DISCHARGE OF MORTGAGE	REGISTERED	12654394
19/12/2016	10/01/2017	12654394	MORTGAGE	REGISTERED	COMMONWEALTH BANK OF AUSTRALIA (ACN: 123 123 124)
27/02/2001	13/03/2001	9050895	LEASE	REGISTERED	ILENKA PTY. LTD. (ACN: 067 502 872)

Certificate of Title - Volume 5980 Folio 624

Parent Title(s) CT 5156/497

Creating Dealing(s) RT 10579934

Title Issued 15/02/2007 Edition 5 Edition Issued 16/11/2022

Estate Type

FEE SIMPLE

Registered Proprietor

108 FRANKLIN PTY. LTD. (ACN: 654 854 547)
OF 266 GLEN OSMOND ROAD FULLARTON SA 5063

Description of Land

ALLOTMENT 3 FILED PLAN 105000
IN THE AREA NAMED ADELAIDE
HUNDRED OF ADELAIDE

Easements

NIL

Schedule of Dealings

Dealing Number	Description
13915350	MORTGAGE TO NATIONAL AUSTRALIA BANK LTD. (ACN: 004 044 937)
13919390	MORTGAGE TO LU INVESTMENTS (SA) PTY. LTD. (ACN: 166 553 224)

Notations

Dealings Affecting Title NIL

Priority Notices NIL

Notations on Plan NIL

Registrar-General's Notes

APPROVED FX257647

Administrative Interests NIL

Appendix D: SA EPA Section 7



Environment Protection Authority
GPO Box 2607 Adelaide SA 5001
211 Victoria Square Adelaide SA 5000
T (08) 8204 2004
Country areas 1800 623 445

A.M. Environmental Consulting Pty Ltd
PO BOX 119
ALDGATE SA 5154

Contact: Section 7
Telephone: (08) 8204 2026
Email: epasection7@sa.gov.au

Contact: Public Register
Telephone: (08) 8204 9128
Email: epa.publicregister@sa.gov.au

23 May, 2023

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference CT Volume 5980 Folio 624
Address Allotment 3, 108-112A Franklin Street, ADELAIDE SA 5000

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

8. *Environment Protection Act 1993*

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

8.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
8.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
8.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
8.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
8.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
8.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
8.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

8.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
8.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
8.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – Land and Business (Sale and Conveyancing) Regulations 2010

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the <i>Environment Protection Act 1993</i> to conduct any prescribed activity of environmental significance under Schedule 1 of that Act at the land?	NO
b)	details of a licence no longer in force issued under Part 6 of the <i>Environment Protection Act 1993</i> to conduct any prescribed activity of environmental significance under Schedule 1 of that Act at the land?	NO
c)	details of a current exemption issued under Part 6 of the <i>Environment Protection Act 1993</i> from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the <i>Environment Protection Act 1993</i> from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed <i>South Australian Waste Management Commission Act 1979</i> to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed <i>Waste Management Act 1987</i> to operate a waste depot at the land?	NO
g)	details of a licence issued under the repealed <i>South Australian Waste Management Commission Act 1979</i> to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed <i>Waste Management Act 1987</i> to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the <i>Environment Protection Act 1993</i>)?	NO
----	--	----

- | | | |
|----|--|----|
| b) | details of site contamination notified to the EPA under section 83A of the <i>Environment Protection Act 1993</i> ? | NO |
| c) | a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register? | NO |
| d) | a copy of a site contamination audit report? | NO |
| e) | details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the <i>Environment Protection Act 1993</i> applies? | NO |
| f) | details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the <i>Environment Protection Act 1993</i> ? | NO |
| g) | details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the <i>Environment Protection Act 1993</i> ? | NO |
| h) | details of a notification under section 103Z(1) of the <i>Environment Protection Act 1993</i> relating to the commencement of a site contamination audit? | NO |
| i) | details of a notification under section 103Z(2) of the <i>Environment Protection Act 1993</i> relating to the termination before completion of a site contamination audit? | NO |
| j) | details of records, held by the former <i>South Australian Waste Management Commission</i> under the repealed <i>Waste Management Act 1987</i> , of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995? | NO |

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

- | | | |
|----|--|----|
| a) | a copy of a report known as a "Health Commission Report" prepared by or on behalf of the <i>South Australian Health Commission</i> (under the repealed <i>South Australian Health Commission Act 1976</i>)? | NO |
| b) | details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the <i>Environment Protection Act 1993</i> ? | NO |
| c) | details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the <i>Environment Protection Act 1993</i> ? | NO |
| d) | a copy of a pre-1 July 2009 site audit report? | NO |
| e) | details relating to the termination before completion of a pre-1 July 2009 site audit? | NO |

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete.



Environment Protection Authority
GPO Box 2607 Adelaide SA 5001
211 Victoria Square Adelaide SA 5000
T (08) 8204 2004
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Contact: Section 7
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Email: epasection7@sa.gov.au

Contact: Public Register
Telephone: (08) 8204 9128
Email: epa.publicregister@sa.gov.au

23 May, 2023

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference CT Volume 5156 Folio 498
Address Allotment 1, 108-112A Franklin Street, ADELAIDE SA 5000

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

8. *Environment Protection Act 1993*

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

8.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
8.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
8.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
8.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
8.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
8.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
8.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

8.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
8.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
8.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – Land and Business (Sale and Conveyancing) Regulations 2010

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the <i>Environment Protection Act 1993</i> to conduct any prescribed activity of environmental significance under Schedule 1 of that Act at the land?	NO
b)	details of a licence no longer in force issued under Part 6 of the <i>Environment Protection Act 1993</i> to conduct any prescribed activity of environmental significance under Schedule 1 of that Act at the land?	NO
c)	details of a current exemption issued under Part 6 of the <i>Environment Protection Act 1993</i> from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the <i>Environment Protection Act 1993</i> from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed <i>South Australian Waste Management Commission Act 1979</i> to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed <i>Waste Management Act 1987</i> to operate a waste depot at the land?	NO
g)	details of a licence issued under the repealed <i>South Australian Waste Management Commission Act 1979</i> to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed <i>Waste Management Act 1987</i> to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the <i>Environment Protection Act 1993</i>)?	NO
----	--	----

- | | | |
|----|--|----|
| b) | details of site contamination notified to the EPA under section 83A of the <i>Environment Protection Act 1993</i> ? | NO |
| c) | a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register? | NO |
| d) | a copy of a site contamination audit report? | NO |
| e) | details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the <i>Environment Protection Act 1993</i> applies? | NO |
| f) | details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the <i>Environment Protection Act 1993</i> ? | NO |
| g) | details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the <i>Environment Protection Act 1993</i> ? | NO |
| h) | details of a notification under section 103Z(1) of the <i>Environment Protection Act 1993</i> relating to the commencement of a site contamination audit? | NO |
| i) | details of a notification under section 103Z(2) of the <i>Environment Protection Act 1993</i> relating to the termination before completion of a site contamination audit? | NO |
| j) | details of records, held by the former <i>South Australian Waste Management Commission</i> under the repealed <i>Waste Management Act 1987</i> , of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995? | NO |

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

- | | | |
|----|--|----|
| a) | a copy of a report known as a "Health Commission Report" prepared by or on behalf of the <i>South Australian Health Commission</i> (under the repealed <i>South Australian Health Commission Act 1976</i>)? | NO |
| b) | details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the <i>Environment Protection Act 1993</i> ? | NO |
| c) | details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the <i>Environment Protection Act 1993</i> ? | NO |
| d) | a copy of a pre-1 July 2009 site audit report? | NO |
| e) | details relating to the termination before completion of a pre-1 July 2009 site audit? | NO |

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete.



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Contact: Section 7
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Email: epasection7@sa.gov.au

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Email: epa.publicregister@sa.gov.au

23 May, 2023

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference CT Volume 5156 Folio 499
Address Allotment 2, 108-112A Franklin Street, ADELAIDE SA 5000

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

8. *Environment Protection Act 1993*

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

8.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
8.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
8.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
8.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
8.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
8.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
8.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

8.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
8.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
8.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – Land and Business (Sale and Conveyancing) Regulations 2010

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the <i>Environment Protection Act 1993</i> to conduct any prescribed activity of environmental significance under Schedule 1 of that Act at the land?	NO
b)	details of a licence no longer in force issued under Part 6 of the <i>Environment Protection Act 1993</i> to conduct any prescribed activity of environmental significance under Schedule 1 of that Act at the land?	NO
c)	details of a current exemption issued under Part 6 of the <i>Environment Protection Act 1993</i> from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the <i>Environment Protection Act 1993</i> from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed <i>South Australian Waste Management Commission Act 1979</i> to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed <i>Waste Management Act 1987</i> to operate a waste depot at the land?	NO
g)	details of a licence issued under the repealed <i>South Australian Waste Management Commission Act 1979</i> to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed <i>Waste Management Act 1987</i> to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the <i>Environment Protection Act 1993</i>)?	NO
----	--	----

- | | | |
|----|--|----|
| b) | details of site contamination notified to the EPA under section 83A of the <i>Environment Protection Act 1993</i> ? | NO |
| c) | a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register? | NO |
| d) | a copy of a site contamination audit report? | NO |
| e) | details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the <i>Environment Protection Act 1993</i> applies? | NO |
| f) | details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the <i>Environment Protection Act 1993</i> ? | NO |
| g) | details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the <i>Environment Protection Act 1993</i> ? | NO |
| h) | details of a notification under section 103Z(1) of the <i>Environment Protection Act 1993</i> relating to the commencement of a site contamination audit? | NO |
| i) | details of a notification under section 103Z(2) of the <i>Environment Protection Act 1993</i> relating to the termination before completion of a site contamination audit? | NO |
| j) | details of records, held by the former <i>South Australian Waste Management Commission</i> under the repealed <i>Waste Management Act 1987</i> , of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995? | NO |

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

- | | | |
|----|--|----|
| a) | a copy of a report known as a "Health Commission Report" prepared by or on behalf of the <i>South Australian Health Commission</i> (under the repealed <i>South Australian Health Commission Act 1976</i>)? | NO |
| b) | details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the <i>Environment Protection Act 1993</i> ? | NO |
| c) | details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the <i>Environment Protection Act 1993</i> ? | NO |
| d) | a copy of a pre-1 July 2009 site audit report? | NO |
| e) | details relating to the termination before completion of a pre-1 July 2009 site audit? | NO |

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete.



Environment Protection Authority
GPO Box 2607 Adelaide SA 5001
211 Victoria Square Adelaide SA 5000
T (08) 8204 2004
Country areas 1800 623 445

A.M. Environmental Consulting Pty Ltd
PO BOX 119
ALDGATE SA 5154

Contact: Section 7
Telephone: (08) 8204 2026
Email: epasection7@sa.gov.au

Contact: Public Register
Telephone: (08) 8204 9128
Email: epa.publicregister@sa.gov.au

23 May, 2023

EPA STATEMENT TO FORM 1 - CONTRACTS FOR SALE OF LAND OR BUSINESS

The EPA provides this statement to assist the vendor meet its obligations under section 7(1)(b) of the *Land and Business (Sale and Conveyancing) Act 1994*. A response to the questions prescribed in Schedule 1-Contracts for sale of land or business-forms (Divisions 1 and 2) of the *Land and Business (Sale and Conveyancing) Act 1994* is provided in relation to the land.

I refer to your enquiry concerning the parcel of land comprised in

Title Reference CT Volume 5253 Folio 876
Address Allotment 7, 108-112A Franklin Street, ADELAIDE SA 5000

Schedule – Division 1 – *Land and Business (Sale and Conveyancing) Regulations 2010*

PARTICULARS OF MORTGAGES, CHARGES AND PRESCRIBED ENCUMBRANCES AFFECTING THE LAND

8. *Environment Protection Act 1993*

Does the EPA hold any of the following details relating to the *Environment Protection Act 1993*:

8.1	Section 59 - Environment performance agreement that is registered in relation to the land.	NO
8.2	Section 93 - Environment protection order that is registered in relation to the land.	NO
8.3	Section 93A - Environment protection order relating to cessation of activity that is registered in relation to the land.	NO
8.4	Section 99 - Clean-up order that is registered in relation to the land.	NO
8.5	Section 100 - Clean-up authorisation that is registered in relation to the land.	NO
8.6	Section 103H - Site contamination assessment order that is registered in relation to the land.	NO
8.7	Section 103J - Site remediation order that is registered in relation to the land.	NO

8.8	Section 103N - Notice of declaration of special management area in relation to the land (due to possible existence of site contamination).	NO
8.9	Section 103P - Notation of site contamination audit report in relation to the land.	NO
8.10	Section 103S - Notice of prohibition or restriction on taking water affected by site contamination in relation to the land.	NO

Schedule – Division 2 – Land and Business (Sale and Conveyancing) Regulations 2010

PARTICULARS RELATING TO ENVIRONMENT PROTECTION

3-Licences and exemptions recorded by EPA in public register

Does the EPA hold any of the following details in the public register:

a)	details of a current licence issued under Part 6 of the <i>Environment Protection Act 1993</i> to conduct any prescribed activity of environmental significance under Schedule 1 of that Act at the land?	NO
b)	details of a licence no longer in force issued under Part 6 of the <i>Environment Protection Act 1993</i> to conduct any prescribed activity of environmental significance under Schedule 1 of that Act at the land?	NO
c)	details of a current exemption issued under Part 6 of the <i>Environment Protection Act 1993</i> from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
d)	details of an exemption no longer in force issued under Part 6 of the <i>Environment Protection Act 1993</i> from the application of a specified provision of that Act in relation to an activity carried on at the land?	NO
e)	details of a licence issued under the repealed <i>South Australian Waste Management Commission Act 1979</i> to operate a waste depot at the land?	NO
f)	details of a licence issued under the repealed <i>Waste Management Act 1987</i> to operate a waste depot at the land?	NO
g)	details of a licence issued under the repealed <i>South Australian Waste Management Commission Act 1979</i> to produce waste of a prescribed kind (within the meaning of that Act) at the land?	NO
h)	details of a licence issued under the repealed <i>Waste Management Act 1987</i> to produce prescribed waste (within the meaning of that Act) at the land?	NO

4-Pollution and site contamination on the land - details recorded by the EPA in public register

Does the EPA hold any of the following details in the public register in relation to the land or part of the land:

a)	details of serious or material environmental harm caused or threatened in the course of an activity (whether or not notified under section 83 of the <i>Environment Protection Act 1993</i>)?	NO
----	--	----

- | | | |
|----|--|----|
| b) | details of site contamination notified to the EPA under section 83A of the <i>Environment Protection Act 1993</i> ? | NO |
| c) | a copy of a report of an environmental assessment (whether prepared by the EPA or some other person or body and whether or not required under legislation) that forms part of the information required to be recorded in the public register? | NO |
| d) | a copy of a site contamination audit report? | NO |
| e) | details of an agreement for the exclusion or limitation of liability for site contamination to which section 103E of the <i>Environment Protection Act 1993</i> applies? | NO |
| f) | details of an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the <i>Environment Protection Act 1993</i> ? | NO |
| g) | details of an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the <i>Environment Protection Act 1993</i> ? | NO |
| h) | details of a notification under section 103Z(1) of the <i>Environment Protection Act 1993</i> relating to the commencement of a site contamination audit? | NO |
| i) | details of a notification under section 103Z(2) of the <i>Environment Protection Act 1993</i> relating to the termination before completion of a site contamination audit? | NO |
| j) | details of records, held by the former <i>South Australian Waste Management Commission</i> under the repealed <i>Waste Management Act 1987</i> , of waste (within the meaning of that Act) having been deposited on the land between 1 January 1983 and 30 April 1995? | NO |

5-Pollution and site contamination on the land - other details held by EPA

Does the EPA hold any of the following details in relation to the land or part of the land:

- | | | |
|----|--|----|
| a) | a copy of a report known as a "Health Commission Report" prepared by or on behalf of the <i>South Australian Health Commission</i> (under the repealed <i>South Australian Health Commission Act 1976</i>)? | NO |
| b) | details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site contamination assessment proposal under section 103I of the <i>Environment Protection Act 1993</i> ? | NO |
| c) | details (which may include a report of an environmental assessment) relevant to an agreement entered into with the EPA relating to an approved voluntary site remediation proposal under section 103K of the <i>Environment Protection Act 1993</i> ? | NO |
| d) | a copy of a pre-1 July 2009 site audit report? | NO |
| e) | details relating to the termination before completion of a pre-1 July 2009 site audit? | NO |

All care and diligence has been taken to access the above information from available records. Historical records provided to the EPA concerning matters arising prior to 1 May 1995 are limited and may not be accurate or complete.

Appendix E: Soil logs (Soil and soil vapour) and photographs of coretrays



Log of Borehole: BH1

Drilling Date: 20/6/23
Project No.: 2466
Project: AUTA
Address: 108-122 Franklin Street, Adelaide, SA
Drilling Contractor: Aussie Probe
Driller: CO
Field Rep: AM

SUBSURFACE PROFILE			SAMPLE		Comment
Depth (m)	Symbol	Description	Sample ID	PID	
Ground Surface					
0		Concrete Slab.			
		FILL. Brown Sand. No visual or odour.	BH1/1 - Dup 1	0	
		Brown Sandy Clay/Clayey Sand. No visual or odour.	BH1/2	0	
		Cream Calcareous Sandy Clay.	BH1/3	0	
			EIL (x2)	0	
1					

Not for construction purposes.

