Agenda

Planning Decisions Committee Meeting

6:30 pm, Tuesday 26 May 2026

Richmond Town Hall

www.yarracity.vic.gov.au

Planning Decisions Committee

The Planning Decisions Committee is a delegated committee of Council with full authority to make decisions in relation to planning applications and certain heritage referrals.

Addressing the Committee

Planning Decisions Committee meetings are decision making forums and only Councillors have a formal role. However, Council is committed to ensuring that any person whose rights will be directly affected by a decision of Council is entitled to communicate their views and have their interests considered before the decision is made.

There is an opportunity for both applicants and objectors to make a submission to Council in relation to each matter presented for consideration at the meeting.

Before each item is considered, the meeting chair will ask people who have registered to address the committee, to come forward to the microphone, state your name clearly for the record and:

- Speak for a maximum of five minutes;
- Direct your submission to the chair;
- Confine your submission to the planning permit under consideration;
- If possible, explain your preferred decision in relation to a permit application (refusing, granting or granting with conditions) and set out any requested permit conditions and avoid repeating previous submitters;
- Refrain from asking questions or seeking comments from the Councillors, applicants or other submitters;
- If speaking on behalf of a group, explain the nature of the group and how you are able to speak on their behalf.

Once you have made your submission, please remain silent unless called upon by the chair to make further comment or to clarify any aspects.

Councillors will then have an opportunity to ask questions of submitters. Submitters may determine whether or not they wish to take these questions.

Once all submissions have been received, the formal debate may commence. Once the debate has commenced, no further submissions, questions or comments from submitters can be received.

Arrangements to ensure our meetings are accessible to the public

Access to the building is available either by the stairs or lift. Seating is provided to watch the meeting, and the room is wheelchair accessible. Accessible toilet facilities are available. Speakers at the meeting are invited to be seated at the table to address the Council, and all participants are amplified via an audio system. Meetings are conducted in English.

If you are unable to participate in this environment, we can make arrangements to accommodate you if sufficient notice is given. Some examples of adjustments are:

- a translator in your language;
- the presence of an Auslan interpreter;
- loan of a portable hearing loop; and
- reconfiguring the room to facilitate access.

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1. Acknowledgement of Country

"Yarra City Council acknowledges the Wurundjeri Woi Wurrung people as the Traditional Owners and true sovereigns of the land now known as Yarra.

We acknowledge their creator spirit Bunjil, their ancestors and their Elders.

We acknowledge the strength and resilience of the Wurundjeri Woi Wurrung, who have never ceded sovereignty and retain their strong connections to family, clan and country despite the impacts of European invasion.

We also acknowledge the significant contributions made by other Aboriginal and Torres Strait Islander people to life in Yarra.

We pay our respects to Elders from all nations here today—and to their Elders past, present and future."

2. Attendance, apologies and requests for leave of absence

Attendance

Councillors:

- Cr Stephen Jolly — Mayor
- Cr Sharon Harrison — Deputy Mayor
- Cr Evangeline Aston
- Cr Edward Crossland
- Cr Andrew Davies
- Cr Kenneth Gomez
- Cr Meca Ho
- Cr Sarah McKenzie
- Cr Sophie Wade

Council staff:

- Mary Osman — General Manager City Sustainability and Strategy
- Narelle Jennings — Manager Statutory Planning (Acting)
- John Theodosakis — Principal Planner

Governance

- Phil De Losa — Manager Governance and Integrity
- Milica Latu — Senior Administrator and Projects Officer
- Mel Nikou — Governance Officer

3. Declarations of Conflict of Interest

Any Councillor who has a conflict of interest in a matter being considered at this meeting is required to disclose that interest either by explaining the nature of the conflict of interest to those present or advising that they have disclosed the nature of the interest in writing to the Chief Executive Officer before the meeting commenced.

4. Confirmation of Minutes

RECOMMENDATION

That the minutes of the Planning Decisions Committee held on Tuesday 28 April 2026 be confirmed.

5. Planning Committee Reports

Nil.

6. DTP Applications

6.1. – PPE26/0201 - 173 - 177 Barkly Avenue, Burnley

Author	Joe Byrne – Senior Statutory Planner
Authoriser	General Manager City Sustainability and Strategy - Mary Osman

Executive Summary

Property	173 – 177 Barkly Avenue Burnley
Ward	Boulevard
Application number	PPE26/0201 (Council Ref) PA2604311 (DTP Ref)
Proposal	Construction of an 8 storey warehouse and office building (no permit required for office use), construct and display business identification and major promotion signage (including internally illuminated and high wall signage), and create and alter access to a road in a Transport Zone 2.
Zoning & Overlay/s	- Commercial 2 Zone (DCPO) - Design and Development Overlay (Schedule 2 and 5) - Significant Landscape Overlay (SLO) - Development Contributions Plan Overlay (Schedule 1)
Strategic setting	Commercial Land This application was made to the Minister for Planning under the Clause 53.22 Significant Economic Development.
Submissions	DTP notified Council about this application on 07 April 2026 under s52(1)(b) of the *Planning and Environment Act* 1987 DTP have advised Council that at the time of finalising this report, they had received 2 submissions.
Key reasons for recommendation	- The design, materials, limited ground level activation and articulation of the building provides a poor response to the context and does not represent a development that will make a positive contribution to the area, as required by State and Local building and urban design policy. - The development fails to recognise and reinforce the pattern of development and character of the street, including in building design and fails to meet the design objectives of Schedule 2 of the Design and Development Overlay. - The small ancillary office and absence of any other supporting commercial use makes the proposal

	questionable as a 'business hub' and the proposal does not meet the purpose of Clause 53.22.
Recommendation	That Council notify the Department of Transport and Planning outlining Council's position that the proposal is not supported for the key reasons provided. Notwithstanding this, the recommended conditions will be provided and should be included on any planning permit should the Department of Transport and Planning be of a mind to grant the permit. Key conditions include: - Façade articulation changes; - Street wall adjustments; - Public realm streetscape upgrades; - Engineering matters; - Signage limitations.
Contact Officer	Joe Byrne - Senior Planner

Officer Recommendation

That Council:

1. Note the officer report and the application material.
2. Delegate the Manager Statutory Planning to write to the Department of Transport and Planning outlining Council's position that the proposal is not supported on the following grounds:
   (a) The design, materials, street walls, limited ground level activation and articulation of the building provides a poor response to the context and does not represent a development that will make a positive contribution to the area and fails to comply with provisions at Clause 15.01-2L, Clause 15.01-2S, Clause 15.01-1S and Clause 15.01-1L;
   (b) The development fails to recognise and reinforce the pattern of development and character of the street, including in building design and fails to meet the design objectives of Schedule 2 of the Design and Development Overlay; and
   (c) The application material does not demonstrate how the purpose of Clause 53.22 is achieved. It is questionable that a self-storage facility makes a significant contribution to Victoria's economy and provides substantial public benefit, including jobs for Victorians. At a minimum a genuine co-working space and other supporting commercial uses should be provided at the ground floor, and the building should be designed to enable its transition to employment generating uses in the future.
3. Notwithstanding the above, if the Department of Transport and Planning is of the mind to issue a permit, then the following conditions should be included:

Conditions

Amended Plans

1. Before the development commences, amended plans to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and will then form part of this permit. The plans must be drawn to scale with dimensions, and must be generally in accordance with the plans prepared by Gray Puksand, Rev A, dated 24/03/2026, but modified to show:
   (a) A full redesign of the upper level facades to provide greater articulation through the use of windows and setbacks;
   (b) Inclusion of ground level active interfaces to Adam Street;
   (c) Redesign the Barkly Avenue and Adam Street street wall so they are clearly defined;
   (d) Dimension the width of the vehicle crossing along Barkly Avenue;
   (e) Dimension the width of the vehicle crossing along Adam Street;
   (f) Dimension the width of the development's entrance along Barkly Avenue;
   (g) Dimension the width of the development's exit along Adam Street;
   (h) Superimpose the visibility triangle at the exit lane of the Barkly Avenue and Adam Street frontages;
   (i) Dimension the clearance height above the car park entrance and exits;
   (j) All bicycle spaces be relocated in clearly visible and fully accessible locations in vicinity to main entrances, with opportunity to be overlooked from internal office and reception for improved safety;
   (k) All bicycle spaces dimensioned in accordance with the requirements of AS2890.3;
   (l) Integrate a security 'line' / gate in addition to the sliding security gate, restricting access into the setback / under-croft car parking / entry area after-hours;
   (m) Dimension all building entrances and access paths, access paths should have a minimum 1800mm unobstructed width;
   (n) Rationalise hard paved areas (within the subject site boundary) ground floor setback along Adam Street in lieu of increased garden beds;
   (o) Relocate proposed bench seat along Adam Street ground level setback (within the subject site boundary) closer to the office and reception areas;
   (p) Relocate pedestrian egress doors; to eliminate small setback spaces, doors must not obstruct public footpaths when fully opened;
   (q) Relocate the vehicle egress security gate closer to Adam Street title boundary; and
   (r) indicate window operability.
2. The development and use as shown on the endorsed plans must not be altered (unless the Yarra Planning Scheme specifies that a permit is not required) without the prior written consent of the Responsible Authority.
3. As part of the ongoing consultant team, Gray Puksand or an architectural firm to the satisfaction of the Responsible Authority must be engaged to:

(a) oversee design and construction of the development; and

(b) ensure the design quality and appearance of the development is realised as shown in the endorsed plans or otherwise to the satisfaction of the Responsible Authority.

4. All buildings and works must be maintained in good order and appearance to the satisfaction of the Responsible Authority.

Façade Strategy

5. Concurrent with the submission of Condition 1 Plans, a Façade Strategy and Materials and Finishes Plan to the satisfaction of the Responsible Authority must be submitted to and be approved by the Responsible Authority. When approved, the Façade Strategy and Materials and Finishes Plan will be endorsed and will then form part of this permit. This must detail:

(a) elevation drawings at a scale of 1:20 illustrating typical podium details, entries and doors, and utilities and typical tower facade details;

(b) section drawings to demonstrate façade systems, including fixing details and joints between materials or changes in form;

(c) information about how the façade will be maintained, including any vegetation; and

(d) coloured drawings outlining colours, materials and finishes.

Land Use

6. Delivery and collection of goods to and from the land (except for customers collecting or delivering goods for storage) may only occur between 7am and 10pm Monday to Saturday, or between 9am and 8pm on a Sunday or public holiday except for those allowed under any relevant local law.

7. The amenity of the area must not be detrimentally affected by the use, including through:

(a) the transport of materials, goods or commodities to or from land;

(b) the appearance of any buildings, works or materials;

(c) the emission of noise, artificial light, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil, or

(d) the presence of vermin,

to the satisfaction of the Responsible Authority.

Lighting Plan

8. Before the use and/or development commences, a Lighting Report, prepared by a suitably qualified consultant and to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the Lighting Report will be endorsed and will form part of this permit. The Lighting Report must:

(a) assess the proposed internal lighting to the west and north side façades and make recommendations to ensure that the lighting does not adversely impact on surrounding dwelling amenity.

9. All provisions, recommendations and requirements of the assessment must be implemented and complied with to the satisfaction of the Responsible Authority.

Operational Management Plan

10. Before the development commences, an Operational Management Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the Operational Management Plan will be endorsed and will form part of this permit. The Operational Management Plan must address how the facility will be operated to minimise adverse impacts on the surrounding area and operate in a safe and secure manner including but not limited to the providing the following:

    (a) The information that will be provided to customers, including but not limited to:

        (i) Clear information about the types and dimensions of vehicles that can be accommodated on-site (consistent with plans endorsed under Condition 1 of the permit); and

        (ii) Contact phone number(s) for the facility, including for emergency purposes;

    (b) Confirmation that customers will be provided the above information about the facility;

    (c) Details of how the facility will be managed to ensure security and safety of the premises and customers accessing the premises and any additional procedures in place to minimise amenity impact on the surrounding area. This must include:

        (i) The provision of an intercom system that is operational during working hours for customers of the facility and the display of a contact phone number(s) adjacent the Murphy Street frontage that is clearly legible from the public realm (including at night time) and ensures that the facility management (or representatives) can be reached;

        (ii) Confirmation that any alarm systems connected will not be externally audible;

        (iii) Confirmation if security cameras are to be provided and, if so, confirmation that they will be compliant with section 7(1) of the *Surveillance Devices Act 1999* (Vic); and

        (iv) Internal lighting to the building turned off (apart from emergency lighting) outside operational hours.

11. The provisions, recommendations and requirements of the endorsed Operational Management Plan must be implemented and complied with to the satisfaction of the Responsible Authority.

Sustainable Management Plan

12. Concurrent with the submission of Condition 1 Plans, an amended Sustainable Management Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the amended Sustainable Management Plan will be endorsed and will form part of this permit. The amended Sustainable Management Plan must be generally in accordance with the Sustainable Management Plan prepared by Integrated Group Services and dated 24 March 2026, but modified to include or show:

    (a) altered dimensions and design of the 20m2 raingarden, ensure adequate setback from the property boundary and the proposed property's footings and foundations, to ensure all drainage issues are addressed.

13. The provisions, recommendations and requirements of the endorsed Sustainable Management Plan must be implemented and complied with to the satisfaction of the Responsible Authority.

Waste Management Plan

14. Concurrent with the submission of Condition 1 Plans, an amended Waste Management Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the amended Waste Management Plan will be endorsed and will form part of this permit. The amended Waste Management Plan must be generally in accordance with the Waste Management Plan prepared by One Mile Grid and dated 25 March 2026, but modified to include (or show):

    (a) Deletion of any reference to hard-waste drop-off services or Council transfer station (Council does not provide these services).

15. The provisions, recommendations and requirements of the endorsed Waste Management Plan must be implemented and complied with to the satisfaction of the Responsible Authority.

16. The collection of waste from the site must be by private collection, unless with the prior written consent of the Responsible Authority.

Landscape Plan

17. Concurrent with the submission of Condition 1 Plans, an amended Landscape Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the amended Landscape Plan will be endorsed and will form part of this permit. The amended Landscape Plan must be generally in accordance with the Landscape Plan prepared by ACRE and dated 5 September 2025, but modified to include (or show):

    (a) All design changes required under Condition 1 of this permit, as relevant;

    (b) Relocate raingarden to be an integrated feature element along Adam Street frontage within the subject site;

    (c) Provide edges to the raingarden that ties in with the building architecture, brick or equivalent that provides for informal seating opportunities;

    (d) No trees to be planted in the rain garden;

    (e) Plants to be a mix of suitable species for visual interest and increased biodiversity;

    (f) Tree species to be reviewed and tree species to be appropriate for the constrained site conditions;

    (g) Provide root barrier along the interface to adjacent properties;

    (h) Provide soil volumes for all planted areas that is adequate to sustain proposed tree and plant species;

    (i) Additional information of proposed raingarden including (but not limited to) dimensions, mulch, soil layers and filtration media, water supply method (from rooftop or otherwise), overflow prevention measures, edge treatment and maintenance access;

    (j) Increase plant quantities along upper-level planters;

(k) Provide information on automatic irrigation system including proposed water supply (potable or other), and type of irrigation (pop-ups or drip irrigation) for all planted areas within the subject site (ground level and upper level);

(l) The irrigation is to be connected to the proposed rainwater tank, as specified within the SMP;

(m) Drainage information demonstrating that all raised planters and planted areas are to be connected to stormwater (planters are not allowed to drain onto the footpath or roof slabs); and

(n) Provide a maintenance schedule, including task details and frequency for all planted areas and raingarden.

18. Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, the landscaping works shown on the endorsed Landscape Plan must be carried out and completed to the satisfaction of the Responsible Authority. The landscaping shown on the endorsed Landscape Plan must be maintained by:

(a) implementing and complying with the provisions, recommendations and requirements of the endorsed Landscape Plan;

(b) not using the areas set aside on the endorsed Landscape Plan for landscaping for any other purpose; and

(c) replacing any dead, diseased, dying or damaged plants,

to the satisfaction of the Responsible Authority.

Street Trees

19. Before the development commences, the permit holder must make a one-off contribution of $8,261(inclusive of GST and subject to annual CPI increase) to the Responsible Authority to be used for new street tree plantings along Adam Street that are required as a result of the development.

20. After the building is completed, and prior to occupation of the building, the permit holder must notify the Responsible Authority in writing that the building has been completed so that planting can occur within the first available planting season. Tree pits may require a temporary ‘make safe’ until such time that planting can occur.

21. Before the development commences, an Arboricultural Impact Assessment to the satisfaction of the Responsible Authority must be prepared by a suitably qualified Arborist, in accordance with AS 4970:2025 – Protection of Trees on Development Sites and must be submitted to and approved by the Responsible Authority. When approved the Arboricultural Impact Assessment will be endorsed and will form part of this permit.

22. Before the development commences, the permit holder must provide an Asset Protection Bond of $20,000 (ex GST) for the existing street trees on Adam Street, unless otherwise advised by the Responsible Authority. The security bond:

(a) must be provided to the Responsible Authority in the form of a bank cheque or guarantee;

(b) may be held by the Responsible Authority until the works are completed to the satisfaction of the Responsible Authority; and

(c) must be in accordance with the requirements of this permit.

23. Any pruning required to be undertaken for the street trees along the subject site's frontage must be completed by an approved tree maintenance contractor (to the satisfaction of the Responsible Authority) with all associated costs to be borne by the permit holder.

24. In conjunction with the submission of development plans under Condition 1, a Tree Management Plan to the satisfaction of the Responsible Authority and by a suitably qualified Arborist must be submitted to and approved by the Responsible Authority. When approved the Tree Management Plan will be endorsed and will form part of the permit. The Tree Management Plan must make recommendations for:

    (a) the protection of street tree adjacent the Adam Street frontage:

        (i) pre-construction;

        (ii) during construction; and

        (iii) post construction

    (b) the provision of any barriers;

    (c) any pruning necessary; and

    (d) watering and maintenance regimes,

    to the satisfaction of the Responsible Authority.

25. The provisions, recommendations and requirements of the endorsed Tree Management Plan must be complied with and implemented thereafter to the satisfaction of the Responsible Authority.

Public Realm Plan: Functional Layout

26. Concurrent with the submission of Condition 1 Plans, or by such later date as approved in writing by the City of Yarra, a Public Realm Plan of all public realm improvements associated with the development must be prepared, submitted and approved by the Responsible Authority. When approved, the plan will be endorsed and will then form part of the permit. The Public Realm Plan must show, but not be limited to, the following:

    (a) Maximise and reconfigure existing kerb outstands to improve pedestrian amenity, accessibility, safety and overall public realm presentation;

    (b) The design of the kerb outstand must consider and address, including but not limited to, the following matters:

        (i) Rationalisation of on-street parking bays, with the maximum feasible area reallocated to public realm improvements, new street tree and pedestrian amenities;

        (ii) Provision of vehicle swept-path diagrams demonstrating that all affected vehicle movements can occur safely and efficiently to the satisfaction of the Responsible Authority;

        (iii) Resolution of all drainage requirements associated with the kerb outstands and adjoining infrastructure;

        (iv) Compliance with all relevant accessibility requirements, ensuring all levels, grades and transitions are seamless and compliant;

(v) A demonstrated due diligence assessment of all existing and proposed services, including identification of any impacts associated with the kerb outstand and related infrastructure, and confirmation of any required service authority approvals or agreements;

(vi) An assessment of existing street lighting conditions, with provision for lighting upgrades or improvements were required to support pedestrian safety and amenity; and

(vii) New trees to be installed in accordance with Council standard detail including organic mulch around base of trees YSD803(a);

(c) Layout plan indicating all existing and proposed features and surface levels;

(d) Show all existing and proposed streetscape infrastructure including (but not limited to) light poles, drains and street signs;

(e) Proposed bicycle spaces along site frontage, which bicycle image superimposed upon the proposed;

(f) Clearly dimensioned elements including pedestrian paths and parking bays;

(g) All existing and proposed levels and surface grades;

(h) Demonstrate a seamless / DDA compliant levels transition across all proposed footpaths pavements;

(i) Demonstrate a seamless / DDA accessible transition from the public realm into the principal entrance to the proposed building at ground floor level including any proposed setback;

(j) Any works required to achieve compliance, including surface level modifications, must be undertaken wholly within the subject site. Existing external footpath levels must not be altered unless an improvement to compliance with adjoining footpaths is demonstrably achieved;

(k) All existing and proposed drainage infrastructure including any existing or proposed drainage pits (to Council engineering satisfaction);

(l) Reconstruction of all footpaths, kerbs, channels and crossovers adjacent to the property in accordance with Council standards and Department of Transport's requirements (clearly show extent of proposed works on plans);

(m) Any existing and proposed service pits within the footpath area must be adjusted to match the reconstructed footpath grades;

(n) Provide a clear paving delineation between public and private land;

(o) Pavements must meet Council and all relevant Australian standards including for slip resistance;

(p) Any proposed new and existing tree; and

(q) New trees to be installed in accordance with Council standard detail including organic mulch around base of trees YSD803(a).

Public Realm Plan: Detailed Design Plans

27. Before the development commences (excluding site preparations, demolition and bulk excavation), or by such later date as approved in writing by the City of Yarra, detailed

design drawings of the works approved under the Public Realm Plan (as required by Condition 24) addressing all road infrastructure works (including soft/hard landscaping), must be submitted to and approved by Council's Civil Engineering Department. Once approved, the detailed design drawings will be endorsed and will then form part of the permit.

28. Before the building is occupied, all associated works shown on the endorsed detailed design plans for the public realm (as required by Condition 25) must be fully constructed and completed to the satisfaction of the Council's Civil Engineering Department and at no cost to the Responsible Authority.

Acoustic Report

29. Before the development commences, an amended Acoustic Report to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the amended Acoustic Report will be endorsed and will form part of this permit. The amended Acoustic Report must be generally in accordance with the Wind Assessment Report prepared by Enfield Acoustics Noise Vibration and dated 24 March 2026, but modified to include (or show):

    (a) All design changes required under Condition 1 of this permit, as relevant.

30. The provisions, recommendations and requirements of the endorsed Acoustic Report must be implemented and complied with to the satisfaction of the Responsible Authority.

31. The development must at all times comply with the noise limits specified in the Environment Protection Regulations under the Environment Protection Act 2017 and the incorporated Noise Protocol (Publication 1826.4, Environment Protection Authority, May 2021), as may be amended from time to time.

Wind Impact Assessment

32. Concurrent with the submission of Condition 1 Plans, a Wind Assessment Report to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the Wind Assessment Report will be endorsed and will form part of this permit.

33. The provisions, recommendations and requirements of the endorsed Wind Impact Assessment must be implemented and complied with to the satisfaction of the Responsible Authority.

Development Infrastructure Levy

34. Prior to the commencement of the development the Development Infrastructure Levy must be paid to Yarra City Council in accordance with the approved Development Contributions Plan.

Civil Works

35. Concurrent with the submission of Condition 1 plans or by such later date as approved in writing by the Responsible Authority, vehicle crossing designs must be submitted to Council's Civil Engineering Department for approval. The submitted designs must demonstrate compliance with City of Yarra's, Vehicle Crossing Information Sheet.

36. Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, any new vehicle crossing must be constructed:

    (a) in accordance with any requirements or conditions imposed by Council; and

(b) at the permit holder's cost and,

to the satisfaction of the Responsible Authority.

37. Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, any redundant vehicular crossing must be demolished and re-instated as standard footpath, verge (if applicable), and kerb and channel:

(a) at the permit holder's cost and,

to the satisfaction of the Responsible Authority.

38. Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, any damage to Council infrastructure resulting from the development must be reinstated:

(a) In accordance with Yarra Standard Drawings | Yarra City Council;

(b) at the permit holder's cost; and

(c) To the satisfaction of the Responsible Authority.

39. Any service poles, structures or pits located within the public realm areas that interfere with the proposal, must be adjusted accordingly:

(a) at the permit holder's cost; and

(b) to the satisfaction of the Responsible Authority.

40. Any on-street parking reinstated as a result of development works must be approved by Council's Parking Management unit.

Car Parking

41. Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, the area set aside on the endorsed plans for the car parking spaces, access lanes, driveways and associated works must be:

(a) constructed and available for use in accordance with the endorsed plans;

(b) formed to such levels and drained so that they can be used in accordance with the endorsed plans;

(c) treated with an all-weather seal or some other durable surface; and

(d) line-marked or provided with some adequate means of showing the car parking spaces;

to the satisfaction of the Responsible Authority.

External Lighting

42. Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, external lighting capable of illuminating access to the pedestrian entry must be provided within the property boundary. Lighting must be:

(a) located;

(b) directed;

(c) shielded; and

(d) of limited intensity,

to the satisfaction of the Responsible Authority.

General

43. Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, all new on-boundary walls must be cleaned and finished to the satisfaction of the Responsible Authority.

44. Before the building is occupied, any wall located on a boundary facing public property must be treated with a graffiti proof finish to the satisfaction of the Responsible Authority.

45. All pipes, fixtures, fittings and vents servicing any building on the land must be concealed in service ducts or otherwise hidden from view to the satisfaction of the Responsible Authority.

Construction Hours

46. Except with the prior written consent of the Responsible Authority, demolition or construction works must not be carried out:

    (a) Monday-Friday (excluding public holidays) before 7 am or after 6 pm;

    (b) Saturdays and public holidays (other than ANZAC Day, Christmas Day and Good Friday) before 9 am or after 3 pm; or

    (c) Sundays, ANZAC Day, Christmas Day and Good Friday at any time.

Construction Management Plan

47. Before the use and development commences, a Construction Management Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the plan will be endorsed and will form part of this permit. The plan must provide for:

    (a) a pre-conditions survey (dilapidation report) of the land and all adjacent Council roads frontages and nearby road infrastructure;

    (b) works necessary to protect road and other infrastructure;

    (c) remediation of any damage to road and other infrastructure;

    (d) containment of dust, dirt and mud within the land and method and frequency of clean up procedures to prevent the accumulation of dust, dirt and mud outside the land;

    (e) facilities for vehicle washing, which must be located on the land;

    (f) the location of loading zones, site sheds, materials, cranes and crane/hoisting zones, gantries and any other construction related items or equipment to be located in any street;

    (g) site security;

    (h) management of any environmental hazards including, but not limited to:

        (i) contaminated soil;

        (ii) materials and waste;

        (iii) dust;

        (iv) stormwater contamination from run-off and wash-waters;

(v) sediment from the land on roads;

(vi) washing of concrete trucks and other vehicles and machinery; and

(vii) spillage from refuelling cranes and other vehicles and machinery;

(i) the construction program;

(j) preferred arrangements for trucks delivering to the land, including delivery and unloading points and expected duration and frequency;

(k) parking facilities for construction workers;

(l) measures to ensure that all work on the land will be carried out in accordance with the Construction Management Plan;

(m) an outline of requests to occupy public footpaths or roads, or anticipated disruptions to local services;

(n) an emergency contact that is available for 24 hours per day for residents and the Responsible Authority in the event of relevant queries or problems experienced; and

(o) the provision of a traffic management plan to comply with provisions of AS 1742.3-2002 Manual of uniform traffic control devices - Part 3: Traffic control devices for works on roads.

48. The provisions, recommendations and requirements of the endorsed Construction Management Plan must be implemented and complied with to the satisfaction of the Responsible Authority.

Signage

49. The location and details of the signs, including the supporting structure, as shown on the endorsed plans must not be altered (unless the Yarra Planning Scheme specifies that a permit is not required) without the prior written consent of the Responsible Authority.

50. The signage component of this permit expires 15 years from the date of the permit.

51. On expiry of this permit, the approved signs and structures built specially to support and/or illuminate signage must be removed.

52. The signs must not include any flashing or intermittent light.

53. The illumination of the sign fronting Adam Street must be switched off between 10.00pm and 8.00am the following day.

54. The signs must be constructed, displayed and maintained to the satisfaction of the Responsible Authority.

55. The Major Promotion sign must not:

(a) Dazzle or distract drivers due to its colouring;

(b) Be able to be mistaken for a traffic signal because it has, for example, red circles, octagons, crosses or triangles; and

(c) Be able to be mistaken as an instruction to drivers.

56. This permit will expire if the signs are not erected within 3 years of the date of this permit. The Responsible Authority may extend the period referred to if a request is made in writing before the permit expires or within six months afterwards for commencement or twelve months afterwards for completion.

Expiry

57. This permit will expire if:

    (a) The development is not commenced within three years of the date of this permit;

    (b) The development is not completed within five years of the date of this permit; or

    (c) the use is not commenced within five years of the date of this permit.

    The Responsible Authority may extend the periods referred to if a request is made in writing before the permit expires or within six months afterwards for commencement or within twelve months afterwards for completion.

Notes

Provision must be made for drainage of the site to a legal point of discharge. Please contact Council's Building Services on 9205 5555 for further information.

A building permit may be required before development is commenced. Please contact Council's Building Services on 9205 5555 to confirm.

A local law permit (e.g. Asset Protection Permit, Road Occupation Permit) may be required before development is commenced. Please contact Council's Construction Management Branch on Ph. 9205 5555 to confirm.

No parking restriction signs, or line-marked on-street parking bays are to be removed, adjusted, changed or relocated without approval or authorisation from Council's Parking Management unit and Construction Management branch.

Areas must be provided inside the property line and adjacent to the footpath to accommodate pits and meters. No private pits, boundary traps, valves or meters on Council property will be accepted.

Any services poles, structures or pits that interfere with the proposal must be adjusted, removed or relocated at the owner's expense after seeking approval from the relevant authority.

Any on-street parking reinstated as a result of development works must be approved by Council's Parking Management unit.

All future business (whether as owners, lessees/tenants, occupiers) within a development approved under this planning permit, will not be eligible for business parking permits unless the development has heritage controls where parking would adversely affect the integrity of the heritage place, or if there's no increase in separate occupancies and the development does not reduce existing on-site parking. For more information refer to www.yarracity.vic.gov.au/residents/transport/parking/parking-permits.

Legal duties and obligations to protect human health and the environment from pollution and waste are set out in the *Environment Protection Act 2017*. Please refer to the Environment Protection Authority Victoria website www.epa.vic.gov.au/meeting-your-obligations for more information on identifying potential contamination and complying with your duty to manage contaminated land under the *Environment Protection Act 2017*.

For the submission of plans pursuant to Condition 26, please submit these to info@yarracity.vic.gov.au marked attention to Engineering Services.

Background

1. This report provides Council with an assessment of a planning application being considered by the Department of Transport and Planning (the 'DTP') for a planning permit to develop 177 – 177 Barkly Avenue Burnley.

2. The application was made to the Minister for Planning under Clause 53.22 (Significant Economic Development).

Figure 1: Aerial photograph identifying the site (encompassed in red) and the surrounding area (Source: NearMap 25 April 2026)

3. In brief, the application proposes the development of the site with an 8 storey warehouse and office building (no permit required for office use), construct and display business identification and major promotion signage (including internally illuminated and high wall signage), and create and alter access to a road in a Transport Zone 2.

4. A separate application (PLN20/0868) was approved at the direction of VCAT on 20 December 2021 for the construction of an eight-storey building (plus roof top plant) for the purpose of a food and drink premises (permit required use), restricted retail and office uses with alterations to access to a Road Zone (Category 1) and a reduction in the car parking. This expiry date of this permit has been extended and the permit will now expire on 20 December 2026.

5. An amendment application was submitted to Council (PLN20/0868.01) to change the building to a warehouse building, as well as built form changes, and was subsequentially withdrawn 17 April 2025.

Figure 2: Render of the proposed development from the corner of Barkly Avenue and Adam Street (Source: Application material)

6. The attached **Council Officer Application Assessment Table** sets out a brief overview of the application, the relevant planning framework key aspects of proposal and internal and external consultation undertaken.

Advertising

Advertising

7. The application was notified to Council and surrounding properties. At the time of finalising this report, the DTP have advised Council that they had received two submissions which raise the following issues:

   (a) Visual bulk and neighbourhood character impacts; and

   (b) Traffic and noise.

8. These matters generally align with issues discussed in the Council Officer Assessment, under the sections relating to built form; off-site amenity impacts; and car parking, traffic and waste.

Referrals

9. The application was referred to following internal business units within Council, whose full advice is attached to this report:

Internal Business Unit	Comments
Projects Park & Open Space (Built Form)	Unsupportive. Recommend significant upper level façade articulation changes, a more prominent street wall and more defined entrance.
Projects Park & Open Space (Public Realm and Landscaping)	Supports, subject to conditions.
Development Engineering	Supports, subject to conditions.
Waste Management	Supports, subject to conditions.

ESD	Supports, subject to conditions.
Strategic Transport	Supports, subject to conditions.
City Works – Open Space Services	Supports, subject to conditions.

Officer Assessment

10. The attached **Council Officer Application Assessment Table** sets out a high level assessment of the application against the key considerations in the planning scheme.
11. This has led to the recommendation that the application not be supported on key grounds.
12. Notwithstanding this, should the DTP be of a mind to grant a permit, recommended conditions are also provided.

Legal and Legislative Obligations

Conflict of interest disclosure

13. Section 130 of the Local Government Act 2020 requires members of Council staff and persons engaged under contract to provide advice to Council to disclose any conflicts of interest in a matter to which the advice relates.
14. The Officer reviewing this report, having made enquiries with relevant members of staff, reports that no disclosable interests have been raised in relation to this report.

Report Attachments

1. 6.1.1 PP E 26 0201 - 173 - 177 Barkly Avenue Burnley PA2604311 DTP Assessment Table
2. 6.1.2 PP E 26 0201 - 173 - 177 Barkly Avenue Burnley - P A 2604311 - s 52 Notice Letter
3. 6.1.3 PP E 26 0201 - 173 - 177 Barkly Avenue Burnley - P A 2604311 - Application Form
4. 6.1.4 PP E 26 0201 - 173 - 177 Barkly Avenue Burnley - P A 2604311 - Urban Context Report
5. 6.1.5 PP E 26 0201 - 173 - 177 Barkly Avenue Burnley - P A 2604311 - Architectural Drawings
6. 6.1.6 PP E 26 0201 - 173 - 177 Barkly Avenue Burnley - P A 2604311 - Town Planning Report
7. 6.1.7 PP E 26 0201 - 173 - 177 Barkly Avenue Burnley - P A 2604311 - Stor Hub Business Incubator
8. 6.1.8 PP E 26 0201 - 173 - 177 Barkly Avenue Burnley - P A 2604311 - Traffic Impact Assessment
9. 6.1.9 PP E 26 0201 - 173 - 177 Barkly Avenue Burnley - P A 2604311 - SMP
10. 6.1.10 PP E 26 0201 - 173 - 177 Barkly Avenue Burnley - P A 2604311 - WMP
11. 6.1.11 PP E 26 0201 - 173 - 177 Barkly Avenue Burnley - P A 2604311 - Acoustic Report
12. 6.1.12 PP E 26 0201 - 173 - 177 Barkly Avenue Burnley - P A 2604311 - Landscape Plan
13. 6.1.13 PP E 26 0201 - 173 - 177 Barkly Avenue Burnley - P A 2604311 - Referrals compiled

DTP Application assessment table

Overview	
Property	173 – 177 Barkly Avenue Burnley VIC 3121
Ward	Boulevard
DTP Ref & Status/ reason for referral	PA2503781 – Notification underway Application made to the Minister for Planning under Clause 53.22 (Significant Economic Development) Council was notified under section 52 of the Act.
Council Ref	PPE26/0201
Proposal	Construction of an eight storey warehouse and office building (no permit required for office use), construct and display business identification and major promotion signage (including internally illuminated and high wall signage), and create and alter access to a road in a Transport Zone 2.
Site & Context	Described in application material A brief discussion on the immediate surrounding properties: • The sites immediately north of the subject land, fronting Adam Street and Stawell Street, contain single-storey, single-fronted Victorian-era dwellings located within the General Residential Zone. Further north and also addressed to Adam and Stawell Streets, are dwellings that have a consistent subdivision and building footprint pattern that continues through to Cherrill Street and beyond. • Immediately to the west across Adam Street has a varied streetscape character, consisting of a mix of single storey Victorian and Edwardian dwellings, 3-4 storeys apartment blocks and contemporary townhouse infill developments (typically two storeys), including a four-storey office building and two storey commercial building on the west side of Adam Street, directly opposite the subject site. • The subject site has an immediate abuttal with a double-storey office building to the east, that extends to the south (Barkly Avenue) and west (shared) site boundaries. A gated car park located on the northern side of the site (accessed via Stawell Street). This site, like the subject site, is zoned Commercial 2. • Barkly Avenue is to the south of the subject site and opposite is an embankment, namely the Barkly Avenue Reserve, beyond which is the Monash Freeway / Citylink (toll road) and Yarra River. Further south is the Yarra River environs

	and on the opposite side of this is the municipality of the City of Stonnington. Barkly Avenue, and Burnley Street further are within a Road Zone Category 1.
Notable application history	• Planning permit PLN20/0868 was issued 20 December 2021 at the direction of VCAT on for development of the land the construction of an eight-storey building (plus roof top plant) for the purpose of a food and drink premises (permit required use), restricted retail and office uses with alterations to access to a Road Zone (Category 1) and a reduction in the car parking. The expiry date of this permit has been extended and the permit will now expire on 20 December 2026. An amendment application was submitted to Council (PLN20/0868.01) to change the building to a warehouse building, as well as built form changes. This was subsequentially withdrawn 17 April 2025.
Planning Framework	
Zoning & Overlays	Commercial 2 Zone (C2Z) Development Contributions Plan Overlay (Schedule 1) Significant Landscape Overlay (SLO1) Design and Development Overlay (Schedule 2 – Main Roads and Boulevards) (Schedule 5 – City Link Exhaust Stack Environs)
Statutory controls	A planning permit is required for the following: • For use as a warehouse under Clause 34.02-1 (Commercial 2 Zone) of the Yarra Planning Scheme (the Scheme) • To construct a building or construct or carry out works under Clause 34.02-4 (Commercial 2 Zone), Clause 43.02-2 (Design and Development Overlay) and Clause 42.03-2 (significant Landscape Overlay) of the Scheme. • To construct and display internally illuminated, high wall, business identification, and major promotion signage under Clause 52.05-11 (Signs) of the Scheme. • To create or alter access to a road in a Transport Zone 2 under Clause 52.29-2 (Land Adjacent to the Principal Road Network) of the Scheme. The subject site is subject to a Development Infrastructure Levy and a Community Infrastructure Levy under the DCPO1.

Relevant planning policies	• Clause 2 - Municipal Planning Strategy, including:
	  ○ Clause 02.01 – Context
	  ○ Clause 02.02 – Vision
	  ○ Clause 02.03 – Strategic Directions
	  ○ Clause 02.04 – Strategic Framework Plan
	• Clause 13 – Environmental risks and amenity
	• Clause 15 – Built environment and heritage
	• Clause 17 – Business
	• Clause 18 – Transport
	• Clause 19 – Development infrastructure

Other relevant documents	• Urban Design Guidelines for Victoria (Department of Environment, Land, Water and Planning, 2017) • Plan for Victoria (Department of Transport and Planning)
Internal & External consultation	
Consultation	DTP have notified surrounding property occupiers and owners. At the time of writing this report, notice had commenced on 7 May 2026, with two submissions lodged with DTP. Issues raised in the objections relate to visual bulk and neighbourhood character impacts and concern about traffic and noise.
Internal referrals	The proposal has been referred to the following internal business units, whose comments are attached in full, and whose recommendations have generally been incorporated into the recommended list of conditions: • Projects Park & Open Space (Built Form) • Projects Park & Open Space (Public Realm and Landscaping) • Development Engineering • ESD • Waste • City Works – Open Space • Strategic Transport
Other expertise required	DTP are recommended to obtain expert advice in relation to: • Wind expert – to review/verify provided wind assessment

	• Acoustic expert – to assess the potential noise impacts to/from the site.
Key considerations	**Generally complies?**
Strategic support	**Yes** The subject site is located within a C2Z, which has a key purpose to encourage commercial areas for offices, appropriate manufacturing and industries, bulky goods retailing, other retail uses, and associated business and commercial services. In this context, the proposal is broadly consistent with elements of both the State and Local Planning Policy Framework that support the ongoing use and adaptation of employment land. The site is located within an area of commercial land in Clause 02.04 (Strategic Framework Plan), which is described at Clause 02-01-8 (Economic Development) as areas that are considered "employment land", which is defined as follows: *Commercial and industrial land outside of activity centres and major employment precincts, such as CUB in Abbotsford and Botanicca Corporate Park in Richmond as shown in clause 02.04 (Strategic Framework Plan). These areas support employment uses on individual sites or within broader precincts, where employment uses have been maintained through commercial or industrial zoning.* Further to this, Clause 02.03-6 (Economic Development) supports maintaining an adequate supply of employment land to accommodate projected economic and employment growth that meets the diversity of business needs, while encourages preserving and growing Yarra's employment areas by supporting employment land in the industrial and commercial land shown in clause 02.04 (Strategic Framework Plan). While the proposal is for a warehouse use that is in alignment with the policy aspiration for ongoing commercial use of the land, the application material does not demonstrate how a self-storage facility will contribute to any significant, ongoing employment. The application has been submitted under Clause 53.22 of the Scheme (Significant Economic Development). A purpose of this provision is to prioritise and facilitate the planning, assessment and delivery of projects that will make a significant contribution to Victoria's economy and provide substantial public benefit, including jobs for Victorians. While the application meets the cost threshold, the contribution to the Victoria economy, as well as the public benefit is unclear.

	The proposal should be designed to include genuine commercial and/or coworking spaces at ground floor and be designed so that the building can transition to other commercial uses, such as offices in the future. The site is well-positioned to accommodate development, with excellent accessibility to jobs, services and good access to public transport, but this must be balanced against the design response to the surrounding character. Policy support for development must be balanced with built form guidance at Clause 15.01-2L and Clause 15.01-2S (Building design), and Clause 15.01-1S and Clause 15.01-1L (Urban Design). This policy calls for development that responds to the surrounding context with regard to urban character. Development must also consider off-site amenity impacts (i.e., overlooking, overshadowing, noise, wind) on surrounding private and public land. These aspects will be discussed in detail later in the report.
Land Use	**Yes – subject to conditions** A planning permit is required for the proposed warehouse use only, given its location within 30m of residential land to the north. A warehouse use is considered appropriate on this site, with the northern portion of Barkly Avenue being dominated by commercial and light industrial uses, and subject to recommended conditions of permit, amenity impacts on nearby residential uses can be minimised. Clause 13.07-1L-01 of the Scheme (Interfaces and Amenity) seeks to ensure that new non-residential uses and development be designed to minimise the impacts of noise, fumes and air emissions, storage and waste, light spill, and overlooking and unsightly views upon nearby existing residential properties, as well on non-residential uses. Amenity impacts relating to built form will be discussed later within the report, with the following discussion limited to the impacts of the Warehouse use. The proposal includes a total of 15,089sqm of secure self-storage units, accessible 24 hours a day, 7 days a week. The associated office use will operate between 8:30am and 5:30pm, Monday to Saturday. These hours aren't uncommon for a use of this nature, while Clause 13.07-1L-01 does not limit hours of non-residential uses within a Commercial Zone. The site is well positioned within proximity to the Swan Street Major Activity Centre (MAC) and benefits from strong connectivity to CityLink to the south and is well serviced by existing infrastructure and services. The primary entry into the building will be from Barkly Avenue, away from residential properties to the north. The site is also well sited in respect to public transportation, while the proposed car park at ground level is expected to facilitate customers accessing the site, particularly given the nature of the use. Loading and unloading is provided at ground level within the car parking area.

	Details of lighting within the building and outside to the front entrance have not been provided. A condition is included in the recommended conditions requiring a lighting plan to ensure the impacts to surrounding properties is not unreasonable. Other conditions are also included regarding management of the premises (ie. operational management plan) to address matters such as security/ contact details/ silent or monitored alarms such that impacts are minimised.
Built Form	**Objection** In considering the design and built form of the proposed development, the most relevant aspects of the Scheme are the decision guidelines at the C2Z, the SLO and the DDO and policy at *Clause 15.01* (Built Environment). All of these provisions and guidelines support a development outcome that responds to the existing or preferred neighbourhood character and provides a contextual urban design response reflective of the aspirations for the area. Particular regard must be given to the acceptability of the design in terms of height and massing, street setbacks and relationship to adjoining buildings. <u>Site context</u> The subject site is located within an area this is predominantly one and two storeys in height with taller built forms interspersed at a more-broader spectrum. A higher built form character and contemporary designs are emerging characteristics of the precinct. The direct interfaces to the subject site includes blank masonry walls of a two-storey commercial building to the east, and a single storey masonry on boundary wall / fence that extends across the northern boundary, with dwellings adjacent to that fronting Adam and Stawell Streets. Adam Street and Barkly Avenue are located to the west and south, respectively. The proposed eight storey building would be taller than the buildings immediately interfacing the site and those in the broader area. However, this is consistent with the strategic direction provided by policy in this area and is contextually responsive as is evidenced by the assessment provided in relation to off-site amenity. In the absence of structure plans or height controls, each application must be considered on its merits. The strategic planning context for the site has been established and is considered to support re-development of the site including for a multi-storey, building. However, this must be balanced against achieving acceptable design outcomes for the site having regard to relevant built form polices outlined in Clause 15.01-1S (Urban design) and 15.01-2S (Building design). Further, the objective of Clause 15.01-1S seeks to create urban environments that are safe, healthy, functional and enjoyable and that contribute to a sense of place and cultural identity. <u>Building Height and setbacks</u>

	Clause 15.01-2L of the Scheme encourages design development to reflect and respond to streetscape elements, including pattern of development and building spacing. As outlined above, the subject site is located within an area of generally low scale development between one and two storeys. Although the site is not located directly within a MAC and DDO's with no clear built form direction, it is within an area in which substantial redevelopment opportunities exist. The proposed development will present as a 8 storey building equating to 25.3m in height, excluding roof services. Whilst, it is acknowledged that the proposal would be the tallest building in the immediate surrounding area and that there is not a clear emerging redevelopment context in this location, visibility is not a reason to refuse a development. This has been reiterated in relevant VCAT decisions. Further to this, the subject site has other physical qualities that would support greater built form density including the site's proximity to various public transport options and the site being surrounded by two streets (Barkly Avenue and Adam Street). Further the site faces onto the CityLink Freeway to the south (i.e.. another non-sensitive interface). Pursuant to Clause 15.01-1L of the Scheme, development should incorporate setbacks that reflect the general pattern of front side and rear setbacks in the streetscape, as well as limit excessive tiered building profiles on street and laneway frontages and encourage use of contextual materials and finishes at upper levels. The building has been designed to reduce the perception of scale to the north through use of staggered setbacks (10.28m setback between levels 1 and 3, 15.67m setback between levels 4 and 6, and 22.5m setback at level 7). As outlined previously within the report, planning permit PLN20/0868 was issued for the construction of an eight-storey building on the land. The height approved was higher than this proposed development, while the setbacks and positioning of form is generally consistent with the previous approval.

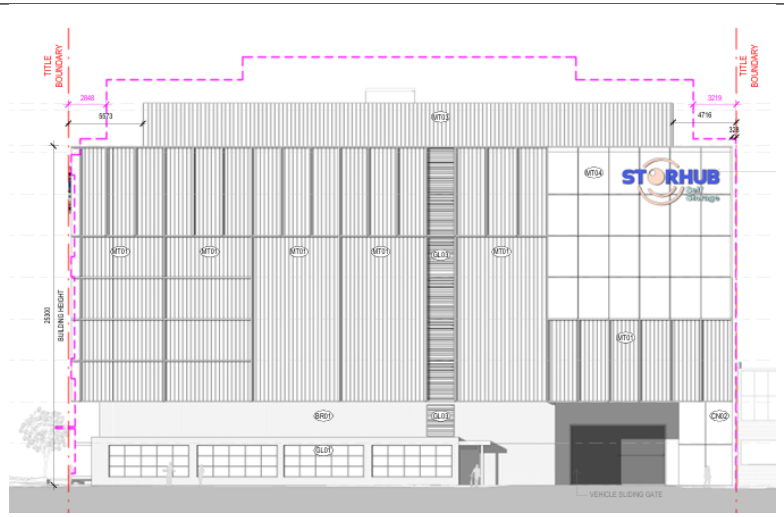


Image of the proposed development from Barkly Avenue with the outlined of the previous approved development scale in pink (Architectural Plans)

Street wall

The development proposes a part single, part double- storey brick street wall to Barkly Avenue, with a minimal recess to the levels above. The street wall wraps around onto Adam Street, with the upper levels cantilevering over. Both street walls, although contrasting materials to the upper levels, are not clearly or consistently defined. the development reads as top-heavy and lacks a clearly articulated podium or base that firmly addresses pedestrian scale. Council's Projects, Park & Open Space Unit raised concerns with the street wall, recommending that it be more prominent, and also noting concerns with the cantilevered upper level along Adam Street. Extensive design and form changes would be required to the street wall for support, and therefore this will form part of the objection.

	Overshadowing requirements In regard to sunlight access within the public realm, Clause 15.01-2L provides the following guidance: *Unless specified elsewhere in this scheme, ensure development allows direct sunlight between 10am and 2pm on 22 September to any part of the:* • *Footpath on the southern side of streets orientated east-west in activity centres as defined in clause 11.03-1L.* • *Opposite footpath on streets orientated north-south in activity centres as defined in clause 11.03-1L.* The applicant submitted shadow diagrams hourly between 10am and 3pm. The shadow cast from the development will not fall onto any footpaths in activity centres as defined in clause 11.03-1L of the Scheme and therefore is considered appropriate. Architectural Quality Policy at Clause 15.01-2L encourages the design of developments to make a positive contribution to the streetscape through high quality architecture and urban design. This policy further supports mid-rise development that contributes to high-quality built form. The material palette of the proposed development includes a mixture of recycled and red heritage bricks, pigmented fibre cement, pre painted steel, exposed textured precast concrete, aluminium and steel framed elements and a variety of glazing. This is generally consistent with Clause 15.01-2L which encourages a simple palette of durable materials that respond to the streetscape character through type, colour, finish and contrast. The materials proposed are not uncommon for industrial buildings, and the existing streetscape comprises buildings constructed of brick and concrete, while the use of metal cladding and framing is extensive. Council's Projects, Park & Open Space Unit was supportive of the material pallet, noting that they are supportive of the simple colour variation and the use of brick for the street walls. Clause 15.01-2L encourages development to make a positive contribution to the streetscape through high quality architecture and urban design and discourages blank or unarticulated walls. Although glazing is proposed to the ground-floor façades along Barkly Avenue and Adam Street, particularly on the corner, the upper levels provide very few openings or setbacks and do not make a positive contribution to the streetscape. Council's Projects, Park & Open Space Unit raised concerns with the proposed façade treatment and recommended additional openings. They noted there are a number of

	logical ways to incorporate windows into the façades. This issue is noted in the recommendation as a reason that the proposal should not be supported. The design objective of Schedule 2 of the Design and Development Overlay (Main Roads and Boulevards) includes to *encourage high quality contemporary architecture.* In this context, the limited façade articulation and extensive upper-level blank wall presentation would be an underwhelming architectural response and would not support the intended boulevard character of Barkly Avenue and the Adam Street interface. Further to this, while the proposal is for a warehouse building, the lack of windows and articulation means the building has limited adaptability for future uses. Being within the Commercial 2 Zone, there are a number of uses, such as offices, which would be well suited to the site, and an adaptable form would allow for this. Further, activation and surveillance of the public realm will be discussed later in the report.
Built Form – Public realm	**Conditions required** *The Public Realm & Pedestrian Spaces* Clause 15.01-2S encourages the interfaces between buildings and public realm to enhance the function and amenity of the public realm, while supporting personal safety, perceptions of safety and property security. This can be achieved by designing developments to provide a high level of pedestrian amenity and visual interest, by incorporating well-defined entries at ground level and installing glazed areas which allow permeability into the interior space. Council's Projects, Park & Open Space Unit, although generally supportive of the public realm interface with Barkly Avenue and Adam Street, raised concerns regarding the positioning of the main entrance, the positing of bicycle hoops (to be discussed later in the report), positioning of the street frontage and security gate and the level of integration to the public realm. They recommended the following: o Integrate a security 'line' / gate in addition to the sliding security gate, restricting access into the setback / under-croft car parking / entry area after-hours. o Locate visitor bicycle hoops in clearly visible and fully accessible locations in vicinity to main entrances, with opportunity to be overlooked from internal office and reception for improved safety. o Dimension all building entrances and access paths, access paths should have a minimum 1800mm unobstructed width.

	○ Integrate planters (within the subject site) with vertical greenery spanning at minimum ground floor and level 01 along the Barkly Avenue frontage or extent of modified height of external brick walls. ○ Rationalise hard paved areas (within the subject site boundary) ground floor setback along Adam Street in lieu of increased garden beds. ○ Relocate proposed bench seat along Adam Street ground level setback (within the subject site boundary) closer to the office and reception areas, integrate additional seating and visitor bike hoops if feasible. ○ Relocate pedestrian egress doors; to eliminate small setback spaces, doors must not obstruct public footpaths when fully opened. ○ Relocate the vehicle egress security gate closer to Adam Street title boundary. ○ Integrate planters (within the subject site) with vertical greenery spanning at minimum ground floor and level 01 along the Adam Street frontage or extent of modified height of brick walls. While this would be an opportunity to further enhance the interface, requiring additional planters with vertical greenery does not address the fundamental issue of the absence of windows and active frontages. Further to this, Council's Urban Design Unit recommended a detailed Public Realm Plan to be submitted for review. They also recommended the following public realm interface and works conditions: ○ Maximise and reconfigure existing kerb outstands to improve pedestrian amenity, accessibility, safety and overall public realm presentation; ○ The design of the kerb outstand must consider and address, including but not limited to, the following matters: ▪ Rationalisation of on-street parking bays, with the maximum feasible area reallocated to public realm improvements, new street tree and pedestrian amenities; ▪ Provision of vehicle swept-path diagrams demonstrating that all affected vehicle movements can occur safely and efficiently to the satisfaction of the Responsible Authority; ▪ Resolution of all drainage requirements associated with the kerb outstands and adjoining infrastructure; ▪ Compliance with all relevant accessibility requirements, ensuring all levels, grades and transitions are seamless and compliant; ▪ A demonstrated due diligence assessment of all existing and proposed services, including identification of any impacts associated with the kerb outstand and related infrastructure, and confirmation of any required service authority approvals or agreements;

	▪ An assessment of existing street lighting conditions, with provision for lighting upgrades or improvements were required to support pedestrian safety and amenity; and ▪ New trees to be installed in accordance with Council standard detail including organic mulch around base of trees YSD803(a). The remaining conditions required by the Urban Design Unit will be addressed through the detailed Public Realm Plan and Landscape Plan included in the recommended conditions.
Landscaping/ Vegetation	**Conditions required** Clause 15.01-2L encourages trees and vegetation planting to contribute to an urban forest. Clause 15.01-2L-01 also encourages the retention and provision of canopy and significant trees to reduce urban heat island effects. A landscape plan prepared by Site Image dated 20 March 2026 was submitted with the application, showing landscaping proposed within the public realm and within the site. The proposed landscape design generally complies with strategies at *Clause 15.01-2L* which recommends developments to *incorporate setbacks that provide space for soft landscaping, including the planting of canopy trees, where appropriate*. Council's Strategic Projects, Parks and Open Spaces although generally supportive of the landscaping within the site, recommended the following conditions: • Raingardens: o Relocate raingarden to be an integrated feature element along Aadam Street frontage within the subject site. o Provide edges to the raingarden that ties in with the building architecture, brick or equivalent that provides for informal seating opportunities. o No trees to be planted in the rain garden. o Plants to be a mix of suitable species for visual interest and increased biodiversity. • Canopy tree provision: o Tree species to be reviewed and tree species to be appropriate for the constrained site conditions. o Provide root barrier along the interface to adjacent properties. • Soil volume: o Provide soil volumes for all planted areas that is adequate to sustain proposed tree and plant species. o Trees should be planted in a minimum soil depth of 700mm, with sufficient soil volume to support long term growth. • Landscape details including but not limited to planter boxes

	○ Additional information on planter and raingarden cross sections showing the width and depth (particularly soil depth and width for planted area and planters). ○ Additional information of proposed raingarden including (but not limited to) dimensions, mulch, soil layers and filtration media, water supply method (from rooftop or otherwise), overflow prevention measures, edge treatment and maintenance access. • Plant species and plant schedule ○ Increase plant quantities along upper-level planters. ○ Confirm that none of the proposed species listed as environmental weeds in the DELWP Advisory List of Environmental Weeds 2022. ○ Drawn plants at their mature size on the plans. • Irrigation and drainage (planted areas only) ○ Provide information on automatic irrigation system including proposed water supply (potable or other), and type of irrigation (pop-ups or drip irrigation) for all planted areas within the subject site (ground level and upper level). ○ Note: the submitted Sustainable Management Plan states that landscape irrigation is to be connected to the proposed rainwater tank. This should be clearly noted on the landscape plans. ○ Drainage information demonstrating that all raised planters and planted areas are to be connected to stormwater (planters are not allowed to drain onto the footpath or roof slabs). • Landscape maintenance ○ Provide a maintenance schedule, including task details and frequency for all planted areas and raingarden. ○ Provide details to demonstrate how upper-level planters located outside of balustrades are to be safely accessed for maintenance purposes (such as anchor points for rope access, which would need to be integrated into the building design). ○ Provide a maintenance schedule, including task details and frequency ongoing operations (pruning, irrigation maintenance, regular watering for standalone pots, upkeep, pest management, replacement of dead/diseased plants etc), Record keeping practices, and level of qualification required for ongoing maintenance contractor. • Landscape Specification ○ Provide a specification of works to be undertaken prior to planting. An updated Landscape Plan should be required via condition.

	<u>Street Trees</u> A number of street trees are located along the Adam Street public Realm. All of these trees have been shown as being retained on site. The application was referred to Council's Projects, Park and Open Space Unit and City Works – Open Space Services for comment. Council's City Works – Open Space Services was generally supportive of the proposal subject to the submission of an Arboricultural Impact Assessment (AIA) be submitted. This would assess the likely impacts of the proposed development on all affected street trees, while will specify the methods to avoid or minimise impacts on trees to be retained, and provide justification demonstrating that the development will not detrimentally affect the health or longevity of those trees, including justification for any proposed pruning or tree removal. Separately, a Tree Management Plan should also be required. Council's Projects, Park and Open Space Unit recommended 4 additional street trees along Adam Street. They recommended a contribution from the applicant of $8,261.00 including GST for this planting to cover tree sourcing, planting and two year's establishment maintenance. A condition would also be included requiring an Asset Protection Bond of $5000 for each street tree to be retained along Adam Street.
Off-site amenity impacts	**Satisfactory** Clause 15.01-2S of the Scheme aims to provide building design that minimises the detrimental impacts on neighbouring properties, the public realm and the natural environment. Equally the potential impacts relating to overshadowing of SPOS, loss of daylight to windows, visual bulk and overlooking of sensitive areas must be addressed. The relevant policy framework for amenity considerations is contained within clause 13.07-1L-01 as well as the decision guidelines of the Commercial 2 Zone at Clause 34.02-7. Although situated within the C2Z, the site has immediate interface with dwellings in General Residential Zone to the north. The nearest dwellings are those directly abutting the subject site to the north (dwellings fronting Adam Street and Stawell Street). As outlined previously within the report, the development has incorporated setbacks from the north, which will ensure the amenity to the dwellings are not unreasonably impacted. The built form setbacks from the north are also similar to the setbacks associated with the development approved under Planning Permit PLN20/0868.

	The property to the east is occupied by a multi-storey office / warehouse building. This building is generally built to the common boundary of the site. Given the site context and the built form arrangement, the proposed development will not result in any unreasonable amenity impacts, which is discussed in detail below. <u>Overshadowing</u> The proposal does not overshadow residential properties in a residential zone or any specified footpaths. <u>Noise</u> The application is accompanied by an acoustic report prepared by Enfield Acoustic Noise Vibration dated 24 March 2026. The report assesses Vehicle noise emissions from the entry/exit gates, internal noise emissions from self-storage activities and mechanical plant cogeneration plant and other mechanical systems serving the proposed building. It is recommended that if a permit were to issue, a condition should require that the development must comply at all times with the EPA noise regulations that apply to commercial developments (the EPA Noise Protocol). As advised earlier in the report, it is recommended that DTP seek an acoustic expert review of the submitted Acoustic Report. <u>Overlooking</u> In relation to overlooking, the proposal provides no direct views into habitable rooms or private open space of dwellings in a residential zone within 9m of the site, being the standard distance for addressing overlooking in the Scheme. Clauses 13.07-1L-01 and 15.01-2L -1L-01 encourage development to minimise overlooking into residential properties, regardless of the zone, however the proposed development will be well setback from any residential properties and will not result in any unreasonable overlooking. <u>Equitable development</u> To ensure the 'fair, orderly, economic and sustainable development of land' in accordance with the objective of the Act, matters of equitable development are relevant. Adjoining properties to the east are located in the C2Z, with none having any heritage controls. These properties are considered to have robust development potential. The development will be constructed against this boundary. This allows properties opposite this wall to reciprocate a boundary wall to the common boundary. The properties abutting the site to the north are located within the General Residential Zone, which has strict

	mandatory heights. Accordingly, it is considered that the proposal will not prejudice equitable development opportunities on adjoining land.
Wind	Clause 15.01-2L of the Scheme seeks that new development provides a safe and comfortable pedestrian environment. A wind report was not submitted with the report. Council would recommend a wind report be submitted and DTP to undertake an independent peer review to ensure the methodology and wind impacts have been undertaken and assessed correctly.
On-site amenity & ESD	**Satisfactory** The development is considered to achieve a high level of on-site amenity through the following: o A generous entry lobby and reception at ground level. o The provision of a suite of ESD features as outlined below. o Extensive glazing at ground reception and office space. o Extensive bicycle parking for both employees and visitors. The wider ESD features proposed for the development include the following: o Energy efficient heating and cooling with a COP of at least 3.4. o Energy efficient instantaneous electric hot water. o Energy efficient lighting. o A minimum 10kW solar PV array to the rooftop. o Water efficient taps, fixtures and fittings. o A minimum 4,000 litre rainwater tank collected for toilet flushing and landscape irrigation. o A minimum of 70% of construction and demolition waste to be recycled. o Good daylight access to office and main areas. o Operable louvres enable natural ventilation access to the circulation corridors in throughout the storage areas. Council's ESD Advisor was generally supportive of the proposal subject to the following changes: (a) alter the dimensions and design of the 20m2 raingarden, ensure adequate setback from the property boundary and the proposed property's footings and foundations, to ensure all drainage issues are addressed. (b) update the architectural drawings to indicate window operability on an updated set of plans. These are included as conditions in the recommendation.

<table>
<tr>
<td>Carparking, traffic and waste</td>
<td>
Conditions required

Carparking

Pursuant to Clause 52.06-2, before a new use commences, the minimum number of car parking spaces required under clause 52.06-5 must be provided to the satisfaction of the responsible authority in one or more of the following ways:
• on the land; or
• in accordance with a permit issued under clause 52.06-3.

If Table 1 to clause 52.06-5, specifies a maximum car parking requirement, the maximum requirement must not be exceeded except in accordance with a permit issued under clause 52.06-3. Due to the site being located in a Category 3 area there is a maximum and minimum rate for a ‘store’.

The following table identifies the car parking requirement under Clause 52.06-5, the provision on site, and the subsequent reduction below the statutory requirement:
<table>
<tr><th>Proposed Use</th><th>Quantity / Size</th><th>Statutory Parking Rate*</th><th>No. of Spaces Required</th><th>No. of Spaces Allocated</th><th>Reduction sought</th></tr>
<tr><td>Store</td><td>2,935sqm</td><td>(Category 3)
Per cent of site area</td><td>Minimum: 5 (146sqm)
Maximum: 10 (294sqm)</td><td>149sqm (3 car parking spaces, including shared space and accessways to car parking spaces)</td><td>0</td></tr>
</table>
A reduction in car parking is not required as the percentage of site area is between the minimum and maximum requirements.

Clause 52.06-9 (Design standards for car parking) relates to the design of car parking areas and contains 7 standards and requirements relating to access way, car parking spaces, gradients, mechanical parking, urban design, safety and landscaping. Council’s Development Engineering Unit reviewed the above against the architectural plans and were generally
</td>
</tr>
</table>

	satisfied with the layout of the car park. They did, however, recommend the following items to be included on the plans to ensure adequate movement of vehicles within the site and access into and out of the site: (a) Dimension the width of the vehicle crossing along Barkly Avenue. (b) Dimension the width of the vehicle crossing along Adam Street. (c) Dimension the width of the development's entrance along Barkly Avenue. (d) Dimension the width of the development's exit along Adam Street. (e) Superimpose the visibility triangle at the exit lane of the Barkly Avenue and Adam Street frontages. (f) Dimension the clearance height above the car park entrance and exits. (g) A vehicle crossing cross-sectional diagram to both vehicle entrances. Several engineering conditions relating to damage to Council infrastructure, reinstatement of redundant vehicle crossings and vehicle crossing design have been recommended. These conditions are considered standard and should also be included. Council's Development Engineer reviewed the plans and accompanying Traffic Impact Assessment and has not raised any significant concerns with the proposal and has recommended conditions for any permit that is issued. <u>Waste</u> The application was referred to Council's City Work Branch (Waste) for review. They were generally supportive of the application subject to the Waste Management Plan be amended as below Deletion of any reference to hard-waste drop-off services or Council transfer station (Council does not provide these services). (a) Deletion of any reference to hard-waste drop-off services or Council transfer station (Council does not provide these services).
Bicycle provision	**Conditions required** A bicycle parking rate is not specified under Clause 52.34 of the Scheme, however the development proposes to include 12 spaces adjacent to the entrance for both staff and visitors. Council's Strategic Transport Unit were supportive of the amount of provided bicycle spaces on site. Although they did raise concerns with the location of the spaces. They also requested the spaces dimensioned in accordance with the requirements of AS2890.3.

	Council's Open Space Unit also raised concerns with the accessibility and safety regarding the location of the bicycle spaces. They recommended the spaces be relocated in clearly visible and fully accessible locations close to main entrances, with opportunity to be overlooked from internal office and reception for improved safety.
Signage	The proposed development includes two internally illuminated, high wall, business identification, major promotion signs to both the Adam Street and Barkly Avenue facades. Both signs will be 7.2m wide and 3.5m high. Relevant planning policy considerations and guidelines are found at Clause 52.05-8 and 15.01-1L 01 of the Scheme. The objective of Clause 15.01-1L-01 is to encourage signs that make a positive contribution to their host building and the surrounding area. Clause 52.05-8 of the Scheme seeks consideration on the compatibility of the proposed sign with the existing or desired future character of the area in which it is proposed to be located. The subject site is located along Barkly Avenue, and although not a heavily commercial precinct within the area, is generally commercial in character with a number of properties having some form of signage. Signs, including high wall and internally illuminated signs, are not uncommon within the area and the proposal will appropriately respond to this by integrating signage that complements the contemporary built form along Barkly Avenue, while maintains a coherent visual rhythm within the streetscape, and avoids creating additional visual clutter. Clause 15.01-1L-01 supports high-wall signs that are located across less than two levels of the building on which the sign is located, have supporting structures that do not project more than 300 millimetres from the building on which it is located, are for business identification, and are located on land adjoining on a road in a Transport Zone 2 (TRZ2). The proposed high wall signs are well sited, would not project outside the title boundaries, is for business identification and are located on land adjoining a TRZ2. Clause 52.05-8 of the Scheme seeks consideration on the impact of signs on views and vistas, the relationship to the site and building, the impact of structures associated with the signs, impact of any illumination, and the impact on road safety. In this context, the proposed signage appropriately responds to these considerations. The signs are proportionate to the scale of the host building and are reasonably integrated within the architectural elements of the façades, while avoiding projecting excessively or disrupting established view lines along Barkly Avenue or Adam Street. Their placement flush on the facade ensures that the structures associated with the signage remain visually recessive and do not add bulk or clutter. The illumination levels are modest and contained, ensuring that light spill is minimal and will not result in glare or distraction to motorists or pedestrians, thereby maintaining road safety. A condition would also be included requiring the illumination of the sign fronting Adam Street to be switched off between 10.00pm and 8.00am the following day. This will ensure the light

	from this sign will not spill into dwellings within the GRZ further to the north and north-west outside of the office operation hours. It is noted that DTP will require referral from Head Transport for Victoria, who may recommend additional conditions. Further, the signage sits within a commercialised section of Burnley where illuminated business identification signs are not uncommon, meaning the proposal will align with the existing visual character rather than introduce new amenity impacts. Additionally, a condition will be included (as well standard signage conditions) requiring the illuminated signs not include any flashing or intermittent light. Given the above, the proposed signs will appropriately respond sign guidelines found at Clause 52.05-8 and 15.01-1L-01 of the Scheme and are considered appropriate.

Declaration

No officers involved in the preparation of this report have any direct or indirect conflict of interest in this matter.

Department of Transport and Planning

GPO Box 2392
Melbourne, VIC 3001 Australia
www.dtp.vic.gov.au

Ref: PA2604311

Yarra City Council
planningadmin@yarracity.vic.gov.au

To whom it may concern

NOTICE OF APPLICATION FOR PLANNING PERMITPA2604311
173-177 BARKLY AVENUE BURNLEY VIC 3121

I refer to the above matter submitted to the Minister for Planning on 31/03/2026.

I am advising you of the application under section 52(1) of the *Planning and Environment Act 1987*. Please find Form 2 appended to this letter which sets out the details of the application and advises that the responsible authority will not decide on the application before **21 April 2026**. Please also find attached a copy of the application form, a set of plans and supporting documentation.

If you have any questions, please contact me on or email thomas.ba@transport.vic.gov.au.

Yours sincerely

Thomas Ba
Planner, Development Assessment

7/04/2026

Encl.

- Form 2 – Notice of an Application for a Planning Permit

Any personal information about you or a third party in your correspondence will be protected under the provisions of the Privacy and Data Protection Act 2014. It will only be used or disclosed to appropriate Ministerial, Statutory Authority, or departmental staff in regard to the purpose for which it was provided, unless required or authorised by law. Enquiries about access to information about you held by the Department should be directed to foi@transport.vic.gov.au or FOI Unit, Department of Transport and Planning, GPO Box 2392, Melbourne, Victoria 3001.

VICTORIA State Government

Planning and Environment Act Regulations 2015 (Form 2, section 52(1))

NOTICE OF AN APPLICATION FOR A PLANNING PERMIT

The land affected by the application is located at:	**173-177 BARKLY AVENUE BURNLEY VIC 3121**
The application is for a permit to:	*Note: This is a summary. Full details of the proposal are contained within the application documentation*
The applicant for the permit is:	**StorHub Victoria Trust IV c/- Planning & Property Partners**
The application reference number is:	**PA2604311**
You may look at the application and any documents that support the application at the office of the Responsible Authority.	Minister for Planning c/- Department of Transport and Planning • 1 Spring Street, Melbourne VIC 3001 • Online at https://www.planning.vic.gov.au/permits-and-applications/ministerial-permits/browse-ministerial-permits

A permit is required under the following clauses of the planning scheme:

Planning scheme clause	Matter for which a permit is required
34.02-1	Use the land for warehouse (C2Z).
34.02-4	Construct a building or construct or carry out works (C2Z).
42.03-2	Construct a building or construct or carry out works (SLO2)
43.02-2	Construct a building or construct or carry out works (DDO2).
43.02-2	Construct a building or construct or carry out works (DDO5).
52.05-11	Construct or put up for display internally Illuminated signage.
52.05-11	Construct or put up for display high wall signage.
52.05-11	Construct or put up for display business identification signage.
52.05-11	Construct or put up for display major promotional signage.
52.29-2	Create or alter access to a road in a Transport Zone 2.

To view applications and supporting documents in person, please email thomas.ba@transport.vic.gov.au to make an appointment to view the plans. This can be done during office hours and is free of charge. The plans may also be viewed online at https://www.planning.vic.gov.au/permits-and-applications/ministerial-permits/browse-ministerial-permits.

Any person who may be affected by the granting of the permit may object or make other submissions to the responsible authority by email to development.assessment@transport.vic.gov.au or by post to Minister for Planning, C/-Department of Transport and Planning, GPO Box 2392, Melbourne VIC 3001.

An objection must:

- **be made to the Responsible Authority in writing,**
- **include the reasons for the objection, and**
- **state how the objector would be affected.**

The responsible authority must make a copy of every objection available at its office for any person to inspect during office hours free of charge until the end of the period during which an application may be made for review of a decision on the application.

The responsible authority will not decide on the application before:	**21 April 2026**

If you object, the responsible authority will tell you its decision.

Apply for a planning permit

Before you start

Are you in the right place?

Only applications where the Minister for Planning is the responsible authority are to be lodged through this portal.

Check the schedule to Clause 72.01 of your local planning scheme to see which responsible authority issues planning permits for your location.

You will need these documents to submit this application:

- A full, current copy of title information for each individual parcel of land forming the subject site.
- A plan of existing conditions.
- Plans showing the layout and details of the proposal.
- Any information required by the planning scheme, requested by DTP or outlined in a DTP planning permit checklist.
- If required, a description of the likely effect of the proposal.
- If applicable, a current Metropolitan planning Levy certificate.

Fees will apply for this application - find out about fees for planning applications. You need to pay all fees or request a fee waiver before you submit. We accept Credit Card payments online and support EFT payments.

This application will automatically save as you enter information.

Contact details

Applicant details

Is the applicant a person or organisation?	Organisation
Organisation name	StorHub Victoria Trust IV
Business phone number	8626 9000
Email	planningadmin@pppartners.com.au
Address type	Street address

Street address

Unit type	
Unit number	
Level number	17
Site or building name	
Street number	55
Street name	Collins Street
Suburb	Melbourne
Postcode	3000
State	VIC

Owner details

The owner is the applicant	No
Is the owner a person or organisation?	Organisation

Organisation name	The Trust Company (Australia) Ltd
Business phone number	8626 9000
Email	planningadmin@pppartners.com.au
Address type	Street address

Street address

Unit type	
Unit number	
Level number	18
Site or building name	
Street number	123

Street name	Pitt Street
Suburb	Sydney
Postcode	2000
State	NSW

Preferred Contact

First name	Julian
Last name	McCluskey
Mobile	
Work phone	86269000
Organisation	Planning & Property Partners
Job title	
Email	planningadmin@pppartners.com.au
Address type	Street address

Street address

Unit type	
Unit number	
Level number	17
Site or building name	
Street number	55
Street name	Collins Street
Suburb	Melbourne
Postcode	3000

State VIC

Pre-application meeting details

Have you submitted a pre-application meeting request already for this site? Yes

Enter the pre-application number PPA-892

Land details

Planning scheme Yarra

At least one location must be provided to submit this form. Options for defining locations are described below:

- **Auto-populate using land titles:** Street addresses are extracted from uploaded land titles (lot on plan and crown allotments are not supported by this feature).
- **Map interface:** Specify up to 300 properties and parcels using search, select and/or a GIS shapefile.
- **Manual entry:** Use this when other methods fail. Locations are accepted as entered and are not system validated.

Upload and scan land titles to automatically populate street addresses

1. **Upload documents**

2. **Scan uploaded documents**

- Detected street addresses will be added to the list below.
- You must check and confirm address details are correct.
- Documents are only scanned once. If additional documents are uploaded after a scan, only new documents will be scanned.
- Scanning of documents can take a few minutes to process. You will be unable to edit your application until this process has completed.

Scan results

Manual location details

It is strongly recommended that you use the map to search and select locations for land related to this request. Manually entering or editing locations could cause delays in your request processing if that location cannot be found.

Application details

Describe your proposal	Use and development of the land for a store (self storage facility), display of signs and alteration of access to a Transport Zone 2
Is this application a combined S96A application (i.e. a combined amendment and planning permit application)?	No
What is the application trigger?	53.22
Please select the application category	Change or extension of use One or more new buildings Signage
Enter the estimated cost of any development for which the permit is required	$30,750,000
Is there a metropolitan planning levy requirement?	Yes
Metropolitan planning levy application type	Current levy certificate
Metropolitan planning levy application reason	Development cost exceeding threshold
What is the current land use?	Retail Premises
Describe how the land is used and developed now	Existing retail premises with masonry building and associated car parking
Does this application look to change or extend the use of this land?	Yes
What is the proposed land use?	Industry and warehouse
Does the proposal breach, in any way, an encumbrance on title such as a restrictive covenant, section 173 agreement or other obligation such as an easement or building envelope?	No

Additional details

Does this application involve the creation or removal of dwellings?	No

Does the application involve native vegetation removal?	No
Does this application involve the creation or removal of lots?	No
Does the activity require preparation of a Cultural Heritage Management Plan (CHMP)?	No

Supporting documents

The following supporting documents must be submitted with this application, preferably in PDF or Word format

- A full, current copy of title information for each individual parcel of land forming the subject site.
- A plan of existing conditions.
- Plans showing the layout and details of the proposal.
- Any information required by the planning scheme, requested by DTP or outlined in a DTP planning permit checklist.
- If required, a description of the likely effect of the proposal (for example, traffic, noise, environmental impacts).
- If applicable, a current Metropolitan planning Levy certificate (a levy certificate expires 90 days after the day on which it is issued by the State Revenue Office and then cannot be used).

Supporting documents	WMP - 173-177 Barkly Ave.pdf Certificate of Title - 173-177 Barkly Ave.pdf Landscape Plan - 173-177 Barkly Ave.pdf Remittance - 173-177 Barkly Ave.pdf Architectural Drawings - 173-177 Barkly Ave.pdf Site Survey - 173-177 Barkly Ave.pdf StorHub Business Incubator - 173-177 Barkly Ave.pdf Urban Context Report - 173-177 Barkly Ave.pdf Acoustic Report - 173-177 Barkly Ave.pdf MPL002838 - 173-177 Barkly Ave.pdf Quantity Surveyor Report Cost Plan - 173-177 Barkly Ave.pdf SMP - 173-177 Barkly Ave.pdf Town Planning Report - 173-177 Barkly Ave.pdf Traffic Impact Assessment - 173-177 Barkly Ave.pdf

3D digital model

A 3D digital model will assist to clearly communicate your application's intentions and enhance the review process. We encourage and recommend submitting a 3D digital model as part of your application.

- **Mandatory** formats: **FBX**, **OBJ**, **3DM**; Optional supplementary formats: RVT, IFC
- Triangle count under five million per development.
- Unit scale in metric.
- The maximum file size is 250 MB.

- Please refer to the technical guidance for submission to check your model meets all specifications. We will request a re-submission of the 3D digital model if the specifications are not met.
- If you are unable to submit your 3D digital model, contact visualisation@transport.vic.gov.au for assistance.

3D digital model

Fees and payment

View planning and subdivision fees

Fee

Fee type	Applications for permits under section 47 of the Planning and Environment Act 1987 (regulation 9)
Class	1
Fee amount	$1,496.10
Fee description	Use only

Fee

Fee type	Applications for permits under section 47 of the Planning and Environment Act 1987 (regulation 9)
Class	15
Fee amount	$29,123.30
Fee description	To develop land (other than a class 8 or a permit to subdivide or consolidate land) if the estimated cost of development is more than $15,000,000 and not more than $50,000,000

The total amount is calculated as the highest fee plus 50% of the remainder of the fees.

Total amount to pay	$29,871.35
Payment method	EFT
BSB	033-875
Account and reference number	170126781
EFT confirmation	I confirm that the fee has been paid via EFT

Submit

Applicant declaration	I declare that I am or represent the applicant; that all the information in this application is true and correct; and that the owner (if not myself) has been notified of the application

Privacy statement

The Department of Transport and Planning (DTP) is committed to protecting personal information provided by you in accordance with the principles of the Victoria privacy laws. The information you provide will be used for the following purposes:

- correspond with you about your application
- if necessary, notify affected parties who may wish to inspect your proposal so that they can respond
- if necessary, forward your application to a referral authority.

Your contact details may be used by DTP or its contracted service providers under confidentiality agreements to survey you about your experience with DTP.

The information you provide may be made available to:

- any person who may wish to inspect your proposal until the process is concluded
- relevant officers in DTP, other Government agencies or Ministers directly involved in the planning process
- persons accessing information in accordance with the Public Records Act 1973 or the Freedom of Information Act 1982.

If all requested information is not received, DTP may be unable to process your request.

You may access the information you have provided to DTP by contacting Development assessment

StorHub Burnley.

Architectural Design and Urban Context Report
March 2026

GRAY
PUKSAND

Contents

We acknowledge the Traditional Owners of country throughout Australia and recognise their continuing connection to land, waters and culture. We pay our respects to their Elders past and present.

Document Revision

Revision	Issue	Date	Checked
DTP	A	24.03.26	FT

Architectural Statement• 4
Key Design Principles• 5
Urban Typologies• 7
In Good Company• 8
Location• 9
Existing Street Views• 10
Existing Site Views• 13
Concept Diagrams• 15
Precedent Imagery• 16
Materiality• 18
Sketches• 19
Rendered Views• 20
Volumetric Comparison• 26
Visual Impact Assessment• 27

GP.

Project Vision.

01

GP.

Architectural Statement.

This application seeks to develop the land at 173-177 Barkly Avenue, Burnley for the purposes of a Self Storage development. It follows a previous approval on the land for a multi storey commercial building and the approved building envelope presents essentially as a cubic form with a setback upper volume. The urban realm interface objectives present in the existing development permit were to activate the street edge to both Adam Street and Barkly Avenue, reduce the built form scale to the northern aspect of the site to provide a massing transition to the adjacent single fronted terraces, which has been adopted in this proposal.

Contextually, this area is defined by large commercial, industrial and more recently residential developments along main arteries such as Swan Street, Church Street and Bridge Road, with the infill of these blocks made up of smaller residences. This site, sitting in that transition point, reinterprets the principles in the original proposal: activate the street edge to Barkly Avenue and Adam Street, reduce the built form scale to the north providing a massing transition to the adjacent residences. The shift from a commercial proposal to a storage facility, facilitated the mitigation, or elimination of possible concerns regarding overlooking of private open spaces.

At the northern end of the site, the existing brick wall interface is retained and a wide deep planting zone is maintained to the full extent of the northern boundary to further provide visual amenity to the adjacent properties.

At ground level the building is set back to align with the neighbouring houses, creating a landscaped front yard all the way from the northern boundary to the West Street alignment. At this point there is a transition to a narrower landscaping strip as pedestrians transition from the pace of Adam Street to the haste of Barkly Avenue.

The mass is broken up in scale and language to address the multiple interfaces it interacts with – the pedestrian, the transient and the skyline.

At the lower levels, the use of brick contributes to a visual connection to the site's history, and provides a textural and tactile presence to the street and it's pedestrians.

The architectural language of the upper levels references the site's industrial past. The use of a gridded regularity that is subdivided to create varying rhythms, breaking the scale and bulkof teh overall building; the diagonal lines are a playful ode to the saw tooth roofs and provide an added layer of texture, using the same materiality and constructive methodoly.
As the building turns into the northern façade, the landscaped ground level and balconies soften the interface with the neighbouring residences.

The proposed development incorporates shifts in scale and language that are contextual responses to a site that sits in great proximity to the Victorian grid and scale of single dwellings, whilst celebrating Burnley's adaptive character to the changes it has undergone through time as a suburb that gets closer and closer to the Central Business District of Melbourne.

GP.

Key Design Principles.

CONTEXTUAL RESPONSE

A design that responds to the emerging scale, rhythm whilst respecting the grain of the existing area.

ACTIVE GROUND PLANE

Integrated and active street frontages that provide amenity and passive surveillance to the public realm.

SUSTAINABLE BUILDING

Sustainability principles that underpin a holistic development to create a lasting, sustainable and fulfilling experience for the people who use the building every day.

Urban Analysis.

02

GP.

Urban Typologies.

The site is located amongst residential and medium - high density commercial and retail developments occurring along the northern rail and road corridors.

Industrial, retail and commercial offerings currently flank main arterial roads to the north, south and east — with established (and informal) dedicated carparking and public green space scattered across the urban fabric.

The site possesses a prominent south-west corner — visible from Barkly Avenue and M1 Motorway.

- Subject Site
- Train Stop
- Residential Dwellings
- Industrial Use
- Retail/Commerce Use
- Emergency Services
- Carpark
- Public Green Space

GP.

In Good Company.

An increasing number of international and global businesses are strategically selecting Richmond for their head quarters.