Waterloo Sampler



Drilling Date: 20/6/23

Log of Borehole: BH2/WS2

Project No.: 2466

Project: AUTA

Address: 108-122 Franklin Street, Adelaide, SA

Drilling Contractor Aussie Probe

Driller: CO

Field Rep: AM

SUBSURFACE PROFILE			SAMPLE		Comment
Depth (m)	Symbol	Description	Sample ID	PID	
Ground Surface					<p>Plug</p> <p>Plastic Sleeve Packing</p> <p>Waterloo Sampler</p>
0		Concrete Slab.			
		FILL. Sandy Gravel trace Foundry Sand/Ash.	BH2/1 - Dup 2	0	
		Brown Sandy Clay/Clayey Sand. No visual or odour.	BH2/2	0	
		Cream Calcareous Sandy Clay. No visual or odour. Groundwater not encountered.	BH2/3	0	
1					

Not for construction purposes.



Drilling Date: 20/6/23

Log of Borehole: BH3/WS3

Project No.: 2466

Project: AUTA

Address: 108-122 Franklin Street, Adelaide, SA

Drilling Contractor Aussie Probe

Driller: CO

Field Rep: AM

SUBSURFACE PROFILE			SAMPLE		Comment
Depth (m)	Symbol	Description	Sample ID	PID	
Ground Surface					<p>Plug</p> <p>Plastic Sleeve Packing</p> <p>Waterloo Sampler</p>
0		Concrete Slab.			
		FILL. Sandy Gravel trace. No visual or odour.	BH3/1	0	
		Brown Sandy Clay/Clayey Sand. No visual or odour.	BH3/2	0	
		Cream Calcareous Sandy Clay. No visual or odour. Groundwater not encountered.	BH3/3	0	
1					

Not for construction purposes.



Drilling Date: 20/6/23

Project No.: 2466

Project: AUTA

Address: 108-122 Franklin Street, Adelaide, SA

Drilling Contractor Aussie Probe

Driller: CO

Field Rep: AM

Log of Borehole: BH4/WS4

SUBSURFACE PROFILE			SAMPLE		Comment
Depth (m)	Symbol	Description	Sample ID	PID	
0		Ground Surface			
		Concrete Slab.			
		FILL. Sandy Gravel. no Visual or odour.	BH4/1	0	
			BH4/2	0	
		Cream Calcareous Sandy Clay. No visual or odour. Groundwater not encountered.	BH4/3	0	
1					

Not for construction purposes.

Waterloo Sampler



Drilling Date: 20/6/23
Project No.: 2466
Project: AUTA
Address: 108-122 Franklin Street, Adelaide, SA
Drilling Contractor Aussie Probe
Driller: CO
Field Rep: AM

Log of Borehole: BH5/WS5

SUBSURFACE PROFILE			SAMPLE		Comment
Depth (m)	Symbol	Description	Sample ID	PID	
0		Ground Surface			<p> Plug Plastic Sleeve Packing Waterloo Sampler </p>
		Concrete Slab.			
		FILL. Sandy Gravel/Quarry Product. No Visual or Odour.	BH5/1	0	
		FILL. Brown Sandy Gravel / Sandy Clay. No visual or odour.	BH5/2	0	
		Cream Calcareous Sandy Clay. No visual or odour. Groundwater not encountered.	BH5/3	0	
1					

Not for construction purposes.

Waterloo Sampler



Drilling Date: 20/6/23

Project No.: 2466

Project: AUTA

Address: 108-122 Franklin Street, Adelaide, SA

Drilling Contractor Aussie Probe

Driller: CO

Field Rep: AM

Log of Borehole: BH6/WS6

SUBSURFACE PROFILE			SAMPLE		Comment
Depth (m)	Symbol	Description	Sample ID	PID	
0		Ground Surface			<p>Plug</p> <p>Plastic Sleeve Packing</p> <p>Waterloo Sampler</p>
		Concrete Slab.			
		FILL. Sandy Gravel/Quarry Product. No Visual or Odour.	BH6/1	0	
		FILL. Cream Gravel/Quarry Product. No visual or odour.	BH6/2	0	
		Dark Brown Sandy Clay. No visual or odour.	BH6/3	0	
		Cream Calcareous Sandy Clay. No visual or odour. Groundwater not encountered.	BH6/4	0	
1					

Not for construction purposes.



Drilling Date: 20/6/23
Project No.: 2466
Project: AUTA
Address: 108-122 Franklin Street, Adelaide, SA
Drilling Contractor: Aussie Probe
Driller: CO
Field Rep: AM

Log of Borehole: BH7/WS7

SUBSURFACE PROFILE			SAMPLE		Comment
Depth (m)	Symbol	Description	Sample ID	PID	
0		Ground Surface			<p>Plug</p> <p>Plastic Sleeve Packing</p> <p>Waterloo Sampler</p>
		Concrete Slab.			
		FILL. Orange Sandy Gravel/Quarry Product. No Visual or Odour.	BH7/1	0	
		Green/Orange Mottled HP Sandy Clay. No visual or odour. Groundwater not encountered.	BH7/2	0	
			BH7/3	0	
			BH7/4	0	
1					

Not for construction purposes.



Drilling Date: 20/6/23
Project No.: 2466
Project: AUTA
Address: 108-122 Franklin Street, Adelaide, SA
Drilling Contractor Aussie Probe
Driller: CO
Field Rep: AM

Log of Borehole: BH8/WS8

SUBSURFACE PROFILE			SAMPLE		Comment
Depth (m)	Symbol	Description	Sample ID	PID	
0		Ground Surface			
		Concrete Slab.			
		FILL. Orange Sandy Gravel/Quarry Product. No Visual or Odour.	BH8/1	0	
			BH8/2	0	
		Green/Orange Mottled HP Sandy Clay. No visual or odour. Groundwater not encountered.	BH8/3	0	
1					

Not for construction purposes.

Waterloo Sampler







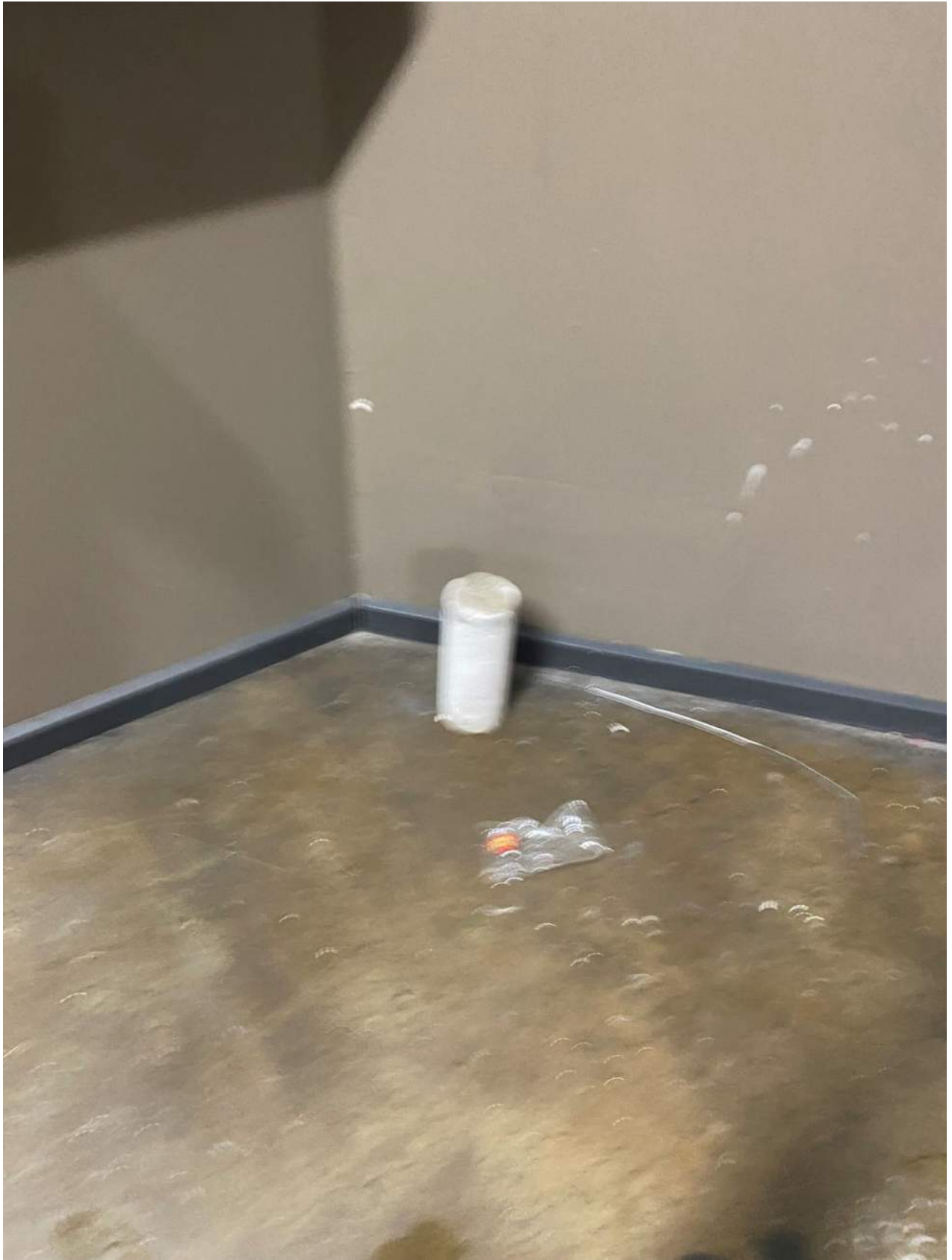




















BH 1

BH 2

BH 3

BH 4

BH 5

Appendix F: Laboratory Results (Soil and Soil Vapour)



Envirolab Services Pty Ltd
ABN 37 112 535 645 - 002
25 Research Drive Croydon South VIC 3136
ph 03 9763 2500 fax 03 9763 2633
melbourne@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 38268

Client Details

Client	A.M.Environmental Consulting Pty Ltd
Attention	Ashley Moule
Address	7 Rudd Court, BRIDGEWATER, SA, 5155

Sample Details

Your Reference	<u>AUTA</u>
Number of Samples	1 Soil
Date samples received	03/07/2023
Date completed instructions received	03/07/2023

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	10/07/2023
Date of Issue	05/07/2023

NATA Accreditation Number 2901. This document shall not be reproduced except in full.

Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By

Suk Lee, Organic Supervisor
Tara White, Metals Team Leader

Authorised By

Pamela Adams, Laboratory Manager

VOCs in soil		
Our Reference		38268-1
Your Reference	UNITS	Dup 2
Date Sampled		20/06/2023
Type of sample		Soil
Date extracted	-	04/07/2023
Date analysed	-	04/07/2023
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<1
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<1
1,1-Dichloroethene	mg/kg	<0.5
trans-1,2-dichloroethene	mg/kg	<0.5
1,1-dichloroethane	mg/kg	<0.5
cis-1,2-dichloroethene	mg/kg	<0.5
bromochloromethane	mg/kg	<0.5
chloroform	mg/kg	<0.5
2,2-dichloropropane	mg/kg	<0.5
1,2-dichloroethane	mg/kg	<0.5
1,1,1-trichloroethane	mg/kg	<0.5
1,1-dichloropropene	mg/kg	<0.5
Cyclohexane	mg/kg	<1
carbon tetrachloride	mg/kg	<0.5
Benzene	mg/kg	<0.2
dibromomethane	mg/kg	<0.5
1,2-dichloropropane	mg/kg	<0.5
trichloroethene	mg/kg	<0.5
bromodichloromethane	mg/kg	<0.5
trans-1,3-dichloropropene	mg/kg	<0.5
cis-1,3-dichloropropene	mg/kg	<0.5
1,1,2-trichloroethane	mg/kg	<0.5
Toluene	mg/kg	<0.5
1,3-dichloropropane	mg/kg	<0.5
dibromochloromethane	mg/kg	<0.5
1,2-dibromoethane	mg/kg	<0.5
Tetrachloroethene	mg/kg	<0.5
1,1,1,2-tetrachloroethane	mg/kg	<0.5
chlorobenzene	mg/kg	<0.5
Ethylbenzene	mg/kg	<0.5

VOCs in soil		
Our Reference		38268-1
Your Reference	UNITS	Dup 2
Date Sampled		20/06/2023
Type of sample		Soil
bromoform	mg/kg	<0.5
m+p-xylene	mg/kg	<1
styrene	mg/kg	<0.5
1,1,2,2-tetrachloroethane	mg/kg	<0.5
o-Xylene	mg/kg	<0.5
1,2,3-trichloropropane	mg/kg	<0.5
isopropylbenzene	mg/kg	<0.5
bromobenzene	mg/kg	<0.5
n-propyl benzene	mg/kg	<0.5
2-chlorotoluene	mg/kg	<0.5
4-chlorotoluene	mg/kg	<0.5
1,3,5-trimethyl benzene	mg/kg	<0.5
tert-butyl benzene	mg/kg	<0.5
1,2,4-trimethyl benzene	mg/kg	<0.5
1,3-dichlorobenzene	mg/kg	<0.5
sec-butyl benzene	mg/kg	<0.5
1,4-dichlorobenzene	mg/kg	<0.5
4-isopropyl toluene	mg/kg	<0.5
1,2-dichlorobenzene	mg/kg	<0.5
n-butyl benzene	mg/kg	<0.5
1,2-dibromo-3-chloropropane	mg/kg	<0.5
1,2,4-trichlorobenzene	mg/kg	<0.5
hexachlorobutadiene	mg/kg	<0.5
1,2,3-trichlorobenzene	mg/kg	<0.5
Surrogate Dibromofluoromethane	%	100
Surrogate aaa-Trifluorotoluene	%	95
Surrogate Toluene-d ₈	%	101
Surrogate 4-Bromofluorobenzene	%	92

Acid Extractable metals in soil		
Our Reference		38268-1
Your Reference	UNITS	Dup 2
Date Sampled		20/06/2023
Type of sample		Soil
Date digested	-	04/07/2023
Date analysed	-	04/07/2023
Arsenic	mg/kg	<4
Cadmium	mg/kg	0.5
Chromium	mg/kg	13
Copper	mg/kg	22
Lead	mg/kg	97
Mercury	mg/kg	1.0
Nickel	mg/kg	8
Zinc	mg/kg	230

Moisture		
Our Reference		38268-1
Your Reference	UNITS	Dup 2
Date Sampled		20/06/2023
Type of sample		Soil
Date prepared	-	04/07/2023
Date analysed	-	05/07/2023
Moisture	%	17

Client Reference: AUTA

Method ID	Methodology Summary
Inorg-008	Moisture content determined by heating at 105°C for a minimum of 12 hours.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.

Client Reference: AUTA

QUALITY CONTROL: VOCs in soil					Duplicate			Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date extracted	-			04/07/2023	[NT]	[NT]	[NT]	[NT]	04/07/2023	[NT]
Date analysed	-			04/07/2023	[NT]	[NT]	[NT]	[NT]	04/07/2023	[NT]
Dichlorodifluoromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Vinyl Chloride	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Bromomethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chloroethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Trichlorofluoromethane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-Dichloroethene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
trans-1,2-dichloroethene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1-dichloroethane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	86	[NT]
cis-1,2-dichloroethene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromochloromethane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
chloroform	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	92	[NT]
2,2-dichloropropane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloroethane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	87	[NT]
1,1,1-trichloroethane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	94	[NT]
1,1-dichloropropene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Cyclohexane	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
carbon tetrachloride	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzene	mg/kg	0.2	Org-023	<0.2	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
dibromomethane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichloropropane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
trichloroethene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	94	[NT]
bromodichloromethane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	83	[NT]
trans-1,3-dichloropropene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
cis-1,3-dichloropropene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2-trichloroethane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichloropropane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
dibromochloromethane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	85	[NT]
1,2-dibromoethane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Tetrachloroethene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	105	[NT]
1,1,1,2-tetrachloroethane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
chlorobenzene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethylbenzene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromoform	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	77	[NT]
m+p-xylene	mg/kg	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
styrene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,1,2,2-tetrachloroethane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]

Client Reference: AUTA

QUALITY CONTROL: VOCs in soil				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
o-Xylene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichloropropane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
isopropylbenzene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
bromobenzene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-propyl benzene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
2-chlorotoluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-chlorotoluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3,5-trimethyl benzene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
tert-butyl benzene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trimethyl benzene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,3-dichlorobenzene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
sec-butyl benzene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,4-dichlorobenzene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
4-isopropyl toluene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dichlorobenzene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
n-butyl benzene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2-dibromo-3-chloropropane	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,4-trichlorobenzene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
hexachlorobutadiene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
1,2,3-trichlorobenzene	mg/kg	0.5	Org-023	<0.5	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	100	[NT]	[NT]	[NT]	[NT]	99	[NT]
Surrogate aaa-Trifluorotoluene	%		Org-023	111	[NT]	[NT]	[NT]	[NT]	107	[NT]
Surrogate Toluene-d ₈	%		Org-023	100	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	91	[NT]	[NT]	[NT]	[NT]	92	[NT]

Client Reference: AUTA

QUALITY CONTROL: Acid Extractable metals in soil				Duplicate				Spike Recovery %		
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date digested	-			04/07/2023	[NT]	[NT]	[NT]	[NT]	04/07/2023	[NT]
Date analysed	-			04/07/2023	[NT]	[NT]	[NT]	[NT]	04/07/2023	[NT]
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	[NT]	[NT]	[NT]	[NT]	108	[NT]
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	[NT]	[NT]	[NT]	[NT]	104	[NT]
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Copper	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	102	[NT]
Lead	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	105	[NT]
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	[NT]	[NT]	[NT]	[NT]	111	[NT]
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	[NT]	[NT]	107	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.
Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.	
The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.	
Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2	

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.



CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing | ABN 50 006 055 521

Sydney Laboratory
Unit F3 Bld. F 15 Mars Road Lane Cove West NSW 2056
02 9900 8400 EnviroSampleNSW@eurofins.com

Brisbane Laboratory
Unit 1 21 Smallwood Place Murarie QLD 4172
07 3502 4600 EnviroSampleQLD@eurofins.com

1/3

Perth Laboratory
Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 3900 EnviroSampleWA@eurofins.com

Melbourne Laboratory
6 Monterey Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company: AME		Project No: AUTA		Project Manager		Sampler(s)			
Address		Project Name		EDD Format ESdat, EQUIS etc		Handed over by			
Contact Name: JAM		Analyses Where metals are requested, please specify "Total" or "Filtered". SUTTE code must be used to attract SUTTE pricing. SA EPA Waste Screen		HM(8) TRH BTEX VOC'S MAH OCP'S HM(10) PAH		Email for Invoice			
Phone No						Email for Results			
Special Directions: Dupl -> EnviroLab (HM(8) / VOC)						Containers Change container type & size if necessary.		Required Turnaround Time (TAT) Default will be 5 days if not ticked.	
Purchase Order						<input type="checkbox"/> Overnight (reporting by 9am) ♦ <input type="checkbox"/> Same day ♦ <input type="checkbox"/> 1 day ♦ <input type="checkbox"/> 2 days ♦ <input type="checkbox"/> 3 days ♦ <input type="checkbox"/> 5 days (Standard) <input type="checkbox"/> Other()			
Quote ID No						Other (Asbestos AS4984, WA Guidelines)		Sample Comments / Dangerous Goods Hazard Warning	
No	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)						
1	BH111	20/6/23	soil						
2	112								
3	113								
4	211								
5	212								
6	213								
7	311								
8	312								
9	313								
10	411								
Total Counts									

Report: 1003831
30/6 BF

11.3°C
+ 0.3°C

11.6°C
on IB

Method of Shipment: <input type="checkbox"/> Courier (#) <input type="checkbox"/> Hand Delivered <input type="checkbox"/> Postal		Name		Signature		Date		Time	
Laboratory Use Only		Received By: <i>Paternal</i>		Signature: <i>[Signature]</i>		Date: 20/06		Time: 3:45 PM	
		Received By:		Signature:		Date:		Time:	



CHAIN OF CUSTODY RECORD

Eurofins Environment Testing ABRN 50 005 688 221

Sydney Laboratory
Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2066
02 9900 8400 EnviroSampleNSW@eurofins.com

Brisbane Laboratory **2/3**
Unit 1 21 Smallwood Place Murarie QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com

Perth Laboratory
Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com

Melbourne Laboratory
6 Monterey Road Dandenong South VIC 3175
03 8564 5000 EnviroSampleVic@eurofins.com

Company	AME	Project No	AUTA XXXX	Project Manager		Sampler(s)	all
Address		Project Name		EDD Format	ESdat, EQulS etc	Handed over by	all
Contact Name	AM	Analyses Where metals are requested, please specify "Total" or "Filtered" SUITE code must be used to attract SUITE pricing	SA EPA Waste Screen HM(8) PRH BTEX VOCs PAH OCPs HM(18) PRH			Email for Invoice	all
Phone No						Email for Results	all
Special Directions	DPL -> Enrolabel (HM(8) / VOC)					Containers	Required Turnaround Time (TAT) Default will be 5 days if not ticked
Purchase Order						<input type="checkbox"/> 500mL Plastic <input type="checkbox"/> 250mL Plastic <input type="checkbox"/> 125mL Plastic <input type="checkbox"/> 200mL Amber Glass <input type="checkbox"/> 40mL VOA vial <input type="checkbox"/> 500mL PFAS Bottle <input type="checkbox"/> Jar (Glass or HDPE) Other (Alabaster A5494, WA Guidelines)	<input type="checkbox"/> Overnight (reporting by 9am) ♦ <input type="checkbox"/> Same day ♦ <input type="checkbox"/> 1 day ♦ <input type="checkbox"/> 2 days ♦ <input type="checkbox"/> 3 days ♦ <input type="checkbox"/> 5 days (Standard) <input type="checkbox"/> Other ()
Quote ID No						♦ Surcharge will apply	

No	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	SA EPA Waste Screen	HM(8)	PRH	BTEX	VOCs	PAH	OCPs	HM(18)	PRH	Containers	Required Turnaround Time (TAT)	Sample Comments / Dangerous Goods Hazard Warning
1	BH 412	20/6/23	SOIL												
2	413														
3	511														
4	512														
5	513														
6	611														
7	612														
8	613														
9	614														
10	711														
Total Counts															

Method of Shipment: Courier (#) Hand Delivered Postal

Name: _____ Signature: _____ Date: 20/06 Time: 3:45pm

Received By: Patricia Signature: _____ Date: _____ Time: _____



CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing | ABN 50 005 983 521

Sydney Laboratory
Unit F3 Bld F 16 Mars Road Lane Cove West NSW 2095
02 9900 8400 EnviroSampleNSW@eurofins.com

Brisbane Laboratory **3/3**
Unit 1 21 Smallwood Place Murarie QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com

Perth Laboratory
Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9600 EnviroSampleWA@eurofins.com

Melbourne Laboratory
6 Monterey Road Dandenong South VIC 3175
8564 5000 EnviroSampleVic@eurofins.com

Company: **AME**

Address:

Contact Name: **AM**

Phone No:

Special Directions: **DPL -> Enrolub (HM(8) / WC)**

Purchase Order:

Quote ID No:

Project No: **AUTA**

Project Name:

Project Manager:

Analysis: **SA EPA Waste Screen**

Where metals are requested, please specify 'Total' or 'Filtered'.
SUTE code must be used to attach SUTE pricing.

Sampler(s): **WEP**

Handed over by: **all**

Email for Invoice: **W**

Email for Results: **W**

Containers: Change container type & size if necessary

Required Turnaround Time (TAT): Default will be 5 days if not ticked

Overnight (reporting by 9am) ♦
 Same day ♦ 1 day ♦
 2 days ♦ 3 days ♦
 5 days (Standard)
 Other ()

500mL Plastic
 250mL Plastic
 125mL Plastic
 200mL Amber Glass
 40mL VOA vial
 500mL PFAS Bottle
 Jar (Glass or HDPE)
 Other (Abbottot 48444, WA Guidelines)

No	Client Sample ID	Sampled Date/Time dd/mm/yy hh:mm	Matrix Solid (S) Water (W)	Analysis	Containers	Required Turnaround Time (TAT)	Sample Comments / Dangerous Goods Hazard Warning
1	BH 7/2	20/6/23	SOIL	SA EPA Waste Screen	500mL Plastic		
2	7/3			HM(8)	250mL Plastic		
3	7/4			PRH	125mL Plastic		
4	8/1			BEX	200mL Amber Glass		
5	8/2			VOC'S	40mL VOA vial		
6	8/3			ALW	500mL PFAS Bottle		
7	Dp1			OCPS	Jar (Glass or HDPE)		
8	Dp2			HM (10)	Other (Abbottot 48444, WA Guidelines)		
9	EIL X2			PRH			
10	TRIP R1						
Total Counts							

Method of Shipment: Courier (#) Hand Delivered Postal

Name: _____ Signature: _____ Date: 20/06 Time: 3:45PM

Received By: **Paulina** Signature: _____ Date: 20/06 Time: 3:45PM



CHAIN OF CUSTODY RECORD

Eurofins Environmental Testing ABR 5020568322

Sydney Laboratory
Unit F3 Bld.F 16 Mars Road Lane Cove West NSW 2055
02 9900 8400 EnviroSampleNSW@eurofins.com

Brisbane Laboratory **213**
Unit 1 21 Smallwood Place Murarie QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com

Perth Laboratory
Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 5600 EnviroSampleWA@eurofins.com

Melbourne Laboratory
8 Monterey Road Dandenong South VIC 3175
8564 5000 EnviroSampleVic@eurofins.com

Company: **AME**

Address: _____

Contact Name: **RAM**

Phone No: _____

Special Directions: **DPL -> Envrolab (HM(8)/WOC)**

Purchase Order: _____

Quote ID No: _____

Project No: **AUTA**

Project Name: _____

Project Manager: _____

EDD Format: _____

ESdr: EouS etc: _____

Analyses: **SA EPA Waste Screen**

Where media are requested, please specify "Total" or "Filtered"
SUIE code must be used to allow SUIE pricing

Sampler(s): _____

Handed over by: _____

Email for Invoice: _____

Email for Results: _____

Containers: _____
Change container type & size if necessary

Required Turnaround Time (TAT): _____
Default will be 5 days if not ticked

No	Client Sample ID	Sampled Date/Time dd/mm/yyyy hh:mm	Matrix Solid (S) Water (W)	Analyses											Containers	Required Turnaround Time (TAT)	Sample Comments / Dangerous Goods Hazard Warning
				HM(8)	PRH	DIEX	VOC'S	PAH	OCPS	HM(18)	PAHs	500ml Plastic	250ml Plastic	125ml Plastic			
1	BH 4/2	20/6/23	SOIL														
2	4/3																
3	5/1			X													
4	5/2																
5	5/3																
6	6/1			X													
7	6/2																
8	6/3																
9	6/4																
10	7/1			X													
Total Counts																	

Method of Shipment: Courier (#) Hand Delivered Postal

Name: _____ Signature: _____ Date: **20/06** Time: **3:45pm**

Received By: **Parina**



CHAIN OF CUSTODY RECORD

Eurofins | Environment Testing | ABN 60 005 065 821

Sydney Laboratory
Unit F3 Bld F 15 Mars Road Lane Cove West NSW 2055
02 9900 8400 EnviroSampleNSW@eurofins.com

Brisbane Laboratory
Unit 1 21 Smallwood Place Murarie QLD 4172
07 3902 4600 EnviroSampleQLD@eurofins.com

3/3

Perth Laboratory
Unit 2 91 Leach Highway Kewdale WA 6105
08 9251 9500 EnviroSampleWA@eurofins.com

Melbourne Laboratory
8 Monerey Road Dandenong South VIC 3175
0564 5000 EnviroSampleVic@eurofins.com

Company: **AME**

Address:

Contact Name: **AM**

Phone No:

Special Directions: **DPL -> Enrolab (HM(8)/VOC)**

Purchase Order:

Quote ID No:

Project No: **AUTA**

Project Name:

Project Manager:

EDD Format: **ES: 10.15.15**

Sampler(s): **all**

Handed over by: **BP**

Email for Invoice: **U1**

Email for Results:

Analyses: Where marks are required, please specify 'Total' or 'Filter' SUITE code must be used to allow SUITE pricing

SA EPA Waste Screen

HM(8)
PRH
BTEX
VOC'S
MATH
OCPS
HM(10)
PAPW

Containers: Change container type & size if necessary

Required Turnaround Time (TAT): Default will be 5 days if not listed

500mL Plastic
250mL Plastic
125mL Plastic
200mL Amber Glass
40mL VOA Vial
500mL PVA Bottle
Jar (Glass or HDPE)
Other (Asbestos, Asbestos, WA Guidelines)

Required Turnaround Time (TAT) options:
 Overnight (reporting by 8am) *Surcharge will apply
 Same day ♦ 1 day ♦
 2 days ♦ 3 days ♦
 5 days (Standard)
 Other()

Sample Comments / Dangerous Goods Hazard Warning

No	Client Sample ID	Sampled Date/Time dd/mm/yyyy hh:mm	Matrix Solid (S) Water (W)	SA EPA Waste Screen	HM(8)	PRH	BTEX	VOC'S	MATH	OCPS	HM(10)	PAPW
1	BH 7/2	20/6/23	soil									
2	7/3											
3	7/4											
4	8/1			X								
5	8/2											
6	8/3											
7	Dp1			X								
8	Dp2											
9	ELC x2						X					
10	TEP											
	RI											
Total Counts												

Method of Shipment: Courier (#) Hand Delivered Postal

Name: **Paloma** Signature: **[Signature]** Date: **20/06** Time: **3:45pm**

Received By: **Paloma** Date: **20/06** Time: **3:45pm**

Received By: **[Signature]** Date: **20/06** Time: **3:45pm**

Tyrone Gowans

From: Amy Meunier
Sent: Friday, 30 June 2023 11:03 AM
To: #AU_CAU001_EnviroSampleVic
Subject: FW: AUTA samples received
Attachments: SAU20PRT10223062115491.pdf

Follow Up Flag: Follow up
Flag Status: Completed

INFO: INTERNAL EMAIL - Sent from your own Eurofins email domain.

Hi Tyrone,

COC attached thanks

Kind regards,

Amy Meunier

Analytical Services Manager
Mobile : +61 477 574 867
Email : AmyMeunier@eurofins.com

Eurofins
6 Monterey Road,
Dandenong VIC 3175
Australia

*My office hours are 9am to 5:30pm (Monday to Friday)
If you require sample receipt outside these hours please email envirosamplevic@eurofins.com*



From: Ashley Moule <Ashley@amenvironmental.com.au>
Sent: Friday, 30 June 2023 10:59 AM
To: Amy Meunier <AmyMeunier@eurofins.com>
Subject: RE: AUTA samples received

CAUTION: EXTERNAL EMAIL - Sent from an email domain that is not formally trusted by Eurofins.
Do not click on links or open attachments unless you recognise the sender and are certain that the content is safe.

Ta

Regards,

Ashley

Ashley Moule
BE Chem, MEnvSt

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road Dandenong South VIC 3175 Tel: +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 Tel: +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 Tel: +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 Tel: +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarrie QLD 4172 Tel: +61 7 3902 4600 NATA# 1261 Site# 20794	1/2 Frost Drive Mayfield West NSW 2304 Tel: +61 2 4968 8448 NATA# 1261 Site# 25079 & 25289

Eurofins ARL Pty Ltd

ABN: 91 05 0159 898

Perth
46-48 Banksia Road Welshpool WA 6106 Tel: +61 8 6253 4444 NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Auckland	Christchurch
35 O'Rorke Road Penrose, Auckland 1061 Tel: +64 9 526 4551 IANZ# 1327	43 Detroit Drive Rolleston, Christchurch 7675 Tel: +64 3 343 5201 IANZ# 1290

Sample Receipt Advice

Company name:	AM Environmental Consulting P/L
Contact name:	-Ashley Moule (all SRA/REPORTS)
Project name:	AUTA
Project ID:	Not provided
Turnaround time:	5 Day
Date/Time received	Jun 30, 2023 11:00 AM
Eurofins reference	1003831

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✓ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Amy Meunier on phone : or by email: AmyMeunier@eurofins.com

Results will be delivered electronically via email to -Ashley Moule (all SRA/REPORTS) - ashley@amenvironmental.com.au.



Melbourne
6 Monterey Road
Dandenong South
VIC 3175
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Geelong
19/8 Lewalan Street
Grovedale
VIC 3216
Tel: +61 3 8564 5000
NATA# 1261 Site# 25403

Sydney
179 Magowar Road
Girraween
NSW 2145
Tel: +61 2 9900 8400
NATA# 1261 Site# 18217

Canberra
Unit 1,2 Dacre Street
Mitchell
ACT 2911
Tel: +61 2 6113 8091
NATA# 1261 Site# 25466

Brisbane
1/21 Smallwood Place
Murarrie
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NATA# 1261 Site# 20794

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Company Name: AM Environmental Consulting P/L
Address: 7 Rudd Crt
Bridgewater
SA 5155
Project Name: AUTA

Order No.:
Report #: 1003831
Phone: 0407 352 036
Fax:

Received: Jun 30, 2023 11:00 AM
Due: Jul 7, 2023
Priority: 5 Day
Contact Name: -Ashley Moule (all SRA/REPORTS)

Eurofins Analytical Services Manager : Amy Meunier

Sample Detail						HOLD	Metals M8	BTEX	Volatile Organics	Moisture Set	SA Waste Screen
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X
External Laboratory											
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID						
1	BH 1/1	Jun 20, 2023		Soil	M23-Jn0071317					X	X
2	BH 2/1	Jun 20, 2023		Soil	M23-Jn0071318					X	X
3	BH 3/1	Jun 20, 2023		Soil	M23-Jn0071319					X	X
4	BH 4/1	Jun 20, 2023		Soil	M23-Jn0071320					X	X
5	BH 5/1	Jun 20, 2023		Soil	M23-Jn0071321					X	X
6	BH 6/1	Jun 20, 2023		Soil	M23-Jn0071322					X	X
7	BH 7/1	Jun 20, 2023		Soil	M23-Jn0071323					X	X
8	BH 8/1	Jun 20, 2023		Soil	M23-Jn0071324					X	X
9	DUP1	Jun 20, 2023		Soil	M23-Jn0071325		X			X	
10	EIL	Jun 20, 2023		Soil	M23-Jn0071326			X		X	
11	TRIP	Jun 20, 2023		Water	M23-Jn0071327				X		
12	R1	Jun 20, 2023		Water	M23-Jn0071328				X		
13	BH 1/2	Jun 20, 2023		Soil	M23-Jn0071329	X					
14	BH 1/3	Jun 20, 2023		Soil	M23-Jn0071330	X					



Melbourne
6 Monterey Road
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NATA# 1261 Site# 1254

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NATA# 1261 Site# 18217

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NATA# 1261 Site# 25466

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Company Name: AM Environmental Consulting P/L
Address: 7 Rudd Crt
Bridgewater
SA 5155
Project Name: AUTA

Order No.:
Report #: 1003831
Phone: 0407 352 036
Fax:

Received: Jun 30, 2023 11:00 AM
Due: Jul 7, 2023
Priority: 5 Day
Contact Name: -Ashley Moule (all SRA/REPORTS)

Eurofins Analytical Services Manager : Amy Meunier

Sample Detail					HOLD	Metals M8	BTEX	Volatile Organics	Moisture Set	SA Waste Screen
Melbourne Laboratory - NATA # 1261 Site # 1254					X	X	X	X	X	X
15	BH 2/2	Jun 20, 2023		Soil	M23-Jn0071331	X				
16	BH 2/3	Jun 20, 2023		Soil	M23-Jn0071332	X				
17	BH 3/2	Jun 20, 2023		Soil	M23-Jn0071333	X				
18	BH 3/3	Jun 20, 2023		Soil	M23-Jn0071334	X				
19	BH 4/2	Jun 20, 2023		Soil	M23-Jn0071335	X				
20	BH 4/3	Jun 20, 2023		Soil	M23-Jn0071336	X				
21	BH 5/2	Jun 20, 2023		Soil	M23-Jn0071337	X				
22	BH 5/3	Jun 20, 2023		Soil	M23-Jn0071338	X				
23	BH 6/2	Jun 20, 2023		Soil	M23-Jn0071339	X				
24	BH 6/3	Jun 20, 2023		Soil	M23-Jn0071340	X				
25	BH 6/4	Jun 20, 2023		Soil	M23-Jn0071341	X				
26	BH 7/2	Jun 20, 2023		Soil	M23-Jn0071342	X				
27	BH 7/3	Jun 20, 2023		Soil	M23-Jn0071343	X				
28	BH 7/4	Jun 20, 2023		Soil	M23-Jn0071344	X				
29	BH 8/2	Jun 20, 2023		Soil	M23-Jn0071345	X				
30	BH 8/3	Jun 20, 2023		Soil	M23-Jn0071346	X				
					18	1	1	2	10	8



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Company Name:	AM Environmental Consulting P/L	Order No.:		Received:	Jun 30, 2023 11:00 AM
Address:	7 Rudd Crt Bridgewater SA 5155	Report #:	1003831	Due:	Jul 7, 2023
Project Name:	AUTA	Phone:	0407 352 036	Priority:	5 Day
		Fax:		Contact Name:	-Ashley Moule (all SRA/REPORTS)
Eurofins Analytical Services Manager : Amy Meunier					

Sample Detail	HOLD	Metals M8	BTEX	Volatile Organics	Moisture Set	SA Waste Screen
Melbourne Laboratory - NATA # 1261 Site # 1254	X	X	X	X	X	X
Test Counts	18	1	1	2	10	8

AM Environmental Consulting P/L
7 Rudd Crt
Bridgewater
SA 5155



NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition
Arrangement for the mutual recognition of the
equivalence of testing, medical testing, calibration,
inspection, proficiency testing scheme providers and
reference materials producers reports and certificates.