Apart from the close proximity to the CBD, businesses are leveraging the access networks, dynamic community and expanding amenities offered by the area.

It is predicted the trend for local and global businesses to establish their homes within the Richmond and Burnley neighbourhoods will continue to grow — increasing density, amenity and use to the surrounding area.

— Subject Site

GP.

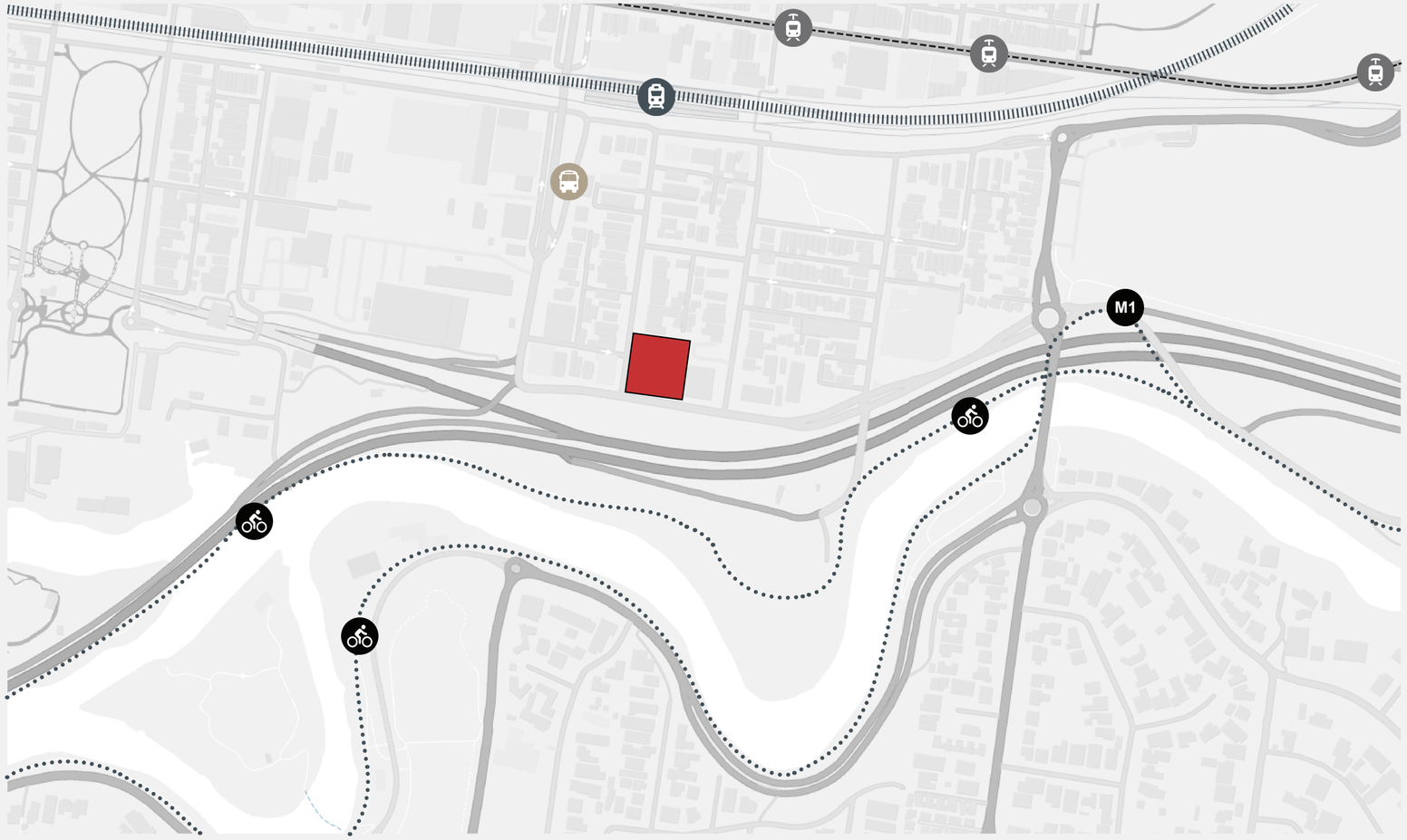
124125 173-177 BARKLY AVENUE, BURNLEY

ARCHITECTURAL DESIGN & URBAN CONTEXT REPORT_[A]

Location.

The location boast favorable potential for the future. Located within a growth corridor with great access to Swan Street commercial precinct and to various public transport options in the neighbourhood.

As previously discussed — the site possesses a highly visible corner frontage to the south west. Public open space and green buffers the site immediately south of the site — and applied liberally to the urban grain.

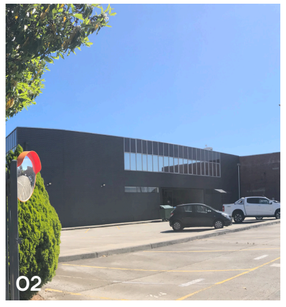


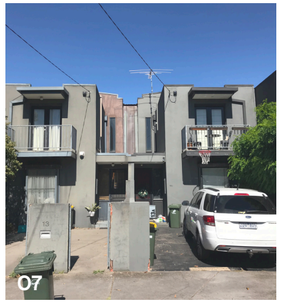
— Subject Site
— Train Line
— Train Station
— Tram Line
— Tram Stop
- Bus Stop
- M1 Access
- Bike Trail

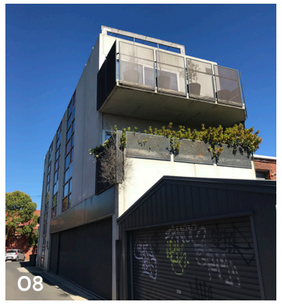
GP.

Existing Street Views.

Adam Street



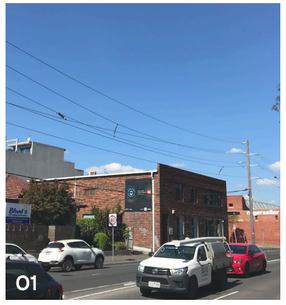


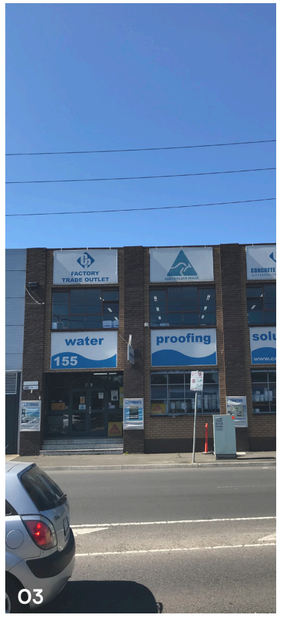


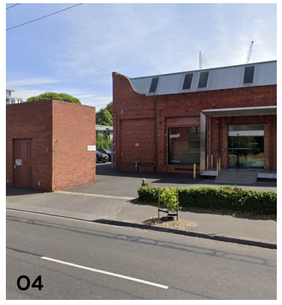
GP.

Existing Street Views.

Barkley Avenue







GP.

11

The Site.

03

GP.

Existing Site Views.

GP.

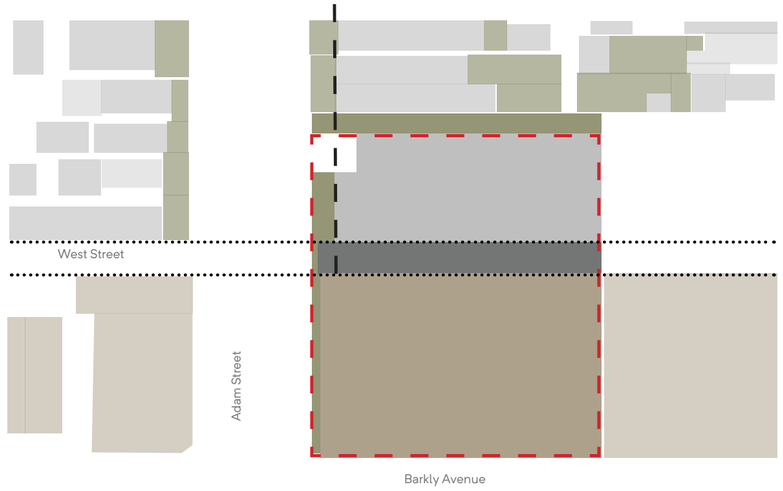
Design Response.

04

GP.

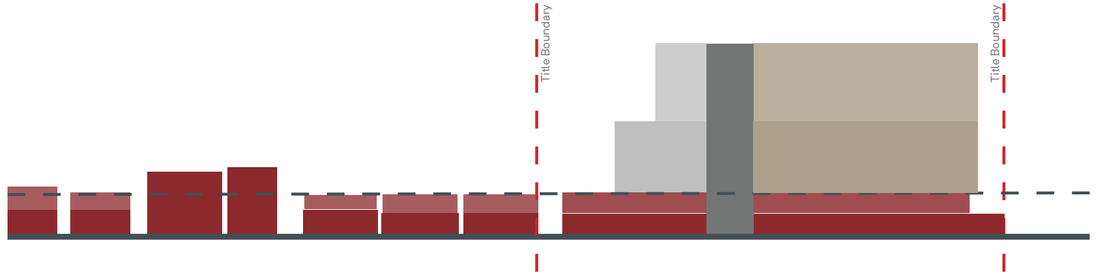
Concept Diagrams.

Building massing is developed to respond to context taking cues and alignments from immediate and distant neighbours



Plan

- Smaller set back volumes at the northern interface with the residences
- Break and transition in alignment with West Street
- Larger volumes on the Barkly Street Frontage
- Larger landscape to the north aligning with the set back of the neighbours



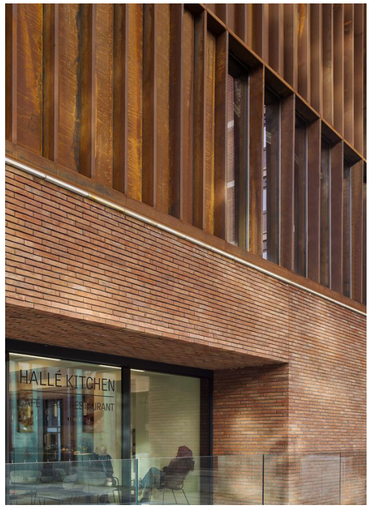
Adam Street Elevation

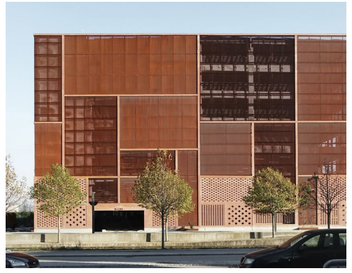
- Two level pedestrian scale
- Upper levels transition to taller volumes as they reach Barkly Avenue

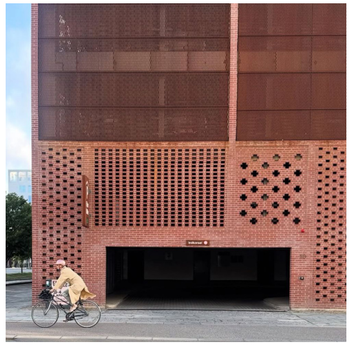
GP.

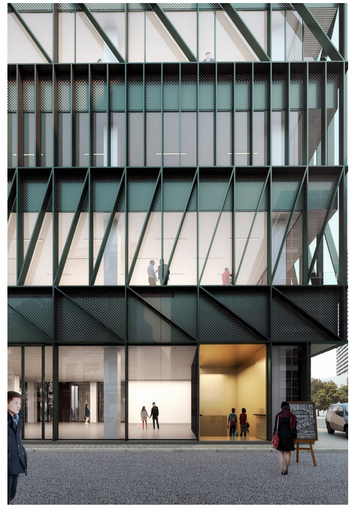
Precedent Imagery: Materiality and Built Form.

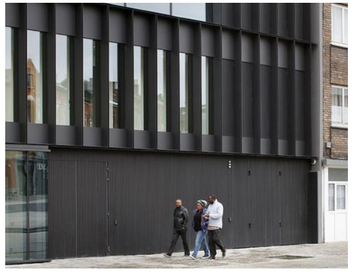
Inspired by the parallels in with the inward looking, protective architectural languages of the factories and warehouses of the past, whilst referencing the tones and structural elements of the residential and commercial developments of the present. The built form and materiality results in a building of its time with a contextual integration.







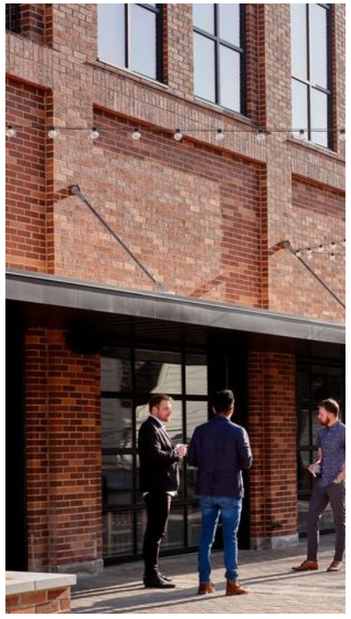


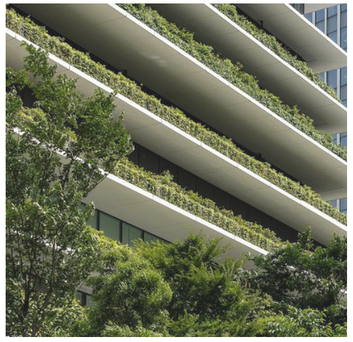


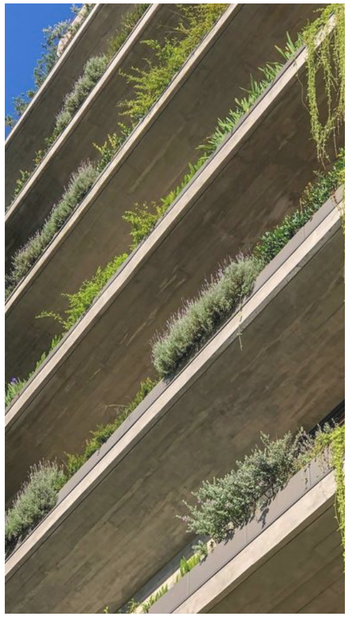
GP.

Precedent Imagery: Activated Urban Edge and Terraced Gardens.

To contribute (and futureproof) the urban environment – strategic design elements on the ground plane allow for an activated urban edges on Barkly Avenue and Adam Street.
Strategically designed planter edges on the ground and vertical planes aid in softening the visual bulk of the building to the existing built environment to the north.
Deep planting along the residential interface.







GP.

Materiality.

The proposed materials result provide textures and tones that emulate the site's history. The rawness of brick and concrete, the simplicity in metal structures and lightweight cladding and roofs. The shades of red and rust set amongst concrete and greenery.

01 – A mixture of Recycled and Red Heritage Bricks
BR01

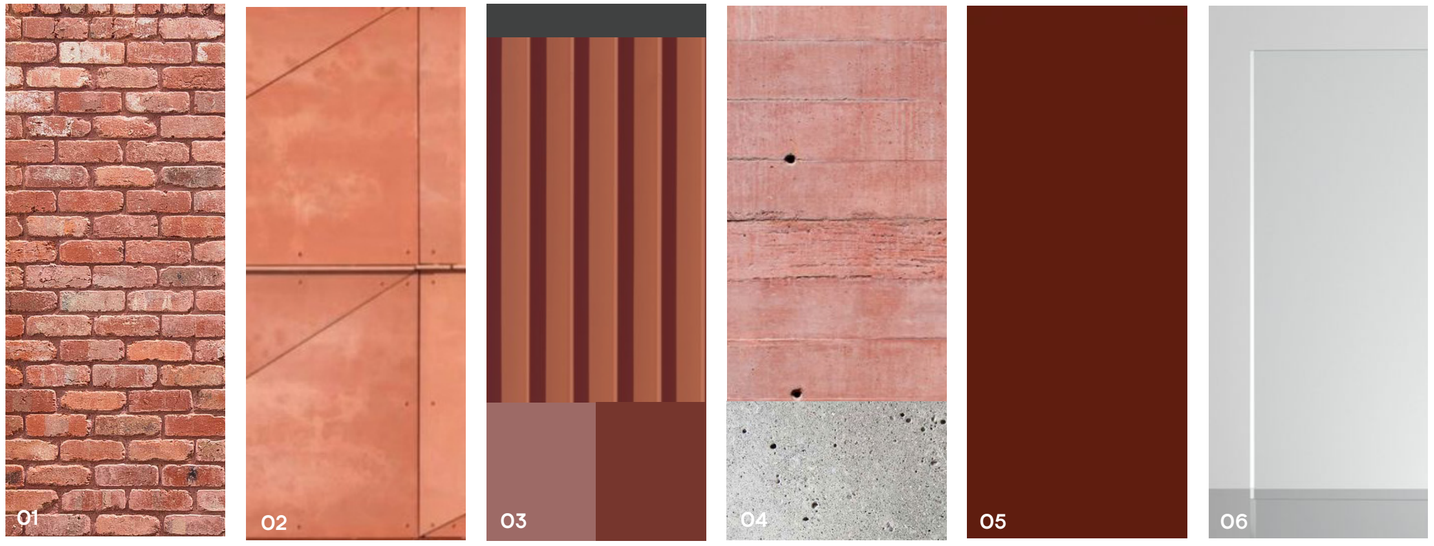
02: – Pigmented Fibre Cement: Equitone Natura – "red N359"
MT04

03: – Pre-painted Steel: Lysaght: Spandek Longline 305 infills:
MT01: " Colorbond – Dusty Galah"
MT02: " Colorbond – Dusky Glow"
MT03: " Colorbond – Monument" on the recess level

04: – Exposed Textured Precast Concrete
CN01: "Natural Grey"
CN02: "Pigmented Red"

05 – Aluminium and steel framing elements, shrouds, glazing suites
MT05: "Colorbond – Manor Red:

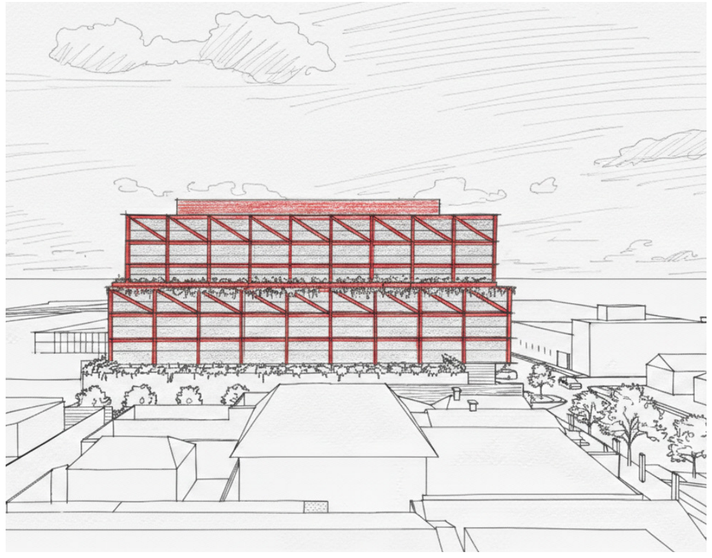
06 – Glazing i
GL01: "Clear Fixed Vision Glass"
GL02: "Clear Glass Louvres"
GL03: "Spandrel Glass"



GP.

Sketches.

The proposed materials result provide textures and tones that emulate the site's history. The rawness of brick and concrete, the simplicity in metal structures and lightweight cladding and roofs. The shades of red and rust set amongst concrete and greenery.



GP.

Rendered Views.

View South from Adam Street

GP.

Rendered Views.

View from: 180 Stawell Street Backyard, from St. Louis Place Laneway and from West Street

GP.

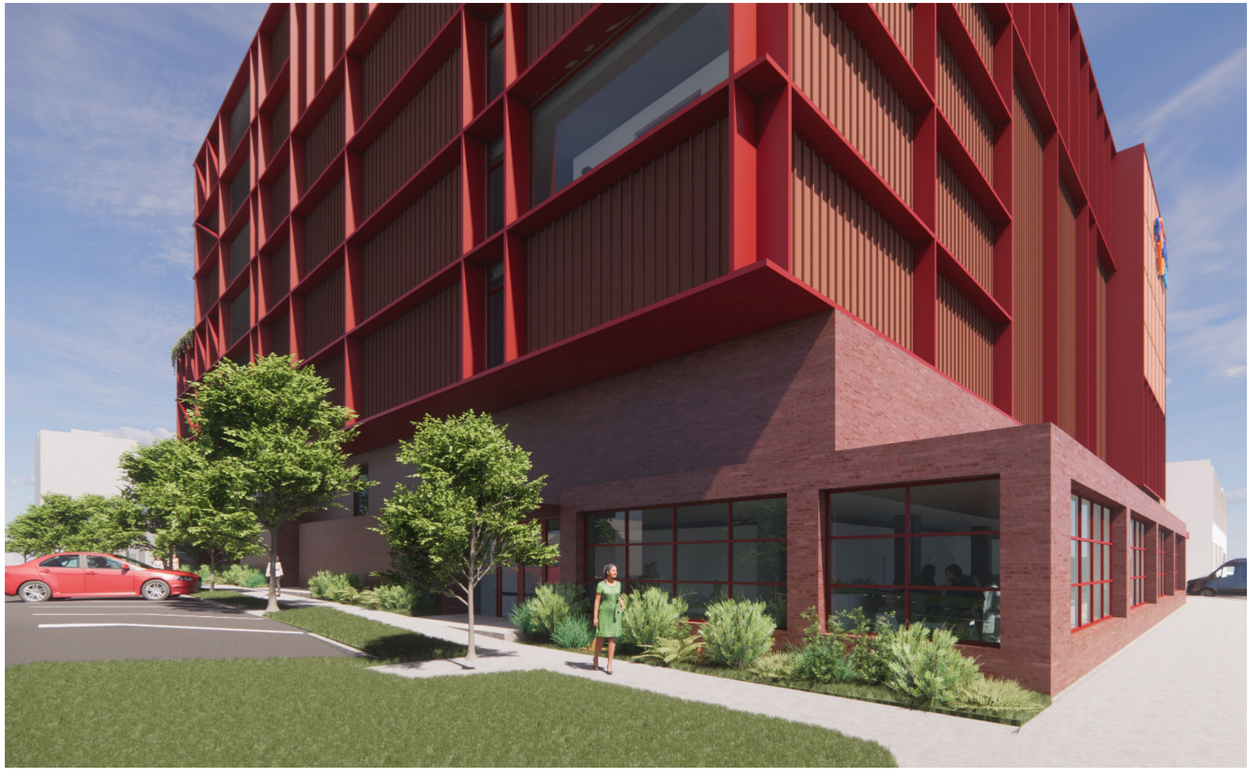
Rendered Views.

View from the corner of Adam Street and Barkly Avenue

GP.

Rendered Views.

Ground plane view from corner of Adam Street and Barkly Avenue



GP.

Rendered Views.

Barkly Avenue

GP.

Rendered Views.

View north from Barkly Avenue

GP.

Volumetric Comparison.

The design sought to keep withing the previously approved envelope. Generally more recessive, in keeping with the objectives outlined in the permit, generating rational floor plates that align with the change in function.

View west along Barkly Avenue

View from the corner of Barkly Avenue and Adam Street

View south along Adam Street

View from 180 Stawell Street backyard

Volume of the previously approved envelope
(Planning permit PLN/086B – 20 December 2021)

Volume of the current proposal

GP.

Visual Impact Assessment.

The view positions were selected on the general locations identified within Clause 12.03-1R Birrarung (Yarra River). Available views, owing to the topography, distance and density of tree canopy, there is generally limited visibility to the site and proposed built form.

View 01 [Map 1 – 20] is taken from the shared trail at Loys Paddock Reserve on the northern side of the bank with direct view through the existing scrub and canopy. The building is framed between existing vegetation.

View 02 [Map 1 – 21] is taken from the southern bank of the river adjacent to Alexander Avenue at a formal seating area and focal point along the shared path and open space area. The building is imperceptible from this location.

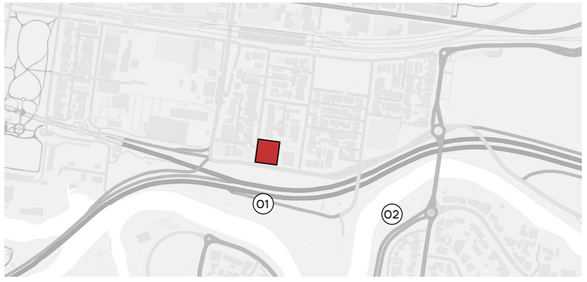


Photo: View 1

Photo: View 2

Montage: View 1

Montage: View 2

GP.

Visual Impact Assessment.

View 03 (Map 1 – 17)
From Yarra River Reserve, Sth. Yarra adjacent to Alexandra Av:
The building is within scale of the tree canopy and
would not detract from the river corridor.

View 04
From established context and Burnley Railway Station:
Lower scale built form in the foreground takes visual priority
and the building blends into the backdrop of the urban area.

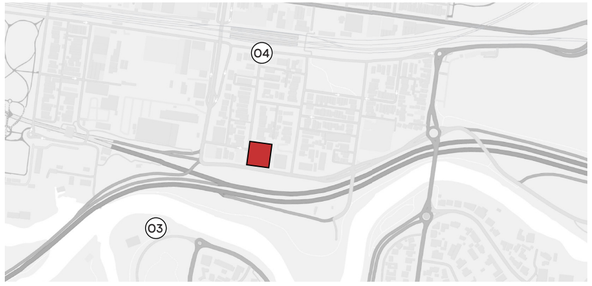


Photo: View 3

Photo: View 4

Montage: View 3

Montage: View 4

GP.

Visual Impact Assessment.

View 05
From McRobertsons Bridge over the M1 Motorway:
The building is effectively imperceptible from the bridge noting existing structures and tree canopy.

View 06 (Map 1 – 22)
From McRobertsons Bridge over the Yarra River:
The building plays a subservient role in the outlook, is within scale of adjacent built form and only partially evident between existing tree canopy.

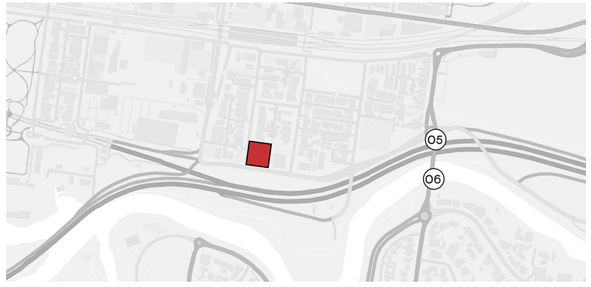


Photo: View 5

Photo: View 6

Montage: View 5

Montage: View 6

GP.

Appendix A - Architectural Drawings. Shadow Studies.

05

GP.

DRAWING LIST

DRAWING NUMBER	DRAWING NAME	REVISION
TP00	COVER SHEET	A
TP110	SITE SURVEY	A
TP111	DEMOLITION PLAN	A
TP200	PROPOSED SITE PLAN	A
TP212	GROUND FLOOR GENERAL ARRANGEMENT PLAN	A
TP212.2	MEZZANINE GENERAL ARRANGEMENT PLAN	A
TP213	LEVEL 01 GENERAL ARRANGEMENT PLAN	A
TP214	LEVEL 02 GENERAL ARRANGEMENT PLAN	A
TP215	LEVEL 03 GENERAL ARRANGEMENT PLAN	A
TP216	LEVEL 04 GENERAL ARRANGEMENT PLAN	A
TP217	LEVEL 05 GENERAL ARRANGEMENT PLAN	A
TP218	LEVEL 06 GENERAL ARRANGEMENT PLAN	A
TP219	LEVEL 07 GENERAL ARRANGEMENT PLAN	A
TP220	ROOF GENERAL ARRANGEMENT PLAN	A
TP250	NORTH & WEST ELEVATIONS	A
TP251	SOUTH & EAST ELEVATIONS	A
TP260	SECTION 01	A
TP280	EXTERNAL MATERIALS	A
TP300	SHADOW STUDIES - WINTER	A
TP301	SHADOW STUDIES - SUMMER	A

DEVELOPMENT SUMMARY

LEVEL	GFA
GROUND LEVEL	1144 m²
MEZZANINE	1285 m²
LEVEL 01	2058 m²
LEVEL 02	2058 m²
LEVEL 03	2058 m²
LEVEL 04	1797 m²
LEVEL 05	1797 m²
LEVEL 06	1797 m²
LEVEL 07	1096 m²
TOTAL	15089 m²

PARKING SCHEDULE

LEVEL	CAR SPACE	ACCESSIBLE	TRUCK BAY	BIKE HOOPS
GROUND LEVEL	9	1	3	6

NOTE - INFRASTRUCTURE FOR FUTURE EV CHARGING POINTS TO 20% OF CARPARKING SPACES WILL BE INCLUDED IN THE SERVICES DESIGN

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Contractors to check & verify all Dimensions on Site prior to Construction/Fabrication.
Figured Dimensions take precedence over Scaled Dimensions.
Any Discrepancies should be immediately referred to the Architect.
All work to comply with N.C.C. Statutory Authorities & Relevant Australian Standards.

ARB - ACT Barry Hackett #2911 ARB - QLD Nik Tabain #6412
ARB - NSW Scott Moylan #7147 ARB - VIC CS0293

REV	DESCRIPTION	DATE
A	Department of Transport and Planning	24.03.2026

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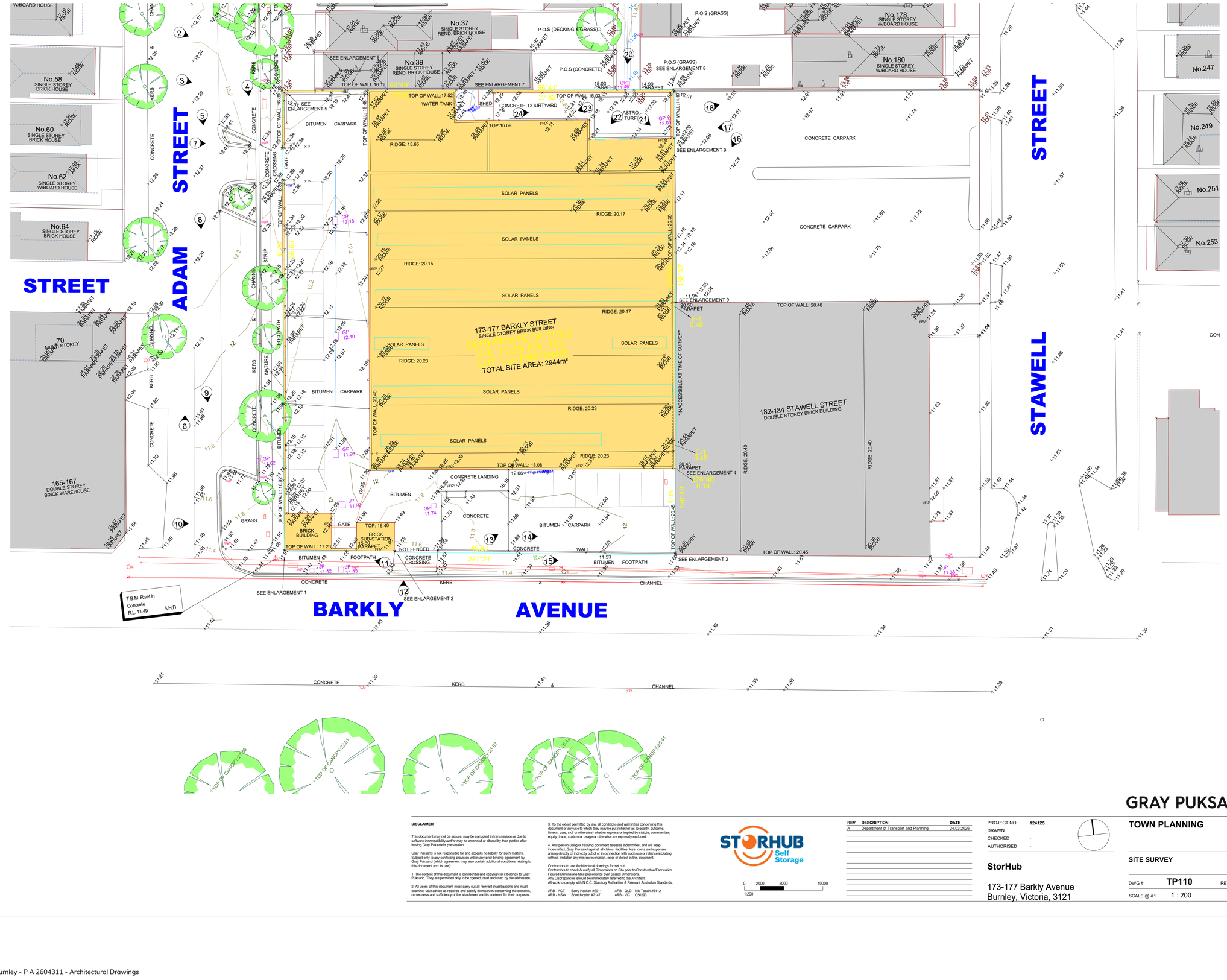
173-177 Barkly Avenue
Burnley, Victoria, 3121

TOWN PLANNING

COVER SHEET

DWG # **TP00** REV **A**

SCALE @ A1 1 : 1



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STORHUB Self Storage

0 2000 5000 10000
1:200

REV	DESCRIPTION	DATE
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173-177 Barkly Avenue
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TOWN PLANNING

SITE SURVEY

DWG # TP110 REV A
SCALE @ A1 1 : 200

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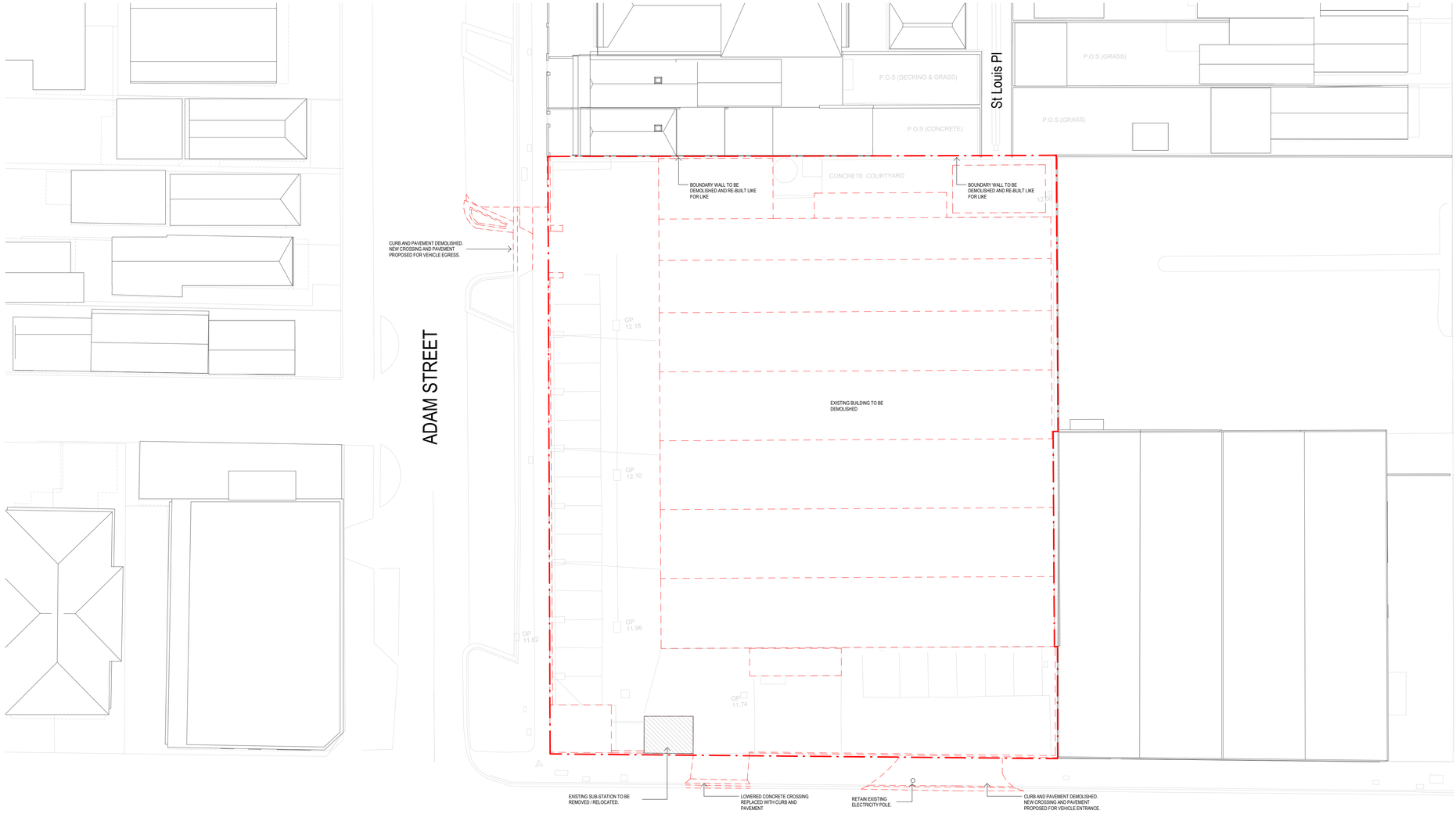

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DEMOLITION PLAN

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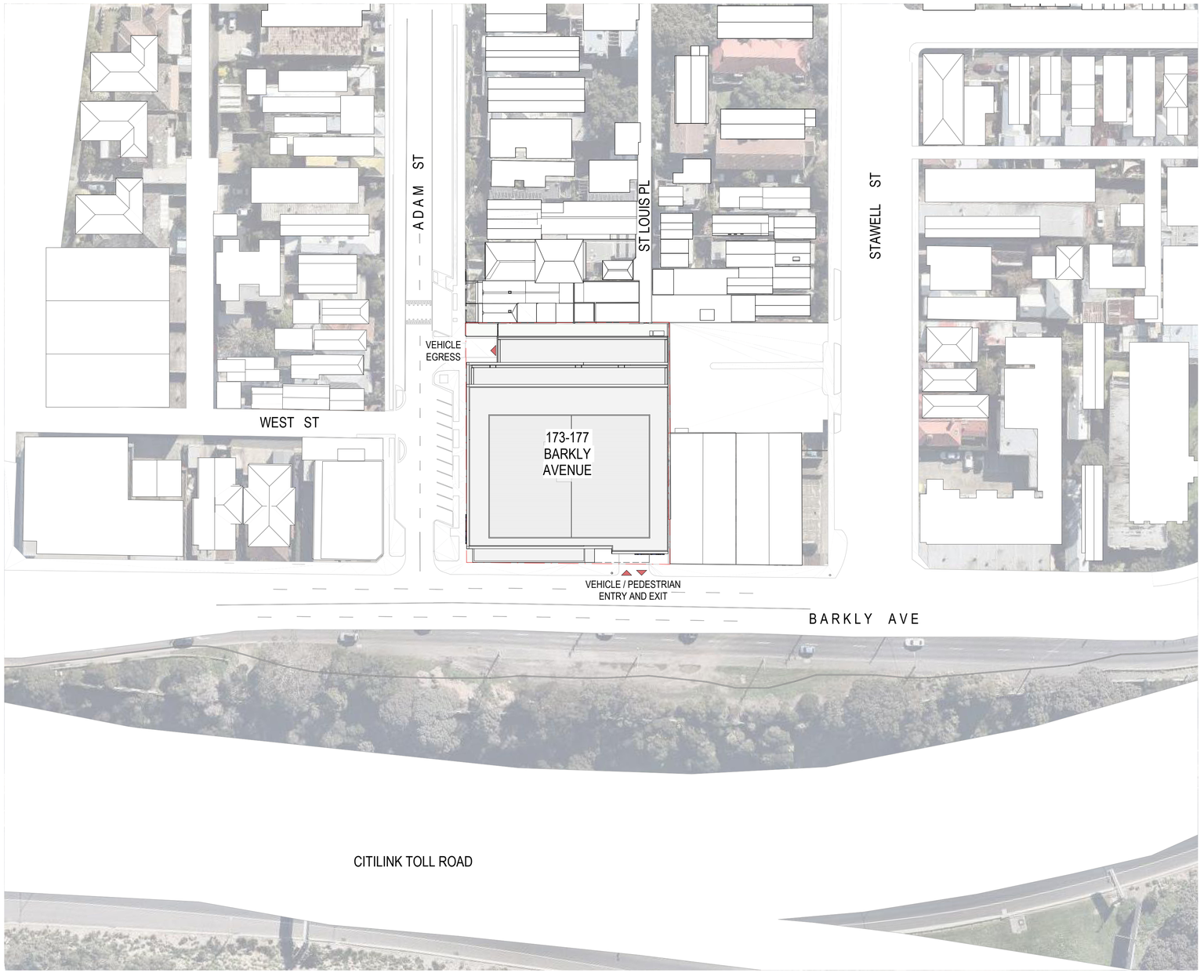

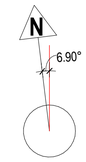

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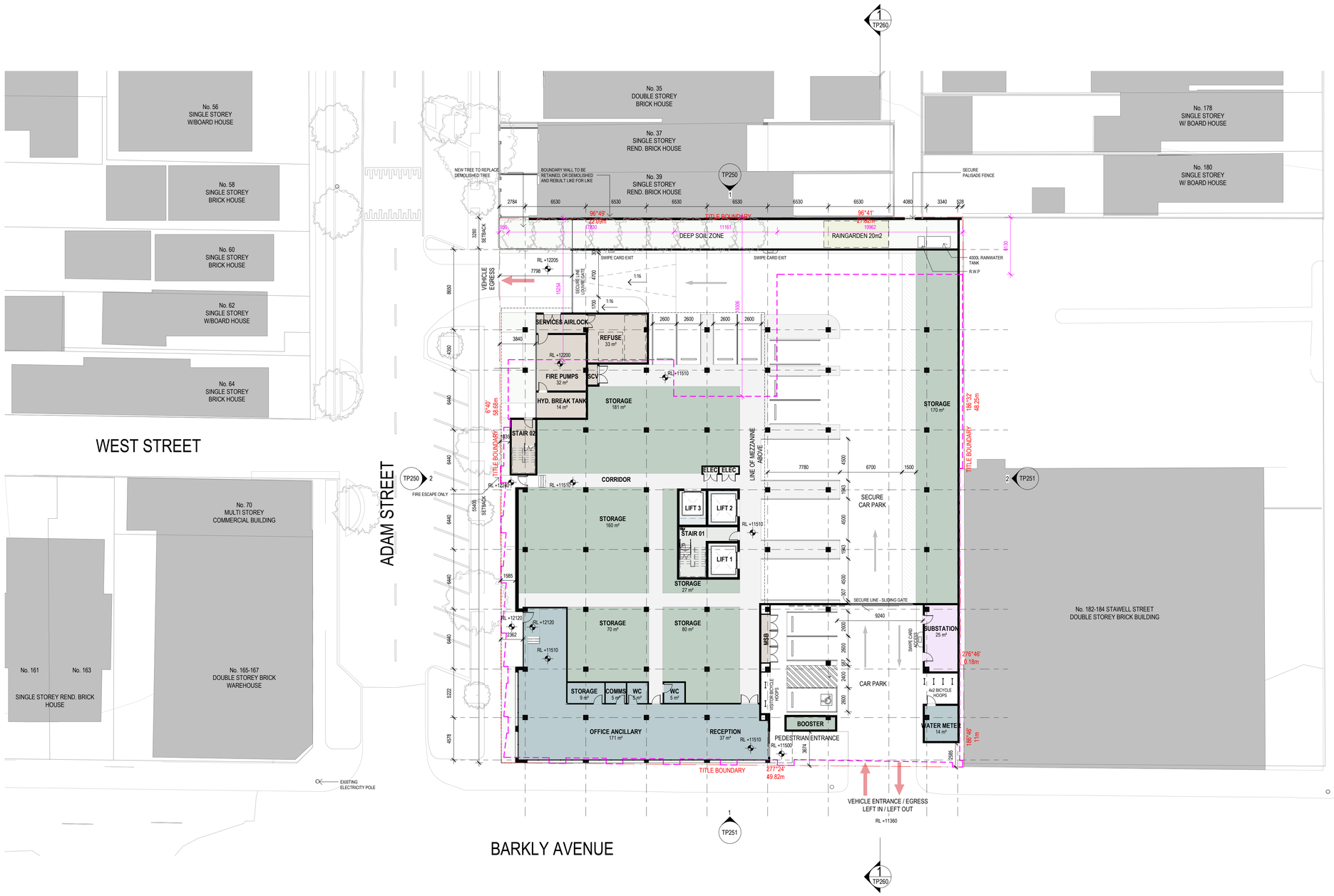
TOWN PLANNING

PROPOSED SITE PLAN

DWG # TP200 REV A
SCALE @ A1 1 : 500



LEGEND

- - - OUTLINE OF PREVIOUSLY APPROVED ENVELOPE (PLANNING PERMIT PLN20/0868 - 20 DECEMBER 2021)

INFRASTRUCTURE FOR FUTURE EV CHARGING POINTS TO 20% OF CARPARKING SPACES WILL BE INCLUDED IN THE SERVICES DESIGN

GROUND FLOOR GFA - 1144M²

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GROUND FLOOR GENERAL ARRANGEMENT PLAN

DWG # TP212 REV A

SCALE @ A1 1 : 200

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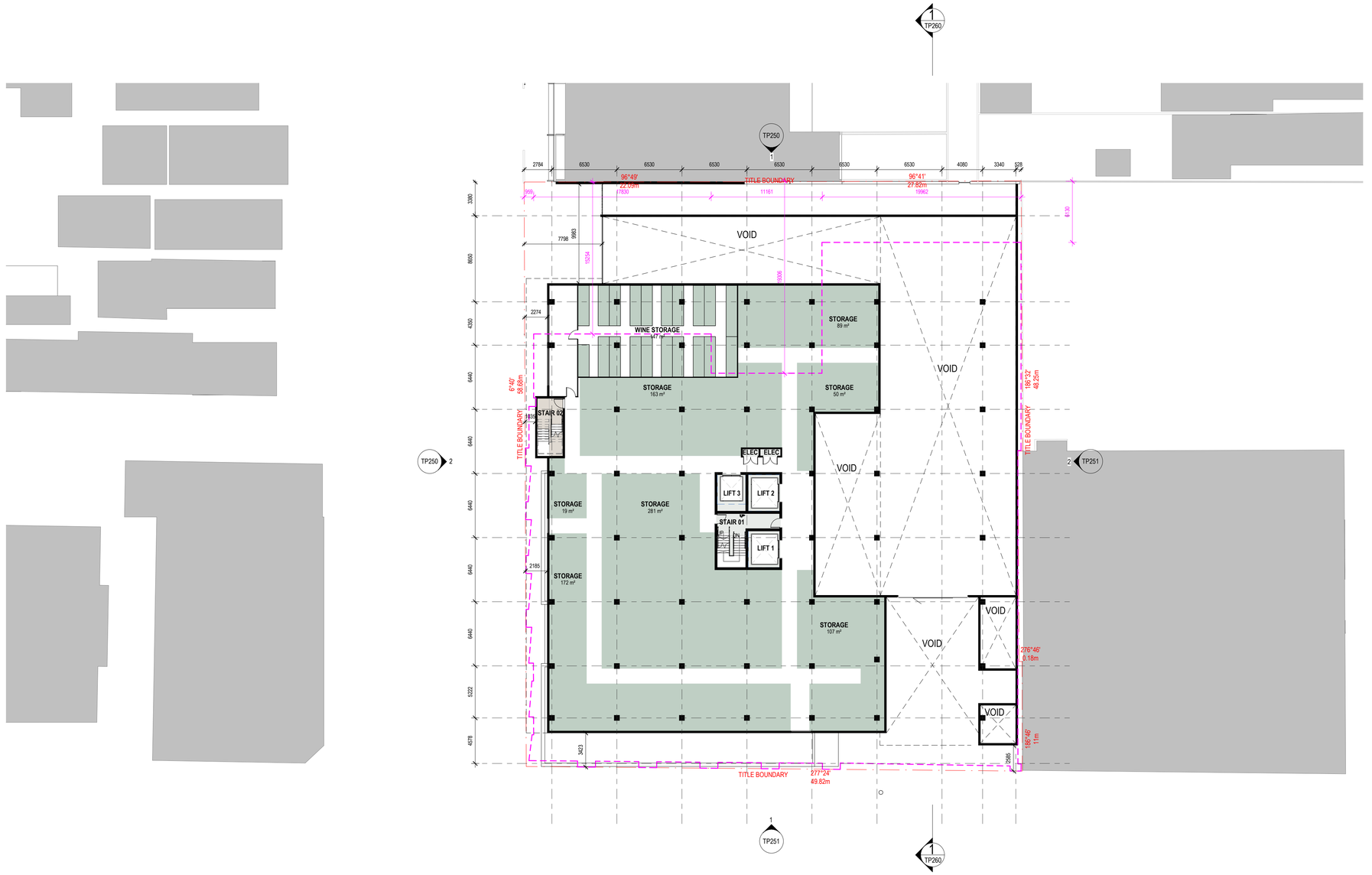

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MEZZANINE GFA - 1285M²

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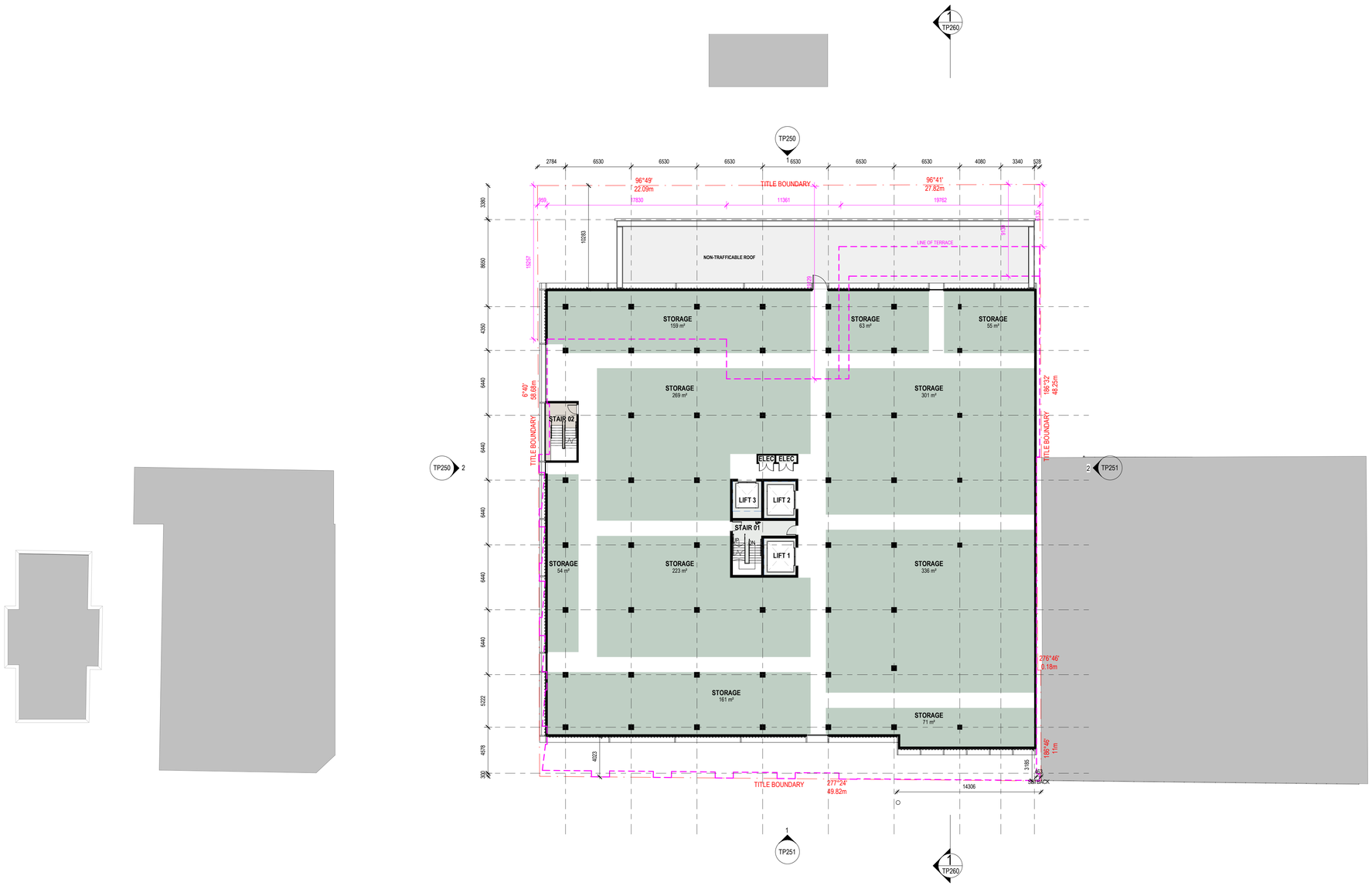
MEZZANINE GENERAL ARRANGEMENT PLAN

DWG # **TP212.2** REV **A**

SCALE @ A1 1 : 200



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LEVEL 01 GFA - 2058M^2

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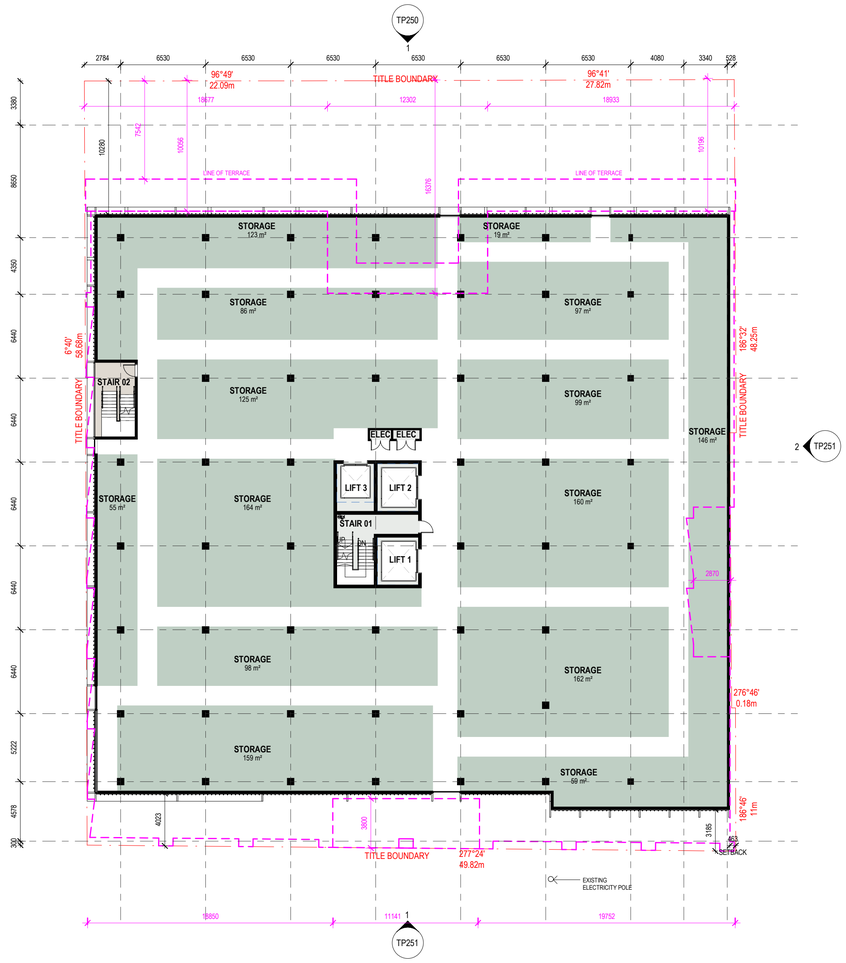
LEVEL 01 GENERAL ARRANGEMENT PLAN

DWG # **TP213** REV **A**

SCALE @ A1 1 : 200



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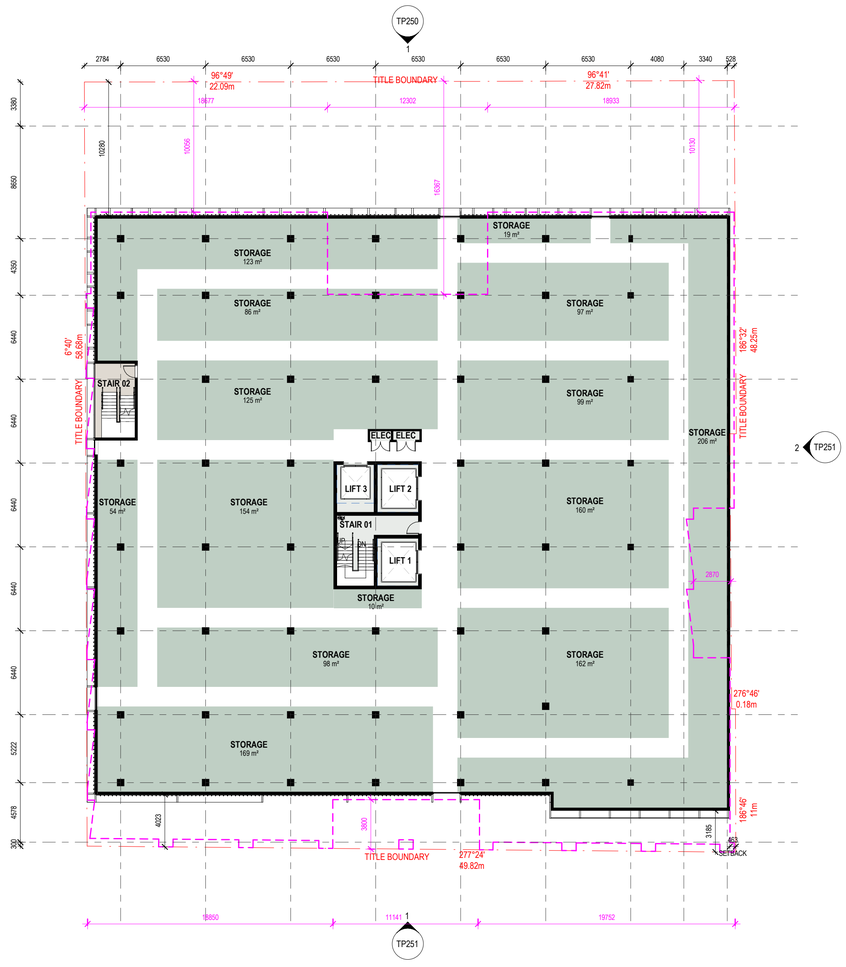
LEVEL 02 GENERAL ARRANGEMENT PLAN

DWG # **TP214** REV **A**

SCALE @ A1 1 : 200



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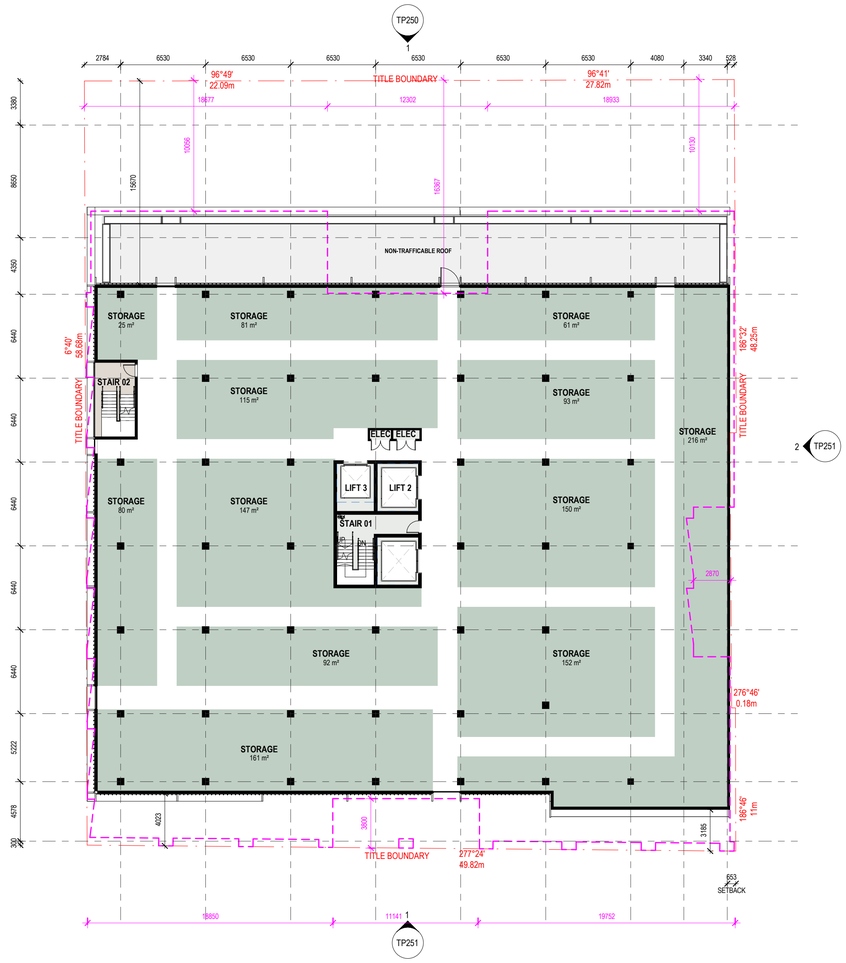
LEVEL 03 GENERAL ARRANGEMENT PLAN

DWG # **TP215** REV **A**

SCALE @ A1 1 : 200



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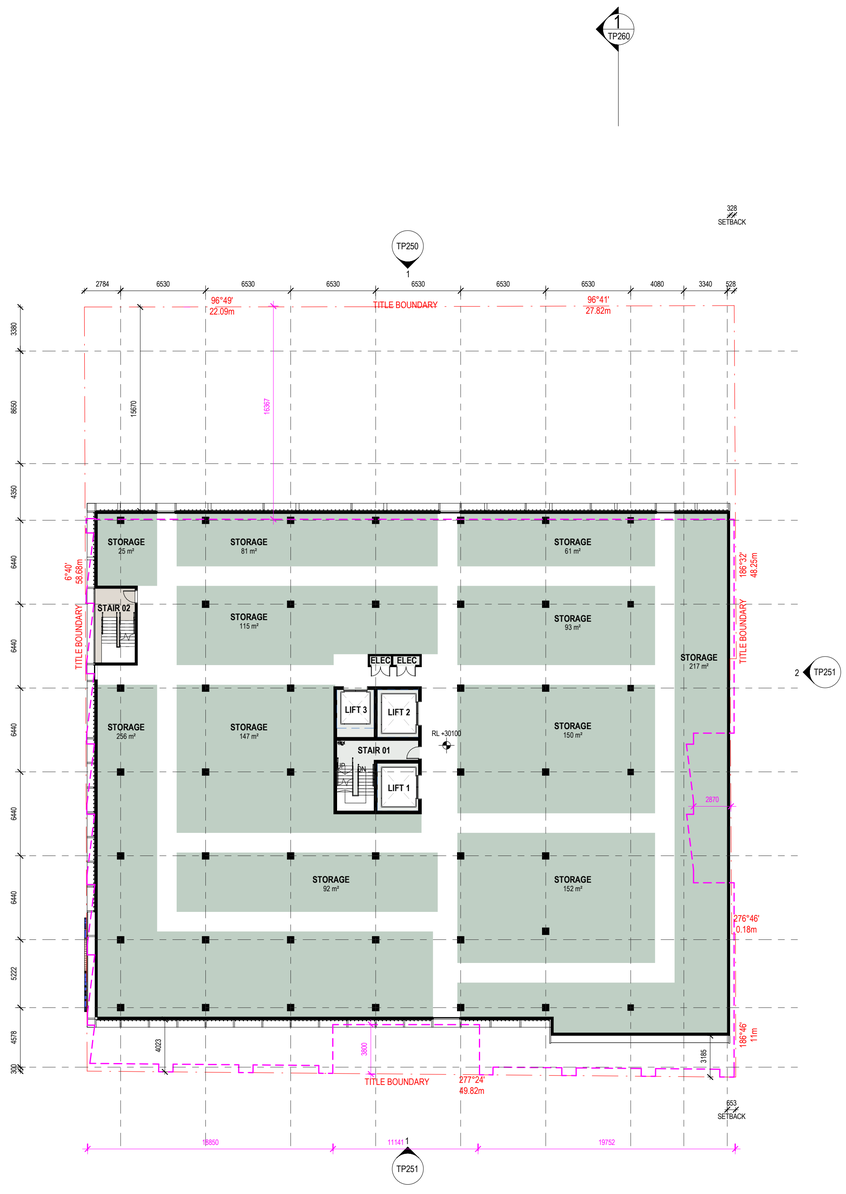
LEVEL 04 GENERAL ARRANGEMENT PLAN

DWG # TP216 REV A

SCALE @ A1 1 : 200



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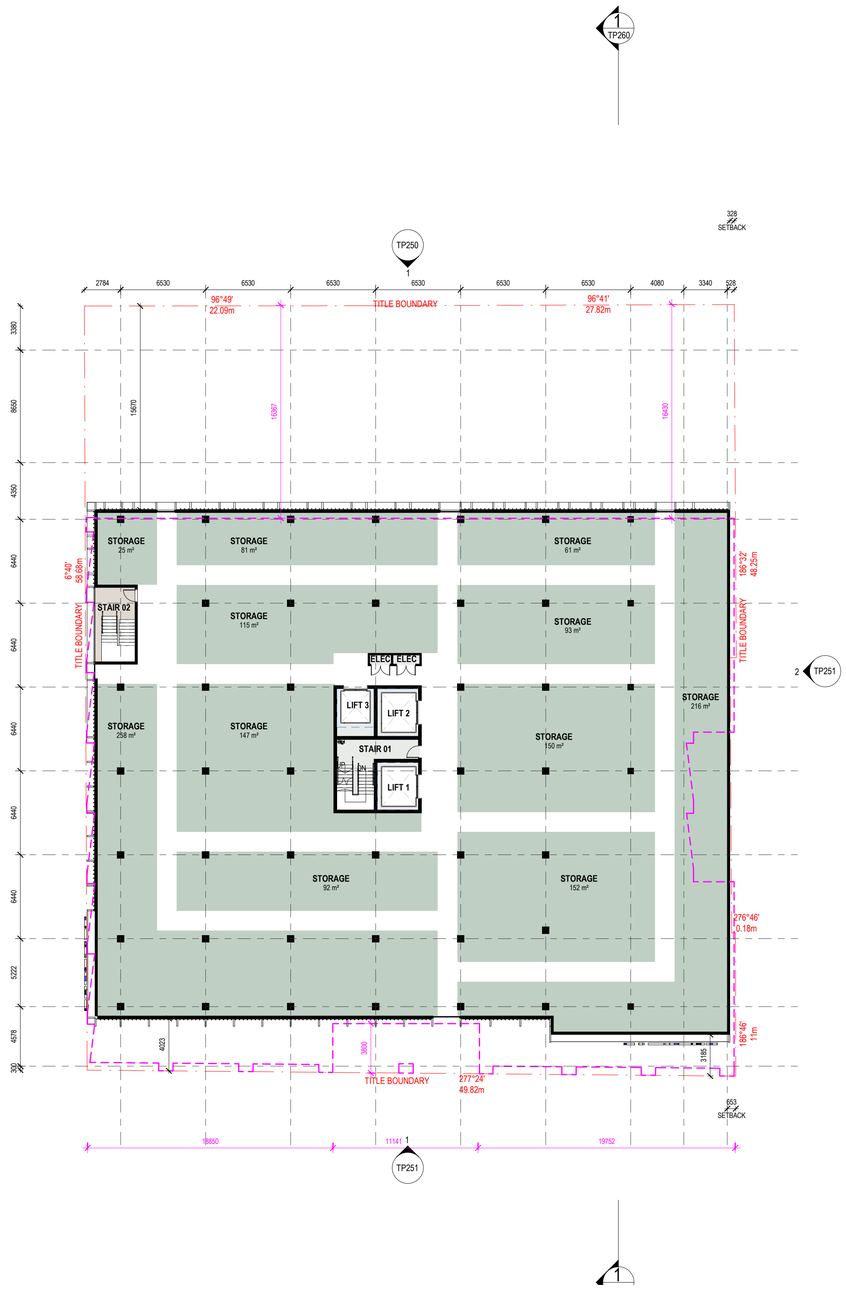
LEVEL 05 GENERAL ARRANGEMENT PLAN

DWG # TP217 REV A

SCALE @ A1 1 : 200



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LEVEL 06 GENERAL ARRANGEMENT PLAN

DWG # **TP218** REV **A**

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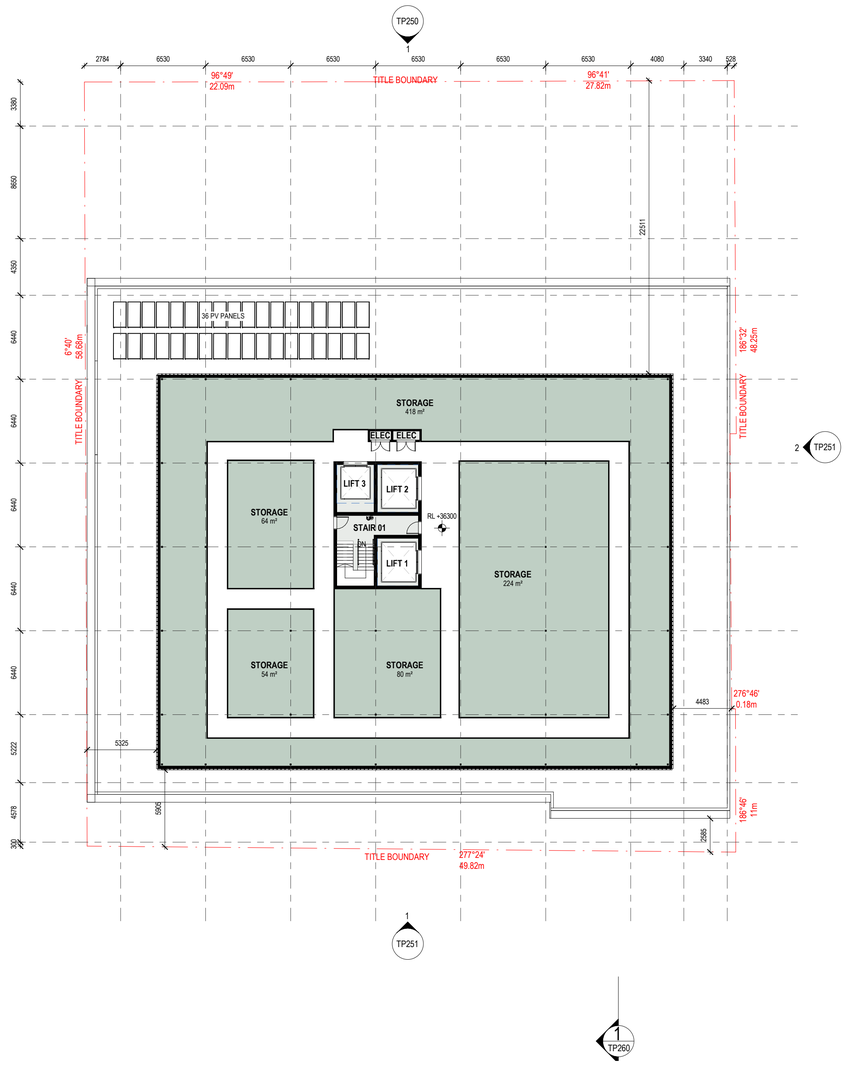

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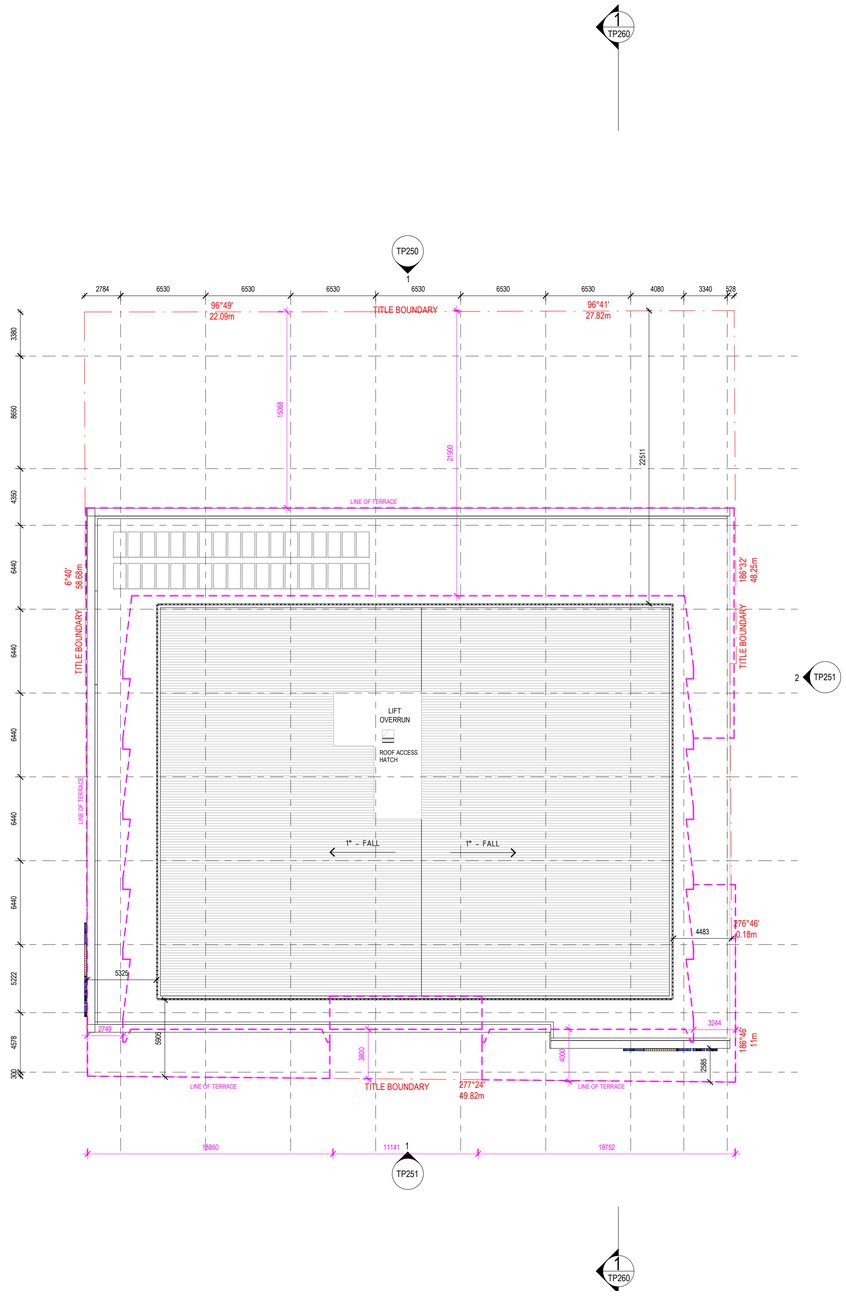
173-177 Barkly Avenue
Burnley, Victoria, 3121

TOWN PLANNING

LEVEL 07 GENERAL ARRANGEMENT PLAN

DWG # **TP219** REV **A**

SCALE @ A1 1 : 200



Autodesk Docs://124125 - StorHub - Burnley/124125 - StorHub Burnley_C24.rvt

LEGEND

OUTLINE OF PREVIOUSLY APPROVED ENVELOPE
(PLANNING PERMIT PLN20/0868 - 20 DECEMBER 2021)

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ARB - NSW Scott Moylan #7147 ARB - VIC CS0283

STORHUB Self Storage

0 2000 5000 10000
1:200

REV	DESCRIPTION	DATE
A	Department of Transport and Planning	24.03.2026

PROJECT NO **124125**
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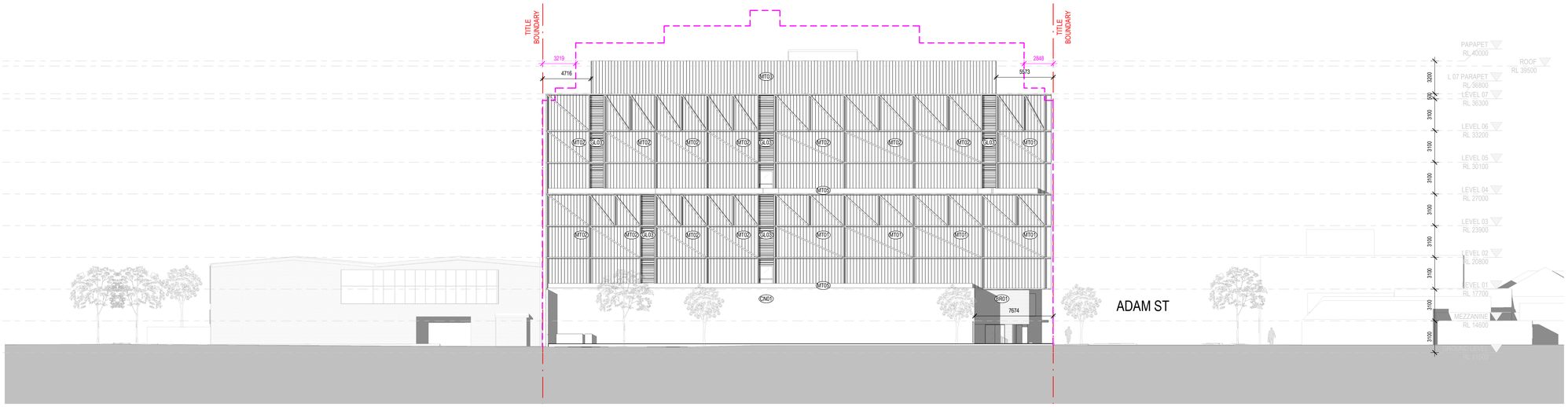
TOWN PLANNING

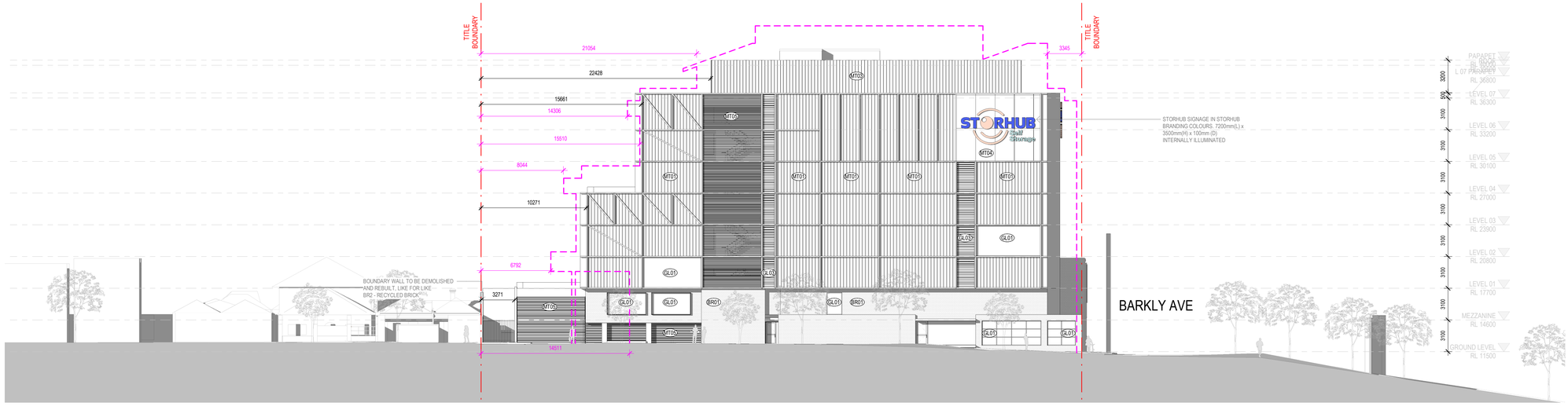
ROOF GENERAL ARRANGEMENT PLAN

DWG # **TP220** REV **A**

SCALE @ A1 1 : 200



1 SK09.00 NORTH ELEVATION
1 : 200



2 TP212 WEST ELEVATION - ADAM STREET
1 : 200

LEGEND

OUTLINE OF PREVIOUSLY APPROVED ENVELOPE (PLANNING PERMIT PLN20/0868 - 20 DECEMBER 2021)

FINISHES LEGEND

MT01 - LYSAGHT: SPANDEK LONGLINE 305 - "COLORBOND - DUSTY GALAH"

MT02 - LYSAGHT: SPANDEK LONGLINE 305 - "COLORBOND - DUSKY GLOW"

MT03 - LYSAGHT: SPANDEK LONGLINE 305 - "COLORBOND - MONUMENT"

MT04 - PIGMENTED FIBRE CEMENT: EQUITONE NATURA - "RED N359"

MT05 - ALUMINIUM & STEEL FRAMING ELEMENTS, SHROUDS, GLAZING SUITES IN "COLORBOND - MANOR RED"

CN01 - TEXTURED PRECAST CONCRETE, GREY

CN02 - TEXTURED PRECAST CONCRETE, PIGMENTED RED

GL01 - VISION GLAZING

GL02 - SPANDREL GLAZING

GL03 - GLAZED LOUVRES

BR01 - A MIXTURE OF RECYCLED & HERITAGE RED BRICKS

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TOWN PLANNING

PROJECT NO	124125
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NORTH & WEST ELEVATIONS

DWG #	TP250	REV	A
SCALE @ A1	1 : 200		

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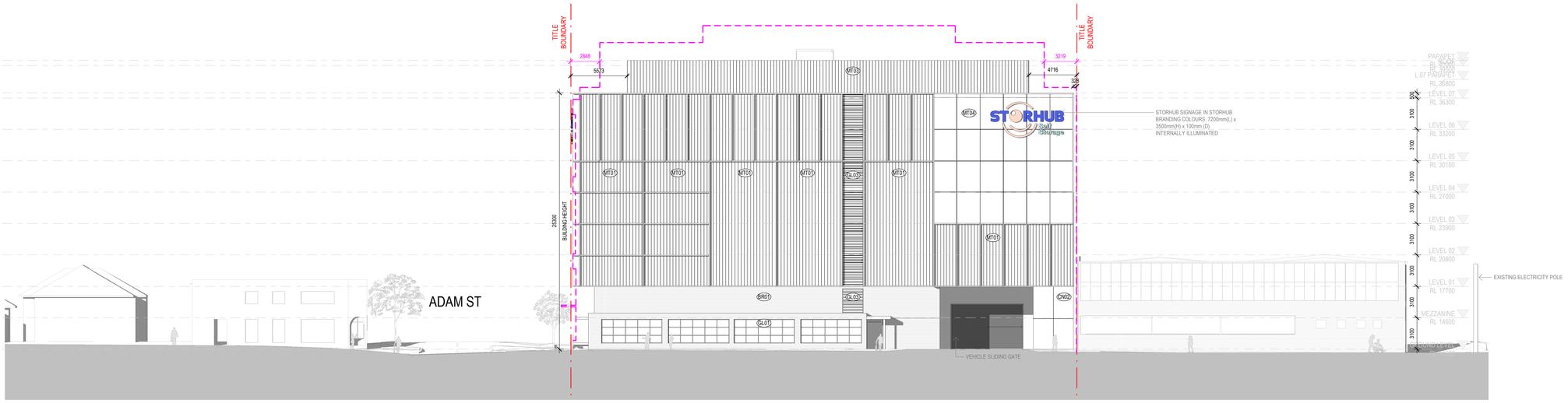
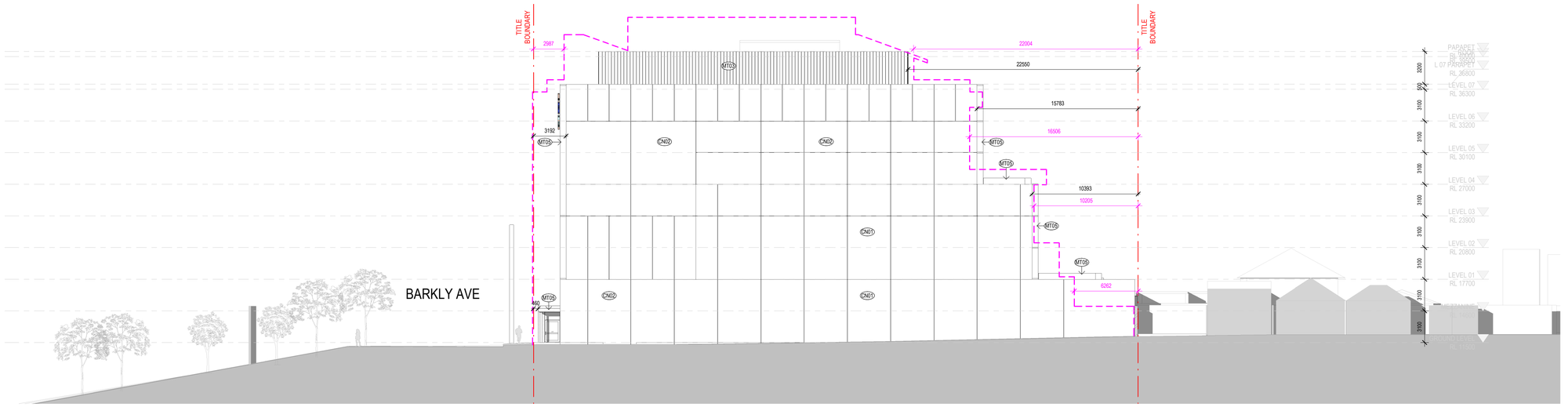


1 SK09.00 **SOUTH ELEVATION - BARKLY AVENUE**
1 : 200



2 SK09.00 **EAST ELEVATION**
1 : 200

LEGEND

OUTLINE OF PREVIOUSLY APPROVED ENVELOPE (PLANNING PERMIT PLN20/0868 - 20 DECEMBER 2021)

FINISHES LEGEND

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MT02 - LYSAGHT: SPANDEK LONGLINE 305 - "COLORBOND - DUSKY GLOW"

MT03 - LYSAGHT: SPANDEK LONGLINE 305 - "COLORBOND - MONUMENT"

MT04 - PIGMENTED FIBRE CEMENT: EQUITONE NATURA - "RED N359"

MT05 - ALUMINIUM & STEEL FRAMING ELEMENTS, SHROUDS, GLAZING SUITES IN "COLORBOND - MANOR RED"

CN01 - TEXTURED PRECAST CONCRETE, GREY

CN02 - TEXTURED PRECAST CONCRETE, PIGMENTED RED

GL01 - VISION GLAZING

GL02 - SPANDREL GLAZING

GL03 - GLAZED LOUVRES

BR01 - A MIXTURE OF RECYCLED & HERITAGE RED BRICKS

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TOWN PLANNING

SOUTH & EAST ELEVATIONS

DWG # **TP251** REV **A**

SCALE @ A1 1 : 200

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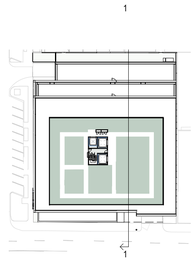

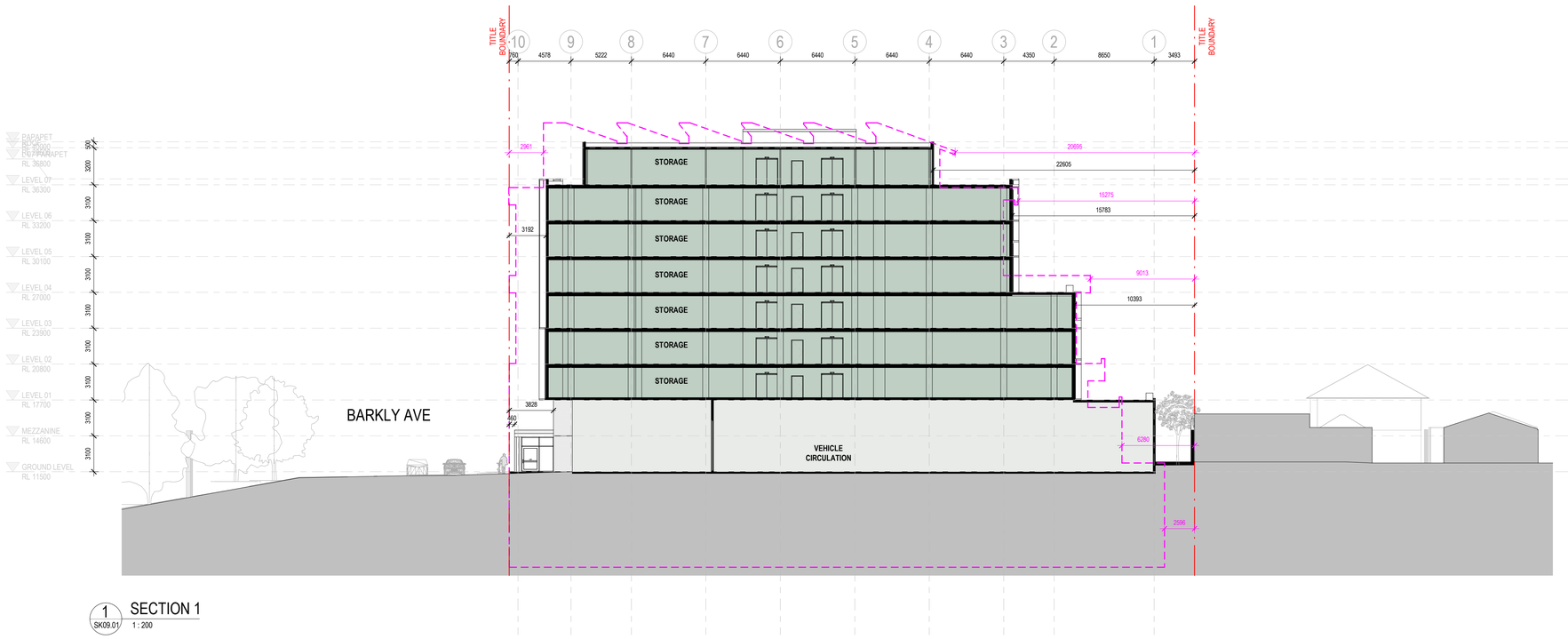

1 SK09.01 SECTION 1
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LEGEND

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STORHUB Self Storage

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TOWN PLANNING

SECTION 01

DWG # TP260 REV A
SCALE @ A1 As indicated

01 - A mixture of Recycled and Red Heritage Bricks
BR01

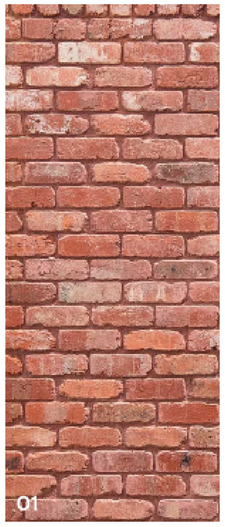
02: - Pigmented Fibre Cement: Equitone Natura - "red N359"
MT04

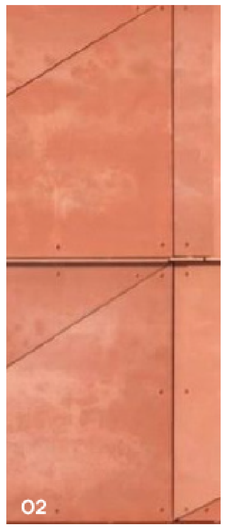
03: - Pre-painted Steel: Lysaght: Spandek Longline 305 infills:
MT01: " Colorbond - Dusty Galah"
MT02: " Colorbond - Dusky Glow"
MT03: " Colorbond - Monument" on the recess level

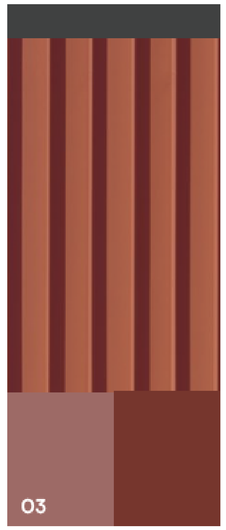
04: - Exposed Textured Precast Concrete
CN01: "Natural Grey"
CN02: "Pigmented Red"

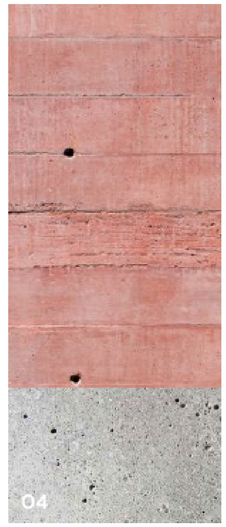
05 - Aluminium and steel framing elements, shrouds, glazing suites
MT05: "Colorbond - Manor Red:

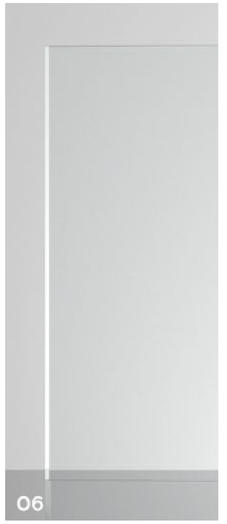
06 - Glazing i
GL01: "Clear Fixed Vision Glass"
GL02: "Clear Glass Louvres"
GL03: "Spandrel Glass"











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TOWN PLANNING

EXTERNAL MATERIALS

DWG # TP280 REV A
SCALE @ A1 1 : 1

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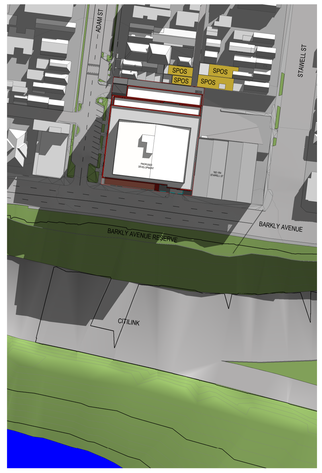
1 : 1000



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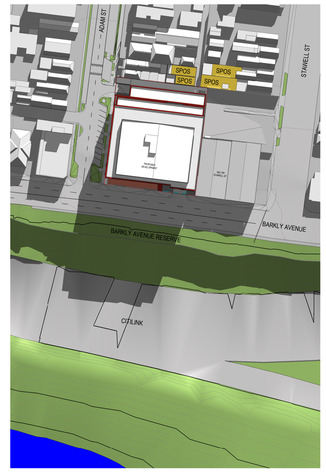

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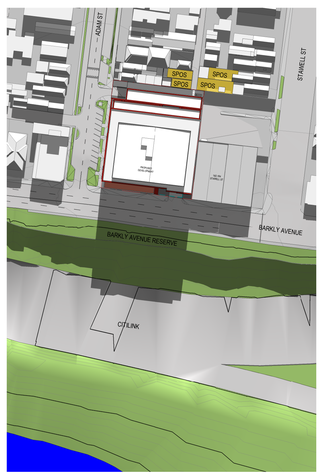

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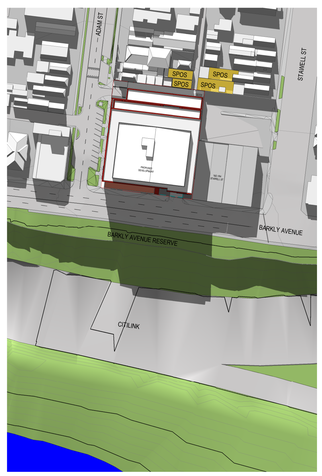

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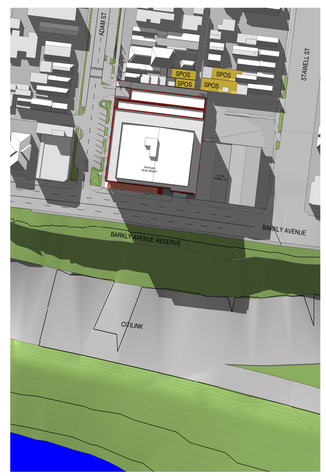

6 SHADOW STUDY - 22 JUN 3PM
1 : 1000

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REV	DESCRIPTION	DATE
A	Department of Transport and Planning	24.03.2026

PROJECT NO	124125
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TOWN PLANNING

SHADOW STUDIES - WINTER

DWG # **TP300** REV **A**

SCALE @ A0 1 : 1000

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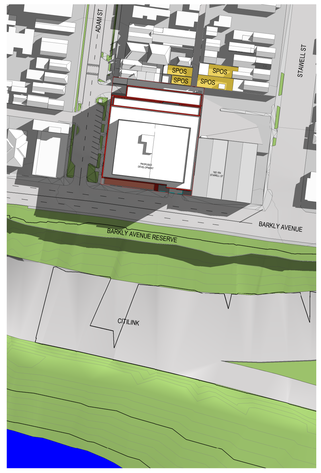

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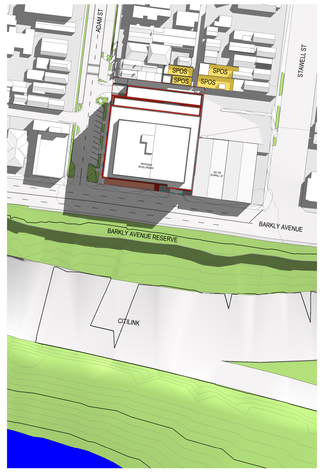

2 SHADOW STUDY - 22 SEPT 11AM
1 : 1000

3 SHADOW STUDY - 22 SEPT 12PM
1 : 1000

4 SHADOW STUDY - 22 SEPT 1PM
1 : 1000

5 SHADOW STUDY - 22 SEPT 2PM
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6 SHADOW STUDY - 22 SEPT 3PM
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ARB - NSW Scott Mayer #7147 ARB - VIC CS2253

STORHUB Self Storage

REV	DESCRIPTION	DATE
A	Department of Transport and Planning	24.03.2026

PROJECT NO	124125
DRAWN	KF
CHECKED	FT
AUTHORISED	FT

StorHub

173-177 Barkly Avenue
Burnley, Victoria, 3121

TOWN PLANNING

SHADOW STUDIES - SUMMER

DWG # **TP301** REV **A**

SCALE @ A0 1 : 1000

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PLANNING & PROPERTY | PARTNERS

TOWN PLANNING REPORT

173-177 Barkly Avenue, Burnley

March 2026

Prepared for: *StorHub Victoria Trust IV*

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1. Introduction

1.1. Project Overview

This report accompanies a planning permit application for the use and development of a self-storage facility (Store) on the land at 173-177 Barkly Avenue, Burnley ('the Site'). The application also proposes associated signs and alteration of access to a road in the Transport Zone 2.

The Site is subject to the provisions of the Yarra Planning Scheme ('Planning Scheme').

The proposal responds to a growing demand for self-storage and the Site has been strategically located within commercial zoned land with easy access to the Principal Transport Network and Principal Public Transport Network, as well as providing additional employment opportunities within a well-established location. The use responds to the growing demand for off-site storage through densification of the inner-urban area of Burnley and surrounds, noting the various in-fill developments as constructed or approved, with typically smaller living footprints.

Self-storage (nesting under Warehouse) of this capacity has been identified by the State Government as a priority project under Clause 53.22 of the Planning Scheme. Following the initial review period through the Development Facilitation Program, *StorHub* has been invited to prepare the formal application under the provision on the basis that:

- *The proposed land use (Warehouse) is listed under Table 2 of Clause 53.22-1, and*
- *The proposed estimated cost of development cost ($30.735 million) is at least $30 million*
- *Information demonstrating the likely feasibility of the proposal has been provided to the satisfaction of the Minister for Planning, including written advice from the Chief Executive Officer (or delegate) of Invest Victoria.*

The application can be pursued under a facilitated pathway as it will produce significant economic benefits to the local and broader community including investment and employment opportunities.

This is also supported by *StorHub's Business Incubator* which forms part of the proposed use of the Site and supports the local business operators.

The proposal follows an existing approval on the land pertaining to Planning Permit PLN20/0868 issued at the direction of the Tribunal on 20 December 2021, which allows:

> *Development of the land with a multi-storey building; use as a food and drink premises; alterations to access to a Road Zone (Category 1) and a reduction in the car parking requirement of the Yarra Planning Scheme.*

The permit remains valid until 20 December 2026. The plans included an 8 storey commercial office building with food and drink premises at ground level adjacent to Adam Street.

Following the issuing of this permit, the land was acquired by *StorHub* with *Gray Puksand* retained to deliver a high quality architectural form, which remains generally consistent with the approved building envelope, noting some minor variations and reduction in overall height.

This report provides an assessment of the proposal against relevant provisions of the Planning Scheme and should be read in association with:

- Urban Context Report and Architectural Plans prepared by *Gray Puksand*;
- Site Survey prepared by *Veris;*
- Landscape plan prepared by *Site Image Landscape Architects;*

- Traffic Impact Assessment prepared by *OneMileGrid*;
- Waste Management Plan prepared by *OneMileGrid;*
- Sustainability Management Plan, including Stormwater Management Plan prepared by *IGS*; and
- Acoustic Report prepared by *Enfield Acoustics*.

1.2. Planning Controls and Permit Requirements

The Site is located within the Commercial 2 Zone ('C2Z'), pursuant to provisions of the Planning Scheme and is affected by the Design and Development Overlay – Schedule 2 and Schedule 5 ('DDO2' and 'DDO5'), the Significant Landscape Overlay – Schedule 1 ('SLO1') and the Development Contributions Plan Overlay – Schedule 1 ('DCPO1').

It is noted that the site is also located within an area of Aboriginal Cultural Heritage Sensitivity. However, as set out under the existing approval which pertains to the site, the land has been subject to significant ground disturbance and is exempt from the need for a Cultural Heritage Management Plan.

The application seeks planning permission under the Scheme for the following:

- Use of the land for Store (Warehouse) pursuant to Clause 34.02-1 (C2Z);
- Construct a building or construct or carry out works pursuant to Clause 34.02-4 (C2Z);
- Construct a building or construct or carry out works pursuant to Clause 42.03-2 (SLO1);
- Construct a building or construct or carry out works pursuant to Clause 43.02-2 (DDO2);
- Erect and display high-wall internally illuminated business identification signs; and
- Create or alter access to a road in a Transport Zone 2 pursuant to Clause 52.29-2 (Land adjacent to the Principal Road Network).

2. Site context

2.1. The Site

The Site is a single parcel of land located at 173-177 Barkly Avenue, Burnley. The Site is formally described as Lot 1 on Plan of Subdivision PS613840. A full copy of the title is included at **Appendix A** of this report.

The Site has a total area of 2,944 square metres and is regular in shape. An existing brick commercial building is located on the Site and has housed a retailed premises most recently with remnants of a former industrial or warehouse building including the retained and 'propped' façade to Adam Street with parking and accessways beyond. The commercial building includes a saw-tooth roof with mounted solar panels.

The Site in its current state is depicted in Figure 1 below.

Figure 1 – Aerial View of Subject Site **Source: www.landchecker.com.au**

The Site's interfaces are described as follows:

North

Directly north of the Site is a residential dwelling located at 39 Adam Street. This dwelling is built to the property boundary with a high party wall and includes secluded private open space at its rear adjacent to St Louis Place (ROW). Beyond this dwelling are a series of dwellings of varying styles and scales within the General Residential Zone, including up to 4 storey apartment building or with undercroft car parking. The Burnley Railway Station is located further to the north at the termination of Adam Street.

South

To the south of the Site is Barkly Avenue which includes a four lane arterial road. A wide verge is located on the southern side of the carriageway which is known as 'Barkly Reserve', whilst having limited recreational potential and has been used for Council garden stockpiling of tan bark. Further south is the City Link Freeway, which is a major arterial road with an eight lane carriageway with merging lanes, and the Yarra River beyond.

East

The eastern property abuttal contains an existing commercial building located at 182-184 Stawell Street. The large commercial building on the property is built flush to the common boundary (west) and also contains large car parking areas to the rear and eastern side associated with its use. Land further to the east comprises a mix of residential dwellings in single dwelling or apartment building and town house typologies.

West

To the west of the Site is Adam Street. Commercial buildings are located opposite to the Site which also provide frontage to Barkly Avenue, with some dwellings being used for commercial purposes. A three storey commercial building at 70 Adam Street is located directly opposite the Site and abuts West Street (service lane). Further north along Adam Street is characterised by dwellings of various scale and typology located within the General Residential Zone.

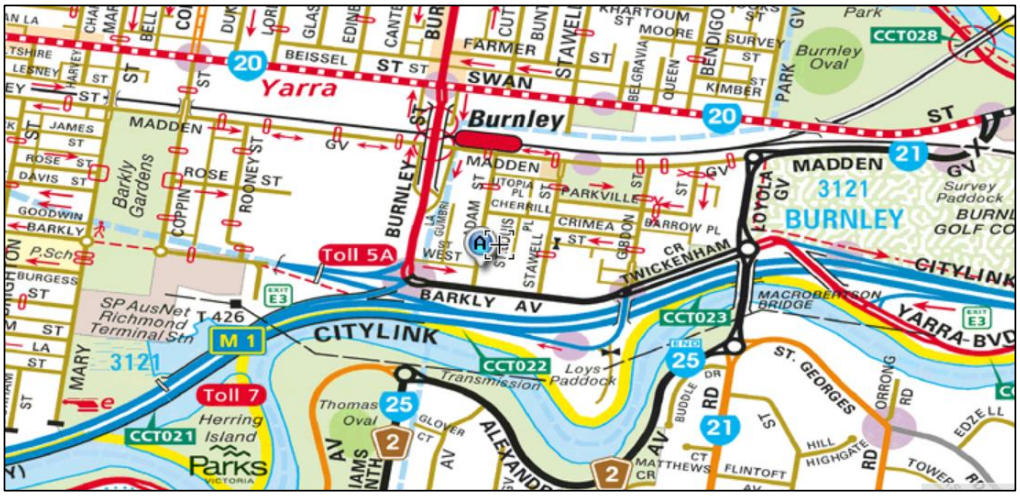

Figure 2 – Location Map **Source: www.street-directory.com.au**

2.2. Surrounding Strategic and Physical Context

The Site is identified as being within a 'Commercial Land' area of the Strategic Framework Plan located at Clause 02.04. The Site sits adjacent to other land within this same designation to the east and west along Barkly Avenue and benefits from its strategic location being in close proximity to the City Link major arterial road network which lies south of the Site.

Land within the residential precinct to the north is identified as being within a 'Low Rise Residential' area on the Strategic Framework Plan with built form of up to three storeys expected under the zone. Higher forms exist within Adam Street comprising 'walk-up flats' and similar. The Site and other properties located along Barkly Avenue typically comprise of older built form and yet to realise their redevelopment potential under the Commercial 2 Zone and noting the interface to the freeway and Yarra beyond. Other such uses within the area include the SP Ausnet Richmond Terminal Station towards the west, with high voltage transmission cabling connecting across the Yarra River.

Burnley Maltings comprises a large former industrial built form with silos, currently under works for its redevelopment.

This also marks the boundary between the City of Yarra and the City of Stonnington. The strategic and physical context identified for the Site and its surrounds naturally lends itself to appropriately

managing the northern interface with residential areas while promoting efficient use of the commercial zoned land, benefitting from its locality including demand from increased density and proximity to transport connections.

This strategic location is depicted in Figure 3 below:

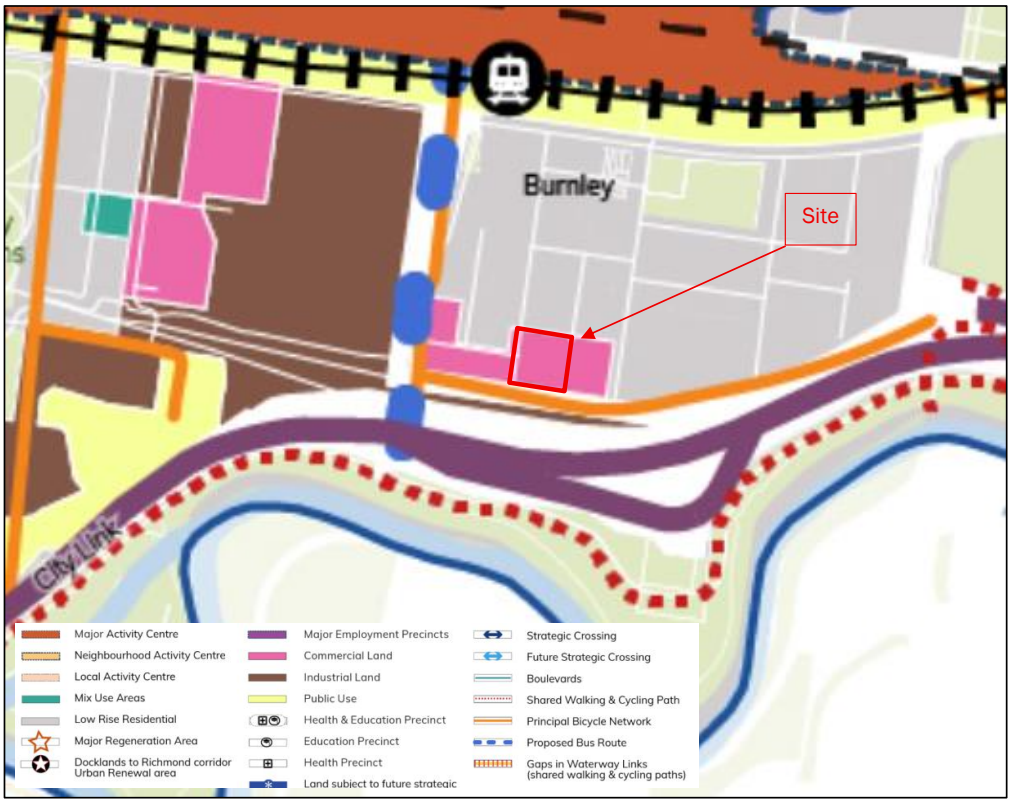

Figure 3 – Strategic Framework Plan (extract) **Source: Clause 02.04 Yarra Planning Scheme**

3. Proposal

3.1. Proposal Overview

This report accompanies a planning permit application to use and develop the land for the purposes of a Store (Self Storage Facility). Aspects of the proposal are detailed below:

3.2. Self-storage Facility Use & Ancillary Business Incubator

The use of the land for Store (self-storage facility) falls under the broader land use category of Warehouse and triggers a permit under the C2Z noting that it is located within 30 metres of land within a residential zone. The proposed self-storage facility will include the following operational aspects:

- Operating 24 hours a day, 7 days a week.
- Includes seven floors of flexible storage space with optional partitions based on the particular needs.
- Ground level loading areas and back of house areas.
- Associated ground floor level office and administration / reception space.
- The office would operate 8.30am-5:30pm Monday to Saturday.
- Secure out-of-hours access to the facility for customers.
- Includes a total of 15,089 square metres of gross floor area.

Business Incubator
The proposal will operate with an ancillary 'business incubator' which provides a space for existing customers of the facility for particular needs including small business and 'start-ups', which primarily operate online and require storage within the facility. The use provides space for in-person meetings, flexible co-working space and access to the amenities of the facility as an evolving nexus to its customer base, and which creates further activity around the facility. Refer to the accompanying information sheet from StorHub for further information on this.

3.3. Built Form

The proposed built form presents as a strikingly modern architecturally designed self-storage facility, responding appropriately to the varied scale of the surrounding context and its positioning adjacent to the CityLink freeway. The building includes eight storeys, at a maximum building height of 28.5 metres. Floor levels for self-storage portioned spaces and walkways generally aligning to windows with administrative office and incubator space located at the ground floor.

Built form, siting and transition has been appropriately guided by the building envelope of the approved commercial building forming part of PLN20/0868, which established the acceptable massing principles for this proposal.

Regarding each of the Site's property boundary interfaces, the proposed built form has been carefully designed to respond accordingly as follows:

<u>Barkly Avenue – Southern Boundary Frontage</u>

The Barkly Avenue frontage invites a more robust built form response noting the nature of the arterial road and freeway beyond, with limited external pedestrian activity or desire lines currently. At ground level, the primary reception and office component of the facility directly abuts the property boundary. This frontage is activated with commercial glazing across the majority of its frontage and wrapping around the Site corner into Adam Street. Towards the eastern corner of the Site, vehicle entry is provided through a new crossover onto Barkly Avenue and provides access to the car parking areas.

Secure car parking and loading facilities are located within the undercroft car park area and draw vehicles in a circular motion in from Barkly Avenue and egress via Adam Street.

The upper levels are set back by approximately 3-4m and detailed articulation is included via variation in materials and finishes and through the use of steel framing elements breaking up the presentation.

Adam Street – Western Boundary Interface

The interface to Adam Street incorporates similar elements to the Barkly Avenue interface but includes a more refined response to the residential interfaces with a clear and deliberate transition of the expression. The accompanying Urban Context Report illustrates the massing and transition from north to south, which has been a key component to the refined design.

The proposal includes a recessive vehicle egress point with void adjacent to the adjoining dwelling, with a two storey scaled initial form and glazed return addressing Adam Street. Toward the northern end of this interface, landscaping areas soften the built form and extends to the vehicle exit point, being the northern most section along Adam Street and offers a finer grain response to this setting. The transitioning form above reduces its volume as the building graduates with setbacks.

Eastern Boundary Interface

The eastern façade of the building has been designed to create visual interest at the upper levels. Noting the existing commercial building located at 182-184 Stawell Street built to the property boundary, there are no visual amenity considerations at the lower floors of the building. This elevation has appropriately addressed the interface with a series of articulated joins to create visual interest with an increasing and tiered setback from the northern boundary to maintain an appropriate outcome with respect to the adjoining dwellings to the north.

Northern Boundary Interface

The northern Site boundary adjoins residential properties located along Adam Street and St Louis Place. The built form has been carefully designed to respect this interface and create a complementary outcome which maintains residential amenity. The ground level of the building is setback approximately 3.3 metres, with a deep planting zone that runs the full length of the boundary included. This planting zone provides a green buffer, enhancing visual amenity and privacy for the adjacent dwellings. The landscape treatment includes provision for evergreen trees with indigenous planting below. The canopy trees include *Silver Wattle* capable of reaching a height of 15 metres and spread of 5 metres, along with *Yellow Gum* with height of 10 metres and spread of 6 metres in canopy.

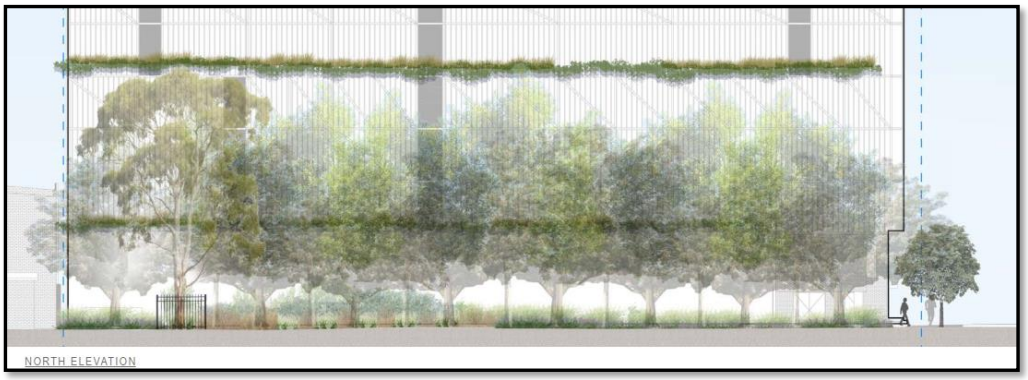

Figure 4 – Northern landscape response **Source: *Site Image***

A specimen evergreen tree (*Narrow-leaf Peppermint*) is strategically placed at the southern end of the laneway as a feature within this confined view or from the rear of properties.

The upper levels are carefully modulated and set back increasing distances as the overall height increases. This establishes an appropriate transition, reducing visual bulk and minimising amenity issues or the potential for overlooking into private open spaces. The setback increases to approximately 15.7 metres at Level 6 and 22.5 metres to the recessive upper level. The façade treatment at this interface maintains a finer grain response to the Adam Street and Barkly Avenue interfaces and with a complementary flavour to the remainder of the building. In addition, landscaped edges are included to improve the interface with the residential dwellings to the north and ultimately proposes a positive visual outcome.

3.4. Access and Car Parking

Vehicular access is provided from Barkly Avenue via a new crossover. Access at this location is intended for ingress primarily, noting that once vehicles travel through the secure threshold, they would exit onto Adam Street. A visitor or short term parking area is provided within the front accessway area and which does not require vehicles to pass through the Site to exit. In this circumstance, an access restriction would be imposed for 'left in / left out' for vehicles on Barkly Avenue, and appropriate signage would be installed to address this, noting this would be the expectation from H,TfV based on it's initial review of the proposal.

Clear separation for pedestrians is provided with a designated pedestrian entry. Exiting vehicle movements from the Site are otherwise directed to the Adam Street egress point in the north-west corner via a new vehicle crossover. A total of 13 car or truck parking spaces are provided and a designated loading zone for customers. This includes 3 visitor / short term parking spaces within the initial undercroft area off Barkly Avenue (inclusive of an accessible space), 7 car parking / loading spaces within the secure parking area, and 3 truck or car and trailer parking / loading bays.

Loading and waste management areas are located within the car parking area, minimising potential impact on the public realm and residential interfaces. Bicycle parking in the form of 12 spaces are also provided near the main pedestrian entry for visitors and staff.

The design of the proposed built form is depicted in Figures 4 and 5 below.

3.5. Signs

The proposal includes the provision of two internally illuminated high-wall business identification signs facing Barkly Avenue and to the west at the corner of Adam Street and Barkly Avenue.

The signs include dimensions 7.2 metres by 3.5 metres with corporate branding and individual lettering.

Figure 5 – View from the south-west to the proposed development **Source: *Gray Puksand***

Figure 6 – View from the north-west to the proposed development **Source: *Gray Puksand***

Figure 7 – View to the Adam Street ground plane **Source: *Gray Puksand***

4. Planning Controls

4.1. Planning Policy Framework

The Planning Policy Framework provides general principles for land use and development in Victoria. Planning authorities must take account of and give effect to the general principles and the specific policies contained in the Planning Policy Framework. The following provisions of the Planning Scheme are relevant to the proposal:

- **Clause 02.03 Strategic directions**
  - 02.03-2 Environmental and landscape values
  - 02.03-5 Built environment and heritage
  - 02.03-6 Economic development
  - 02.03-7 Transport
- **Clause 02.04 Strategic framework plans**
  - 02.04-1 Strategic framework plan
- **Clause 11 Settlement**
  - 11.01-1R Settlement - Metropolitan Melbourne
- **Clause 12 Biodiversity**
  - 12.03-1R Birrarung (Yarra River)
  - 12.05-2S Landscapes
- **Clause 13 Environmental Risks and Amenity**
  - 13.07-1S Land Use Compatibility
  - 13.07-1L01 Interfaces and amenity
- **Clause 15 Built Environment and Heritage**
  - 15.01-1S Urban design
  - 15.01-1R Urban design - Metropolitan Melbourne
  - 15.01-1L Urban design

- 15.01-2S Building design
- 15.01-2L Building design
- 15.01-2L Environmentally sustainable development
- 15.01-4S Healthy neighbourhoods
- 15.01-4R Healthy neighbourhoods - Metropolitan Melbourne
- 15.01-5S Neighbourhood character

- **Clause 17 Economic Development**
  - 17.01-1S Diversified economy
  - 17.01-1R Diversified economy - Metropolitan Melbourne
  - 17.01-1L Employment
- **Clause 18 Transport**
  - 18.01-1S Land use and transport integration
  - 18.02-4L-01 Car parking

The Planning Policy Framework includes support for employment generating uses in appropriate locations that service the region and strengthen the local economy.

4.2. Zoning Controls

Commercial 2 Zone

The Site is located within the C2Z and the purpose of the zone is:

> *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
>
> *To encourage commercial areas for offices, appropriate manufacturing and industries, bulky goods retailing, other retail uses, and associated business and commercial services.*

Pursuant to Clause 34.02-1, a self storage facility is Section 2 – planning permit required use (nested under Warehouse) noting its location within 30 metres of a residential zone.

A permit is required to construct or to construct or carry out works pursuant to Clause 34.02-4 of the C2Z.

Sign provisions are located at Clause 52.05 and the C2Z includes Category 1 signage.

4.3. Overlay Controls

Design and Development Overlay – Schedule 2 and Schedule 5

The Site is partly affected by the DDO2 and wholly affected by the DDO5. The DDO includes the following Purpose:

> *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
>
> *To identify areas which are affected by specific requirements relating to the design and built form of new development.*

DDO2 relates to *Main Roads and Boulevards* with specific design objectives recognising the importance of main roads to the overall image of the City. A planning permit is required to construct a building or construct or carry out works pursuant to Clause 43.02-1.

DDO5 relates to the *City Link Exhaust Stack Environs* with specific design objectives seeking to ensure the protection of the City Link Exhaust Stack and surrounding land. A planning permit is not required specifically in relation to DDO5 and it is understood the building sits below the consideration height, similar to the previous approval.

Significant Landscape Overlay – Schedule 1

The Site is affected by the SLO1 relating to the *Yarra (Birrarung) River Corridor Environs*. The SLO1 sets out the following Purpose:

> *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
>
> *To identify significant landscapes.*
>
> *To conserve and enhance the character of significant landscapes.*

Pursuant to Clause 42.03-2, a planning permit is required to construct a building or construct or carry out works.

The SLO1 includes a number of application requirements which have been addressed 'as appropriate' noting the distance from the river itself including shadow diagrams, landscape plan, visual assessment, and which appropriately illustrate that the proposal will not impact on the river. Refer to the discussion within the assessment section for further information relation to the SLO1 and Clause 12.03-1 in particular.

Development Contributions Plan Overlay – Schedule 1

The Site is affected by the DCPO1 and the Purpose of the Overlay is:

> *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
>
> *To identify areas which require the preparation of a development contributions plan for the purpose of levying contributions for the provision of works, services and facilities before development can commence.*

The DCPO1 relates to the *Yarra Development Contributions Plan* and applies to all new development within the area affected by the overlay. The Site is located within Area 10 – Burnley-Richmond South for the purse of applying a charge area.

Pursuant to Clause 45.06-1, any planning permit granted must:

- *Be consistent with the provisions of the relevant development contributions plan.*
- *Include any conditions required to give effect to any contributions or levies imposed, conditions or requirements set out in the relevant schedule to this overlay*.

4.4. Particular and General Provisions

Particular provisions are specific prerequisites or planning provisions for a range of particular uses and developments. They apply in addition to the requirements of a zone or overlay and the following are of relevance to the current proposal:

Clause 52.05 Signs

The Purpose of Clause 52.05 is:

> *To regulate the development of land for signs and associated structures.*
>
> *To ensure signs are compatible with the amenity and visual appearance of an area, including the existing or desired future character.*
>
> *To ensure signs do not contribute to excessive visual clutter or visual disorder.*
>
> *To ensure that signs do not cause loss of amenity or adversely affect the natural or built environment or the safety, appearance or efficiency of a road.*

The signage provisions within the C1Z relate to Category 1 and a permit is required to erect internally illuminated high wall business identification signs.

Clause 52.06 Car Parking

The Purpose of Clause 52.06 is:

> *To ensure that car parking is provided in accordance with the Municipal Planning Strategy and the Planning Policy Framework.*
>
> *To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.*
>
> *To support sustainable transport alternatives to the motor car. To promote the efficient use of car parking spaces through the consolidation of car parking facilities.*
>
> *To ensure that car parking does not adversely affect the amenity of the locality.*
>
> *To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.*

The clause details car parking requirements which apply to new development and design requirements related to the layout of this car parking and the accessways.

A self-storage facility (defined as Store) is assigned a parking rate under Table 1 to Clause 52.06-5 of 5% (min) and 10% (max) of the site area.

Based on 2,935 square metres, between 146 square metres and 294 square metres of car parking and associated accessways would be required. The proposal provides 149 square metres associated with dedicated car parking spaces within the frontage and has been provided in accordance with the required range. Additional internal loading areas have been set aside within the ground floor undercroft area for users of the facility, which include space for passenger vehicles, vehicles with trailers, and small truck provision.

A Traffic Impact Assessment prepared by *OneMileGrid Pty Ltd* is provided in support of the application confirming the provided car parking is sufficient owing to the particular location, accessibility and low frequency occupation of this use, along with a detailed response to the design requirements of Clause 52.06-9.

Clause 52.29 Land Adjacent to the Principal Road Network

The Purpose of Clause 52.29 is:

> *To ensure appropriate access to the Principal Road Network or land planned to form part of the Principal Road Network.*
>
> *To ensure appropriate subdivision of land adjacent to Principal Road Network or land planned to form part of the Principal Road Network.*

Barkly Avenue along the southern boundary of the Site is located within the Transport 2 Zone. Pursuant to Clause 52.29-2, a permit is required to create or alter access to a road in a Transport Zone 2. The proposal includes the creation of a new access onto Barkly Avenue, requiring a permit and referral to the Head, Transport for Victoria under the provisions.

Clause 53.18 Stormwater Management in Urban Development

The Purpose of Clause 53.18 is:

> *To ensure that stormwater in urban development, including retention and reuse, is managed to mitigate the impacts of stormwater on the environment, property and public safety, and to provide cooling, local habitat and amenity benefits.*

The proposal incorporates water sensitive urban design measures to assist in stormwater management and site cooling including. These details have been set out in the WSUD and Stormwater considerations forming part of the accompanying Sustainability Management Plan prepared by *IGS*.

Clause 53.22 Significant Economic Development

The Purpose of Clause 53.22 is:

> *To prioritise and facilitate the planning, assessment and delivery of projects that will make a significant contribution to Victoria's economy and provide substantial public benefit, including jobs for Victorians.*
>
> *To provide for the efficient and effective use of land and facilitate use and development with high quality urban design, architecture and landscape architecture.*

The proposal is eligible for State facilitation under this pathway due to the significant investment of approximately $30.75M, with an overall investment of close to $40M.

Pursuant to Clause 53.22-4, the proposal is exempt from third party review provisions.

Clause 65 Decision guidelines

Clause 65 sets out Decision Guidelines and Clause 65.01 sets out issues that the Responsible Authority must consider when making a decision as follows:

- *The matters set out in section 60 of the Act.*
- *Any significant effects the environment, including the contamination of land, may have on the use or development.*
- *The Municipal Planning Strategy and the Planning Policy Framework.*
- *The purpose of the zone, overlay or other provision.*
- *Any matter required to be considered in the zone, overlay or other provision.*
- *The orderly planning of the area.*
- *The effect on the environment, human health and amenity of the area.*
- *The proximity of the land to any public land.*
- *Factors likely to cause or contribute to land degradation, salinity or reduce water quality.*
- *Whether the proposed development is designed to maintain or improve the quality of stormwater within and exiting the site.*
- *The extent and character of native vegetation and the likelihood of its destruction.*
- *Whether native vegetation is to be or can be protected, planted or allowed to regenerate.*
- *The degree of flood, erosion or fire hazard associated with the location of the land and the use, development or management of the land so as to minimise any such hazard.*
- *The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts.*
- *The impact the use or development will have on the current and future development and operation of the transport system.*

The requirements of Clause 65 have been covered throughout this report and further analysis of key considerations is detailed in the following sections.

5. Planning Assessment

5.1. Key Considerations

The key planning matters to considered in an assessment of the proposed use and development comprise the following:

- The Site's strategic planning context and use of the land;
- The appropriateness of the proposed development having regard to its context and planning controls;
- The proposed development's response to the SLO9, Clause 12.03-1R and the Yarra River context;
- The suitability of vehicular access and car parking; and
- Waste and servicing arrangements.

A consideration of these matters is provided below.

5.2. Strategic Planning Context

The proposal includes significant investment, facilitating employment generation and associated economic benefits. The development includes a significant built form for the self-storage facility and has been appropriately adapted to respond to the varied interfaces to the Site. The proposal takes advantage of this strategic location within an established and accessible commercial area in proximity of the Swan Street Major Activity Centre, nearby residential developments and major transport routes.

The Site's inclusion within a 'commercial land' area pursuant to the Strategic Framework Plan at Clause 02.04 emphasises the appropriateness of a commercial development on the Site, ultimately maintaining employment land for economic growth of a variety of business types. Accordingly, the proposal aligns with Clause 02.03-6.

In particular, the Site's underlying zone supports commercial uses by the very nature of the control and its purposes including:

> *To encourage commercial areas for offices, appropriate manufacturing and industries, bulky goods retailing, other retail uses, and associated business and commercial services.*
>
> *To ensure that uses do not affect the safety and amenity of adjacent, more sensitive uses.*

The proposal responds to the strategic intent of this commercial precinct with the supporting role the use plays within the area. The facility will provide storage space for surrounding businesses and residential uses, which enables greater efficiency in both commercial and living spaces enabling off-site storage.

The particular location of the facility is appropriate noting that its positioning on an arterial road, and with access to the freeway, its positioning within the Principal Public Transport Network and proximity to nearby businesses and infill developments within activity centres.

Despite the potential views out to the south, the particular zoning of the land does not lend itself to residential development and notably, the particular robust nature of Barkly Avenue and the freeway makes the proposed use an appropriate response to both the strategic context and physical context.

The previous approval for the site included both a food and drink premises and office levels above. Noting the out of centre context, the proposed use is considered an appropriate response to the area.

Notably, the use of the land is relatively innocuous with its main purpose for storage and is not a purpose listed under Clause 53.10 (Uses and activities with potential amenity impacts). The use does not produce any noise or amenity impacts through this activity such as some forms of industry may otherwise do, however, secondary elements including access and vehicle movements need to address the context of the residential area to the north.

The existing high brick party wall interfacing to the north will be retained as part of the proposal, which will provide acoustic benefits towards the dwelling. The proposed hours of operation are generally confined to business hours, with less frequent out-of-hours access available to customers with secure access. This is more so likely to benefit domestic users, with truck movements more likely to occur during business hours.

The proposal is accompanied by an Acoustic Report prepared by *Enfield Acoustics* which provides an analysis of the proposal, surveying the existing environment and noise sources and confirms its acceptability in this context.

As has been established in existing facilities, *StorHub* seeks to include a 'business incubator' as part of the overall use of the site, noting the nexus between storage requirements and office or coworking functions. This is located on the ground level of the building and is open to existing customers of the facility, providing break out space or meeting capabilities. The ancillary component will add to the levels of activation and vitality in its occupation.

The proposal is supported by the Planning Scheme through the retention of employment related uses on commercial land and as is demonstrated through the supporting material, will not result in any unreasonable amenity impacts to the area.

5.3. Built form considerations

The building and site layout has been informed through the various contextual, site specific, interface and policy framework considerations. Specifically:

- Urban design policy including Clause 15.01-1L (Urban design) with specific regard given to the Barkly Avenue and the intervening Barkly Reserve located adjacent to the Site. ESD principles under Clause 15.01-2L-01 (Environmentally sustainable development) also feature as fundamental to the design as confirmed within the Sustainability Management Plan.
- The built from considerations provided at Clause 15.02-2L (Building design) have been thoroughly addressed in the proposal's design. Key interfaces have been appropriately managed through the particular arrangement of built form and massing, noting the proposal's alignment (and in many cases reduction from) the approved building envelope of the previous proposal. This has demonstrated an appropriate composition of form which is acceptable in this context.
- The supporting urban design material including the Urban Context Report provides key analysis of the design response noting how the building has been designed to respond to the existing fine grain context within Adam Street and providing an appropriate transition of built form towards the more robust interface in Barkly Avenue.
- The proposal is striking in its form and provides an up-scale architectural response to this setting, which is unmatched on any other self-storage facility. This form raises the bar of built form expectations for such a use and is befitting of its position in this context. The architectural includes variation in facades and materialisation, with visual interest embedded into the building design. The built form response will ensure a positive contribution to the streetscape of Barkly Avenue and Adam Street.

- With specific regard to the northern boundary residential interface, increasing setbacks at higher floors erode the form and protect adjoining amenity with transitioning of scale as follows:
    - 3.3 metres at ground level to the initial built form comprising the car park and accessway
    - 10.3 metres at first to third floor level
    - 15.7 metres at fourth to sixth floor level
    - Over 22 metres to the upper level.

  These setbacks provide close alignment to the approved massing under the previous approval, and increased setbacks in some aspects, which demonstrates that the proposal maintains an appropriate transition of scale and hence, response to the residential interface.
- Detailed landscape planting will be provided in particular zones including the Level 1 and Level 4 roof spaces, which further soften the edges of the building in concert with the setbacks. Landscaping has also been provided around the Adam Street frontage as the built form transitions to the residential precinct. The response will improve the amenity of the Site and provide a meaningful contribution to Council's broader urban forest objectives as outlined at Clause 02.03-2 and Clause 15.02-2L, whilst noting that the context of Barkly Avenue does not illicit this particular response.
- The design objectives of DDO2 and DDO5 have been informed the built form design. The proposal's high quality contemporary architectural design combined with passive surveillance opportunities through the windowed ground floor office component and ancillary business incubator assists in establishing a high level of community safety and comfort.
- The built form proposes maximum building height of 28.5m which remains below the maximum height of the previously approved development over the Site and is appropriate for the local context. With particular regard to the northern interface, the building setbacks proposed maintain residential amenity while ensuring ground level activation along Adam Street and Barkly Avenue. The development achieves the applicable strategies provided at Clause 15.01-2L.
- The proposed signs are refined in their form, will sit appropriately within the silhouette of the building and predominantly directed towards the roadway.

Accordingly, the proposed built form presents as a modern, high quality facility which respects and manages adjoining amenity.

5.4. Response to SLO9 & Clause 12.03-1R

Clause 42.03 (SLO9) relates to the Yarra (Birrarung) River Corridor Environs. The following objectives contained within SLO9 are relevant to the proposed development:

To retain vegetation that contributes to landscape character, heritage values or neighbourhood character.

To maintain and protect linear public open space and provide for secluded areas of public open space with access to the river where appropriate.

To ensure fencing within close proximity to the Yarra River is low in scale, visually permeable and does not contrast with the natural landscape character.

The proposal does not conflict with any of the above objectives. The Site's location on the northern side of the CityLink and Barkly Avenue results in over 100 metres separation between the Site and the banks of the Yarra River with the two arterial roads in between. As such, no vegetation that contributes to the landscape character is affected.

Sites within the Commercial 2 Zone do not present with an identified landscape character and which is congruent with the robust nature of Barkly Avenue. It is imperative to appreciate the physical context of the site in relation to the river, noting the sunken freeway carriageway and the extent of vegetation along both Barkly Avenue and CityLink. Through the dense bush like setting adjacent to the River, there are only relatively limited locations where the built form can be seen through a clearing, noting it is otherwise obscured by vegetation and distance.

Clause 12.03-1R (Birrarung (Yarra River) seeks *To enhance the natural beauty, biodiversity, environmental health, cultural values, and recreational opportunities of the Birrarung (Yarra River) Corridor*. The policy sets out various considerations for development adjacent to the river including direct interface, many of which are not relevant for the purposes of this assessment. However, the policy includes a *Key Views strategy* which seeks to *Protect and maintain key views from and to the Birrarung (Yarra River) Corridor and its landscape setting at the key viewing locations specified* within.

The relevant positions within proximity to the Site are located within Map 1 under the policy and include locations

- *17 – Yarra River Reserve, South Yarra*
- *20 – Loys Paddock Reserve, Burnley*
- *21 – Yarra River frontage, Alexander Avenue*
- *22 – Macrobertson Bridge, St George's Road*

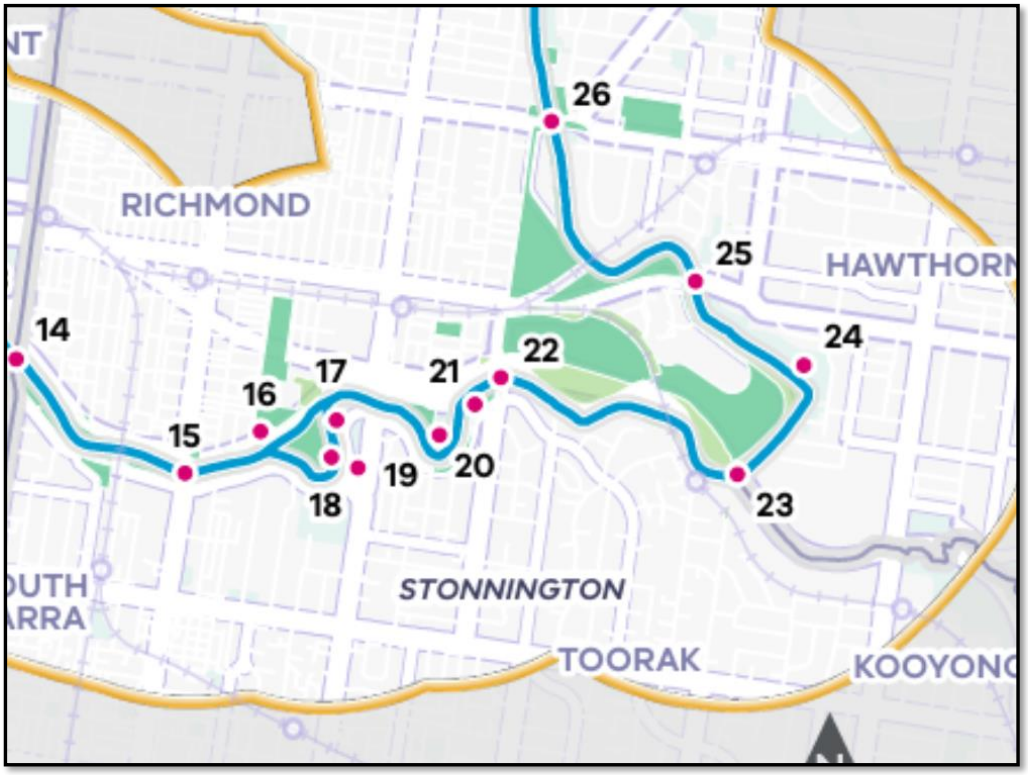

Figure 7 – Yarra River key view locations **Source: Clause 12.03-1R**

A Visual Impact Assessment has been prepared by *Gray Puksand* and forms part of the application material, which is based on these key locations and with additional views from the Freeway and Burnley Station for a greater appreciation of the form in the round.

The assessment includes both before and after imagery which confirms that the built form is either obscured by existing buildings, vegetation or levels, or where visible, only in part and confirming not obtrusive on those key positions. What must be acknowledged is the sheer distance of the Site from the River corridor and as set out within this submission and accompanying material, the proposal would have no material impact on the River by way of visibility, shadow (even at the Winter Solstice) or with regard to vegetation.

5.5. Car Parking and Access

The proposal is accompanied by a Traffic Impact Assessment prepared by *OneMileGrid Pty Ltd,* which includes a car parking demand assessment and consideration of the proposed parking provisions. Notably, a permit is not triggered under the provisions of Clause 52.06 given that the proposed dedicated parking provision of approximately 149 square metres including the accessway meets the minimum and does not exceed the maximum car parking requirement for a Store.

In addition to the car parking spaces, internal loading areas within the undercroft section have also been set aside for the use.

The particular nature of the use would include relatively infrequent vehicle trips to the Site and with larger vehicles typically loading during business hours. On-site loading has been provided to cater for up to an 8.8 metre long medium rigid vehicle to accommodate deliveries to and from the site.

A more detailed consideration of onsite car parking provisions including the design requirements under Clause 52.06-9 are found within the assessment.

Provision has been made for twelve bicycle spaces adjacent to the entrance including both staff and visitors. A particular rate has not been specified under Clause 52.34 in any event, however, the provision provides for alternative access, particularly for staff or potential users of the business incubator.

Alteration of current Site access is proposed on Barkly Avenue with a new location in the south-east corner. The accessway provides for ingress movements primarily and allowing circulation of access around to the north and out on Adam Street. This would be ideal for the larger vehicle movements, and note that egress can also occur via Barkly Avenue in a forwards direction, which is likely to be more suitable for the domestic access requirements including passenger vehicles.

As a result of these considerations, onsite car parking provision together with the design of the car parking and accessway are considered to be appropriate.

5.6. Waste Management and Servicing

A Waste Management Plan prepared by *OneMileGrid Pty Ltd* accompanies the application and identifies that the anticipated waste generation will be met with the proposed designated waste storage at ground level of the development is of a sufficient size and dimension to accommodate the required waste receptacles.

Waste from the development will be collected by a private contractor from the internal accessway at ground floor level, which is out of view from the public realm. The accompanying swept path analysis demonstrates that the waste collection vehicle can enter and exit the site in a forward direction.

6. Conclusion

As outlined in this submission, the proposed use and development of the land for a self-storage facility (store) at 173-177 Barkly Avenue, Burnley is consistent with relevant polices of the Planning Scheme.

The use will provide a beneficial supporting role to local business requirements and responds to the associated demand from increased urban densification policy with residential development occurring within and around the various activity centres of this inner-urban location. The proposal will also generate strong employment opportunities in both a direct and indirect manner and supports the general purpose of the Commercial 2 Zone as it applies to the land. The proposal meets the thresholds for State facilitation under Clause 53.22 and will provide significant development by way of its designation under the provision.

The proposed built form and massing generally aligns to the building envelope as approved by Planning Permit PLN20/0868 and sits below the overall height of the previous form. The transitionary arrangement of massing has been established through that process and the proposal's alignment to this demonstrates an appropriate response to the northern interface.

Great care has been exercised in the massing and response to the fabric of built form in Adam Street, with complementary volumes arranged across the façade as the building graduates.

The proposal represents a high quality architectural building, which raises the bar for other self-storage facilities, and is befitting of its particular location in Burnley.

The proposed building positively responds to its interfaces, will not result in any measurable impact to adjoining properties or the Yarra River context and will contribute to the urban fabric through a contemporary form.

On this basis, the proposal as a whole comprises an appropriate use and development of the land and appropriately responds to the relevant Planning Scheme requirements. The proposal will provide for economic benefits through employment opportunities and investment, and is worthy of support.

Appendix A

Copy of Title

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REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

VOLUME 11229 FOLIO 753 Security no : 124132665475A
Produced 04/03/2026 10:18 AM

LAND DESCRIPTION

Lot 1 on Plan of Subdivision 613840L.
PARENT TITLES :
Volume 11032 Folio 281 to Volume 11032 Folio 282
Created by instrument PS613840L 06/10/2010

REGISTERED PROPRIETOR

Estate Fee Simple
Sole Proprietor
THE TRUST COMPANY (AUSTRALIA) LTD of LEVEL 18 123 PITT STREET SYDNEY NSW 2000
AY705200H 13/12/2024

ENCUMBRANCES, CAVEATS AND NOTICES

MORTGAGE AY705201F 13/12/2024
GLOBAL LOAN AGENCY SERVICES AUSTRALIA NOMINEES PTY LTD

Any encumbrances created by Section 98 Transfer of Land Act 1958 or Section 24 Subdivision Act 1988 and any other encumbrances shown or entered on the plan set out under DIAGRAM LOCATION below.

DIAGRAM LOCATION

SEE PS613840L FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

----------END OF REGISTER SEARCH STATEMENT----------

Additional information: (not part of the Register Search Statement)

Street Address: 173-177 BARKLY AVENUE BURNLEY VIC 3121

ADMINISTRATIVE NOTICES

NIL

eCT Control 17700Y NORTON ROSE FULBRIGHT AUSTRALIA
Effective from 13/12/2024

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PLAN OF SUBDIVISION

STAGE NO. --------

LR use only. **EDITION 1**

PS613840L

Location of Land

Parish: JIKA JIKA
CITY OF RICHMOND
Township: --------
Section: 35
Crown Allotment: 22 & 23
Crown Portion: ---------
Title Reference: Vol.11032 Fol.281
Vol.11032 Fol.282

Last Plan Reference: TP377497V

Postal Address: 182 - 184 STAWELL STREET
BURNLEY 3121

MGA Co-ordinates (of approx centre of plan) E 324 720 N 5 811 160 Zone: 55

Vesting of Roads and/ or Reserve

Identifier	Council / Body / Person
Nil	Nil

Council Certificate and Endorsement

Council Name: Yarra City Council Ref. SC07/0094

~~1. This plan is certified under section 6 of the Subdivision Act 1988.~~

2. This plan is certified under section 11(7) of the Subdivision Act 1988.
Date of original certification under section 6 18 / 3 /08

3. This is a statement of compliance issued under section 21 of the Subdivision Act 1988.

OPEN SPACE

(i) A requirement for public open space under section 18 of the Subdivision Act 1988 ~~has~~/has not been made.

~~(ii) The requirement has been satisfied.~~

~~(iii) The requirement is to be satisfied in Stage~~ .....

~~Council delegate~~
~~Council seal~~

~~Date / /~~

Re-certified under section 11(7) of the Subdivision Act 1988
Council Delegate MU
~~Council Seal~~
Date 13 / 8 /08

Notations

Staging This is not a staged subdivision.
Planning Permit No.

Depth Limitation Nil

Amendments:
V1 24/08/07 Initial Drawing - MFV
V2 02/07/08 Lot boundary amended & easement E-1 added - YSL

Area of Site: 5255m²
No. of Lots: 2

Survey This plan is based on survey.

Easement Information

Legend: A - Appurtenant Easement E - Encumbering Easement R - Encumbering Easement (Road)

Easements and rights pursuant to Section 12(2) of the Subdivision Act 1988 apply to all the land in this plan.

Easement Reference	Purpose	Width (Metres)	Origin	Land Benefited/In Favour Of
E-1	Support* (refer to definition below)	0.48	This Plan	Lot 2 on this Plan

Support* is defined as the support which is supplied by the existing brick wall within lot 1 to the abutting roof structure, wall and services within lot 2 on this plan.

LR use only
Statement of Compliance/ Exemption Statement
Received ✓
Date 30 / 9 / 2010

LR use only
PLAN REGISTERED
TIME 7:17 am
DATE 6 / 10 / 2010
R. W. Grimwood
Assistant Registrar of Titles

SHEET 1 OF 2 SHEETS

TAYLORS DEVELOPMENT STRATEGISTS
PTY LTD. A.B.N. 51 075 022 114
Land Surveying Town Planning Development Strategy Project Coordination Urban Design GIS
BUILDING B, 270 FERNTREE GULLY ROAD, NOTTING HILL 3168 Tel.9501 2800 Fax.9501 2844
Email: tds@taylorsds.com.au Web Site: www.taylorsds.com.au

LICENSED SURVEYOR : NEIL OLIVER
Signature ..... Date 2 / 7 / 08
REF. 1447-2L VERSION 2 2/07/08 YSL

MU
Date 13 / 8 /08
Council Delegate Signature

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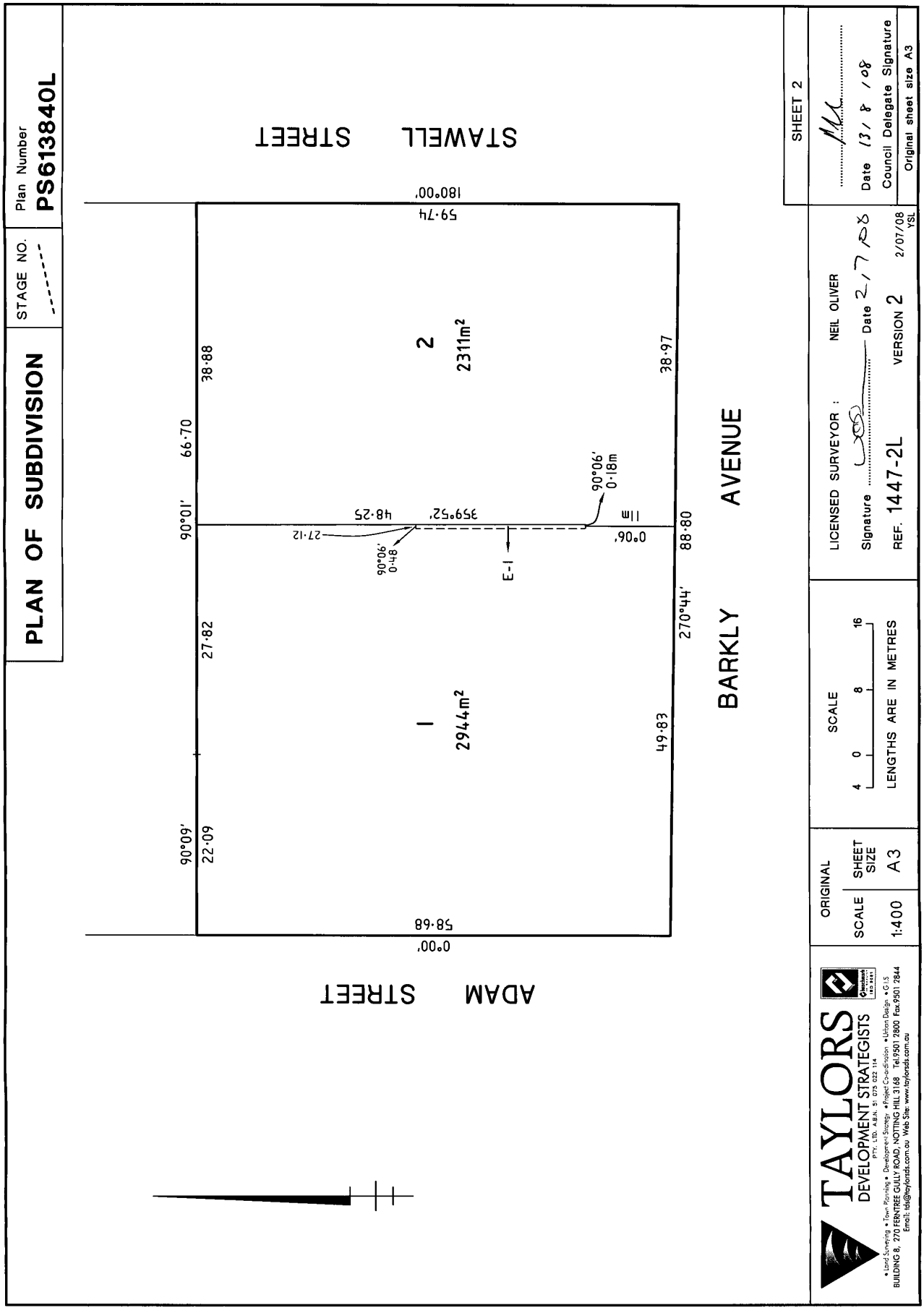

SELF STORAGE – THE BUSINESS INCUBATOR

Self storage is an evolving industry. Most people think of self storage as a safe place to store household items, perhaps in the midst of a move.
But we need to think outside the box, the cardboard box, to really appreciate and understand how the self storage industry has its own critical role within the local economy. They have become business incubators.
For new businesses and startups, self storage sites offer flexible options to store goods and materials. And the customer base reflects this. Self storage customers are made up of 28% business customers. On a 700 unit site, that is up to 180 business ventures. From micro businesses, to SME's, a suitably-located storage facility supports their growth and activity.
Storage facilities have embraced this customer base, and have developed over the years to become one-stop-shops for new business ventures to operate from. They are a low-cost option for start-ups offering flexibility, low overheads, monthly lease terms and the ability to acquire more space quickly, or downsize as required.
Self storage facilities have also evolved from long rows of metal sheds, to innovative spaces that support all aspects of businesses. For example, modern and innovative customer reception areas (with the ability to receive deliveries), meeting rooms, kitchen and break out areas, office suites, distribution equipment, loading areas and specialty storage (such as temperature controlled storage). This allows the user to operate from a single facility.
You can read more about how self storage facilities have become important business incubators in this article: https://thestartupmag.com/the-entrepreneurs-running-start-ups-from-storage-facilities/

Image - StorHub Rouse Hill

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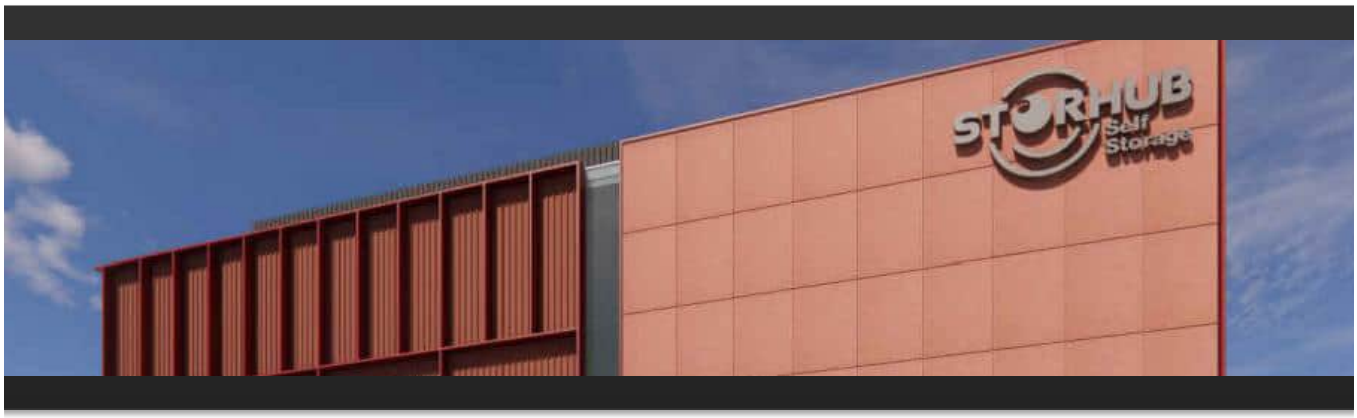
173-177 Barkly Avenue, Burnley

Transport Impact Assessment



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25 March 2026

onemilegrid

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Prepared by	HS	**Reviewed by**	JD

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APPENDIX A SWEPT PATH DIAGRAMS

1 INTRODUCTION

onemile**grid** has been requested by Storhub to undertake a Transport Impact Assessment of the proposed self-storage facility at 173-177 Barkly Avenue, Burnley.

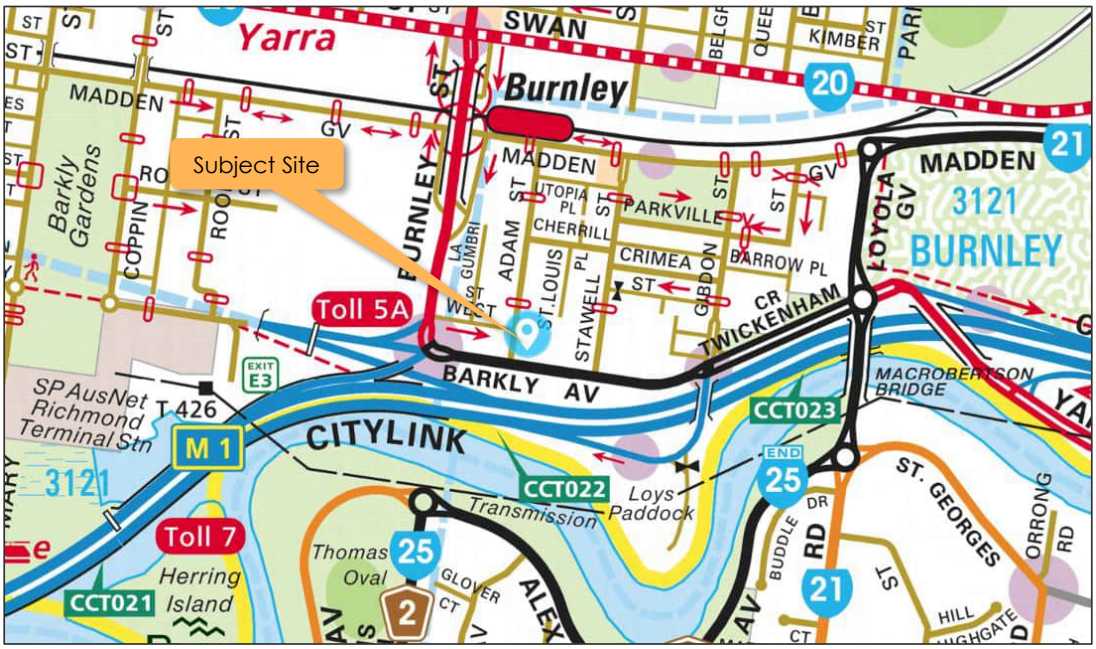
As part of this assessment the subject site has been inspected with due consideration of the development proposal, parking data has been sourced, and relevant background information has been reviewed.

2 EXISTING CONDITIONS

2.1 Site Location

The subject site is addressed as 173-177 Barkly Avenue, Burnley, and is located on the northeast corner of the Barkly Avenue / Adam Street intersection, as shown in Figure 1.

Figure 1 Site Location



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The site is currently occupied by Rogerseller (bathroom supply store) with vehicle access provided via a single-width crossover to the Barkly Avenue frontage and a single-width crossover to the Adam Street frontage.

Land use in the immediate vicinity of the site is primarily residential and commercial in nature, comprising of residential dwellings to the north, west and east as well as commercial office buildings to the east and west.

The subject site has a site area of approximately 2,935 m².

An aerial view of the subject site is provided in Figure 2.

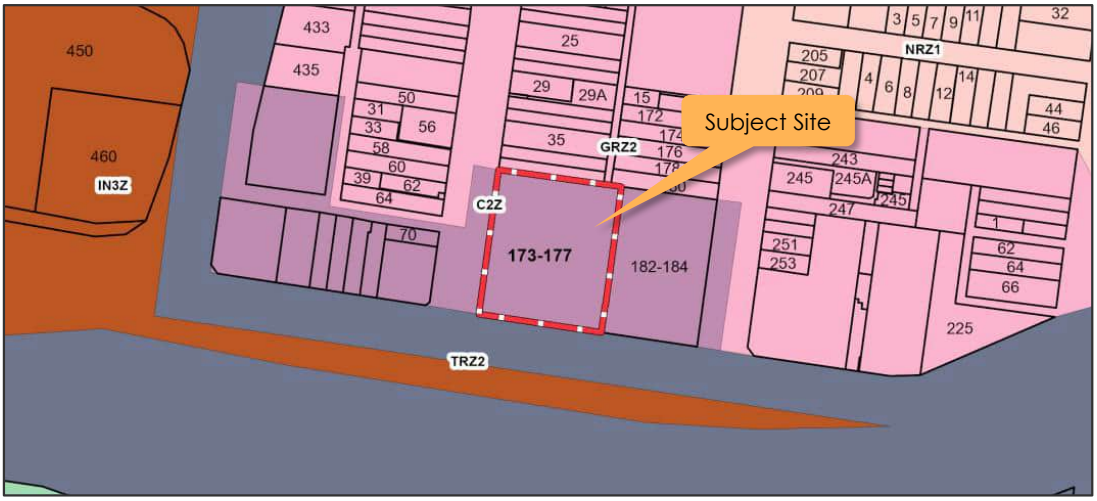
Figure 2 Site Context (Wednesday 9th October 2024)

Copyright Nearmap

2.2 Planning Zones and Overlays

It is shown in Figure 3 that the site is located within a Commercial 2 Zone (C2Z).

Figure 3 Planning Scheme Zones



Additionally, the site abuts Barkly Avenue, which is within a Transport Zone (TRZ2), designating the Principal Road Network.

2.3 Road Network

2.3.1 Barkly Avenue

Barkly Avenue is an arterial road generally aligned east-west, running between Burnley Street in the west, and Gibdon Street in the east. Barkly Avenue provides two traffic lanes in each direction adjacent to the site. Kerbside parking is provided on the northern side of the road which is subjected to 'No Stopping' restrictions between 4:30pm – 9:00am, Monday to Friday.

A 60 km/h speed limit applies to Barkly Avenue in the vicinity of the site.

2.3.2 Adam Street

Adam Street is a local road generally aligned north-south, running between Barkly Avenue in the south, and Madden Grove in the north. Adam Street provides a single traffic lane in each direction adjacent to the site. Kerbside parking is provided on both sides of the road with parking on the eastern side of the road restricted to 4-hour parking between 7:00am – 7:00pm, Monday to Saturday.

On the western side of Adam Street, kerbside parking is restricted to;

- Loading Zone, Monday to Friday; and
- 2-hour parking between 7:00am – 7:00pm, Monday to Saturday.

A 40 km/h speed limit applies to Adam Street in the vicinity of the site.

2.4 Public Transport

The public transport provision in the vicinity of the site is shown in Figure 4 and detailed in Table 1.

Figure 4 Public Transport Provision

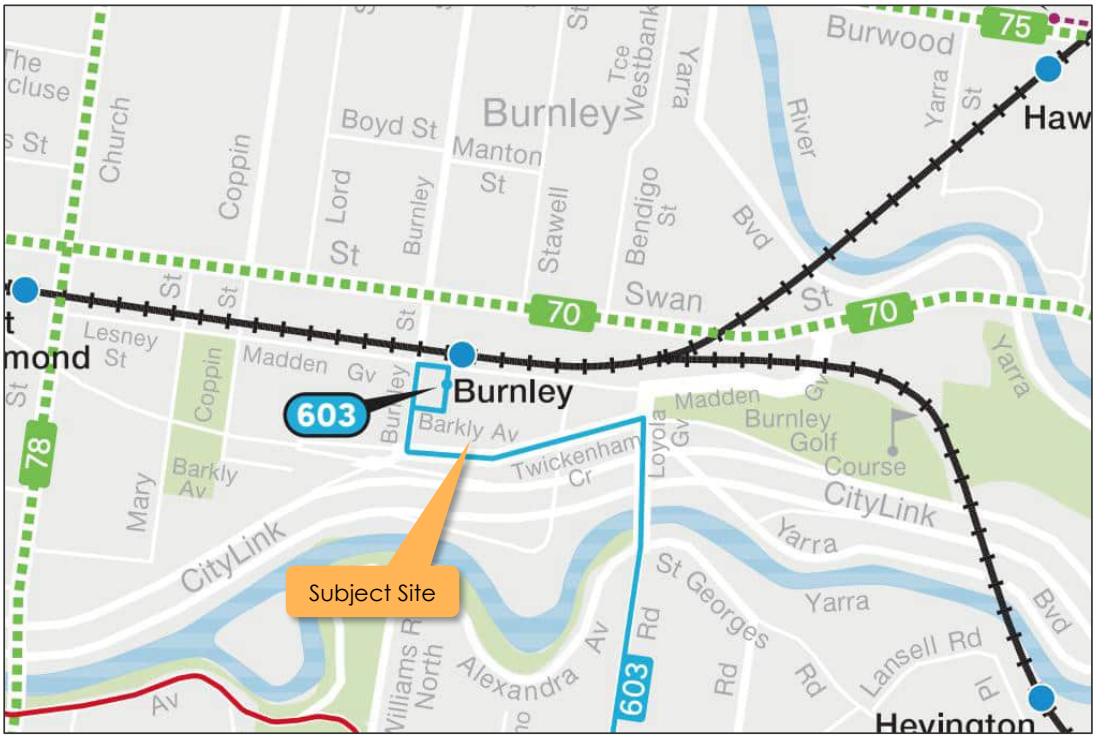


Table 1 Public Transport Provision

Mode	Route No.	Route Description	Nearest Stop/Station
Train		Alamein Line	Burnley Station
		Belgrave Line	
		Frankston Line	
		Glen Waverley Line	
		Lilydale Line	
Bus	603	Brighton Beach - Alfred Hospital via Elsternwick Station	
Tram	70	70 Waterfront City Docklands - Wattle Park	Swan Street

The site has good public transport accessibility, with multiple transport routes servicing the vicinity of the site.

The site is located within the Principal Public Transport Network (PPTN) area.

3 PLANNING HISTORY

The subject site has an existing planning approval (Council Ref: PLN20/0868) for development of the site for a multi-storey building including primarily office uses (12,139 m²), with ground floor food and beverage (112 m²) and restricted retail (746 m²) tenancies.

Based on the plans prepared by Gray Puksand dated 23/3/2023, the proposal included 209 car parking spaces, and 21 motorcycle/scooter spaces across three basement levels, accessed from a two-way crossover to Adam Street at the north-western corner of the site.

A bicycle parking facility accommodating 160 bicycle spaces and end-of-trip facilities was proposed on the ground floor.

A dedicated loading area was to be provided access from Barkly Avenue at the south-eastern corner of the site, which included a loading bay and courier parking spaces, ostensibly to cater for all loading, waste collection and deliveries associated with the use.

Based on typical car parking turnover for office uses, we could expect this approved development to generate in excess of 100 peak-hour vehicle movements to the surrounding road network.

4 DEVELOPMENT PROPOSAL

4.1 General

It is proposed to develop the subject site for the purposes of a self-storage facility, as shown in Table 2 and illustrated in Figure 5 below.

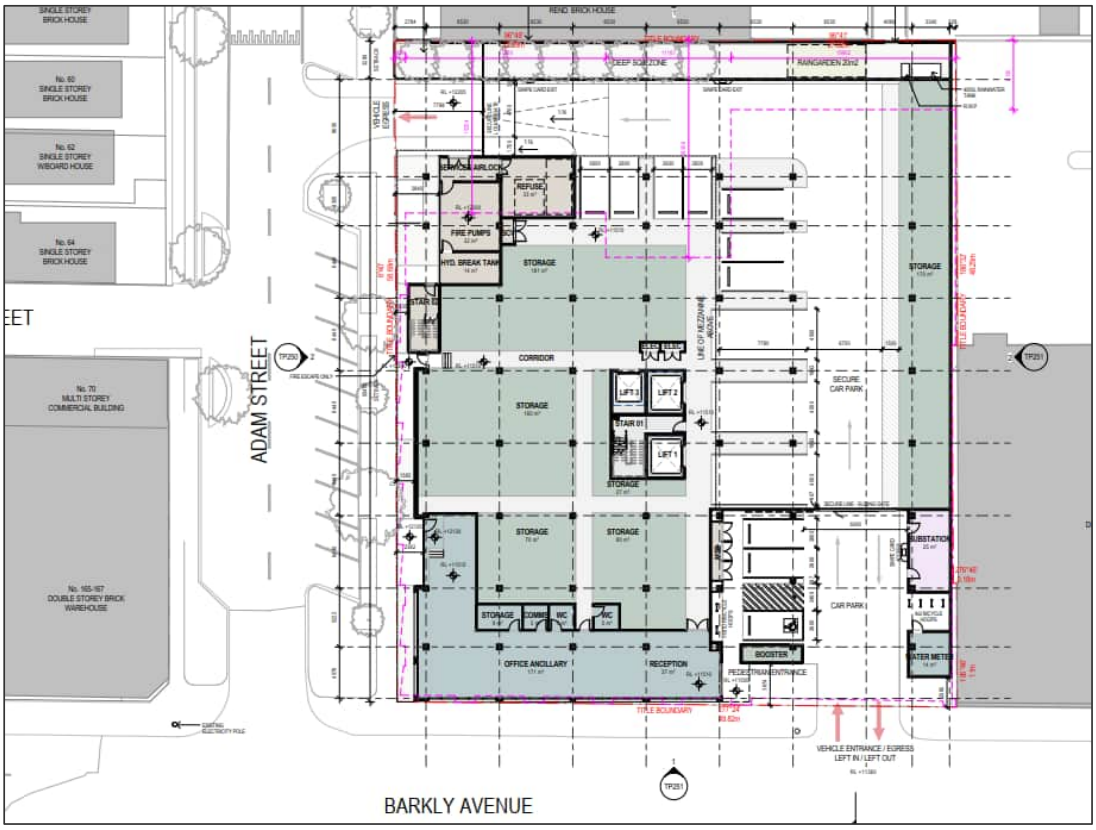
Table 2 Proposed Development Summary

Component	GFA	NLA	No.
Self-Storage Area	15,089 m²	11,357 m²	
Loading Bays			10
Car Parking Bays			3

The self-storage facility, which will be operated by Storhub, will be staffed during business hours only, with the proposed business hours of the self-storage facility as follows:

- Self-Storage facilities
  - 24-hour/7 day a week access for customers, including public holidays
  - Office hours for non-customers/members
- Self-Storage Office
  - 8:30am to 5:30pm (Monday to Saturday)

Figure 5 Proposed Development Layout – Ground Floor



4.2 Bicycle Parking and End-of-Trip Facilities

A total of 12 horizontal bicycle spaces is proposed to be provided on the ground floor adjacent to the pedestrian entrance to Barkly Avenue internal to the subject site.

Primary access will be provided via the pedestrian access point and vehicle access.

4.3 Car Parking and Vehicular Access

Vehicular access to the site is proposed to be provided via a two-way crossover to Barkly Avenue at the site's southeast boundary facilitating left-in/left-out movements only. This access will link to a staff and customer parking area accommodating three car parking spaces (including one accessible space) that will remain accessible at all times with no access control.

A security gate will then control access into the loading area that operates in a one-way direction and will accommodate 10 loading and parking bays suitable to cater for cars, and trucks or car/trailer combinations. All drivers exiting the loading area will proceed to exit at the northwest corner of the site via single-width crossover to Adam Street. The proposed security gate is setback from the Barkly Street title boundary by approximately 17 m which can comfortably accommodate for the entire length of car and trailer combinations and 8.8 m medium rigid vehicles (MRV).

To facilitate the construction of the two-way crossover to Barkly Avenue, the existing electricity pole along the frontage will be relocated.