Attention: **-Ashley Moule (all SRA/REPORTS)**

Report **1003831-S**
Project name **AUTA**
Received Date **Jun 30, 2023**

Client Sample ID			BH 1/1	BH 2/1	BH 3/1	BH 4/1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M23- Jn0071317	M23- Jn0071318	M23- Jn0071319	M23- Jn0071320
Date Sampled			Jun 20, 2023	Jun 20, 2023	Jun 20, 2023	Jun 20, 2023
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	180	160	< 50	< 50
TRH C29-C36	50	mg/kg	160	88	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	340	248	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	310	240	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	310	240	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	88	79	77	76
Volatile Organics						
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	8.6	8.7	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	8.6	8.7	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	8.6	8.7	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	1.1	1.3	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	2.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	4.4	5.3	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	5.4	5.6	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	3.8	3.8	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	4.0	3.1	< 0.5	< 0.5

Client Sample ID			BH 1/1	BH 2/1	BH 3/1	BH 4/1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M23- Jn0071317	M23- Jn0071318	M23- Jn0071319	M23- Jn0071320
Date Sampled			Jun 20, 2023	Jun 20, 2023	Jun 20, 2023	Jun 20, 2023
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Benzo(k)fluoranthene	0.5	mg/kg	3.4	3.2	< 0.5	< 0.5
Chrysene	0.5	mg/kg	4.1	5.1	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	1.5	1.4	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	5.8	11	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	0.8	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	4.1	3.7	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	1.8	9.6	< 0.5	< 0.5
Pyrene	0.5	mg/kg	6.4	11	0.6	< 0.5
Total PAH*	0.5	mg/kg	46	67	0.6	< 0.5
2-Fluorobiphenyl (surr.)	1	%	59	73	55	107
p-Terphenyl-d14 (surr.)	1	%	68	94	71	106
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.2
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.2
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.2
Dibutylchloroendate (surr.)	1	%	74	112	72	107
Tetrachloro-m-xylene (surr.)	1	%	67	125	77	117
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1

Client Sample ID			BH 1/1	BH 2/1	BH 3/1	BH 4/1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M23- Jn0071317	M23- Jn0071318	M23- Jn0071319	M23- Jn0071320
Date Sampled			Jun 20, 2023	Jun 20, 2023	Jun 20, 2023	Jun 20, 2023
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Dibutylchlorendate (surr.)	1	%	74	112	72	107
Tetrachloro-m-xylene (surr.)	1	%	67	125	77	117
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	31	88	31	78
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Chromium (trivalent)	5	mg/kg	14	20	25	21
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Heavy Metals						
Arsenic	2	mg/kg	2.2	3.2	8.0	3.7
Barium	10	mg/kg	100	170	170	110
Beryllium	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	0.5	< 0.4	< 0.4
Chromium	5	mg/kg	14	20	25	21
Cobalt	5	mg/kg	< 5	7.4	< 5	6.3
Copper	5	mg/kg	15	24	16	20
Iron	20	mg/kg	10000	14000	20000	15000
Lead	5	mg/kg	93	120	120	280
Manganese	5	mg/kg	150	200	130	230
Mercury	0.1	mg/kg	0.3	0.6	0.3	0.8
Nickel	5	mg/kg	6.5	12	9.3	10
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Zinc	5	mg/kg	100	370	140	70
Sample Properties						
% Moisture	1	%	12	15	1.4	13

Client Sample ID			BH 5/1	BH 6/1	BH 7/1	BH 8/1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M23- Jn0071321	M23- Jn0071322	M23- Jn0071323	M23- Jn0071324
Date Sampled			Jun 20, 2023	Jun 20, 2023	Jun 20, 2023	Jun 20, 2023
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100	< 100	< 100
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total*	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	88	82	75	87
Volatile Organics						
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	0.7	< 0.5	1.0
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	0.7	< 0.5	1.0
Total PAH*	0.5	mg/kg	< 0.5	1.4	< 0.5	2.0
2-Fluorobiphenyl (surr.)	1	%	128	101	77	74
p-Terphenyl-d14 (surr.)	1	%	128	94	96	74

Client Sample ID			BH 5/1	BH 6/1	BH 7/1	BH 8/1
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins Sample No.			M23- Jn0071321	M23- Jn0071322	M23- Jn0071323	M23- Jn0071324
Date Sampled			Jun 20, 2023	Jun 20, 2023	Jun 20, 2023	Jun 20, 2023
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-HCH	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-HCH (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin and Dieldrin (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
DDT + DDE + DDD (Total)*	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vic EPA IWRG 621 OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Vic EPA IWRG 621 Other OCP (Total)*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	112	79	137	73
Tetrachloro-m-xylene (surr.)	1	%	136	100	89	93
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchlorendate (surr.)	1	%	112	79	137	73
Tetrachloro-m-xylene (surr.)	1	%	136	100	89	93
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2,4,5-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,4,6-Trichlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	10	mg/kg	< 10	< 10	< 10	< 10
Total Halogenated Phenol*	1	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID Sample Matrix			BH 5/1 Soil M23- Jn0071321 Jun 20, 2023	BH 6/1 Soil M23- Jn0071322 Jun 20, 2023	BH 7/1 Soil M23- Jn0071323 Jun 20, 2023	BH 8/1 Soil M23- Jn0071324 Jun 20, 2023
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Total cresols*	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	49	33	52	50
Total Non-Halogenated Phenol*	20	mg/kg	< 20	< 20	< 20	< 20
Chromium (hexavalent)						
Chromium (hexavalent)	1	mg/kg	< 1	< 1	< 1	< 1
Chromium (trivalent)						
Chromium (trivalent)	5	mg/kg	< 5	8.1	9.2	16
Cyanide (total)						
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Heavy Metals						
Arsenic	2	mg/kg	< 2	4.4	5.0	2.8
Barium	10	mg/kg	< 10	11	18	130
Beryllium	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	0.9
Chromium	5	mg/kg	< 5	8.1	9.2	16
Cobalt	5	mg/kg	< 5	< 5	< 5	5.3
Copper	5	mg/kg	< 5	< 5	< 5	16
Iron	20	mg/kg	2600	5500	6200	11000
Lead	5	mg/kg	< 5	< 5	< 5	97
Manganese	5	mg/kg	< 5	33	6.3	170
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.3
Nickel	5	mg/kg	< 5	< 5	< 5	7.8
Silver	2	mg/kg	< 2	< 2	< 2	< 2
Zinc	5	mg/kg	< 5	8.8	15	74
Sample Properties						
% Moisture	1	%	< 1	8.3	8.0	13

Client Sample ID Sample Matrix			DUP1 Soil M23- Jn0071325 Jun 20, 2023	EIL Soil M23- Jn0071326 Jun 20, 2023
Eurofins Sample No.				
Date Sampled				
Test/Reference	LOR	Unit		
BTEX				
Benzene	0.1	mg/kg	-	< 0.1
Toluene	0.1	mg/kg	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1
Xylenes - Total*	0.3	mg/kg	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	102

Client Sample ID			DUP1	EIL
Sample Matrix			Soil	Soil
Eurofins Sample No.			M23- Jn0071325	M23- Jn0071326
Date Sampled			Jun 20, 2023	Jun 20, 2023
Test/Reference	LOR	Unit		
Heavy Metals				
Arsenic	2	mg/kg	2.8	-
Cadmium	0.4	mg/kg	< 0.4	-
Chromium	5	mg/kg	16	-
Copper	5	mg/kg	18	-
Lead	5	mg/kg	74	-
Mercury	0.1	mg/kg	0.5	-
Nickel	5	mg/kg	8.0	-
Zinc	5	mg/kg	71	-
Sample Properties				
% Moisture	1	%	12	13

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
SA Waste Screen			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Jul 01, 2023	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Jul 01, 2023	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Jul 01, 2023	14 Days
BTEX - Method: LTM-ORG-2010 BTEX and Volatile TRH	Melbourne	Jul 01, 2023	14 Days
Volatile Organics - Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)	Melbourne	Jul 01, 2023	7 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Jul 01, 2023	14 Days
Organochlorine Pesticides - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8270)	Melbourne	Jul 01, 2023	14 Days
Polychlorinated Biphenyls - Method: LTM-ORG-2220 OCP & PCB in Soil and Water (USEPA 8082)	Melbourne	Jul 01, 2023	28 Days
Phenols (Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Jul 01, 2023	14 Days
Phenols (non-Halogenated) - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Jul 01, 2023	14 Days
Chromium (hexavalent) - Method: LTM-INO-4100 Hexavalent Chromium by Spectrometric detection	Melbourne	Jul 01, 2023	28 Days
Cyanide (total) - Method: LTM-INO-4020 Total Free WAD Cyanide by CFA	Melbourne	Jul 01, 2023	14 Days
SA Waste Metals : Metals M14SA - Method: LTM-MET-3030 by ICP-OES (hydride ICP-OES for Mercury)	Melbourne	Jul 01, 2023	28 Days
Metals M8 - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Melbourne	Jul 01, 2023	28 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	Jun 30, 2023	14 Days

Company Name: AM Environmental Consulting P/L
Address: 7 Rudd Crt
Bridgewater
SA 5155
Project Name: AUTA

Order No.:
Report #: 1003831
Phone: 0407 352 036
Fax:

Received: Jun 30, 2023 11:00 AM
Due: Jul 7, 2023
Priority: 5 Day
Contact Name: -Ashley Moule (all SRA/REPORTS)

Eurofins Analytical Services Manager : Amy Meunier

Sample Detail						HOLD	Metals M8	BTEX	Volatile Organics	Moisture Set	SA Waste Screen
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X
External Laboratory											
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID						
1	BH 1/1	Jun 20, 2023		Soil	M23-Jn0071317					X	X
2	BH 2/1	Jun 20, 2023		Soil	M23-Jn0071318					X	X
3	BH 3/1	Jun 20, 2023		Soil	M23-Jn0071319					X	X
4	BH 4/1	Jun 20, 2023		Soil	M23-Jn0071320					X	X
5	BH 5/1	Jun 20, 2023		Soil	M23-Jn0071321					X	X
6	BH 6/1	Jun 20, 2023		Soil	M23-Jn0071322					X	X
7	BH 7/1	Jun 20, 2023		Soil	M23-Jn0071323					X	X
8	BH 8/1	Jun 20, 2023		Soil	M23-Jn0071324					X	X
9	DUP1	Jun 20, 2023		Soil	M23-Jn0071325		X			X	
10	EIL	Jun 20, 2023		Soil	M23-Jn0071326			X		X	
11	TRIP	Jun 20, 2023		Water	M23-Jn0071327				X		
12	R1	Jun 20, 2023		Water	M23-Jn0071328				X		
13	BH 1/2	Jun 20, 2023		Soil	M23-Jn0071329	X					
14	BH 1/3	Jun 20, 2023		Soil	M23-Jn0071330	X					

Company Name:	AM Environmental Consulting P/L	Order No.:		Received:	Jun 30, 2023 11:00 AM
Address:	7 Rudd Crt Bridgewater SA 5155	Report #:	1003831	Due:	Jul 7, 2023
Project Name:	AUTA	Phone:	0407 352 036	Priority:	5 Day
		Fax:		Contact Name:	-Ashley Moule (all SRA/REPORTS)
Eurofins Analytical Services Manager : Amy Meunier					

Sample Detail						HOLD	Metals M8	BTEX	Volatile Organics	Moisture Set	SA Waste Screen
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X
15	BH 2/2	Jun 20, 2023		Soil	M23-Jn0071331	X					
16	BH 2/3	Jun 20, 2023		Soil	M23-Jn0071332	X					
17	BH 3/2	Jun 20, 2023		Soil	M23-Jn0071333	X					
18	BH 3/3	Jun 20, 2023		Soil	M23-Jn0071334	X					
19	BH 4/2	Jun 20, 2023		Soil	M23-Jn0071335	X					
20	BH 4/3	Jun 20, 2023		Soil	M23-Jn0071336	X					
21	BH 5/2	Jun 20, 2023		Soil	M23-Jn0071337	X					
22	BH 5/3	Jun 20, 2023		Soil	M23-Jn0071338	X					
23	BH 6/2	Jun 20, 2023		Soil	M23-Jn0071339	X					
24	BH 6/3	Jun 20, 2023		Soil	M23-Jn0071340	X					
25	BH 6/4	Jun 20, 2023		Soil	M23-Jn0071341	X					
26	BH 7/2	Jun 20, 2023		Soil	M23-Jn0071342	X					
27	BH 7/3	Jun 20, 2023		Soil	M23-Jn0071343	X					
28	BH 7/4	Jun 20, 2023		Soil	M23-Jn0071344	X					
29	BH 8/2	Jun 20, 2023		Soil	M23-Jn0071345	X					
30	BH 8/3	Jun 20, 2023		Soil	M23-Jn0071346	X					
						18	1	1	2	10	8

Company Name:	AM Environmental Consulting P/L	Order No.:		Received:	Jun 30, 2023 11:00 AM
Address:	7 Rudd Crt Bridgewater SA 5155	Report #:	1003831	Due:	Jul 7, 2023
Project Name:	AUTA	Phone:	0407 352 036	Priority:	5 Day
		Fax:		Contact Name:	-Ashley Moule (all SRA/REPORTS)
Eurofins Analytical Services Manager : Amy Meunier					

Sample Detail	HOLD	Metals M8	BTEX	Volatile Organics	Moisture Set	SA Waste Screen
Melbourne Laboratory - NATA # 1261 Site # 1254	X	X	X	X	X	X
Test Counts	18	1	1	2	10	8

Internal Quality Control Review and Glossary

General

- Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	µg/L: micrograms per litre
ppm: parts per million	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony forming unit		

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (<i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPa, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR: RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

- Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
- Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
- pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
BTEX							
Benzene	mg/kg	< 0.1			0.1	Pass	
Toluene	mg/kg	< 0.1			0.1	Pass	
Ethylbenzene	mg/kg	< 0.1			0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2			0.2	Pass	
o-Xylene	mg/kg	< 0.1			0.1	Pass	
Xylenes - Total*	mg/kg	< 0.3			0.3	Pass	
Method Blank							
Volatile Organics							
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/kg	< 0.1			0.1	Pass	
4,4'-DDD	mg/kg	< 0.05			0.05	Pass	
4,4'-DDE	mg/kg	< 0.05			0.05	Pass	
4,4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-HCH	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-HCH	mg/kg	< 0.05			0.05	Pass	
d-HCH	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-HCH (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB*	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Phenols (Halogenated)							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4,5-Trichlorophenol	mg/kg	< 1			1	Pass	
2,4,6-Trichlorophenol	mg/kg	< 1			1	Pass	
2,6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1	Pass	
Pentachlorophenol	mg/kg	< 1			1	Pass	
Tetrachlorophenols - Total	mg/kg	< 10			10	Pass	
Method Blank							
Phenols (non-Halogenated)							
2-Cyclohexyl-4,6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4,6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2,4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Chromium (hexavalent)	mg/kg	< 1			1	Pass	
Cyanide (total)	mg/kg	< 5			5	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/kg	< 2			2	Pass	
Barium	mg/kg	< 10			10	Pass	
Beryllium	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	

Test	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Chromium	mg/kg	< 5		5	Pass	
Cobalt	mg/kg	< 5		5	Pass	
Copper	mg/kg	< 5		5	Pass	
Iron	mg/kg	< 20		20	Pass	
Lead	mg/kg	< 5		5	Pass	
Manganese	mg/kg	< 5		5	Pass	
Mercury	mg/kg	< 0.1		0.1	Pass	
Nickel	mg/kg	< 5		5	Pass	
Silver	mg/kg	< 2		2	Pass	
Zinc	mg/kg	< 5		5	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons						
TRH C6-C9	%	81		70-130	Pass	
TRH C10-C14	%	92		70-130	Pass	
TRH C6-C10	%	78		70-130	Pass	
TRH >C10-C16	%	95		70-130	Pass	
LCS - % Recovery						
BTEX						
Benzene	%	79		70-130	Pass	
Toluene	%	80		70-130	Pass	
Ethylbenzene	%	79		70-130	Pass	
m&p-Xylenes	%	78		70-130	Pass	
Xylenes - Total*	%	78		70-130	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene	%	77		70-130	Pass	
LCS - % Recovery						
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	%	109		70-130	Pass	
Acenaphthylene	%	109		70-130	Pass	
Benzo(a)pyrene	%	110		70-130	Pass	
Benzo(g,h,i)perylene	%	82		70-130	Pass	
Dibenz(a,h)anthracene	%	95		70-130	Pass	
Fluorene	%	109		70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	114		70-130	Pass	
Naphthalene	%	100		70-130	Pass	
Phenanthrene	%	106		70-130	Pass	
LCS - % Recovery						
Organochlorine Pesticides						
Chlordanes - Total	%	83		70-130	Pass	
4,4'-DDE	%	116		70-130	Pass	
4,4'-DDT	%	80		70-130	Pass	
a-HCH	%	92		70-130	Pass	
Aldrin	%	85		70-130	Pass	
b-HCH	%	80		70-130	Pass	
d-HCH	%	101		70-130	Pass	
Dieldrin	%	87		70-130	Pass	
Endosulfan I	%	80		70-130	Pass	
Endosulfan II	%	87		70-130	Pass	
Endosulfan sulphate	%	114		70-130	Pass	
Endrin	%	118		70-130	Pass	
Endrin aldehyde	%	114		70-130	Pass	
Endrin ketone	%	101		70-130	Pass	
g-HCH (Lindane)	%	100		70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
Heptachlor	%	100			70-130	Pass		
Heptachlor epoxide	%	80			70-130	Pass		
Hexachlorobenzene	%	85			70-130	Pass		
Methoxychlor	%	80			70-130	Pass		
LCS - % Recovery								
Polychlorinated Biphenyls								
Aroclor-1260	%	106			70-130	Pass		
LCS - % Recovery								
Phenols (Halogenated)								
2-Chlorophenol	%	56			25-140	Pass		
2,4,5-Trichlorophenol	%	97			25-140	Pass		
2,4,6-Trichlorophenol	%	68			25-140	Pass		
4-Chloro-3-methylphenol	%	37			25-140	Pass		
Tetrachlorophenols - Total	%	30			25-140	Pass		
LCS - % Recovery								
Phenols (non-Halogenated)								
2-Nitrophenol	%	36			25-140	Pass		
2,4-Dimethylphenol	%	37			25-140	Pass		
2-Methylphenol (o-Cresol)	%	38			25-140	Pass		
Dinoseb	%	66			25-140	Pass		
Phenol	%	49			25-140	Pass		
LCS - % Recovery								
Chromium (hexavalent)	%	87			70-130	Pass		
Cyanide (total)	%	102			70-130	Pass		
LCS - % Recovery								
Heavy Metals								
Arsenic	%	104			80-120	Pass		
Barium	%	106			80-120	Pass		
Beryllium	%	113			80-120	Pass		
Cadmium	%	100			80-120	Pass		
Chromium	%	111			80-120	Pass		
Cobalt	%	113			80-120	Pass		
Copper	%	109			80-120	Pass		
Iron	%	120			80-120	Pass		
Lead	%	114			80-120	Pass		
Manganese	%	111			80-120	Pass		
Mercury	%	105			80-120	Pass		
Nickel	%	106			80-120	Pass		
Silver	%	102			80-120	Pass		
Zinc	%	106			80-120	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C10-C14	M23-Jn0069239	NCP	%	90		70-130	Pass	
TRH >C10-C16	M23-Jn0069239	NCP	%	88		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M23-Jn0068841	NCP	%	77		70-130	Pass	
Pyrene	M23-Jn0068841	NCP	%	85		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				
Chlordanes - Total	M23-Jn0072626	NCP	%	79		70-130	Pass	
4,4'-DDD	M23-Jn0072626	NCP	%	91		70-130	Pass	
4,4'-DDE	M23-Jn0072626	NCP	%	115		70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
4,4'-DDT	M23-Jn0072626	NCP	%	83		70-130	Pass	
a-HCH	M23-Jn0072626	NCP	%	84		70-130	Pass	
Aldrin	M23-Jn0072626	NCP	%	87		70-130	Pass	
b-HCH	M23-Jn0072626	NCP	%	102		70-130	Pass	
d-HCH	M23-Jn0072626	NCP	%	83		70-130	Pass	
Dieldrin	M23-Jn0072626	NCP	%	74		70-130	Pass	
Endosulfan I	M23-Jn0072626	NCP	%	93		70-130	Pass	
Endosulfan II	M23-Jn0072626	NCP	%	82		70-130	Pass	
Endosulfan sulphate	M23-Jn0072626	NCP	%	95		70-130	Pass	
Endrin	M23-Jn0072626	NCP	%	107		70-130	Pass	
Endrin aldehyde	M23-Jn0072626	NCP	%	124		70-130	Pass	
Endrin ketone	M23-Jn0072626	NCP	%	117		70-130	Pass	
g-HCH (Lindane)	M23-Jn0072626	NCP	%	120		70-130	Pass	
Heptachlor	M23-Jn0072626	NCP	%	95		70-130	Pass	
Heptachlor epoxide	M23-Jn0072626	NCP	%	90		70-130	Pass	
Hexachlorobenzene	M23-Jn0072626	NCP	%	84		70-130	Pass	
Methoxychlor	M23-Jn0072626	NCP	%	92		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M23-Jn0068841	NCP	%	79		30-130	Pass	
Pentachlorophenol	M23-Jn0068841	NCP	%	56		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M23-Jn0069621	NCP	%	14		30-130	Fail	Q08
Phenol	M23-Jn0068841	NCP	%	53		30-130	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic	M23-Jn0072822	NCP	%	101		75-125	Pass	
Barium	M23-Jn0072822	NCP	%	92		75-125	Pass	
Beryllium	M23-Jn0072822	NCP	%	111		75-125	Pass	
Cadmium	M23-Jn0072822	NCP	%	105		75-125	Pass	
Chromium	M23-Jn0072822	NCP	%	107		75-125	Pass	
Cobalt	M23-Jn0072822	NCP	%	108		75-125	Pass	
Copper	M23-Jn0072822	NCP	%	106		75-125	Pass	
Iron	M23-Jn0073227	NCP	%	89		75-125	Pass	
Lead	M23-Jn0072822	NCP	%	103		75-125	Pass	
Manganese	M23-Jn0072811	NCP	%	111		75-125	Pass	
Mercury	M23-Jn0072822	NCP	%	109		75-125	Pass	
Nickel	M23-Jn0072822	NCP	%	102		75-125	Pass	
Silver	M23-Jn0072822	NCP	%	103		75-125	Pass	
Zinc	M23-Jn0072822	NCP	%	85		75-125	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C6-C9	M23-Jn0071318	CP	%	103		70-130	Pass	
TRH C6-C10	M23-Jn0071318	CP	%	95		70-130	Pass	
Spike - % Recovery								
BTEX				Result 1				
Benzene	M23-Jn0071318	CP	%	78		70-130	Pass	
Toluene	M23-Jn0071318	CP	%	78		70-130	Pass	
Ethylbenzene	M23-Jn0071318	CP	%	79		70-130	Pass	
m&p-Xylenes	M23-Jn0071318	CP	%	78		70-130	Pass	
o-Xylene	M23-Jn0071318	CP	%	82		70-130	Pass	
Xylenes - Total*	M23-Jn0071318	CP	%	80		70-130	Pass	
Spike - % Recovery								

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	M23-Jn0071318	CP	%	71			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C10-C14	M23-Jn0071973	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M23-Jn0071973	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M23-Jn0071973	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C10-C16	M23-Jn0071973	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M23-Jn0071973	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M23-Jn0071973	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g,h,i)perylene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	B23-Jn0069103	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4,4'-DDD	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDE	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4,4'-DDT	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-HCH	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-HCH	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-HCH	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-HCH (Lindane)	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	B23-Jn0069103	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	B23-Jn0069103	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	B23-Jn0069103	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	B23-Jn0069103	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	B23-Jn0069103	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	B23-Jn0069103	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	B23-Jn0069103	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	B23-Jn0069103	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB*	B23-Jn0069103	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	B23-Jn0069103	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	B23-Jn0069103	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2,6-Dichlorophenol	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	B23-Jn0069103	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	B23-Jn0069103	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	B23-Jn0069103	NCP	mg/kg	< 10	< 10	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	B23-Jn0069103	NCP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	B23-Jn0069103	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Nitrophenol	B23-Jn0069103	NCP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	B23-Jn0069103	NCP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	B23-Jn0069103	NCP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	B23-Jn0069103	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	B23-Jn0069103	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	B23-Jn0069103	NCP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	B23-Jn0069103	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Chromium (hexavalent)	M23-Jn0067321	NCP	mg/kg	< 1	< 1	<1	30%	Pass
Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Arsenic	M23-Jn0073249	NCP	mg/kg	16	16	<1	30%	Pass
Barium	M23-Jn0073249	NCP	mg/kg	45	46	<1	30%	Pass
Beryllium	M23-Jn0073249	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Cadmium	M23-Jn0073249	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
Chromium	M23-Jn0073249	NCP	mg/kg	21	21	<1	30%	Pass
Cobalt	M23-Jn0073249	NCP	mg/kg	< 5	< 5	<1	30%	Pass
Copper	M23-Jn0073249	NCP	mg/kg	15	15	<1	30%	Pass
Iron	M23-Jn0073249	NCP	mg/kg	15000	15000	<1	30%	Pass
Lead	M23-Jn0073249	NCP	mg/kg	120	120	<1	30%	Pass
Manganese	M23-Jn0073249	NCP	mg/kg	87	87	<1	30%	Pass
Mercury	M23-Jn0073249	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Nickel	M23-Jn0073249	NCP	mg/kg	14	14	1.5	30%	Pass
Silver	M23-Jn0073249	NCP	mg/kg	< 2	< 2	<1	30%	Pass
Zinc	M23-Jn0073249	NCP	mg/kg	97	97	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD		
TRH C6-C9	M23-Jn0071324	CP	mg/kg	< 20	< 20	<1	30%	Pass
TRH C6-C10	M23-Jn0071324	CP	mg/kg	< 20	< 20	<1	30%	Pass

Duplicate								
BTEX				Result 1	Result 2	RPD		
Benzene	M23-Jn0071324	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Toluene	M23-Jn0071324	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Ethylbenzene	M23-Jn0071324	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
m&p-Xylenes	M23-Jn0071324	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
o-Xylene	M23-Jn0071324	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Xylenes - Total*	M23-Jn0071324	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass
Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
Tetrachloroethene	M23-Jn0071324	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD		
Naphthalene	M23-Jn0071324	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Comments
Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.

Authorised by:

Catherine Wilson	Analytical Services Manager
Caitlin Breeze	Senior Analyst-Inorganic
Carroll Lee	Senior Analyst-Volatile
Harry Bacalis	Senior Analyst-Volatile
Joseph Edouard	Senior Analyst-Organic
Mary Makarios	Senior Analyst-Inorganic
Mary Makarios	Senior Analyst-Metal
Mele Singh	Senior Analyst-Organic



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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AM Environmental Consulting P/L
 7 Rudd Crt
 Bridgewater
 SA 5155



NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
 NATA is a signatory to the ILAC Mutual Recognition
 Arrangement for the mutual recognition of the
 equivalence of testing, medical testing, calibration,
 inspection, proficiency testing scheme providers and
 reference materials producers reports and certificates.

Attention: -Ashley Moule (all SRA/REPORTS)

Report 1003831-W
 Project name AUTA
 Received Date Jun 30, 2023

Client Sample ID			TRIP	R1
Sample Matrix			Water	Water
Eurofins Sample No.			M23- Jn0071327	M23- Jn0071328
Date Sampled			Jun 20, 2023	Jun 20, 2023
Test/Reference	LOR	Unit		
Volatile Organics				
1.1-Dichloroethane	0.001	mg/L	< 0.001	< 0.001
1.1-Dichloroethene	0.001	mg/L	< 0.001	< 0.001
1.1.1-Trichloroethane	0.001	mg/L	< 0.001	< 0.001
1.1.1.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001
1.1.2-Trichloroethane	0.001	mg/L	< 0.001	< 0.001
1.1.2.2-Tetrachloroethane	0.001	mg/L	< 0.001	< 0.001
1.2-Dibromoethane	0.001	mg/L	< 0.001	< 0.001
1.2-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001
1.2-Dichloroethane	0.001	mg/L	< 0.001	< 0.001
1.2-Dichloropropane	0.001	mg/L	< 0.001	< 0.001
1.2.3-Trichloropropane	0.001	mg/L	< 0.001	< 0.001
1.2.4-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001
1.3-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001
1.3-Dichloropropane	0.001	mg/L	< 0.001	< 0.001
1.3.5-Trimethylbenzene	0.001	mg/L	< 0.001	< 0.001
1.4-Dichlorobenzene	0.001	mg/L	< 0.001	< 0.001
2-Butanone (MEK)	0.005	mg/L	< 0.005	< 0.005
2-Propanone (Acetone)	0.005	mg/L	< 0.005	< 0.005
4-Chlorotoluene	0.001	mg/L	< 0.001	< 0.001
4-Methyl-2-pentanone (MIBK)	0.005	mg/L	< 0.005	< 0.005
Allyl chloride	0.001	mg/L	< 0.001	< 0.001
Benzene	0.001	mg/L	< 0.001	< 0.001
Bromobenzene	0.001	mg/L	< 0.001	< 0.001
Bromochloromethane	0.001	mg/L	< 0.001	< 0.001
Bromodichloromethane	0.001	mg/L	< 0.001	< 0.001
Bromoform	0.001	mg/L	< 0.001	< 0.001
Bromomethane	0.005	mg/L	< 0.005	< 0.005
Carbon disulfide	0.001	mg/L	< 0.001	< 0.001
Carbon Tetrachloride	0.001	mg/L	< 0.001	< 0.001
Chlorobenzene	0.001	mg/L	< 0.001	< 0.001
Chloroethane	0.005	mg/L	< 0.005	< 0.005
Chloroform	0.005	mg/L	< 0.005	< 0.005
Chloromethane	0.005	mg/L	< 0.005	< 0.005
cis-1.2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001
cis-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001
Dibromochloromethane	0.001	mg/L	< 0.001	< 0.001

Client Sample ID Sample Matrix Eurofins Sample No. Date Sampled Test/Reference	LOR	Unit	TRIP Water M23- Jn0071327 Jun 20, 2023	R1 Water M23- Jn0071328 Jun 20, 2023
Volatile Organics				
Dibromomethane	0.001	mg/L	< 0.001	< 0.001
Dichlorodifluoromethane	0.005	mg/L	< 0.005	< 0.005
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001
Iodomethane	0.001	mg/L	< 0.001	< 0.001
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002
Methylene Chloride	0.005	mg/L	< 0.005	< 0.005
o-Xylene	0.001	mg/L	< 0.001	< 0.001
Styrene	0.001	mg/L	< 0.001	< 0.001
Tetrachloroethene	0.001	mg/L	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001
trans-1.2-Dichloroethene	0.001	mg/L	< 0.001	< 0.001
trans-1.3-Dichloropropene	0.001	mg/L	< 0.001	< 0.001
Trichloroethene	0.001	mg/L	< 0.001	< 0.001
Trichlorofluoromethane	0.005	mg/L	< 0.005	< 0.005
Vinyl chloride	0.005	mg/L	< 0.005	< 0.005
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003
Total MAH*	0.003	mg/L	< 0.003	< 0.003
Vic EPA IWRG 621 CHC (Total)*	0.005	mg/L	< 0.005	< 0.005
Vic EPA IWRG 621 Other CHC (Total)*	0.005	mg/L	< 0.005	< 0.005
4-Bromofluorobenzene (surr.)	1	%	96	95
Toluene-d8 (surr.)	1	%	97	96

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description

Volatile Organics

- Method: LTM-ORG-2150 VOCs in Soils Liquid and other Aqueous Matrices (USEPA 8260)

Testing Site

Melbourne

Extracted

Jun 30, 2023

Holding Time

7 Days

Company Name: AM Environmental Consulting P/L
Address: 7 Rudd Crt
Bridgewater
SA 5155
Project Name: AUTA

Order No.:
Report #: 1003831
Phone: 0407 352 036
Fax:

Received: Jun 30, 2023 11:00 AM
Due: Jul 7, 2023
Priority: 5 Day
Contact Name: -Ashley Moule (all SRA/REPORTS)

Eurofins Analytical Services Manager : Amy Meunier

Sample Detail						HOLD	Metals M8	BTEX	Volatile Organics	Moisture Set	SA Waste Screen
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X
External Laboratory											
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID						
1	BH 1/1	Jun 20, 2023		Soil	M23-Jn0071317					X	X
2	BH 2/1	Jun 20, 2023		Soil	M23-Jn0071318					X	X
3	BH 3/1	Jun 20, 2023		Soil	M23-Jn0071319					X	X
4	BH 4/1	Jun 20, 2023		Soil	M23-Jn0071320					X	X
5	BH 5/1	Jun 20, 2023		Soil	M23-Jn0071321					X	X
6	BH 6/1	Jun 20, 2023		Soil	M23-Jn0071322					X	X
7	BH 7/1	Jun 20, 2023		Soil	M23-Jn0071323					X	X
8	BH 8/1	Jun 20, 2023		Soil	M23-Jn0071324					X	X
9	DUP1	Jun 20, 2023		Soil	M23-Jn0071325		X			X	
10	EIL	Jun 20, 2023		Soil	M23-Jn0071326			X		X	
11	TRIP	Jun 20, 2023		Water	M23-Jn0071327				X		
12	R1	Jun 20, 2023		Water	M23-Jn0071328				X		
13	BH 1/2	Jun 20, 2023		Soil	M23-Jn0071329	X					
14	BH 1/3	Jun 20, 2023		Soil	M23-Jn0071330	X					