4.4 Access Control

Access controls in the form of security gates are proposed at the entry and exit to the internal car park and loading areas. Storage members and staff will be provided a Radio Frequency Identification (RFID) tag which will need to be scanned when propped within the waiting area while entering or exiting the site.

5 DESIGN ASSESSMENT

5.1 Yarra Planning Scheme – Clause 52.06

onemile**grid** has undertaken an assessment of the car parking layout and access for the proposed development with due consideration of the Design Standards detailed within Clause 52.06-9 of the Planning Scheme. A review of those relevant Design Standards is provided in the following sections.

5.1.1 Design Standard 1: Accessways

A summary of the assessment for Design Standard 1 is provided in Table 3.

Table 3 Clause 52.06-9 Design Assessment – Design Standard 1

Requirement	*Comments*
Be at least 3 metres wide.	Satisfied – Minimum width of accessway is 6 m at the security gate (two-way) and 3.5m at the loading egress (one-way)
Have an internal radius of at least 4 metres at changes of direction or intersection or be at least 4.2 metres wide.	Satisfied – Changes of direction are between accessways of more than 4.2 m wide
Allow vehicles parked in the last space of a dead-end accessway in public car parks to exit in a forward direction with one manoeuvre.	Satisfied – Drivers parked within the last car space may exit forward in one manoeuvre. Swept paths are attached in Appendix A.
Provide at least 2.1 metres headroom beneath overhead obstructions, calculated for a vehicle with a wheel base of 2.8 metres.	Satisfied – A minimum height clearance of 6.2 metres is achieved.
If the accessway serves four or more car spaces or connects to a road in a Transport Zone 2 or Transport Zone 3, the accessway must be designed so that cars can exit the site in a forward direction.	Satisfied – Swept paths indicate that vehicles can exit the site in a forward direction.
Provide a passing area at the entrance at least 6.1 metres wide and 7 metres long if the accessway serves ten or more car parking spaces and is either more than 50 metres long or connects to a road in a Transport Zone 2 or Transport Zone 3.	Satisfied – Suitable passing area provided at the Barkly Street access point, sufficient to allow concurrent access with an 8.8 m medium rigid vehicle (MRV) and 99.8th percentile passenger vehicle (B99)
Have a corner splay or area at least 50 per cent clear of visual obstructions extending at least 2 metres along the frontage road from the edge of an exit lane and 2.5 metres along the exit lane from the frontage, to provide a clear view of pedestrians on the footpath of the frontage road. The area clear of visual obstructions may include an adjacent entry or exit lane where more than one lane is provided, or adjacent landscaped areas, provided the landscaping in those areas is less than 900 mm in height.	Satisfied – Sight distance triangles at the Adam Street and Barkly Avenue access are provided fully in accordance with Planning Scheme requirements.
If an accessway to four or more car parking spaces is from land in a Transport Zone 2 or Transport Zone 3, the access to the car spaces must be at least 6 metres from the road carriageway.	Satisfied – Car parking spaces located more than 6 metres from road carriageway.

5.1.2 Design Standard 2: Car Parking Spaces

All car spaces on-site are proposed with a minimum width of 2.6 metres, length of 5.4 metres and are accessed from aisles of no less than 6.9 metres. Spaces adjacent to walls have been suitably widened in accordance with Design Standard 2 of the Planning Scheme.

The accessible bay is provided with a length of 5.4 metres and a width of 2.4 metres, and an adjacent shared area of the same dimensions, in accordance with the Australian Standard for Parking facilities, Part 6: Off-street parking for people with disabilities (AS 2890.6:2022). Furthermore, a height clearance of no less than 2.5 metres is provided above the centre of the accessible bay and adjacent shared area, in accordance with the Australian Standard.

5.1.3 Design Standard 3: Gradients

A summary of the assessment for Design standard 3 is provided in Table 4.

Table 4 Clause 52.06-9 Design Assessment – Design Standard 3

Requirement	*Comments*
Accessway grades must not be steeper than 1:10 (10 per cent) within 5 metres of the frontage to ensure safety for pedestrians and vehicles. The design must have regard to the wheelbase of the vehicle being designed for; pedestrian and vehicular traffic volumes; the nature of the car park; and the slope and configuration of the vehicle crossover at the site frontage. This does not apply to accessways serving three dwellings or less.	N/A – No grade proposed at the access point.
Ramps (except within 5 metres of the frontage) must have the maximum grades as outlined in Table 3 (of Design standard 3) and be designed for vehicles travelling in a forward direction.	Satisfied – A maximum grade of 1:16 is proposed.
Where the difference in grade between two sections of ramp or floor is greater that 1:8 (12.5 per cent) for a summit grade change, or greater than 1:6.7 (15 per cent) for a sag grade change, the ramp must include a transition section of at least 2 metres to prevent vehicles scraping or bottoming.	N/A – No transition grades are proposed or required.

5.2 Loading and Garbage

The Australian Standard for Parking facilities, Part 2: Off-street commercial vehicle facilities (AS 2890.2:2018) outlines that regular service with delivery/loading vehicles from a major road (such as Barkly Avenue) must be forwards-in, forwards-out to the street, and preferably provide separate entry and exit access lanes at the driveway. As such, the proposed access arrangements are considered acceptable with a separate entry and exit point for loading vehicles with outbound movements undertaken in a forward direction.

6 LOADING

Clause 65 (Decision Guidelines) of the Yarra Planning Scheme identifies that "*Before deciding on an application or approval of a plan, the responsible authority must consider, as appropriate: The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts.*"

It is proposed to provide internal loading in the form of three larger loading bays and seven standard vehicle spaces.

Each of the three larger loading bays are provided with a minimum width of 4.5 metres, length of 8.5 metres and a height clearance of no less than 4.5 metres which can accommodate for vehicles up to an 8.8 m medium rigid vehicle (MRV).

The loading zone is provided a minimum width of 3.4 metres, length of 11 metres and a height clearance of no less than 4.5 metres which can accommodate for longer vehicles such as car/trailer combinations.

The remaining seven car parking spaces are provided with a minimum width of 2.6 metres and length of 5.4 metres suitable for accommodating loading activities by standard passenger vehicles and smaller vans.

Customers will utilise the loading and parking bays to load/unload into the internal storage units via the lifts provided on the ground floor.

The provision for loading is therefore considered appropriate for the proposed use.

7 BICYCLE PARKING

The bicycle parking requirements for the subject site are identified in Clause 52.34 of the Yarra Planning Scheme. The Planning Scheme does not specifically refer to parking requirements for self-storage uses, therefore, no bicycle parking is required.

Notwithstanding, 12 bicycle parking spaces in the form of horizontal hoops are to be provided for staff and visitor use.

8 CAR PARKING

8.1 Statutory Car Parking Requirements

The car parking requirements for the subject site are identified in Clause 52.06 of the Yarra Planning Scheme, which provides different requirements depending on the public transport accessibility of the site. This can be determined from the land category, which is identified in the Car Parking Requirement Maps published by the Department of Transport and Planning.

Where a site is situated within multiple land categories, the car parking requirements for the higher category apply to all of the land. In this regard, the subject site is situated within Category 3, as shown in Figure 6.

Figure 6 Car Parking Requirement Map

It is noted that for sites within Category 3, both **minimum** and **maximum** car parking rates apply.

The land use 'self-storage' is not specifically defined within Clause 52.06 of the Yarra Planning Scheme, however, it is considered that the use most appropriately falls within the 'store' land use, which is defined in Clause 73.03 as "land used to store goods, machinery, or vehicles". It is noted that the parking rate for a 'store' land use is based on site area, and as indicated in Section 2.1, the subject site has an area of 2,935 m².

Noting the above, the car parking requirements are specified in Table 5 below.

Table 5 Current Clause 52.06 – Car Parking Requirements – Category 3

Use	Area	Min Rate	Max Rate	Car Parking Measure	Total
Store	2,935 m²	5	10	per cent of site area	146 m² - 294 m²
Total					

Based on the current Clause 52.06 car parking rates, a minimum area of 146 m² and maximum area of 294 m² is required to be allowed to car parking for the proposed development.

The proposed provides approximately 149 m² of dedicated car parking (three spaces, including shared space and accessways to parking spaces) within the front portion of the site to Barkly Avenue and thus exceeds the minimum car parking requirement.

As such, the proposed car parking provision for the development satisfies the minimum car parking requirement and is considered acceptable.

Irrespective of the above, a car parking demand assessment has been undertaken in the following section, to confirm the site has sufficient car parking to meet the likely demand.

8.2 Car Parking Demand Assessment

In determining the likely car parking demands generated by the use, reference is made to a Parking and Traffic Study commissioned by the Self-Storage Association of Australia (SSAA) and undertaken by Stantec in 2022/2023.

The study presented the findings of numerous car parking and interview surveys undertaken at 61 self-storage facilities across Australia, including 17 sites in Victoria, all of which were located within metropolitan Melbourne.

The study ultimately made recommendations on appropriate levels of parking to be provided on-site for self-storage facilities containing both storage and office areas.

For facilities in excess of 6,000 m² of leasable area (such as the development proposal), the study suggests provision of 7 spaces for parking of customer and loading vehicles, with 99%ile estimated demands for 11 spaces.

The proposal will provide three car parking spaces, supplemented by 10 additional loading bays/car parking spaces for a total provision of 13 parking spaces.

With an anticipated peak demand of 11 parking spaces, the provision of on-site parking is therefore appropriate, and we do not anticipate any reliance on off-site car parking to support the use.

8.3 Accessible Car Parking

The National Construction Code specifies the minimum requirements for provision of accessible car parking.

The proposed self-storage development, classified as a Class 7 building, requires provision of one accessible car space for every 100 car parking spaces or part thereof.

Noting the proposed provision of 3 car spaces on-site, the National Construction Code (NCC) requires at least one accessible car space on-site.

The proposed provision of one space thus satisfies the NCC requirements.

9 TRAFFIC

9.1 Traffic Generation

9.1.1 SSAA Study

In addition to the recommended parking provisions for a self-storage facility, the latest SSAA study referenced above provides further recommendations on peak and daily trip generation rates, as summarised in Table 6 below.

Table 6 Recommended Trip Generation Rates (SSAA)

Facility	Weekday		Weekend	
	Peak	Daily	Peak	Daily
0 – 3,000 m²	6.6 trips	63 trips	5.5 trips	47.2 trips
3,000 – 6,000 m²	8.9 trips	95.9 trips	8.7 trips	82.5 trips
6,000 m² +	11.4 trips	108.6 trips	10.2 trips	85.6 trips

Given the proposed 15,089 m² gross floor area, the self-storage facility can be expected to generation approximately 109 daily trips on a weekday inclusive of 12 trips during peak hour periods.

On the weekend, the site is expected to generate 86 daily trips including 11 trips during peak hour periods.

9.1.2 Case Study

While the data presented in the SSAA study is expected to be representative of traffic generating characteristics of the proposal, **one**mile**grid** has undertaken case-study of a comparable facility to validate these assumptions.

onemile**grid** undertook a survey of the Kennards Self Storage facility at 202 Langridge Street, Abbotsford. This location was specifically chosen due to its relatively close proximity to the subject site and general similarities regarding the product offering.

The site is provided with a one storey and four storey section, and therefore the floor area was estimated to be 6,000 m². The case study site is provided with a single vehicular access point to the one-way road Henry Street, which facilitates both entry and exit movements. The site is provided with a total of eight car parking spaces including a visitor space outside of the secure area.

The survey data indicated that the site generated a maximum of 11 traffic movements per hour which occurred during the middle of the day. This equates to a peak traffic generation of 0.18 traffic movements per 100 m² floor area.

It should also be noted the peak traffic movements generated by the case study site did not coincide with the typical commuter peaks. Of note, during the weekday AM peak on the external road network, the site generated a maximum of 8 vehicle movements per hour, from 8:00 am to 9:00am. Similarly, during the PM peak, the site generated a maximum of 9 vehicle movements, from 3:30 pm to 4:30 pm. This equates to generation rates of 0.13 and 0.15 traffic movements per 100 m² floor area during the respective AM and PM commuter peak periods.

Applying these rates to the gross floor area of 15,509 m² proposed on-site, we could expect a generation of in the order of 20 movements in the AM peak, and 23 movements in the PM peak.

In relation to heavy vehicle traffic, a total of 4 movements during the survey periods were attributed to heavy vehicles, i.e anything larger than a small van. This included the waste collection vehicle arriving and departing the site, and therefore only one customer was recorded accessing the site via a heavy vehicle during the survey periods.

9.2 Traffic Impact

Reviewing the SSAA recommended trip generation rates and case study data above, we could expect generation of between 11 and 20 vehicle movements in the AM peak period, and between 11 and 23 vehicle movements in the PM peak period.

It is noted that this traffic will be spread between arrivals and departures on Barkly Avenue, and departures on Adam Street.

This equates to one vehicle entering or exiting the site every 3-5 minutes, which is considered low in traffic engineering terms and is not expected to have any material impact to queues, congestion or delays on Adam Street or Barkly Avenue.

The bulk of traffic generated by the development is also not expected to coincide with peak periods on the surrounding road network; instead, most traffic is likely to occur between 10:00 am and 1:00 pm on weekdays, when traffic volumes on the external road network will be lower.

We note that the existing planning permit that applies to the site allowed for an office development, comprising approximately 13,000 m² of leasable floor area, with a supply of 209 basement car parking spaced accessed from Adam Street, and a loading, waste collection and courier space accessed from Barkly Avenue.

Based on typical estimates of car space turnover associated with office uses, we would expect the generation of approximately 105 traffic movements to and from the site in peak periods. As such, traffic conditions associated with this self storage proposal will be considerably improved relative to the current approval.

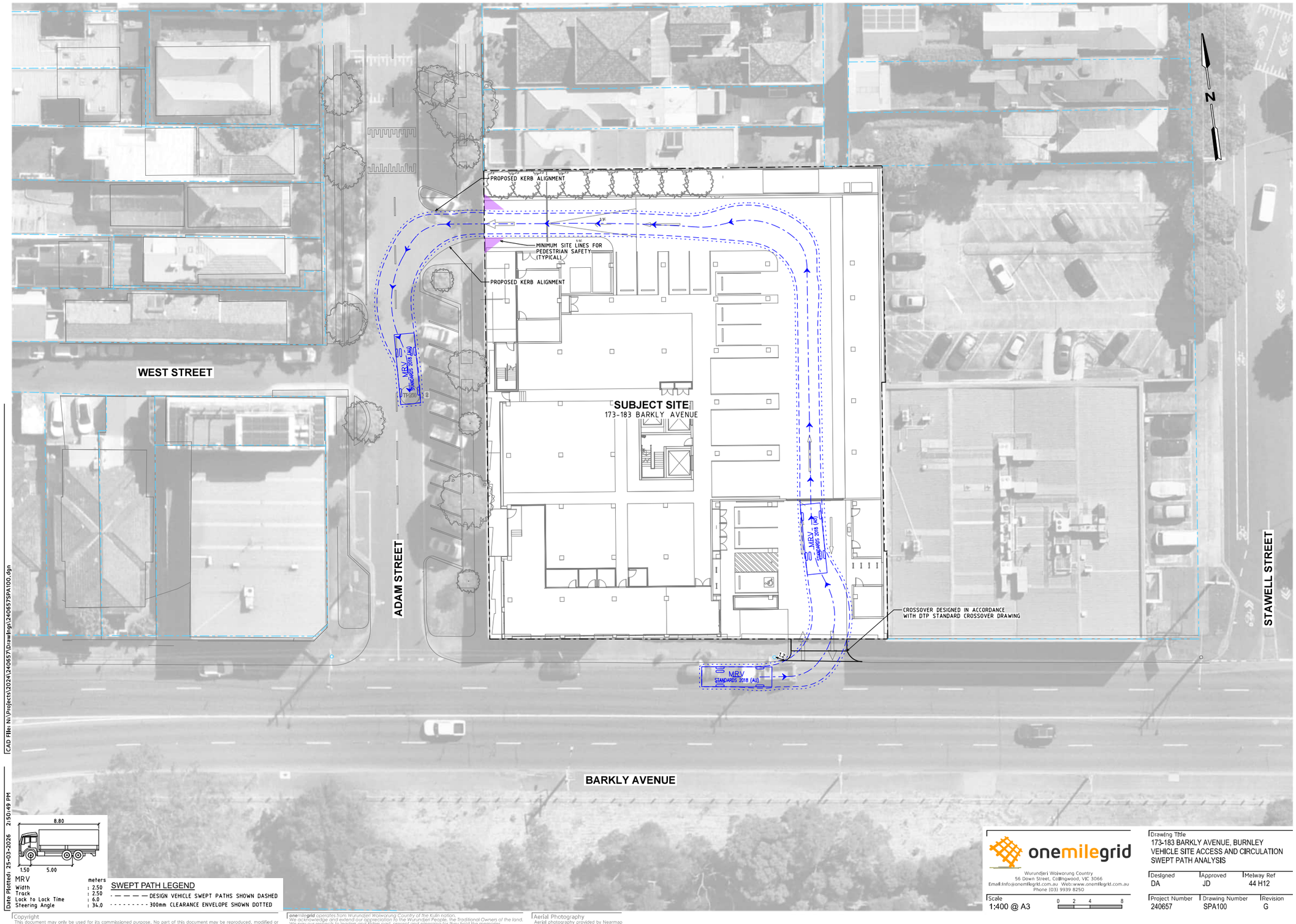
10 CONCLUSIONS

It is proposed to develop the subject site for the purposes of a self-storage facility with car parking and loading access via Barkly Avenue and Adm Street.

Considering the analysis presented above, it is concluded that:

- The proposed loading, car parking, bicycle parking and access design is considered appropriate;
- The proposed provision of parking meets the statutory requirements for a "store" land use under the former Clause 52.06, and is also expected to satisfy all demands based on data prepared by the Self-Storage Association of Australia;
- The proposed development is expected to have a negligible impact on the surrounding road network; and
- There are no traffic engineering reasons which should preclude a permit from being issued for this proposal.

Appendix A Swept Path Diagrams



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Steering Angle	: 34.0

SWEPT PATH LEGEND

— — — — DESIGN VEHICLE SWEPT PATHS SHOWN DASHED

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Drawing Title
173-183 BARKLY AVENUE, BURNLEY
VEHICLE SITE ACCESS AND CIRCULATION
SWEPT PATH ANALYSIS

Designed	Approved	Melway Ref
DA	JD	44 H12

Project Number	Drawing Number	Revision
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5.20 0.95 3.05

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Steering Angle	: 34.1	Steering Angle	: 33.9

SWEPT PATH LEGEND
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DA	JD	44 H12

Project Number	Drawing Number	Revision
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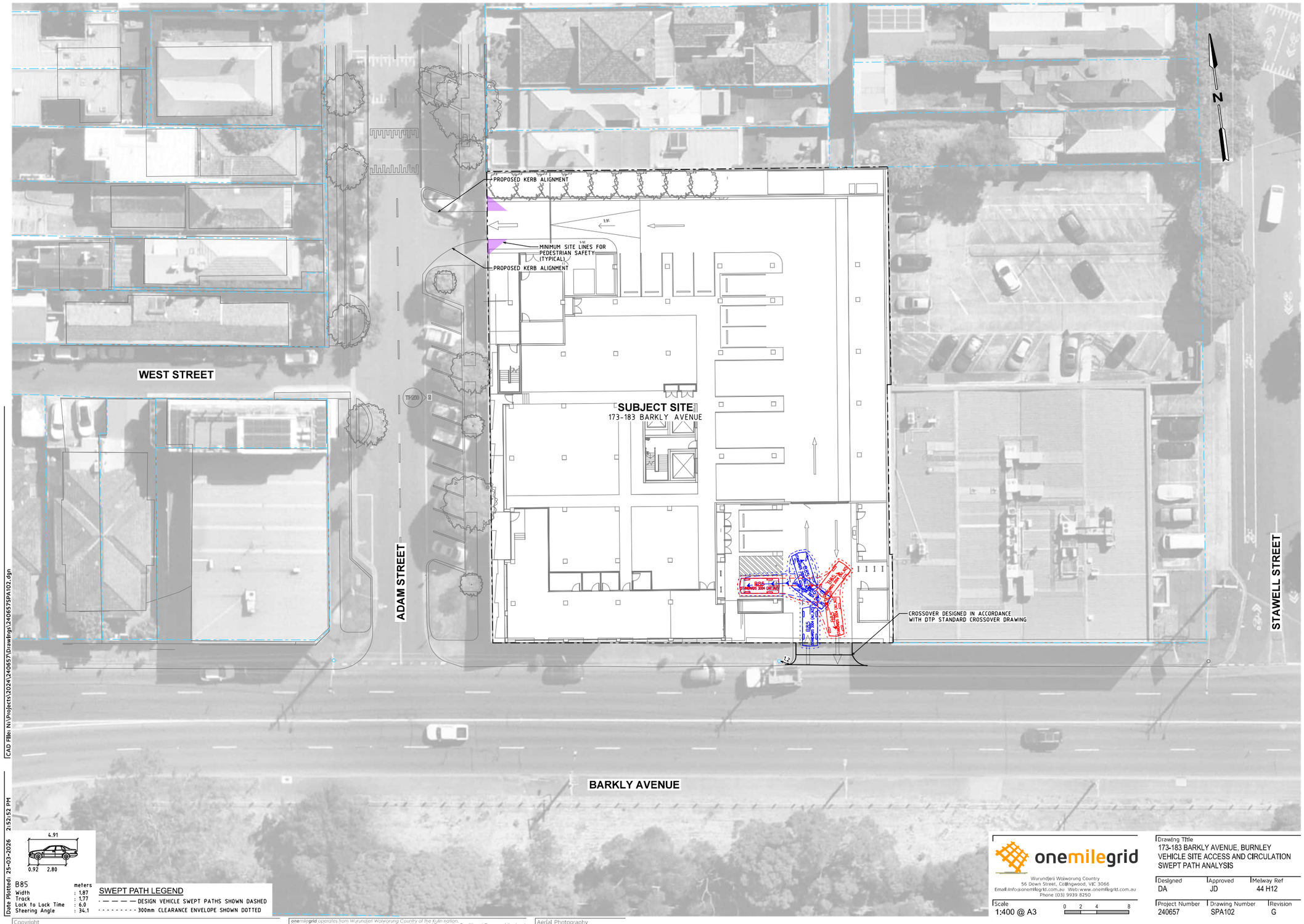

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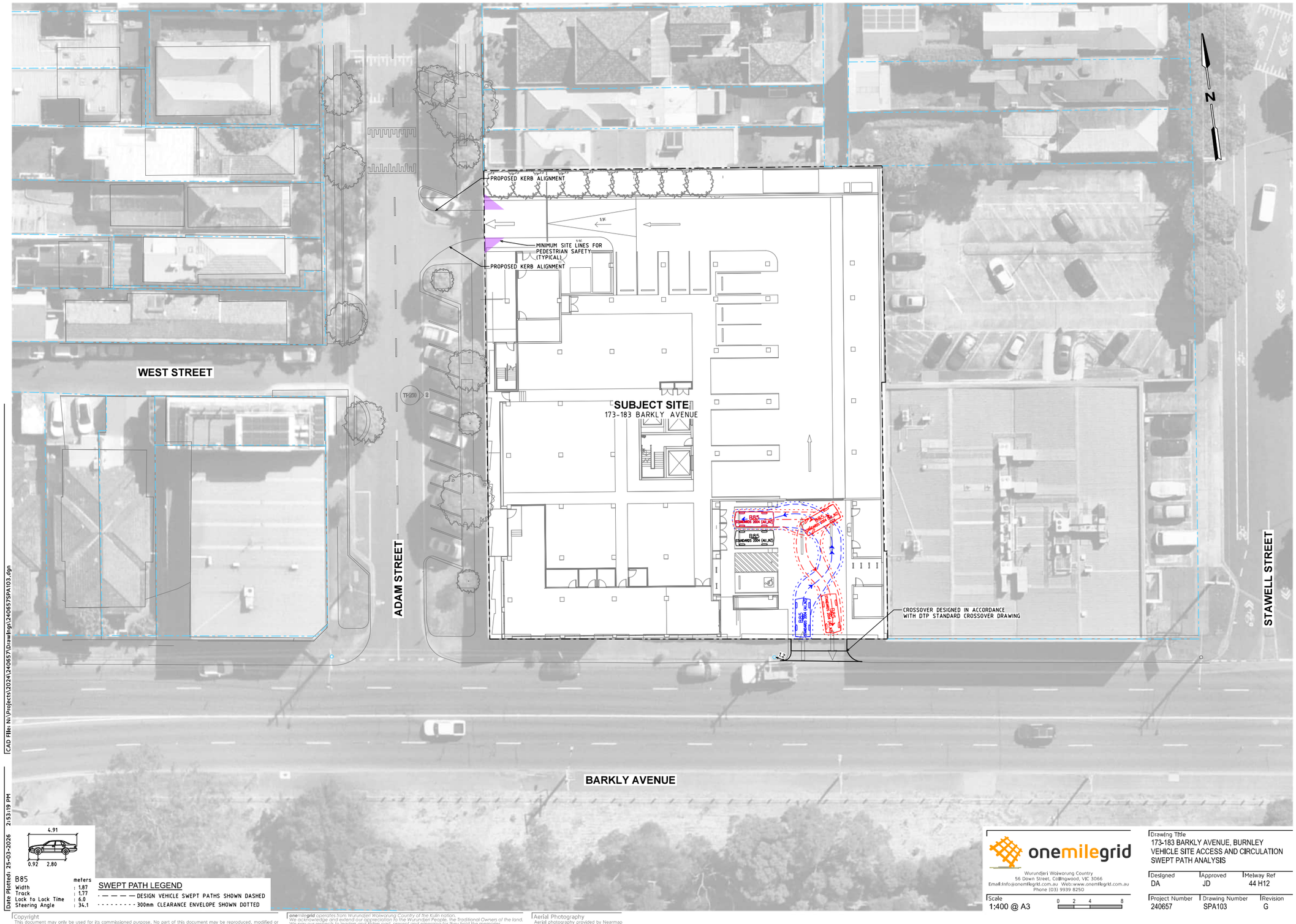

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SWEPT PATH ANALYSIS

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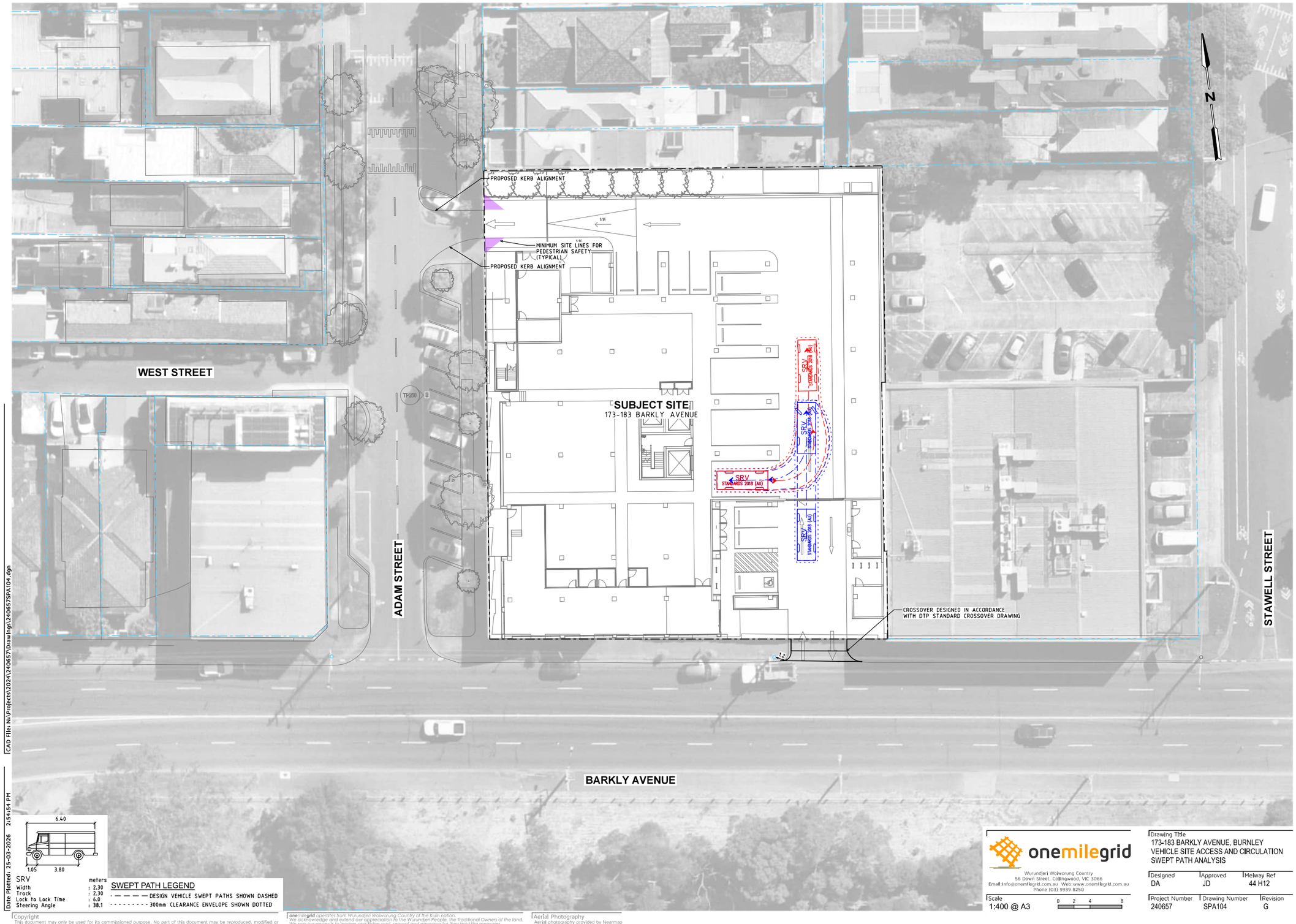
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PROPOSED KERB ALIGNMENT
WEST STREET
SUBJECT SITE
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SRV STANDARDS 2018 (AU)
SRV STANDARDS 2018 (AU)
SRV STANDARDS 2018 (AU)
SRV STANDARDS 2018 (AU)
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BARKLY AVENUE
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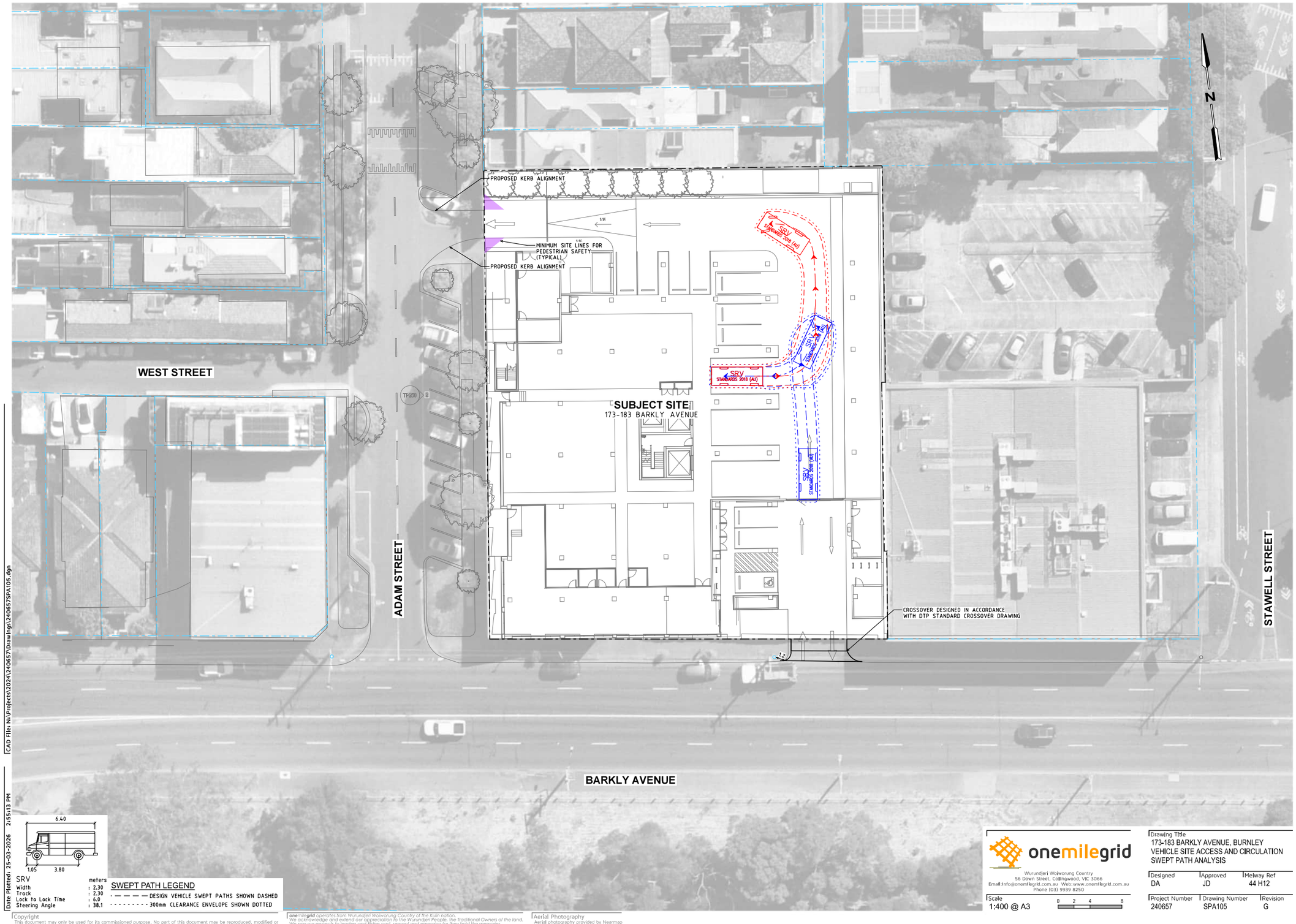

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Drawing Title
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VEHICLE SITE ACCESS AND CIRCULATION
SWEPT PATH ANALYSIS

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DA	JD	44 H12

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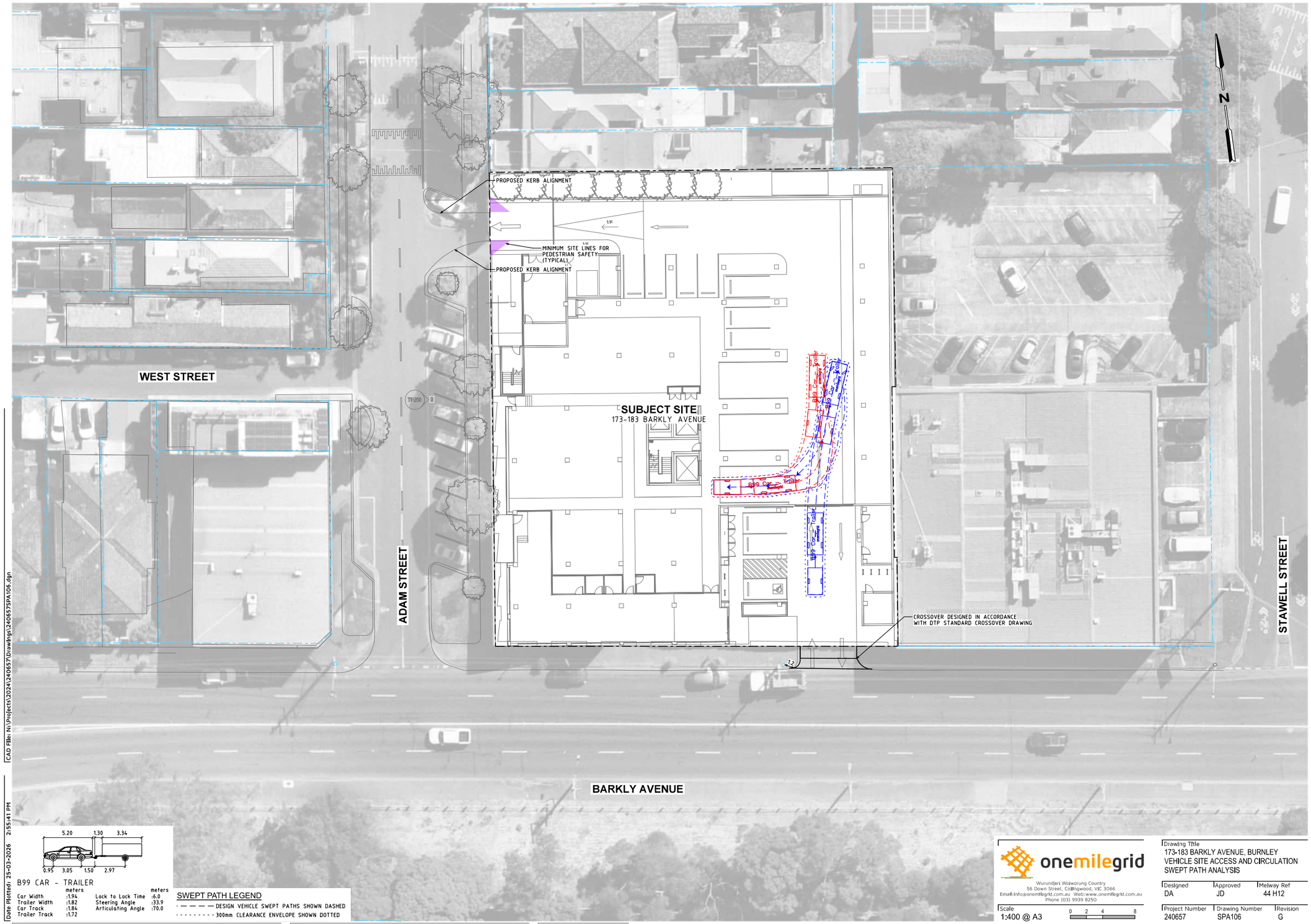

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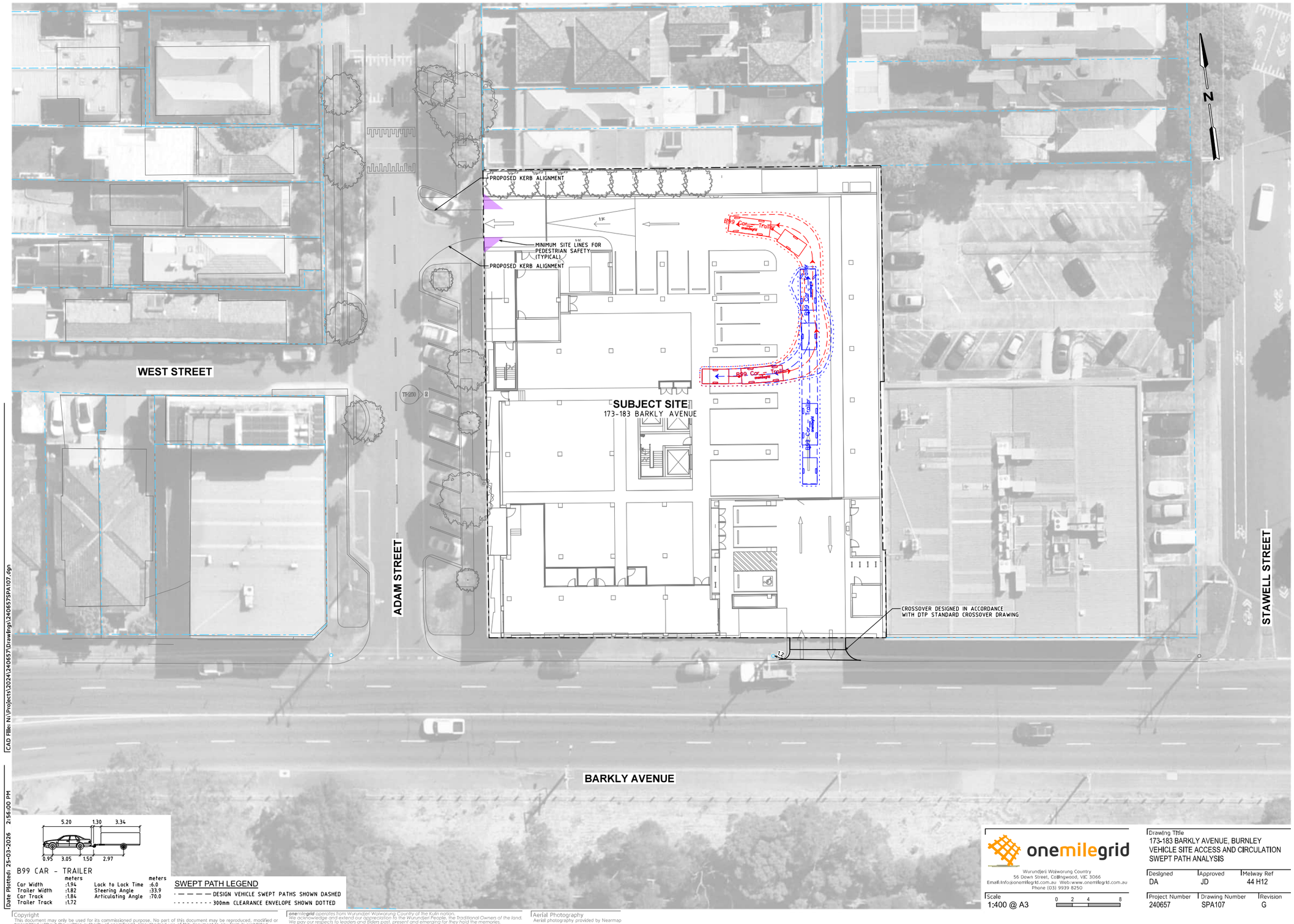

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B99 CAR - TRAILER

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Car Track	:1.84	Articulating Angle	:70.0
Trailer Track	:1.72		

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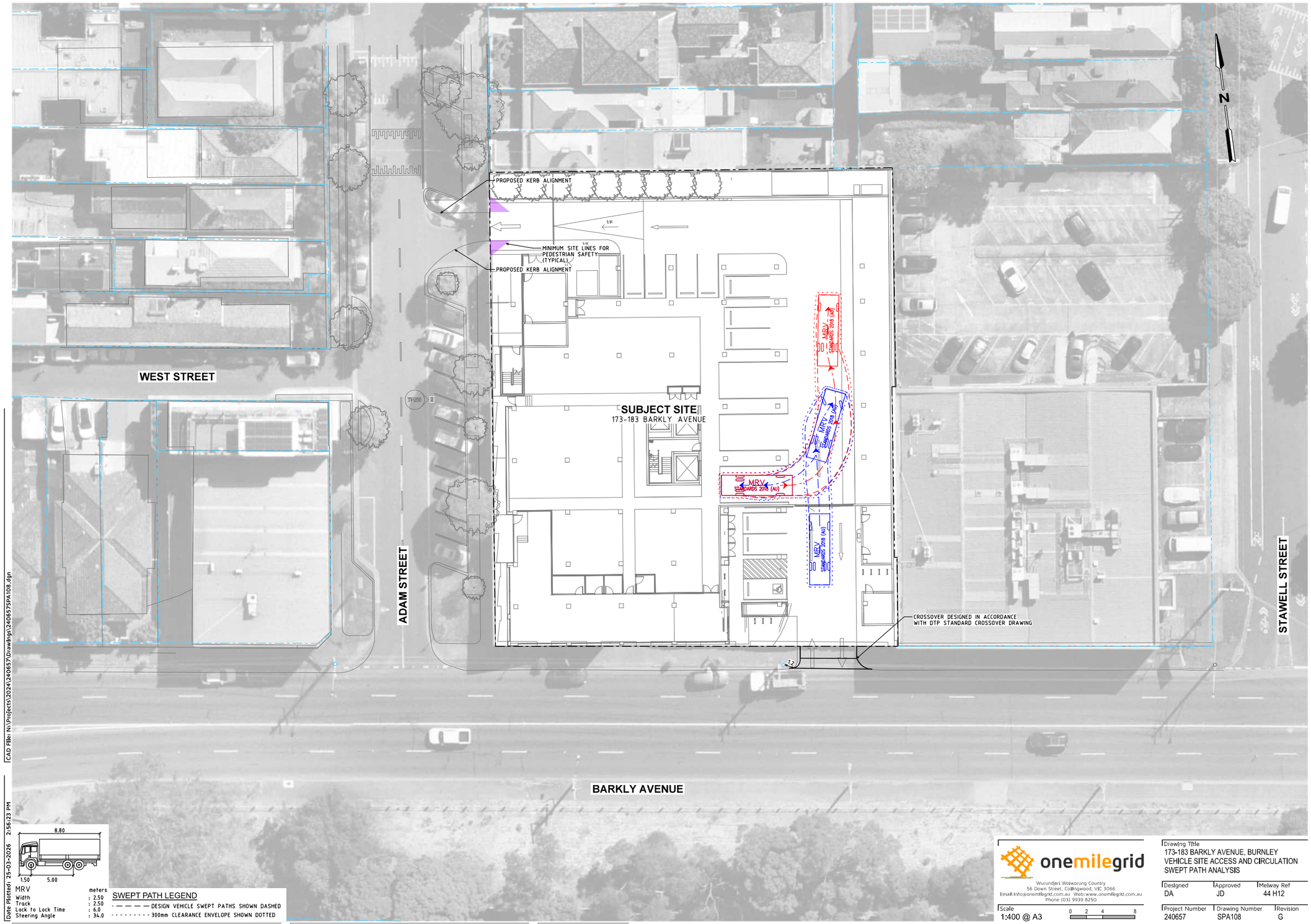
Scale
1:400 @ A3
0 2 4 8

Drawing Title
173-183 BARKLY AVENUE, BURNLEY
VEHICLE SITE ACCESS AND CIRCULATION
SWEPT PATH ANALYSIS

Designed	Approved	Melway Ref
DA	JD	44 H12

Project Number	Drawing Number	Revision
240657	SPA107	G



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Date Plotted: 25-03-2026 2:56:23 PM

8.80
1.50 5.00

MRV	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

SWEPT PATH LEGEND

- — — — DESIGN VEHICLE SWEPT PATHS SHOWN DASHED
- - - - - - - - 300mm CLEARANCE ENVELOPE SHOWN DOTTED

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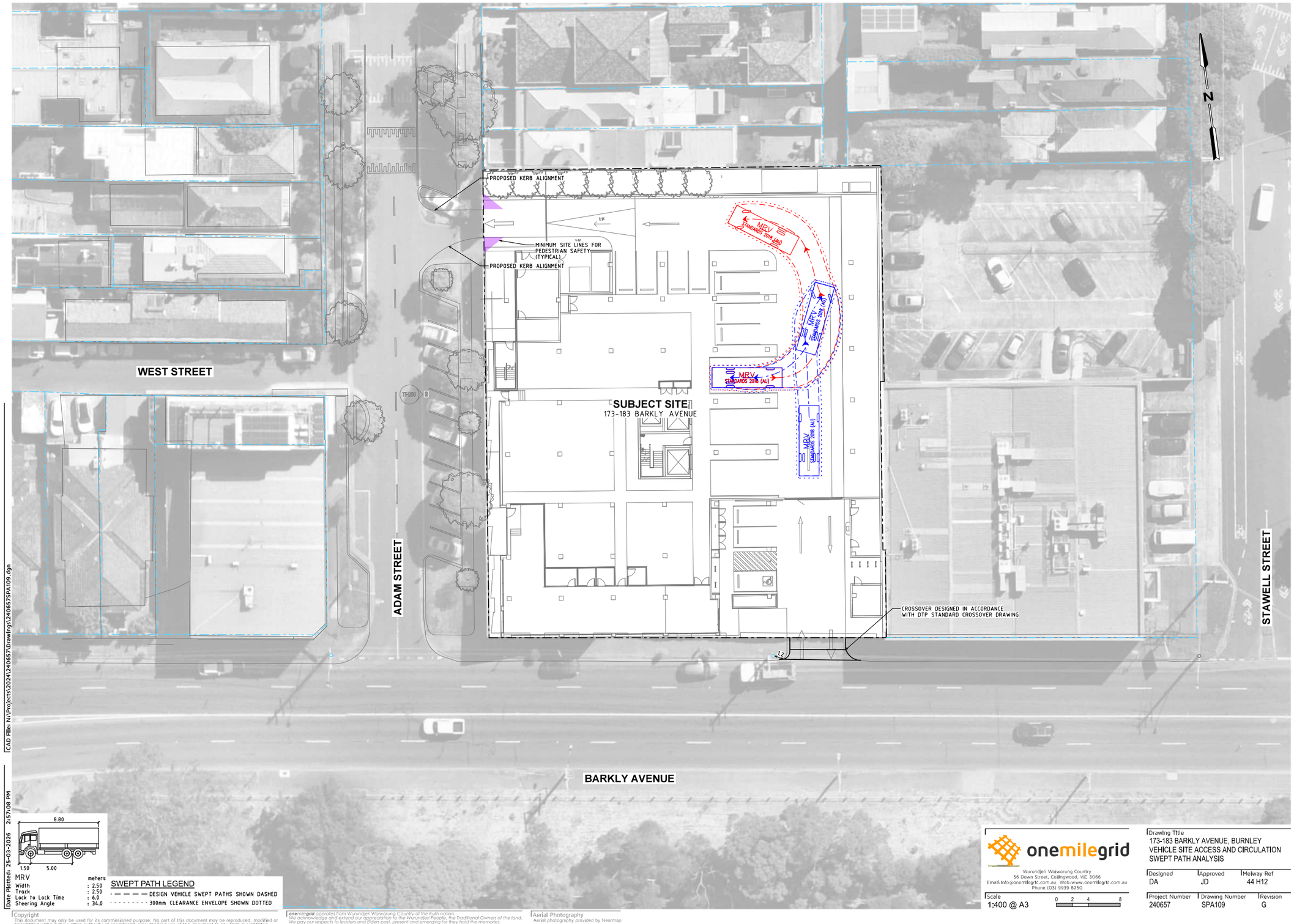

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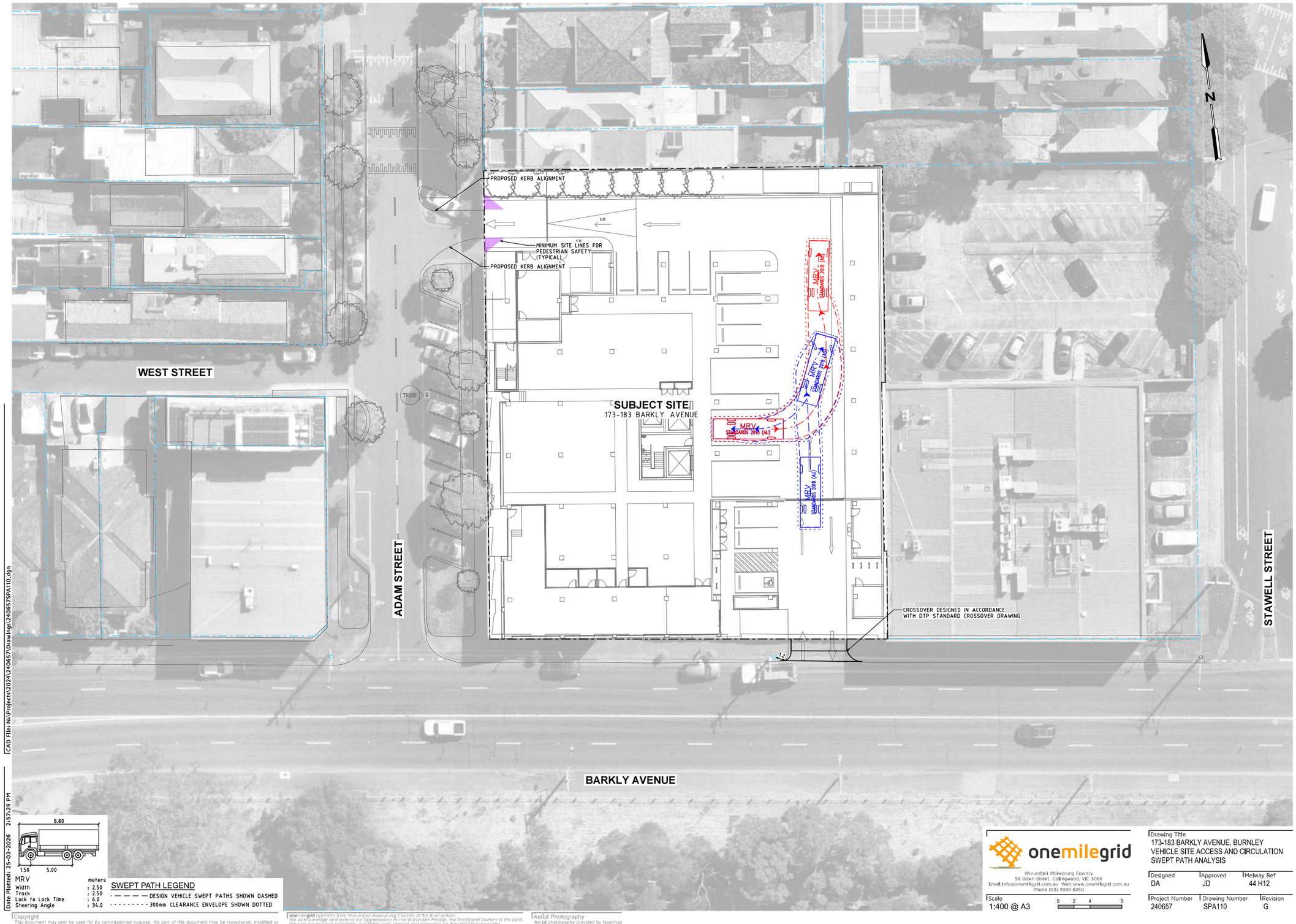
Project Number	Drawing Number	Revision
240657	SPA109	G



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240657	SPA110	G

IGS INTEGRATED GROUP SERVICES

Value | Innovation | Trust

Sustainable Management Plan

173-177 Barkly Avenue
Burnley VIC 3121

Date: 24/03/2026
Project No: 25022

Level 4, 108 Elizabeth Street
Melbourne VIC 3000
Web: www.igs.com.au

Document Control

Version	Date	Issue	Author		Reviewer	
00	09/10/2025	Issue for Review	Gokul Nisha	GN	Li Huan	LH
01	13/03/2026	Issue for Review – Layout Updates	Gokul Nisha	GN	Li Huan	LH
02	19/03/2026	Issue for Review – Layout Updates	Gokul Nisha	GN	Li Huan	LH
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05	24/03/2026	Issue for Review – General Updates	Gokul Nisha	GN	Li Huan	LH

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Appendices

Appendix A – BESS Summary Report
Appendix B – Daylight Report
Appendix C – NCC Section J Façade Calculation Report
Appendix D – Stormwater Management Plan

Executive Summary

The proposed Self-Storage Facility development at 173-177 Barkly Avenue, Burnley has been designed to meet City of Yarra Council planning scheme clause 15.01-2L 'Environmentally sustainable development' and National Construction Code (NCC 2022) Section J energy efficiency requirements.

The development has achieved an overall score of above 50% of the following key BESS categories and demonstrates 'Best Practice' sustainable design.

Category	Contributes to overall Score	Project Category Score
Management	4.5%	40%
Integrated Water Management	22.5%	81%
Operational Energy	27.5%	82%
IEQ	16.5%	52%
Transport	9.0%	0%
Waste & Resource Recovery	5.5%	33%
Urban Ecology	5.5%	25%
Innovation	9%	0%
Total Rate	**100%**	**54%**

Based on the level of information available at this stage of the design process, the proposed Self-Storage Facility development at 173-177 Barkly Avenue, Burnley demonstrates 'Best Practice' in BESS and meets the City of Yarra sustainable design objectives.

1. Introduction

The Sustainable Management Plan (SMP) has been prepared to summarise the environmental objectives and initiatives incorporated into the design of the proposed development and demonstrates how these components incorporate environmentally sustainable design initiatives in accordance with the requirements of Clauses 15.01-2S (Building Design), 15.01-2L-01 (Environmentally Sustainable Development), and 53.18 (Stormwater Management) of the City of Yarra Planning Scheme.

The ESD initiatives proposed for this development are based on:

- Architectural Drawing Issued for Coordination dated 19/03/2026 prepared by Gray Puksand; and
- Discussions and correspondence with the project team.

The Site

The proposed 8-storey Self-Storage Facility is located at 173-177 Barkly Avenue, Burnley, convenient access to the gardens, recreational facilities and public transport. The site is walking distance from tram stops and nearby parks include Golden Square Bicentennial Park, Winifred Crescent Reserve and Allan Bain Reserve.

Site Location

The development is located within the City of Yarra and consists of:

- Ground Floor: Office Ancillary, Reception, Car parks, Storage and Services;
- Mezzanine Level: Wine storage, Wine storage common areas, Storage;
- Level 01- 07: Storage; and
- Roof: Plant

2. Summary of key ESD Initiatives

The Sustainable Management Plan (SMP) provides a comprehensive sustainability assessment of the proposed development. It evaluates all key initiatives in line with the BESS sustainable design rating tool, confirming that a holistic Environmentally Sustainable Design (ESD) review has been undertaken during the early design stage. The SMP establishes clear environmental benchmarks supported by quantifiable and measurable performance indicators, which the project is committed to achieving. These indicators serve as evidence that the development is designed to meet 'Best Practice' sustainability standards.

2.1 Incorporation of Environmentally Sustainable Design Objectives

The proposed development aims to incorporate the following Environmentally Sustainable Design initiatives to comply with the Yarra City Council Sustainable Design Assessment in the Planning Process (SDAPP).

2.2 Utilise Energy Efficiently and Sustainably

Mechanical Plant – Energy efficient VRV/VRF system with a load COP of 3.4 are proposed for the whole development.

Domestic Hot Water – Electric instantaneous domestic hot water unit will be proposed near the high DHW intake area and heat on-demand within the development.

Energy Efficient Lighting – Lighting power density is designed to be compliant with NCC 2022 Section J7 Table J7D3a lighting power density requirement and LED light fittings will be installed as much as practicable throughout the development.

2.3 Utilise Potable Water Use Efficiently and Sustainably

To minimise the amenity water consumption and discharge to the municipal sewerage system, water efficient fixtures with the WELS rating as summarised below are to be used for the development.

- Kitchen Taps - 6 Star WELS Rating;
- Bathroom Taps - 6 Star WELS Rating;
- WCs - 5 Star WELS Rating; and
- Dishwasher - 5 Star WELS Rating (If Proposed).

Alternative Water Sources – At least 4,000 litre rainwater tank(s) will be installed for the whole development. The rainwater is collected and re-used for toilet flushing and landscaping irrigation.

2.4 Minimising Waste Going to Landfill

Construction Waste - the building contractor will be engaged to prepare a Waste Management Plan (WMP) which forms part of a Site Management Plan (SMP) and 70% (by mass) of all demolition & construction waste to be reused or recycled.

Operational Waste – A Waste Consultant has been engaged to implement the operational waste initiatives within the development to ensure the recycling facilities are as convenient for occupants as facilities for general waste.

2.5 Use Sustainable Sourced Materials

Internal paints, adhesives, sealants and flooring are selected with low VOC content and engineered wood is to be selected to have low formaldehyde emissions.

3. BESS Sustainable Assessment

The Built Environment Sustainability Scorecard (BESS) assesses energy and water efficiency, thermal comfort, and overall environmental sustainability performance of the proposed development. It assesses the project against a standard design practice building in nine environmental categories and the percentage contribution of each category varies depending on the scale and typology of the development.

A score of 50% and higher equates to 'Best Practice' via BESS rating. In order to meet BESS 'Best Practice' requirement, the development is targeting an overall score of above 50% and exceed the pass rates on four mandatory categories.

- Integrated Water Management;
- Energy; and
- Indoor Environment Quality (IEQ)

The proposed development achieves an overall score of above 50% and equates to 'Best Practice' sustainable design. BESS assessment report is enclosed as Appendix A for details.

3.1 Management

Best practice for building management means that sustainability is integrated from concept design through the construction process. Early design interventions and decisions will always deliver the maximum benefit for the lowest cost.

For that reason, key credits available in this category are being targeted and incorporated in the design:

- Engage the IGS ESD team to provide BESS advise from schematic design to construction stage;
- Undertake preliminary NCC Section J Façade Assessment;
- Provide separate sub-metering facilities for common area services for all utilities (electricity and water); and
- Produce a Building User's Guide will be provided in which operation and maintenance of installed equipment and building systems to be emphasised and highlighted. This shall cover at a minimum:
    - Energy and Environmental Strategy
    - Monitoring and Targeting
    - Building Services
    - Transport Facilities
    - Materials and Waste Policy
    - Expansion/Re-fit Considerations
    - References and Further Information

3.2 Integrated Water Management

Water will be used efficiently throughout the whole building development with inclusion of efficient fixtures and fittings, collection and reuse of rainwater for toilet flushing.

These water saving initiatives are proposed to ensure the efficient use of water and collection and re-use of stormwater and to minimise the associated water costs.

BESS rating tool is used to assess the overall development water efficiency and demonstrates the design potential to achieve an over 50% improvement compared to an identical size 'reference' project and meet the best practice sustainable design.

3.2.1 Water Efficient Fixtures

To minimise the amenity water consumption and discharge to the municipal sewerage system, water efficient fixtures are to be used for the development.

- Kitchen Taps - 6 Star WELS Rating;
- Bathroom Taps - 6 Star WELS Rating;
- WCs - 5 Star WELS Rating; and
- Dishwasher - 5 Star WELS Rating (If Proposed).

3.2.2 Stormwater Treatment

A minimum of 4kL rainwater tank will be proposed for collecting and re-using rainwater for toilets flushing and landscaping irrigation.

MUSIC modelling is undertaken to demonstrate the development will meet the best practice pollutant reduction levels to the satisfaction of the responsible authority.

3.2.3 Landscape Irrigation

The landscaping will be a combination of native vegetation with no irrigation demand and where landscape irrigation is required, the irrigation system will be connected to rainwater tank.

Water efficient landscaping is provided through the use of drought tolerant plant species. These plant species are predominantly native and adapted to the climate and soil conditions, thus will require less water, maintenance or replacement.

3.3 Energy Performance

The whole development will benchmark BESS Energy Efficiency as followings:

- **Operational Energy 1.1 and 2.1:** Energy efficient building design to deliver the proposed development minimum 10% reduction on energy use and Greenhouse Gas (GHG) Emissions in comparison with NCC2022 Section J reference buildings with reference services;
- **Operational Energy 2.2:** Reduce instantaneous (peak-hour) cooling demand for the development;
- **Operational Energy 2.6:** The development is proposed to be all electric;
- **Operational Energy 2.7:** Reduce annual electricity consumption for the development;
- **Operational Energy 3.2:** Reduce hot water system energy consumption via electric instantaneous domestic hot water unit within one star of the best available near the high DHW intake area and heat on-demand;
- **Operational Energy 3.7:** General lighting power density compliant with NCC 2022 Section J7 Table J7D3a; and
- **Operational Energy 4.2:** At least 10kW-e Solar PV capacity proposed as onsite renewable energy to the Self-Storage facility.

3.3.1 Renewable Energy

A minimum of 10kW solar photovoltaic (PV) panels will be installed on the roof. The generated green power will be directed to the main switchboard, contributing to a portion of the building's overall electrical load.

3.3.2 Operating Energy – NCC 2022 Section J

The double-glazed windows in conjunction with the energy efficient building services design will target to reduce the building services GHG emissions by more than 10% compared to NCC 2022 Section J reference buildings with reference services.

Note: The below building fabric and glazing performance values are nominal and are subject to change during design development/J1V3 modelling in accordance with NCC 2022.

Building Fabric and Windows

i) External and Internal Façade

Total Construction	Overall Thermal Resistance R-value to NCC 2022
External Wall – Insulated External Wall	R value ≥ 2.0
External Wall - Insulated Spandrel Panels	R value ≥ 2.0
Internal Wall between conditioned and unconditioned spaces	R value ≥ 1.4
Internal Wall between conditioned and conditioned spaces	N/A
Floors (Conditioned to unconditioned Spaces or Slab-on-ground)	R value ≥ 2.0

Note: Total system – values with allowance for thermal bridging in accordance with AS/NZS 4859.1 to NCC 2022 Section J4. External wall solar absorptance to not exceed 0.6.

ii) Roof and Ceiling Construction

Total Construction	Overall Thermal Resistance R-value to NCC 2022
Roof and Ceiling Construction	R value ≥ 3.2 with roof upper surface solar absorptance not more than 0.45

Note: Total system – values with allowance for thermal bridging in accordance with AS/NZS 4859.1 to NCC 2022 Section J4.

iii) Window

Window Type	U-Value and SHGCw (Frame + Glass)	Window VLT (%)	Location
Fixed Windows	Uw ≤ 2.5 W/ (m2. K) and SHGCw ≤ 0.25	≥ 30%	Office Ancillary, Reception and Wine storage common area
Glazed Doors	Uw ≤ 3.0 W/ (m2. K) and SHGCw ≤ 0.25	≥ 30%	

Note: Total system – values with allowance for thermal bridging in accordance with AS/NZS 4859.1 to NCC 2022 Section J4.

3.3.3 Energy Efficient System

For the proposed development, energy efficient HVAC, lighting and domestic hot water systems will be designed to minimum operational energy use and greenhouse gas emissions and reduce peak energy demand.

The energy efficient system will include:

- Energy efficient VRV/VRF system with a COP of 3.4 are proposed for the whole development.
- Reduce hot water system energy consumption via electric instantaneous domestic hot water unit within one star of the best available near the high DHW intake area and heat on-demand; and
- Energy efficient LED light fittings with lighting power density compliant with NCC 2022 Section J7 Table J7D3a.

3.3.4 Internal Lighting – Non-Residential

The maximum illumination power density (W/m2) in the regular used areas meet the requirements of Table J7D3a of the NCC 2022 Section J.

3.4 Indoor Environment Quality

The proposed Self-Storage Facility development will enhance indoor environment quality and support the wellbeing of building occupants by incorporating the following features into the design.

- More than 60% of the regularly occupied floor area will achieve a daylight factor of above 2%;
- At least 60% of the office ancillary and reception areas are effectively naturally ventilated;
- At least 100% of the storage facility areas is effectively naturally ventilated with full height fixed louvers to the corridors;
- 100% of east, north and west glazing to regular use areas are effectively shaded; and
- Low Volatile Organic Compound (VOC) paints, adhesive and sealant and engineered wood with low formaldehyde emissions to be used in the development.

Internal Paints, Adhesive and Sealant VOC Limits

Product Type Category	Max TVOC Content (g/l of ready-to-use product)
General purpose adhesives	50
Design & As Built wall and ceiling paint, all sheen levels	16
Trim, varnishes and wood stains	75
Primers, sealers and prep coats	65
One and two pack performance coatings for floors	140
Acoustic sealants, architectural sealant, waterproofing membranes and sealant, fire retardant sealants and adhesives	250
Structural glazing adhesive, wood flooring and laminate adhesives and sealants	100

Carpets VOC Limits

Test protocol	Limit
ASTM D5116 – Total VOC limit	0.5mg/m²/h per hour
ASTM D5116 – 4 – PC (4-Phenylcyclohexene)	0.5mg/m²/h per hour
ISO 16000/EN 13419 – TVOC at three days	0.5mg/m²/h per hour
ISO 10580/ISO/TC 219 (Document N238) – TVOC at 24 hours	0.5mg/m²/h per hour

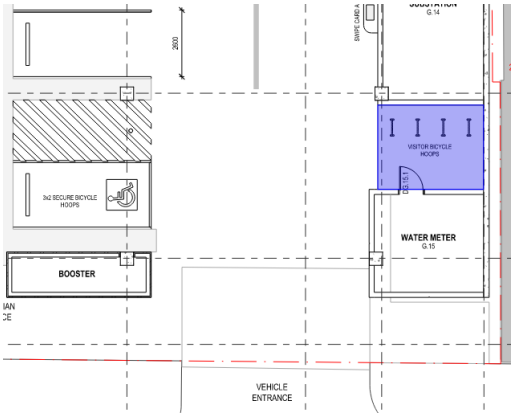
Engineered Wood Formaldehyde Emission Limits

Test protocol	Emission limit/ Unit of Measurement
AS/NZS 2269:2004, testing procedure AS/NZS 2098.11:2005 method 10 for Plywood	≤1.0mg/L
AS/NZS 1859.1:2004 – Particle Board, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1.5mg/L
AS/NZS 1859.2:2004 – MDF, with use of testing procedure AS/NZS 4266.16:2004 method 16	≤1.0mg/L
AS/NZS 4357.4 – Laminated Veneer Lumber (LVL)	≤1.0mg/L
Japanese Agricultural Standard MAFF Notification NO.701 Appendix Clause 3 (11) - LVL	≤1.0mg/L
JIS A 5908:2003 – Particle Board and Plywood, with use of testing procedure JISA 1460	≤1.0mg/L
JIS A 5905:2003 – MDF, with use of testing procedure JIS A 1460	≤1.0mg/L
JIS A1901 (not applicable to Plywood, applicable to high pressure laminates and compact laminates)	≤0.1mg/m²hr
ASTM D5116 (applicable to high pressure laminated and compact laminates	≤0.1mg/m²hr
ISO 16000 part 9, 10 and 11 (also known as EN 13419), applicable to high pressure laminates and compact laminates	≤0.1mg/m²hr (at 3 days)
ASTM D6007	≤0.12mg/m³
ASTM E1333	≤0.12mg/m³
EN 717-1 (also known as DIN EN 717-1)	≤0.12mg/m³
EN 717-2 (also known as DIN EN 717-2)	≤3.5mg/m³hr

3.5 Transport

3.5.1 Bicycle Parking – Non-Residential

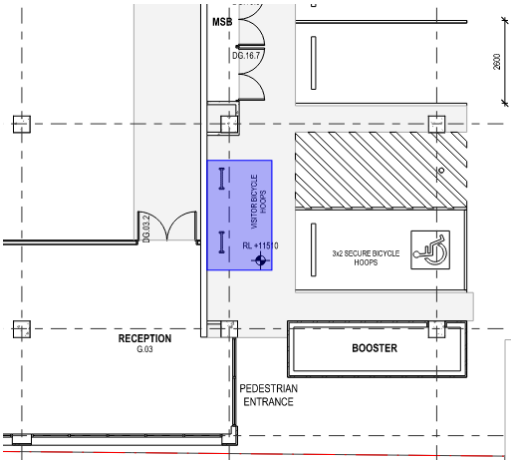
At least 6 bicycle parking spaces are provided on the Ground Floor for building users.



Bike Parking on Ground Floor

3.5.2 Bicycle Parking – Non-Residential Visitor

At least 4 bicycle parking spaces are provided on the Ground Floor for visitors.



Visitor Bike Parking on Ground Floor

3.6 Waste Management

BESS rating tool has been used to assess the overall development waste collection and reuse and demonstrate the project has the design potential to achieve the best practice design for the Waste Management.

3.6.1 Construction Waste Management Plan

Building Contractor must provide Construction Site Management Plan prior to any construction work.

As part of the Construction Site Management Plan, a Construction Waste Management Plan must be prepared to encourage waste avoidance, reuse and recycling during the construction and at least 70% of construction and demolition waste are to be reused or recycled.

3.6.2 Construction Phase Stormwater Pollution Reduction

The Building Contractor will implement an Environmental Management Plan (EMP) to include the site management procedures to reduce the stormwater pollution during construction phase.

3.6.3 Operational Waste – Convenience of Recycling

The recycling facilities are proposed as convenient for building users as facilities for general waste.

3.7 Urban Ecology

3.7.1 Vegetation

At least 5% of total site area will be vegetation. Planter boxes are to be located at ground floor, Level 1 and Level 4 roofs. Landscaped areas are to be located on north site boundary of ground floor.

3.7.2 Green Roofs

The development will incorporate green roofs. Green roofs will be located on Level 1 and Level 4.

3.7.3 Reduction of Urban Heat Island Effect

Terrace planter box landscaping, specification of light-coloured materials throughout the project, as well as the extent of solar photovoltaics at roof level, will all assist in reducing the urban heat island effect.

Roofs are proposed to have a three-year SRI of minimum 60. Unshaded hard-scaping elements are to have a three-year SRI of minimum 40.

3.8 Innovation

N/A

4. Overall BESS Scores Aiming to Target

With inclusion of all ESD initiatives summarised above, the proposed design is estimated to be able to achieve an overall score of above 50% of nine key BESS categories and demonstrating 'Best Practice' sustainable design.

Category	Contributes to overall Score	Project Category Score
Management	4.5%	40%
Integrated Water Management	22.5%	81%
Operational Energy	27.5%	82%
IEQ	16.5%	52%
Transport	9.0%	0%
Waste & Resource Recovery	5.5%	33%
Urban Ecology	5.5%	25%
Innovation	9%	0%
Total Rate	**100%**	**54%**

5. Conclusion

This SMP provides a summary of sustainable design features integrated into the proposed Self Storage Facility development at 173-177 Barkly Avenue, Burnley, to demonstrate 'Best Practice' in sustainable design and align with Yarra City Council's sustainability objectives.

In terms of the building performance, the proposed development will be designed to incorporate the followings:

- Energy efficient VRV/VRF system with a COP of 3.4 are proposed for the whole development;
- Building Services energy consumption reduced by 10% compared to NCC 2022 Section J;
- At least 10kW solar photovoltaic (PV) panels will be installed on the roof;
- At least 4kL rainwater tank will be proposed on site for toilets flushing and landscaping irrigation;
- Water efficient fixtures and fittings with minimum WELS rating specified;
- Improved stormwater quality via rainwater harvesting system and water efficient landscaping design;
- Introduce a high level of natural light into the regularly occupied spaces;
- Lighting power density is designed to be compliant with NCC 2022 Section J7 Table J7D3a lighting power density requirement;
- A construction Waste Management Plan (WMP) to be prepared and implemented and a minimum 70% of all demolition and construction waste to be reused or recycled;
- Meet Best Practice Sustainable Design using BESS rating tool; and
- Provision of a Building User's Guide for occupants to optimise the building's environmental performance.

Therefore, the proposed development has been designed to meet the Yarra City Council's Sustainable Design Assessment objectives and the relevant planning scheme requirements.

The project team will ensure that all performance outcomes outlined in this Sustainable Management Plan are implemented prior to occupancy, at no cost to Yarra City Council and to the satisfaction of the Responsible Authority.

Appendix A – BESS Report

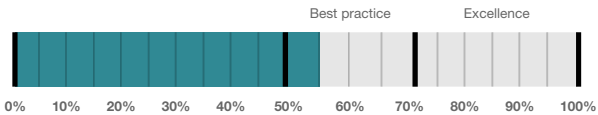
BESS Report

Built Environment Sustainability Scorecard

This BESS report outlines the sustainable design commitments of the proposed development at 173-177 Barkly Ave Burnley Victoria 3121. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Yarra City Council.

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved.

Your BESS Score



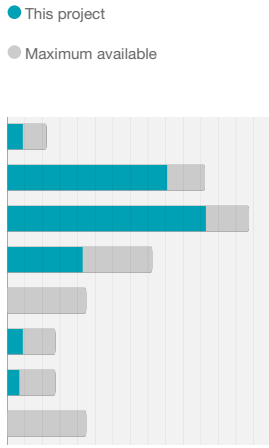
54%

Project details

Name	Storhub Burnley
Address	173-177 Barkly Ave Burnley Victoria 3121
Project ID	7CF72140-R5
BESS Version	BESS-9
Date	20 March 2026
Software version	2.3.0-B.647
Site type	Non-residential development
Account	li.huan@igs.com.au
Application no.	
Site area	2,944 m²
Building floor area	17,509 m²

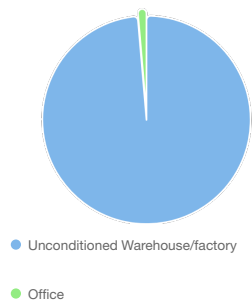
BESS, Storhub Burnley 173-177 Barkly Ave, Burnley 3121

Performance by category



Category	Weight	Score	Pass
Management	5%	40%	
Integrated Water Management	23%	81%	✓
Operational Energy	28%	82%	✓
Indoor Environment Quality	17%	52%	✓
Transport	9%	0%	
Waste & Resource Recovery	6%	33%	
Urban Ecology	6%	25%	
Innovation	9%	0%	

Project composition



Buildings

Name	Height	Footprint	% of total footprint
Storage Building	8	2,195 m²	100%

Dwellings & Non Res Spaces

Non-Res Spaces

Name	Quantity	Area	Building	% of total area
Office				
Office Ancillary and Reception	1	207 m²	Storage Building	1%
Wine storage common area	1	32.0 m²	Storage Building	< 1%
Total	**2**	**239 m²**	**1%**	
Unconditioned Warehouse/factory				
Storage	1	17,270 m²	Storage Building	98%
Total	**1**	**17,270 m²**	**98%**	

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Supporting Evidence

Shown on Floor Plans

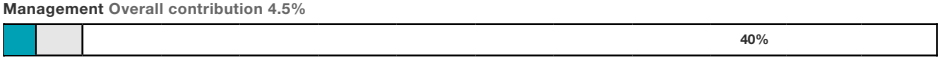
Credit	Requirement	Response	Status
Management 3.3	Annotation: Sub-meters to be provided to all major common area services (list each)		-
Integrated Water Management 2.1	Location of any stormwater management systems (rainwater tanks, raingardens, buffer strips)		-
Integrated Water Management 3.1	Annotation: Water efficient garden details		-
Operational Energy 4.2	Location and size of solar photovoltaic system		-
Transport 1.4	Location of non-residential bicycle parking spaces		-
Transport 1.5	Location of non-residential visitor bicycle parking spaces		-
Waste & Resource Recovery 2.2	Location of recycling facilities		-
Urban Ecology 2.1	Location and size of vegetated areas		-
Urban Ecology 2.2	Location and size of green roof		-

Supporting Documentation

Credit	Requirement	Response	Status
Management 2.3a	Section J glazing assessment		-
Integrated Water Management 2.1	STORM report or MUSIC model		-
Operational Energy 1.1	Energy Report showing calculations of reference case and proposed buildings		-
Operational Energy 3.7	Average lighting power density and lighting type(s) to be used		-
Operational Energy 4.2	Specifications of the solar photovoltaic system(s)		-
Indoor Environment Quality 1.4	A short report detailing assumptions used and results achieved.		-

Credit summary

Management Overall contribution 4.5%



1.1 Pre-Application Meeting	0%
2.3 Thermal Performance Modelling - Non-Residential	50%
3.2 Metering - Non-Residential	N/A ◇ Scoped Out
	The building will have only one tenant
3.3 Metering - Common Areas	100%
4.1 Building Users Guide	100%

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IWM Overall contribution 22.5%

	81%	✔ Pass
1.1 Potable Water Use	60%	✔ Achieved
2.1 Stormwater Treatment	100%	✔ Achieved
3.1 Water Efficient Landscaping	100%	
4.1 Building Systems Water Use	0%	

Operational Energy Overall contribution 27.5%

	Minimum required 50% 82%	✔ Pass
1.1 Thermal Performance Rating - Non-Residential	37%	
2.1 Greenhouse Gas Emissions	100%	
2.2 Peak Demand	100%	
2.6 Electrification	100%	
2.7 Energy consumption	100%	
3.1 Carpark Ventilation	0%	
3.2 Hot Water - Non-Residential	100%	
3.7 Internal Lighting - Non-Residential	100%	
4.1 Combined Heat and Power (cogeneration / trigeneration)	N/A	✣ Scoped Out
	No cogeneration or trigeneration system in use.	
4.2 Renewable Energy Systems - Solar	40%	
4.4 Renewable Energy Systems - Other	N/A	✣ Scoped Out
	No other (non-solar PV) renewable energy is in use.	

IEQ Overall contribution 16.5%

	Minimum required 50% 52%	✔ Pass
1.4 Daylight Access - Non-Residential	33%	✔ Achieved
2.3 Ventilation - Non-Residential	49%	✔ Achieved
3.4 Thermal comfort - Shading - Non-Residential	100%	
3.5 Thermal Comfort - Ceiling Fans - Non-Residential	0%	
4.1 Air Quality - Non-Residential	100%	

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Transport Overall contribution 9.0%

	0%
1.4 Bicycle Parking - Non-Residential	1%
1.5 Bicycle Parking - Non-Residential Visitor	1%
1.6 End of Trip Facilities - Non-Residential	0% ⊘ Disabled
	Credit 1.4 must be complete first.
2.1 Electric Vehicle Infrastructure	0%
2.2 Car Share Scheme	0%
2.3 Motorbikes / Mopeds	0%

Waste & Resource Recovery Overall contribution 5.5%

	33%
1.1 Construction Waste - Building Re-Use	0%
2.1 Operational Waste - Food & Garden Waste	0%
2.2 Operational Waste - Convenience of Recycling	100%

Urban Ecology Overall contribution 5.5%

	25%
1.1 Communal Spaces	0%
2.1 Vegetation	25%
2.2 Green Roofs	100%
2.3 Green Walls and Facades	0%
3.2 Food Production - Non-Residential	0%

Innovation Overall contribution 9.0%

	0%
1.1 Innovation	0%

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Credit breakdown

Management Overall contribution 4.5%

40%

1.1 Pre-Application Meeting		0%
Score Contribution	This credit contributes 54.4% towards the category score.	
Criteria	Has an ESD professional been engaged to provide sustainability advice from schematic design to construction? AND Has the ESD professional been involved in a pre-application meeting with Council?	
Question	Criteria Achieved ?	
Project	No	
2.3 Thermal Performance Modelling - Non-Residential		50%
Score Contribution	This credit contributes 9.3% towards the category score.	
Criteria	Has a preliminary facade assessment been undertaken in accordance with NCC2022 Section J4D6?	
Question	Criteria Achieved ?	
Office	Yes	
Criteria	Has preliminary modelling been undertaken in accordance with either NCC2022 Section J (Energy Efficiency), NABERS or Green Star?	
Question	Criteria Achieved ?	
Office	No	
3.2 Metering - Non-Residential		N/A Scoped Out
		The building will have only one tenant
This credit was scoped out	The building will have only one tenant	
3.3 Metering - Common Areas		100%
Score Contribution	This credit contributes 18.1% towards the category score.	
Criteria	Have all major common area services been separately submetered?	
Question	Criteria Achieved ?	
Office	Yes	
Unconditioned Warehouse/factory	Yes	
4.1 Building Users Guide		100%
Score Contribution	This credit contributes 18.1% towards the category score.	
Criteria	Will a building users guide be produced and issued to occupants?	
Question	Criteria Achieved ?	
Project	Yes	

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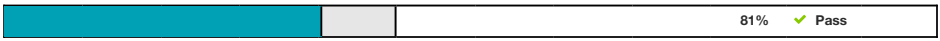
IWM Overall contribution 22.5%



Do you have a reticulated third pipe or an on-site water recycling system?:	No
Are you installing a swimming pool?:	No

Stormwater profile	
Which stormwater modelling software are you using?:	Melbourne Water STORM tool
STORM score achieved:	100
Flow:	-
Total Suspended Solids:	-
Total Phosphorus:	-
Total Nitrogen:	-

Rainwater tank profile	
What is the total roof area connected to the rainwater tank?:	
Rainwater Tank 1	2,497 m²
	-
Tank Size:	
Rainwater Tank 1	4,000 Litres
	-
Irrigation area connected to tank:	
Rainwater Tank 1	-
	-
Is connected irrigation area a water efficient garden?:	
Rainwater Tank 1	No
	-
Other external water demand connected to tank?:	
Rainwater Tank 1	-
	-

Fixtures, fittings & connections profile	
Building: All	Storage Building
Showerhead: All	Scope out
Bath: All	Scope out
Kitchen Taps: All	>= 6 Star WELS rating
Bathroom Taps: All	>= 6 Star WELS rating
Dishwashers:	
Office Ancillary and Reception	>= 5 Star WELS rating
Storage Wine storage common area	Scope out
WC: All	>= 5 Star WELS rating
Urinals: All	Scope out
Washing Machine Water Efficiency: All	Scope out

Which non-potable water source is the dwelling/space connected to?:	
Office Ancillary and Reception	Rainwater Tank 1
Storage Wine storage common area	-
Non-potable water source connected to Toilets:	
Office Ancillary and Reception Wine storage common area	No
Storage	Yes
Non-potable water source connected to Laundry (washing machine): All	No
Non-potable water source connected to Hot Water System: All No	

1.1 Potable Water Use 60% ✔ Achieved

Score Contribution	This credit contributes 31.2% towards the category score.
Criteria	What is the reduction in total potable water use due to efficient fixtures, appliances, rainwater use and recycled water use? To achieve points in this credit there must be >25% potable water reduction.
Output	Reference
Project	6271 kL
Output	Proposed (excluding rainwater and recycled water use)
Project	3737 kL
Output	Proposed (including rainwater and recycled water use)
Project	3737 kL
Output	% Reduction in Potable Water Consumption
Project	40 %
Output	% of connected demand met by rainwater
Project	0 %
Output	How often does the tank overflow?
Project	Very Often
Output	Opportunity for additional rainwater connection
Project	2468 kL

2.1 Stormwater Treatment 100% ✔ Achieved

Score Contribution	This credit contributes 56.2% towards the category score.
Criteria	Has best practice stormwater management been demonstrated?
Output	Min STORM Score
Project	100
Output	STORM Score
Project	100

3.1 Water Efficient Landscaping 100%

Score Contribution	This credit contributes 6.2% towards the category score.
Criteria	Will water efficient landscaping be installed?
Question	Criteria Achieved ?
Project	Yes

4.1 Building Systems Water Use	0%

Score Contribution	This credit contributes 6.2% towards the category score.
Criteria	Where applicable, have measures been taken to reduce potable water consumption by >80% in the buildings air-conditioning chillers and when testing fire safety systems?
Question	Criteria Achieved ?
Project	No

BESS, Storhub Burnley 173-177 Barkly Ave, Burnley 3121

Operational Energy Overall contribution 27.5%

	Minimum required 50%	82%	✔ Pass

Project profile	
Use the BESS Deem to Satisfy (DtS) method for Non-residential spaces?:	Yes
Are you installing any renewable energy system(s) (other than solar photovoltaic)?:	No
Energy Supply:	All-electric
Solar Photovoltaic system profile	
System Size (lesser of inverter and panel capacity): Solar PV	10.0 kW peak
Orientation (which way is the system facing)?: Solar PV	North
Inclination (angle from horizontal): Solar PV	10.0 Angle (degrees)
Which Building Class does this apply to?: Solar PV	Office
Non-residential Deemed-to-Satisfy profile	
Do all exposed floors and ceilings (forming part of the envelope) demonstrate meeting the required NCC2022 insulation levels (total R-value upwards and downwards)?:	Yes
Does all wall and glazing demonstrate meeting the required NCC2022 facade calculator (or better than the total allowance)?:	Yes
Are heating and cooling systems within one Star of the most efficient equivalent capacity unit available, or Coefficient of Performance (CoP) & Energy Efficiency Ratios (EER) not less than 85% of the CoP & EER of the most efficient equivalent capacity unit available?:	Yes
Are water heating systems within one star of the best available, or 85% or better than the most efficient equivalent capacity unit?:	Yes

1.1 Thermal Performance Rating - Non-Residential		37%
Score Contribution	This credit contributes 12.6% towards the category score.	
Criteria	What is the % reduction in heating and cooling energy consumption against the reference case (NCC2022 Section J)?	
2.1 Greenhouse Gas Emissions		100%
Score Contribution	This credit contributes 12.3% towards the category score.	
Criteria	What is the % reduction in annual greenhouse gas emissions against the benchmark?	
2.2 Peak Demand		100%
Score Contribution	This credit contributes 1.6% towards the category score.	
Criteria	What is the % reduction in the instantaneous (peak-hour) demand against the benchmark?	
2.6 Electrification		100%

Score Contribution	This credit contributes 18.4% towards the category score.
Criteria	Is the development all-electric?
Question	Criteria Achieved?
Project	Yes

2.7 Energy consumption 100%

Score Contribution	This credit contributes 24.5% towards the category score.
Criteria	What is the % reduction in annual energy consumption against the benchmark?