Company Name:	AM Environmental Consulting P/L	Order No.:		Received:	Jun 30, 2023 11:00 AM
Address:	7 Rudd Crt Bridgewater SA 5155	Report #:	1003831	Due:	Jul 7, 2023
Project Name:	AUTA	Phone:	0407 352 036	Priority:	5 Day
		Fax:		Contact Name:	-Ashley Moule (all SRA/REPORTS)
Eurofins Analytical Services Manager : Amy Meunier					

Sample Detail						HOLD	Metals M8	BTEX	Volatile Organics	Moisture Set	SA Waste Screen
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X	X	X	X
15	BH 2/2	Jun 20, 2023		Soil	M23-Jn0071331	X					
16	BH 2/3	Jun 20, 2023		Soil	M23-Jn0071332	X					
17	BH 3/2	Jun 20, 2023		Soil	M23-Jn0071333	X					
18	BH 3/3	Jun 20, 2023		Soil	M23-Jn0071334	X					
19	BH 4/2	Jun 20, 2023		Soil	M23-Jn0071335	X					
20	BH 4/3	Jun 20, 2023		Soil	M23-Jn0071336	X					
21	BH 5/2	Jun 20, 2023		Soil	M23-Jn0071337	X					
22	BH 5/3	Jun 20, 2023		Soil	M23-Jn0071338	X					
23	BH 6/2	Jun 20, 2023		Soil	M23-Jn0071339	X					
24	BH 6/3	Jun 20, 2023		Soil	M23-Jn0071340	X					
25	BH 6/4	Jun 20, 2023		Soil	M23-Jn0071341	X					
26	BH 7/2	Jun 20, 2023		Soil	M23-Jn0071342	X					
27	BH 7/3	Jun 20, 2023		Soil	M23-Jn0071343	X					
28	BH 7/4	Jun 20, 2023		Soil	M23-Jn0071344	X					
29	BH 8/2	Jun 20, 2023		Soil	M23-Jn0071345	X					
30	BH 8/3	Jun 20, 2023		Soil	M23-Jn0071346	X					
						18	1	1	2	10	8

Company Name:	AM Environmental Consulting P/L	Order No.:		Received:	Jun 30, 2023 11:00 AM
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Project Name:	AUTA	Phone:	0407 352 036	Priority:	5 Day
		Fax:		Contact Name:	-Ashley Moule (all SRA/REPORTS)
Eurofins Analytical Services Manager : Amy Meunier					

Sample Detail	HOLD	Metals M8	BTEX	Volatile Organics	Moisture Set	SA Waste Screen
Melbourne Laboratory - NATA # 1261 Site # 1254	X	X	X	X	X	X
Test Counts	18	1	1	2	10	8

Internal Quality Control Review and Glossary

General

- Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	µg/L: micrograms per litre
ppm: parts per million	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony forming unit		

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (<i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR: RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

- Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
- Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
- pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Volatile Organics							
1.1-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.1-Dichloroethene	mg/L	< 0.001			0.001	Pass	
1.1.1-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.1.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2-Trichloroethane	mg/L	< 0.001			0.001	Pass	
1.1.2.2-Tetrachloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dibromoethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.2-Dichloroethane	mg/L	< 0.001			0.001	Pass	
1.2-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.3-Trichloropropane	mg/L	< 0.001			0.001	Pass	
1.2.4-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
1.3-Dichloropropane	mg/L	< 0.001			0.001	Pass	
1.3.5-Trimethylbenzene	mg/L	< 0.001			0.001	Pass	
1.4-Dichlorobenzene	mg/L	< 0.001			0.001	Pass	
2-Butanone (MEK)	mg/L	< 0.005			0.005	Pass	
2-Propanone (Acetone)	mg/L	< 0.005			0.005	Pass	
4-Chlorotoluene	mg/L	< 0.001			0.001	Pass	
4-Methyl-2-pentanone (MIBK)	mg/L	< 0.005			0.005	Pass	
Allyl chloride	mg/L	< 0.001			0.001	Pass	
Benzene	mg/L	< 0.001			0.001	Pass	
Bromobenzene	mg/L	< 0.001			0.001	Pass	
Bromochloromethane	mg/L	< 0.001			0.001	Pass	
Bromodichloromethane	mg/L	< 0.001			0.001	Pass	
Bromoform	mg/L	< 0.001			0.001	Pass	
Bromomethane	mg/L	< 0.005			0.005	Pass	
Carbon disulfide	mg/L	< 0.001			0.001	Pass	
Carbon Tetrachloride	mg/L	< 0.001			0.001	Pass	
Chlorobenzene	mg/L	< 0.001			0.001	Pass	
Chloroethane	mg/L	< 0.005			0.005	Pass	
Chloroform	mg/L	< 0.005			0.005	Pass	
Chloromethane	mg/L	< 0.005			0.005	Pass	
cis-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
cis-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Dibromochloromethane	mg/L	< 0.001			0.001	Pass	
Dibromomethane	mg/L	< 0.001			0.001	Pass	
Dichlorodifluoromethane	mg/L	< 0.005			0.005	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
Iodomethane	mg/L	< 0.001			0.001	Pass	
Isopropyl benzene (Cumene)	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
Methylene Chloride	mg/L	< 0.005			0.005	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Styrene	mg/L	< 0.001			0.001	Pass	
Tetrachloroethene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
trans-1.2-Dichloroethene	mg/L	< 0.001			0.001	Pass	
trans-1.3-Dichloropropene	mg/L	< 0.001			0.001	Pass	
Trichloroethene	mg/L	< 0.001			0.001	Pass	

Test				Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code	
Trichlorofluoromethane				mg/L	< 0.005			0.005	Pass		
Vinyl chloride				mg/L	< 0.005			0.005	Pass		
Xylenes - Total*				mg/L	< 0.003			0.003	Pass		
LCS - % Recovery											
Volatile Organics											
1.1-Dichloroethene				%	119			70-130	Pass		
1.1.1-Trichloroethane				%	111			70-130	Pass		
1.2-Dichlorobenzene				%	106			70-130	Pass		
1.2-Dichloroethane				%	121			70-130	Pass		
Benzene				%	107			70-130	Pass		
Ethylbenzene				%	101			70-130	Pass		
m&p-Xylenes				%	106			70-130	Pass		
Toluene				%	101			70-130	Pass		
Trichloroethene				%	106			70-130	Pass		
Xylenes - Total*				%	107			70-130	Pass		
Test	Lab Sample ID	QA Source	Units	Result 1				Acceptance Limits	Pass Limits	Qualifying Code	
Spike - % Recovery											
Volatile Organics											
					Result 1						
1.1-Dichloroethene				M23-JI0002246	NCP	%	125		70-130	Pass	
1.1.1-Trichloroethane				M23-JI0002246	NCP	%	109		70-130	Pass	
1.2-Dichlorobenzene				M23-JI0002246	NCP	%	105		70-130	Pass	
1.2-Dichloroethane				M23-JI0002246	NCP	%	116		70-130	Pass	
Benzene				M23-JI0002246	NCP	%	105		70-130	Pass	
Ethylbenzene				M23-JI0002246	NCP	%	94		70-130	Pass	
m&p-Xylenes				M23-JI0002246	NCP	%	98		70-130	Pass	
o-Xylene				M23-JI0002246	NCP	%	99		70-130	Pass	
Toluene				M23-JI0002246	NCP	%	99		70-130	Pass	
Trichloroethene				M23-JI0002246	NCP	%	104		70-130	Pass	
Xylenes - Total*				M23-JI0002246	NCP	%	98		70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1				Acceptance Limits	Pass Limits	Qualifying Code	
Duplicate											
Volatile Organics											
					Result 1	Result 2	RPD				
1.1-Dichloroethane				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
1.1-Dichloroethane				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
1.1.1-Trichloroethane				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
1.1.1.2-Tetrachloroethane				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
1.1.2-Trichloroethane				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
1.1.2.2-Tetrachloroethane				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
1.2-Dibromoethane				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
1.2-Dichlorobenzene				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
1.2-Dichloroethane				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
1.2-Dichloropropane				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
1.2.3-Trichloropropane				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
1.2.4-Trimethylbenzene				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
1.3-Dichlorobenzene				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
1.3-Dichloropropane				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
1.3.5-Trimethylbenzene				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
1.4-Dichlorobenzene				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
2-Butanone (MEK)				M23-Jn0069392	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass
2-Propanone (Acetone)				M23-JI0002393	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass
4-Chlorotoluene				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)				M23-Jn0069392	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass
Allyl chloride				M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Benzene	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromobenzene	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromochloromethane	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromodichloromethane	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromoform	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromomethane	M23-Jn0069392	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Carbon disulfide	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Carbon Tetrachloride	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chlorobenzene	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chloroethane	M23-Jn0069392	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chloroform	M23-Jn0069392	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chloromethane	M23-Jn0069392	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
cis-1.2-Dichloroethene	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
cis-1.3-Dichloropropene	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibromochloromethane	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibromomethane	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dichlorodifluoromethane	M23-Jn0069392	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Ethylbenzene	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Iodomethane	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Isopropyl benzene (Cumene)	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	M23-Jn0069392	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
Methylene Chloride	M23-Jn0069392	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
o-Xylene	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Styrene	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Tetrachloroethene	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
trans-1.2-Dichloroethene	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
trans-1.3-Dichloropropene	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Trichloroethene	M23-Jn0069392	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Trichlorofluoromethane	M23-Jn0069392	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Vinyl chloride	M23-Jn0069392	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Xylenes - Total*	M23-Jn0069392	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	

Comments**Sample Integrity**

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised by:

Catherine Wilson Analytical Services Manager
Carroll Lee Senior Analyst-Volatile



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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Tyrone Gowans

From: Ashley Moule <Ashley@amenvironmental.com.au>
Sent: Monday, 10 July 2023 2:23 PM
To: Catherine Wilson; #AU_CAU001_EnviroSampleVic
Cc: Amy Meunier
Subject: Re: Eurofins Test Results, Invoice - Report 1003831 : Site AUTA

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: ADDITIONALS

CAUTION: EXTERNAL EMAIL - Sent from an email domain that is not formally trusted by Eurofins.

Do not click on links or open attachments unless you recognise the sender and are certain that the content is safe.

Standard is ok ta

Get Outlook for iOS

From: Catherine Wilson <CatherineWilson@eurofins.com>
Sent: Monday, July 10, 2023 1:42:07 PM
To: Ashley Moule <Ashley@amenvironmental.com.au>; #AU_CAU001_EnviroSampleVic <EnviroSampleVic@eurofins.com>
Cc: Amy Meunier <AmyMeunier@eurofins.com>
Subject: RE: Eurofins Test Results, Invoice - Report 1003831 : Site AUTA

Sure Ashley.

What TAT would you prefer?

@ SR – Additional analysis

Thanks

#1006339
NICK1

From: Ashley Moule <Ashley@amenvironmental.com.au>
Sent: Monday, 10 July 2023 10:30 AM
To: Catherine Wilson <CatherineWilson@eurofins.com>
Subject: RE: Eurofins Test Results, Invoice - Report 1003831 : Site AUTA

CAUTION: EXTERNAL EMAIL - Sent from an email domain that is not formally trusted by Eurofins.

Do not click on links or open attachments unless you recognise the sender and are certain that the content is safe.

Hi Catherine,

Could I please do BH 1/2 and BH 2/2 for PAH and TRH please ?

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road Dandenong South VIC 3175 Tel: +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 Tel: +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 Tel: +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 Tel: +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarrie QLD 4172 Tel: +61 7 3902 4600 NATA# 1261 Site# 20794	1/2 Frost Drive Mayfield West NSW 2304 Tel: +61 2 4968 8448 NATA# 1261 Site# 25079 & 25289

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Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Auckland	Christchurch
35 O'Rorke Road Penrose, Auckland 1061 Tel: +64 9 526 4551 IANZ# 1327	43 Detroit Drive Rolleston, Christchurch 7675 Tel: +64 3 343 5201 IANZ# 1290

Sample Receipt Advice

Company name:	AM Environmental Consulting P/L
Contact name:	-Ashley Moule (all SRA/REPORTS)
Project name:	AUTA
Project ID:	Not provided
Turnaround time:	5 Day
Date/Time received	Jul 10, 2023 2:23 PM
Eurofins reference	1006339

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Amy Meunier on phone : or by email: AmyMeunier@eurofins.com

Results will be delivered electronically via email to -Ashley Moule (all SRA/REPORTS) - ashley@amenvironmental.com.au.



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6 Monterey Road
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VIC 3175
Tel: +61 3 8564 5000
NATA# 1261 Site# 1254

Geelong
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Grovedale
VIC 3216
Tel: +61 3 8564 5000
NATA# 1261 Site# 25403

Sydney
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Girraween
NSW 2145
Tel: +61 2 9900 8400
NATA# 1261 Site# 18217

Canberra
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Mitchell
ACT 2911
Tel: +61 2 6113 8091
NATA# 1261 Site# 25466

Brisbane
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Murarrie
QLD 4172
Tel: +61 7 3902 4600
NATA# 1261 Site# 20794

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Mayfield West NSW 2304
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NATA# 1261
Site# 25079 & 25289

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Tel: +64 9 526 4551
IANZ# 1327

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43 Detroit Drive
Rolleston
Christchurch 7675
Tel: +64 3 343 5201
IANZ# 1290

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Company Name:	AM Environmental Consulting P/L	Order No.:		Received:	Jul 10, 2023 2:23 PM
Address:	7 Rudd Crt Bridgewater SA 5155	Report #:	1006339	Due:	Jul 17, 2023
Project Name:	AUTA	Phone:	0407 352 036	Priority:	5 Day
		Fax:		Contact Name:	-Ashley Moule (all SRA/REPORTS)
Eurofins Analytical Services Manager : Amy Meunier					

Sample Detail						Polycyclic Aromatic Hydrocarbons	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X
External Laboratory								
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID			
1	BH 2/2	Jun 20, 2023		Soil	M23-JI0017242	X	X	X
2	BH 1/2	Jun 20, 2023		Soil	M23-JI0017243	X	X	X
Test Counts						2	2	2

AM Environmental Consulting P/L
7 Rudd Crt
Bridgewater
SA 5155



NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
NATA is a signatory to the ILAC Mutual Recognition
Arrangement for the mutual recognition of the
equivalence of testing, medical testing, calibration,
inspection, proficiency testing scheme providers and
reference materials producers reports and certificates.

Attention: **-Ashley Moule (all SRA/REPORTS)**

Report **1006339-S**
Project name **AUTA**
Received Date **Jul 10, 2023**

Client Sample ID			BH 2/2	BH 1/2
Sample Matrix			Soil	Soil
Eurofins Sample No.			M23-JI0017242	M23-JI0017243
Date Sampled			Jun 20, 2023	Jun 20, 2023
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons				
TRH C6-C9	20	mg/kg	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50
TRH C10-C36 (Total)	50	mg/kg	< 50	< 50
TRH C6-C10	20	mg/kg	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
TRH >C10-C40 (total)*	100	mg/kg	< 100	< 100
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH*	0.5	mg/kg	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	97	73
p-Terphenyl-d14 (surr.)	1	%	112	98

Client Sample ID			BH 2/2	BH 1/2
Sample Matrix			Soil	Soil
Eurofins Sample No.			M23-JI0017242	M23-JI0017243
Date Sampled			Jun 20, 2023	Jun 20, 2023
Test/Reference	LOR	Unit		
Sample Properties				
% Moisture	1	%	15	16

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Jul 10, 2023	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Jul 10, 2023	14 Days
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LTM-ORG-2010 TRH C6-C40	Melbourne	Jul 10, 2023	14 Days
Polycyclic Aromatic Hydrocarbons - Method: LTM-ORG-2130 PAH and Phenols in Soil and Water	Melbourne	Jul 10, 2023	14 Days
% Moisture - Method: LTM-GEN-7080 Moisture	Melbourne	Jul 10, 2023	14 Days

Company Name:	AM Environmental Consulting P/L	Order No.:		Received:	Jul 10, 2023 2:23 PM
Address:	7 Rudd Crt Bridgewater SA 5155	Report #:	1006339	Due:	Jul 17, 2023
Project Name:	AUTA	Phone:	0407 352 036	Priority:	5 Day
		Fax:		Contact Name:	-Ashley Moule (all SRA/REPORTS)
Eurofins Analytical Services Manager : Amy Meunier					

Sample Detail						Polycyclic Aromatic Hydrocarbons	Moisture Set	Total Recoverable Hydrocarbons
Melbourne Laboratory - NATA # 1261 Site # 1254						X	X	X
External Laboratory								
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID			
1	BH 2/2	Jun 20, 2023		Soil	M23-JI0017242	X	X	X
2	BH 1/2	Jun 20, 2023		Soil	M23-JI0017243	X	X	X
Test Counts						2	2	2

Internal Quality Control Review and Glossary

General

- Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	µg/L: micrograms per litre
ppm: parts per million	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony forming unit		

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (<i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPa, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR: RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

- Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
- Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
- pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	101			70-130	Pass	
TRH C10-C14	%	97			70-130	Pass	
TRH C6-C10	%	98			70-130	Pass	
TRH >C10-C16	%	94			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	90			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	74			70-130	Pass	
Acenaphthylene	%	107			70-130	Pass	
Anthracene	%	105			70-130	Pass	
Benz(a)anthracene	%	78			70-130	Pass	
Benzo(a)pyrene	%	96			70-130	Pass	
Benzo(b&j)fluoranthene	%	76			70-130	Pass	
Benzo(g,h,i)perylene	%	87			70-130	Pass	
Benzo(k)fluoranthene	%	89			70-130	Pass	
Chrysene	%	110			70-130	Pass	
Dibenz(a,h)anthracene	%	109			70-130	Pass	