3.1 Carpark Ventilation 0%

Score Contribution	This credit contributes 6.1% towards the category score.
Criteria	If you have an enclosed carpark, is it: (a) fully naturally ventilated (no mechanical ventilation system) or (b) 40 car spaces or less with Carbon Monoxide monitoring to control the operation and speed of the ventilation fans?
Question	Criteria Achieved ?
Project	No

3.2 Hot Water - Non-Residential 100%

Score Contribution	This credit contributes 6.1% towards the category score.
Criteria	What is the % reduction in annual energy consumption (gas and electricity) of the hot water system against the benchmark?

3.7 Internal Lighting - Non-Residential 100%

Score Contribution	This credit contributes 12.3% towards the category score.
Criteria	Does the maximum illumination power density (W/m2) in at least 90% of the area of the relevant building class meet the requirements in Table J7D3a of the NCC 2022 Vol 1?
Question	Criteria Achieved ?
Office	Yes
Unconditioned Warehouse/factory	Yes

4.1 Combined Heat and Power (cogeneration / trigeneration) N/A ✣ Scoped Out

No cogeneration or trigeneration system in use.

This credit was scoped out	No cogeneration or trigeneration system in use.

4.2 Renewable Energy Systems - Solar 40%

Score Contribution	This credit contributes 6.1% towards the category score.
Criteria	What % of the estimated energy consumption of the building class it supplies does the solar power system provide?
Output	Solar Power - Energy Generation per year
Office	12,118 kWh
Output	% of Building's Energy
Office	163 %

4.4 Renewable Energy Systems - Other N/A ✣ Scoped Out

No other (non-solar PV) renewable energy is in use.

This credit was scoped out	No other (non-solar PV) renewable energy is in use.

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BESS, Storhub Burnley 173-177 Barkly Ave, Burnley 3121

IEQ Overall contribution 16.5%

	Minimum required 50%	**52%**	✔ **Pass**

1.4 Daylight Access - Non-Residential		33%	✔ Achieved
Score Contribution	This credit contributes 35.3% towards the category score.		
Criteria	What % of the nominated floor area has at least 2% daylight factor?		
Question	Percentage Achieved?		
Office	60 %		
Unconditioned Warehouse/factory	33 %		
2.3 Ventilation - Non-Residential		49%	✔ Achieved
Score Contribution	This credit contributes 35.3% towards the category score.		
Criteria	What % of the regular use areas are effectively naturally ventilated?		
Question	Percentage Achieved?		
Office	60 %		
Unconditioned Warehouse/factory	100 %		
Criteria	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668.2:2012?		
Question	Percentage Achieved?		
Office	0 %		
Unconditioned Warehouse/factory	0 %		
Criteria	What CO2 concentrations are the ventilation systems designed to achieve, to monitor and to maintain?		
Question	Value		
Office	0 ppm		
Unconditioned Warehouse/factory	0 ppm		
3.4 Thermal comfort - Shading - Non-Residential		100%	
Score Contribution	This credit contributes 17.6% towards the category score.		
Criteria	What percentage of east, north and west glazing to regular use areas is effectively shaded?		
Question	Percentage Achieved?		
Office	100 %		
Unconditioned Warehouse/factory	100 %		
3.5 Thermal Comfort - Ceiling Fans - Non-Residential		0%	

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Score Contribution	This credit contributes 5.9% towards the category score.
Criteria	What percentage of regular use areas in tenancies have ceiling fans?
Question	Percentage Achieved?
Office	0 %
Unconditioned Warehouse/factory	0 %

4.1 Air Quality - Non-Residential 100%

Score Contribution	This credit contributes 5.9% towards the category score.

Criteria	Do all paints, sealants and adhesives meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Office	Yes
Unconditioned Warehouse/factory	Yes

Criteria	Does all carpet meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Office	Yes
Unconditioned Warehouse/factory	Yes

Criteria	Does all engineered wood meet the maximum total indoor pollutant emission limits?
Question	Criteria Achieved ?
Office	Yes
Unconditioned Warehouse/factory	Yes

BESS, Storhub Burnley 173-177 Barkly Ave, Burnley 3121

Transport Overall contribution 9.0%

	0%

1.4 Bicycle Parking - Non-Residential		1%
Score Contribution	This credit contributes 25% towards the category score.	
Criteria	Have the planning scheme requirements for employee bicycle parking been exceeded by at least 50% (or a minimum of 2 where there is no planning scheme requirement)?	
Question	Criteria Achieved ?	
Office	Yes	
Unconditioned Warehouse/factory	No	
Question	Bicycle Spaces Provided ?	
Office	6	
Unconditioned Warehouse/factory	0	
1.5 Bicycle Parking - Non-Residential Visitor		1%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Have the planning scheme requirements for visitor bicycle parking been exceeded by at least 50% (or a minimum of 1 where there is no planning scheme requirement)?	
Question	Criteria Achieved ?	
Office	Yes	
Unconditioned Warehouse/factory	No	
Question	Bicycle Spaces Provided ?	
Office	4	
Unconditioned Warehouse/factory	0	
1.6 End of Trip Facilities - Non-Residential		0% ⊘ Disabled
		Credit 1.4 must be complete first.
This credit is disabled	Credit 1.4 must be complete first.	
2.1 Electric Vehicle Infrastructure		0%
Score Contribution	This credit contributes 25% towards the category score.	
Criteria	Are facilities provided for the charging of electric vehicles?	
Question	Criteria Achieved ?	
Project	No	
2.2 Car Share Scheme		0%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Has a formal car sharing scheme been integrated into the development?	
Question	Criteria Achieved ?	
Project	No	
2.3 Motorbikes / Mopeds		0%

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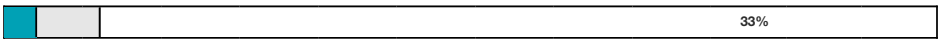
Score Contribution	This credit contributes 12.5% towards the category score.
Criteria	Are a minimum of 5% of vehicle parking spaces designed and labelled for motorbikes (must be at least 5 motorbike spaces)?
Question	Criteria Achieved ?
Project	No

Waste & Resource Recovery **Overall contribution 5.5%**



1.1 Construction Waste - Building Re-Use	0%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	If the development is on a site that has been previously developed, has at least 30% of the existing building been re-used?
Question	Criteria Achieved ?
Project	No

2.1 Operational Waste - Food & Garden Waste	0%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are facilities provided for on-site management of food and garden waste?
Question	Criteria Achieved ?
Project	No

2.2 Operational Waste - Convenience of Recycling	100%
Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are the recycling facilities at least as convenient for occupants as facilities for general waste?
Question	Criteria Achieved ?
Project	Yes

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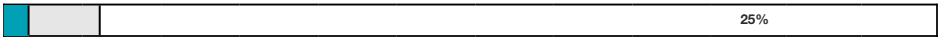
Urban Ecology Overall contribution 5.5%



1.1 Communal Spaces		0%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Is there at least the following amount of common space measured in square meters : * 1m² for each of the first 50 occupants * Additional 0.5m² for each occupant between 51 and 250 * Additional 0.25m² for each occupant above 251?	
Question	Common space provided	
Office	0.0 m²	
Unconditioned Warehouse/factory	0.0 m²	
Output	Minimum Common Space Required	
Office	19 m²	
Unconditioned Warehouse/factory	223 m²	
2.1 Vegetation		25%
Score Contribution	This credit contributes 50% towards the category score.	
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the total site area?	
Question	Percentage Achieved ?	
Project	5 %	
2.2 Green Roofs		100%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Does the development incorporate a green roof?	
Question	Criteria Achieved ?	
Project	Yes	
2.3 Green Walls and Facades		0%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Does the development incorporate a green wall or green façade?	
Question	Criteria Achieved ?	
Project	No	
3.2 Food Production - Non-Residential		0%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	What area of space per occupant is dedicated to food production?	
Question	Food Production Area	
Office	0.0 m²	
Unconditioned Warehouse/factory	0.0 m²	
Output	Min Food Production Area	
Office	5 m²	
Unconditioned Warehouse/factory	87 m²	

BESS, Storhub Burnley 173-177 Barkly Ave, Burnley 3121

Innovation Overall contribution 9.0%

	0%

1.1 Innovation		0%
Score Contribution	This credit contributes 100% towards the category score.	
Criteria	What percentage of the Innovation points have been claimed (10 points maximum)?	

Disclaimer

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Appendix B – Daylight Report

IGS INTEGRATED GROUP SERVICES

Value | Innovation | Trust

Daylight Access Modelling Report

173-177 Barkly Avenue
Burnley VIC 3121

Date: 24/03/2026
Project No: 25022

Level 4, 108 Elizabeth Street
Melbourne VIC 3000
Web: www.igs.com.au

Document Control

Version	Date	Issue	Author		Reviewer	
00	19/03/2026	Issue for Review	Gokul Nisha	GN	Li Huan	LH
01	20/03/2026	Issue for Review	Gokul Nisha	GN	Li Huan	LH
02	24/03/2026	Issue for Review – General Updates	Gokul Nisha	GN	Li Huan	LH

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1. Executive Summary

IGS was engaged to undertake a daylight simulation on the proposed self-storage facility at 173-177 Barkly Avenue, Burnley to identify the BESS Indoor Environment Quality (IEQ) Daylight Access for the office ancillary, reception and wine storage common areas component daylight availability compliances.

The daylight availability simulation has been undertaken 700 mm above the finished floor for the development under the Uniform Cloudy Sky. A Uniform Cloudy Sky represents a sky with a constant value of luminance. The values are derived from a statistical analysis of outdoor illuminance levels. They represent a horizontal illuminance level that exceeds 85% of the time between the hours of 9am and 5pm throughout the year. They also represent that the building has been designed to meet the modelled daylight levels for at least 85% of the daytime annually.

BESS IEQ category requires a minimum 33% of the floor area achieves at least 2% daylight factor for the regularly occupied spaces of the development.

The daylight modelling results indicate the office ancillary, reception and wine storage common area component will achieve at least 2% of daylight factor to minimum 33% of the floor area through appropriate window sizing and selection.

2. Introduction

2.1 Key Assumptions

The proposed external windows visible light transmissions (VLTs) are recommended to be:

- All External windows (Office Ancillary and Reception): VLT ≥ 30%

Finishes Reflectance Values

The following default reflectance values are used for the building finishes daylight availability modelling.

- Floor covering reflectance = 0.3
- External Walls reflectance = 0.4
- Internal Partition reflectance = 0.7
- Ceiling reflectance = 0.8
- Surrounding Buildings reflectance = 0.3

2.2 Sky Model

The Uniform Cloudy Sky of horizontal external illuminance of 10,000 Lux is used for daylight availability simulation. A Uniform Cloudy Sky represents a sky with a constant value of luminance. The values are derived from a statistical analysis of outdoor illuminance levels. They represent a horizontal illuminance level that exceeds 85% of the time between the hours of 9am and 5pm throughout the year. Thus, they also represent that the building has been designed to meet the modelled daylight levels for at least 85% of the daytime annually.

2.3 Building Shape

The building physical shape is modelled in accordance with Architectural Drawings Package Rev A dated 19.03.2026.

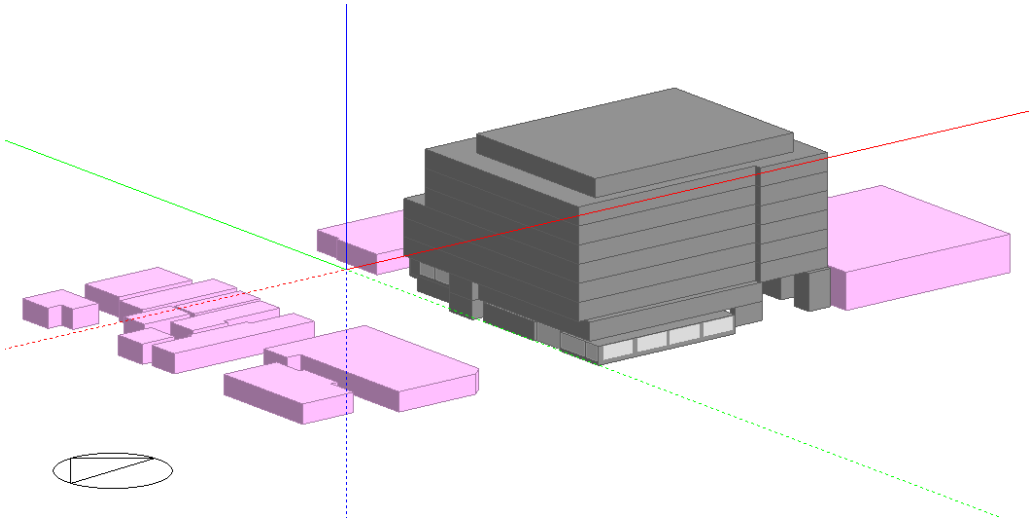


Figure 1 – Building Model of the site

3. BESS IEQ Daylight Assessment

3.1 Daylight Result

BESS Indoor Environment Quality (IEQ) category requires the daylight modelling to be undertaken to demonstrate more than 33% of the nominated area achieves a daylight factor of at least 2% assuming a uniform design sky for all regularly occupied areas.

3.1.1 Ground Floor

Below is the daylight contour plot extracted from Design Builder daylight modelling result showing daylight availability across the Ground Floor Office Ancillary and Reception area.

Figure 2 – Ground Floor Daylight Contour Plot

3.1.2 Mezzanine Level

Below is the daylight contour plot extracted from Design Builder daylight modelling result showing daylight availability across the Mezzanine level wine storage common area.

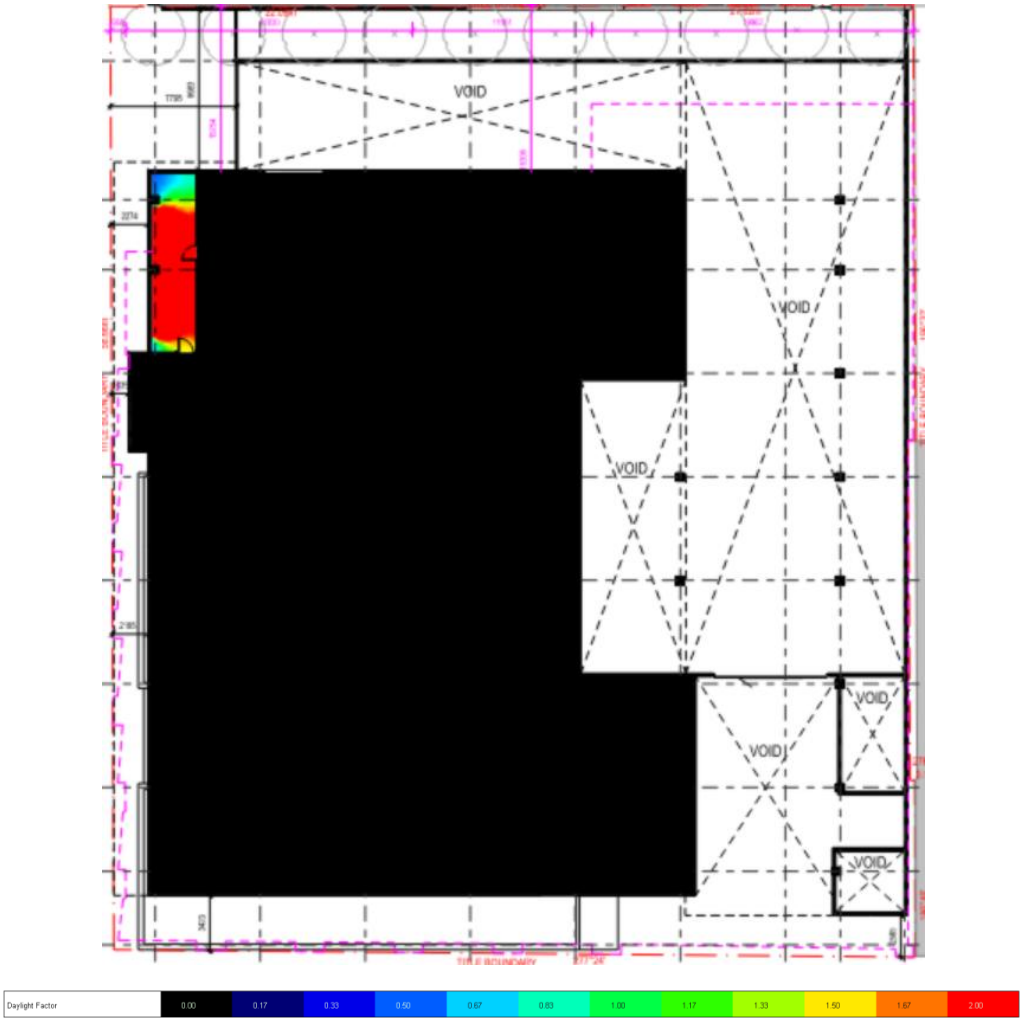


Figure 3 – Mezzanine Level Daylight Contour Plot

3.1.3 Daylight Result – Summary Table

Daylight availability output of the regularly occupied spaces is tabulated below:

Block	Zone	Floor area (m^2)	Floor Area above Threshold (m^2)	Floor Area above Threshold (%)
Ground Floor	Office Ancillary and Reception	202.5	171.2	84.5%
Mezzanine Level	Wine storage common area	32.0	22.5	70.5%

Overall Total Area (m^2)	234.5
Overall Total Compliant Area (m^2)	193.7
Overall Total Compliant Area (%)	82.6%

4. Conclusion

BESS IEQ category requires at least 33% of total regularly occupied space floor area to achieve 2% DF to meet the minimum BESS requirements for daylight availability.

The daylight modelling results indicated that more than 33% of the office ancillary, reception and wine storage common area component's floor area achieves at least 2% DF, satisfying the BESS daylight requirements. Overall, the result confirm that the development meets the BESS IEQ daylight access requirement.

Appendix C – NCC Façade Calculation Report

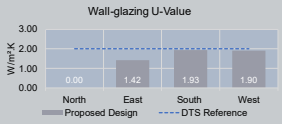
Façade

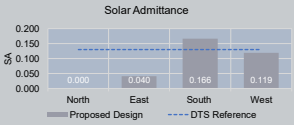
Wall Glazing Areas + Results

User Input | Active Row - All Inputs Required | User Dropdown | Calculator

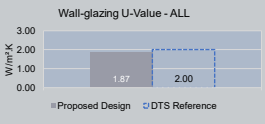
Results | **Class 5 - office building** | **Climate Zone 6 - Mild temperate**

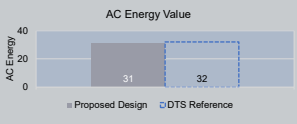
Method 1





Method 2





Wall Glazing Area

Compliant Solution =
Non-Compliant Solution =

North	Glazing Reference	Height (m)	Width (m)	Glazing Area (m²)	Shading Reference	Wall Reference	Wall Area (m²)	Total Area (m²)	Internal
1									
2									
3									
4									
5									
6									

	Result	Target				
Wall-glazing U-Value (W/m².K)			Glazing Area (m²)		Average Glazing U-Value (W/m².K)	
Solar Admittance			Wall Area (m²)		Average Glazing SHGC	
			Glazing to Façade Ratio		Average Wall R-Value (m².K/W)	

East	Glazing Reference	Height (m)	Width (m)	Glazing Area (m²)	Shading Reference	Wall Reference	Wall Area (m²)	Total Area (m²)	Internal
1	IGS_Glazing_G1			8.25	Device	IGS-Spandrel R2.0	9.65	17.90	
2									
3									
4									
5									
6									

	Result	Target				
Wall-glazing U-Value (W/m².K)	1.42	2.00	Glazing Area (m²)	8.25	Average Glazing U-Value (W/m².K)	2.50
Solar Admittance	0.040	0.130	Wall Area (m²)	9.65	Average Glazing SHGC	0.25
			Glazing to Façade Ratio	46%	Average Wall R-Value (m².K/W)	2.00

South	Glazing Reference	Height (m)	Width (m)	Glazing Area (m²)	Shading Reference	Wall Reference	Wall Area (m²)	Total Area (m²)	Internal
1	IGS_Glazing_G1			57.6	0.25P X 2.4H	IGS-Spandrel R2.0	23	80.60	
2									
3									
4									
5									
6									

	Result	Target				
Wall-glazing U-Value (W/m².K)	1.93	2.00	Glazing Area (m²)	57.6	Average Glazing U-Value (W/m².K)	2.50
Solar Admittance	0.166	0.130	Wall Area (m²)	23	Average Glazing SHGC	0.25
			Glazing to Façade Ratio	71%	Average Wall R-Value (m².K/W)	2.00

West	Glazing Reference	Height (m)	Width (m)	Glazing Area (m²)	Shading Reference	Wall Reference	Wall Area (m²)	Total Area (m²)	Internal
1	IGS_Glazing_G1			20.49	0.25P X 2.4H	IGS-Spandrel R2.0	26.02	46.51	
2	IGS_Glazing_G2			10.56	0.8P X 3H			10.56	
3	IGS_Glazing_GL1			7.2	0.8P X 3H			7.20	
4	IGS_Glazing_G3			16.83	2.1P X 2.6H			16.83	
5									
6									

	Result	Target				
Wall-glazing U-Value (W/m².K)	1.90	2.00	Glazing Area (m²)	55.08	Average Glazing U-Value (W/m².K)	2.57
Solar Admittance	0.119	0.130	Wall Area (m²)	26.02	Average Glazing SHGC	0.25
			Glazing to Façade Ratio	68%	Average Wall R-Value (m².K/W)	2.00

Reference Building

Include shading?

	Glazing to Façade Ratio	Wall U-Value (W/m².K)	Method 1 Glazing U-Value (W/m².K)	Shading Multiplier	SHGC	Wall U-Value (W/m².K)	Method 2 Glazing U-Value (W/m².K)	SHGC
North		0.00		0.000		0.50	2.73	0.00
East	46%	0.50	3.75	0.350	0.81			
South	71%	0.50	2.60	0.928	0.20			
West	68%	0.50	2.71	0.699	0.27			

OFFICIAL

Façade

Report

Calculator

Project Summary

Date
19/03/2026

Name
IGS ESD

Company
Integrated Group Services

Position
IGS ESD Team

Building Name / Address
Storhub Burnley
Melborune

Building State
VIC

Climate Zone
Climate Zone 6 - Mild temperate

Building Classification
Class 5 - office building

Storeys Above Ground
7

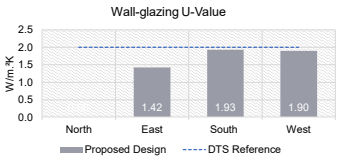
Tool Version
1.5 (May 2024)

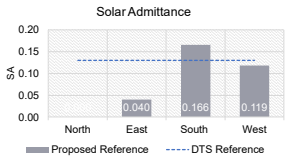
The summary below provides an overview of where compliance has been achieved for Specification S37 - Calculation of U-Value and solar admittance - Method 1 (Single Aspect) and Method 2 (Multiple Apects).

Compliant Solution =
Non-Compliant Solution =

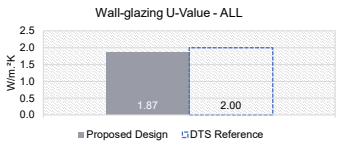
	Method 1				Method 2
	North	East	South	West	All
Wall-glazing U-Value (W/m².K)		1.42	1.93	1.90	1.87
Solar Admittance		0.04	0.17	0.12	
AC Energy Value					31

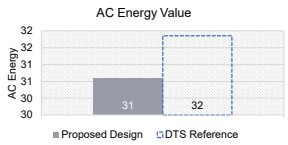
Method 1





Method 2





Project Details

	North	East	South	West
Glazing Area (m²)		8.25	57.6	55.08
Glazing to Façade Ratio		46%	71%	68%
Glazing References		IGS_Glazing_G1	IGS_Glazing_G1	IGS_Glazing_G1 IGS_Glazing_G2 IGS_Glazing_GL1 IGS_Glazing_G3
Glazing System Types		Fixed	Fixed	Fixed Sliding Door
Glass Types		IGS Glazing - Type 1	IGS Glazing - Type 1	IGS Glazing - Type 1 IGS Glazing - Type 2 IGS Glazing - Type 3
Frame Types		Aluminium	Aluminium	Aluminium
Average Glazing U-Value (W/m².K)		2.50	2.50	2.57
Average Glazing SHGC	0.00	0.25	0.25	0.25
Shading Systems	Horizontal Device	Horizontal Device	Horizontal Device	Horizontal Device
Wall Area (m²)		9.65	23	26.02
Wall Types		Spandrel	Spandrel	Spandrel
Methodology	Wall			
Wall Construction		IGS - Spandrel R2.0	IGS - Spandrel R2.0	IGS - Spandrel R2.0
Wall Thickness		80	80	80
Average Wall R-value (m².K/W)		2.00	2.00	2.00
Solar Absorptance	0.6	0.6	0.6	0.6

OFFICIAL

Appendix D – Stormwater Management Plan

IGS INTEGRATED GROUP SERVICES

Value | Innovation | Trust

Stormwater Management Plan

173-177 Barkly Avenue
Burnley VIC 3121

Date: 19/03/2026
Project No: 25022

Storhub Burnley

Stormwater Management Plan

Level 4, 108 Elizabeth Street,
Melbourne VIC 3000
Web: www.igs.com.au

Document Control

Version	Date	Issue	Author		Reviewer	
00	09/10/2025	Issue for Review	Gokul Nisha	GN	Li Huan	LH
02	19/03/2026	Issue for Review – Layout Updates	Gokul Nisha	GN	Li Huan	LH

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1 Executive Summary

Integrated Group Services (IGS) has been commissioned to prepare a Stormwater Management Plan (SWMP) for the proposed self-storage development located at 173-177 Barkly Avenue, Burnley.

The modelling results (see **Table 1**) indicate the Best Practice Environmental Management (BPEMG) stormwater pollutants reduction target 70%, 80%, 45% and 45% for Gross Pollutants (GP), Total Suspended Solids (TSS), Total Phosphorus (TP) and Total Nitrogen (TN) respectively can be achieved.

Pollutant	Sources	Residual Load	Reduction Achieved (%)	Reduction Target (%)
Flow (ML/yr)	1.588	1.371	13.6	0
Total Suspended Solids	193.7	25.11	87.0	80
Total Phosphorus	0.4676	0.1957	58.1	45
Total Nitrogen	4.036	1.673	58.5	45
Gross Pollutants	56.24	0	100	70

Table 1: Treatment Train Effectiveness

Stormwater management for the site is achieved using the following devices:

- One (1) x 4kL Rainwater Tank collecting Rainwater from non-trafficked roofs.
- One (1) x Raingarden(s) (20m² of area)

The development meets the water quality performance objectives as set out in the Urban Stormwater Best Practice Environmental Management Guidelines (CSIRO) or as amended.

2 Overview

2.1 Introduction

This report has been prepared by Integrated Group Services (IGS) to form part of the Sustainable Management Plan for the proposed self-storage development located at 173-177 Barkly Avenue, Burnley. The site is located within the City of Yarra.

Figure 1: Site Location

2.2 Site Layout

The proposed development is presented on **Figure 2**.

Figure 2: Proposed Site Layout

3 Stormwater Management – Operational Controls

3.1 Water Quality Objectives

Melbourne Water (2018) requires treatment of stormwater so that annual pollutant loads achieve targets set out in the Best Practice Environmental Management Guidelines (BPEMG). These are:

- 80% reduction in Total Suspended Solids (TSS) from typical urban loads.
- 45% reduction in Total Nitrogen (TN) from typical urban loads.
- 45% reduction in Total Phosphorus (TP) from typical urban loads; and
- 70% reduction in Gross Pollutants (GP) from typical urban loads.

3.2 Treatment Train

Based on the site characteristics and the range of available Stormwater Quality Improvement Devices (SQIDs), this study has developed an overall concept that will satisfy the requirements of downstream environmental protection. **Figure 3** shows a schematic representation of the proposed treatment train elements.

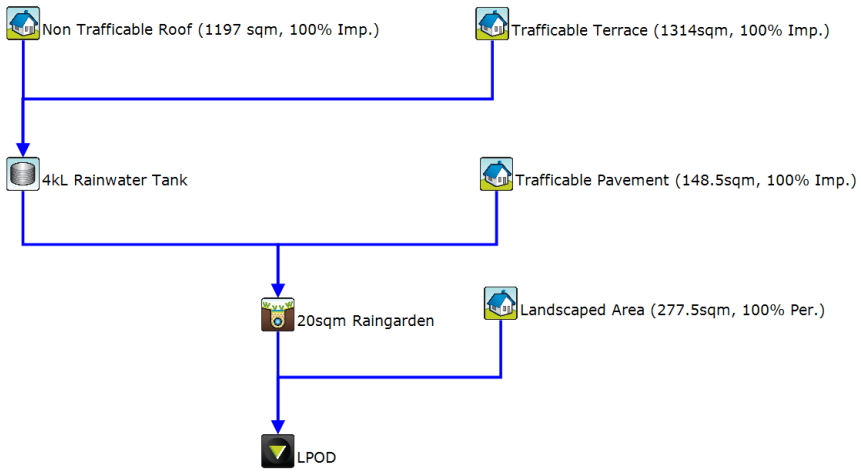

Figure 3: Treatment Train Schematic

3.3 Rainwater Tank

Rainwater tanks can reduce the harm to Stormwater waterways caused by too much stormwater. Tank water can be reused for toilet flushing, laundry washing, gardens and lawn irrigation and cars wash, this will significantly be reducing the potable / drinking cold water consumption. For this development, the rainwater collected will be used for toilet flushing and for landscape irrigation.

Rainwater tanks collect stormwater run-off from impervious surfaces such as roofs, the tank will be fitted with an overflow outlet that in the event of tank full capacity the excessive pour down will be redirected or fall into the stormwater drainage system.

Rainwater tanks are generally used for watering gardens are much less efficient than tanks used for flushing toilets.

Advantages of rainwater tanks are that they:

- minimise water usage when used in the toilet, laundry or garden.
- reduce strain on the stormwater drainage system.
- retain water close to source.
- reduce site run-off and flood peaks.

To maximise the use of roof rainwater runoff it will be best to increase the tank capacity and ensure the design allows for maximum catchment. A rainwater harvesting system will be installed comprising:

- Rainwater harvesting from non-trafficked roofs and store within the 4kL rainwater tank for toilet flushing and for landscape irrigation.

3.4 Rain Gardens

Raingardens are specially designed garden beds that filter stormwater runoff from surrounding areas or stormwater pipes. Raingardens are also called bioretention systems because they use soil, plants, and microbes to biologically treat stormwater.

Although they may look similar to a normal garden, raingardens are designed to stop stormwater run-off from polluting stormwater waterways with nutrients, rubbish and other sediments, the system operates as follows.

- Water collects and settles on the garden surface.
- Water soaks through the plants and filter media, trapping rubbish and sediment on the surface.
- Plants use the nutrients in the stormwater, and toxins stick to the soil; and
- The soil and plant roots work together to naturally filter the water and remove pollutants.

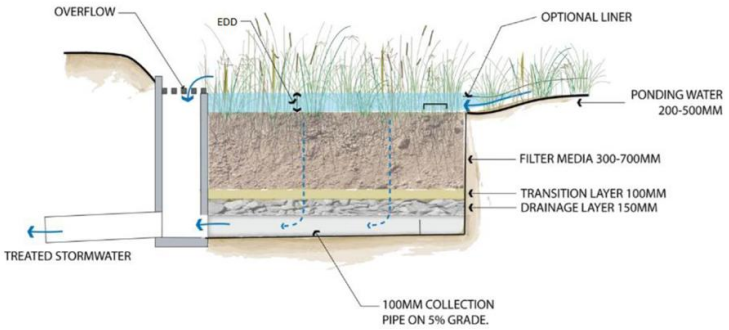

Figure 4: Typical Raingarden Section for illustration purpose

4 Stormwater Analysis – MUSIC

Storm Water modelling has been undertaken of the post-development (mitigated) scenario using the Model for Urban Stormwater Improvement Conceptualisation (MUSIC) software to demonstrate the load-based reduction targets are achieved. A stormwater treatment train has been developed and modelled to determine the effectiveness of the proposed system in achieving the relevant storm water objectives.

4.1 Rainfall and Evapotranspiration Parameters

The meteorological and rainfall-runoff data used in the MUSIC model is summarized below.

Parameter	Value
Rainfall station	86071 – Melbourne Regional
Time step	6 minutes
Modelling period	January 1952 – December 1961
Mean annual rainfall	708 mm
Mean annual Evapo-Transpiration	995 mm

Table 3: Meteorological and Rainfall Runoff Data

4.2 Catchment Parameters

Based on the proposed land uses within the development, the subject site has been modelled as an urban source node. The rainfall-runoff parameters and pollutant generation parameters are based on parameters recommended by Melbourne Water **(2024) (Tables 4 and 5).**

Parameter	All Nodes
Rainfall threshold (mm)	1.0
Soil storage capacity (mm)	120
Initial storage (% capacity)	25
Field capacity (mm)	50
Infiltration capacity coefficient a	200
Infiltration capacity exponent b	1
Initial depth (mm)	10
Daily recharge rate (%)	25
Daily base flow rate (%)	5
Daily deep seepage rate (%)	0

Table 4: Rainfall Runoff Parameters

Catchment ID		Total Suspended Solids [log (mm/L)]		Total Phosphorous [log (mm/L)]		Total Nitrogen [log (mm/L)]	
		Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Landscape	Storm Flow Concentration	1.882	0.333	-0.680	0.242	-0.224	0.205
	Base Flow Concentration	0.96	0.401	-0.731	0.360	-0.346	0.309
Hardstand	Storm Flow Concentration	2.431	0.333	-0.301	0.242	0.343	0.205
	Base Flow Concentration	0	0	0	0	0	0
Roof	Storm Flow Concentration	1.301	0.333	-0.886	0.242	0.301	0.205
	Base Flow Concentration	0	0	0	0	0	0

Table 5: Pollutant Export Parameters for Urban Sites

4.3 Stormwater Demand

Stormwater volume reduction is achieved through the reuse of harvested rainwater for toilet flushing and landscape irrigation. The estimated daily water demand used for the MUSIC modelling is based on the following demand:

- **Total Reuse demand**: 0.8kL/day

4.4 MUSIC Results

Results of the MUSIC modelling for the treatment train effectiveness are summarised in **Table 6**. The results indicate the 80%, 45%, 45% and 70% reduction target for TSS, TP, TN and Gross Pollutants respectively are achieved. A screen capture of the MUSIC modelling results is included as **Figure 5**.

Pollutant	Sources	Residual Load	Reduction Achieved (%)	Reduction Target (%)
Flow (ML/yr)	1.588	1.371	13.6	0
Total Suspended Solids	193.7	25.11	87.0	80
Total Phosphorus	0.4676	0.1957	58.1	45
Total Nitrogen	4.036	1.673	58.5	45
Gross Pollutants	56.24	0	100	70

Table 6: Treatment Train Effectiveness

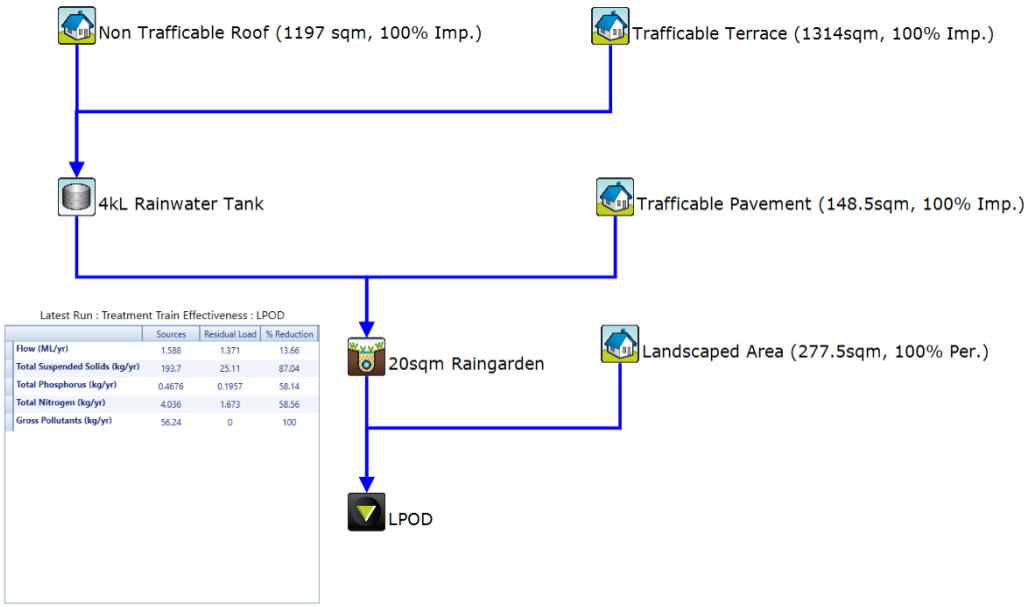

Figure 05: Treatment Train Music Model Screen Capture

5 Summary

Based on the water quality assessment using the MUSIC software, it is found that the pollutant reduction targets can be achieved by adopting the SQIDs as specified in **Table 7.**

Stormwater Quality Improvement Device	Quantity
Minimum RWT collection and reuse for toilet flushing and landscaping irrigation (4kL)	1
Raingarden(s) (20m² of area)	1

Table 7: Recommended Stormwater Quality Improvement Devices

6 Recommendation

6.1 Stormwater Quality Improvement Device

6.1.1 Rainwater Tank

Rainwater tanks can reduce the harm to stormwater waterways caused by too much stormwater. Tank water can be reused for toilet flushing, laundry washing, gardens and lawn irrigation and car wash, this will significantly reduce the potable / drinking cold water consumption. For this project, the rainwater collected will be used for toilet flushing and landscaping irrigation.

6.1.2 Rain Gardens

The recommended raingardens are designed to capture stormwater at the downstream end of the drainage network and treat the runoff prior to discharging into the local waterway. The pollutant reduction targets achieved (as modelled in MUSIC) are summarised in **Table 8**.

Pollutant	Sources	Residual Load	Reduction Achieved (%)	Reduction Target (%)
Flow (ML/yr)	1.588	1.371	13.6	0
Total Suspended Solids	193.7	25.11	87.0	80
Total Phosphorus	0.4676	0.1957	58.1	45
Total Nitrogen	4.036	1.673	58.5	45
Gross Pollutants	56.24	0	100	70

Table 8: MUSIC Modelling Results

7 Site Managements Plan During Construction

The stormwater management strategy will adopt the following procedures during construction:

- Ground water seepage shall be managed and treated prior to discharge to council's LPD by builder / contractor during construction. To protect drainage infrastructure and receiving waters from sedimentation and contamination.
- To protect the site and surrounding area from environmental degradation prior to and during construction of subdivision works.
- An application should describe how the site will be managed prior and during the construction period and may set out requirements for managing:

    - Erosion and sediment.
    - Stormwater.
    - Litter, concrete, and other construction wastes; and
    - Chemical contamination.

8 Maintenance

The maintenance procedure shall be in conjunction with the building maintenance and specification and shall Comply with relevant / applicable authority design guidelines and codes of practice requirements. The stormwater management strategy shall adopt the following maintenance procedures.

- Quarterly routine maintenance procedure to thoroughly maintain raingarden free of debris and general clean-up process by building management as part of building maintenance programme.
- Annually / 6-month drain and flushing of rainwater tank cleaning tank internally from debris and sediment collection captured from roof surface, by building management as part of building maintenance programme.
- Quarterly inspection of gutters to ensure they are free of debris and clean as required.
- Quarterly inspection of stormwater downpipes and grates to ensure no water leakage, they are free of debris and clean as required.
- Yearly inspections of rainwater tanks and supports to ensure no leakage, inspect joints, and clean as required.
- Water storage tanks should be inspected, cleaned, and disinfected in accordance with AS 3500.
- Bi-annual inspection of pumps to ensure correct operation, no leakage and clean as required.
- Service items and equipment in conformance with the maintenance schedules as per the operation and maintenance manuals.

    - Carry out the manufacturers' recommended maintenance instruction.
    - Attend to reported defects and complaints.
    - Check for and repair corrosion.
    - Check for and rectify any unsafe conditions.
    - Replace faulty or damaged parts and consumable components.
    - connections, for deterioration and for freedom of movement of assembly.
    - Identification of pipes, conduits, and ducts maintenance: To AS 1345.
    - Safety signs maintenance: To AS 1319.
    - Remove waste and clean all parts of the installation.
    - Remove temporary protective coatings, packaging, and labels.
    - Clean screens and strainer baskets.

9 References

The report has used the following references:

- Melbourne Water (2024) MUSIC Guidelines – Input Parameters and Modelling approaches for MUSIC user in Melbourne Water's services area 2024.
- Urban Stormwater Best Practice Environmental Management Guidelines.

173-177 Barkly Avenue, Burnley

Waste Management Plan

240657WMP001D-F.docx

25 March 2026

onemilegrid

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1 INTRODUCTION

onemile**grid** has been requested by Storhub to prepare a Waste Management Plan for the proposed self-storage development at 173-177 Barkly Avenue, Burnley.

The preparation of this management plan has been undertaken with due consideration of the Sustainability Victoria Better Practice Guide for Waste Management and Recycling in Multi-unit Developments and relevant Council documentation.

2 PURPOSE

The purpose of the waste management plan is to:

- Demonstrate the development of an effective waste management system that is compatible with the design of the proposed self-storage development and the adjacent built environment. An effective waste management system is hygienic, clean and tidy, minimises waste going to landfill, and maximises recycling;
- Provide a waste management system that is supported by scale drawings to ensure the final design and construction of the development is compliant with the WMP and is verifiable;
- Form a document that achieves effective communication of the waste management system so that all stakeholders can be properly informed of its design, and the roles and responsibilities involved in its implementation. Stakeholders are defined (but not limited to): owners, occupiers, owners corporations, property managers/real estate agents, Council, neighbours and collection contractors;
- Ensure staff and members are not disadvantaged in their access to recycling and other responsible waste management options; and
- Avoid existing legacy issues that plague many developments due to poor design and insufficient consideration for waste management.

3 POLICIES, STRATEGIES AND GUIDELINES

3.1 Recycling Victoria – Best Practice Waste Management

Best Practice Waste Management is an initiative designed to reduce the amount of waste generated, through encouraging a change of behaviour and action on waste management and moreover recycling.

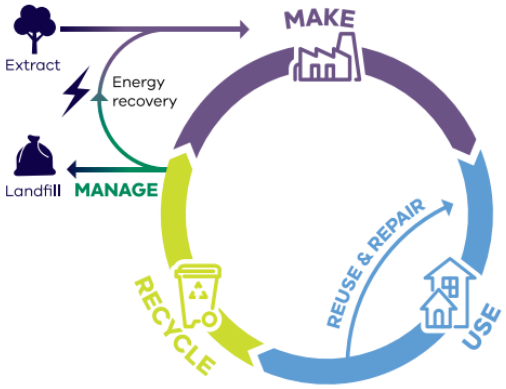
The benefits of reducing waste generation are far reaching and have been identified as significantly important by Council and the Victorian Government.

Recycling Victoria: A New Economy is a policy and 10-year action plan, prepared by the Victoria Government, to "deliver a cleaner, greener Victoria, with less waste and pollution, better recycling, more jobs and a stronger economy".

Four overarching goals have been identified in order to achieve a circular economy in relation to waste, as below:

1. MAKE – Design to last, repair and recycle;
2. USE – Use products to create more value;
3. RECYCLE – Recycle more resources;
4. MANAGE – Reduce harm from waste and pollution.

Figure 1 Resource Flows in a Circular Economy



3.2 Sustainability Victoria

Sustainability Victoria has developed the Guide to Better Practice for Waste Management and Recycling in Multi-Unit Developments (MUDs) to improve waste management practices and increase recycling in MUDs and commercial developments.

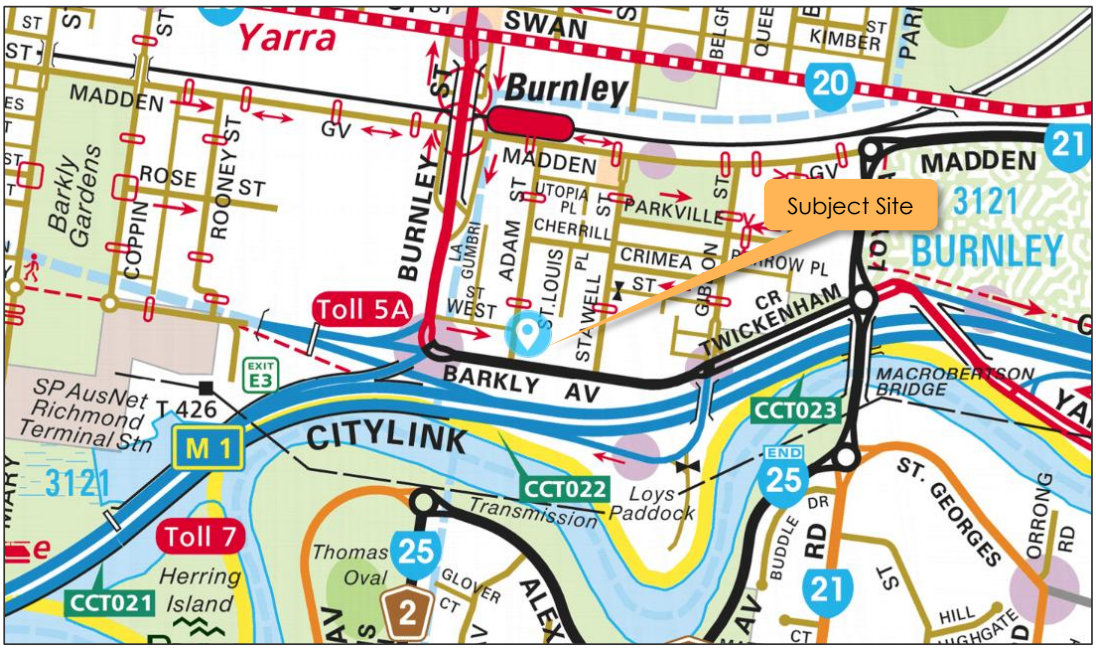
This guide is a stand-alone resource providing guidance for architects, building designers, developers, building managers, residents, planners, and waste management officers to incorporate effective waste and recycling systems into all stages of a development's life.

It outlines essential points of consideration when designing a waste management system for medium or high-density residential, mixed-use, and precinct-scale developments, with some guidance and better practice options applicable to a broader range of developments.

4 EXISTING SITE CONDITIONS

The subject site is addressed as 173-177 Barkly Avenue, Burnley, and is located on the northeast corner of the Barkly Avenue / Adam Street intersection in Figure 2.

Figure 2 Site Location



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The site has a frontage of approximately 50 m to Barkly Avenue to the south, and a frontage of approximately 59 m to Adam Steet to the west.

The site is currently occupied by Rogerseller (bathroom supply store) with vehicle access provided via a single-width crossover to the Barkly Avenue frontage and a single-width crossover to the Adam Street frontage.

5 PROPOSED DEVELOPMENT

It is proposed to develop the subject site for the purposes of a self-storage facility, as shown in Table 1 below.

Table 1 Proposed Development Summary

Component	*GFA*	*NLA*	*No.*
Self-Storage Area	15,089 m²	11,357 m²	
Loading / Car Parking Bays			10
Car Parking Bays			3

The self-storage facility, which will be operated by Storhub, will be staffed during business hours only, with the proposed business hours of the self-storage facility as follows:

- Self-Storage facilities
  - 24-hour/7 day a week access for customers, including public holidays
  - Office hours for non-customers/members
- Self-Storage Office
  - 8:30am to 5:30pm (Monday to Saturday)

Vehicular access to the site is proposed to be provided via a two-way crossover to Barkly Avenue at the site's southeast boundary. This access will link to a staff and customer parking area, and a secure loading area with one-way egress to Adam Street in the north-west corner of the site.

6 WASTE MANAGEMENT

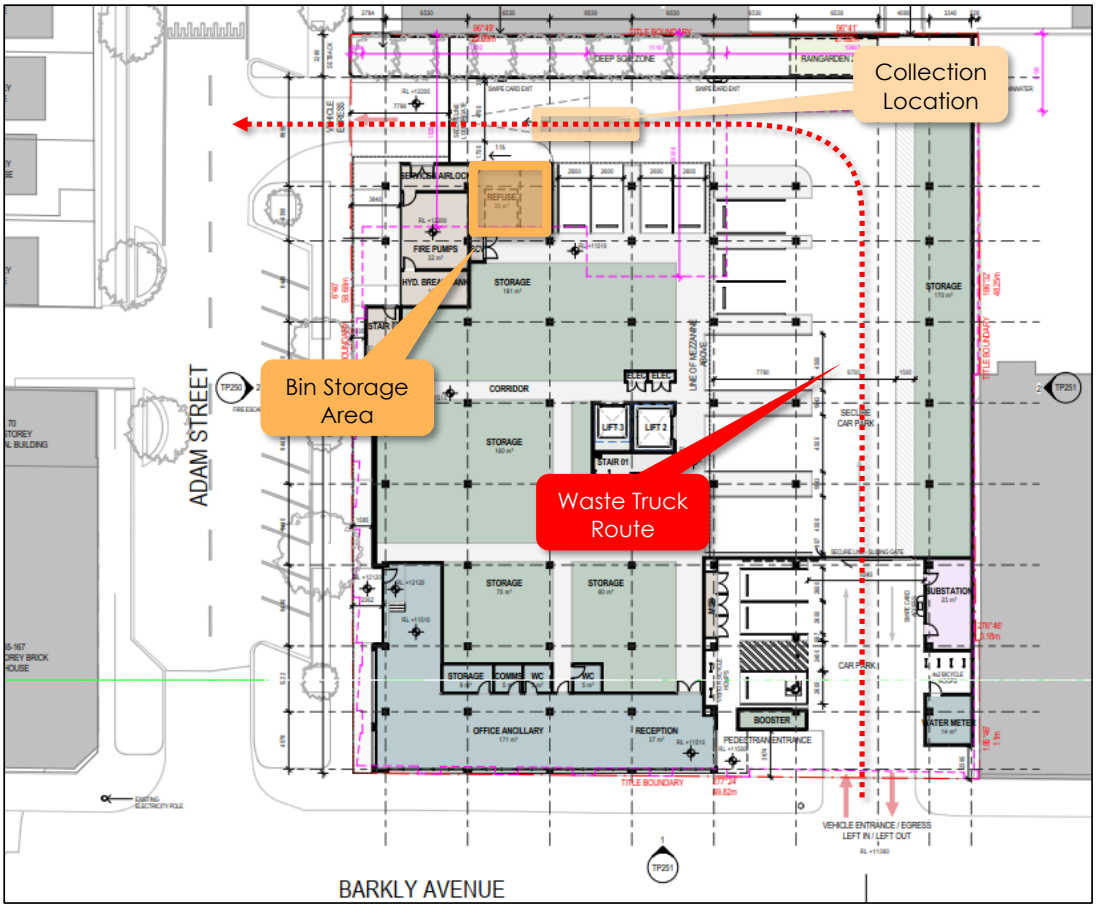
6.1 General

It is proposed to utilise a private contractor to manage the collection and disposal of all waste streams associated with the development.

Bins for all waste streams will be stored within a dedicated secure waste room on ground floor of the development. On waste collection days, the waste truck will enter the site via Barkly Avenue, circulate through the car park and prop adjacent to the bin store. The private waste contractor will then transfer bins directly from the bin store to the truck for collection. After collection, the private waste contractor will immediately return bins to the bin store with the waste collection vehicle exiting to Adam Street.

The collection location and expected transfer route is shown in Figure 3.

Figure 3 Bin Storage Room and Collection Details



6.2 Waste Streams

6.2.1 Garbage

The garbage stream comprises of non-recyclable material which is to be disposed of in landfill, and is one of the four primary waste streams identified by Recycling Victoria and forms part of the standard commercial collection system.

Bulk garbage bins will be provided for the collection and disposal of garbage.

6.2.2 Recycling

The commingled recycling stream is a mixed material stream consisting of paper, cardboard, cans, plastics, and glass (where not collected as part of a separate glass collection service) and is one of the four primary waste streams identified by Recycling Victoria and forms part of the standard commercial collection system.

Bulk bins will be provided for the collection and disposal of recycling.

6.2.3 Green Waste

Given the nature of the proposed development, it is expected that green waste generation will be minimal or negligible, and therefore a green waste collection service is not expected to be required.

It is expected that any maintenance and gardening undertaken on common property will be managed by a contractor appointed by the operator. The appointed contractor will be responsible for the disposal of any green waste accumulated during the course of their duties.

6.2.4 Hard Waste

Hard waste services will also be provided by the private contractor, under the management of the operator.

Additional to the above, hard waste may be disposed of independently by staff, at Council's Recycling Centre/Transfer Station.

Hard waste must not be left in common areas including the loading bays.

6.2.5 Electronic Waste (E-Waste)

Council does not provide a kerbside pick-up service for E-waste, therefore E-waste must be taken by staff to the appropriate collection centre, as described below:

- Yarra Recycling Centre accepts all e-waste;
- Planet Ark operate a number of e-waste recycling drop-off locations throughout Victoria (https://recyclingnearyou.com.au/electrical);
- Officeworks stores accept small amounts of personal E-waste;
- Aldi stores accept batteries; and
- Some Bunnings Warehouse stores accept batteries.

Additional recycling locations are provided at www.recyclemate.com.au, or https://recyclingnearyou.com.au/.

6.2.6 Soft Plastics

Soft plastic waste is estimated to contribute approximately 20% of landfill waste volumes, and includes such things as bread bags, plastic bags, bubble wrap and snap lock bags.

Previously, soft plastics were able to be recycled via REDcycle bins located at most Coles and Woolworths supermarkets. However, REDcycle have since paused the recycling of soft plastic due to supplier/storage issues, therefore soft plastic should be disposed of using the garbage bins.

Alternatively, for businesses in Yarra, RecycleSmart offer a collection service of soft plastics, in addition to other items, which is available to individual residents and businesses.

RecycleSmart are partnered with APR Plastics who convert soft plastics into oil, which is then further processed into a resin, enabling it to be turned back into food grade plastic packaging again.

More information can be found at https://www.recyclesmart.com/

6.3 Waste Generation

Sustainability Victoria's "Better Practice Guide for Waste Management and Recycling in Multi-unit Developments" provides detail of recommended waste generation rates for a variety of land uses, though this does not include self-storage facilities.

These uses typically generate low levels of waste due to the operation of the facility and the fact that the majority of storage units are not utilised on a daily or weekly basis. However, to provide a conservative assessment, the waste rates for an office use have been adopted, as specified below.

Table 2 Sustainability Victoria Recommended Rates – Commercial

Use	Garbage Rate	Recycling Rate
Offices	10L per 100 m² per day	10L per 100 m² per day

Based on the Sustainability Victoria rates above and the proposed development net floor area of 11,357 m², the proposed development is anticipated to generate the following waste volumes shown in Table 3 below.

Table 3 Weekly Waste Generation

Use	Net Floor Area	Garbage	Recycling
Self-Storage (office rate)	11,357 m²	7,950L	7,950L

7 Waste Disposal and Collection Requirements

7.1 Bin Provision and Specifications

It is proposed to utilise a private waste contractor, providing twice-weekly waste and recycling collection. Consequently, the following bins will be required for the proposed development.

Table 4 Bin Provision

Stream	Total Waste/Week	Bin Size	Collection Frequency	Bins Required
Garbage	7,950 litres	4 x 1,100 litres	2 x Weekly	4 bins
Recycling	7,950 litres	4 x 1,100 litres	2 x Weekly	4 bins
Total				**8 bins**

Should the waste generation be lower than the above estimates, the operator may elect to reduce the number of bins or collection frequency.

Typical bin specifications for each bin size are provided in Table 5 below.

Table 5 Bin Specifications

Capacity	Width	Depth	Height	Area
1,100 litres	1.25 m	1.10 m	1.35 m	1.38 m²

Bins are to be colour coded to the Australian Standard (AS4123).

7.2 Bin Storage

As indicated in Figure 3, it is proposed to provide a secure waste storage room within the ground floor car park, with a total floor area of 33 m².

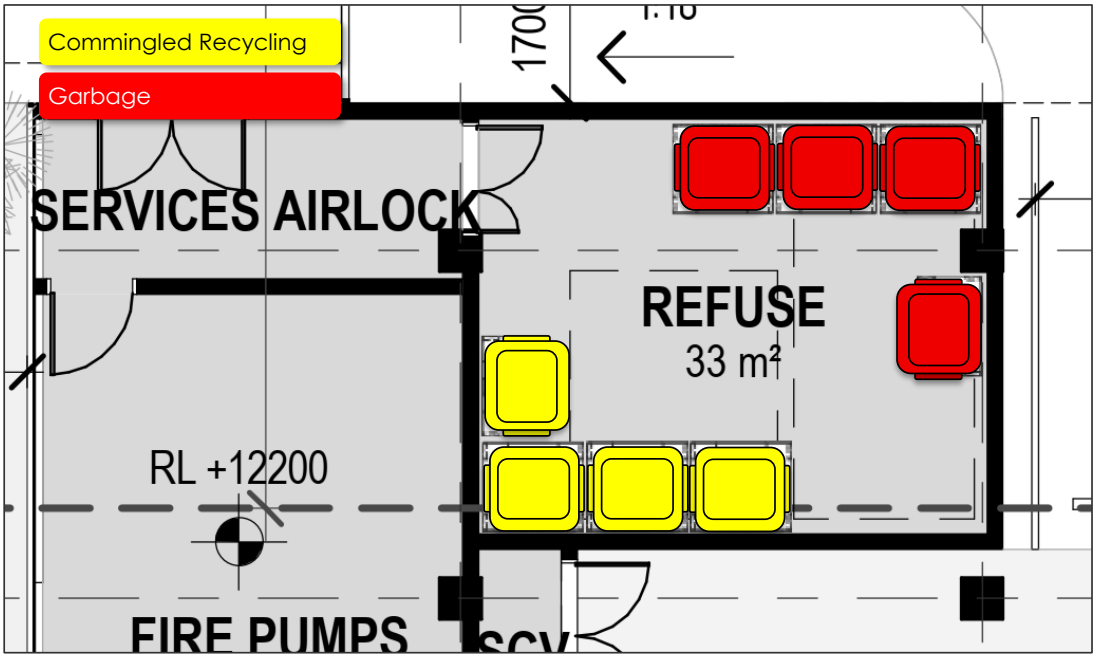
The layout of the bin storage area is shown in Figure 4, which demonstrates that the area is capable of accommodating the required bins, as calculated in Table 4.

Some additional area is also provided within the bin storage room to allow for the temporary storage of bulk items and packaging, under the control of the operator.

Furthermore, the bin storage area is located appropriately for access by staff and members, and is secured from the common areas.

The bin storage area should be vermin proof, and have appropriate ventilation, lighting and drainage.

Figure 4 Bin Storage Room Layout



7.3 Bin Usage

Staff and members will bag and dispose of garbage in the provided bins, located in the bin storage room.

Staff and members will transport and dispose of recyclables (non-bagged) in the provided bins, located in the bin storage room. Cardboard boxes should be flattened, and containers rinsed and cleaned prior to disposal in the provided bins.

7.4 Bin Collection

Bins will be stored within a dedicated bin storage room on the ground floor of the development. The waste collection truck will enter the car park and prop adjacent the bin store, from where the bins will be transferred directly to the waiting truck for emptying. The bins will be returned to the bin storage area immediately following collection.

Swept path diagrams showing the movements of the waste collection vehicle are attached in Appendix A.

Each waste stream is to be collected by dedicated trucks and waste streams are not to be collected in one truck. Each waste stream is to be taken to dedicated waste facilities for disposal and processing.

7.5 Bin Cleaning

The operator shall ensure that the bins are kept in a clean state, to minimise odours and to discourage vermin. This may include regular cleaning by a third party, cleaning by the waste contractor, bin swapping by the waste contractor, or maintenance by staff.

8 MANAGEMENT

8.1 General

In relation to the proposed development, recycling is of key importance, and in this regard, the operator shall encourage staff and members to participate in minimising and reducing solid waste production by:

- Promoting the waste hierarchy, which in order of preference seeks to:
  - Avoid waste generation in the first place;
  - Increase the reuse and recycling of waste when it is generated;
  - Recover, treat or contain waste preferentially to; and
  - Its disposal in Land Fill (which is least desirable).
- Providing information detailing recyclable materials to ensure that non-recyclable materials do not contaminate recycling collections;
- Providing information regarding safe chemical waste disposal methods and solutions, including correct battery and electronics disposal methods; and
- Providing tips for recycling and reusing waste, including encouraging the disposal of reusable items in good condition via donations to Opportunity Shops and Charities.

8.2 Staff Information

To ensure are aware of their responsibilities with regard to waste and bin management, an information package will be provided by the operator to all staff, including the following information:

- A copy of this Waste Management Plan;
- Methods and techniques for waste reduction and minimisation;
- Information regarding bin collection days and requirements;
- Staff responsibilities with regard to bin usage, storage, and collection; and
- Staff responsibilities with regard to litter and waste removal from the common property.

8.3 Noise Control

To minimise the disturbance to the surrounding residential areas during waste collection, the collection should follow the criteria specified by the EPA, as below:

- Collections occurring once a week should be restricted to the hours:
  - 6:30am to 8:00pm, Monday to Saturday;
  - 9:00am to 8:00pm, Sunday and Public Holidays;
- Collections occurring more than once a week should be restricted to the hours:
  - 7:00am to 8:00pm, Monday to Saturday;
  - 9:00am to 8:00pm, Sunday and Public Holidays;
- Refuse bins should be located at sites that provide minimal annoyance to residential premises;
- Compaction should be carried out while the vehicle is moving;
- Bottles should not be broken up at the collection site;
- Routes which service predominantly residential areas should be altered regularly to reduce early morning disturbances; and
- Noisy verbal communication between operators should be avoided where possible.

8.4 Waste Management Plan Implementation

The implementation, coordination and funding of the Waste Management Plan is the responsibility of the operator, and should be a dynamic document, reflecting changes in on-site and off-site conditions e.g., varying bin requirements, or changing waste collection methodology. As such, the plan should be regularly revisited and amended to provide the most accurate and relevant information to achieve the desired objectives of effectively managing the storage and disposal of waste generated on-site.

Should any significant operational changes occur on-site, a new or amended Waste Management Plan prepared by a suitable qualified and experienced person or firm may be required, detailing changes to the storage and disposal of the general, recyclable and e-wastes, responsibility in management and maintenance of the bins, location and area of bin rooms, etc.

9 OCCUPATIONAL HEALTH & SAFETY RESPONSIBILITIES

The site operator shall ensure compliance to all relevant OH&S regulations and legislation, including the following:

- Worksafe Victoria Guidelines for Non-Hazardous Waste and Recyclable Materials.

10 CONTACT INFORMATION

10.1 Council

Yarra City Council

Phone: (03) 9205 5555 (Customer Service)

Web: www.yarracity.vic.gov.au

Email: info@yarracity.vic.gov.au

10.2 Contractors

Urban Waste

Services: Private contractor

Phone: 0429 309 269

Web: www.urbanwaste.com.au

Email: info@urbanwaste.com.au

iDump

Services: Private contractor

Phone: 1300 443 867

Web: www.iDump.com.au

Email: info@idump.com.au

JJ Richards & Sons

Services: Private contractor including bin tugs

Phone: (03) 9703 5222

Web: www.jjrichards.com.au

Email: operations.melbourne@jjrichards.com.au

10.3 Others

Sustainability Victoria

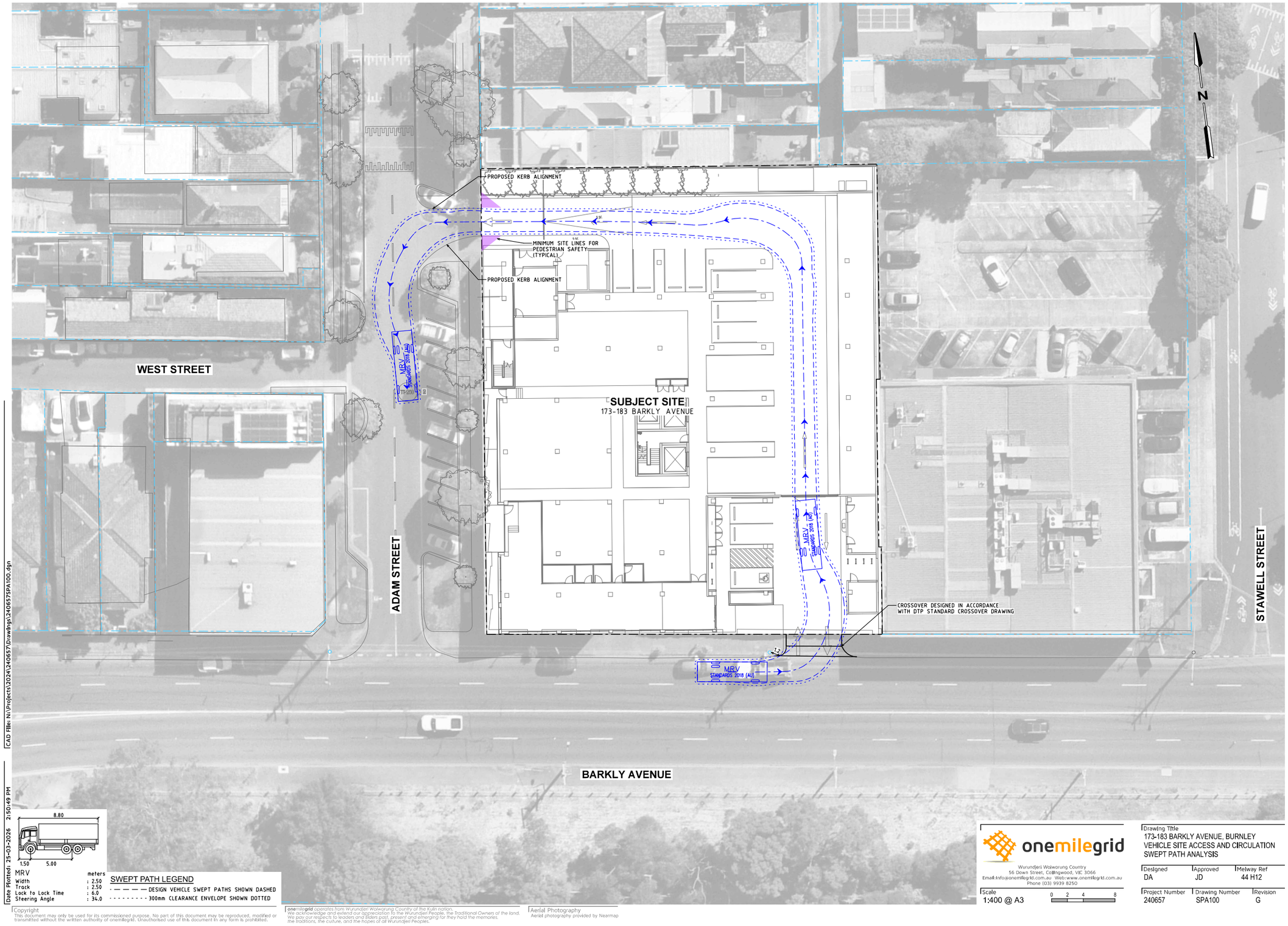
Services: Sustainable Waste Management initiatives and information

Phone: 1300 363 744 (Energy, Waste and Recycling)

Web: www.sustainability.vic.gov.au

Email: info@sustainability.vic.gov.au

Appendix A Swept Path Diagram



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MRV	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 34.0

SWEPT PATH LEGEND

— — — — DESIGN VEHICLE SWEPT PATHS SHOWN DASHED

- - - - - - - - 300mm CLEARANCE ENVELOPE SHOWN DOTTED

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Aerial Photography
Aerial photography provided by Nearmap

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Scale
1:400 @ A3
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Drawing Title
173-183 BARKLY AVENUE, BURNLEY
VEHICLE SITE ACCESS AND CIRCULATION
SWEPT PATH ANALYSIS

Designed	Approved	Melway Ref
DA	JD	44 H12

Project Number	Drawing Number	Revision
240657	SPA100	G

ENFIELD ACOUSTICS NOISE VIBRATION

173-177 BARKLY AVENUE, BURNLEY

Acoustic Report

Prepared For

STORHUB VICTORIA TRUST IV

DOC. REF: V2121-01-P ACOUSTIC REPORT (R1)
24 MARCH 2026

Enfield Acoustics Pty Ltd
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North Melbourne, VIC 3051

ENFIELD ACOUSTICS NOISE VIBRATION

Project	173-177 Barkly Avenue, Burnley
Subject	Acoustic Report
Client	Storhub Victoria Trust IV
Document Reference	V2121-01-P Acoustic Report (r1)
Date of Issue	24 March 2026

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ENFIELD ACOUSTICS NOISE VIBRATION

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1 Introduction & Scope

Enfield Acoustics has been engaged by Storhub Victoria Trust IV (Applicant) to assess potential noise impacts relating to the proposed self storage facility at 173-177 Barkly Avenue, Burnley (Subject Land). This assessment will form part of the planning permit application for the proposed development (Application).

It is understood that the storage facility is proposed to operate from 8.30am to 5.30pm Monday to Saturday however, given that the use is primarily a self-storage facility, after-hours access (including Sunday) will also be available to customers via an access code.

The use is well sited within a Commercial 2 zone and we consider a self storage facility to be a low risk with regard to noise emission.

Based on our review of the proposal, key noise sources relevant to the development include:

- Vehicle noise emissions from the entry/exit gates
- Internal noise emissions from self-storage activities
- Mechanical plant

To this end, Enfield Acoustics has:

1. Confirmed proximities to existing residential dwellings surrounding the Subject Land;
2. Visited an existing storage facility of similar scale and character to benchmark noise emissions;
3. Visited the Subject Land to carry out background noise measurements and determine statutory noise limits; and
4. Conducted 3D computational noise modelling to assess potential noise emissions from the proposed use against relevant noise policies

Our assessment has been conducted with reference to Plans prepared by Gray Puksand 19 March 2026.

2 Site Inspection

Enfield Acoustics visited the Subject Land to survey nearby sensitive uses and to conduct attended background noise measurements on 13 November 2024. The nearest sensitive uses adjacent to the Subject Land were identified as follows:

Tag	Location of Sensitive Use	Direction	Type
R1	Adam Street	West	Single-storey
R2	Adam Street	North	Single-storey
R3	Stawell Street	Northeast	Single-storey

Refer below for a site map showing locations of sensitive uses relative to the Subject Land:

Given that the sensitive uses identified above are the closest to the Subject Land, it is intrinsic that compliance at these locations would also result in compliance at all other possible sensitive uses proximate to the Subject Land.

The following background noise levels were recorded at approximately 1am:

Location	Sound Pressure Level, L_{A90}
Adam Street	37 dB(A), L_{90}

It was observed that the ambient noise environment was dominated by distant traffic noise. Noise measurements were conducted at approximately 1am as it is typically representative of average noise levels for the most sensitive 'Night' period.

3 Policy Requirements

3.1 Noise Protocol

Noise from any commercial use must comply with the *Environment Protection Regulations 2021* (Regulations) and *Publication 1826: Noise Limit and Assessment Protocol for the Control of Noise from Commercial, Industrial and Trade Premises and Entertainment Venues* (Noise Protocol).

Zoning levels and resulting noise limits at identified sensitive uses have been calculated in accordance with the methodologies under the Noise Protocol, as follows:

Period	Zoning Level	Background Noise Level	Noise Limit
'Day' Period 7am to 6pm (Monday to Saturday)	58 dB(A)	Assumed 'Neutral'	**58 dB(A)**
'Evening' Period 6pm to 10pm (Monday to Saturday) 7am to 10pm (Sundays)	51 dB(A)	Assumed 'Neutral'	**51 dB(A)**
'Night' Period 10pm to 7am (All days)	46 dB(A)	37 dB(A) 'Neutral'	**46 dB(A)**

Based on the table above, the background noise environment was found to be 'Neutral' for the 'Night' period. The background noise environment was otherwise assumed to be 'Neutral' for the 'Day/Evening' periods to remain conservative, noting that background noise classification is unlikely to be 'low' due to elevated traffic levels on the Citylink freeway to the south.

The Noise Protocol considers 30-minute average energy noise emissions, meaning that the relevant assessment metric being considered is $L_{Aeq\text{-}30min}$, dB(A).

3.2 Sleep Disturbance

Given that 24-hour operation is proposed and the storage facility could be accessed during the 'Night' period by customers, it is appropriate that sleep disturbance impacts are also considered in our assessment. In fact, there is very little probability of sustained noise emission occurring from a self storage facility and transient noise impacts assessed using sleep disturbance criteria is more likely to reflect the actual impacts.

No specific policy exists in assessing noise impacts from carparks, however 'Sleep Disturbance' criteria derived from the NSW Road Traffic Policy can be used as a method of assessing the likelihood of noise impacts for short duration or transient events.

The Sleep Disturbance assessment trigger of $\mathbf{L_{max}}$ **65dB(A)** outside habitable room windows is often used to determine if transient noise emissions are likely to cause adverse impacts during the most sensitive 'Night' period (10pm to 7am). However, for very infrequent events of 1-2 during the 'Night' period, it is generally accepted that outdoor noise levels of up to 80dB(A), L_{max} do not impact on health and wellbeing.

4 Assessment

4.1 Benchmark Noise Monitoring

Our office has previously carried out noise measurements at a storage facility (Storage King Burwood) of similar scale and character to the proposal which we have used to benchmark noise emissions from the proposal.

Based on our observations and benchmarking, a storage facility does not generate material noise emissions. This is not surprising given that the primary use is to store items, with the majority of the facility being largely unused and vacant. Even with storage activities occurring (e.g.,

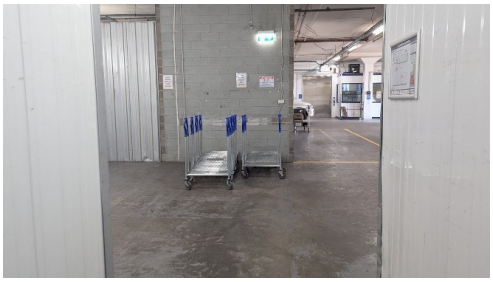
loading/unloading), the operations are not machinery-intensive, and noise was observed to be primarily driven by the movements of trolleys and pallet jacks.

Based on our observations and measurements from the benchmark site, noise sources from storage activities were measured as follows:

Item	Sound Power Level
Trolley/pallet jack loading and movements *15m from source*	53 dB(A) $L_{eq\text{-}10min}$
Internal activity noise levels *2m from source* *Loading/unloading, trolley/pallet jack movements, opening/closing roller doors*	62 dB(A) $L_{eq\text{-}10min}$ 83 dB(A) L_{max}

Loading/unloading at the entrance

Inside storage facility



Trolleys for moving items

Pallet jack for moving items

4.2 Noise Modelling

Based on the data obtained from the benchmark site and previous measurements conducted by our office, a 3D computational noise model has been generated using the software package CadnaA.

The noise model assumes the following:

Noise Source	Assumptions	Sound Power Level
Internal activity noise	All activities occurring simultaneously and continuously for 30 minutes throughout the entire facility.	62 dB(A) $L_{eq\text{-}30min}$
Passenger vehicle passby	Full utilisation of ground-floor carpark within 30 minutes (9 car lots).	85 dB(A) $L_{eq\text{-}30min}$
MRV passby	Full utilisation of ground-floor carpark within 30 minutes (4 MRV lots).	98 dB(A) $L_{eq\text{-}30min}$
Notes:	SWL's derived from benchmark noise emissions conducted at other similar premises, warehouses and carparks.	

In addition to the above sound power levels, the following were assumed in the noise model:

- Corrugated steel roof construction (R_w>21)
- Approximately 3m wall along the northern boundary

4.3 Internal Self Storage Activities

Based on the assumptions in Section 4.2, worst-case noise levels from internal storage activities have been modelled as follows:

Noise Protocol Assessment

Location	Effective Noise Level L_{Aeq}	Noise Protocol Limit	Exceedance/comply?
R1	30 dB(A)	58 dB(A) – Day 51 dB(A) – Evening 46 dB(A) - Night	✓
R2	30 dB(A)		✓
R3	33 dB(A)		✓

Sleep Disturbance Assessment

Location	Effective Noise Level L_{Amax}	Sleep Disturbance Threshold	Exceedance/comply?
R1	52 dB(A)	65 dB(A)	✓
R2	50 dB(A)		✓
R3	51 dB(A)		✓

Noise modelling maps are provided at Appendix A.

The results of the modelling indicate that internal noise emissions from storage activities can comply with all periods of the Noise Protocol by significant margins, indicating a satisfactory outcome. The result of the modelling also indicates that storage activities can comply with the Sleep Disturbance Threshold by significant margins at all sensitive uses.

This is not surprising given that self storage activities are not generally intensive in nature.

Overall, we consider our assessment to be conservative as internal noise emissions from storage activities are assumed to be constant throughout the entire facility within a 30-minute period. In effect, internal noise levels are expected to vary depending on the activities conducted and floors being used, especially during the 'Night' period when activities will be infrequent if occurring at all.

To this end, we are satisfied that storage activities within the facility will not result in adverse noise impacts at the identified sensitive uses.

4.4 Carpark Noise

Based on the assumptions in Section 4.2, worst-case noise levels from vehicle entry and exit (including MRVs) have been modelled as follows:

Noise Protocol Assessment

Location	Effective Noise Level L_{Aeq}	Noise Protocol Limit	Exceedance/comply?
R1	37 dB(A)	58 dB(A) – Day 51 dB(A) – Evening 46 dB(A) - Night	✓
R2	33 dB(A)		✓
R3	12 dB(A)		✓

Sleep Disturbance Assessment

Location	Effective Noise Level L_{Amax}	Sleep Disturbance Threshold	Exceedance/comply?
R1	60 dB(A)	65 dB(A)	✓
R2	55 dB(A)		✓
R3	32 dB(A)		✓

Noise modelling maps are provided at Appendix A.

The results of the modelling indicate that vehicle ingress and egress can comply with all periods of the Noise Protocol by significant margins, indicating a satisfactory outcome. The result of the modelling also indicates that vehicle ingress and egress can comply with the Sleep Disturbance Threshold by reasonable margins at all sensitive uses.

Our assessment of carpark noise impacts is likely conservative as we have assumed full utilisation of the carpark within 30 minutes during all periods. In reality, vehicle ingress and egress during the 'Night' period are expected to be limited and infrequent.

No adverse noise impacts are expected to result from traffic within the carpark itself, noting that it is well shielded from all surrounding sensitive uses.

4.5 Mechanical Plant Noise

Moderate forms of mechanical plant and/or equipment may be required for the development, however, exact plant selections are not yet known. Based on our observations at the benchmark site, mechanical plant is likely to consist of ventilation fans and small domestic sized air-conditioning (AC) units for the office.

Generally, our view is that noise from mechanical plant and equipment presents as low risk in terms of adverse noise impacts, for the following reasons:

- The proposal is for a storage facility which does not require intensive or commercial grade mechanical plant
- Any mechanical plant and/or equipment that is located internally are appreciably mitigated by regular forms of building envelope construction.
- There are sufficient opportunities to mitigate mechanical plant noise as part of the fit-out requirements undertaken by tenants, as follows:
    - Installation of duct attenuators
    - Localised plant screening
    - Selection of quieter equipment
    - Effective positioning of equipment (e.g., on the roof or south façade)

Ultimately, all mechanical plant and equipment must comply with the Noise Protocol and is enforceable by the EPA, regardless of planning controls.

It is recommended however that any mechanical plant is acoustically screened (fixed screens or the built form) to break line-of-sight to the dwellings as best practice and to minimise noise impacts.

Appropriately, specific assessments can be carried out during later stages once mechanical plant and equipment requirements are known.

4.6 Waste Collection

Guidance for appropriate waste collection hours are provided by *EPA Publication 1254.2 – Noise Control Guidelines dated May 2021* (Publication 1254), as follows:

Schedule: Industrial waste collection
One collection per week
6:30 am – 8 pm Monday to Saturday
9 am – 8 pm Sunday and public holidays
Two or more collections per week
7 am – 8 pm Monday to Saturday
9 am – 8 pm Sunday and public holidays

To that end, it is recommended that the following controls apply to the permit:

Waste Collection • Collections occurring once per week shall be restricted to the hours: o 6.30am to 8.00pm, Monday to Saturday o 9.00am to 8.00pm, Sunday and public holidays • Collections occurring twice or more per week shall be restricted to the hours: o 7.00am to 8.00pm, Monday to Saturday o 9.00am to 8.00pm, Sunday and public holidays

5 Conclusion and Recommendations

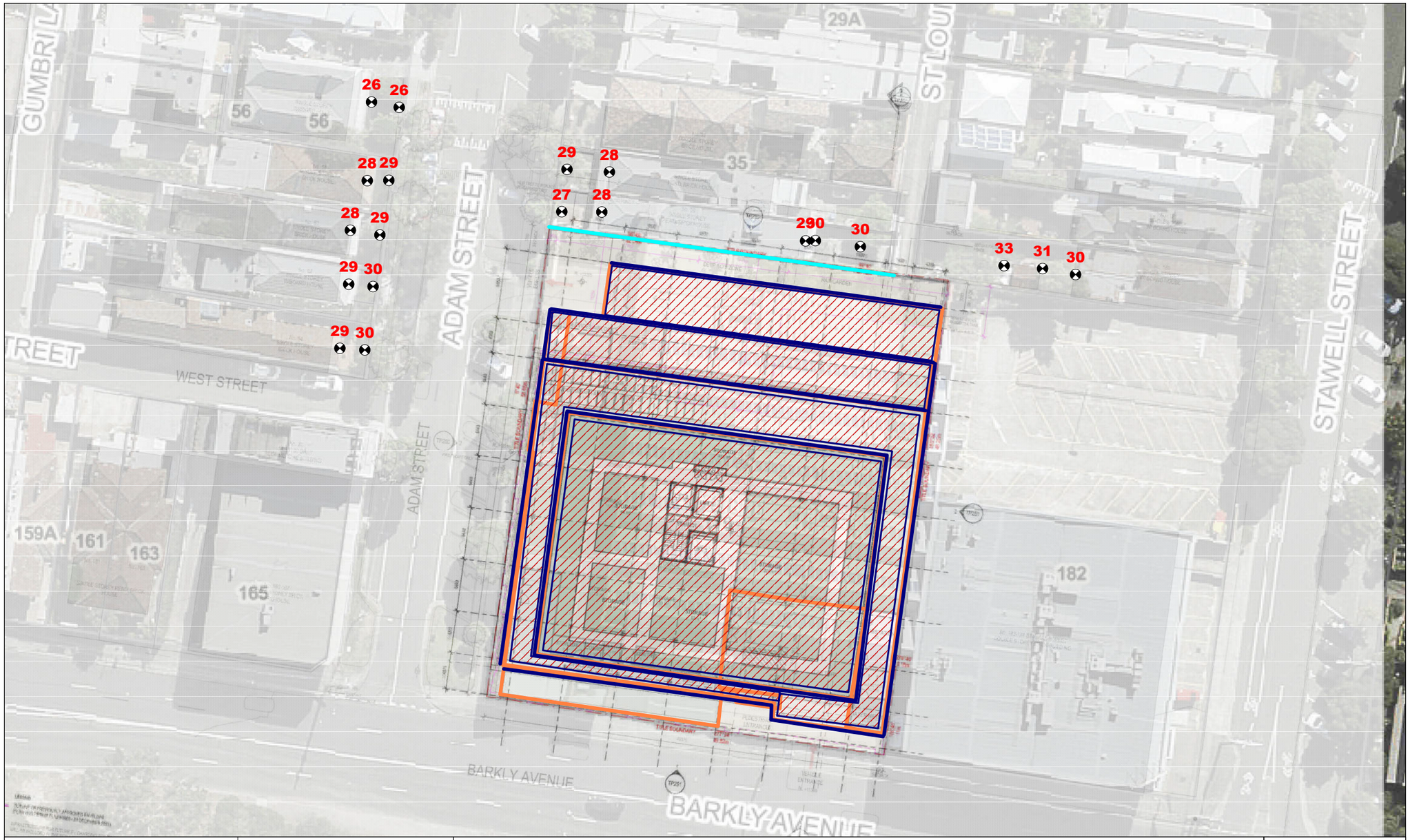
Enfield Acoustics has assessed potential noise impacts resulting from the proposed storage facility at 173-177 Barkly Avenue, Burnley and is satisfied that the application can be approved.

Based on our assessment, noise emissions from the proposal can comply with the Noise Protocol limits and Sleep Disturbance Threshold. This is not surprising given the intended use being a self-storage facility, which is not expected to generate material or consistent noise emissions, especially during the most sensitive 'Night' period.

To mitigate any risk of non-compliance from mechanical plant, it is recommended that mechanical plant is assessed at a later stage when all requirements are known to determine the extent of noise mitigation required (if any). In principle, however, there are sufficient opportunities to mitigate mechanical plant noise to ensure compliance with the Noise Protocol is achieved.

On this basis, Enfield Acoustics is satisfied that the application can be approved where the recommendations in this report are adopted.

Appendix A: Noise Modelling Map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GUMBRIL
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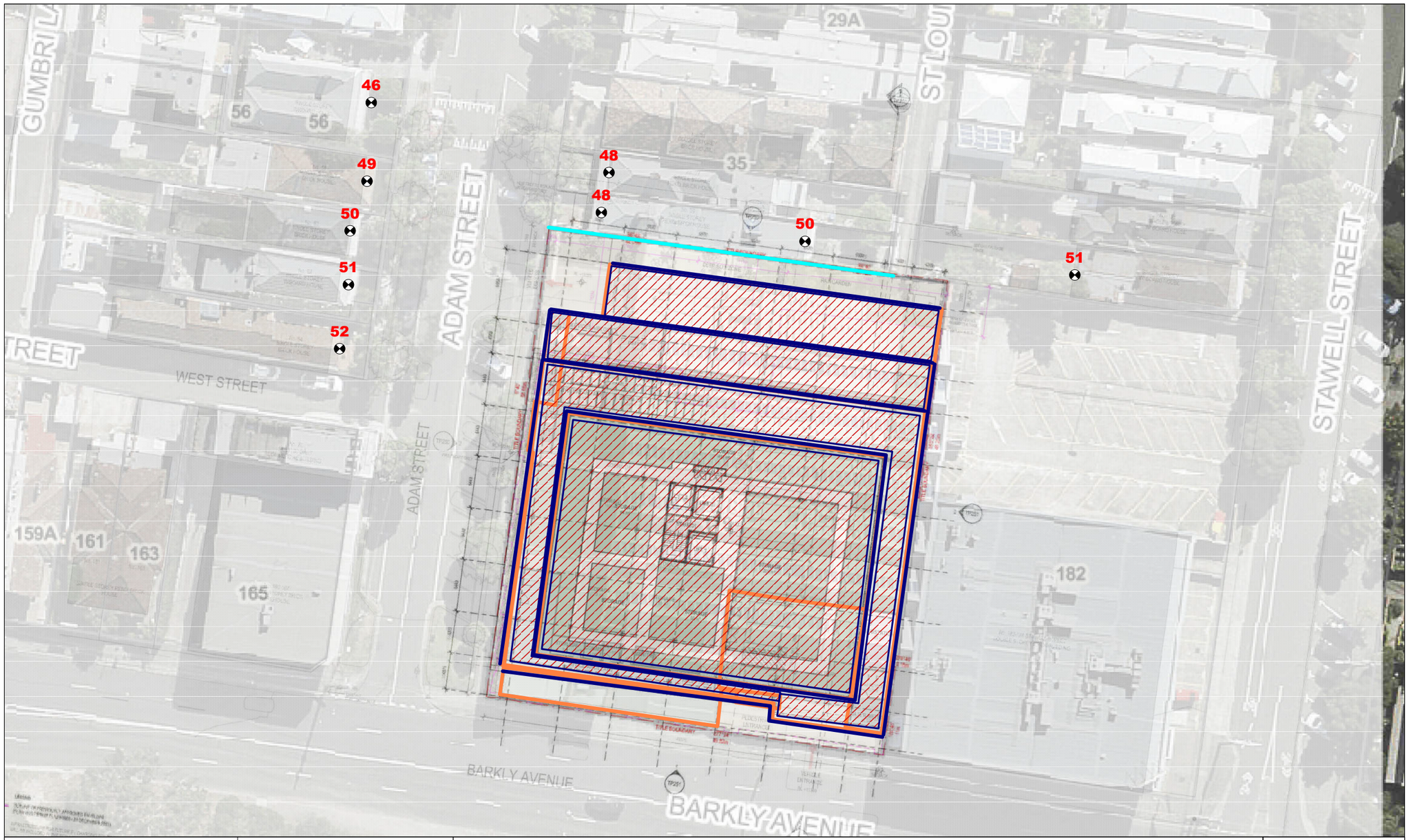
29A
ST LOU
ADAM STREET
STAWELL STREET
WEST STREET
TREET
ADAM STREET
159A
161
163
165
182
BARKLY AVENUE
BARKLY AVENUE
TP251
TITLE BOUNDARY
ACOUSTIC ENTRANCE
ISOLATED ENTRANCE
BUILDING
STORAGE
OFFICE
WC
STORAGE
STORAGE
STORAGE



Legend:

- Line Source
- Area Source
- vert. Area Source
- Building
- Barrier
- Contour Line
- Receiver
- Building Evaluation

Scale: 1: 446 @ A3

ENFIELD ACOUSTICS NOISE VIBRATION

PO Box 920
North Melbourne, VIC 3051
P: 03 9111 0090

Noise emission levels from INTERNAL SELF STORAGE ACTIVITIES

LAmax Noise Levels

Sleep Disturbancel Assessment

Project No: V2121 Drawing No: MAP-02 Date: 19.03.2026

NOTES:

*Propagation in accordance with ISO9613

Legend:

- Line Source
- Area Source
- vert. Area Source
- Building
- Barrier
- Contour Line
- Receiver
- Building Evaluation

Scale: 1: 446 @ A3

ENFIELD ACOUSTICS NOISE VIBRATION

PO Box 920
North Melbourne, VIC 3051
P: 03 9111 0090

Noise emission levels from CARPARK INGRESS/EGRESS

LAeq Noise Levels

Noise Protocol Assessment

Project No: V2121 Drawing No: MAP-03 Date: 19.03.2026

NOTES:

*Propagation in accordance with ISO9613

Legend:

- Line Source
- Area Source
- vert. Area Source
- Building
- Barrier
- Contour Line
- Receiver
- Building Evaluation

Scale: 1: 446 @ A3

ENFIELD ACOUSTICS NOISE VIBRATION

PO Box 920
North Melbourne, VIC 3051
P: 03 9111 0090

Noise emission levels from CARPARK INGRESS/EGRESS

LAmax Noise Levels

Sleep Disturbance Assessment

Project No: V2121 Drawing No: MAP-04 Date: 19.03.2026

NOTES:

*Propagation in accordance with ISO9613

STORHUB

173-183 BARKLY AVENUE, BURNLEY VIC 3121

LANDSCAPE PLANNING PACKAGE

MARCH 2026

DRAWING INDEX

LP000	COVER SHEET
LP001	SITE PLAN
LP101	LANDSCAPE PLAN 01 GROUND FLOOR
LP102	LANDSCAPE PLAN 02 LEVEL 1
LP103	LANDSCAPE PLAN 03 LEVEL 4
LP201	ELEVATIONS 01
LP203	DETAILS 01
LP204	DETAILS 02
LP301	MATERIALS PALETTE 01
LP302	MATERIALS PALETTE 02

PLANT SCHEDULE

CODE	BOTANICAL NAME	COMMON NAME	HEIGHT X WIDTH (M) (AT MATURITY)	INSTALLATION SIZE	QUANTITY
	GROUND FLOOR				
AD	*Acacia dealbata*	Silver Wattle	15 x 5.0	75L	7
DC	*Dianella caerulea*	Blue Flax Lily	0.4 x 0.3	150MM	163
DV	*Dodonaea viscosa*	Wedge-leaf Hop-bush	3.0 x 3.0	150MM	23
EL	*Eucalyptus leucoxylon ssp. connata*	Yellow Gum	10 x 6	75L	7
ER	*Eucalyptus radiata*	Narrow-leaf Peppermint	10 x 4	75L	1
FN	*Ficinia nodosa*	Knobby Club Rush	0.5 x 0.15	150MM	60
GO	*Goodenia ovata*	Hop Goodenia	0.75 x 0.5	150MM	163
LF	*Lomandra filiformis*	Wattle Mat Rush	0.3 x 0.3	150MM	56
LL	*Lomandra longfolia*	Basket Grass	0.8 x 0.5	150MM	107
	TERRACES				
HV	*Hardenbergia violacea*	Purple Coral Pea	3.0 CLIMB/ OVERHANG	150MM POT	110
KP	*Kennedia prostrata*	Running Postman	PROSTRATE x 1.5	150MM POT	110
TT	*Themeda triandra*	Kangaroo Grass	1.50 x 1.0	150MM POT	110

SITE IMAGE

Landscape Architects

Site Image Landscape Architects (VIC) 109/1 Wilson Avenue Brunswick VIC 3056 Australia | T +61 3 9329 4633

SITE IMAGE
Landscape Architects
Melbourne | Sydney

STORHUB BURNLEY
SITE PLAN

CLIENT	STORHUB	DRAWING NUMBER	LP001
ARCHITECT	GRAY PUKSAND	ISSUE	B
SITE IMAGE JOB NUMBER	SM24635	DATE	20.03.2026

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SITE IMAGE
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STORHUB BURNLEY

LANDSCAPE PLAN 01 | GROUND LEVEL

CLIENT	STORHUB	DRAWING NUMBER	LP101
ARCHITECT	GRAY PUKSAND	ISSUE	C
SITE IMAGE JOB NUMBER	SM24635	DATE	20.03.2026

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STORHUB BURNLEY

LANDSCAPE PLAN 02 | LEVEL 1

CLIENT	STORHUB	DRAWING NUMBER	LP102
ARCHITECT	GRAY PUKSAND	ISSUE	C
SITE IMAGE JOB NUMBER	SM24635	DATE	20.03.2026

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STORHUB BURNLEY

LANDSCAPE PLAN 03 | LEVEL 4

CLIENT	STORHUB	**DRAWING NUMBER**	LP103
ARCHITECT	GRAY PUKSAND	**ISSUE**	C
SITE IMAGE JOB NUMBER	SM24635	**DATE**	20.03.2026

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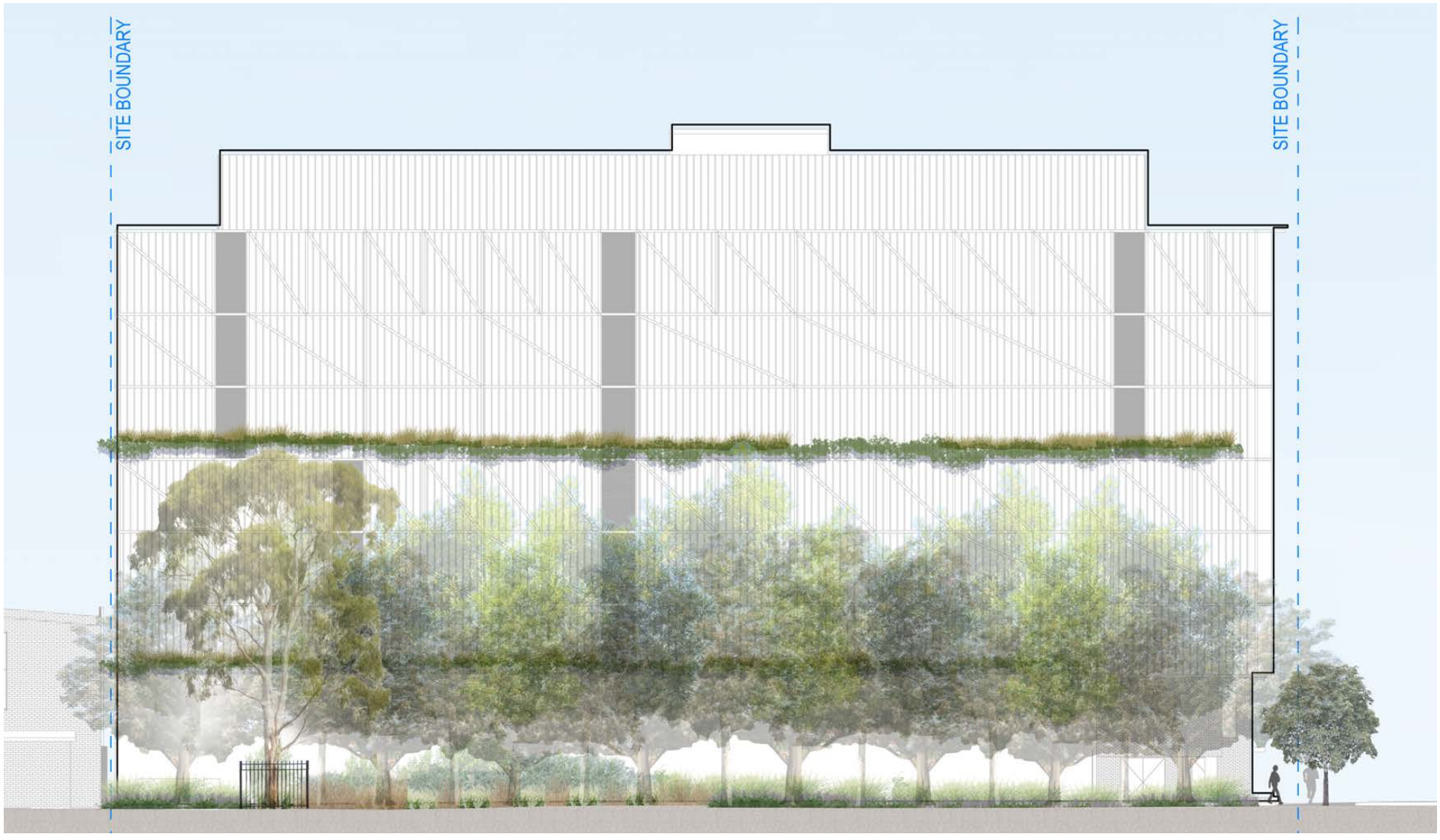

NORTH ELEVATION
SCALE: 1:200 @ A3

SITE IMAGE
Landscape Architects
Melbourne | Sydney

STORHUB BURNLEY
ELEVATIONS 01

CLIENT	STORHUB	DRAWING NUMBER	LP201
ARCHITECT	GRAY PUKSAND	ISSUE	B
SITE IMAGE JOB NUMBER	SM24635	DATE	20.03.2026

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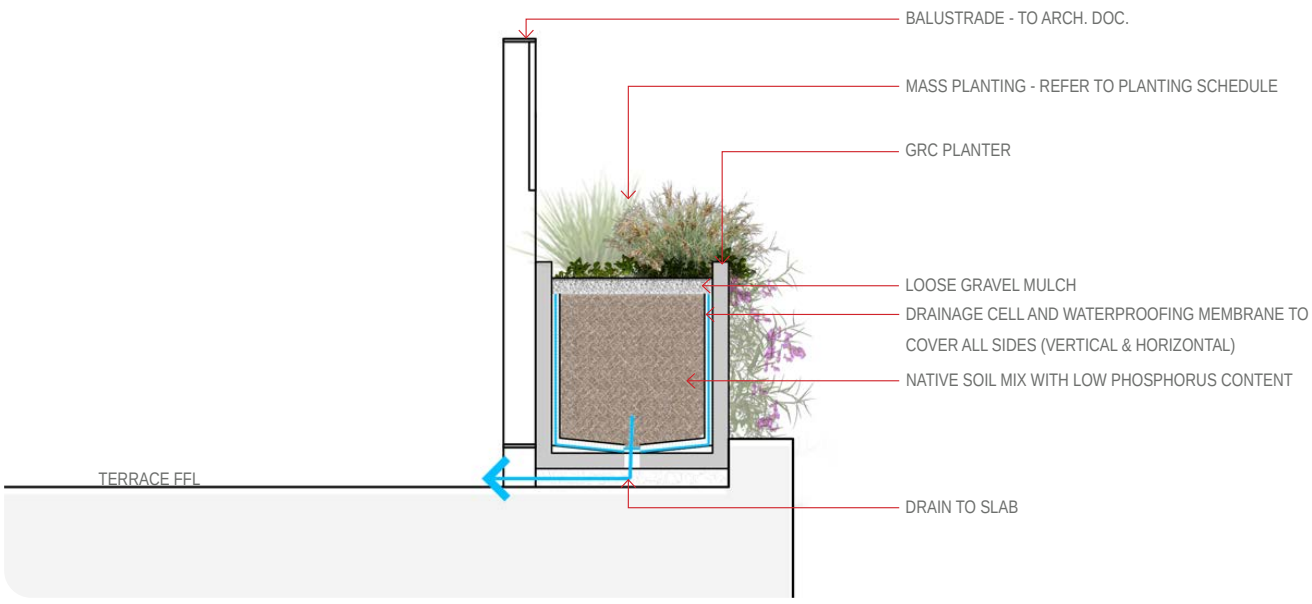


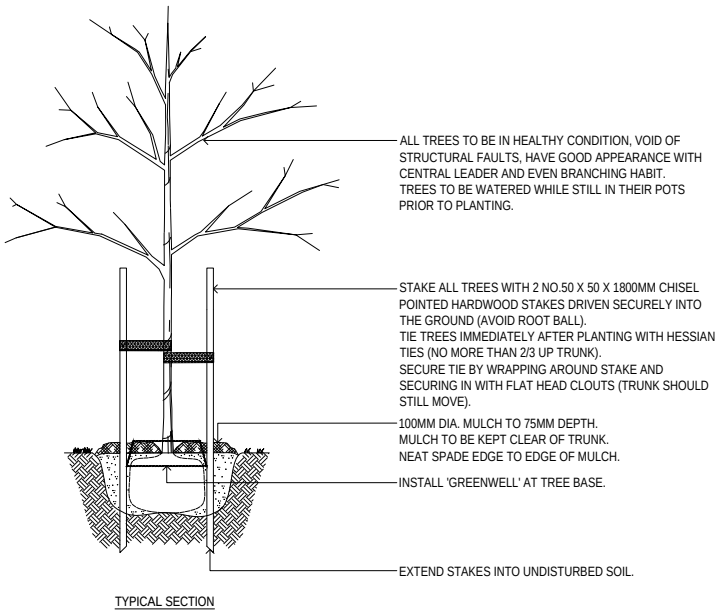
TYPICAL SECTION DETAIL 01
TERRACE PLANTER
SCALE: 1:20 @ A3

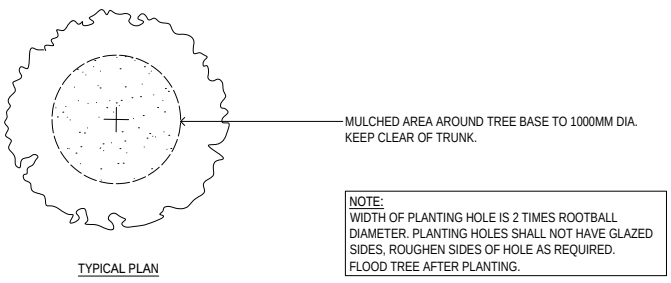
SITE IMAGE
Landscape Architects
Melbourne | Sydney

STORHUB BURNLEY
ELEVATIONS 02

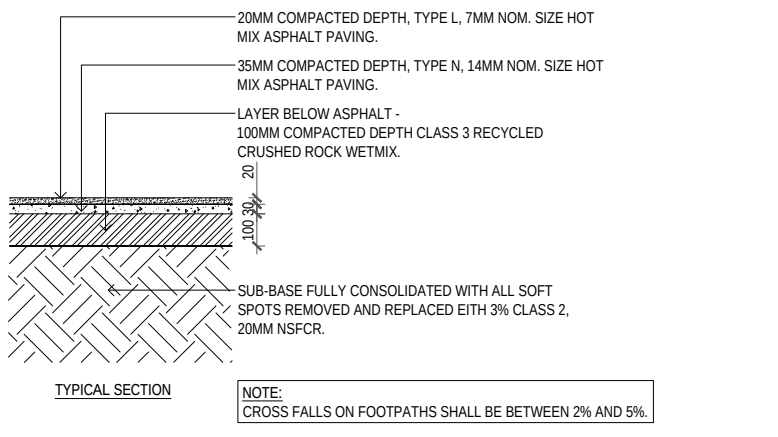
CLIENT	STORHUB	DRAWING NUMBER	LP202
ARCHITECT	GRAY PUKSAND	ISSUE	B
SITE IMAGE JOB NUMBER	SM24635	DATE	20.03.2026

Site Image Landscape Architects (VIC) 109/1 Wilson Avenue Brunswick VIC 3056Australia | T +61 3 9329 4633

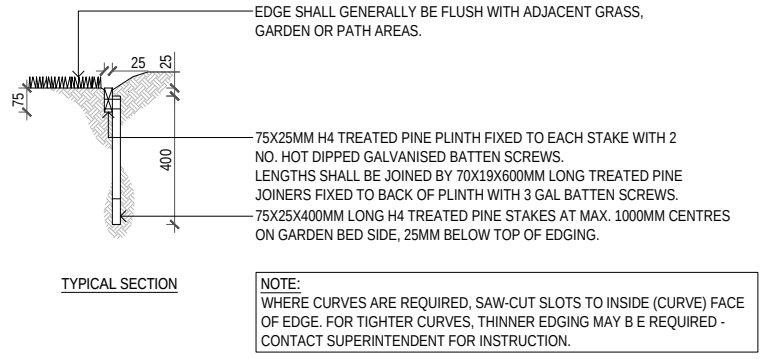




01 202 TREE PLANTING (CITY OF YARRA STANDARD)
1:50 @ A3



02 202 ASPHALT - PEDESTRIAN (CITY OF YARRA STANDARD)
1:20 @ A3



03 202 TIMBER EDGE (CITY OF YARRA STANDARD)
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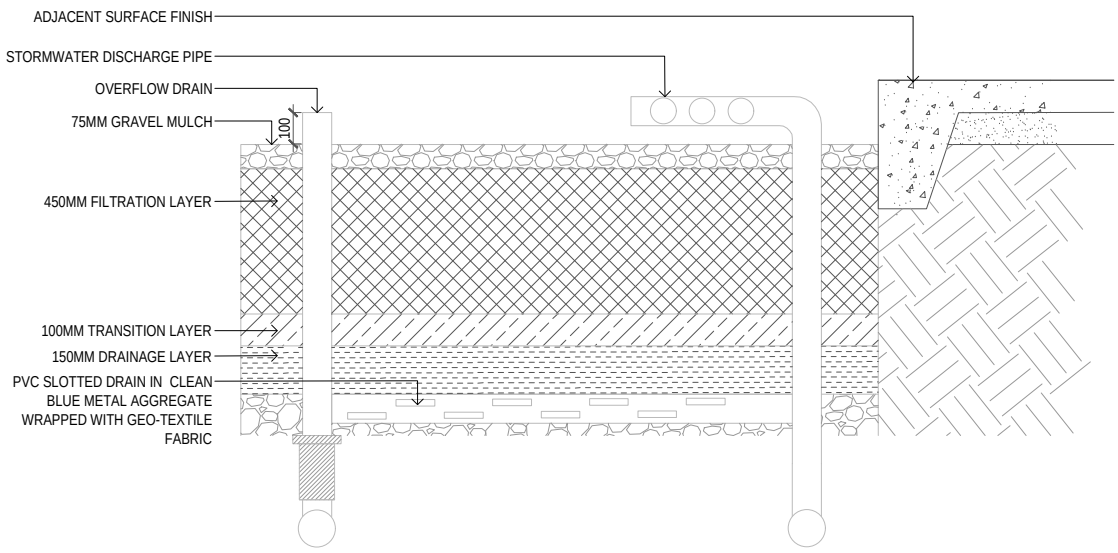


04 202 RAINGARDEN
1:20 @ A3

SITE IMAGE Landscape Architects
Melbourne | Sydney

STORHUB BURNLEY
DETAILS 01

CLIENT	STORHUB	DRAWING NUMBER	LP203
ARCHITECT	GRAY PUKSAND	ISSUE	A
SITE IMAGE JOB NUMBER	SM24635	DATE	11.12.2021

Site Image Landscape Architects (VIC) 109/1 Wilson Avenue Brunswick VIC 3056Australia | T +61 3 9329 4633

PLANT MATERIALS

TREES | GROUND FLOOR

Acacia dealbata (AD)
SILVER WATTLE

Eucalyptus leucoxylon ssp. connata (EL)
YELLOW GUM

Eucalyptus radiata (ER)
NARROW LEAF PEPERMINT

MASS PLANTING | GROUND FLOOR

Dianella caerulea (DC)
BLUE FLAX LILY

Dodonaea viscosa (DV)
GYMEA LILY

Goodenia ovata (GO)
HOP GOODENIA

Lomandra filiformis (LF)
WATTLE MAT RUSH

Lomandra longifolia (LL)
BASKET GRASS

MASS PLANTING | TERRACES

Hardenbergia violacea (HV)
PURPLE CORAL PEA

Kennedia prostrata (KP)
RUNNING POSTMAN

Themeda triandra (KP)
KANGAROO GRASS

MASS PLANTING | RAINGARDEN

Ficinia nodosa (FN)
KNOBBY CLUB RUSH

SITE IMAGE
Landscape Architects
Melbourne | Sydney

STORHUB BURNLEY
MATERIALS PALETTE 01

CLIENT	STORHUB	DRAWING NUMBER	LP301
ARCHITECT	GRAY PUKSAND	ISSUE	C
SITE IMAGE JOB NUMBER	SM24635	DATE	20.03.2026

Site Image Landscape Architects (VIC) 109/1 Wilson Avenue Brunswick VIC 3056Australia | T +61 3 9329 4633

HARDSCAPE MATERIALS

SURFACE FINISHES & FIXTURES

LOOSE GRAVEL MULCH

TIMBER BENCH SEAT

SECURE OPEN PALISADE FENCE

CONCRETE PLANTER

CONCRETE PAVEMENT

NOTE:
PAVING BETWEEN EXISTING FOOTPATH & PROPOSED BUILDING TO BE SLIP RESISTANT.

SITE IMAGE
Landscape Architects
Melbourne | Sydney

STORHUB BURNLEY
MATERIALS PALETTE 02

CLIENT	STORHUB	DRAWING NUMBER	LP302
ARCHITECT	GRAY PUKSAND	ISSUE	C
SITE IMAGE JOB NUMBER	SM24635	DATE	20.03.2026

Site Image Landscape Architects (VIC) 109/1 Wilson Avenue Brunswick VIC 3056Australia | T +61 3 9329 4633

City Works
Formal Referral Response

Application Information:

Referral Officer:	Atha Athanasi
Officer:	Joe Byrne
Council Reference:	PPE26/0201
Address:	173-177 Barkly Ave, Burnley VIC 3121
Proposal:	DTP Notice of an Application
Comments Sought:	Click here to view referral memo: Record D26/142230: IREF26/00481 - Internal Referral Request
Disclaimer:	Council's City Works Unit provides the following information which is based on the information provided in the referral request memo referenced above.
Prev. Responses:	

Comments:

The waste management plan for 173-177 Barkly Ave, Burnley authored by One Mile Grid and dated 25/3/2026 is not satisfactory from a City Works Branch's perspective.

Issues to be rectified include, but may not be limited to the following:

1. Council does not provide a hard-waste drop-off service nor operate a transfer station. Please update the Waste Management Plan accordingly and review Council's website to ensure that only items accepted at the recycling centre are referenced.

Waste Management Officer: Atha Athanasi

Signature: Atha Athanasi

Date:16/04/2026

Referral Response
City Strategy - Open Space Design

Application Information:

Referral Officer:	Asher Wedding
Officer:	Joe Byrne
Council Reference:	PPE26/0201
Address:	173-177 Barkly Ave, Burnley VIC 3121
Proposal:	DTP Notice of an Application
Comments Sought:	Click here to view referral memo: Insert CM Link here to referral request memo (which will include a hyperlink to all relevant plans / information)
Disclaimer:	Council's City Strategy Open Space Design team provides the following information which is based on the information provided in the referral request memo referenced above.
Prev. Responses:	

Comments and Recommendations:

All documentation provided has been reviewed and the following information is required:

- Arboricultural Impact Assessment (AIA) Required
  - Where development is proposed within the Notional Root Zone (NRZ) of any Public Tree/s, Significant Tree/s, Canopy Tree/s, or any tree protected under the planning scheme, an Arboricultural Impact Assessment (AIA) is required. This report must be prepared by a suitably qualified arborist (minimum AQF Level 5 in Arboriculture or equivalent) and must be prepared in accordance with AS 4970:2025 – Protection of Trees on Development Sites.

  - The AIA must assess the likely impacts of the proposed development on all affected trees, specify methods to avoid or minimise impacts on trees to be retained, and provide justification demonstrating that the development will not detrimentally affect the health or longevity of those trees, including justification for any proposed pruning or tree removal.

Strategic Projects, Parks and Open Spaces Formal Referral Response

Application Information

Referral Officer:	Joe Byrne
Officer:	Christian Lundh
Council Reference:	PPE26/0201
Address:	173-177 Barkly Ave, Burnley VIC 3121
Proposal:	PA2604311, 173-177 Barkly Avenue Burnley VIC 3121 CRM:0708219
Comments Sought:	Public realm and landscape
Disclaimer:	N/A
Prev. Responses:	N/A

Summary

Comments requested	D26/142285 - IREF26/00484 - Referral Request • Public realm interface • Public Realm Improvement Opportunities (such as kerb outstands and new street trees) • Landscape Plan (within site boundary)
Recommendation	Detailed comments are provided overleaf. In summary: • The proposal is supported in principle from a public realm and landscape perspective, **subject to modifications.** • **Recommended modifications** are listed with dot points in **bold** under each sections overleaf.
Links to relevant documents reviewed	D26/137943 - PPE26/0201 - 173-177 Barkly Avenue Burnley - Architectural Drawings D26/137941 - PPE26/0201 - 173-177 Barkly Avenue Burnley - Landscape Plan

Referral Comments - DTP - Application for a Planning Permit

Public Realm feedback

No.	Topic	Feedback and **recommendations (in bold)**
1.	**Public Realm Interface**	
1.1.	Public realm interface - General comment	DDO2 — Main Roads and Boulevards seek to reinforce strong streetscape character • *Respond sensitively to heritage and adjoining uses* • *Support high-quality contemporary architecture without dominating the street* With the Design objectives • *To recognise the importance of main roads to the image of the City.* • *To encourage urban design that provides for a high level of community safety and comfort.*
1.2.	Public realm interface Barkly Avenue	Barkly Avenue, main entrance setback threshold raises concern regarding obstructed view-lines into the setback space and risk for potential loitering and anti-social behaviour, especially after-hours. Main entrance is difficult to define and identify as a visitor to the site especially if accessing as a pedestrian, entrance should be further high-lighted with greenery or other architectural features integrated into the built-form, main entrance should be re-located at the southern section of Adam Street, better visible when approaching from Barkly Avenue. The office and reception fronting the street, creates a partially active street frontage and improved passive surveillance. The positioning of visitor bicycle hoops raises concern regarding accessibility to hoops and safety. No access path dimensions are noted on plans; this is concerning considering the location of the DDA parking bay and that compliant access should be provided to the main building entrances. The high-profile street frontage would benefit from integration of vertical greenery within the subject site improving the public realm experience and presentation. • **Integrate a security 'line' / gate in addition to the sliding security gate, restricting access into the setback / under-croft car parking / entry area after-hours.** • **Locate visitor bicycle hoops in clearly visible and fully accessible locations in vicinity to main entrances, with opportunity to be overlooked from internal office and reception for improved safety.** • **Dimension all building entrances and access paths, access paths should have a minimum 1800mm unobstructed width.** • **Integrate planters (within the subject site) with vertical greenery spanning at minimum ground floor and level 01 along the Barkly Avenue frontage or extent of modified height of external brick walls.**

1.3.	Public realm interface Adam Street	Adam Street, the proposed ground floor and first floor building setback proposes pockets of greenery and paved areas within the subject site boundary along the street, paved areas should be rationalised to maximise greenery opportunities. Paved areas should be utilised for seating and potential additional bicycle hoops to maximise the use of space. Building entrance should be positioned along the building lines, not in small setback spaces with obscured view-lines, open doors must not extend beyond the site boundary ie within the setback space. The street frontage would benefit if the ground floor office space was extended further north along the Adam Street frontage to activate the street frontage. The security gate to the vehicle egress in the northwest corner should be positioned in-line with building walls to reduce the setback space. The high-profile street frontage would benefit from integration of vertical greenery within the subject site improving the public realm experience and presentation. • **Rationalise hard paved areas (within the subject site boundary) ground floor setback along Adam Street in lieu of increased garden beds.** • **Relocate proposed bench seat along Adam Street ground level setback (within the subject site boundary) closer to the office and reception areas, integrate additional seating and visitor bike hoops if feasible.** • **Relocate pedestrian egress doors; to eliminate small setback spaces, doors must not obstruct public footpaths when fully opened.** • **Relocate the vehicle egress security gate closer to Adam Street title boundary.** • **Integrate planters (within the subject site) with vertical greenery spanning at minimum ground floor and level 01 along the Adam Street frontage or extent of modified height of brick walls.**
2.	**Public Realm Improvement Opportunities such as kerb outstands and new street trees**	
2.1.	Public realm improvements	The proposal creates opportunities to improve the streetscape layout and presentation along Adam Street by rationalise and improve kerb outstand alignments and integrate additional new street trees. Landscape plans show existing and proposed trees surrounded by granitic sand and timber edges, this treatment is not standard for Council street trees and must be reverted to organic mulch around the trees in accordance with Council Standard details (can be provided upon request) with no timber edges. Remove plan note reference '*CHANNELS BETWEEN KERB & OUTSTANDS TO BE REMOVED'* on any plans. Kerb and channel to be reinstated to Council satisfaction and any subsurface drainage designed to Council satisfaction. Kerb and channel to be removed where feasible along interfaces between kerb outstands and nature strips in lieu of sub-surface drainage to Council satisfaction. • **Maximise and reconfigure existing kerb outstands to improve pedestrian amenity, accessibility, safety and overall public realm presentation;** • **The design of the kerb outstand must consider and address, including but not limited to, the following matters:**

		- **Rationalisation of on-street parking bays, with the maximum feasible area reallocated to public realm improvements, new street tree and pedestrian amenities;** - **Provision of vehicle swept-path diagrams demonstrating that all affected vehicle movements can occur safely and efficiently to the satisfaction of the Responsible Authority;** - **Resolution of all drainage requirements associated with the kerb outstands and adjoining infrastructure;** - **Compliance with all relevant accessibility requirements, ensuring all levels, grades and transitions are seamless and compliant;** - **A demonstrated due diligence assessment of all existing and proposed services, including identification of any impacts associated with the kerb outstand and related infrastructure, and confirmation of any required service authority approvals or agreements;** - **An assessment of existing street lighting conditions, with provision for lighting upgrades or improvements were required to support pedestrian safety and amenity; and** - **New trees to be installed in accordance with Council standard detail including organic mulch around base of trees YSD803(a).**
3.	**Street trees**	
3.1.	New Street Tree Opportunity	Possible opportunity has been identified to integrate four (4) new street trees along the subject site street frontage along Adam Street. • **Demonstrate feasibility to integrate two new trees in the southern kerb outstand, one in the most northern kerb outstand and one on roadway street tree between angled parking bays approximately in the centre area of the angled parking bays along Adam Street.** • **Final street tree number is depending on detailed feasibility investigations by the applicant.** • **Existing and proposed new tree locations are to be indicated on plans.**
3.2.	Street Tree Developer Contribution	• **The applicant is requested to contribute $8,261.00 including GST for this planting, to cover tree sourcing, planting and two year's establishment maintenance.** - **3no. tree in nature strip $5,682.60** - **1no. roadway tree $2,578.40** - **The above figure includes supply, planting, and 2 year's establishment maintenance. Council will determine an appropriate tree species and undertake planting once the development is complete. The developer is to notify Council as the development is nearing completion so that Council can program the tree planting.** - **Council reserves the right to located trees in the surrounding streets if nominated tree quantity is not feasible to install along the subject site Adam Street frontage.**
4.	**Public Realm Functional Layout Plan**	

4.1.	Public Realm Functional Layout Plan	**Public Realm Functional Layout Plan requirements.** • **Concurrent with the submission of Condition 1 plans, a Public Realm Functional Layout Plan must be prepared to the satisfaction of the Responsible Authority (Council). The Public Realm Plan must be submitted for approval by the Responsible Authority (Council). When approved, the Public Realm Plan will be endorsed and will form part of this permit. The Public Realm Plan must include, but not limited to:** - **Layout plan indicating all existing and proposed features and surface levels;** - **Show all existing and proposed streetscape infrastructure including (but not limited to) light poles, drains and street signs;** - **Proposed bicycle spaces along site frontage, which bicycle image superimposed upon the proposed;** - **Clearly dimensioned elements including pedestrian paths and parking bays;** - **All existing and proposed levels and surface grades;** - **Demonstrate a seamless / DDA compliant levels transition across all proposed footpaths pavements;** - **Demonstrate a seamless / DDA accessible transition from the public realm into the principal entrance to the proposed building at ground floor level including any proposed setback;** - **Any works required to achieve compliance, including surface level modifications, must be undertaken wholly within the subject site. Existing external footpath levels must not be altered unless an improvement to compliance with adjoining footpaths is demonstrably achieved;** - **All existing and proposed drainage infrastructure including any existing or proposed drainage pits (to Council engineering satisfaction); and** - **Reconstruction of all footpaths, kerbs, channels and crossovers adjacent to the property in accordance with Council standards and Department of Transport's requirements (clearly show extent of proposed works on plans);** - **Any existing and proposed service pits within the footpath area must be adjusted to match the reconstructed footpath grades;** - **Provide a clear paving delineation between public and private land;** - **Pavements must meet Council and all relevant Australian standards including for slip resistance;** - **Any proposed new and existing tree; and** - **New trees to be installed in accordance with Council standard detail including organic mulch around base of trees YSD803(a).**

Landscape Plan (within site boundary) feedback

No.	Topic	Feedback and **recommendations (in bold)**
5.	Raingarden	Raingarden located at the rear of the property need to be reconsidered, noting that trees are nominated to be planted in the raingarden which will result in gradually reduced functionality of the rain garden as the trees grow. The raingarden should be relocated to be a 'feature' element along the street frontage and planted with a variety of plant species creating meaningful visual intertest and be better accessible for monitoring of functionality and for maintenance. • **Relocate raingarden to be an integrated feature element along Aadam Street frontage within the subject site.** • **Provide edges to the raingarden that ties in with the building architecture, brick or equivalent that provides for informal seating opportunities.** • **No trees to be planted in the rain garden.** • **Plants to be a mix of suitable species for visual interest and increased biodiversity.**
6.	Canopy tree provision	A staggered row of large growing tree species is proposed along the northern interface to the abutting low-rise residential dwellings. The proposed trees along the northern interface will from desk-top review grow much larger than what is noted in the plant schedule, this is of concern both in relation to overhang of branches and required pruning including root growth and potential damage to adjacent property. • **Tree species to be reviewed and tree species to be appropriate for the constrained site conditions.** • **Provide root barrier along the interface to adjacent properties.**
7.	Soil volume	No soil volume noted for upper-level areas and along the northern proposed tree planted interface, noting that root barriers also need to be considered along the northern ground level plated area. • **Provide soil volumes for all planted areas that is adequate to sustain proposed tree and plant species.** • **Trees should be planted in a minimum soil depth of 700mm, with sufficient soil volume to support long term growth. A reputable industry source should be used to calculate the soil volume required, such as: Elke Soil Volume Simulator https://www.elkeh.com.au/soils/ or similar.**
8.	Landscape details including but not limited to planter boxes	Detail of upper-level planters provided, no dimensions outlining soil depth or width of planters provided, plans note 800mm wide, however this width includes edges and balustrades. The detail of the raingarden is inadequate, including but not limited to; • No depth noted in relation to height of overflow drain and adjacent edges; • No solid base or edges noted, concerning given the location flush with building and adjacent property; and • Overflow mitigation if overflow drain malfunctions to prevent flooding into adjacent properties.

		Additional information including but not limited to the following are required: • **Additional information on planter and raingarden cross sections showing the width and depth (particularly soil depth and width for planted area and planters).** • **Additional information of proposed raingarden including (but not limited to) dimensions, mulch, soil layers and filtration media, water supply method (from rooftop or otherwise), overflow prevention measures, edge treatment and maintenance access.**
9.	Plant species and plant schedule	Proposed plant species are in principle supported. Concern that the plant quantity for the upper-level planters will not provide the visual impact as intended in the landscape renders. The illustrative graphical representation of plantings needs to be refined to ensure plant species are appropriately distributed to achieve the landscape design vision. • **Increase plant quantities along upper-level planters.** • **Confirm that none of the proposed species listed as environmental weeds in the DELWP Advisory List of Environmental Weeds 2022.** • **Drawn plants at their mature size on the plans.**
10.	Irrigation and drainage (planted areas only)	No noted reference to automatic irrigation of any planted areas (ground or upper levels), given the reliance on a successful landscape outcome to achieve the design vision, all planted areas within the subject site boundary must have automatic irrigation. Upper-level planters are noted to drain onto roof slabs with potential risk for drainage issues and staining of adjacent surfaces and ground level planters should also have sub-surface drainage provision. • **Provide information on automatic irrigation system including proposed water supply (potable or other), and type of irrigation (pop-ups or drip irrigation) for all planted areas within the subject site (ground level and upper level).** • **Note: the submitted Sustainable Management Plan states that landscape irrigation is to be connected to the proposed rainwater tank. This should be clearly noted on the landscape plans.** • **Drainage information demonstrating that all raised planters and planted areas are to be connected to stormwater (planters are not allowed to drain onto the footpath or roof slabs***).*
11.	Landscape maintenance	Noting the reliance on a successful landscape outcome to achieve the design vision, concern how the upper-level planters outside the balustrades will not be maintained frequently and safely to achieve and maintain a successful long-term landscape outcome. • **Provide a maintenance schedule, including task details and frequency for all planted areas and raingarden.** • **Provide details to demonstrate how upper-level planters located outside of balustrades are to be safely accessed for maintenance purposes (such as anchor points for rope access, which would need to be integrated into the building design).** • **Provide a maintenance schedule, including task details and frequency ongoing operations (pruning, irrigation maintenance, regular watering for standalone pots, upkeep, pest management, replacement of dead/diseased plants etc), Record keeping**

		practices, and level of qualification required for ongoing maintenance contractor.
12.	Landscape Specification	No landscape specification or notes outlining landscape works methodology included. • **Provide a specification of works to be undertaken prior to planting.**

Capital Works:

There are no known planned / approved capital works around the site being led by the Strategic Projects Parks and Open Spaces Team.

Strategic Projects Parks and Open Spaces Officer: Christian Lundh
Date: 20 April 2026

Informal Referral Meeting

Strategic Transport

Application Information for Referral IREF26/00485

Officer:	**Joe Byrne**
Council Reference:	PPE26/0201
Address:	173-177 Barkly Ave, Burnley VIC 3121
Proposal:	PA2604311, 173-177 Barkly Avenue Burnley VIC 3121 CRM:0708219
Zone:	Commercial 2 Zone (C2Z)
Overlay(s):	Design and Development Overlay (Schedule 2 and 5) Development Contributions Plan Overlay (Schedule 1) Significant Landscape Overlay (Schedule 1)

Meeting Details

Date:	29 April 2026
Referral Officer	Thomas Lightbody
Relevant Information:	Click here to view the relevant documents in Content Manager: • DTP - Application for a Planning Permit - ZIP

Advice Provided at Meeting

1. No concern with the extent of visitor and employee bicycle parking provided on site.
2. The location of the bicycle parking is not ideal and appears to be out of proportion. Details and dimensions of bicycle parking spaces to demonstrate compliance with AS2890.3.

Planner Name: Joe Byrne
Date: 29 April 2026

Informal Referral Meeting

City Works - Projects Park & Open Space

Application Information for Referral IREF26/00491

Officer:	Joe Byrne
Council Reference:	PPE26/0201
Address:	173-177 Barkly Ave, Burnley VIC 3121
Proposal:	PA2604311, 173-177 Barkly Avenue Burnley VIC 3121 CRM:0708219
Zone:	Commercial 2 Zone (C2Z)
Overlay(s):	Design and Development Overlay (Schedule 2 and 5) Development Contributions Plan Overlay (Schedule 1) Significant Landscape Overlay (Schedule 1)

Meeting Details

Date:	16 April 2026
Referral Officer	Hayley McNicol
Relevant Information:	Click here to view the relevant documents in Content Manager: PPE26/0201 - 173-177 Barkly Avenue Burnley - Architectural Drawings

Advice Provided at Meeting

SPPOS have provided the following comments:

1. Materials and colours: like the simple colour variation is supported. Would be good to clarify the colours on the renders are accurate. Use of the brick is supported.
2. Height and scale: Is generally consistent with the previous approval and is considered acceptable.
3. Articulation: Would recommend openings to the façade, could be windows (even to corridors), or incorporate setbacks. There looks to be logical ways to add windows along the façade.
4. Would recommend the street wall to become more prominent. Even increase the brickwork to the front boundary. The overhang is not an ideal response.
5. The way the windows are articulated at ground floor are supported.
6. Entry should be more prominent. A stronger defined entrance is encouraged. The plans should clarify the primary entrance. Should be clear on the façade design.

Planner Name: Joe Byrne
Date: 10 April 2026

ESD Formal Referral Response

Application Information:

Referral Officer:	Euan Williamson
Officer:	Joe Byrne
Council Reference:	PPE26/0201
Address:	173-177 Barkly Ave, Burnley VIC 3121
Proposal:	PA2604311, 173-177 Barkly Avenue Burnley VIC 3121 CRM:0708219
Comments Sought:	Click here to view referral memo: Record D26/142238: IREF26/00482 - Internal Referral Request
Disclaimer:	Council's ESD Officer provides the following information which is based on the information provided in the referral request memo referenced above.
Prev. Responses:	

ESD comments were requested on the following:

- New referral

In assessing this application, the following documents were reviewed:

- SMP prepared by Integrated Group Services dated 24.03.2026
- Architectural drawings prepared by Gray Puksand dated 24.03.2026

Comments

The standard of the submitted ESD nearly meets Council's Environmentally Sustainable Design (ESD) standards.

Furthermore, it is recommended that all ESD commitments (1), deficiencies (2) and the outstanding information (3) are addressed in an updated SMP report and are clearly shown on Condition 1 drawings. ESD improvement opportunities (4) have been summarised as a recommendation to the applicant.

Should a permit be issued, the following ESD commitments (1) and deficiencies (2) should be conditioned as part of a planning permit to ensure Council's ESD standards are fully met:

1. Applicant ESD Commitments
   - Energy efficient heating and cooling with a COP of at least 3.4.
   - Energy efficient instantaneous electric hot water.
   - Energy efficient lighting.
   - A minimum 10kW solar PV array to the rooftop.
   - Water efficient taps, fixtures and fittings.
   - A minimum 4,000 litre rainwater tank collected for toilet flushing and landscape irrigation.
   - A minimum of 70% of construction and demolition waste to be recycled.

- Good daylight access to office and main areas.
- Operable louvres enable natural ventilation access to the circulation corridors in throughout the storage areas.

2. Application ESD Deficiencies
   - The proposed 20m^2 raingarden is immediately adjacent to the property boundary and the footings of the proposed building. This location may cause drainage issues if overflow crosses the property boundary and also potential structural issues to the proposed building.
     - Recommend altering the dimensions and design of the 20m^2 raingarden, ensure adequate setback from the property boundary and the proposed property's footings and foundations, to ensure all drainage issues are addressed.

   - The BESS report and SMP claim natural ventilation to the office areas, but the plans display windows that appear to be fixed. Recommend update the architectural drawings to indicate window operability on an updated set of plans.

3. Outstanding Information
   - Please update the architectural drawings to clearly show the 10kW solar PV array.
   - Please update the architectural drawings to clearly label the rainwater tank connections for reuse.

4. ESD Improvement Opportunities
   - Increase the size of the solar PV array on the rooftop to all suitable roof areas, to generate electricity up to the total annual demand of the building (net zero energy).

If you or the applicant, or DTP would like to discuss this development or the advice given in this response, please contact me.

Euan.

ESD Coordinator: Euan Williamson
Date: 13 April 2026

Development Engineering Formal Referral Response

Application Information:

Referral Officer:	Artemis Bacani
Officer:	Joe Byrne
Council Reference:	PPE26/0201
Address:	173-177 Barkly Avenue, Burnley
Referral Number:	IREF26/00480
Proposal:	PA2604311, 173-177 Barkly Avenue Burnley VIC 3121 CRM:0708219
Comments Sought:	• Crossover width and location • Sightlines • Gradients
Disclaimer:	Council's Development Engineering unit, provides the following advice based on information provided in the referral request memo referenced above.

Engineering referral details

Council's Engineering Referral team has reviewed the drawings and documents provided by the Statutory Planning department, as outlined in ***Table 1*** below.

Note: the engineering related matters highlighted in the Planning referral have been assessed and included in the response.

Table 1 - Drawings and documents reviewed by Engineering

Consultant	Drawing No. or Document	Rev	Dated
Gray Puksand	TP212 *Ground Floor General Arrangement Plan*	A	24 March 2026
One Mile Grid	*Transport Impact Assessment*		25 March 2026

SECTION 1: Engineering requirements – Issue to the applicant

The applicant must satisfy the engineering items outlined in ***Table 2*** below. A written response must be provided for each requirement, and the action is to be completed prior to resubmission.

Any amendments to plans/drawings or updates to reports/documents must be highlighted using a *red cloud* around the relevant section. In the written response, indicate the relevant sheet/pages of each document which have been amended.

Table 2 - Engineering requirements for applicant

Item	Engineering requirement	Action for applicant
1	Dimension the width of the vehicle crossing on the Barkly Avenue frontage.	Update the relevant drawings accordingly
2	Dimension the width of the vehicle crossing on the Adam Street frontage.	Update the relevant drawings accordingly
3	Dimension the width of the development's entrance on the Barkly Avenue frontage.	Update the relevant drawings accordingly
4	Dimension the width of the development's exit on the Adam Street frontage.	Update the relevant drawings accordingly
5	Superimpose the visibility triangle at the exit lane of the Barkly Avenue and Adam Street frontages.	Update the relevant drawings accordingly
6	Dimension the clearance height above the car park entrance and exits.	Update the relevant drawings accordingly
7	Provide a vehicle crossing cross-sectional diagram for the car park entrance and exit with the B99 vertical ground clearance template superimposed on the drawings and consistent with the information sheet.	Submit cross-sectional and ground clearance diagrams

SECTION 2: Engineering conditions – Planning Permit

The conditions outlined in ***Table 3*** below must be included in the Planning Permit to ensure the specific engineering requirements are complied with.

Note: further conditions may be required if any of the items in Table 2 are not fulfilled prior to the issuing of the Planning Permit.

Table 3 - Engineering conditions to be included in the Planning Permit

***General works* conditions**		
Condition related to…	**Engineering condition**	**Reasoning / justification**
VC: *Reinstatement*	Before the building/s is/are occupied, or by such later date as approved in writing by the Responsible Authority, any redundant vehicular crossing must be demolished and re-instated as footpath, verge (if applicable), and kerb and channel: (a) at the permit holder's cost; and (b) to the satisfaction of the Responsible Authority.	
	A note should be placed on the plan indicating redundant driveways are to be removed and the road pavement, kerb and channel and footpath reinstated to Council's satisfaction.	
VC: *Design*	Concurrent with the submission of Condition 1 plans or by such later date as approved in writing by the Responsible Authority, a vehicle crossing design must be submitted to Council's Civil Engineering Department for approval. The submitted design must demonstrate compliance with City of Yarra's, *Vehicle Crossing Information Sheet*.	
VC: *Construction*	Before the building/s is/are occupied, or by such later date as approved in writing by the Responsible Authority, any new vehicle crossing must be constructed: (a) at the permit holder's cost; *and* (b) to the satisfaction of the Responsible Authority.	
Reinstatement of damages caused during development works	Within 2 months of the completion or by such later date as approved in writing by the Responsible Authority, any damage to Council infrastructure resulting from the development must be reinstated: (a) In accordance with Yarra Standard Drawings | Yarra City Council (b) at the permit holder's cost; and (c) To the satisfaction of the Responsible Authority.	
Planning Permit – Notes		

Note related to…	Engineering note	Reasoning / justification
Service infrastructure adjustment to suit finished grades, alignments, etc.	Any service poles, structures or pits located within the public realm areas that interfere with the proposal, must be adjusted accordingly: (a) at the permit holder's cost; and (b) to the satisfaction of the Responsible Authority.	
Existing parking infrastructure	No parking restriction signs, or line-marked on-street parking bays are to be removed, adjusted, changed or relocated without approval or authorisation from Council's Parking Management unit and Construction Management branch.	
	Any on-street parking reinstated as a result of development works must be approved by Council's Parking Management unit.	
Private utility assets	Areas must be provided inside the property line and adjacent to the footpath to accommodate pits and meters. No private pits, boundary traps, valves or meters on Council property will be accepted.	
Adjusting utility infrastructure	Any services poles, structures or pits that interfere with the proposal must be adjusted, removed or relocated at the owner's expense after seeking approval from the relevant authority.	

SECTION 3: Engineering detailed assessment

DEVELOPMENT LAYOUT DESIGN

Layout Design Assessment

Item	Assessment
Access Arrangements	
Width of Vehicle Crossing – Barkly Avenue Frontage	The width of the vehicle crossing is not dimensioned on the drawings.
Width of Vehicle Crossing – Adam Street Frontage	The width of the vehicle crossing is not dimensioned on the drawings.
Width of Development's Entrance – Barkly Avenue	The width of the development's entrance is not dimensioned on the drawings.
Width of Development's Exit – Adam Street	The width of the development's exit is not dimensioned on the drawings.
Visibility	The visibility triangle for the exit lane at Barkly Avenue and Adam Street is not dimensioned on the drawings.
Clearance Height	The headroom clearance above the car park entrance and exit at Barkly Avenue and Adam Street respectively have not been dimensioned on the drawings.
Gradients	
Ramp Grade for First 5.0 metres inside Property	The ramp grade for the first 5 metres inside the property is flat to comply with *Design standard 3 – Gradients*.
Other Items	
Vehicle Crossing Cross-Sectional Diagram	A vehicle crossing cross-sectional diagram is to be provided by the applicant to confirm that a B99 design vehicle can enter and exit the property without scraping or bottoming-out. Please see under *'Engineering Advice for Design Items to be Addressed by the Applicant'* section.

Engineering Advice for Design Items to be Addressed by the Applicant

Item	Details
Width of Vehicle Crossing – Barkly Avenue Frontage	The applicant is to dimension on the drawings the width of the vehicle crossing.
Width of Vehicle Crossing – Adam Street Frontage	The applicant is to dimension on the drawings the width of the vehicle crossing.
Width of Development's Entrance – Barkly Avenue	The applicant is to dimension on the drawings the width of the development's entrance.
Width of Development's Exit – Adam Street	The applicant is to dimension on the drawings the width of the development's exit.
Visibility	The applicant is to superimpose on the drawings the visibility triangle at the exit lane of the Barkly Avenue and Adam Street frontages.
Clearance Height	The applicant is to dimension on the drawings the clearance height above the car park entrance and exits.
Vehicle Crossing Cross-Sectional Diagram – Barkly Avenue Frontage	To assist the applicant, a Vehicle Crossing Information Sheet has been appended to this memo. To ensure that vehicles do not scrape or bottom-out when entering or exiting the site, a vehicle crossing cross-sectional diagram is required and requires the applicant to obtain a number of spot levels which include: • the reduced level 2.0 metres inside the property; • the level at the property boundary; • the level at the bottom of the northern kerb (invert); • the level at the edge of the northern channel; and • a few levels on the road pavement – in this case, Barkly Avenue. These levels are to be shown on a 1 in 20 scale cross-sectional drawing with dimensions and overlaying the B99 ground clearance template. The assessments to be taken along the **centre of the entry and exit lanes** of the vehicle crossing. Providing the cross-sectional diagram early in the design phase can also determine whether further modification works are required, such as lowering the finished floor level inside the property or making any adjustments to Council's footpaths or road infrastructure.
Vehicle Crossing Cross-Sectional Diagram – Adam Street Frontage	To assist the applicant, a Vehicle Crossing Information Sheet has been appended to this memo. To ensure that vehicles do not scrape or bottom-out when entering or exiting the site, a vehicle crossing cross-sectional diagram is required and requires the applicant to obtain a number of spot levels which include: • the reduced level 2.0 metres inside the property; • the level at the property boundary; • the level at the bottom of the eastern kerb (invert); • the level at the edge of the eastern channel; and

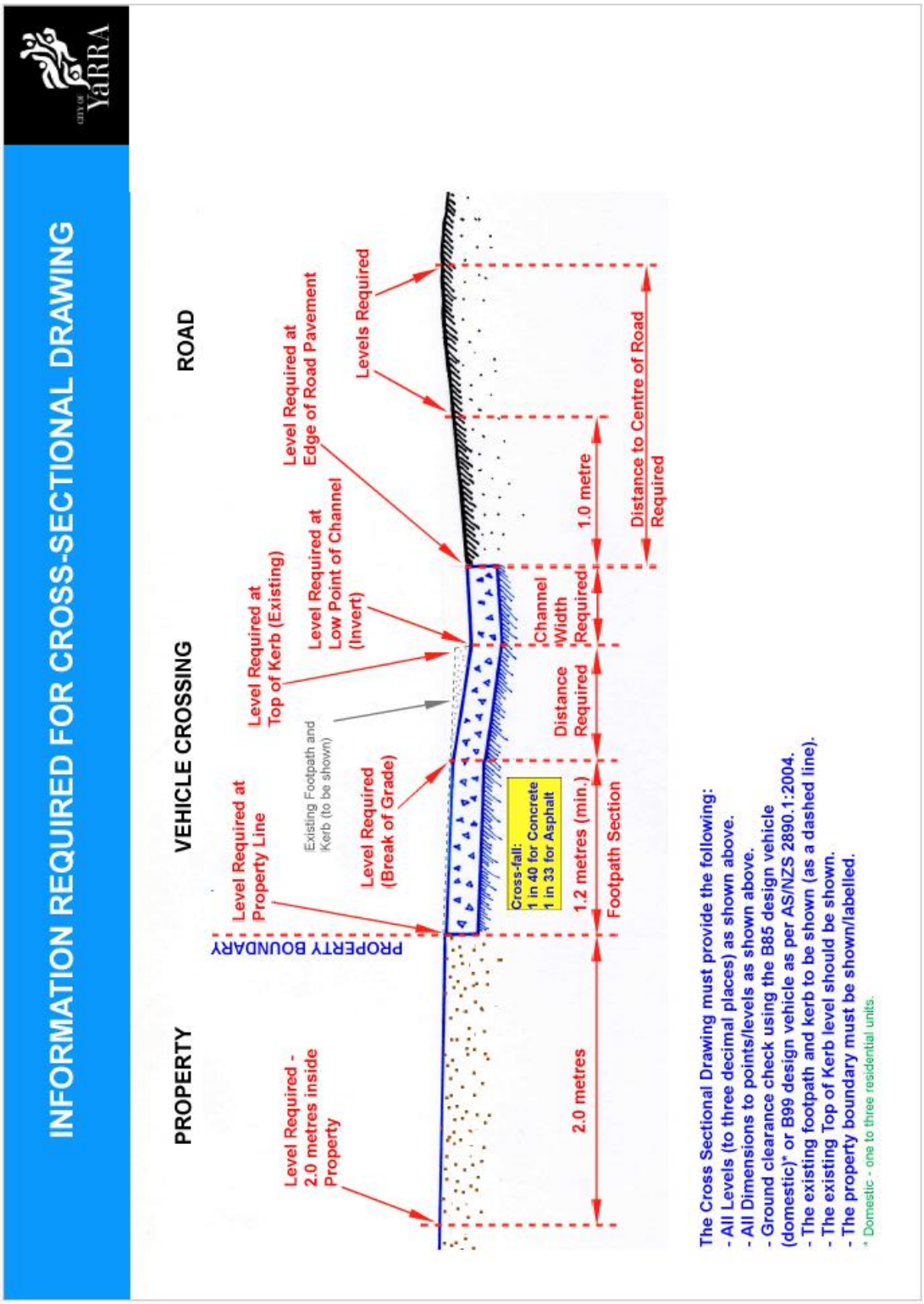
	• a few levels on the road pavement – in this case, Adam Street. These levels are to be shown on a 1 in 20 scale cross-sectional drawing with dimensions and overlaying the B99 ground clearance template. The assessments to be taken along the **centre of the vehicle crossing**. Providing the cross-sectional diagram early in the design phase can also determine whether further modification works are required, such as lowering the finished floor level inside the property or making any adjustments to Council's footpaths or road infrastructure.

SECTION 4: Acknowledgement

Engineer: Artemis Bacani

Signature:

Date: 17 April 2026


INFORMATION REQUIRED FOR CROSS-SECTIONAL DRAWING
CITY OF YARRA
PROPERTY
VEHICLE CROSSING
ROAD
PROPERTY BOUNDARY
Level Required - 2.0 metres inside Property
Level Required at Property Line
Existing Footpath and Kerb (to be shown)
Level Required (Break of Grade)
Level Required at Top of Kerb (Existing)
Level Required at Low Point of Channel (Invert)
Level Required at Edge of Road Pavement
Levels Required
Cross-fall: 1 in 40 for Concrete 1 in 33 for Asphalt
2.0 metres
1.2 metres (min.)
Footpath Section
Distance Required
Channel Width Required
1.0 metre
Distance to Centre of Road Required
The Cross Sectional Drawing must provide the following:
- All Levels (to three decimal places) as shown above.
- All Dimensions to points/levels as shown above.
- Ground clearance check using the B85 design vehicle (domestic)* or B99 design vehicle as per AS/NZS 2890.1:2004.
- The existing footpath and kerb to be shown (as a dashed line).
- The existing Top of Kerb level should be shown.
- The property boundary must be shown/labelled.
* Domestic - one to three residential units.

6.2. – PPE26/0203 - 39 - 47 Lithgow Street, Abbotsford

Author	John Theodosakis – Principal Planner
Authoriser	General Manager City Sustainability and Strategy - Mary Osman

Executive Summary

Property	39 – 47 Lithgow Street, Abbotsford
Ward	Langridge Ward
Application number	PPE26/0203 (Council Reference) PA2604316 (DTP Reference)
Proposal	Redevelopment of parts of the site to deliver 151 dwellings with 62sqm commercial space in the form of a food and drinks premises (café), alongside the adaptive reuse of the original warehouse building at the south-eastern corner of the site. The proposal is described in the Town Planning Report prepared and authored by Urbis dated March 2026 at pages 19-20 that forms an attachment to this report. The plans under assessment are those prepared by Warren and Mahoney (registered Architects and Designers), dated 26 March 2023.
Zoning & Overlay/s	- Mixed Use Zone (MUZ) - Design and Development Overlay – Schedule 22 (DDO22) - Environmental Audit Overlay (EAO) - Development Contributions Plan Overlay (Schedule 1) - Heritage Overlay (HO339)
Strategic setting	- Victoria Street Major Activity Centre - Incremental Change Area This application was made to the Minister for Planning under the Clause 53.22 Significant Economic Development
Submissions	DTP notified Council about this application on under s52(1)(b) of the *Planning and Environment Act* 1987 At the time of writing this report, DTP have advised Council that they had received zero objections.
Key reasons for recommendation	- The site is suitable for redevelopment and accommodating higher density. - The provision of affordable housing is a positive outcome and is consistent with local planning policy for affordable housing.

	- The scale of the development and poor provision of private open space are deficiencies of the proposal.
Recommendation	That Council notify the Department of Transport and Planning outlining Council's position that the proposal is not supported for the key reasons provided. Key conditions include: - Retention of further heritage fabric (unless demonstrated to be structurally unsound); and - A reduction in the overall building height and compliance with built form controls in Schedule 22 of the Design and Development Overlay.
Contact Officer	John Theodosakis

Officer Recommendation

That Council:

1. Note the officer report and the application material.
2. Delegate the Manager Statutory Planning to write to the Department of Transport and Planning outlining the following:
   (a) The need to further investigate opportunities for retaining more heritage fabric (as detailed in Council's Heritage Advice forming an attachment to this report) that includes the tank tower in the south-west portion of the site;
   (b) That Council is supportive of a redevelopment of the site that provides an increase in affordable housing that is well designed and energy efficient (confirmed by an amended SMP as required by a suite of recommended permit conditions);
   (c) That having regard to the strategic context, there is opportunity for a mid-rise development on the site of this scale on the basis that:
      (i) the proposed six-storey building height is lowered to meet the mandatory building height of 18m at Schedule 22 of the Design and Development Overlay at Clause 43.02 of the Yarra Planning Scheme; and
      (ii) The upper level setbacks meet the minimum setback of 6m as per Schedule 22 of the Design and Development Overlay at Clause 43.02 of the Yarra Planning Scheme;
   (d) The proposed development falls short of providing private open space to a number dwellings; and
   (e) Other matters requiring attention include off-site amenity impacts, and the visual bulk / imposition of on-boundary walls on shared boundaries.
3. Provide as an attachment, the officer assessment table and full suite of referral advice obtained from Council's departments.
4. Notwithstanding the above concerns, if the Department of Transport and Planning is of the mind to issue a permit, then the following conditions should be included:

Amended Plans

1. Before the development commences, amended plans to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and will then form part of this permit. The plans must be generally in accordance with the architectural plans prepared by Warren and Mahoney Architects last dated 27 March 2026 but modified to show:

   (a) The overall building height reduced to a maximum 18m above the natural ground level;

   (b) The upper floors of the new development of the northern tower setback 6m in compliance with the requirements at Clause 43.02 – Design and Development Overlay (Schedule 22 - Precinct 4 – Victoria Street East);

   (c) Provision of private open space for every dwelling in accordance with Clause 58 – Standard D20 – Private Open Space Objective;

   (d) Dimensions of the lifts, widths, corridors and bicycle storage spaces in accordance with AS2890.3;

   (e) All car parking areas electrically wired to be 'EV ready', with a minimum 40A single phase electrical sub circuit installed;

   (f) The 36 ground level multi-tier spaces shown with a 2.0m wide access aisle (in lieu of 1.74m);

   (g) The location of at least eight electric bicycle charging points, and a plan notation confirming that these will have shared access between occupants;

   (h) Dimensions of all bicycle storage spaces, lifts, corridors and relevant access ways noted to demonstrate compliance with Australian Standard AS2890.3;

   (i) The width of kerbs along the internal vehicle access ramp dimensioned;

   (j) The headroom clearance at the car park entrance, internal access ramps and basement level dimensioned;

   (k) The headroom clearance above the accessible car space and shared area dimensioned;

   (l) The drop-off and loading bays, kerb extension and traffic islands and street trees / plantings and relevant annotations shown on the relevant drawings;

   (m) The site plan to include existing and proposed underground service conduits, cables, pits and valves within the footpath and under proposed kerb extensions;

   (n) A plan notation confirming that utility doors that open over a Public Highway are able to swing at 180-degrees and be latched onto the building wall;

   (o) Pedestrian entries at the finished surface level matching, at the building line, to a footpath that has a cross-fall no greater than 1 in 33;

   (p) Deletion of any on-site landscaping outside the property line (i.e. shown on drawing no. TP30.03 - Section CC);

   (q) All ground level garden beds level with or lower than the footpath and top of the kerb;

   (r) Bicycle spaces in accordance with the provisions detailed at Condition 40;

(s) Any changes recommended in the Conservation Management Plan required by condition 4 of this permit;

(t) Any changes recommended in the amended Landscape Plan required by condition 10 of this planning permit;

(u) Any changes recommended in the amended Sustainability Management Plan required by condition 12 of this planning permit;

(v) Any changes recommended in the amended Acoustic Report required by condition 14 of this planning permit; and

(w) Any changes recommended in the amended Wind Assessment required by condition 20 of this planning permit.

2. The use and development as shown on the endorsed plans must not be altered (unless the Yarra Planning Scheme specifies that a permit is not required) without the prior written consent of the Responsible Authority.

Architect Ongoing Involvement

3. As part of the ongoing consultant team, Warren and Mahoney Architects or an architectural firm to the satisfaction of the Responsible Authority must be engaged to:

(a) oversee design and construction of the development; and

(b) ensure the design quality and appearance of the development is realised as shown in the endorsed plans or otherwise to the satisfaction of the Responsible Authority.

Conservation Management Plan

4. Before the demolition commences, a Conservation Management Plan (including a Heritage Interpretation Plan) to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the Conservation Management Plan will be endorsed and will form part of this permit. The Conservation Management Plan must include, but not be limited to, the following:

(a) All recommendations in accordance with the endorsed structural report required at Condition 7;

(b) The retention of the pitched roof tower on Little Lithgow Street or if not possible for structural reasons, detail that depicts its accurate reconstruction to match the original form, fabric, and detailing;

(c) The retention of the former water tower or if not possible for structural reasons, detail that depicts its accurate reconstruction;

(d) All refurbished door openings in the façade of the main building fronting Lithgow Street constructed of timber and of matching industrial character and appearance;

(e) All replacement window frames in the façade of the main building fronting Lithgow Street constructed of timber and matching appearance and dimensions of the existing window frames;

(f) The existing slate roofing on the main building fronting Lithgow Street repaired and only replaced as a last resort using new slates that match the original in profile, size, colour, texture, and finish;

(g) Non-original external paint on the main building fronting Lithgow Street removed using appropriate methods that must be submitted and approved by the City of Yarra;

(h) The proposed balcony adjacent to the factory chimney at floor level 03 setback at least 1m from the factory chimney flue;

(i) Full details of the proposed cleaning processes and repairs for the factory chimney; and

(j) Written confirmation, that the Conservation Management Plan will be incorporated into the Body Corporate/Owners Corporation Rules to ensure all current and future lot owners are legally bound by its conservation policies.

5. The provisions, recommendations and requirements of the endorsed Conservation Management Plan must be implemented and complied with to the satisfaction of the Responsible Authority.

6. A comprehensive visual record of the heritage place must be professionally prepared and submitted to Council prior to the commencement of any demolition works. The record must be prepared in accordance with the standards set by Heritage Victoria.

Structural report

7. Before the demolition commences, a structural report to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the structural report will be endorsed and will form part of this permit. The structural report must be prepared by a suitably qualified structural engineer, or equivalent, and demonstrate the means by which the retained portions of building will be supported during demolition and construction works to ensure their retention.

Façade Strategy

8. In conjunction with the submission of development plans under Condition 1, a Façade Strategy and Materials and Finishes Plan to the satisfaction of the Responsible Authority must be submitted to and be approved by the Responsible Authority. When approved, the Façade Strategy and Materials and Finishes Plan will be endorsed and will then form part of this permit. The Façade Strategy and Materials and Finishes Plan must detail / include:

(a) elevation drawings at a scale of 1:20 illustrating typical podium details, entries and doors, and utilities and typical tower facade details;

(b) section drawings to demonstrate façade systems, including fixing details and joints between materials or changes in form;

(c) the façade strategy must show textured walls consistent with the development plans under condition 1;

(d) information about how the façade will be maintained, including any vegetation;

(e) The proposed colouring of external brickwork for the lower floor levels of the new multistorey buildings matching to the colouring of the original unpainted brickwork on the heritage building fronting Lithgow Street;

(f) A full schedule of all proposed external materials and colours for new building works (including images or samples); and

(g) a reflected glare assessment of external building materials and finishes, utilising an appropriate methodology.

9. The provisions, recommendations and requirements of the endorsed Façade Strategy must be implemented and complied with to the satisfaction of the Responsible Authority.

Landscape Plan

10. Before the development commences, an amended Landscape Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the Landscape Plan will be endorsed and will form part of this permit. The amended Landscape Plan must be generally in accordance with the Landscape Concept Design prepared by Ration Consultants, dated 29 October 2025, but modified to show / include:

    (a) Consistency with the endorsed plans under condition 1;

    (b) Details of bench seat furniture item and planters, including soil depth and width for planted area and planters;

    (c) Drainage methods and lining materials;

    (d) Volume and type of growing media (including cultivation depth, mulch type etc), of plant species, with wind-proof mulch to planters above the ground floor (such as screened rock/pebbles) is to be used;

    (e) Typical planting details for trees, shrubs, grasses, groundcovers and climbers, including details of proposed vertical growing structures including detail drawings, mounting technique etc;

    (f) Information on proposed irrigation including proposed water supply (potable or other), and type of irrigation (pop-ups or drip irrigation) for all garden bed areas and all upper-level loose pots/planters; and

    (g) A maintenance schedule, including task details and frequency and access for maintenance purposes must be provided to all planted areas and planters,

    to the satisfaction of the Responsible Authority.

11. Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, the landscaping works shown on the endorsed landscape plan must be carried out and completed to the satisfaction of the Responsible Authority. The landscaping shown on the endorsed landscape plan must be maintained by:

    (a) Implementing and complying with the provisions, recommendations and requirements of the endorsed landscape maintenance plan;

    (b) Not using the areas set aside on the endorsed landscape plan for landscaping for any other purpose; and

    (c) Replacing any dead, diseased, dying or damaged plants,

    to the satisfaction of the Responsible Authority.

Sustainability Management Plan

12. In conjunction with the submission of development plans under Condition 1, an amended Sustainability Management Plan (SMP) to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the amended SMP will be endorsed and will form part of this permit. The amended SMP must

be generally in accordance with the SMP prepared by Arup and dated 29 October 2025, but modified to have regard and include:

(a) To the architectural drawings required at Condition 1 of this permit.

(b) preliminary NatHERS ratings from a sample of dwelling demonstrating that the 7 Star rating will be achieved across the whole development, utilising glazing assumptions consistent with the Daylight Modelling report and Architectural Drawings; and

(c) a MUSIC or Blue Factor report to demonstrate the proposed stormwater management strategy will meet the planning scheme requirements for pollution and flow reduction.

to the satisfaction of the Responsible Authority.

13. The provisions, recommendations and requirements of the endorsed SMP must be implemented and complied with to the satisfaction of the Responsible Authority.

Acoustic Report

14. In conjunction with the submission of development plans under Condition 1, an amended Acoustic Report to the satisfaction of the Responsible Authority must be prepared by a suitably qualified acoustic engineer and must be submitted to and approved by the Responsible Authority. When approved, the Acoustic Report will be endorsed and will form part of this permit. The amended Acoustic Report must be generally in accordance with the Acoustic Report prepared by Acoustic Logic and dated 29 October 2025, but modified to have regard and include:

(a) To the architectural drawings required at Condition 1 of this permit;

(b) Whether any adjustments are necessary to achieve adequate noise levels inside apartments from the commercial operation of the ground floor café; and

(c) Noise and vibration impacts from the vehicle entrance gate to the basement.

15. The provisions, recommendations and requirements of the endorsed Acoustic Report must be implemented and complied with to the satisfaction of the Responsible Authority.

16. Before the development is occupied, an updated acoustic report prepared by a suitably qualified acoustic engineer to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. The report must:

(a) Provide evidence of compliance with the requirements of the endorsed Acoustic Report.

17. The recommendations and any works contained in the approved acoustic report must be implemented and completed and where there are recommendations of an ongoing nature must be maintained all to the satisfaction of the Responsible Authority.

Waste Management Plan

18. In conjunction with the submission of development plans under Condition 1, an amended Waste Management Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the amended Waste Management Plan will be endorsed and will form part of this permit. The amended Waste Management Plan must be generally in accordance with the Waste Management Plan prepared by Traffix Group and dated 30 October 2025 but modified to have regard:

(a) To the architectural drawings required at Condition 1 of this permit.

19. The provisions, recommendations and requirements of the endorsed waste management plan must be implemented and complied with to the satisfaction of the Responsible Authority.

Wind Assessment

20. In conjunction with the submission of development plans under Condition 1, an amended Wind Assessment (labelled Environmental Wind Conditions Study) to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the amended Wind Assessment will be endorsed and will form part of this permit. The amended Wind Assessment must be generally in accordance with the Wind Assessment prepared by Vipac Engineers and Scientists Limited (dated 30 October 2025), but modified to have regard:

    (a) To the architectural drawings required at Condition 1 of this permit;

    (b) Confirm that all balconies and terraces achieve the standing comfort criterion at a minimum; and

    (c) Include a wind tunnel study.

21. The provisions, recommendations and requirements of the endorsed Wind Assessment must be implemented and complied with to the satisfaction of the Responsible Authority.

Green Travel Plan

22. Before the use commences, a Green Travel Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the Green Travel plan will be endorsed and will form part of this permit. The Green Travel Plan must include, but not be limited to, the following:

    (a) a description of the location in the context of alternative modes of transport;

    (b) employee welcome packs (e.g. provision of myki/transport ticketing);

    (c) sustainable transport goals linked to measurable targets, performance indicators and monitoring timeframes;

    (d) a designated ‘manager’ or ‘champion’ responsible for coordination and implementation;

    (e) details of bicycle parking and bicycle routes;

    (f) details of GTP funding and management responsibilities;

    (g) the specific design of bicycle storage devices proposed to be used for employee

    (h) spaces, including demonstration of their suitability for parking cargo bikes, electric bikes and recumbent bikes;

    (i) security arrangements to access the employee bicycle storage spaces; and

    (j) signage and wayfinding information for bicycle facilities and pedestrians pursuant to Australian Standard AS2890.3;

    (k) Reference to a minimum 40A single phase electrical sub circuit should be installed to the car park areas for ‘EV readiness’; and

    (l) provisions for the Green Travel Plan to be updated not less than every 5 years.

23. The provisions, recommendations and requirements of the endorsed Green Travel Plan must be implemented and complied with to the satisfaction of the Responsible Authority.

Affordable Housing Report

24. Before the development starts, excluding bulk excavation, site preparation, soil removal, site remediation and retention works, an Affordable Housing Report must be approved and endorsed by the responsible authority. The report must be prepared to the satisfaction of the responsible authority and be generally in accordance with the Affordable Housing Report prepared by MODEL but modified to ensure that:

    (a) Market rents are verified to ensure discounts are calculated fairly and transparently relative to market rents at the time of endorsement.

Section 173 Agreement – Affordable Housing

25. Before the development is occupied, the owner of the land must enter into an agreement with the responsible authority under Section 173 of the Planning and Environment Act 1987. The agreement must provide for a contribution towards affordable housing generally in accordance with the endorsed Affordable Housing Report, in the following manner:

    (a) At least 16 dwellings in the development must be provided as affordable rental housing by the build-to-rent provider. The details of the nominated affordable housing dwellings, when and how the affordable housing will be delivered and managed, as well as the total value of the affordable housing contribution must be set out in the agreement. The affordable housing dwellings provided should be representative of the approved dwelling mix to the satisfaction of the responsible authority; and

    (b) Secured in perpetuity rather than for a fixed minimum term. If this is not achievable, the term should be a minimum of at least 25 years.

26. The land owner must pay the responsible authority's reasonable costs of the preparation, execution, registration and ending of the section 173 agreement (where applicable).

Civil Works

27. Before the buildings are occupied or by such later date as approved in writing by the Responsible Authority, the footpath along the property's Lithgow Street frontage must be re-sheeted in asphalt:

    (a) at the permit holder's cost; and

    (b) to the satisfaction of the Responsible Authority(s).

28. Before the buildings are occupied, or by such later date as approved in writing by the Responsible Authority, the kerb and channel along the property's Lithgow Street frontage must be reconstructed:

    (a) at the permit holder's cost; and

    (b) to the satisfaction of the Responsible Authority(s).

29. Before the buildings are occupied, or by such later date as approved in writing by the Responsible Authority, the half-width road pavement along the property's Lithgow Street frontage must be reconstructed:

    (a) at the permit holder's cost; *and*

(b) to the satisfaction of the Responsible Authority(s).

30. All redundant vehicle crossings are to be demolished and reinstated with paving, and kerb and channel to the satisfaction of the Responsible Authority and at the Permit Holder's cost.

31. Within 2 months of the completion or by such later date as approved in writing by the Responsible Authority, any damage to Council infrastructure resulting from the development must be reinstated:

    (a) In accordance with Yarra Standard Drawings | Yarra City Council;

    (b) at the permit holder's cost; and

    (c) To the satisfaction of the Responsible Authority.

32. Any services poles, structures or pits that interfere with the proposal must be adjusted, removed or relocated at the Permit Holder's expense after seeking approval from the relevant authority.

Car Parking

33. Before the building s are occupied, or by such later date as approved in writing by the Responsible Authority, the area set aside on the endorsed plans for the car parking spaces, access lanes, driveways and associated works must be:

    (a) constructed and available for use in accordance with the endorsed plans;

    (b) formed to such levels and drained so that they can be used in accordance with the endorsed plans;

    (c) treated with an all-weather seal or some other durable surface; and

    (d) line-marked or provided with some adequate means of showing the car parking spaces,

    to the satisfaction of the Responsible Authority.