Test				Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Fluoranthene				%	101			70-130	Pass	
Fluorene				%	90			70-130	Pass	
Indeno(1.2.3-cd)pyrene				%	95			70-130	Pass	
Naphthalene				%	89			70-130	Pass	
Phenanthrene				%	104			70-130	Pass	
Pyrene				%	71			70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1				Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery										
Total Recoverable Hydrocarbons					Result 1					
TRH C6-C9	M23-JI0014991	NCP	%	120				70-130	Pass	
TRH C10-C14	M23-JI0017498	NCP	%	108				70-130	Pass	
TRH C6-C10	M23-JI0014991	NCP	%	115				70-130	Pass	
TRH >C10-C16	M23-JI0017498	NCP	%	100				70-130	Pass	
Spike - % Recovery										
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					Result 1					
Naphthalene	M23-JI0014991	NCP	%	97				70-130	Pass	
Spike - % Recovery										
Polycyclic Aromatic Hydrocarbons					Result 1					
Acenaphthene	M23-JI0014315	NCP	%	121				70-130	Pass	
Acenaphthylene	M23-JI0007922	NCP	%	97				70-130	Pass	
Anthracene	M23-JI0007922	NCP	%	112				70-130	Pass	
Benz(a)anthracene	M23-JI0007922	NCP	%	86				70-130	Pass	
Benzo(a)pyrene	M23-JI0007922	NCP	%	93				70-130	Pass	
Benzo(b&j)fluoranthene	M23-JI0007922	NCP	%	72				70-130	Pass	
Benzo(g,h,i)perylene	M23-JI0007922	NCP	%	95				70-130	Pass	
Benzo(k)fluoranthene	M23-JI0007922	NCP	%	81				70-130	Pass	
Chrysene	M23-JI0007922	NCP	%	97				70-130	Pass	
Dibenz(a,h)anthracene	M23-JI0007922	NCP	%	75				70-130	Pass	
Fluoranthene	M23-JI0007922	NCP	%	76				70-130	Pass	
Fluorene	M23-JI0007922	NCP	%	94				70-130	Pass	
Indeno(1.2.3-cd)pyrene	M23-JI0007922	NCP	%	96				70-130	Pass	
Naphthalene	M23-JI0007922	NCP	%	89				70-130	Pass	
Phenanthrene	M23-JI0007922	NCP	%	85				70-130	Pass	
Pyrene	M23-JI0014315	NCP	%	97				70-130	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1				Acceptance Limits	Pass Limits	Qualifying Code
Duplicate										
Total Recoverable Hydrocarbons					Result 1	Result 2	RPD			
TRH C6-C9	M23-JI0014991	NCP	mg/kg	< 20	< 20	< 1		30%	Pass	
TRH C10-C14	M23-JI0009990	NCP	mg/kg	< 20	< 20	< 1		30%	Pass	
TRH C15-C28	M23-JI0009990	NCP	mg/kg	< 50	< 50	< 1		30%	Pass	
TRH C29-C36	M23-JI0009990	NCP	mg/kg	< 50	< 50	< 1		30%	Pass	
TRH C6-C10	M23-JI0014991	NCP	mg/kg	< 20	< 20	< 1		30%	Pass	
TRH >C10-C16	M23-JI0009990	NCP	mg/kg	< 50	< 50	< 1		30%	Pass	
TRH >C16-C34	M23-JI0009990	NCP	mg/kg	< 100	< 100	< 1		30%	Pass	
TRH >C34-C40	M23-JI0009990	NCP	mg/kg	< 100	< 100	< 1		30%	Pass	
Duplicate										
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					Result 1	Result 2	RPD			
Naphthalene	M23-JI0014991	NCP	mg/kg	< 0.5	< 0.5	< 1		30%	Pass	

Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g,h,i)perylene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a,h)anthracene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1,2,3-cd)pyrene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	M23-JI0012027	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Sample Properties				Result 1	Result 2	RPD		
% Moisture	M23-JI0017244	NCP	%	19	20	3.1	30%	Pass

Comments
Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs

Authorised by:

Catherine Wilson	Analytical Services Manager
Edward Lee	Senior Analyst-Organic
Harry Bacalis	Senior Analyst-Volatile



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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CHAIN OF CUSTODY RECORD

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02 9500 9416 EnviroSampleNSW@eurofins.com

Brisbane Laboratory
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07 3902 4500 EnviroSampleQLD@eurofins.com

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08 9251 9500 EnviroSampleWA@eurofins.com

Melbourne Laboratory
6 Monterey Road Dandenong South VIC 3175
03 95 47 00 EnviroSampleVIC@eurofins.com

Company: **AME** Project No: **ANTA**

Address: **WCL/72H**

Contact Name: **AMY** Project Manager: **EDD Formit**

Phone No: **0407352036** EMail for Results: **ESL@EQUS.etc**

Special Directions: _____

Purchase Order: _____

Quote ID No: _____

Where metals are requested, please specify "Total" or "Filtered".
SURT code must be used to attract SURT pricing.

Analyses: _____

No	Client Sample ID	Sampled Date/Time <small>(determine by lab)</small>	Matrix Solid (S) Water (W)	Containers					Other (Asbestos Abate, WA Guidelines)	Required Turnaround Time (TAT) <small>Default will be 5 days if not listed.</small>
				500mL Plastic	250mL Plastic	125mL Plastic	200mL Amber Glass	40mL VOA Vial		
1	W11	12/1/12	liquid							<input type="checkbox"/> Overnight (reporting by 9am) ♦ <input type="checkbox"/> Same day ♦ <input type="checkbox"/> 1 day ♦ <input type="checkbox"/> 2 days ♦ <input type="checkbox"/> 3 days ♦ <input type="checkbox"/> 5 days (Standard) <input type="checkbox"/> Other ()
2	2									
3	3									
4	4									
5	5									
6	6									
7	7									
8	8									# 1007921 Page 2
9										
10										
Total Counts										

Method of Shipment: Courier (#) Hand Delivered Postal

Signature: _____ Date: **12/1/12** Time: **1:30 PM**

Received By: **Page 2** Received By: _____ Report No: _____

Signature: _____ Date: _____ Time: _____

Eurofins Environment Testing Australia Pty Ltd Submission of samples to the laboratory will be deemed as acceptance of Eurofins' Environment Testing Standard Terms and Conditions, unless agreed otherwise. A copy is available on request.

Eurofins Environment Testing Australia Pty Ltd

ABN: 50 005 085 521

Melbourne	Geelong	Sydney	Canberra	Brisbane	Newcastle
6 Monterey Road Dandenong South VIC 3175 Tel: +61 3 8564 5000 NATA# 1261 Site# 1254	19/8 Lewalan Street Grovedale VIC 3216 Tel: +61 3 8564 5000 NATA# 1261 Site# 25403	179 Magowar Road Girraween NSW 2145 Tel: +61 2 9900 8400 NATA# 1261 Site# 18217	Unit 1,2 Dacre Street Mitchell ACT 2911 Tel: +61 2 6113 8091 NATA# 1261 Site# 25466	1/21 Smallwood Place Murarrie QLD 4172 Tel: +61 7 3902 4600 NATA# 1261 Site# 20794	1/2 Frost Drive Mayfield West NSW 2304 Tel: +61 2 4968 8448 NATA# 1261 Site# 25079 & 25289

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46-48 Banksia Road Welshpool WA 6106 Tel: +61 8 6253 4444 NATA# 2377 Site# 2370

Eurofins Environment Testing NZ Ltd

NZBN: 9429046024954

Auckland	Christchurch
35 O'Rorke Road Penrose, Auckland 1061 Tel: +64 9 526 4551 IANZ# 1327	43 Detroit Drive Rolleston, Christchurch 7675 Tel: +64 3 343 5201 IANZ# 1290

Sample Receipt Advice

Company name:	AM Environmental Consulting P/L
Contact name:	-Ashley Moule (all SRA/REPORTS)
Project name:	AUTA
Project ID:	Not provided
Turnaround time:	5 Day
Date/Time received	Jul 14, 2023 1:30 PM
Eurofins reference	1007921

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- N/A Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Amy Meunier on phone : or by email: AmyMeunier@eurofins.com

Results will be delivered electronically via email to -Ashley Moule (all SRA/REPORTS) - ashley@amenvironmental.com.au.



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IANZ# 1290

web: www.eurofins.com.au
email: EnviroSales@eurofins.com

Company Name:	AM Environmental Consulting P/L	Order No.:		Received:	Jul 14, 2023 1:30 PM
Address:	7 Rudd Crt Bridgewater SA 5155	Report #:	1007921	Due:	Jul 21, 2023
Project Name:	AUTA	Phone:	0407 352 036	Priority:	5 Day
		Fax:		Contact Name:	-Ashley Moule (all SRA/REPORTS)
Eurofins Analytical Services Manager : Amy Meunier					

Sample Detail						WMS Air Suite 1: VOC/CRC CARE TR 23 PVI
Melbourne Laboratory - NATA # 1261 Site # 1254						X
External Laboratory						
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
1	WS 1	Jul 12, 2023		WMS	M23-JI0029136	X
2	WS 2	Jul 12, 2023		WMS	M23-JI0029137	X
3	WS 3	Jul 12, 2023		WMS	M23-JI0029138	X
4	WS 4	Jul 12, 2023		WMS	M23-JI0029139	X
5	WS 5	Jul 12, 2023		WMS	M23-JI0029140	X
6	WS 6	Jul 12, 2023		WMS	M23-JI0029141	X
7	WS 7	Jul 12, 2023		WMS	M23-JI0029142	X
8	WS 8	Jul 12, 2023		WMS	M23-JI0029143	X
Test Counts						8

AM Environmental Consulting P/L
 7 Rudd Crt
 Bridgewater
 SA 5155



NATA Accredited
 Accreditation Number 1261
 Site Number 1254

Accredited for compliance with ISO/IEC 17025 – Testing
 NATA is a signatory to the ILAC Mutual Recognition
 Arrangement for the mutual recognition of the
 equivalence of testing, medical testing, calibration,
 inspection, proficiency testing scheme providers and
 reference materials producers reports and certificates.

Attention: **-Ashley Moule (all SRA/REPORTS)**

Report **1007921-A**
 Project name **AUTA**
 Received Date **Jul 14, 2023**

Client Sample ID			WS 1 WMS M23-JI0029136 Jul 12, 2023	WS 2 WMS M23-JI0029137 Jul 12, 2023	WS 3 WMS M23-JI0029138 Jul 12, 2023	WS 4 WMS M23-JI0029139 Jul 12, 2023
Sample Matrix	LOR	Unit				
Eurofins Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
VOCs in Ambient Air (WMS Sampler)						
1.1-Dichloroethane	9.5	ug/m3	< 9.5	< 9.5	< 9.5	< 9.5
1.1-Dichloroethene	43	ug/m3	< 43	< 43	< 43	< 43
1.1.1-Trichloroethane	9.9	ug/m3	< 9.9	< 9.9	< 9.9	< 9.9
1.1.2-Trichloroethane	5.7	ug/m3	< 5.7	< 5.7	< 5.7	< 5.7
1.1.2.2-Tetrachloroethane	3.3	ug/m3	< 3.3	< 3.3	< 3.3	< 3.3
1.2-Dichlorobenzene	1.8	ug/m3	< 1.8	< 1.8	< 1.8	< 1.8
1.2-Dichloroethane	6.6	ug/m3	< 6.6	< 6.6	< 6.6	< 6.6
1.2.4-Trimethylbenzene	2.2	ug/m3	< 2.2	< 2.2	< 2.2	< 2.2
1.3-Dichlorobenzene	2.1	ug/m3	< 2.1	< 2.1	< 2.1	< 2.1
1.3.5-Trimethylbenzene	2.4	ug/m3	< 2.4	< 2.4	< 2.4	< 2.4
1.4-Dichlorobenzene	2	ug/m3	< 2	< 2	< 2	< 2
Benzene	27	ug/m3	< 27	< 27	< 27	< 27
Carbon Tetrachloride	8.4	ug/m3	< 8.4	< 8.4	< 8.4	< 8.4
Chlorobenzene	4.1	ug/m3	< 4.1	< 4.1	< 4.1	< 4.1
Chloroform	7.6	ug/m3	< 7.6	< 7.6	< 7.6	< 7.6
Chloromethane	50	ug/m3	< 50	< 50	< 50	< 50
cis-1.2-Dichloroethene	7.8	ug/m3	< 7.8	< 7.8	< 7.8	< 7.8
Ethylbenzene	3.5	ug/m3	< 3.5	< 3.5	< 3.5	< 3.5
Isopropyl benzene (Cumene)	2.6	ug/m3	< 2.6	< 2.6	< 2.6	< 2.6
m.p-Xylene	3.5	ug/m3	< 3.5	4.6	< 3.5	6.0
Naphthalene	3.3	ug/m3	< 3.3	< 3.3	< 3.3	< 3.3
o-Xylene	3.3	ug/m3	< 3.3	< 3.3	< 3.3	< 3.3
Propylbenzene	2.6	ug/m3	< 2.6	< 2.6	< 2.6	< 2.6
Styrene	3.3	ug/m3	< 3.3	< 3.3	< 3.3	< 3.3
Tetrachloroethene	3.8	ug/m3	< 3.8	< 3.8	< 3.8	< 3.8
Toluene	5	ug/m3	< 5	< 5	< 5	< 5
trans-1.2-Dichloroethene	18	ug/m3	< 18	< 18	< 18	< 18
Trichloroethene	5.6	ug/m3	< 5.6	< 5.6	< 5.6	< 5.6
Vinyl Chloride	48	ug/m3	< 48	< 48	< 48	< 48
CRC CARE TR 23 PVI						
>C6-C10	2150	ug/m3	< 2150	< 2150	< 2150	< 2150
>C6-C10 TRH minus BTEX (F1)	2150	ug/m3	< 2150	< 2150	< 2150	< 2150
>C10-C12	550	ug/m3	< 550	< 550	< 550	< 550
>C10-C12 minus Naphthalene (mod F2)	550	ug/m3	< 550	< 550	< 550	< 550

Client Sample ID			WS 5	WS 6	WS 7	WS 8
Sample Matrix			WMS	WMS	WMS	WMS
Eurofins Sample No.			M23-JI0029140	M23-JI0029141	M23-JI0029142	M23-JI0029143
Date Sampled			Jul 12, 2023	Jul 12, 2023	Jul 12, 2023	Jul 12, 2023
Test/Reference	LOR	Unit				
VOCs in Ambient Air (WMS Sampler)						
1.1-Dichloroethane	9.5	ug/m3	< 9.5	< 9.5	< 9.5	< 9.5
1.1-Dichloroethene	43	ug/m3	< 43	< 43	< 43	< 43
1.1.1-Trichloroethane	9.9	ug/m3	< 9.9	< 9.9	< 9.9	< 9.9
1.1.2-Trichloroethane	5.7	ug/m3	< 5.7	< 5.7	< 5.7	< 5.7
1.1.2.2-Tetrachloroethane	3.3	ug/m3	< 3.3	< 3.3	< 3.3	< 3.3
1.2-Dichlorobenzene	1.8	ug/m3	< 1.8	< 1.8	< 1.8	< 1.8
1.2-Dichloroethane	6.6	ug/m3	< 6.6	< 6.6	< 6.6	< 6.6
1.2.4-Trimethylbenzene	2.2	ug/m3	< 2.2	< 2.2	< 2.2	< 2.2
1.3-Dichlorobenzene	2.1	ug/m3	< 2.1	< 2.1	< 2.1	< 2.1
1.3.5-Trimethylbenzene	2.4	ug/m3	< 2.4	< 2.4	< 2.4	< 2.4
1.4-Dichlorobenzene	2	ug/m3	< 2	< 2	< 2	< 2
Benzene	27	ug/m3	< 27	< 27	< 27	< 27
Carbon Tetrachloride	8.4	ug/m3	< 8.4	< 8.4	< 8.4	< 8.4
Chlorobenzene	4.1	ug/m3	< 4.1	< 4.1	< 4.1	< 4.1
Chloroform	7.6	ug/m3	< 7.6	< 7.6	< 7.6	< 7.6
Chloromethane	50	ug/m3	< 50	< 50	< 50	< 50
cis-1.2-Dichloroethene	7.8	ug/m3	< 7.8	< 7.8	< 7.8	< 7.8
Ethylbenzene	3.5	ug/m3	< 3.5	12	< 3.5	< 3.5
Isopropyl benzene (Cumene)	2.6	ug/m3	< 2.6	< 2.6	< 2.6	< 2.6
m.p-Xylene	3.5	ug/m3	18	67	9.6	4.6
Naphthalene	3.3	ug/m3	< 3.3	< 3.3	< 3.3	< 3.3
o-Xylene	3.3	ug/m3	3.9	17	< 3.3	< 3.3
Propylbenzene	2.6	ug/m3	< 2.6	< 2.6	< 2.6	< 2.6
Styrene	3.3	ug/m3	< 3.3	< 3.3	< 3.3	< 3.3
Tetrachloroethene	3.8	ug/m3	< 3.8	< 3.8	< 3.8	< 3.8
Toluene	5	ug/m3	< 5	< 5	< 5	< 5
trans-1.2-Dichloroethene	18	ug/m3	< 18	< 18	< 18	< 18
Trichloroethene	5.6	ug/m3	< 5.6	< 5.6	< 5.6	< 5.6
Vinyl Chloride	48	ug/m3	< 48	< 48	< 48	< 48
CRC CARE TR 23 PVI						
>C6-C10	2150	ug/m3	< 2150	< 2150	< 2150	< 2150
>C6-C10 TRH minus BTEX (F1)	2150	ug/m3	< 2150	< 2150	< 2150	< 2150
>C10-C12	550	ug/m3	< 550	< 550	< 550	< 550
>C10-C12 minus Naphthalene (mod F2)	550	ug/m3	< 550	< 550	< 550	< 550

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description

VOCs in Ambient Air (WMS Sampler)

- Method: SOP #100 Rev 10 June 22 2017 Eurofins Air Toxics Analysis of VOCs

CRC CARE TR 23 PVI

- Method: LTM-ORG-2030 VOCs Ambient Air by GC/MS

Testing Site

Melbourne

Melbourne

Extracted

Jul 14, 2023

Jul 14, 2023

Holding Time

30 Days

14 Days

Company Name:	AM Environmental Consulting P/L	Order No.:		Received:	Jul 14, 2023 1:30 PM
Address:	7 Rudd Crt Bridgewater SA 5155	Report #:	1007921	Due:	Jul 21, 2023
Project Name:	AUTA	Phone:	0407 352 036	Priority:	5 Day
		Fax:		Contact Name:	-Ashley Moule (all SRA/REPORTS)
Eurofins Analytical Services Manager : Amy Meunier					

Sample Detail						WMS Air Suite 1: VOC/CRC CARE TR 23 PVI
Melbourne Laboratory - NATA # 1261 Site # 1254						X
External Laboratory						
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
1	WS 1	Jul 12, 2023		WMS	M23-JI0029136	X
2	WS 2	Jul 12, 2023		WMS	M23-JI0029137	X
3	WS 3	Jul 12, 2023		WMS	M23-JI0029138	X
4	WS 4	Jul 12, 2023		WMS	M23-JI0029139	X
5	WS 5	Jul 12, 2023		WMS	M23-JI0029140	X
6	WS 6	Jul 12, 2023		WMS	M23-JI0029141	X
7	WS 7	Jul 12, 2023		WMS	M23-JI0029142	X
8	WS 8	Jul 12, 2023		WMS	M23-JI0029143	X
Test Counts						8

Internal Quality Control Review and Glossary

General

- Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follows guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013 and are included in this QC report where applicable. Additional QC data may be available on request.
- All soil/sediment/solid results are reported on a dry basis, unless otherwise stated.
- All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
- Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- Information identified on this report with blue colour, indicates data provided by customer that may have an impact on the results.
- This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	µg/L: micrograms per litre
ppm: parts per million	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony forming unit		

Terms

APHA	American Public Health Association
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
TBTO	Tributyltin oxide (<i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment however free tributyltin was measured and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 5.4
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPa, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should be used as a guide only and may be different when site specific Sampling Analysis and Quality Plan (SAQP) have been implemented

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR: No Limit

Results between 10-20 times the LOR: RPD must lie between 0-50%

Results >20 times the LOR: RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.4 where no positive PFAS results have been reported have been reviewed and no data was affected.