Vehicle Crossings

34. Concurrent with the submission of Condition 1 plans or by such later date as approved in writing by the Responsible Authority, a vehicle crossing design must be submitted to Council's Civil Engineering Department for approval. The submitted design must demonstrate compliance with City of Yarra's, Vehicle Crossing Information Sheet. Refer to Notes (below) for lodgement details.

35. Concurrent with the submission of Condition 1 plans, or by such later date as approved in writing by the Responsible Authority, the new vehicle crossings must be designed and constructed:

    (a) at the Permit Holder's cost; and

    (b) to the satisfaction of the Responsible Authority.

    Refer to Notes (below) for lodgement details.

36. Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, any redundant vehicular crossing must be demolished and re-instated as standard footpath and kerb and channel:

    (a) at the permit holder's cost; and

(b) to the satisfaction of the Responsible Authority.

Bicycle Parking

37. Except with the prior written consent of the Responsible Authority:

    (a) No less than 151 resident bicycle parking spaces must be provided on site; and

    (b) No less than 35 visitor spaces must be provided on site.

38. All visitor and employee bicycle spaces must be ground level (horizontal) hoops and must comply with Clause 52.34 of the Yarra Planning Scheme, and the clearance and access-way requirements of AS2890.3.

Lighting

39. Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, external lighting capable of illuminating access to the car park and dwelling entrances must be provided within the property boundary. Lighting must be:

    (a) located;

    (b) directed;

    (c) shielded; and

    (d) of limited intensity,

    to the satisfaction of the Responsible Authority.

Public Realm Improvements

40. Prior to the demolition of any building(s) or by such later date as is approved by the Responsible Authority, a Public Realm Works plan must be submitted to and approved by the Responsible Authority. When approved, the plan will be endorsed and will then form part of the permit. The Public Realm Works plan must show / include the following all to the satisfaction of the City of Yarra:

    Lithgow Street

    (a) Any works required to achieve compliance, including surface level modifications, informed by the outcomes of a flood risk assessment. All such works, including any level changes required to mitigate flooding impacts, must be undertaken wholly within the subject site. Existing external footpath levels must not be altered unless it is demonstrably shown that doing so results in an improvement to flood and access compliance with adjoining footpaths, to the satisfaction of Council;

    (b) All tactiles, handrails, ramps and landings within the subject site boundary and not protrude outside the subject site's title boundaries;

    (c) Any statutory visitor bike parking requirements accommodated within the subject site boundary;

    (d) The existing Lithgow Street footpath width maintained;

    (e) The Lithgow Street kerb extension(s) to have no reverse impact on flooding and drainage along the street, and if feasible pending flood risk assessment, the integration of two (2) kerb extensions with a combination of planting and paving and no more than 3 visitor bike hoops and one bench seat);

(f) The design of kerb extensions to match in principle to existing extensions further south along Lithgow Street with bluestone pitcher edges and provision for passive irrigation to any planted areas;

(g) Lithgow Street Streetscape improvements to have no net loss reduction in on-street parallel parking bays along the subject site street frontage;

(h) A notation confirming that the footpath in Lithgow Street will not have a footpath crossfall greater than 1 in 33;

(i) A plan notation confirming that the footpath will not have a cross-fall of less than 1.2% from building line to top of kerb;

(j) Parallel parking bays to meet Australian Standards;

(k) The integration of a minimum seven (7) new street trees (with 3m minimum offset to power poles), on-road or in kerb extensions along Lithgow Street;

(l) The removal of any reference to drop off bays on Lithgow Street;

(m) The removal of any reference to the 'Outdoor café seating' area on Lithgow Street;

(n) The removal of any reference to the 'Main Entry' associated with public realm on Lithgow Street to clearly describe referencing entry within the development;

Little Lithgow Street

(o) Car park security door to be within the title boundary along Little Lithgow Street;

(p) Car park vehicle access to be provided without obstructing other users of Little Lithgow Street;

(q) Plant species along ground level terraces must not overhang or obstruct view-lines or access along Little Lithgow Street;

General

(r) reconstructed footpaths and kerbing;

(s) removal of redundant vehicle crossings;

(t) all existing roadside infrastructure; and

(u) at the permit holder's cost,

to the satisfaction of the City of Yarra.

41. Before the development commences (excluding site preparations, demolition and bulk excavation), or by such later date as approved in writing by the Responsible Authority, detailed design drawings of the works approved under the Public Realm Plan (as required by Condition 41) addressing all road infrastructure works (including soft/hard landscaping), must be submitted to and approved by Council's Civil Engineering Department. Once approved, the detailed design drawings will be endorsed and will then form part of the permit.

42. Before the building is occupied, all associated works shown on the endorsed detailed design plans for the public realm (as required by Condition 41) must be fully constructed and completed to the satisfaction of the Council's Civil Engineering Department and at no cost to the Responsible Authority.

Public Lighting Plan Required

43. Before the development commences (excluding demotion, bulk excavation and site preparation work), or by such later date as approved in writing by the Responsible Authority, a Public Lighting Plan must be submitted to and approved by the City of Yarra's Civil Engineering Department. When approved, the Public Lighting Plan will be endorsed by the Responsible Authority and will form part of this permit. The Public Lighting Plan must be designed:

    (a) address lighting along the length of the property to Lithgow Street and Little Lithgow Street and the pedestrian and vehicle entrances to the approved building.

    (b) to comply with uniformity, access and maintenance requirements as per standard AS1158.3.1; and

    (c) to control light spillage in accordance with the requirements of AS 4282 – 2019," *Control of the obtrusive effects of outdoor lighting*";

    to the satisfaction of the Responsible Authority.

Ongoing Public Lighting Plan Requirement

44. The provisions, recommendations and requirements of the endorsed Public Lighting Plan must be implemented and complied with at no cost to Council and to the satisfaction of the Responsible Authority.

Temporary Lighting Plan

45. Before any existing public lighting is removed, or by such later date as approved in writing by the responsible authority, a temporary lighting plan must be submitted to and approved by Yarra City Council. The temporary lighting is to be installed at the permit holder's cost and must remain operational until a new permanent lighting scheme is installed and operational, to the satisfaction of Yarra City Council.

General

46. Before the development is occupied, or by such later date as approved in writing by the Responsible Authority, all screening and other measures to prevent overlooking as shown on the endorsed plans must be installed to the satisfaction of the Responsible Authority. Once installed the screening and other measures must be maintained to the satisfaction of the Responsible Authority.

47. Before the building is occupied, or by such later date as approved in writing by the Responsible Authority, all new on-boundary walls must be cleaned and finished to the satisfaction of the Responsible Authority.

48. Before the building is occupied, any wall located on a boundary facing public property must be treated with a graffiti proof finish to the satisfaction of the Responsible Authority.

49. Finished floor levels shown on the endorsed plans must not be altered or modified without the prior written consent of the Responsible Authority.

50. The amenity of the area must not be detrimentally affected by the use or development, including through:

    (a) the transport of materials, goods or commodities to or from land;

    (b) the appearance of any buildings, works or materials;

(c) the emission of noise, artificial light, vibration, smell, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil; or

(d) the presence of vermin,

to the satisfaction of the Responsible Authority.

Development Contributions Plan

51. Prior to the commencement of the development, the Development Infrastructure Levy must be paid to Yarra City Council in accordance with the approved Development Contributions Plan, or the Owner must enter into an agreement with Yarra City Council to pay the amount of the levy within a time specified in the agreement.

Community Infrastructure Levy

52. Prior to the issue of a building permit, the Community Infrastructure Levy must be paid to Yarra City Council in accordance with the approved Development Contributions Plan.

Street Trees

53. Before the development commences, the permit holder must make a one-off contribution of $15,645.00 (inclusive of GST and subject to annual CPI increase) to the Responsible Authority to be used for new street tree plantings that are required as a result of the development.

Construction Management Plan

54. Before the development commences, a Construction Management Plan to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the plan will be endorsed and will form part of this permit. The plan must provide for (as appropriate):

(a) a pre-conditions survey (dilapidation report) of the land and all adjacent Council road frontages and nearby road infrastructure;

(b) works necessary to protect road and other infrastructure;

(c) remediation of any damage to road and other infrastructure;

(d) containment of dust, dirt and mud within the land and method and frequency of clean up procedures to prevent the accumulation of dust, dirt and mud outside the land;

(e) facilities for vehicle washing, which must be located on the land;

(f) the location of loading zones, site sheds, materials, cranes and crane/hoisting zones, gantries and any other construction related items or equipment to be located in any street;

(g) site security;

(h) management of any environmental hazards including, but not limited to:

(i) contaminated soil;

(ii) materials and waste;

(iii) dust;

(iv) stormwater contamination from run-off and wash-waters;

(v) sediment from the land on roads;

(vi) washing of concrete trucks and other vehicles and machinery; and

(vii) spillage from refuelling cranes and other vehicles and machinery;

(i) the construction program;

(j) preferred arrangements for trucks delivering to the land, including delivery and unloading points and expected duration and frequency;

(k) parking facilities for construction workers;

(l) measures to ensure that all work on the land will be carried out in accordance with the Construction Management Plan;

(m) an outline of requests to occupy public footpaths or roads, or anticipated disruptions to local services;

(n) an emergency contact that is available for 24 hours per day for residents and the Responsible Authority in the event of relevant queries or problems experienced;

(o) the provision of a traffic management plan to comply with provisions of AS 1742.3-2002 Manual of uniform traffic control devices - Part 3: Traffic control devices for works on roads;

(p) a Noise and Vibration Management Plan showing methods to minimise noise and vibration impacts on nearby properties (including businesses) and to demonstrate compliance with Noise Control Guideline 12 for Construction (Publication 1254) as issued by the Environment Protection Authority in October 2008. The Noise and Vibration Management Plan must be prepared to the satisfaction of the Responsible Authority. In preparing the Noise and Vibration Management Plan, consideration must be given to:

(i) using lower noise work practice and equipment;

(ii) the suitability of the land for the use of an electric crane;

(iii) silencing all mechanical plant by the best practical means using current technology;

(iv) fitting pneumatic tools with an effective silencer; and

(v) other relevant considerations (including impacts on the operation of businesses);

(q) a detailed dilapidation report detailing and documenting the existing and post construction conditions of surrounding road infrastructure and adjoining private properties;

(r) if any existing public lighting assets require temporary disconnection, alternative lighting must be provided to maintain adequate lighting levels. A temporary lighting scheme can only be approved by Council and relevant power authority. Existing public lighting could only be disconnected once temporary alternative lighting scheme becomes operational; and

(s) any site-specific requirements.

55. During construction:

(a) any stormwater discharged into the stormwater drainage system must be in compliance with Environment Protection Authority guidelines;

(b) stormwater drainage system protection measures must be installed as required to ensure that no solid waste, sediment, sand, soil, clay or stones from the land enters the stormwater drainage system;

(c) vehicle borne material must not accumulate on the roads abutting the land;

(d) the cleaning of machinery and equipment must take place on the land and not on adjacent footpaths or roads; and

(e) all litter (including items such as cement bags, food packaging and plastic strapping) must be disposed of responsibly.

56. The provisions, recommendations and requirements of the endorsed Construction Management Plan must be implemented and complied with to the satisfaction of the Responsible Authority.

Construction Hours

57. Except with the prior written consent of the Responsible Authority, demolition or construction works must not be carried out:

(a) Monday-Friday (excluding public holidays) before 7.00am or after 6.00pm;

(b) Saturdays and public holidays (other than ANZAC Day, Christmas Day and Good Friday) before 9.00am or after 3.00pm; or

(c) Sundays, ANZAC Day, Christmas Day and Good Friday at any time.

Permit Expiry

58. This permit will expire if:

(a) the development is not commenced within four years of the date of this permit; or

(b) the development is not completed within six years of the date of this permit.

59. In accordance with section 69 of the Planning and Environment Act 1987, an application may be submitted to the Responsible Authority for an extension of the periods referred to in this condition.

Notes:

This site is subject to a Heritage Overlay. A planning permit may be required for any external works.

A building permit may be required before development is commenced. Please contact Council's Building Services on 9205 5555 to confirm.

Provision must be made for drainage of the site to a legal point of discharge. Please contact Council's Building Services on 9205 5555 for further information.

All property owners or occupiers within a development approved under this planning permit, will not be eligible for residential or visitor parking permits unless the development has heritage controls where parking would adversely affect the integrity of the heritage place, or if there's no increase in occupancies and the development does not reduce existing on-site parking. For more information refer to www.yarracity.vic.gov.au/residents/transport/parking/parking-permits.

All future business (whether as owners, lessees/tenants, occupiers) within a development approved under this planning permit, will not be eligible for business parking permits unless the development has heritage controls where parking would adversely affect the integrity of the heritage place, or if there's no increase in separate occupancies and the development does not reduce existing on-site parking. For more information refer to www.yarracity.vic.gov.au/residents/transport/parking/parking-permits.

These premises will be required to comply with the *Public Health and Wellbeing Act 2008*. The use must not commence until registration has been granted by Council's Health Protection Unit.

In accordance with the Yarra Planning Scheme, an 8.65% public open space contribution will apply in the event of the subdivision of the land.

A local law permit (e.g. Asset Protection Permit, Road Occupation Permit) may be required before development is commenced. Please contact Council's Construction Management Branch on Ph. 9205 5555 to confirm.

The site is located within an Environmental Audit Overlay. Pursuant to Clause 45.03 of the Yarra Planning Scheme, the requirements of the Environmental Audit Overlay must be met prior to the commencement of development permitted under the permit.

The permit holder must apply for a Legal Point of Discharge under Regulation 133 – Stormwater Drainage of the Building Regulations 2018 from Yarra Building Services unit. Any storm water drainage area within the property must be provided for and be connected to the nearest Council pit of adequate depth and capacity (legal point of discharge), or to Council's satisfaction under Section 200 of the Local Government Act 1989 and Regulation 133.

Areas must be provided inside the property line and adjacent to the footpath to accommodate pits and meters. No private pits, boundary traps, valves or meters on Council property will be accepted.

No parking restriction signs or line-marked on-street parking bays are to be removed, adjusted, changed or relocated without approval or authorisation from Council's Parking Management Unit and Construction Management branch.

The removal of any kerbside parking sensors and any reinstatement of parking sensors will require the Permit Holder to pay Council the cost of each parking sensor taken out from the kerb/footpath/roadway. Any costs associated with the reinstatement of road infrastructure due to the removal of the parking sensors must be borne by the Permit Holder.

For the submission of plans pursuant to Conditions 35 and 36, please submit these to info@yarracity.vic.gov.au marked attention to Engineering Services.

Background

1. This report provides Council with an assessment of a planning application being considered by the Department of Transport and Planning (the 'DTP') for a planning permit to develop 39 – 47 Lithgow Street, in Abbotsford.

2. The application was made to the Minister for Planning under Clause 53.22 Significant Economic Development.

Figure 1: Aerial photograph identifying the site (Source: Extracted from Town Planning Report prepared by Urbis and dated March 2026 – p6)

3. The application proposes the demolition of later non-original additions / fabric and retention and conservation of key elements of the warehouse's original 1927 footprint. With that in mind, the extent of demolition proposed by this application includes removal of the entire site except for about 20% (see Figure 2 below) of the existing footprint which will retain:

   (a) The Lithgow Street façade including its slate roof, beams;

   (b) The factory chimney; and

   (c) The pitched roof tower on Little Lithgow Street (to be reconstructed).

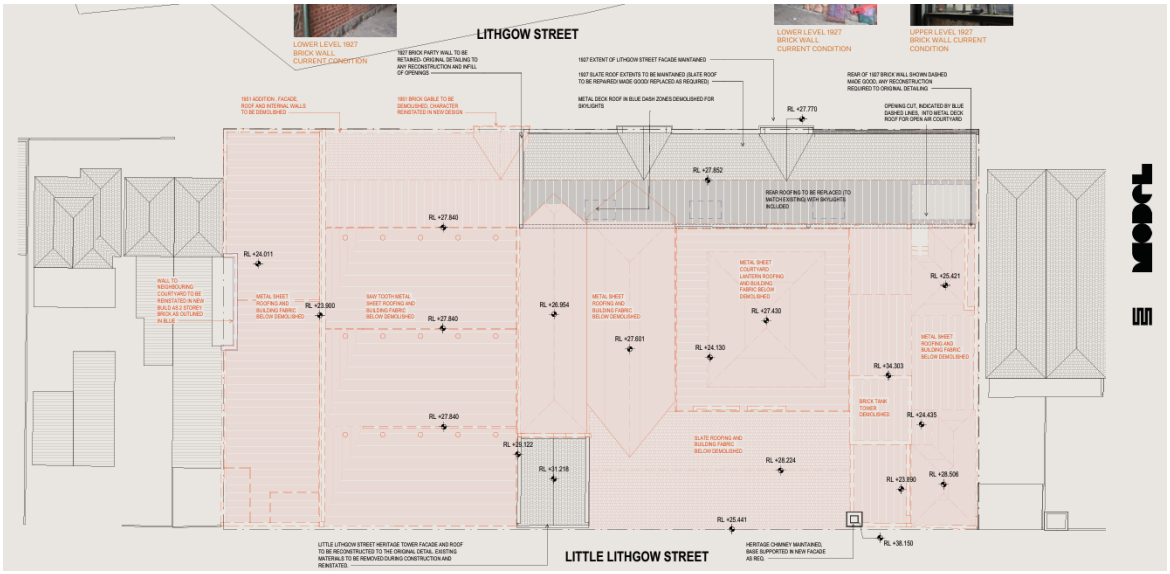


Figure 2: Demolition plan identifying extent of demolition for context – (Source extracted from the Town Planning – Urban Context Report - p26)

4. The site is proposed to be developed with two new apartment buildings (both six storeys – namely Northern and Western buildings on the indicative site arrangement at Figure 3) - with a maximum building height of up to 18.7m above the natural ground level and up to 21.8m to services above the natural ground level) with new open space separating the heritage warehouse and new buildings (see Figure 3).

Figure 3: Indicative site arrangement (Source: Extracted from Town Planning Report prepared by Urbis and March 2026 – p19)

5. The development would provide 151 apartments, (comprised of 54 studio apartments, 68 one-bedroom apartments, 9 one-bedroom plus study apartments, and 20 two-bedroom apartments).

6. A provision of 43 on-site car spaces in a basement, including 3 electric vehicle bays, and 88 bicycle spaces. An additional six visitor bike spaces are proposed in the public realm on Lithgow Street.

Figure 4: Render of proposal from Lithgow Street – (Source extracted from the Town Planning – Urban Context Report – p55)

Figure 5: Render of proposal from Lithgow Street from the school opposite the site – (Source extracted from the Town Planning – Urban Context Report – p53)

7. The attached **Council Officer Application Assessment Table** sets out a brief overview of the application, the relevant planning framework key aspects of proposal and internal and external consultation undertaken.

Advertising

Advertising

8. The application was notified to Council and surrounding properties. At the time of finalising this report, the DTP have advised Council that they did not receive any submissions.

Referrals

9. The application was referred to following internal business units within Council, whose full advice is attached to this report:

Internal Business Unit	Comments
Social Planning	Generally supported. Has recommended that affordability be secured in perpetuity where possible, or otherwise for an increased minimum term (at least 25 years).
Heritage Advisor	Partially supported. While the heritage advice supports elements of the demolition, subject to conditions of permit, it notes that demolition of the water tank tower is not supported unless it can be proven that the tower is not structurally sound; and demolition of the pitched roof tower that results in non-accurate reconstruction is also not supported. Recommendations about the location and form of new development have also been provided.
Strategic Planning Unit	Not supported. Council's Strategic Planning Unit has recommended that the proposal is redesigned to more closely align with the adopted and proposed planning controls to ensure consistency with Council's strategic objectives and the intent of the relevant DDOs.
Strategic Projects Parks and Open Spaces	Supported subject to conditions relating to landscape plans that include public realm improvements and provision for street trees detailed within the recommendation.
Environmental Sustainable Design	Not supported. Council's ESD advisor has indicated that there is critical technical information missing from the Sustainable Management Plan to substantiate the stated targets which have formed part of the recommended conditions.

Development Engineering	Supports, subject to conditions, most of which have been included in the recommendation.
Waste Management	Supported in full.
Strategic Transport	Supported with conditions included in the recommendation.

Officer Assessment

10. The attached **Council Officer Application Assessment Table** sets out a high-level assessment of the application against the key considerations in the planning scheme.
11. This has led to the recommendation that the application is not supported in its current form on grounds that relate to heritage (the extend of demolition) and the development's failure to meet the interim and proposed built form controls in relation to building height and setbacks.
12. Notwithstanding this, should the DTP be of a mind to grant a permit, recommended conditions are also provided.

Legal and Legislative Obligations

Conflict of interest disclosure

13. Section 130 of the Local Government Act 2020 requires members of Council staff and persons engaged under contract to provide advice to Council to disclose any conflicts of interest in a matter to which the advice relates.
14. The Officer reviewing this report, having made enquiries with relevant members of staff, reports that no disclosable interests have been raised in relation to this report.

Report Attachments

1. 6.2.1 PPE26/0203 39-47 Lithgow Street DTP Assessment Table
2. 6.2.2 PPE26/0203 - 39-47 Lithgow Street Abbotsford - S52 Notice Letter - Yarra City Council
3. 6.2.3 PPE26/0203 - 39-47 Lithgow Street - Internal Referral Advice collated
4. 6.2.4 PPE26/0203 - 39-47 Lithgow Street Abbotsford - Urban Context and Design Response
5. 6.2.5 PPE26/0203 - 39-47 Lithgow Street Abbotsford - Architectural Plans
6. 6.2.6 PPE26/0203 - 39-47 Lithgow Street Abbotsford - Town Planning Report - Formal Submission
7. 6.2.7 PPE26/0203 - 39-47 Lithgow Street Abbotsford - Affordable Housing Report - (Model 25 March 2026)
8. 6.2.8 PPE26/0203 - 39-47 Lithgow Street Abbotsford - Traffic Engineering Assessment
9. 6.2.9 PPE26/0203 - 39-47 Lithgow Street Abbotsford - Wind Impact Assessment
10. 6.2.10 PPE26/0203 - 39-47 Lithgow Street Abbotsford - Landscape Plan
11. 6.2.11 PPE26/0203 - 39-47 Lithgow Street Abbotsford - Daylight Modelling
12. 6.2.12 PPE26/0203 - 39-47 Lithgow Street Abbotsford - Acoustic Assessment (Acoustic Logic 29 October 2025
13. 6.2.13 PPE26/0203 - 39-47 Lithgow Street Abbotsford - Sustainability Management Plan

14. 6.2.14 PPE26/0203 - 39-47 Lithgow Street Abbotsford - Waste Management Plan

DTP Application assessment table

Overview	
Property	39 – 47 Lithgow Street, Abbotsford
Ward	Langridge Ward
DTP Ref & Status/ reason for referral	PA2604316 Application made to the Minister for Planning under Clause 53.22 (Significant Residential Development) Council was notified under section 52 of the Act on 8th April 2026
Council Ref	PPE26/0203
Proposal	Redevelopment of parts of the site to deliver 151 dwellings with 62sqm of commercial space in the form of a food and drinks premises (café), alongside the adaptive reuse of the original warehouse building at the south-eastern corner of the site. The proposal is described in the Town Planning Report prepared and authored by Urbis dated March 2026 at page 19-20. The plans under assessment are those prepared by Warren and Mahoney (registered Architects and Designers), dated 26 March 2023.

Site & Context	Described in application material.
	In brief:
	• Disused two-storey former Schweppes Cordial Factory warehouse; brick building on bluestone plinth, pitched slate roof;
	• Site access via multiple vehicle crossovers to Lithgow St and Little Lithgow St;
	• The building is largely built to boundaries;
	• Notable heritage features include 21m brick smokestack and three-storey brick tower with later additions that are sympathetic to the original fabric of the site;
	• Interfaces:
	  ○ Victorian terrace at 49 Lithgow Street to the immediate north,
	  ○ Victorian terrace at 33 Lithgow Street to the immediate south
	  ○ Laneway namely Little Lithgow Street to the immediate west with dwelling opposite that are addressed to William Street.
	• To the east and immediate opposite of the site is the Abbotsford Primary School (zoned Public Use – Schedule 2).

	• Area is mixed-use, located in the Victoria Street Activity Centre with strong access to amenities and public transport (train lines, tram routes 12 & 109 to name a few) – refer to Town Planning Report prepared and authored by Urbis dated March 2026 p10 for full scope of transport options readily available.
Notable history	The following history is relevant to the subject site and is outlined in detail in the Town Planning Report prepared and authored by Urbis dated March 2026: • The proposal progressed through the DFP pre-application process from September–October 2024 and has been tested through five in-person meetings with DTP, the City of Yarra and OVGA (VDRP). • Early iterations proposed a single large addition (up to 9 storeys/26.8m and 173 apartments). DTP's key concerns were exceedance of the 18 m control, apartment daylight/outlook and Clause 58 compliance, and managing overshadowing, bulk and overlooking, while supporting retention of key heritage elements and a sympathetic materials response. • Subsequent design revisions reduced height and adjusted setbacks and floorplates. OVGA feedback called for a clearer heritage-led concept, reduced bulk, improved permeability and landscaping, and a stronger relationship between new built form and the site's industrial character. • By the second VDRP (August 2025), the scheme was substantially reworked into three separate buildings (a "neighbourhood of buildings"), with height reduced from 9 to 7 and then to a supported 6 storeys. The heritage building was repositioned as the centrepiece and activated with resident amenities and a café, alongside strengthened public-realm outcomes (more planting, fewer crossovers and a clear-to-sky pedestrian link). • The current response "prunes" lower-value fabric to make the 1927 heritage more legible, using varied heights and setbacks to frame the retained building and deliver greener, more porous courtyards and active edges.
Planning Framework	
Zoning & Overlays	• Mixed Use Zone (MUZ) • Design and Development Overlay – Schedule 22 (DDO22) • Environmental Audit Overlay (EAO) • Development Contributions Plan Overlay (Schedule 1) • Heritage Overlay (HO339)
Statutory controls	The use of the land for dwelling and food and drinks premises (café) are as-of-right uses under the MUZ. A planning permit is required for the following:

	• Demolish an existing building under Clause 43.01-1 (Heritage Overlay) of the Yarra Planning Scheme (the Scheme) • To construct a residential building or to construct or carry out works under Clause 32.04-7 (Mixed Use Zone) and Clause 43.01-1 (Heritage Overlay) The subject site is subject to a Development Infrastructure Levy and a Community Infrastructure Levy under the DCPO1. The subject site is also affected by the Environmental Audit Overlay. The requirements of this overlay are required to be met prior to the commencement of development. *Clause 52.06 – Car Parking* The site is located in Category 3 in the Car Parking Requirements Maps and based on the statutory parking rates under Clause 52.06 of the Yarra Planning Scheme, the proposed development has a statutory requirement to provide a minimum of zero car parking spaces. *Clause 53.23 Significant Residential Development with Affordable Housing* The application has been formally lodged through DTP under *Clause 52.23* Significant Residential Development with Affordable Housing (*Category 1*). The applicant has stated that the estimated development cost exceeds $50 million ($75,400,000), and the Applicant has confirmed that an affordable housing contribution of 10 per cent of the total number of dwellings is provided and forms part of the proposed development; and Information demonstrating the likely feasibility of the proposal has been provided to the satisfaction of the Minister for Planning, including written advice from the Chief Executive Officer (or delegate) of Invest Victoria. *Clause 52.34 Bicycle Facilities* The provision of clause 52.34 require the development to provide a total of 45 bicycle spaces, comprising 30 resident and 15 visitor spaces. A total of 88 bicycle parking spaces are proposed with 48 spaces at ground floor and 40 spaces within the basement level. A further six bicycle parking spaces are proposed within the public realm. Despite the number provided, it is unclear from the plans which spaces are for residents, and which are for visitors, and if the 6 bicycle spaces within the public realm are solely provided as visitor parking, the development is not meeting its statutory requirements, and there is a shortfall of 9 visitor spaces.

Relevant planning policies	• Clause 2 - Municipal Planning Strategy, including:
	  ○ Clause 02.01 – Context
	  ○ Clause 02.02 – Vision
	  ○ Clause 02.03 – Strategic Directions
	  ○ Clause 02.04 – Strategic Framework Plan
	• Clause 11 – Settlement
	• Clause 13 – Environmental risks and amenity
	• Clause 15 – Built environment and heritage
	• Clause 16 – Housing
	• Clause 17 – Economic development
	• Clause 18 – Transport
	• Clause 19 – Infrastructure

Other relevant documents	The following documents are relevant to this application: • City of Yarra: Database of Heritage Significant Areas, March 2024 • Urban Design Guidelines for Victoria (Department of Environment, Land, Water and Planning, 2017) • Apartment Design Guidelines for Victoria (Department of Environment, Land, Water and Planning, 2021) • Plan for Victoria (Department of Transport and Planning) • Yarra Housing Strategy (2018)
Internal & External consultation	
Consultation	DTP notified Council of the application on 8th April 2026. The notice period completed on 22 April 2026. At the time of finalising this report, there were no submissions made to DTP.
Internal referrals	The proposal has been referred to the following internal business units, whose comments are attached in full, and whose recommendations have generally been incorporated into the recommended list of conditions: • Social Planning; • Heritage; • Strategic Projects Parks and Open Spaces; • Environmental Sustainable Design; • Development Engineering; • Waste Management;

	• Strategic Transport; and • Strategic Planning

Other expertise required	DTP are recommended to obtain expert advice in relation to:
	• Wind expert – to review/verify provided wind assessment
	• Acoustic expert – to assess the potential noise impacts to/from the following:
	  ○ Surrounding road networks and commercial activities off and on-site (i.e. the café which is a non-permit required use because it is less than 150sqm and does not trigger a planning permit); and
	  ○ From the proposed mechanical plant equipment and car park access to adjoining sensitive uses both on and off-site.

Key considerations	**Generally, complies?**
Strategic support	**Supported** The subject site is located within a MUZ, which has a key purpose to provide housing at higher densities. Consistent with the zone, the use of the land for dwellings do not require a planning permit. The café is also less than 150sqm and does not require a planning permit. The proposal enjoys considerable support from both State and Local Planning Policy Framework for redevelopment of the site to provide higher density residential use. Policy at *Clauses 11*, *16* and *18* of the Scheme, together with *Plan for Victoria*, encourage the accumulation of activities and the intensification of development in and around activity centres. The site is in an identified economic and activity area (Victoria Street Activity Centre) and is walkable to railway stations and tram stops. The provision for housing in this location is consistent with policy at Clause 02.03-1 (Settlement – Activity Centres) that encourages housing patterns to locate within activity centres at *a scale appropriate to the role and capacity of the centre*. Clause 11.03-1L (Activity Centres) further supports development within activity centres that is consistent with the capacity for each centre as identified in clause 16.01-1L (Location of residential development). The site is identified as one earmarked for incremental change with the relevant strategy, *that respects the fine-grain subdivision pattern, neighbourhood or streetscape character and identified heritage significance.* It is considered that the size of the site lends itself to a proposal of this scale, subject to its further tempering to meet relevant built form policies discussed in later sections.

	Both State and Local Planning Policy Framework seek to promote the use of sustainable personal transport and increased development close to high-quality transport routes (*Clauses 18.01-3L*, *18.02-1L*, *18.02-2L* and *18.02-4L*). The site is well connected to public transport opportunities.
Land use – Dwellings and food and drinks premises (café)	**Supported – as of right under the MUZ** In respect to noise, an Acoustic Report was submitted with the application which assessed the potential noise impacts, and it is recommended that DTP obtain expert Acoustic advice in response to the submitted Acoustic Report.
Social Planning	**Supported** Social Planning supports the proposal to deliver on-site discounted-rent dwellings under the alternative contribution pathway, noting that the Build-to-Rent model can provide professionally managed rental housing and improved security of tenure. The proposed quantum of affordable housing (approximately 10% of the total yield, subject to final plans) is consistent with the relevant planning framework and Council policy guidance for significant developments. Notwithstanding this overall support, several refinements are recommended to ensure the affordable housing offer better aligns with local needs and best-practice delivery. In particular, the affordable dwelling mix should remain diverse and not be disproportionately weighted toward studio and one-bedroom apartments. All affordable housing dwellings should also meet an appropriate accessibility standard (including SDA-compliant design, as referenced in the advice) to support flexible and inclusive use. The discounted rent model is supported in principle; however, market rents should be independently verified so that discounts are calculated fairly and transparently. Given the enduring nature of housing need, it is recommended that affordability be secured in perpetuity where possible, or otherwise for an increased minimum term (at least 25 years). Ongoing delivery should be underpinned by clear governance and compliance arrangements through a Section 173 Agreement, including proportionate income verification processes and regular monitoring and reporting. Conditions have been included that reflect these requests put forward by Council's Social Planning Unit.
Built Form – Heritage	**Partially supported – with significant revisions through conditions** Council's Heritage Advisor has considered the proposal in relation to the relevant State and Local Planning Policy Frameworks and the decision guidelines of Clause 43.01 (Heritage Overlay), that have been informed by the Burra Charter principles. The

	subject site forms part of the William Street Precinct (HO339) and contains individually significant industrial heritage fabric associated with the former Schweppes Cordial Factory complex. The application's overall approach of retaining key elements of the Lithgow Street frontage and chimney, and removing later accretions, can be supported on heritage grounds provided that essential landmark components are not lost and that the retained fabric is conserved using appropriate methods. Demolition that would lead to an inaccurate reconstruction of the pitched roof tower on Little Lithgow Street, and demolition of the former water tank tower, are not supported due to their contributory/landmark value and their role in understanding the site's former industrial operations. The new multi-storey development must also be refined to ensure it does not visually dominate the historic built form when viewed from the public realm, and to limit impacts at the northern interface. Long-term conservation outcomes will rely on robust documentation and controls prior to demolition, detailed conservation methods for the chimney and façade works, and ongoing heritage management through a Conservation Management Plan (CMP) and Heritage Interpretation Plan that are embedded in future ownership and maintenance arrangements. The following heritage permit conditions (full suite) have been recommended by Council's Heritage Advisor: • *Prior to any demolition, submit to Council a comprehensive professional visual record/archival recording of the heritage place, prepared in accordance with Heritage Victoria standards.* • *Prior to works commencing, submit a detailed method/engineering plan for safeguarding the existing factory chimney during demolition and construction (including propping/stabilisation) to prevent collapse.* • *Retain the existing pitched roof tower on Little Lithgow Street, or (only if structural unsoundness is demonstrated) allow dismantling and accurate reconstruction to match the original form, fabric and detailing.* • *Retain the former water tank tower, or (only if structural unsoundness is demonstrated) allow dismantling and accurate reconstruction to match the original.* • *Ensure all refurbished door openings in the Lithgow Street façade are fitted with timber doors of matching industrial character and consistent appearance.* • *Ensure all replacement window frames to the Lithgow Street façade are timber and match the existing window dimensions and appearance.* • *Repair the existing slate roof where feasible; replace only as a last resort, and any replacement slates must match the original in profile, size, colour, texture and finish.* • *Remove non-original external paint from the Lithgow Street building using appropriate methods; submit details for Council approval prior to commencing paint removal.*

	• *Set back the balcony at Level 03 adjacent to the chimney flue by at least 1 metre from the flue or delete the balcony.* • *Submit full details of chimney cleaning processes and repair methods for Council approval prior to undertaking works to the chimney.* • *Further set back the upper floor levels of the new development behind the retained Lithgow Street heritage building to minimise visual dominance when viewed from the public realm.* • *Ensure the height of the proposed northern boundary wall does not exceed the height of the existing northern boundary wall.* • *Ensure the colouring of external brickwork to lower levels of the new multi-storey buildings generally matches the colouring of the original unpainted brickwork of the Lithgow Street heritage building.* • *Submit a full schedule of proposed external materials and colours for all new works (including images or samples) for Council approval prior to commencement.* • *Prepare and implement a Conservation Management Plan (CMP) (including a Heritage Interpretation Plan) to Council's satisfaction and incorporate the approved CMP into the Owners Corporation/Body Corporate rules to bind all current and future owners, including obligations for ongoing maintenance and care of heritage fabric and interpretation elements.*
Strategic Built Form – Building Height and Setbacks	**Not supported** The following table is extracted from Council's Strategic Planner's advice and provides a clear analysis, of the difference between the Interim Schedule 22 to the Design and Development Overlay (DDO22) and the Proposed Schedule 49 to the Design and Development Overlay (DDO49) versus the proposal and its response to both.

Built Form Requirements	Interim DDO22	Proposed DDO	PPE26/0203	Compliance with Interim DDO22	Compliance with Proposed DDO
Building heights	18m (mandatory)	15m (mandatory(	18.68m (not including services) 21.83m (including services)	Does not comply.	Does not comply.
Street wall and setback	Retain heritage frontage or 11m (mandatory)	Retain existing street wall height for heritage buildings. 11m maximum and 8m minimum for other buildings.	Heritage street wall retained. Infill: 9.5m	Complies.	Complies
Upper level	6m Must occupy no more than one quarter of the vertical angle defined by the whole building in the view from a sight line at a height of 1.7 metres above the footpath (on the opposite side of the street) – see Figure 2.	6m For buildings >15m, the uppermost level should be set back 9m minimum	Infill: 1.5m Heritage: 15m	Does not comply.	Does not comply.
Building separation	Where development shares a common boundary, upper level development must be setback a minimum of 4.5m from the common boundary, where a	For building of less than or equal to 21 metres in height, upper level development should be set back a minimum of 4.5 metres from the common boundary,	4.84m	Complies.	Complies.

	habitable window or balcony is proposed;	where a habitable window or balcony facing the common boundary is proposed on the subject site.			
Overshadowing	NA	Apermit should not be granted to construct a building or construct or carry out works that would cast additional overshadowing of the following spaces between 10am and 2pmat22ndSeptember, unless the additional overshadowing would not unreasonably prejudice the amenity of the public space, to the satisfaction of the responsible authority: Lithgow		Complies.	Complies.

The above table demonstrates that the proposal does not align with several mandatory built form controls contained within both the interim and proposed Design and Development Overlays applicable to the site. In particular, the application exceeds the supported building height and does not meet the mandatory upper-level setback requirements for the infill heritage component. Council has adopted a clear strategic position on height limits and setbacks to protect the heritage significance of the building and the character of Lithgow Street, a position reinforced by the Amendment C291yara Planning Panel and quoted within Council's Strategic Planner's advice.

While the incorporation of affordable housing is acknowledged as a basis for considering variations to certain built form standards, the extent of non-compliance particularly in relation to height and upper-level setbacks remains unresolved and is not sufficiently justified. Council's Strategic Planning Unit has recommended that the proposal is redesigned to more closely align with the adopted and proposed planning controls to ensure consistency with Council's strategic objectives and the intent of the relevant DDOs. On this basis, the proposal is not supported in its current form and is required to respond better to Council's built form controls.

Built Form – Public realm	**Conditions required** Council's Strategic Projects Parks and Open Spaces Officer found that the proposal is not supported in its current form from a public realm and landscape perspective and requires substantive redesign and additional technical documentation to demonstrate acceptable flooding/drainage performance, accessibility outcomes and coordinated streetscape delivery. Any planning permit should therefore be conditioned to require (among other matters) submission and endorsement of a Public Realm Functional Layout Plan that: • overlays the survey and shows all existing and proposed levels, services, drainage, pedestrian path widths, parking bay geometry and streetscape details; • a suitably qualified flood risk assessment demonstrating that any kerb extensions and related works will not increase flood levels or adversely affect drainage (with kerb extensions to remain conceptual and capable of modification or deletion based on that assessment); • retention of the existing Lithgow Street footpath width with no net loss of compliant on-street parallel parking; • removal of any references to private use of public land; • accommodation of all tactiles, ramps, handrails, landings and statutory visitor bicycle parking wholly within the site boundary; and • delivery of feasible street tree outcomes (including the agreed developer contribution and Council determination of species and planting timing), together with a revised landscape package providing planter / soil / irrigation / drainage / structural and maintenance details to ensure a viable long-term landscape outcome. *Shadows* *Clause 15.01-2L* provides guidance in-relation to shadowing of the public realm from proposed developments and specifically states, *unless specified elsewhere in this scheme, ensure development allows direct sunlight between 10am and 2pm on 22 September to any part of the* (as relevant)*:* • *Opposite footpath on streets orientated north-south in activity centres as defined in clause 11.03-1L.* Shadow plans were submitted with the application and given the north-south orientation, combined with the built form setback and massing, any additional shadowing will fall and cast over the Little Lithgow Street (laneway) to the west and

	dwellings opposite in the morning hours and cast to the east along Lithgow Street in the afternoon hours. There will be no additional shadow of any footpath on the opposite side of the street along Lithgow Street between 10am and 2pm on 22 September.
Built Form- Architectural quality/ detail	**Conditions required** *Architectural Quality* Policy at *Clause 15.01-2L* encourages design developments to *make a positive contribution to the streetscape through high quality architecture and urban design*. This policy further supports mid-rise development that *contribute to high-quality built form*. Clause *15.03-1L* states that the *materials, texture, colours and finishes, and architectural detailing of a new building should:* • *Not detract from or compete with the significant elements of the existing heritage building or streetscape* • *Maintain the prominence of significant and contributory elements of the heritage street/place* • *Respect the pattern, proportion and spacing of elements on an elevation* • *Respect the relationship between solid and void on an elevation* • *Respect materials* The proposed works to the retained Lithgow Street heritage façade prioritise traditional materials and finishes that reflect the building's 1927 industrial character. In broad terms, Council's Heritage Advisor is supportive of the heritage response and has provided recommendations that can be included in a planning permit as detailed earlier. Regarding the new development, the proposal introduces contemporary materials that are intended to be recessive and complementary to the heritage fabric. Lower levels of the new residential towers are proposed in brick cladding, with warm red tones similar to the unpainted heritage brickwork to create visual continuity across the site; with final colours that are to be confirmed through a detailed materials schedule (condition added). Upper levels of the towers are proposed in light bronze metal cladding, with a preference for a matte, low-reflectivity finish to reduce visual dominance. Council's Heritage Advisor has also indicated that any dismantling and reconstruction of the pitched roof tower on Little Lithgow Street must reuse

	salvaged original materials, supported by detailed measured drawings and photographic records, to ensure an accurate material and architectural reconstruction (all conditional). *Glare impacts* Planning Practice Note 96 (issued in December 2022) provides guidance regarding planning considerations for reflected sunlight glare in the built environment and states that reflected glare risks can arise when cladding, painted walls or concrete have matt or smooth finishes, although reflection is generally less intense than from glass or polished cladding. The risk of reflected glare is generally greater for developments above four storeys in height. In respect to the mixed-use development, the use of brickwork and exposed and textured concrete reduces the risk of glare to surrounding sites. However, the development also comprises extensive glazing combined with metal cladding. Glazing is considered a key source of reflected glare and can be particularly intense and visible from varying locations and directions throughout the day and year. If this proposal is to be supported, it is recommended that the façade strategy include a condition requiring a reflected glare assessment of external building materials and finishes, utilising an appropriate methodology, to be submitted. This will help minimise detrimental impacts of development on neighbouring properties and the public realm. Overall, the proposed materials are generally supported, subject to addressing the above issues.
Landscaping/ Vegetation	**Conditions required** The following is recommended by Council's Strategic Projects Parks and Open Spaces Officer (in addition to the Public Realm Functional Layout Plan) and will be addressed by way of condition: *Landscape Plans / details* • Given the reliance on greenery to achieve the design vision, additional information should be provided to demonstrate that all planted areas provide sufficient depth, drainage and irrigation for the proposed plant and tree species for a successful long-term outcome. • Provide detail drawings for built elements such as furniture and planters, including: ○ Cross sections showing the width and depth of planter boxes and planting, including growing media, irrigation, drainage, water proofing and tree anchors.

	○ Dimensions (particularly soil depth and width for planted area and planters). ○ Proposed materials, including drainage method and lining. ○ Indication of irrigation conduits and types shown on details. ○ For above ground planted areas (particularly rooftop terraces and green roofs), wind-resistant mulch is to be used. ○ Provide information on any proposed vertical growing structures including detail drawings, mounting technique etc. ○ Trees should be planted in a minimum soil depth of 700mm, with sufficient soil volume to support long term growth. A reputable industry source should be used to calculate the soil volume required, such as: Elke Soil Volume Simulator https://www.elkeh.com.au/soils/ or similar ○ Load bearing weights for the building structure is to be checked and confirmed by a suitably qualified structural engineer against the saturated bulk density of soil media, planter box and plant mass being proposed. ○ Confirm that none of the proposed species listed as environmental weeds in the DELWP Advisory List of Environmental Weeds 2022, ○ Provide plant species and quantities for each planted area including plant species and quantities, as well as a legend containing key features, materials, and surfaces. Proposed plants are to be: ▪ Drawn at their mature size on the plan. ▪ Labelled or coded to correspond with the proposed plant schedule. ▪ Appropriately selected for suitability to site conditions such as light, shade, microclimate, etc. ▪ The inclusion of some native/indigenous plantings is encouraged to help foster local biodiversity within the site. • Provide details to demonstrate how balcony garden beds located outside of balustrades are to be safely accessed for maintenance purposes (such as anchor points for rope access, which would need to be integrated into the building design). *Street Tree Developer Contribution* • Street tree planting and maintenance developer contribution.

	• The applicant is requested to contribute $15,645.00 including GST for seven (7) new street trees. • The above figure includes sourcing, supply, planting, and 2 year's establishment maintenance. • Council will determine an appropriate tree species and undertake planting once the development is complete. The developer is to notify Council as the development is nearing completion so that Council can program the tree planting. • Streetscape layout is to be marked out prior to any works being undertaken for Council review and approval • All streetscape improvement works including but not limited to marking out on road tree cut outs and garden beds / kerb extensions, garden bed preparation, supply of topsoil and mulch and installation of any low cover planting at the full cost of the property owner. ○ Council reserves the right to use the developer street tree contribution (in whole or partially) to install new trees in the broader neighbourhood (streets or open spaces) if seven (7) new trees cannot be accommodated along the subject site's Lithgow Street frontage. Conditions are included in the recommendation to implement these recommendations where relevant to the planning considerations of the application.
Off-site amenity impacts	**Conditions required** *Clause 15.01-1L* states *provide windows and balconies to facing laneways to enhance surveillance but do not unreasonably overlook neighbouring private open spaces or habitable rooms on the opposite side of the laneway*. In terms of sensitive interfaces, the subject site is surrounded by sensitive interfaces to the north and south, including to the west and opposite side of Little Lithgow Street. The architectural plans include overlooking diagrams demonstrating that there will be no direct overlooking from the balconies of dwellings into the secluded areas of private open spaces associated with surrounding dwellings. DTP will be required to conduct a thorough assessment of this, and against the provisions of Clause 58 (Apartment Developments) for the development.
Wind	Clause 15.01-2L of the Scheme seeks that new development provides a safe and comfortable pedestrian environment. A wind report was submitted with the application. This report outlined the potential wind impacts from within the roof terrace and the public realm. Council's position on acceptable wind impacts is for all balconies and terraces to achieve standing comfort criterion at a minimum. That wind conditions should also be confirmed via a wind tunnel study. Further, Council will recommend DTP

	undertake an independent peer review of the applicant's wind report to ensure the methodology and wind impacts have been undertaken and assessed correctly.
On-site amenity & ESD	**Conditions required** The apartment development proposes 151 dwellings (54 studio apartments, 68 one-bedroom apartments, 9 one bedroom plus study apartments, and 20 two-bedroom apartments). The residential component of the development should meet all the standards and must meet all the objectives of Clause 58 of the Yarra Planning Scheme. Clause 58 standards and industry best practice must ensure adequate light and ventilation occurs. Whilst the application would be subjected to a detailed assessment against Clause 58 by the officers of DTP, the following key concerns are raised which could be requested by way of conditions: *Clause 58.03-1 – Energy Efficiency (Standard D6), Clause 58.07-3 – Windows (Standard D28), Clause 58.07-4 – Natural Ventilation (Standard D29)* Whilst the submitted ESD material demonstrates a largely appropriate strategy and, in parts, strong ambition, Council's ESD advisor has indicated that it does not yet meet Council's ESD documentation standards and currently lacks key evidence required to confirm performance outcomes. As such, the ESD commitments need to be consolidated into an endorsed Sustainable Management Plan (SMP) that is complete, consistent, and capable of being conditioned and actioned. Notwithstanding the above, a fundamental design deficiency has been identified by Council officers that relates to the lack of private open space to dwellings, particularly for studio apartments in the overall scheme. This issue is material because it affects amenity, equity, and liveability over the life of the building for residents with diverse ages, health needs, and mobility levels. A redesign to provide private open space for every dwelling is strongly recommended and should be treated as a priority item in resolving the proposal. In addition, Council's ESD advisor has indicated that there is critical technical information missing from the SMP to substantiate the stated targets. This includes preliminary NatHERS assessments (using glazing and modelling assumptions consistent with the architectural drawings and daylight modelling) to demonstrate achievement of 7-Star outcomes across the development, and a MUSIC (or Blue Factor) report to demonstrate stormwater pollution and flow reductions meet

	planning scheme requirements. Providing this material at the permit stage will reduce downstream risk, avoid redesign at building permit stage, and ensure commitments are measurable. In response to the above, a condition has been included that requests an updated SMP (and all relevant schedules, commitments and performance targets within it) that could be endorsed, with clear trigger points for updated modelling, design documentation, construction verification and as-built evidence as requested by Council's ESD advisor. *Clause 58.03-4 – Safety (Standard D9)* The standard recommends that *developments should be designed to provide good lighting, visibility and surveillance of car parks and internal accessways*. There is no indication of any source of lights on either of the facades, where residential walkways and car parking access are provided. Therefore, to provide safety and security for both residents and visitors, and to improve the integration between the development and the street, it is recommended that a condition require lighting (eg. wall-mounted sensor lighting) to be provided to all pedestrian entrances. If this application is to be supported, standard conditions are recommended to be imposed to ensure the lights are appropriately baffled and shielded to prevent light spill. *Clause 58.05-3 – Private Open Space (Standard D20)* The standard recommends (amongst other matters) that a dwelling, is provided with • *an area at ground level of at least 25 square metres, with a minimum dimension of 3 metres and convenient access from a living room;* or • *a balcony with at least the area and dimensions specified in Table D8 and convenient access from a living room.* According to the Town Planning Report authored by Urbis (forming an attachment), a total of 73 apartments representing 48% of dwellings do not meet Standard D20. The applicant has relied on communal facilities for residents, including a rooftop terrace to offset the variation. However, Council officers do not support the variation and view this as a significant failing, and it is considered appropriate to raise this as a concern for the DTP's further consideration. <u>Waste Management</u> A Waste Management Plan was submitted with the application. This was referred to Council's City Works Branch (Waste) for comment who confirmed that this was satisfactory and could be endorsed.

Carparking & traffic	**Conditions required** The proposal provides up to 43 car spaces and based on the new statutory parking rates under Clause 52.06; the proposed development has a statutory requirement to provide a minimum of zero car parking spaces. Council's Development Engineers have reviewed the submitted architectural drawings and supporting traffic and waste documentation and considers that, subject to the requirements and permit conditions outlined in their advice, the proposal can be accommodated without unacceptable impacts on the surrounding road network. The traffic generation is low (approximately 13 trips in each peak hour) and the proposed right-turn only access arrangement to/from Little Lithgow Street is considered an appropriate response to the laneway environment. The assessment has identified several matters that must be resolved prior to approval/endorsement to ensure safe and compliant operation, including: • clarification of key dimensions (headroom, ramp grades/lengths, kerb widths and accessible bay clearances), • confirmation of vehicle access ground clearance for a B99 design vehicle, and • ensuring public realm interfaces (footpath, kerb and channel, road pavement, service infrastructure and street lighting) are appropriately documented and managed. In addition, Council's GIS indicates parts of Lithgow Street and Little Lithgow Street may be subject to flooding during a 1 in 100-year event; accordingly, flood risk assessment and suitable design responses are required, and kerb extensions/traffic islands and street trees are to be removed from the development plans pending separate consideration (if supported by flood assessment outcomes). All the above is recommended to be required by way of condition. Several engineering conditions relating to civil works, road asset protection, and construction management, impacts of assets on the proposed development, reinstatement of redundant vehicle crossings and modification to car parking signage have been recommended. These conditions are considered standard and should also be included on any permit issued.
Bicycle provision	**Conditions required**

	Council's Strategic Transport Planner, in their advice, found that whilst the proposal demonstrates an intent to support sustainable transport outcomes it does not demonstrate compliance with Clause 52.34-3, CASBE and AS2890.3 for visitor bicycle parking, and key details (including the allocation of resident versus visitor spaces and dimensional compliance) require clarification. On this basis, the recommendation includes conditions requiring, to the satisfaction of the Responsible Authority amended and annotated plans that • provide a minimum of 151 resident bicycle spaces; • a minimum of 35 visitor bicycle spaces wholly within the development site; • clearly designate resident and visitor bicycle parking, • demonstrate compliant dimensions/clearances for all bicycle spaces and accessways, • confirm EV-ready electrical provision to all car parking areas and provide a minimum of 8 e-bike charging points, and • submit and implement a Green Travel Plan in accordance with Clause 22.17-4 of the Yarra Planning Scheme.
Any other matters	**Land contamination** The site is located within an Environmental Audit Overlay. Pursuant to *Clause 45.03* of the Yarra Planning Scheme, the requirements of the Environmental Audit Overlay must be met by the applicant/landowner prior to the commencement of development on any permit issued.

Declaration

No officers involved in the preparation of this report have any direct or indirect conflict of interest in this matter.

Department of Transport and Planning

GPO Box 2392
Melbourne, VIC 3001 Australia
www.dtp.vic.gov.au

Ref: PA2604316

Yarra City Council
planningadmin@yarracity.vic.gov.au

To whom it may concern

NOTICE OF APPLICATION FOR PLANNING PERMITPA2604316
39-47 LITHGOW STREET ABBOTSFORD VIC 3067

I refer to the above matter submitted to the Minister for Planning on 31/03/2026.

This application falls under Clause 53.22 (Significant Residential Development) of the Yarra Planning Scheme. The Minister for Planning is the responsible authority for matters under Divisions 1, 1A, 2 and 3 of Part 4 of the Act, and endorsement of, approval of or being satisfied with matters required by a permit or the scheme to be endorsed, approved or done to the satisfaction of the responsible authority, in relation to the use and development of land for a 'Use or development to which Clause 53.23 applies'.

The purpose of Clause 53.23 is to prioritise and facilitate the planning, assessment and delivery of significant residential development that includes affordable housing.

On 28 January 2025 and 26 January 2026, Yarra City Council provided informal advice on this application.

The Department is now advising you of the application under section 52(1) of the *Planning and Environment Act 1987*. Please find Form 2, appended to this letter, which sets out the details of the application and advises that the responsible authority will not decide on the application before **22 April 2026**. Please also find attached a copy of the application form, a set of plans and supporting documentation.

If you have any questions, please contact me on 03 5172 2344 or email danielle.foster@transport.vic.gov.au.

Any personal information about you or a third party in your correspondence will be protected under the provisions of the Privacy and Data Protection Act 2014. It will only be used or disclosed to appropriate Ministerial, Statutory Authority, or departmental staff in regard to the purpose for which it was provided, unless required or authorised by law. Enquiries about access to information about you held by the Department should be directed to foi@transport.vic.gov.au or FOI Unit, Department of Transport and Planning, GPO Box 2392, Melbourne, Victoria 3001.

VICTORIA State Government

Yours sincerely

Danielle Foster
Senior Planner, Development Assessment

8/04/2026

Encl.

- Form 2– Notice of an Application for a Planning Permit

Planning and Environment Act Regulations 2015 (Form 2, section 52(1))

NOTICE OF AN APPLICATION FOR A PLANNING PERMIT

The land affected by the application is located at:	**39-47 LITHGOW STREET ABBOTSFORD VIC 3067**
The application is for a permit to:	Redevelopment of parts of the site to deliver 151 dwellings, alongside the adaptive reuse of the original warehouse building at the south-eastern corner of the site. *Note: This is a summary. Full details of the proposal are contained within the application documentation*
The applicant for the permit is:	**Model Australia Pty Ltd c/- Urbis Ltd**
The application reference number is:	**PA2604316**
You may look at the application and any documents that support the application at the office of the Responsible Authority.	Minister for Planning c/- Department of Transport and Planning • 1 Spring Street, Melbourne VIC 3001 • Online at https://www.planning.vic.gov.au/permits-and-applications/ministerial-permits/browse-ministerial-permits

A permit is required under the following clauses of the planning scheme:

Planning scheme clause	**Matter for which a permit is required**
32.04-6	Construct a building or construct or carry out works
43.02-2	Construct a building or construct or carry out works
43.01-1	Partial Demolition Construct a building or construct or carry out works External alterations External painting Carrying out works, repairs and routine maintenance which change the appearance of a heritage building Roadworks which change the appearance of a heritage place

To view applications and supporting documents in person, please phone Danielle Foster on 03 5172 2344 or email danielle.foster@transport.vic.gov.au to make an appointment to view the plans. This can be done during office hours and is free of charge. The plans may also be viewed online at https://www.planning.vic.gov.au/permits-and-applications/ministerial-permits/browse-ministerial-permits.

Any person who may be affected by the granting of the permit may object or make other submissions to the responsible authority by email to development.assessment@transport.vic.gov.au or by post to Minister for Planning, C/- Department of Transport and Planning, GPO Box 2392, Melbourne VIC 3001.

An objection must:

- **be made to the Responsible Authority in writing,**
- **include the reasons for the objection, and**
- **state how the objector would be affected.**

The responsible authority must make a copy of every objection available at its office for any person to inspect during office hours free of charge until the end of the period during which an application may be made for review of a decision on the application.

The responsible authority will not decide on the application before:	**22 April 2026**

If you object, the responsible authority will tell you its decision.

Social Planning
Formal Referral Response

Application Information:

Referral Officer:	Tara Bewley
Officer:	John Theodosakis
Council Reference:	PPE26/0203
Address:	39-47 Lithgow St, Abbotsford VIC 3067
Proposal:	DTP Notice of an Application
Comments Sought:	Click here to view referral memo: Insert CM Link here to referral request memo (which will include a hyperlink to all relevant plans / information)
Disclaimer:	Council's Social Planning Unit provides the following information which is based on the information provided in the referral request memo referenced above.
Prev. Responses:	

Recommendation:

Social Planning were requested to make comments on the proposal from a social planning perspective.

Social Planning has reviewed the Affordable Housing Report by Model. The proposal of affordable housing dwellings is supported; however, commentary has been provided to recommend modifications on certain aspects of the proposal that align with Yarra's Policy Guidance Note: Affordable Housing Outcomes at Significant Developments, and Yarra's Social and Affordable Housing Strategy.

Proposal Element	Proposal Description	Social Planning Comments
Development type	Build-to-Rent (BTR) development, delivered under the Development Facilitation Program (DFP).	The BTR model is supported in principle, noting its capacity to deliver long-term, professionally managed rental housing and improved security of tenure compared to traditional private rental arrangements.
Affordable housing delivery mechanism	Affordable housing to be delivered via the alternative contribution pathway under Clause 53.23 through on-site discounted rental dwellings, in lieu of a cash contribution.	This pathway is supported.
Number of affordable dwellings	Approximately 16 dwellings (of 151 dwellings), equivalent to around 10% of total dwelling yield (subject to final plans).	This is consistent with Clause 53.3, and Council's Policy Guidance Note.

Dwelling mix	Proposed mix of 8 studios, 7 one-bedroom apartments and 1 two-bedroom apartment.	It is essential that the typology of the affordable housing dwellings offered as build to rent remains diverse and not be skewed towards studio and one-bedroom apartments. It is recommended that typology diversity targets be met by ongoing monitoring and reported on annually. All affordable housing dwellings should be SDA compliant to ensure flexible and inclusionary use.
Target cohort (Income)	Primary focus on moderate-income renter households (see: Section 3AA Panning and Environment Act 1987)	It's strongly encouraged to consider opportunities to support access for low-income households where practicable, given significant housing stress that exists within the municipality.
Target cohort (households)	No target household group has been outlined.	Council has identified a range of households that fall within the definition of affordable housing (as per the Planning and Environment Act 1987) and are unable to afford safe, secure and appropriate housing in the local market. These groups have specific needs – number of bedrooms, accessibility, supportive services etc. – that Council wants addressed at significant developments in Yarra. These households are: homeless persons, lower income renters, Aboriginal and Torres Strait Islander people, people with disabilities, and key workers in the local economy *(see: Yarra's Policy Guidance Note)*
Rent discount approach	Affordable housing contribution delivered through the accrual of rental discounts relative to market rents over time.	The discounted rent model is acceptable in principle. However, it is recommended that market rents be independently verified to ensure discounts are calculated fairly and transparently. Rental figures provided within the report appear higher than expected.
Duration of affordability	Minimum affordability period of 15 years, consistent with DFP requirements.	Given the enduring nature of housing need, it's recommended that affordable housing be secured in perpetuity rather than for a fixed minimum term. If this is not achievable, the term should be increased to at least 25 years.
Integration within development	Affordable dwellings to be dispersed throughout the building, with no distinguishable design features and equal access to amenities and services.	This tenure blind, integrated approach aligns with best practice principles and Council's policy objectives.
Management and delivery	Affordable dwellings to be managed as part of the broader BTR operation, with potential involvement of an experienced Community Housing Provider.	Engagement of a suitably experienced provider is supported. It is important that the provider has experience with managing affordable housing dwellings and that residents of affordable housing dwellings are provided with the same level of service as private residents and that residents are treated with dignity and respect.
Section 173 Agreement	Affordable housing to be secured via a Section 173 Agreement, including annual reporting, market	Detailed Section 173 provisions to manage governance, reporting and compliance to ensure long-term delivery of affordable housing is supported.

	rent verification, income checks and tracking of accrued benefit.	Income verification processes should be clearly articulated through the Section 173 Agreement. Procedures and policies should be careful not to impose burdensome or invasive requirements to validate ongoing eligibility of a resident. As per commentary above, it is recommended that market rents be independently verified to ensure discounts are calculated fairly and transparently.

Conclusion

Social Planning supports the proposal to deliver on-site discounted-rent dwellings under the alternative contribution pathway, noting that the Build-to-Rent model can provide professionally managed rental housing and improved security of tenure. The proposed quantum of affordable housing (approximately 10% of the total yield, subject to final plans) is consistent with the relevant planning framework and Council policy guidance for significant developments.

Notwithstanding this overall support, several refinements are recommended to ensure the affordable housing offer better aligns with local needs and best-practice delivery. In particular, the affordable dwelling mix should remain diverse and not be disproportionately weighted toward studio and one-bedroom apartments. All affordable housing dwellings should also meet an appropriate accessibility standard (including SDA-compliant design, as referenced in the advice) to support flexible and inclusive use.

The discounted rent model is supported in principle, however market rents should be independently verified so that discounts are calculated fairly and transparently. Given the enduring nature of housing need, it is recommended that affordability be secured in perpetuity where possible, or otherwise for an increased minimum term (at least 25 years). Ongoing delivery should be underpinned by clear governance and compliance arrangements through a Section 173 Agreement, including proportionate income verification processes and regular monitoring and reporting.

Suggested planning permit conditions (Affordable Housing)

- Before the development commences (or before buildings and works commence), enter into a Section 173 Agreement (to the satisfaction of the Responsible Authority) to secure the delivery of the affordable housing contribution, including the number of dwellings, their location within the development, and the affordability term.
- The affordable housing dwellings must be provided as on-site discounted rental dwellings, dispersed throughout the development and delivered on a tenure-blind basis, with no distinguishable external design features and with equivalent access to shared amenities and services.
- Prior to occupation of the first dwelling, submit an Affordable Housing Delivery and Management Plan to the satisfaction of the Responsible Authority, detailing: allocation and eligibility approach, income verification method (proportionate and non-invasive), tenant pathways/priority cohorts (where applicable), and complaints/appeals processes.
- The Affordable Housing Delivery and Management Plan must nominate the entity responsible for management of the affordable dwellings (which may include a suitably experienced community housing provider) and demonstrate experience in

managing affordable housing and delivering an equivalent level of service to all residents.

- Market rent setting for the purpose of calculating discounted rents must be independently verified by a suitably qualified valuer/independent expert at least annually (or at an interval agreed by the Responsible Authority), and the methodology and results must be documented and made available to the Responsible Authority on request.
- The affordable dwelling mix must remain diverse and must not be materially altered to further skew the offer toward studio and one-bedroom dwellings, unless otherwise agreed in writing by the Responsible Authority.
- All affordable housing dwellings must be designed and constructed to meet the nominated accessibility standard (including SDA-compliant design where required by the endorsed plans / management plan), to the satisfaction of the Responsible Authority.
- Annual reporting must be provided to the Responsible Authority for the duration of the affordable housing term, confirming: occupancy of affordable dwellings, eligibility/income checks undertaken, market rent verification outcomes, discounted rents applied, and the accrued affordability benefit.
- The affordable housing term must be secured for the period specified in the Section 173 Agreement (recommended: in perpetuity where achievable, otherwise a minimum of 25 years), and must not be reduced without the written consent of the Responsible Authority.

Social Planner: Tara Bewley
Date: 29 April 2026

Heritage Formal Referral Response

APPLICATION INFORMATION:

Referral Officer:	**Diahnn McIntosh**
Officer:	John Theodosakis
Council Reference:	PPE26/0203
Address:	39-47 Lithgow St, Abbotsford VIC 3067
Proposal:	DTP Notice of an Application
Relevant Overlays	HO339 William Street Precinct Heritage Grade: 35-37 Lithgow Street, former cordial factory, INDIVIDUALLY SIGNIFICANT, constructed 1870-19
Relevant Polices	• Clause 02.01-6 Municipal planning strategy - Built environment and heritage • Clause 02.03-4 Strategic directions – Built environment and heritage • Clause 15.03-1S Heritage conservation • Clause 15.03-1L Heritage • Clause 43.01 Heritage Overlay • Yarra Industrial Heritage Policy, prepared by GJM Heritage in October 2019) is an adopted document formalised through Amendment C269yara. As per the Schedule to the Heritage Overlay, there are no internal alteration, external paint, or tree controls. Solar energy system controls apply.
Comments Sought:	Comments on the application from a Heritage perspective are requested on the following: - *The extent of demolition;* - *Contrast between the modern towers in the backdrop of the heritage retained former warehouse building; and* - *Conservation works.*
Disclaimer:	Council's Heritage Advisor provides the following information which is based on the information provided in the referral request memo referenced above.
Prev. Responses:	

Context Images	
Street Frontage:	
Oblique Images:	

Aerial:

HERITAGE CONTEXT:

The purposes of the Heritage Overlay at clause 43.01 include 'to implement the Municipal Planning Strategy and the Planning Policy Framework.' The local heritage policy at clause 15.03-1L, the state heritage policy at clause 15.03-1S and clause 43.01 (Heritage Overlay) have been considered in preparing a response to this application. It is noted that *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance, 2013* is a policy guideline at clause 15.03-1S.

Significance of site and surrounds

Under clause 43.01-8 of the Heritage Overlay, a relevant decision guideline is that any applicable statement of significance, heritage study and any applicable conservation policy must be considered before deciding an application (as appropriate).

The William Street Heritage Overlay Area is significant

. As an important group of substantially intact, modest masonry and timber workers' housing dating predominantly from the late nineteenth and early twentieth century, including a number of early significant bluestone dwellings;

. For contributory industrial buildings in Lithgow and William Streets;

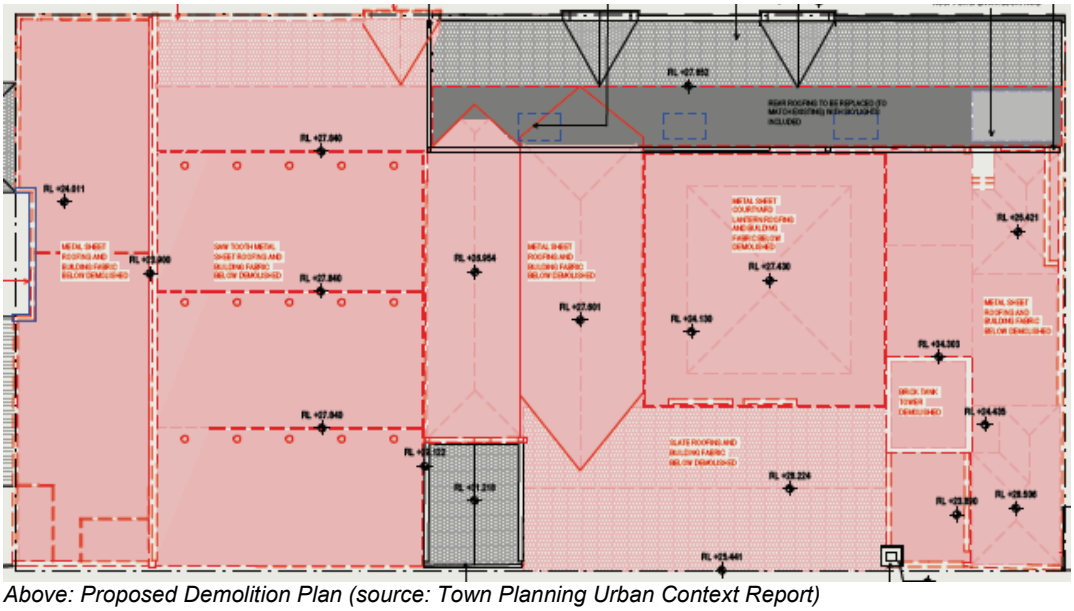
. For early street, lane and allotment layouts, together with mature street trees, original bluestone infrastructure (such as kerbs and guttering), providing an appropriate setting for this collection of buildings; and

. For the enhancement to the historic character of the area provided by individually significant landmark buildings, such as St David's church, the highly significant Denton's Hat Mill adjoining in Nicholson Street, and the Abbotsford Primary School in Lithgow Street.

The former Schweppes Cordial Factory located at 35-45 Lithgow Street, Abbotsford, is significant for its role in Melbourne's industrial heritage and its current, sustainable transformation. Built in 1886 by Jacob Schweppe, it served as the hub of the cordial empire for decades.

ASSESSMENT OF PROPOSED WORKS

Proposed Demolition Works:



Above: Proposed Demolition Plan (source: Town Planning Urban Context Report)

The extent of demolition proposed by this application includes removal of the entire site except for about 20% of the existing footprint which will retain:

- The Lithgow Street façade including its slate roof, beams,
- The factory chimney
- The pitched roof tower on Little Lithgow Street (to be reconstructed)

Under clause 43.01-8 of the Heritage Overlay, the relevant decision guidelines are to consider whether the demolition, removal or external alteration will adversely affect the significance of the heritage place, and the significance of the heritage place and whether the proposal will adversely affect the natural or cultural significance of the place.

Cl.02.03-4 states that it is policy to respect Yarra's distinctive features and landmarks, including:

- Significant landmarks and tall structures, including church spires, clock towers, industrial structures and heritage signs.
- Industrial and former industrial buildings.

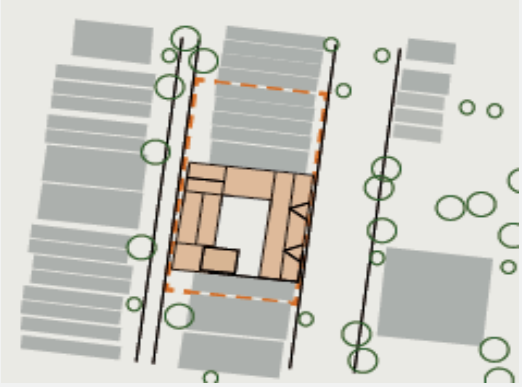
  It also states that it is policy to retain and adapt Yarra's historic industrial buildings as a means of connecting with the past.

Relevant objectives and strategies at clause 15.03-1S include:

- Ensure the conservation of places of heritage significance;
- Provide for the conservation and enhancement of those places that are of aesthetic, architectural, cultural, scientific or social significance.
- Retain those elements that contribute to the importance of the heritage place.

In regard to Industrial heritage places, Cl.15.03-1L states that it is policy to:

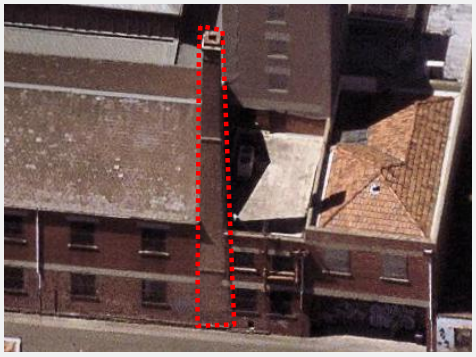
- Conserve and enhance roof forms that contribute to the significance of the building, particularly parts that are visible from the public realm or incorporate features such as lanterns, skylights and vents.
- Conserve and enhance features such as steel trusses, lanterns, chimneys, silos, **towers** and their visual prominence within industrial sites.

Proposed demolition of:	*Heritage comments*
the entire site except for about 20% of the existing footprint which will retain: • The Lithgow Street façade including its slate roof, beams, • The factory chimney • The pitched roof tower on Little Lithgow Street (to be reconstructed)	*The heritage response strategy claims to be centred on reinstating the architectural integrity of the 1927 FL & K factory, preserving the primacy of its three-dimensional form.*  *The area shown in orange in the diagram above is an illustration of the built area in c.1927. The coloured area is estimated to be about 1,150 sqm. The estimated area to be retained is about 605sqm. This amounts to the proposed retention of about 50% of the 1927 factory footprint.* *Removing 50% of the c.1927 Individually Significant heritage fabric is excessive and not considered appropriate for maintaining the architectural integrity of the heritage place.* *For industrial complexes, partial demolition is only supported if it allows the three-dimensional form of the building to be retained.* • ***LITHGOW STREET MAIN BUILDING*** *The c.1927 part of the principal building fronting Lithgow Street will be partially retained as a three-dimensional form. The two-storey façade of the 1927 building including the 1951-69 addition will be retained, including the northern end wall (although it is likely to be rebuilt) The southern end wall will not be retained. The rear wall of this building will be partially*

retained/reconstructed to create a three-dimensional form.

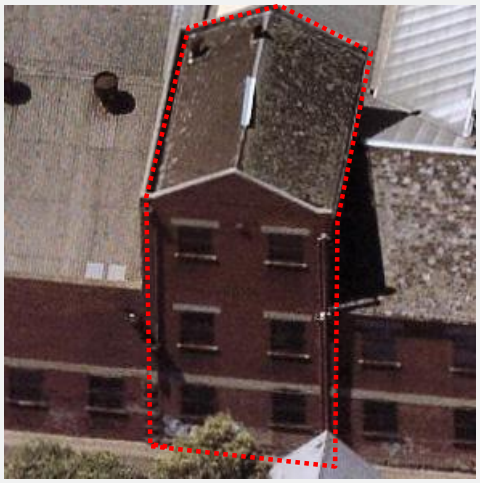
The existing pedestrian doors and roller doors at ground level facing Lithgow Street will be removed – supported (subject to conditions regarding alterations).

- ***FACTORY CHIMNEY***



Retention of the factory chimney is supported as the chimney is a contributory and landmark element. The demolition of the surrounding structures is supported subject to a plan detailing how the chimney will be safeguarded during works, including propping/stabilisation to prevent collapse must be submitted prior to the commencement of works.

PITCHED ROOF TOWER ON LITTLE LITHGOW STREET



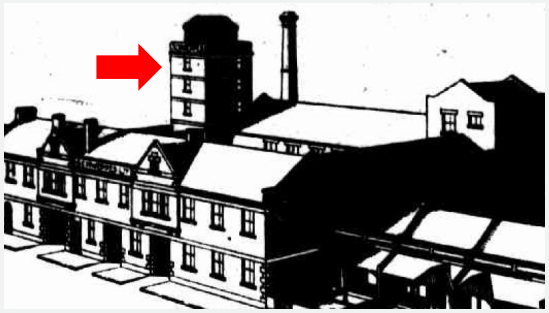
The existing tower façade and roof will not be retained. It is intended to fully dismantle the tower and reconstruct only the street wall (with windows in different locations) and the southern side wall.

Demolition for the building has not been justified on the grounds that the specific part of the building is structurally unsound.

Dismantling for the purposes of reconstructing is only acceptable where the proposed works result in an accurate reconstruction of the original.

Demolition that results in a non-accurate reconstruction of the original tower building is not supported.

WATER TANK TOWER TO THE EAST OF THE FACTORY CHIMNEY



*This water tower, which is shown as a very prominent feature of the original 1927 complex, still exists and **is** visible from the public realm.*

Cl.15.03-1L states that it is policy to conserve and enhance roof forms that contribute to the significance of the building, particularly parts that are visible from the public realm.

It is also policy to conserve and enhance features such as towers and their visual prominence within industrial sites.

*The demolition of this water tower is not supported as it is clearly visible from the public realm and was an **integral part of the manufacturing process for producing cordials**.*

If it can be demonstrated that the tower is structurally unsound, dismantling and reconstruction to match is strongly recommended.

PARTS OF THE PLACE ADDED AFTER 1927

The demolition of all structures constructed post the significant 1927 period of the factory development is supported.

	This should include all superfluous signage and banners, etc from the main facades as well as all redundant service conduits and the like.

The proposed extent of demolition is acceptable except for the dismantling of the pitched roof tower on Little Lithgow Street.

Proposed Alterations and Additions:

In accordance with *Clause 43.01-8*, the key consideration for alterations is:

- *Whether the external alteration will adversely affect the significance of the heritage place.*

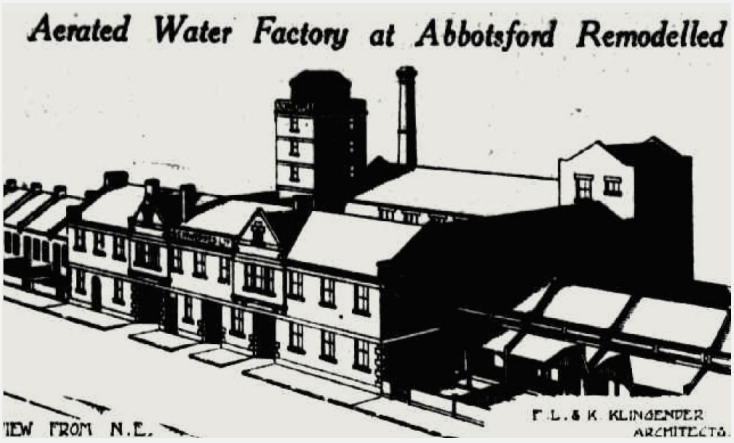
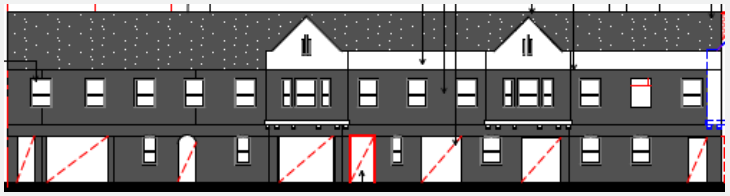
In regard to Industrial heritage places, cl.15.03-1L states that it is policy to:

- Conserve and enhance roof forms that contribute to the significance of the building, particularly parts that are visible from the public realm or incorporate features such as lanterns, skylights and vents.
- Conserve and enhance features such as steel trusses, lanterns, chimneys, silos, towers and their visual prominence within industrial sites.
- Encourage new development on small scale one or two storey industrial buildings that does not visually dominate the historic form when viewed from the public realm.
- Retain redundant equipment on significant industrial sites where it aids the understanding of the heritage place.

In regard to Commercial and industrial heritage places, Cl.15.03-1L states that it is policy to:

- Articulate new façades by incorporating simple architectural detailing that does not compete with the more elaborate detailing of adjoining individually significant or contributory building.
- Retain the visual prominence of both façades of buildings on corner sites (not including laneways).
- Discourage the following in the facades of individually significant and contributory buildings:
  - New openings.
  - Enlarging existing openings.
  - New floor plates, walls, columns or structural supports cutting through openings.
  - Highly reflective glazing in historic openings (not including solar panels).
  - Large expanses of glazing with a horizontal emphasis, except for ground floor shop fronts.
  - Unarticulated curtain glazing.

- Balconies in historic openings.

Proposed new works:	*Heritage comments*
Alterations to the remaining Lithgow Street façade and roof structure	 *The proposed alterations to the remaining part of the Lithgow Street main building claim to be based on the 'celebration' of the 1927 appearance of the building as shown in the image above.* *PROPOSED FACADE CHANGES:*  *Above: Existing front facade* *Above: Proposed front façade with changes highlighted in red* *The facade of the main building, despite being modified and extended over decades, continues to show a strong consistency to the 1927 design and composition of the building frontage.* *It is strongly considered that this consistency of design should continue to be reflected in the proposed alterations to the façade of this building. The proposed alterations to the existing openings, as outlined in red, have been designed to be different from the next. They do not maintain the original consistency.* • *Original door openings must be designed to all look the same. They must be solid timber doors which may be opened and shut depending on business hours, or they*

may be permanently fixed open or shut (if not required).

- *A set of secondary internal glass doors may be installed if necessary, but these should be setback from the open external doors.*
- *Existing door openings no longer required for functional purposes should be fitted with permanently closed doors without hinges or door hardware to maintain the original fenestration of the building's façade.*
- *Typical examples of appropriate factory doors is shown below.*

Existing window frames:

It is assumed that all existing window frames to the façade of this building will be replaced. Replacement window frames must be constructed of timber and matching appearance using the existing dimensions for ensuring accuracy.

Removal of the external chain mesh screen is encouraged.

Paint removal:

There appears to be no indication of works to the external walls of the heritage building apart from the artist impressions. These original face brick walls with bluestone quoins and foundations are currently painted, however it appears that removal of the non-original external paint is proposed. This must be carried out using appropriate methods and is supported on the basis that it will enhance the original appearance and integrity of the building's façade.

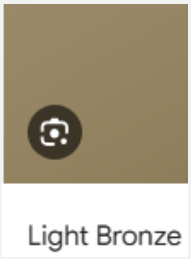
ROOF CLADDING:

It is assumed that the existing slate roofing will be repaired, but more likely replaced.

When repairing, the appropriate process is to strip and re-nail existing sound slates, replacing only slates that are beyond serviceability.

Full replacement should only be proposed if a majority of the existing slates are beyond serviceability. Replacement slates must match the original in profile, size, colour, texture, and finish.