QC Data General Comments

- Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
- Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
- pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery the term "INT" appears against that analyte.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
VOCs in Ambient Air (WMS Sampler)							
1.1-Dichloroethane	ug/m3	< 9.5			9.5	Pass	
1.1-Dichloroethene	ug/m3	< 43			43	Pass	
1.1.1-Trichloroethane	ug/m3	< 9.9			9.9	Pass	
1.1.2-Trichloroethane	ug/m3	< 5.7			5.7	Pass	
1.1.2.2-Tetrachloroethane	ug/m3	< 3.3			3.3	Pass	
1.2-Dichlorobenzene	ug/m3	< 1.8			1.8	Pass	
1.2-Dichloroethane	ug/m3	< 6.6			6.6	Pass	
1.2.4-Trimethylbenzene	ug/m3	< 2.2			2.2	Pass	
1.3-Dichlorobenzene	ug/m3	< 2.1			2.1	Pass	
1.3.5-Trimethylbenzene	ug/m3	< 2.4			2.4	Pass	
1.4-Dichlorobenzene	ug/m3	< 2			2	Pass	
Benzene	ug/m3	< 27			27	Pass	
Carbon Tetrachloride	ug/m3	< 8.4			8.4	Pass	
Chlorobenzene	ug/m3	< 4.1			4.1	Pass	
Chloroform	ug/m3	< 7.6			7.6	Pass	
Chloromethane	ug/m3	< 50			50	Pass	
Method Blank							
CRC CARE TR 23 PVI							
>C6-C10	ug/m3	< 2150			2150	Pass	
>C6-C10 TRH minus BTEX (F1)	ug/m3	< 2150			2150	Pass	
>C10-C12	ug/m3	< 550			550	Pass	
>C10-C12 minus Naphthalene (mod F2)	ug/m3	< 550			550	Pass	

Comments**Sample Integrity**

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	N/A
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised by:

Amy Meunier
Joseph Edouard

Analytical Services Manager
Senior Analyst-Organic



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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Appendix G: Soil Summary Tables

Description				Phenols (Halogenated and Non-Halogenated)																							
Data Reference Number	Sample Number	Date Sampled	Sample Description	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,4-Dichlorophenol	2,6-Dichlorophenol	2-Chlorophenol	4-Chloro-3-methylphenol	Pentachlorophenol	Tetrachlorophenols - Total	Total Halogenated Phenol*	2,4-Dimethylphenol	2,4-Dinitrophenol	2-Cyanohexy-4,6-dinitrophenol	2-Methyl-4,6-dinitrophenol	2-Methylphenol (o-Cresol)	3,4,4-Methylphenol (m&p-Cresol)	4-Nitrophenol	2-Nitrophenol	Dinoseb	Phenol	Total Non-Halogenated Phenol*				
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
1003831	BH 1/1	20/6/23	Soil	< 1	< 1	< 0.5	< 0.5	< 0.5	< 1	< 1	< 10	< 1	< 0.5	< 5	< 20	< 5	< 0.2	< 0.4	< 5	< 1	< 20	< 0.5	< 20				
1003831	BH 2/1	20/6/23	Soil	< 1	< 1	< 0.5	< 0.5	< 0.5	< 1	< 1	< 10	< 1	< 0.5	< 5	< 20	< 5	< 0.2	< 0.4	< 5	< 1	< 20	< 0.5	< 20				
1003831	BH 3/1	20/6/23	Soil	< 1	< 1	< 0.5	< 0.5	< 0.5	< 1	< 1	< 10	< 1	< 0.5	< 5	< 20	< 5	< 0.2	< 0.4	< 5	< 1	< 20	< 0.5	< 20				
1003831	BH 4/1	20/6/23	Soil	< 1	< 1	< 0.5	< 0.5	< 0.5	< 1	< 1	< 10	< 1	< 0.5	< 5	< 20	< 5	< 0.2	< 0.4	< 5	< 1	< 20	< 0.5	< 20				
1003831	BH 5/1	20/6/23	Soil	< 1	< 1	< 0.5	< 0.5	< 0.5	< 1	< 1	< 10	< 1	< 0.5	< 5	< 20	< 5	< 0.2	< 0.4	< 5	< 1	< 20	< 0.5	< 20				
1003831	BH 6/1	20/6/23	Soil	< 1	< 1	< 0.5	< 0.5	< 0.5	< 1	< 1	< 10	< 1	< 0.5	< 5	< 20	< 5	< 0.2	< 0.4	< 5	< 1	< 20	< 0.5	< 20				
1003831	BH 7/1	20/6/23	Soil	< 1	< 1	< 0.5	< 0.5	< 0.5	< 1	< 1	< 10	< 1	< 0.5	< 5	< 20	< 5	< 0.2	< 0.4	< 5	< 1	< 20	< 0.5	< 20				
1003831	BH 8/1	20/6/23	Soil	< 1	< 1	< 0.5	< 0.5	< 0.5	< 1	< 1	< 10	< 1	< 0.5	< 5	< 20	< 5	< 0.2	< 0.4	< 5	< 1	< 20	< 0.5	< 20				
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Active = 1, Inactive = 0																											
				Guideline Concentrations																							
1	NEPM HIL A (Residential)	-	-	-	-	-	-	-	-	100	-	-	-	-	-	-	400	-	-	-	-	-	3000	-			
1	NEPM HIL B (Residential)	-	-	-	-	-	-	-	-	130	-	-	-	-	-	-	4700	-	-	-	-	-	45000	-			
0	NEPM HIL C (Recreational)	-	-	-	-	-	-	-	-	120	-	-	-	-	-	-	4000	-	-	-	-	-	40000	-			
1	NEPM HIL D (Commercial/Industrial)	-	-	-	-	-	-	-	-	660	-	-	-	-	-	-	25000	-	-	-	-	-	240000	-			
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Description				Total Recoverable Hydrocarbons												
Data Reference Number	Sample Number	Date Sampled	Sample Description	TRH C10-36 (Total)	TRH C10-C14	TRH C15-C28	TRH C29-C36	TRH C6-C9	TRH >C10-C16	TRH >C10-C16 less Naphthalene (F2)	TRH >C16-C34	TRH >C34-C40	TRH C6-C10	Naphthalene	TRH C6-C10 less BTX (F-1)	
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1003831	BH 1/1	20/6/23	Soil	-	< 20	180	160	< 20	< 50	< 50	310	< 100	< 20	< 0.5	< 20	
1003831	BH 2/1	20/6/23	Soil	-	< 20	160	88	< 20	< 50	< 50	240	< 100	< 20	< 0.5	< 20	
1003831	BH 3/1	20/6/23	Soil	-	< 20	< 50	< 50	< 20	< 50	< 50	< 100	< 100	< 20	< 0.5	< 20	
1003831	BH 4/1	20/6/23	Soil	-	< 20	< 50	< 50	< 20	< 50	< 50	< 100	< 100	< 20	< 0.5	< 20	
1003831	BH 5/1	20/6/23	Soil	-	< 20	< 50	< 50	< 20	< 50	< 50	< 100	< 100	< 20	< 0.5	< 20	
1003831	BH 6/1	20/6/23	Soil	-	< 20	< 50	< 50	< 20	< 50	< 50	< 100	< 100	< 20	< 0.5	< 20	
1003831	BH 7/1	20/6/23	Soil	-	< 20	< 50	< 50	< 20	< 50	< 50	< 100	< 100	< 20	< 0.5	< 20	
1003831	BH 8/1	20/6/23	Soil	-	< 20	< 50	< 50	< 20	< 50	< 50	< 100	< 100	< 20	< 0.5	< 20	
1006339	BH 1/2	20/6/23	Soil	-	< 20	< 50	< 50	< 20	< 50	< 50	< 100	< 100	< 20	< 0.5	< 20	
1006339	BH 2/2	20/6/23	Soil	-	< 20	< 50	< 50	< 20	< 50	< 50	< 100	< 100	< 20	< 0.5	< 20	
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Active = 1, Inactive = 0				Guideline Concentrations												
0	NEPM HSL A & HSL B (Low-high density residential) (0m to <1m) - Sand			-	-	-	-	-	-	110	-	-	-	3	45	
0	NEPM HSL A & HSL B (Low-high density residential) (1m to <2m) - Sand			-	-	-	-	-	-	240	-	-	-	NL	70	
0	NEPM HSL A & HSL B (Low-high density residential) (2m to <4m) - Sand			-	-	-	-	-	-	440	-	-	-	NL	110	
0	NEPM HSL A & HSL B (Low-high density residential) (4m+) - Sand			-	-	-	-	-	-	NL	-	-	-	NL	200	
0	NEPM HSL C (Recreational/open space) (0m to <1m) - Sand			-	-	-	-	-	-	NL	-	-	-	NL	NL	
0	NEPM HSL C (Recreational/open space) (1m to <2m) - Sand			-	-	-	-	-	-	NL	-	-	-	NL	NL	
0	NEPM HSL C (Recreational/open space) (2m to <4m) - Sand			-	-	-	-	-	-	NL	-	-	-	NL	NL	
0	NEPM HSL C (Recreational/open space) (4m+) - Sand			-	-	-	-	-	-	NL	-	-	-	NL	NL	
0	NEPM HSL D (Commercial/industrial) (0m to <1m) - Sand			-	-	-	-	-	-	NL	-	-	-	NL	260	
0	NEPM HSL D (Commercial/industrial) (1m to <2m) - Sand			-	-	-	-	-	-	NL	-	-	-	NL	370	
0	NEPM HSL D (Commercial/industrial) (2m to <4m) - Sand			-	-	-	-	-	-	NL	-	-	-	NL	630	
0	NEPM HSL D (Commercial/industrial) (4m+) - Sand			-	-	-	-	-	-	NL	-	-	-	NL	NL	
1	NEPM HSL A & HSL B (Low-high density residential) (0m to <1m) - Clay			-	-	-	-	-	-	280	-	-	-	5	50	
1	NEPM HSL D (Commercial/industrial) (0m to <1m) - Clay			-	-	-	-	-	-	NL	-	-	-	NL	310	
0	NEPM management limits (residential, parkland & public open space - fine)			-	-	-	-	-	1000	-	3500	10000	800	-	-	
1	NEPM management limits (commercial & industrial - coarse)			-	-	-	-	-	1000	-	3500	10000	700	-	-	
1	NEPM management limits (commercial & industrial - fine)			-	-	-	-	-	1000	-	5000	10000	800	-	-	
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Description				Polychlorinated Biphenyls (PCBs)								
Data Reference Number	Sample Number	Date Sampled	Sample Description	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCB*	
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
1003831	BH 1/1	20/6/23	Soil	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
1003831	BH 2/1	20/6/23	Soil	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
1003831	BH 3/1	20/6/23	Soil	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
1003831	BH 4/1	20/6/23	Soil	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
1003831	BH 5/1	20/6/23	Soil	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
1003831	BH 6/1	20/6/23	Soil	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
1003831	BH 7/1	20/6/23	Soil	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
1003831	BH 8/1	20/6/23	Soil	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
INTENTIONALLY LEFT BLANK												
Active = 1, Inactive = 0		Guideline Concentrations										
1	NEPM HIL A (Residential)	-	-	-	-	-	-	-	-	-	1	
1	NEPM HIL B (Residential)	-	-	-	-	-	-	-	-	-	1	
0	NEPM HIL C (Recreational)	-	-	-	-	-	-	-	-	-	1	
1	NEPM HIL D (Commercial/Industrial)	-	-	-	-	-	-	-	-	-	7	
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Description				Polycyclic Aromatic Hydrocarbons (PAH)																		
Data Reference Number	Sample Number	Date Sampled	Sample Description	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene - TEQ (medium bound) *	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzo(b,h)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene	Total PAH*	Carcinogenic PAHs (as BaP TEQ)
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
1003831	BH 1/1	20/6/23	Soil	< 0.5	1.1	< 0.5	4.4	5.4	8.6	3.8	4	3.4	-	4.1	1.5	5.8	< 0.5	4.1	1.8	6.4	46	-
1003831	BH 2/1	20/6/23	Soil	< 0.5	1.3	2.5	5.3	5.6	8.7	3.8	3.1	3.2	-	5.1	1.4	11	0.8	3.7	9.6	11	67	-
1003831	BH 3/1	20/6/23	Soil	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	0.6	-
1003831	BH 4/1	20/6/23	Soil	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-
1003831	BH 5/1	20/6/23	Soil	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-
1003831	BH 6/1	20/6/23	Soil	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	0.7	< 0.5	< 0.5	< 0.5	0.7	1.4	-
1003831	BH 7/1	20/6/23	Soil	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-
1003831	BH 8/1	20/6/23	Soil	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	1	< 0.5	< 0.5	< 0.5	1	2	-
1006339	BH 1/2	20/6/23	Soil	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-
1006339	BH 2/2	20/6/23	Soil	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5	< 0.5	< 0.5	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-
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Active = 1, Inactive = 0				Guideline Concentrations																		
1	NEPM HIL A (Residential)	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	300	3
1	NEPM HIL B (Residential)	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	400	4
1	NEPM HIL D (Commercial/Industrial)	-	-	-	-	-	-	-	40	-	-	-	-	-	-	-	-	-	-	-	4000	40
1	NEPM HSL A & HSL B (Low-high density residential) (0m to <1m) - Clay	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	NEPM HSL D (Commercial/Industrial) (0m to <1m) - Clay	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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Description				BTEX					
Data Reference Number	Sample Number	Date Sampled	Sample Description	Benzene	Ethylbenzene	m&p-Xylenes	o-Xylene	Toluene	Xylenes - Total
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
38268	Dup 2	20/6/23	Soil	<0.2	<0.5	<1	<0.5	<0.5	-
1003831	BH 1/1	20/6/23	Soil	< 0.1	< 0.1	< 0.2	0.1	< 0.1	< 0.3
1003831	BH 2/1	20/6/23	Soil	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.3
1003831	BH 3/1	20/6/23	Soil	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.3
1003831	BH 4/1	20/6/23	Soil	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.3
1003831	BH 5/1	20/6/23	Soil	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.3
1003831	BH 6/1	20/6/23	Soil	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.3
1003831	BH 7/1	20/6/23	Soil	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.3
1003831	BH 8/1	20/6/23	Soil	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.3
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Active = 1, Inactive = 0		Guideline Concentrations							
1	NEPM HSL A & HSL B (Low-high density residential) (0m to <1m) - Clay			0.7	NL	-	-	480	110
1	NEPM HSL D (Commercial/industrial) (0m to <1m) - Clay			4	NL	-	-	NL	NL
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Description				
Data Reference Number	Sample Number	Date Sampled	Sample Description	Tetrachloroethene
				mg/kg
38268	Dup 2	20/6/23	Soil	<0.5
1003831	BH 1/1	20/6/23	Soil	< 0.5
1003831	BH 2/1	20/6/23	Soil	< 0.5
1003831	BH 3/1	20/6/23	Soil	< 0.5
1003831	BH 4/1	20/6/23	Soil	< 0.5
1003831	BH 5/1	20/6/23	Soil	< 0.5
1003831	BH 6/1	20/6/23	Soil	< 0.5
1003831	BH 7/1	20/6/23	Soil	< 0.5
1003831	BH 8/1	20/6/23	Soil	< 0.5
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