Alterations to the factory chimney	*It is proposed that the retained chimney will be integrated into the residential tower located behind the main heritage building fronting Lithgow Street.* *At floor levels 01 and 02 the chimney base will from the west wall of the adjacent dwellings.* *At floor level 03 the chimney flue will be adjacent to a balcony. This is not acceptable as the flue is a contributory element that was designed with a freestanding flue. In accordance with Cl.15.03-1L terraces must be set back a minimum of one metre from chimneys.* *It is also noted that the finished height of the proposed new residential tower east of the factory chimney will diminish its original landmark quality. The finished height of the proposed adjacent building is discussed below.* *Repairs to the chimney* *Notes on the submitted drawings state that the chimney will be cleaned and repaired as required.* *Full details of the cleaning processes to be used and how repairs will be carried out must be submitted.*
Alterations to the pitched roof tower on Little Lithgow Street	*Full demolition of this tower has not been previously supported without evidence that the building is structurally unsound.* *If the instability of the structure can be proven, then dismantling of the structure would be supported subject to conditions. The conditions would be that the structure is accurately photographed and measured before demolition and that the original building materials are salvaged and together with the measured drawings, used to accurately reconstruct the original tower.* *The proposal to reconstruct the Little Lithgow Street façade of the former tower with new windows and balconies is not supported.*
Construction of a basement level	*This is considered acceptable on heritage grounds as the works will not alter the appearance of the retained heritage structures. The entrance to the basement level will be from Little Lithgow Street which is not considered the primary heritage frontage of the heritage place.*

Construction of a new residential tower located behind the retained built form fronting Lithgow Street	 *Above: Scale of the proposed new development behind and above the height of the heritage building fronting Lithgow Street shown shaded in red* *Cl.15.03-1L states that it is policy to:* *Encourage new development on small scale one or two storey industrial buildings that does not visually dominate the historic form when viewed from the public realm.* *The new building will be six stories which is significantly taller than the existing two-story historic building. This creates a high degree of contrast in scale.* *Whilst the new building will be set back a uniform distance from the primary heritage facade, its massive, repetitive grid pattern and uniform height across the entire width may still compete with the finer detail of the historic frontage of the place.* *Setting the upper floors further back from the retained heritage building on Lithgow Street would mitigate the dominance of this tower.*  *The external cladding of the new development's upper floor levels will be 'Light Bronze' metal. If the finish is matte – not too metallic/reflective – this would be preferrable however height of the east facing wall will still have a significant presence on Lithgow Street regardless of the colour.* *The brick cladding at the lower level appear to be similar to the unpainted heritage building. This brickwork is shown in the artists impression as a warm, red colouring similar to old handmade bricks. The colouring needs to be confirmed in a submitted schedule of materials and finishes, including*

	coloured images or samples.
Construction of a new residential tower located to the north of the retained built form fronting Lithgow Street	*The scale of the proposed new building to the north of the retained heritage building will match the scale of the other new building behind the heritage building.* *This building will however have a zero front setback for the bottom three floor levels and only a 1.5m setback for the upper floor levels so it will have a much stronger impact on the Lithgow Street frontage, particularly on the three adjacent Contributory dwellings at nos. 49, 51 and 53. Currently these houses abut an existing two-storey scale northern wall of the subject site. The new development's northern wall on boundary will be 9.5m, which is 2.5m higher than the existing side wall. This is almost the difference between two and three storeys in height.* *It is considered that the height of the northern wall on boundary should be no greater than the existing wall of approx.7m.* *The proposed street wall height of the new development will be 9.5m which is equivalent to three storeys. In comparison with the remaining heritage building, the proposed street wall height will be higher, however it will be lower than the ridgeline of the heritage building. Based on this comparison the proposed street wall height of the new development will be acceptable.* *The brick cladding at the lower floor levels appear to be similar to the unpainted heritage building. This brickwork is shown in the artists impression as a warm, red colouring similar to old handmade bricks. It is similar to the unpainted*

	brickwork on parts of the factory that front Little Lithgow Street. The colouring needs to be confirmed in a submitted schedule of materials and finishes, including coloured images or samples. *In any case, the bricks used for the new development should generally match the colouring of the unpainted heritage building so that there is a visual link between across the full historic width of the development site.* *The use of the light coloured wall cladding for the upper floor levels sitting above a 'heavy' lower part of the development will create a contrast that is broadly complementary of the heritage building without mimicking it.*

ONGOING HERITAGE MANAGEMENT OF THE HERITAGE PLACE:

Given the scale of this former industrial place, it is considered that a Conservation Management Plan, including a Heritage Interpretation Plan should be prepared and must:

- Identify how the site's industrial heritage will be interpreted in the future development of the site; and
- Provide guidance on how the on-going maintenance and care of the heritage fabric and interpretation devices will be appropriately managed as part of a long term strategy.

SUMMARY OF RECOMMENDATIONS

On heritage grounds, the works proposed in this application are supported, subject to the following suggested conditions:

	Suggested condition	*Heritage explanation*
1….	**That a comprehensive visual record of the heritage place must be professionally prepared and submitted to Council prior to the commencement of any demolition works. The record must be prepared in accordance with the standards set by Heritage Victoria.**	*Formal archival recording is required to preserve historical data associated with this Individually Significant industrial place for future reference.*
2….	**That a plan detailing how the existing factory chimney will be safeguarded during works, including propping/stabilisation to prevent collapse must be submitted prior to the commencement of works.**	*This is to ensure that the chimney is protected through the construction phase.*
3….	**That the existing pitched roof tower on Little Lithgow Street must be**	*Demolition for the building has not been justified on the grounds that the specific*

	retained or accurately reconstructed	*part of the building is structurally unsound.* *Dismantling for the purposes of reconstructing is only acceptable where the proposed works result in an accurate reconstruction of the original.*
4….	**That the former water tower must be retained or accurately reconstructed**	*The demolition of this water tower is not supported as it is clearly visible from the public realm and was an important part of the manufacturing process for producing cordials.*
5….	**That all refurbished door openings in the façade of the main building fronting Lithgow Street must be constructed of timber and of matching industrial character and appearance.**	*This is to maintain the character of a consistent facade design.*
6….	**That all replacement window frames in the façade of the main building fronting Lithgow Street must be constructed of timber and must matching appearance and dimensions of the existing window frames.**	*This is to maintain the character of a consistent façade design.*
7….	**That the existing slate roofing on the main building fronting Lithgow Street must be repaired and only replaced as a last resort using new slates that must match the original in profile, size, colour, texture, and finish.**	*Retaining original slate roofs is critical for preserving the visible and physical integrity of the heritage building.*
8….	**That the non-original external paint on the main building fronting Lithgow Street must be removed using appropriate methods that must be submitted and approved by Council**	*This is to enhance original appearance and integrity of the building's façade.*
9….	**That the proposed balcony adjacent to the factory chimney at floor level 03 must be setback at least 1m from the factory chimney flue, or else deleted.**	*Cl.15.03-1L states that it is policy for terraces to be set back a minimum of one metre from chimneys.*
10..	**That full details of the proposed cleaning processes and repairs for the factory chimney must be submitted and approved by Council**	*This is to ensure the works to the chimney is carried out in accordance with good conservation practice.*

11..	**That the upper floors of the new development located behind the retained heritage building on Lithgow Street must be further setback to minimise the impact of the taller building.**	*Setting back the upper floor levels of the new development will mitigate its perceived dominance on the retained heritage building on Lithgow Street*
12..	**That the height of the proposed northern boundary wall of the new development must be no greater than the existing boundary wall.**	*Maintaining the approx. 7m scale of the existing northern boundary will preserve the existing contrast of between industrial and residential buildings in Lithgow Street.*
13..	**That the proposed colouring of external brickwork for the lower floor levels of the new multistorey buildings must generally match the colouring of the original unpainted brickwork on the heritage building fronting Lithgow Street.**	*This is to maintain the consistency of character and appearance of additions that was historically adopted for the heritage place.*
14..	**That a full schedule of all proposed external materials and colours for new building works (including images or samples) must be submitted and approved by Council**	*This is to ensure that all external colours and materials complement the original character of the heritage place.*
15..	**Once approved, the CMP must be incorporated into the Body Corporate/Owners Corporation Rules to ensure all current and future lot owners are legally bound by its conservation policies.**	*The CMP must include a prioritized schedule for routine maintenance and urgent repairs to prevent the deterioration of heritage fabric and the interpretation devices. These items must form a legal part of the Body Corporate's responsibilities.*

Diahnn McIntosh

Heritage Adviser

Signature:

Date: 28 April 2026

Strategic Projects, Parks and Open Spaces Formal Referral Response

Application Information

Referral Officer:	John Theodosakis
Officer:	Christian Lundh
Council Reference:	PPE26/0203
Address:	39-47 Lithgow St, Abbotsford VIC 3067
Proposal:	DTP Notice of an Application
Comments Sought:	N/A
Disclaimer:	N/A
Prev. Responses:	N/A

Summary

Comments requested	D26/150366 - IREF26/00524 - Referral Request
Recommendation	In summary: • The proposal is **Not** supported in its current form from a public realm and landscape perspective. • Changes are required to make the proposal acceptable from a public realm and landscape perspective. • Detailed comments are provided overleaf. • Recommended design modifications and suggested permit conditions are listed in **bold dot points** under each section.
Links to relevant documents reviewed	D26/139425 - PPE26/0203 - 39-47 Lithgow Street Abbotsford - Architectural Plans D26/139412 - PPE26/0203 - 39-47 Lithgow Street Abbotsford - Landscape Plan

Findings and Recommended Planning Permit Conditions

The referral advice concludes the proposal is not supported in its current form from a public realm and landscape perspective. While the removal of crossovers and the potential for new greenery and street trees along Lithgow Street is supported in principle, the current design raises significant concerns regarding (among other matters) existing street flooding, limited drainage capacity, potential adverse flooding impacts from kerb extensions, accessibility and interface outcomes, and insufficient documentation and coordination with existing streetscape conditions. Substantial plan amendments and additional technical information are required before public realm works and landscape outcomes can be considered acceptable.

- Kerb extensions and associated streetscape works must be treated as conceptual until a flood risk assessment demonstrates no adverse impact on flooding/drainage, and designs are coordinated with Council Development Engineering requirements.
- The existing Lithgow Street footpath width must be maintained; narrowing is not supported.
- Any references on plans to private use of public land (e.g., “outdoor café seating”, “drop off”, “main entry” in the public realm) are not supported and must be removed.
- All access features (tactiles, handrails, ramps and landings) and statutory visitor bicycle parking must be accommodated within the subject site boundary and must not project onto public land.
- Streetscape design must retain on-street parallel parking along the site frontage (no net loss), with bays compliant with Australian Standards.
- If kerb extensions proceed, they must match the established Lithgow Street treatment in principle (including bluestone pitcher edging) and include passive irrigation to planted areas, address drainage, and provide pedestrian amenity (including seating) and (if feasible) additional visitor bicycle hoops.
- Street tree outcomes are sought along Lithgow Street (target of seven new street trees, subject to feasibility), with a developer contribution proposed for supply, planting and establishment maintenance; Council will determine final species and planting timing.
- The submitted landscape documentation is insufficient for detailed assessment; additional details are required (planter/soil/irrigation/drainage/structural load checks, plant schedule, weed avoidance, and safe maintenance access).
- Along Little Lithgow Street, the car park security door should be as close as possible to the title boundary/building line, vehicle access must not obstruct other users, and planting must not overhang or obstruct sightlines or access.

Draft planning permit conditions (public realm and landscape)

1. **Public Realm Functional Layout Plan (PRFLP)**
   Before the development starts, a Public Realm Functional Layout Plan (streetscape improvement plan) must be submitted to and approved by the Responsible Authority. When approved, the PRFLP will be endorsed and will form part of this permit. The PRFLP must be generally consistent with the endorsed architectural and landscape documentation and must include, at a minimum:
   - All existing and proposed streetscape features and surface levels/grades, including but not limited to light poles, drains, service pits, signage and other infrastructure.
   - Clearly dimensioned pedestrian paths and on-street parking bay geometry.
   - All existing and proposed drainage infrastructure (including pits and trench grates) and how drainage is addressed.
   - Seamless, DDA-compliant level transitions across footpaths/pavements and from the public realm into the principal building entrance.
   - Proposed bicycle facilities (including any proposed hoops within kerb extensions where feasible) and their relationship to pedestrian desire lines.
   - Details of any proposed tree and low-cover planting (including passive irrigation to planted kerb extensions where applicable).
   - Reconstruction of footpaths adjacent to the site in accordance with Council standards and the Department of Transport requirements, including adjustment of any service pits to suit final grades.
   - **Flood risk assessment and kerb extensions (conceptual)**
     Before the PRFLP is approved (Condition 1), a flood risk assessment prepared by a suitably qualified person must be submitted to and approved

by the Responsible Authority. The assessment must determine whether any proposed kerb extensions and associated streetscape works will increase flood levels or otherwise adversely affect flooding/drainage along Lithgow Street.

- Any proposed kerb extensions and related streetscape works are to be treated as conceptual only and may be modified or deleted to the satisfaction of the Responsible Authority as a result of the flood risk assessment outcomes.
- Any works required to achieve compliance (including surface level modifications) must respond to the flood risk assessment outcomes and must be undertaken wholly within the subject site, unless otherwise agreed by the Responsible Authority.
- Existing external footpath levels must not be altered unless it is demonstrated to the satisfaction of the Responsible Authority that doing so improves flood performance and accessibility outcomes in coordination with adjoining footpaths.
- All designs and works must have regard to, and comply with, Council Development Engineering requirements.

Referral Comments – DTP Notice of an Application

Public Realm feedback

No.	Topic	Feedback and recommendations
1.	**Public Realm Interface**	
1.1.	Public realm interface - General comment	The proposed creation of extensive, kerb outstands with greenery and new tree planting in lieu of removed crossovers and asphalt pavements along the subject site Lithgow Street frontage is commended, however there are multiple concerns that need to be addressed to ensure that if kerb extensions and tree planting is pursued, that the outcome will be functional and viable for a long-term successful outcome. Council development engineering unit notes (also refer the separate engineering comments); • Lithgow Street in front of 39-47 is subject to flooding; • The existing drainage is also limited; • The kerb extensions may increase the flooding impact; • A flood risk assessment (by the applicant) needs to be carried out to determine if the kerb extensions will increase the flood level. Retaining the proposed kerb extensions may result in the developer raising the building line to protect the property which is likely to result in the footpath not being constructed to not meet accessibility standards; and • The impact of the kerb extensions on street flooding should be determined before the kerb extensions are included in endorsed plans. If kerb extensions are included, they should be considered conceptual and subject to modification/deletion depending on the flood risk assessment outcomes. There is also no/minimal reference to existing streetscape conditions including but not limited to levels and other streetscape infrastructure shown on ground floor architectural and landscape plans, given that a survey plan has been submitted with the application it is expected that this information's should be overlaid and full coordination between proposed design and existing conditions demonstrated in any future modified design proposal. • **Any proposed streetscape improvements, including but not limited to kerb extensions, are conceptual only and may be subject to modification or deletion as a result of flood risk assessment outcomes prepared by the applicant, to the satisfaction of Council.** • **Any works required to achieve compliance, including surface level modifications, are also subject to the outcomes of the flood risk assessment. All such works, including any level changes required to mitigate flooding impacts, must be undertaken wholly within the subject site. Existing external footpath levels must not be altered unless it is demonstrably shown that doing so results in an improvement to flood and access compliance with adjoining footpaths, to the satisfaction of Council.** • **All designs and works must have regard to, and comply with, Council's Development Engineering comments.** • **Overlay survey plan on all relevant architectural and landscape plans, to demonstrate full coordination.** • **All tactiles, handrails, ramps and landings to be accommodated within the subject site boundary and not protrude outside the subject site's title boundaries.**

		• **Any statutory visitor bike parking requirements must be accommodated within the subject site boundary**
1.2.	Public Realm interface – Lithgow Street	The proposal along the Lithgow Street frontage includes multiple kerb extensions in lieu of the removed crossovers, narrowing of the existing footpath with a narrow nature strip sliver linked to the proposed kerb extensions. Area in kerb extensions noted as 'Outdoor café seating', 'drop off' and 'main entry', these references associated with public land are not supported and must be removed from any future plans. The overall design of the street frontage must be checked and verified in relation to any flood risk implications, drainage and modified accordingly to be acceptable to Council, and any reference to private functions and usages must be removed. • **Refer requirements under 1.1** • **Existing Lithgow Street footpath width to be maintained (narrowing of already constrained existing footpath is NOT acceptable).** • **Any proposed Lithgow Street kerb extension(s) must not have any reverse impact on flooding and drainage along the street, if feasible pending flood risk assessment, integrate two (2) kerb extensions with a combination of planting and paving.** • **Design of kerb extensions to match in principle existing extensions further south along Lithgow Street with bluestone pitcher edges and provide for passive irrigation to any planted areas.** • **Lithgow Street Streetscape improvements to have no net loss reduction in on-street parallel parking bays along the subject site street frontage.** • **Parallel parking bays to meet Australian Standards;** • **Integrate a minimum seven (7) new street trees, on-road or in kerb extensions along Lithgow Street.** • **Remove reference to street tree species (outside the subject site boundary).** • **New street trees to be 3m minimum offset to power poles.** • **Remove reference to drop off bays on Lithgow Street (Council will determine future parking restriction once the development is completed).** • **Remove reference to the 'Outdoor café seating' area on Lithgow Street.** • **Remove reference to 'Main Entry' associated with public realm on Lithgow Street to clearly describe referencing entry within the development.** • **If kerb extensions along Lithgow Street are feasible then three (3) visitor bike hoops can be located in the extension(s) in hard paved area(s), bike hoops to be in addition to any statutory visitor bike parking requirements facilitated within the subject site by main entrances.** • **Overhead power lines to be bundled along the full extent of the subject site Lithgow Street frontage.** • **Any streetscape design to consider drainage and demonstrate that drainage is addressed to Council satisfaction; and** • **If kerb extensions on Lithgow Street are feasible then integrate one (1) bench seat with back and arm (Council standard public realm seat) rest within a kerb extension.**
1.3.	Public Realm interface Little Lithgow Street	Ground floor terraces with planter boxes abutting Little Lithgow Street with proposed large growing trees may result in vegetation overhanging onto the street/laneway. The proposed car park entry does not show any security door/line, confirmation is required where any security door/line will be located and how

		vehicle access will be managed without obstructing access along the laneway for other vehicles and users. • **Car park security door to be integrated as close as possible to the building line / title boundary along Little Lithgow Street.** • **Car park vehicle access to be provided without obstructing other users of Little Lithgow Street.** • **Plant species along ground level terraces must not overhang or obstruct view-lines or access along Little Lithgow Street.**
2.	**Public Realm Pavement**	
2.1.	Pavements	• **Provide a clear paving delineation between public and private land.** • **Pavements in the public realm to be to Council standards and Council Roads Materials Policy.** • **Pavements in the public realm must meet Council and all relevant Australian standards including for slip resistance.**
3.	**Opportunities for public realm improvements**	
3.1.	Opportunities for public realm improvements	If kerb extensions are feasible to integrate along Lithgow Street (in accordance with requirements under item 1.1) frontage main objective should be to improve public pedestrian amenity, accessibility, safety and overall public realm outcomes. • **The functional design of the kerb extension must consider and address, including but not limited to, the following matters:** - **Refer requirements under 1.1;** - **Pedestrian desire lines along and across the street ensuring safe, legible and accessible pedestrian movement;** - **Rationalisation of on-street parking bays, with the maximum feasible area reallocated to public realm improvements and pedestrian amenities;** - **Provision of vehicle swept-path diagrams demonstrating that all affected vehicle movements can occur safely and efficiently to the satisfaction of the Responsible Authority;** - **Resolution of all drainage requirements associated with the kerb extensions and adjoining infrastructure;** - **Compliance with all relevant accessibility requirements, ensuring all levels, grades and transitions are seamless and compliant;** - **A demonstrated due diligence assessment of all existing and proposed services, including identification of any impacts associated with the kerb extension and related infrastructure, and confirmation of any required service authority approvals or agreements; and** - **An assessment of existing street lighting conditions, with provision for lighting upgrades or improvements were required to support pedestrian safety and amenity.**
4.	**Street trees**	

4.1.	New Street Tree Opportunity	**New street trees** • **Possible opportunity has been identified to integrate seven (7) new street trees in road cut outs or in kerb extensions (if feasible) along the subject site street frontage.** • **Final street tree number is depending on detailed feasibility investigations by the applicant.** • **Council is requesting developer contribution for street tree sourcing, supply, planting and tree maintenance.** • **Proposed street tree locations (along the subject site Lithgow Street frontage) are to be indicated on plans.**
4.2.	Street Tree Developer Contribution	**Street tree planting and maintenance developer contribution.** • **The applicant is requested to contribute $15,645.00 including GST for seven (7) new street trees.** - **1no. roadway tree = $ 2,235** • **The above figure includes sourcing, supply, planting, and 2 year's establishment maintenance.** • **Council will determine an appropriate tree species and undertake planting once the development is complete. The developer is to notify Council as the development is nearing completion so that Council can program the tree planting.** • **Streetscape layout is to be marked out prior to any works being undertaken for Council review and approval** • **All streetscape improvement works including but not limited to marking out on road tree cut outs and garden beds / kerb extensions, garden bed preparation, supply of topsoil and mulch and installation of any low cover planting at the full cost of the property owner.** • **Council reserves the right to use the developer street tree contribution (in whole or partially) to install new trees in the broader neighbourhood (streets or open spaces) if seven (7) new trees cannot be accommodated along the subject site Lithgow Street frontage.**
5.	**Public Realm Functional Layout Plan**	
5.1.	Public Realm Functional Layout Plan	**Public Realm Functional Layout Plan (streetscape improvement plan)** • **Public Realm Functional Layout Plan must be prepared to the satisfaction of the Responsible Authority (Council). The Public Realm Plan must be submitted for approval by the Responsible Authority (Council). When approved, the Public Realm Plan will be endorsed and will form part of this permit. The Public Realm Plan must include, but not limited to:** - **Layout plan indicating all existing and proposed features and surface levels;** - **Show all existing and proposed streetscape infrastructure including (but not limited to) light poles, drains and street signs;** - **Proposed bicycle spaces along site frontage, which bicycle image superimposed upon the proposed;** - **Clearly dimensioned elements including pedestrian paths and parking bays;** - **All existing and proposed levels and surface grades;**

		- **Demonstrate a seamless / DDA compliant levels transition across all proposed footpaths pavements;** - **Demonstrate a seamless / DDA accessible transition from the public realm into the principal entrance to the proposed building at ground floor level including any proposed setback;** - **All existing and proposed drainage infrastructure including any existing or proposed drainage pits and trench grates; and** - **Reconstruction of all footpaths adjacent to the property in accordance with Council standards and Department of Transport's requirements;** - **Any existing and proposed service pits within the footpath area must be adjusted to match the reconstructed footpath grades; and** - **Any proposed tree and low cover planting.**

Landscape Plan (within site boundary) feedback

No.	Topic	Feedback and recommendations
6.	Landscape plan – General comments	**Additional Landscape Plan Requirements** • **The submitted landscape plan does not provide sufficient information to undertake a detailed assessment. The general requirements of the landscape plan can be viewed at:** https://www.yarracity.vic.gov.au/services/planning-and-development/planning-applications/how-to-apply-for-a-planning-permit/landscape-plan-requirements
7.	Soil volume	•
8.	Landscape details including but not limited to planter boxes	Given the reliance on greenery to achieve the design vision, additional information should be provided to demonstrate that all planted areas provide sufficient depth, drainage and irrigation for the proposed plant and tree species for a successful long-term outcome. • **Provide detail drawings for built elements such as furniture and planters, including:** - **Cross sections showing the width and depth of planter boxes and planting, including growing media, irrigation, drainage, water proofing and tree anchors.** - **Dimensions (particularly soil depth and width for planted area and planters).** - **Proposed materials, including drainage method and lining.** - **Indication of irrigation conduits and types shown on details.** - **For above ground planted areas (particularly rooftop terraces and green roofs), wind-resistant mulch is to be used.** - **Provide information on any proposed vertical growing structures including detail drawings, mounting technique etc.** - **Trees should be planted in a minimum soil depth of 700mm, with sufficient soil volume to support long term growth. A reputable industry source should be used to calculate the soil volume required, such as: Elke Soil Volume Simulator https://www.elkeh.com.au/soils/ or similar**

		- **Load bearing weights for the building structure is to be checked and confirmed by a suitably qualified structural engineer against the saturated bulk density of soil media, planter box and plant mass being proposed.**
9.	Plant Species and plant schedule	• **Confirm that none of the proposed species listed as environmental weeds in the DELWP Advisory List of Environmental Weeds 2022,** • **Provide plant species and quantities for each planted area including plant species and quantities, as well as a legend containing key features, materials, and surfaces. Proposed plants are to be:** - **Drawn at their mature size on the plan.** - **Labelled or coded to correspond with the proposed plant schedule.** - **Appropriately selected for suitability to site conditions such as light, shade, microclimate, etc.** - **The inclusion of some native/indigenous plantings is encouraged to help foster local biodiversity within the site.**
10.	Landscape maintenance	• **Provide details to demonstrate how balcony garden beds located outside of balustrades are to be safely accessed for maintenance purposes (such as anchor points for rope access, which would need to be integrated into the building design).**

Capital Works:

There are no known planned / approved capital works around the site being led by the Strategic Projects Parks and Open Spaces Team.

Strategic Projects Parks and Open Spaces Officer: Christian Lundh
Date: 29 April 2026

ESD Formal Referral Response

Application Information:

Referral Officer:	Euan Williamson
Officer:	John Theodosakis
Council Reference:	PPE26/0203
Address:	39-47 Lithgow St, Abbotsford VIC 3067
Proposal:	DTP Notice of an Application
Comments Sought:	Click here to view referral memo: Record D26/150370: IREF26/00526 - Internal Referral Request
Disclaimer:	Council's ESD Officer provides the following information which is based on the information provided in the referral request memo referenced above.
Prev. Responses:	

ESD comments were requested on the following:

- New referral - DTP

In assessing this application, the following documents were reviewed:

- SMP prepared by Arup dated 29 October 2025
- Daylight modelling report
- Architectural drawings prepared by Warren and Maloney dated 03/12/2025

Comments

The standard of the submitted documentation does not meet Council's Environmentally Sustainable Design (ESD) standards.

The ESD strategy, methodology and performance targets are largely acceptable and, in some instances, commended. Should a permit be issued, all items within the SMP should be conditioned on permit, linked to an endorsed version of the SMP to form a legally binding component of the permit.

Deficiencies

However, a major problem with this proposal exists with the lack of private open space provision to both types of studio apartments. Relying on shared or common area spaces is not satisfactory and does not address the same objectives as private open space provision.

This is particularly when considering a diversity of age, health and mobility that will be living in these residencies over the life of the building. This building should be designed for all, not just the privileged.

- **Strongly recommend redesigning the building to include a private open space for every dwelling.**

Information to be Provided
Lastly, there are important pieces of information missing from the SMP, including:

- **Preliminary NatHERS ratings from a sample of dwelling demonstrating that the 7 Star rating will be achieved across the whole development, utilising glazing assumptions consistent with the Daylight Modelling and Architectural Drawings.**
- **MUSIC or Blue Factor report to demonstrate the proposed stormwater management strategy will meet the planning scheme requirements for pollution and flow reduction.**

Recommendations

In summary, the applicant is encouraged to address the following:

- **Strongly recommend redesigning the building to include a private open space for every dwelling.**

- **Update SMP to include preliminary NatHERS ratings from a sample of dwelling demonstrating that the 7 Star rating will be achieved across the whole development, utilising glazing assumptions consistent with the Daylight Modelling report and Architectural Drawings.**

- **Update SMP to include MUSIC or Blue Factor report to demonstrate the proposed stormwater management strategy will meet the planning scheme requirements for pollution and flow reduction.**

If you, DTP or the applicant would like to discuss this further, please contact me.

Euan.

ESD Advisor: Euan Williamson
Date: 30 April 2026

Development Engineering Formal Referral Response

Application Information	
Referral Officer	Artemis Bacani, Nick Demosthenous
Officer	John Theodosakis
Council Reference	IREF26/00523
Address	39-47 Lithgow St, Abbotsford
Application No.	PPE26/0203
Proposal	DTP Notice of an Application
Comments Sought	• Crossover width and location and vehicle access into the site / basement car park • Gradients • Road infrastructure • Vehicle movement and implications on the surrounding traffic networks.
Disclaimer	Council's Development Engineering unit, provides the following advice based on information provided in the referral request memo referenced above.

Engineering referral details

Council's Engineering Referral team has reviewed the drawings and documents provided by the Statutory Planning department, as outlined in ***Table 1*** below.

A list of requirements for the applicant and proposed conditions to be included in the Planning Permit have been outlined in the ***Section 1 – Engineering requirements*** below. Specific details of the assessment are provided in ***Section 3 -*** and have informed the requirements and conditions.

Note: the engineering related matters highlighted in the Planning referral have been assessed and included in the response.

Table 1 - Drawings and documents reviewed by Engineering

Consultant	Drawing No. or Document	Rev	Dated
Warren and Mahoney Living Australia	TP10.00 *Basement Floor Plan* TP10.01 *Ground Floor Plan*	C E	20 October 2025 27 March 2026
Traffix Group	*Traffic Engineering Assessment* *Waste Management Plan*	C B	30 March 2026 30 October 2025

SECTION 1: Engineering requirements – Issue to the applicant

The applicant must satisfy the engineering items outlined in ***Table 2*** below. A written response must be provided for each requirement, and the action is to be completed prior to resubmission.

Any amendments to plans/drawings or updates to reports/documents must be highlighted using a *red cloud* around the relevant section. In the written response, indicate the relevant sheet/pages of each document which have been amended.

Should any engineering comments / direction not be adopted, the relevant planner is REQUIRED to refer back to the Civil Engineering team for further discussion / comments / conditions prior to finalising reports.

Table 2 - Engineering requirements for applicant

Item	Engineering requirement	Action for applicant
1	Dimension the width of kerbs along the internal vehicle access ramp.	Update the relevant drawings accordingly
2	Dimension the headroom clearance at the car park entrance, internal access ramps and basement level.	Update the relevant drawings accordingly
3	Dimension or annotate the headroom clearance above the accessible car space and shared area	Update the relevant drawings accordingly
4	Review the column depths and setbacks in the basement level.	Update the relevant drawings accordingly
5	Delete all annotation referencing the drop-off and loading bays.	Update the relevant drawings accordingly
6	Delete the kerb extension and traffic islands.	Update the relevant drawings accordingly
7	Delete the street trees/plantings.	Update the relevant drawings accordingly
8	Provide the vehicle access cross-sectional diagram with B99 design vehicle ground clearance template consistent with Council's information sheet.	Submit the B99 ground clearance template for the car park entrance.
9	Assess the public street lighting surrounding the site. All existing street lights in front of the site in Lithgow Street are to be depicted on the drawings.	Submit public lighting assessment
10	Arrange for light shield or similar to prevent street light spillage into habitable rooms.	Submit public lighting assessment
11	All utility doors that open over a Public Highway must be able to swing at 180-degrees and be latched onto the building wall.	Update the relevant drawings accordingly

Civil Engineering Comments prepared by Nick Demosthenous

Item	Engineering Requirement	Action for Applicant
1	Dimensions of the proposed footpath, kerb extensions, and garden beds are not on the architectural ground floor plan and site plan.	Dimensions of the kerb extensions should be shown on the architectural ground floor and site plan
2	Existing kerb line should be shown on the architectural ground floor plan.	Show existing kerb lines on the ground floor plan and the site plan
3	Existing and proposed underground service conduits, cables, pits and valves within the footpath and under proposed kerb extensions should be shown on the site plan.	Show underground services and associated pits and valves on the architectural site plan and ground floor plan.
4	Existing power poles and street lighting is not shown on the site plan or the ground floor plan. They should be included on both plans and a street lighting assessment carried out to ensure street lighting will be in accordance with Council standards.	Show existing and proposed power poles and street lights on the architectural ground floor plan and site plan. Undertake a street lighting assessment with consideration to the impact of the proposed street trees
5	There are stormwater drainage pits in the existing Lithgow Street kerb and channel in front of the development. These pits are not shown on the architectural site plan or the ground floor plan. The proposed kerb extensions will obstruct the channel (gutter) flow. Drainage modifications will be required to capture channel flow at the start of the kerb extensions.	Show existing and proposed stormwater drains and pits in the road reserve on the architectural ground floor and site plans.
6	Council's GIS indicates Lithgow St in front of the development is currently subject to flooding that may reach the property line during a 1 in 100-year storm event. The flooding appears to be between 25 and 53 Lithgow St. The proposed kerb extensions will exacerbate the flooding. The Kerb extensions in Lithgow St should be removed from the plans for endorsement and considered separately.	Undertake a flood risk assessment. Ensure building entry points are protected from flooding in accordance with Melbourne Water guidelines. Remove kerb extensions from the development plans and consider separately.
7	Council's Gis indicates Little Lithgow St will be subject to flooding during a 1 in 100-year storm event. The flood level should be determined. All entry points to the development should be reviewed to ensure overland flow will not enter the development.	Determine flood level Ensure building entry points are protected from flooding in accordance with

Item	Engineering Requirement	Action for Applicant
		Melbourne Water guidelines.
8	Road infrastructure is not shown on the ground floor plans, i.e. stormwater pits, power poles, valves and pit covers in the footpath and road pavement	Show all fittings and fixtures in the road reserve in both Lithgow and Little Lithgow streets, In front of the development.
9	Existing property stormwater drain under the footpath should be shown on the architectural ground floor and site plans and be notated to be removed if redundant and the footpath reinstated to the satisfaction of Council.	Identify existing stormwater property drains under the footpath and notate to be removed if redundant and footpath to be reinstated to satisfaction of Council
10	The footpath in Lithgow Street must not have a footpath crossfall greater than 1 in 33	Add note to Architectural ground floor plan and site plan.
11	The footpath must not have cross-fall of less than 1.2% from building line to top of kerb	Add note to Architectural ground floor plan and site plan.
12	All pedestrian entries to the building must have a finished surface level that matches, at the building line, to a footpath that has a cross-fall no greater than 1 in 33. Where the ground floor level does not meet this requirement, surface level adjustments must be made inside the property line.	Add note to ground floor plan “pedestrian entries to the building must have a finished surface level at the property boundary that matches to a footpath that has a cross-fall of no more than 1 in 33.
13	The longitudinal grade of the existing footpath must not be changed without prior Council agreement.	Add note to architectural ground floorplan and site plan that footpath longitudinal grade must not be changes without prior Council agreement.
14	TP30.03 -Section CC shows landscaping in the footpath (outside the property line) in Lithgow St. This is not shown on the ground floor plan and is not desirable and will adversely impact visually impaired pedestrians	The plans should be consistent. Amend Amend section CC in plan and remove the landscaping in the footpath abutting the property line.

Item	Engineering Requirement	Action for Applicant
15	TP30.02 Section BB indicates the landscaping on the footpath in Lithgow Street is to have a raised kerb surround. This will cause footpath drainage issues. Garden beds surface level should be level with or lower than the footpath and top of kerb.	Amend the plans
16	Plan TP10/01 shows an existing vehicle crossing in front of the proposed substation with an area on street in front of the vehicle crossing designated as loading bay. The proposed loading bay extends in front of the adjoining property. The vehicle crossing does not lead to off street vehicle parking.	Remove the vehicle crossing. Amend the loading bay so it does not extend beyond the south building line.
17	There are 4 existing vehicle crossings leading into this site which are to be removed. The footpath and kerb and channel will need to be reconstructed. Where existing concrete vehicle crossings are removed and the asphalt footpath reinstated. The kerb and channel at these locations will need to be constructed. The channel is bluestone pitchers. The kerb is to be reconstructed in bluestone pitchers also. The vehicle crossing in front of the Comms room and substation will need to be reconstructed as an asphalt vehicle crossing. The entire Lithgow Street footpath in front of the development should be re-sheeted in asphalt to Council standards	Remove existing vehicle crossings in Lithgow Street and reinstate the footpath as asphalt and the kerb as bluestone pitchers. Re-sheet the entire Lithgow St footpath in front of the development in asphalt to Council standards.
18	Street Lighting should be reviewed to ensure that the lighting is in accordance with Council's standards. The impact of the proposed tree planting on the street lighting should also be assessed. A street lighting plan must be prepared for Lithgow and Little Lithgow Streets showing existing and proposed street lighting and submitted to Council for approval. Street lighting in Lithgow Street and Little Lithgow streets must be in accordance with Council's current Street lighting standards.	Street lighting in Lithgow and Little Lithgow Street must be reviewed and upgraded to be in accordance with Council standards and requirements.
19	Little Lithgow Street abutting the development is identified in Council's GIS as being subject to flooding during a 1 in 100 year storm event. The flood level needs to be determined, and measures taken in accordance with Melbourne Water guidelines, to ensure surface water from Lt Lithgow St does not enter the development during severe rain events The vehicle ramp to the basement must also be protected.	The flood level needs to be determined, and measures taken in accordance with Melbourne Water guidelines, to ensure surface water from Lt Lithgow St does not enter the development during severe rain events.
20	There is a sewer vent pipe at the building line in Little Lithgow St that is not shown on the Architectural site plan or the ground floor plan.	Show the pipe on the plans.

SECTION 2: Engineering conditions – Planning Permit

The conditions outlined in ***Table 3*** below must be included in the Planning Permit to ensure the specific engineering requirements are complied with.

Note: further conditions may be required if any of the items in Table 2 are not fulfilled prior to the issuing of the Planning Permit.

Table 3 - Engineering conditions to be included in the Planning Permit

Condition related to…	Engineering condition
VC: *Reinstatement*	Before the building/s is/are occupied, or by such later date as approved in writing by the Responsible Authority, any redundant vehicular crossing must be demolished and re-instated as footpath, verge (if applicable), and kerb and channel: (a) at the permit holder's cost; *and* (b) to the satisfaction of the Responsible Authority.
	A note should be placed on the plan indicating redundant driveways are to be removed and the road pavement, kerb and channel and footpath reinstated to Council's satisfaction.
Public Realm: *Footpath specific*	Before the building/s is/are occupied or by such later date as approved in writing by the Responsible Authority, the footpath along the property's Lithgow Street frontage must be re-sheeted in asphalt: (a) at the permit holder's cost; *and* (b) to the satisfaction of the Responsible Authority(s).
Public Realm: *Kerb & channel specific*	Before the building/s is/are occupied, or by such later date as approved in writing by the Responsible Authority, the kerb and channel along the property's Lithgow Street frontage must be reconstructed: (a) at the permit holder's cost; *and* (b) to the satisfaction of the Responsible Authority(s).
Public Realm: *Road pavement specific*	Before the building/s is/are occupied, or by such later date as approved in writing by the Responsible Authority, the half-width road pavement along the property's Lithgow Street frontage must be reconstructed: (a) at the permit holder's cost; *and* (b) to the satisfaction of the Responsible Authority(s).
Reinstatement of damages caused during development works	Within 2 months of the completion or by such later date as approved in writing by the Responsible Authority, any damage to Council infrastructure resulting from the development must be reinstated: (a) In accordance with Yarra Standard Drawings | Yarra City Council (b) at the permit holder's cost; and (c) To the satisfaction of the Responsible Authority.

Condition related to…	Engineering condition
Note related to…	**Engineering note**
Service infrastructure adjustment to suit finished grades, alignments, etc.	Any service poles, structures or pits located within the public realm areas that interfere with the proposal, must be adjusted accordingly: (a) at the permit holder's cost; and (b) to the satisfaction of the Responsible Authority.
Existing parking infrastructure	No parking restriction signs, or line-marked on-street parking bays are to be removed, adjusted, changed or relocated without approval or authorisation from Council's Parking Management unit and Construction Management branch.
	Any on-street parking reinstated as a result of development works must be approved by Council's Parking Management unit.
Parking sensors	The removal of any kerbside parking sensors and any reinstatement of parking sensors will require the Permit Holder to pay Council the cost of each parking sensor taken out from the kerb/footpath/roadway. Any costs associated with the reinstatement of road infrastructure due to the removal of the parking sensors must also be borne by the Permit Holder.
Private utility assets	Areas must be provided inside the property line and adjacent to the footpath to accommodate pits and meters. No private pits, boundary traps, valves or meters on Council property will be accepted.
Adjusting utility infrastructure	Any services poles, structures or pits that interfere with the proposal must be adjusted, removed or relocated at the owner's expense after seeking approval from the relevant authority.
Discharge of Water from Development	Only roof runoff, surface water and clean groundwater seepage from above the water table can be discharged into Council drains.
	Council will not permit clean groundwater from below the groundwater table to be discharged into Council's drainage system. Basements that extend into the groundwater table must be waterproofed/tanked.
Advice Note	The applicant must apply for a Legal Point of Discharge under Regulation 133 – Stormwater Drainage of the Building Regulations 2018 from Yarra Building Services unit. Any storm water drainage area within the property must be provided for and be connected to the nearest Council pit of adequate depth and capacity (legal point of discharge), or to Council's satisfaction under Section 200 of the Local Government Act 1989 and Regulation 133.

SECTION 3: Engineering detailed assessment

TRAFFIC IMPACT ASSESSMENT

Trip Generation

The trip generation for the site as adopted by Traffix Group is as follows:

Proposed Use	Adopted Traffic Generation Rate	AM Peak Hour	PM Peak Hour
Residential (43 Spaces)	- 0.3 trips per space during peak hour	13 trips	13 trips
	Total	**13 Trips**	**13 Trips**

The 13 trips generated by the site during the AM and PM peak periods is equivalent to 1 vehicle every 4 minutes and 37 seconds.

Directional Split and Traffic Distribution

Ratio Consultants has proposed the following peak hour directional split:

- AM Peak Hour: 20 % IN (3 trips) and 80 % OUT (10 trip)
- PM Peak Hour: 40 % OUT (8 trips) and 60 % IN (5 trip)

Proposed Use	Inbound	Outbound	Total
AM Peak	3	10	13 Trips
PM Peak	5	8	13 Trips

Traffic Impact

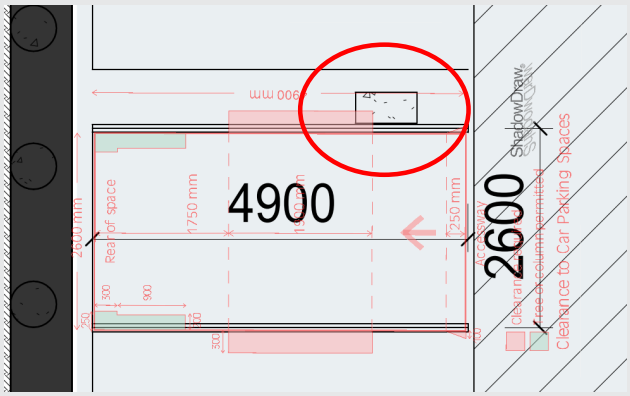
Currently, Little Lithgow Street has no restrictions on the direction of vehicle travel.

The traffic report has proposed to limit vehicle movements along Little Lithgow Street via right-turn movements only to and from the site (i.e. right-turn in and right-turn out). This will minimise vehicle conflicts (two vehicles travelling in opposing direction) in Little Lithgow Street.

It is agreed the traffic generated by the proposed development is considered low and should not adversely impact the traffic operation of Little Lithgow Street and the surrounding road network.

DEVELOPMENT LAYOUT DESIGN

Layout Design Assessment

Item	Assessment
Access Arrangements	
Width of Little Lithgow Street	The width of Little Lithgow Street varies from 4.91 metres to 5.24 metres.
Width of Car Park Entrance	The width of the car park entrance is 6.4 metres
Width of Internal Vehicle Access Ramp	The internal vehicle access ramp is 6.4 metres with kerbs (not dimensioned) on both sides of the access ramp.
Visibility	In-lieu of visibility splays at the car park entrance, convex mirrors are to be provided as recommended in the traffic report.
Headroom Clearance	The headroom clearance at the car park entrance, internal access ramps and basement level are not dimensioned on the drawings.
Car Parking Modules	
Car Spaces	The width and depth of car spaces (2.52 metres by 4.9 metres) and (2.6 metres by 4.9 metres) satisfy *AS/NZS 2890.1:2004.*
Accessible Car Space	The width and depth of the accessible car space and shared area of 2.6 metres and 4.9 metres satisfy *AS/NZS 2890.6:2022.*
Clearance Height Above Accessible Car Space	The clearance height above the accessible car space and shared area is not dimensioned on the drawings.
Aisle Width	An aisle width of 6.4 metres is provided to satisfy *AS/NZS 2890.1:2004.*
Column Depths and Setbacks	The column depths and setbacks along the southern boundary on the basement level are to be re-checked by the applicant. 
Clearances to Walls	Car spaces adjacent to a wall have been provided with a minimum clearance of 300 millimetres to satisfy *AS/NZS 2890.1:2004.*

Gradients	
Ramp Grades for the first 5.0 metres inside the Property	Prior to the assessment of the proposed ramp grades, the length of each ramp section is to be dimensioned on the drawings.
Internal Vehicle Ramp Grades	The grade and length of each ramp section is not dimensioned.
Swept Path Assessment	
G35649-01, Sheet No.01	The swept path diagrams for the 6.34 metre long Waste Wise Mini demonstrates adequate entry and exit movements into and out of the site via Little Lithgow Street, including circulation movements within the basement level.
G35649-01, Sheet No.02	The swept path diagrams for the B99 design vehicle demonstrates adequate entry and passing movements at the car park entrance via Little Lithgow Street.
G35649-01, Sheet No.03	The swept path diagrams for the B99 design vehicle demonstrates adequate exit movements via Little Lithgow Street.
G35649-01, Sheet No.04	The swept path diagrams for the B85 design vehicle demonstrates adequate entry movements into the car spaces.
G35649-01, Sheet No.05	The swept path diagrams for the B85 design vehicle demonstrates adequate exit movements out of the car spaces.
G35649-01, Sheet No.06	The swept path diagrams for the B85 design vehicle demonstrates adequate entry movements into the car spaces.
G35649-01, Sheet No.07	The swept path diagrams for the B85 design vehicle demonstrates adequate exit movements out of the car spaces.
Other Items	
On-Street Car Parking and Loading Zone	The traffic report has proposed to reinstate all redundant vehicle crossings in Lithgow Street with on-street car parking and loading zones.
Vehicle Access Vertical Ground Clearance Check	A vehicle access cross-sectional diagram is to be provided by the applicant to confirm that a B99 design vehicle can enter and exit the property without scraping or bottoming-out. Please see under *'Engineering Advice for Design Items to be Addressed by the Applicant'* section.

Engineering Advice for Design Items to be Addressed by the Applicant

Item	Details
Width of Kerbs along Internal Vehicle Access Ramp	The applicant is to dimension on the drawings the width of the kerbs along the internal vehicle access ramp.
Headroom Clearance	The applicant is to dimension on the drawings the headroom clearance at the car park entrance, internal access ramps and basement level.
Clearance Height Above Accessible Car Space and Shared Area	The applicant is to dimension or annotate on the drawings the headroom clearance above the accessible car space and shared area.
Column Depths and Setbacks	The applicant is to review the column depths and setbacks in the basement level to satisfy *Figure 5.2* of *AS/NZS 2890.1:2004*.
Internal Vehicle Ramp Grades	The applicant is to dimension on the drawings the grade and length of each ramp grade.
On-Street Parking Bays and Loading Zone	The applicant is to delete on the drawings all depiction and annotation of the drop-off bay and loading bay. The applicant is to liaise with Council's Parking Management unit regarding proposed on-street parking.
Kerb Extensions and Traffic Islands – Lithgow Street	According to Council's GIS, the site is within a flood zone area. The applicant is to delete on the drawings the kerb extension and traffic islands. A flood risk assessment for the site is to be submitted to Council for review. Should the results of the flood assessment allow for new kerb extensions and traffic islands, the applicant is to liaise with Council's Urban Design and Traffic Engineering units.
Street Trees – Lithgow Street	According to Council's GIS, the site is within a flood zone area. The applicant is to delete on the drawings the street trees/plantings. A flood risk assessment for the site is to be submitted to Council for review. Should the results of the flood assessment allow for new street trees/plantings, the applicant is to liaise with Council's Open Space unit.
Vehicle Access Vertical Ground Clearance Check	To assist the applicant, an example of a cross-sectional diagram of the laneway and garage/car park is appended to this Memo. To ensure that vehicles do not scrape or bottom-out when entering or exiting the site and show the provision of a 40-millimetre lip/bullnose along the edge of the internal concrete slab with the laneway, a vehicle access cross-sectional diagram is required.

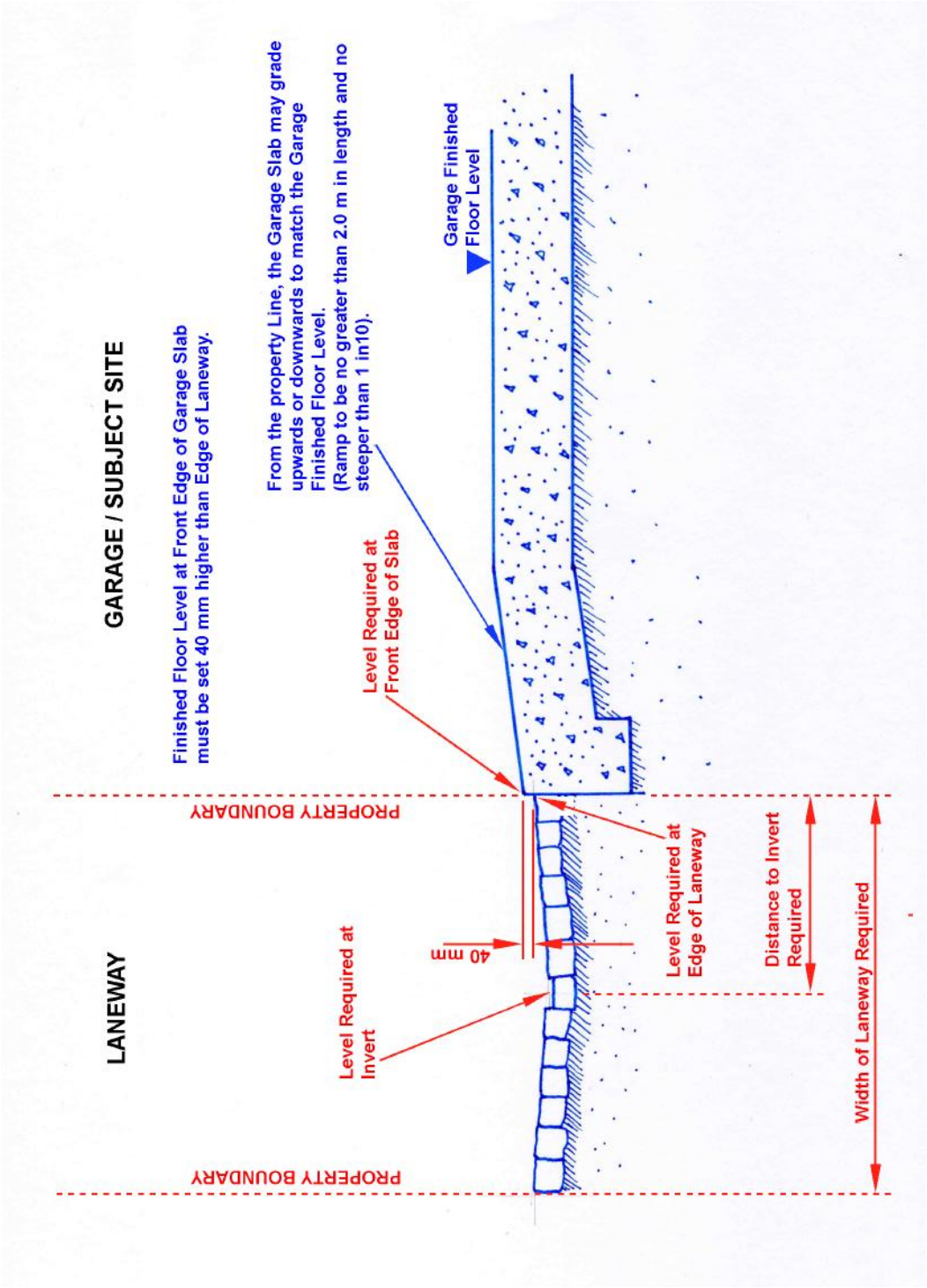
Item	Details
	The applicant is required to obtain a number of spot levels (existing and proposed) which include: • the reduced level 2.0 metres inside the property; • the level at the east and west edge of Little Lithgow Street; • the level at the centreline/invert of Little Lithgow Street; and • the 40-millimetre lip/bullnose along the western edge of the internal concrete slab. These levels are to be shown on a 1 in 20 scale cross-sectional drawing, with dimensions, and the B99 ground clearance template superimposed over the diagram. The assessment must be taken along the centre of the car park entrance. Providing the cross-sectional diagram early in the design phase can also determine whether further modification works are required, such as lowering the finished floor level inside the property or making any adjustments to Council's footpaths or road infrastructure.
Public Lighting	The applicant is to arrange a review of the public street lighting to ensure that street lighting levels surrounding the site are compliant with the relevant standards. All costs associated with upgrading the public street light will be the responsibility of the developer.
	All existing public street light and power pole in front of the site in Lithgow Street are to be depicted on the drawings.
	The applicant must ensure that light will not spill into the habitable rooms of the subject site. Should light spill into the windows, the applicant must arrange for an appropriate light shield or similar treatment with the relevant Service Authority. All costs associated with the light shield will be borne by the applicant.
Utility Doors	All utility doors opening over a Public Highway must be able to swing at 180-degrees and be latched onto the building wall. An annotation is to be included on the drawings.

SECTION 4: Acknowledgement

Engineer: Artemis Bacani

Signature:

Date: 30 April 2026


GARAGE / SUBJECT SITE
Finished Floor Level at Front Edge of Garage Slab must be set 40 mm higher than Edge of Laneway.
From the property Line, the Garage Slab may grade upwards or downwards to match the Garage Finished Floor Level. (Ramp to be no greater than 2.0 m in length and no steeper than 1 in10).
Garage Finished Floor Level
Level Required at Front Edge of Slab
PROPERTY BOUNDARY
LANEWAY
40 mm
Level Required at Invert
Level Required at Edge of Laneway
Distance to Invert Required
Width of Laneway Required
PROPERTY BOUNDARY

City Works
Formal Referral Response

Application Information:

Referral Officer:	Atha Athanasi
Officer:	John Theodosakis
Council Reference:	PPE26/0203
Address:	39-47 Lithgow St, Abbotsford VIC 3067
Proposal:	DTP Notice of an Application
Comments Sought:	Click here to view referral memo: Record D26/150363: IREF26/00527 - Internal Referral Request
Disclaimer:	Council's City Works Unit provides the following information which is based on the information provided in the referral request memo referenced above.
Prev. Responses:	

Comments:

The waste management plan for 39-47 Lithgow St, Abbotsford authored by Traffix Group and dated 30/10/25 is satisfactory from a City Works Branch's perspective.

Waste Management Officer: Atha Athanasi

Signature: Atha Athanasi

Date:30/04/2026

Strategic Transport Formal Referral Response

Application Information:

Referral Officer:	Tomas Lightbody
Officer:	John Theodosakis
Council Reference:	PPE26/0203
Address:	39-47 Lithgow St, Abbotsford VIC 3067
Proposal:	DTP Notice of an Application
Comments Sought:	Click here to view referral memo:
Disclaimer:	Council's Strategic Transport unit provides the following information which is based on the information provided in the referral request memo referenced above.
Prev. Responses:	

Comments

Bicycle Parking Provision

Statutory Requirement

Under the provisions of Clause 52.34-3 of the Yarra Planning Scheme, the development's bicycle parking requirements are as follows:

Proposed Use	Quantity/ Size	Statutory Parking Rate	No. of Spaces Required	No. of Spaces Allocated
Dwellings	151 dwellings	In developments of four or more storeys, 1 resident space to each 5 dwellings	30 resident spaces	94
		In developments of four or more storeys, 1 visitor space to each 10 dwellings	15 visitor spaces.	
Retail premises (other than specified in this table)	62 sqm	1 employee space to each 300 sqm of leasable floor area	0 employee spaces	
		1visitor space to each 500 sqm of leasable floor area	0 visitor spaces.	
Bicycle Parking Spaces Total			**30 resident / employee spaces**	**88 resident / employee spaces**

		15 visitor spaces	**6 visitor spaces**
Showers / Change rooms	1 to the first 5 employee spaces and 1 to each additional 10 employee spaces	**0 showers / change rooms**	**0 showers / change rooms**

The development provides a total of 45 additional resident/employee/visitor spaces above the requirements of the Scheme. It is unclear from the plans which spaces are for residents, and which are for visitors, if the 6 bicycle spaces within the public realm are the sole location of visitor parking, the development is not meeting its statutory requirements. Further, the location of all visitor parking should be accommodated within the development site, not within the public realm.

Adequacy of visitor spaces

zero spaces are noted as visitor bicycle parking spaces, visitor spaces need to be annotated on the plan, given this lack of clarity the 6 bicycle parking spaces located within the public realm are considered visitor bicycle parking.

The provision and location of visitor spaces is inadequate:

- 6 spaces does not meet the statutory requirement of 15 visitor spaces, nor does it cater for Yarra's current or predicted future cycling demand. At minimum 35 visitor spaces should be provided for under the CASBE and BESS calculation.
- All visitor bicycle parking spaces should be accommodated within the development site.

Adequacy of resident spaces

Number of spaces

Whilst the proposal includes a surplus of 45 resident/employee spaces above the requirements of the planning scheme, it is noted:

- The number of parking spaces is proposed to be far less than the number of occupants expected. This increases the need for residents to have access to alternative transport modes.
- The subject site is located in an inner-urban area with already high cycling-to-work demand, and trends indicate demand will continue to increase; and
- Both local and state planning policies include objectives to promote sustainable transport modes, including cycling.
- **The CASBE requirements are within the Yarra planning scheme [15.01-2L-01]. The CASBE framework includes a calculation of appropriate bicycle parking facilities for developments within the City of Yarra.**
- **Given the above, best practice requires a rate of 1 space to each dwelling. Therefore, it is recommended a minimum of 151 resident spaces be provided.**
- The plans are lacking in dimensions for bicycle parking areas, access points and pathways.

Electric vehicles / share cars / other relevant topics?

Council's BESS guidelines encourage the use of fuel efficient and electric vehicles (EV).

Provision of EV charging points is shown on plans as being included in each basement. Additionally, whilst it is acceptable that 3 EV charging points are installed during construction, to allow for easy future expanded provision for electric vehicle charging, all car parking areas should be electrically wired to be 'EV ready'. A minimum 40A single phase electrical sub circuit should be installed to these areas for this purpose.

At least 8 resident electric bicycle charging point should be provided in the bicycle parking spaces (5% of the total number) adjacent to spaces suitable for electric bicycles to use (i.e horizontal on-ground spaces with sufficient widths to accommodate a larger electric bicycle, as per AS2890.3 Appendix A – 'cargo bicycle' and Section 2.2.8).

Green Travel Plan

Most required information regarding travel options is provided within the Traffic Impact Assessment, however no Green Travel Plan (GTP) has been provided. Given the development has a total non-residential floor area of more than 1,000sqm, pursuant to Clause 22.17-4 a GTP must be provided.

Recommendations

The following should be shown on the plans before endorsement:

1. A minimum of 151 residential bicycle parking spaces in total be provided.
2. A minimum of 35 visitor bicycle parking spaces in total be provided.
3. Designation of resident and visitor bicycle parking to be shown on the plans.
4. All visitor bicycle parking facilities to be ground level (horizontal) hoops and comply with Clause 52.34 and AS2890.3. All visitor bicycle parking facilities to be ground level (horizontal) hoops and comply with Clause 52.34 and AS2890.3.
5. The external visitor hoops should be relocated to an appropriate, clearly visible location that provides compliant clearances and convenient, safe access and be located within the development site.
6. Dimensions of all bicycle storage spaces, lifts, corridors and relevant access ways noted to demonstrate compliance with Australian Standard AS2890.3 or to the satisfaction of the Responsible Authority.
7. As referenced in the applicant's traffic engineering report, the 36 ground level multi tier spaces need to allow for a 2.0m wide access aisle (currently 1.74m).
8. All car parking areas should be electrically wired to be 'EV ready'. A minimum 40A single phase electrical sub circuit should be installed to these areas for this purpose and shown on the plan.
9. At least 8 electric bicycle charging points should be provided in the resident bicycle parking spaces adjacent to spaces suitable for electric bicycles to use.
10. Indicate bicycle parking wayfinding locations through plan annotations and include proposed signage within the appropriate schedule.
11. A Green Travel Plan should be provided with the information outlined previously.

Strategic Transport Planner: Tomas Lightbody

Date: 29 April 2026

Strategic Planning
Formal Referral Response

Application Information:

Referral Officer:	RefUserID
Officer:	John Theodosakis
Council Reference:	PPE26/0203
Address:	39-47 Lithgow St, Abbotsford VIC 3067
Proposal:	DTP Notice of an Application
Comments Sought:	Click here to view referral memo: IREF26/00534 - Referral Request
Disclaimer:	Council's Strategic Planning Unit provides the following information which is based on the information provided in the Statutory Planning referral request memo referenced above. The Strategic Planning comments in this assessment focus on compliance with the following clauses in the Yarra Planning Scheme: Interim Schedule 22 to the Design and Development Overlay (DDO22). and (Proposed/Draft) Schedule 49 to the Design and Development Overlay (DDO49). These comments focus on high level built form metrics within the DDOs rather than a comprehensive assessment, due to the timeframes imposed by the DFP program. They do not provide commentary on other sections of the Planning Scheme or fully assess the internal amenity of the application.
Prev. Responses:	

Development Details:

Relevant amendment and status:	C291yara A preferred version of Draft Amendment C291yara has been adopted by Council and it has been referred to the Minister for Planning. Consideration of the Draft Amendment for approval is now with the Minister for Planning.

Strategic Planning Comments and Recommendations

The proposed application does not comply with a number of requirements set out in the interim and proposed DDOs. Considering that no decision on the Amendment has been made by the Minister and the number of mandatory controls not adhered to, Strategic Planning's advice is a design that more closely aligns with the planning controls.

This referral does note that through the provision of affordable housing this does enable the variation of built form requirements and mandatory controls.

Non-compliant requirements includes:

- Building heights
- Upper level setback

The application is not compliant with the proposed height controls set out in either DDOs. It should be noted that Council adopted a position of a height of 15m and mandatory controls for the site. The proposed height was supported by the Committee that considered Draft Amendment C291yara, but felt the height should be discretionary not mandatory. A variation in overall building height would need to be underpinned by rigorous expert advice to support it, though noting the Committee acknowledging the uniqueness of the industrial heritage building.

The application does not comply with the mandatory upper level setback requirements for the infill portion of the site. The Committee noted:

> The Committee is not persuaded that it should be discretionary to simply allow for subtle built form changes along the length of Lithgow Street, or a more nuanced or cantilevered response. The Committee agrees with Council and Mr Gard'ner that a 6 metre mandatory upper-level setback is appropriate given the heritage significance of the building and the surrounding environs.
>
> The Committee agrees with Council that whether the area is ultimately delineated as a moderate change or incremental change area, there is a limit as to what setbacks are appropriate. Having regard to all the information provided and an inspection of this area on numerous occasions, the Committee considers that there is a difference between a 4.95 metre and 6 metre upper-level setback. A 6 metre setback would ensure that the front of the building will be read in a threedimensional form and retain sufficient heritage features and meaning.
>
> The Committee is satisfied that the mandatory setback will not restrict development but will facilitate a good design and heritage outcome for this site.

A stronger approach to varying the upper level setback should be considered noting the Committee's feedback.

Assessment of compliance with built form requirements:

Built Form Requirements	Interim DDOXX	Proposed DDOXX	PPE26/0203	Compliance with Interim DDOXX	Compliance with Proposed DDOXX
Building heights	18m (mandatory)	15m (mandatory(	18.68m (not including services) 21.83m (including services)	Does not comply.	Does not comply.
Street wall and setback	Retain heritage frontage or 11m (mandatory)	Retain existing street wall height for heritage buildings. 11m maximum and 8m minimum for other buildings.	Heritage street wall retained. Infill: 9.5m	Complies.	Complies
Upper level	6m Must occupy no more than one quarter of the vertical angle defined by the whole building in the view from a sight line at a height of 1.7 metres above the footpath (on the opposite side of the street) – see Figure 2.	6m For buildings >15m, the uppermost level should be set back 9m minimum	Infill: 1.5m Heritage: 15m	Does not comply.	Does not comply.
Building separation	Where development shares a common boundary, upper level development must be setback a minimum of 4.5m from the common boundary, where a	For building of less than or equal to 21 metres in height, upper level development should be set back a minimum of 4.5 metres from the common boundary,	4.84m	Complies.	Complies.

	habitable window or balcony is proposed;	where a habitable window or balcony facing the common boundary is proposed on the subject site.			
Overshadowing	NA	Apermit should not be granted to construct a building or construct or carry out works that would cast additional overshadowing of the following spaces between 10am and 2pmat22ndSeptember, unless the additional overshadowing would not unreasonably prejudice the amenity of the public space, to the satisfaction of the responsible authority: Lithgow		Complies.	Complies.

Strategic Planner: Kyle Everett
Date: 6 May 2026

35-45 Lithgow Street Abbotsford

Town Planning
Urban Context Report

Prepared for:
Model

Document Revision Status:
Revision B

March 2026

WARREN AND MAHONEY

Contents

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3.0	Heritage Context and Fabric
4.0	Design Response
5.0	Visualisation
6.0	Typical Program
7.0	Apartment Study
8.0	Shadow Analysis

Prepared For:
Town Planning Application

Document Revision Status:
Revision A
October 2025

Contact:
Warren and Mahoney Australia Living Pty Ltd
Level 3, 380 Collins Street
Melbourne, Vic, 3000
Australia

Disclaimer:

While Warren and Mahoney has endeavored to summarise the Concept Design process in this document and appendices, the report format cannot represent the broad range and depth of information captured on the Concept Design Drawings, Specifications and Schedules. Approval of the specific issues contained in this report does not discharge the obligation of the client team to review the drawings and specifications in their entirety.

1.1 Executive Summary

This project transforms the historic Schweppes Cordial Factory into a benchmark for sustainable, community-focused urban living. Model's build-to-rent approach combines heritage, housing diversity, and high environmental performance — targeting Passivhaus certification, mass timber construction, biodiversity gains, and affordable housing — to create a connected, climate-conscious neighbourhood where people feel at home.

This proposal seeks approval for the adaptive reuse and redevelopment of the former Abbotsford factory site into a contemporary build-to-rent residential community, delivered by Melbourne developer MODEL. The project will establish a new benchmark for sustainable urban living, combining heritage conservation, climate-conscious design, and community benefit.

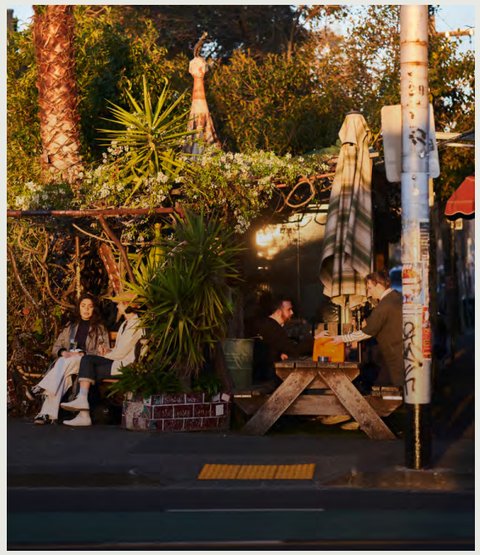
At the heart of the proposal is a commitment to sustainability and innovation. With a commitment to 5 Star Green Star and 7 Star NatHERS average, the project team has adopted Passivhaus principles and is reviewing the stretch target of certification, significantly reducing embodied carbon while delivering high-performance, low-energy homes. These measures directly support state and local objectives for resilient, environmentally responsible housing.

The design carefully responds to the heritage significance of the 1927 FL & K factory, retaining and celebrating three defining elements: the Lithgow Street façade and factory building, the original chimney, and the pitched-roof tower on Little Lithgow Street. These are expressed in the round, with new and old elements woven together through a cohesive architectural and landscape response that honours the site's industrial history while enabling contemporary living.

Situated within the vibrant Abbotsford context, the project complements the area's evolving architectural character and contributes positively to its public realm. New café and communal spaces will activate the street and welcome the broader community, while significant landscape improvements to Lithgow and Little Lithgow Streets will enhance public amenity, deliver urban greening, and create safe, attractive connections for residents and neighbours alike.

Through this balance of heritage respect, sustainability leadership, high-quality housing, and active community interface, the development represents an exemplar of adaptive reuse and sets a new standard for climate-conscious, community-focused urban living in inner Melbourne.

1.2 Core Team



Model
Developer

MODEL is a build-to-rent development, operations, and investment group dedicated to delivering high-quality, sustainable housing. Model's focus is not only on the provision of new homes, but on creating resilient, low-carbon environments that support long-term residency and contribute positively to the broader community.

Central to their approach is a commitment to decarbonising the built environment. They apply leading sustainability principles to ensure our projects minimise environmental impact while enhancing livability, affordability, and social wellbeing.

Through this integrated model of development, ownership, and management, MODEL is shaping a new standard for urban rental living—one that balances environmental responsibility with tenant experience

Warren and Mahoney
Architecture

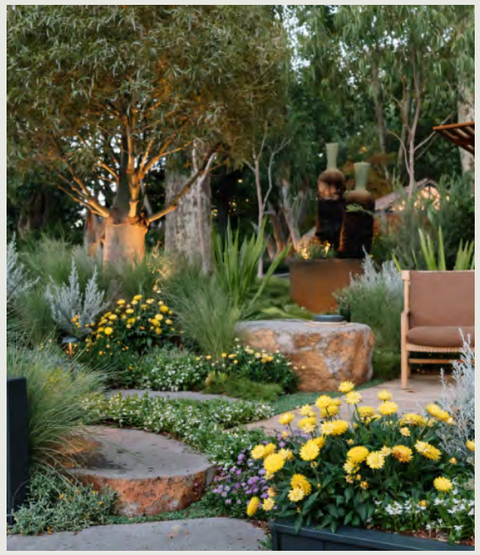
Working at the intersection of culture, sustainability, and technology, Warren and Mahoney is a leading trans-Tasman architectural and design practice recognised for projects of design excellence and enduring civic value. With studios across Australia and New Zealand, the practice combines architectural and consulting expertise to deliver outcomes that are contextually responsive, resilient, and aligned with the aspirations of clients, communities, and the broader urban environment.

With a substantial portfolio across residential, commercial, educational, civic, and cultural sectors, Warren and Mahoney has guided many of the region's most significant developments from conception through to delivery. Its collaborative, multidisciplinary approach ensures innovation is balanced with practicality, heritage with contemporary design, and sustainability with long-term community benefit.

Urbis
Town Planning

Urbis is a leading consultancy shaping the future of Australia's cities and communities through planning and place-based expertise. The firm brings strategic thinking and robust analysis to every project, drawing on a collaborative, multidisciplinary approach that ensures all planning needs are comprehensively addressed.

Planning has been at the core of Urbis since its inception, and the practice has successfully guided many of the nation's largest and most complex developments through approval. With deep industry knowledge and a reputation for delivering balanced, evidence-based outcomes, Urbis continues to play a pivotal role in the evolution of Australia's built environment.



Ratio
Landscape Architect

Ratio is a landscape architecture and urban design practice with an approach grounded in a deep understanding of the social, cultural, economic, historical, and ecological forces that shape each project. The practice emphasises meaningful consultation and engagement, ensuring that outcomes are inclusive, sustainable, and reflective of how people use and experience outdoor environments.

By incorporating resilient landscapes, urban ecosystems, and circular design strategies, Ratio contributes to the delivery of healthier, more adaptable cities and communities.

1.3 Project Opportunity

Safe Communities

The development will provide quality housing catering for a large range of residents. In maintaining a transparent and welcoming environment, passive and active surveillance is increased and the interface between the private and public realm protects and enhances personal safety.

Impact: MODEL on Lithgow enhances public safety and security through:

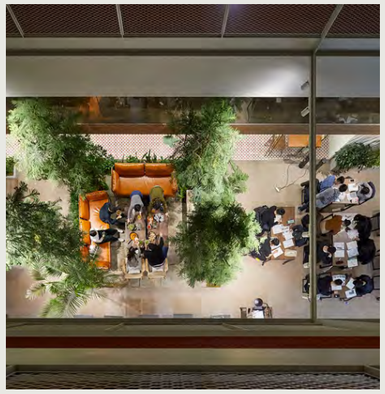
- Increased foot traffic and active street frontages, reducing opportunities for antisocial behaviour.
- Thoughtful urban design and lighting, ensuring improved visibility at night.
- Lane way activation, transforming underutilised spaces into safe, welcoming environments.
- A safer, more vibrant precinct, particularly for women and residents using public transport at night safety.

Character Contributor

The development will respond to its context in terms of character, cultural identity, natural features, surrounding landscape and climate. Through the retention of the existing building, the familiar urban fabric is celebrated and enhanced.

Impact: MODEL on Lithgow revitalises the iconic Schweppes Cordial Factory, preserving its towering chimney stack and heritage-listed elements while transforming the site into a vibrant, community-oriented residential precinct.

- Providing much needed housing to an important activity centre; of which 10% will be affordable



Community Catalyst

The development will contribute to community and cultural life by improving the quality of living and working environments, facilitating accessibility and providing for inclusiveness.

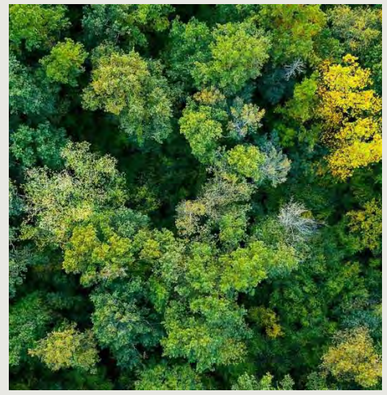
Impact: MODEL on Lithgow contributes to the local community through:

- Vibrant ground-floor commercial spaces fostering engagement and interaction.
- A café, wellness zones, and shared spaces that create a strong sense of community.
- High-quality public realm improvements, enhancing connectivity and liveability.

Economic Generator

The development will be managed and planned to avoid displacing existing economic activity and further strengthen the precinct with the provision of new economies, better access to commercial and community offerings, all to a greater volume of building residents and their neighbours.

Impact: The development will contribute positively to the local economy by introducing new residents who support existing businesses and attract complementary commercial uses. Ground-floor hospitality and community offerings will enhance local activation, strengthen the precinct's employment base, and reinforce Bridge Road's role as a key activity centre.



Carbon Leadership

The development aspires to many firsts in a residential and community building, setting a new benchmark in the Australian context.

Impact: MODEL on Lithgow integrates cutting-edge sustainability measures:

- 5 star Green Star, including
- 7 star NatHERS average and 6 star minimum, or equivalent

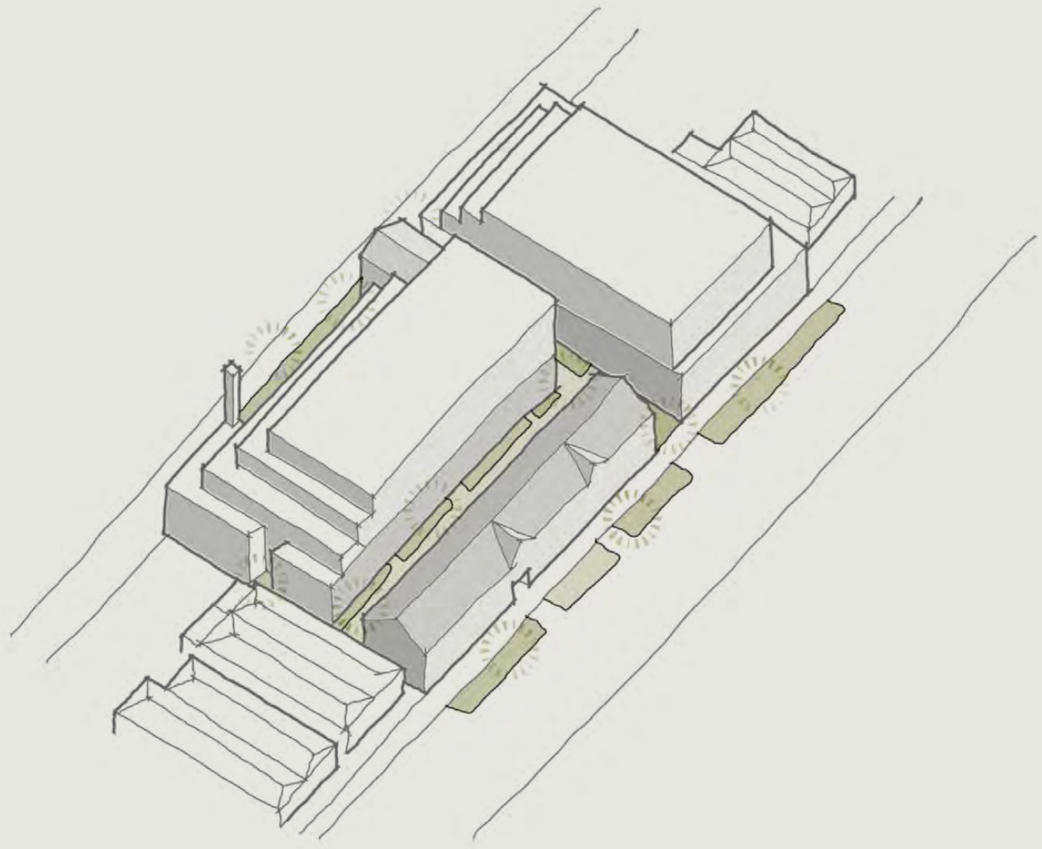
Additionally, Model are pursuing the following targets subject to detailed design resolution. This includes:

- 6 star Green Star
- Passivhaus classic certification
- 9 star NatHERS average or equivalent
- Mass Timber construction as a key contributor to substantially reduce the embodied carbon in the development
- 10% Increase in Local Biodiversity: Enhances ecological health through green spaces and urban greening.

1.4 Development Summary

Key Figures

3,096 m^2	Site Area
720 m^2	External Residential Common Amenity (inc Roof Terraces)
637 m^2	Internal Common Amenity inc Retail Hospitality
8,112 m^2	Approximate NLA
10,493 m^2	Approximate total GFA (above ground)
6	Storeys including ground (exl. roof terrace)
151	Total Apartments
43	Car parks
8.9 m^2	Resident Amenity Ratio (Sqm per unit)
Apartment Mix	
54 (35%)	Mix: Studio
77 (52%)	Mix: 1 Bed
20 (13%)	Mix: 2 Bed



1.5 OVGA FEEDBACK AUG 2025

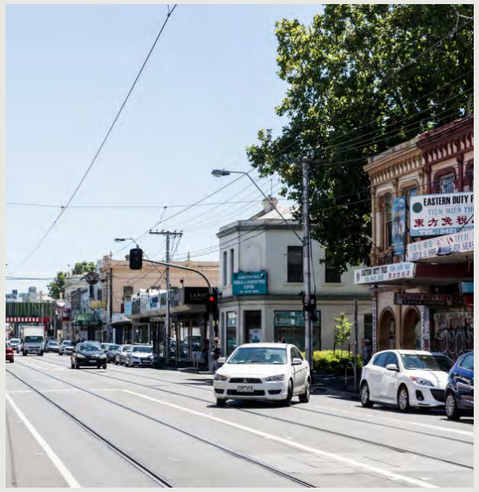
The design team had a series of workshops with the OVGA to develop the design response presented in this package. The final workshop resulted in feedback from the OVGA that strongly supports the project's revised direction, particularly the clearer separation of built form and the repositioning of heritage as a central design driver. The scheme demonstrates improved urban response, sustainability ambition, and potential for community benefit. The project was considered a significant improvement with the potential to become an exemplary case study if design development continues with care and rigour.

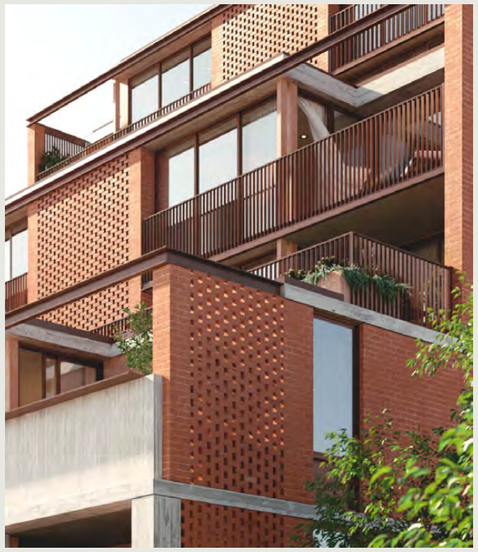
The OVGA raised a number of key points that the design team has addressed in the scheme presented in this report, with the items and response listed below:

OVGA COMMENT (AUG 2025)	DESIGN TEAM RESPONSE
Rework poor performing South Facing Apartments	The design team adjusted the mix of the south facing apartments to reduce the number with limited aspects. The design now includes larger apartments with view opportunities over the top of the heritage building, rather than the previously compromised studios.
Lithgow street public realm improvment.	The design team is exploring the intent to introduce significant street planting in the place of the ucrrent facotry loading bays. This approach is detailed on the plans, and will be further developed with the landscape team throughout the coming stages.
Location of Bike Parking	In response to the OVGA comments the design team has moved the majority of the bike parking to the ground floor (with a small amount of long term bike parking int he basement).
Corrdior design and amentity	The design team has added additional windows to the end of corridors to improve amenity where possible. The thresholds and corridor experience will continue to be developed with the ambition for the project to provide a unique experience for residents.
Studio Layouts	This report includes a page of studio design studies representing the design and client teams ambition to create a unique and fun studio offering. The design has been adjusted to ensure that all liveable space in the studios occurs in 9m rather than placing the studies at the rear of the space behind the bathroom.
Heritage Chimey resolution on the rear of the site	The design team has refined the detailing at this connection to ensure the chimney form is celebrated in the Lithgow street facade.
Refine through site link	The design team has continued to refine this connection through the site, captured on the plans. Lighting and landscape design will enhance this space as the design undergoes further development.

2.0 Context & Site Analysis

2.1 Abbotsford Context





Industrial Heritage

Abbotsford's industrial heritage is among the richest in inner Melbourne, defined by 19th- and early 20th-century factories, warehouses, and workers' cottages clustered around the Yarra. Robust brickwork, sawtooth and gabled rooflines, and landmark chimneys give the precinct a strong industrial identity. This layered urban fabric speaks to a history of production and rich community life, creating a rare blend of historic character, human scale, and adaptability that underpins the area's enduring appeal.

Rich Array of Green Spaces

Abbotsford is framed by some of Melbourne's richest green spaces. The Yarra River corridor, with its trails and mature riverine landscape, provides a continuous natural edge and a link to greater park lands. The nearby Abbotsford Convent precinct offers historic gardens, cultural spaces, and community hubs within a lush setting. Together, these green assets create a rare inner-urban environment where heritage, nature, and community converge - offering residents immediate access to recreation, tranquility, and cultural life.

Lively Street Fabric

With adjacency to Victoria Street in Abbotsford hums with life - a multicultural strip known for its authentic Vietnamese eateries, bustling cafés, and small bars. Lined with grocers, bakeries, and long-standing family businesses, the street offers a rich mix of food, culture, and colour. Its lively sidewalks, street art, and busy shopfronts create a constant energy, making it a true local destination and a key social spine connecting residents, visitors, and the broader neighbourhood.

Modern Architectural Character

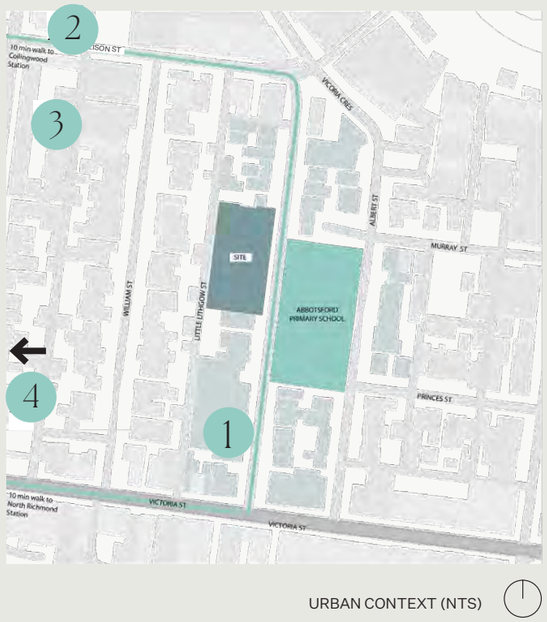
Abbotsford's contemporary architecture adds a vibrant new layer to the suburb's historic fabric, introducing refined mid-rise and high-density developments that respect the area's industrial character while embracing modern design. These projects deliver sustainable, apartment-based living with active street edges, landscaped courtyards, and mixed-use ground floors that enliven the public realm. Together they showcase how sensitive infill and adaptive reuse can support inner-city growth, provide diverse housing options, and strengthen the precinct's identity as a dynamic, livable urban neighbourhood

2.2 Urban Context

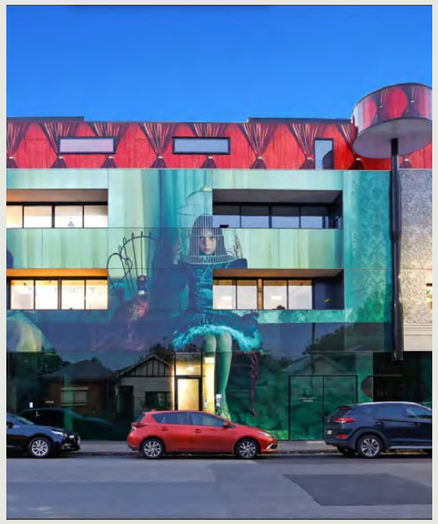
1. Abbotsford Primary School
2. Mayfeild street Reserve (Yarra Bend)
3. Carlton United Breweries
4. Victoria Street (Local high street)
5. Three Bags Full Cafe
6. Groove Coffee Shop
7. Molli (Restaurant)
8. Abbots Yard

URBAN CONTEXT (NTS)

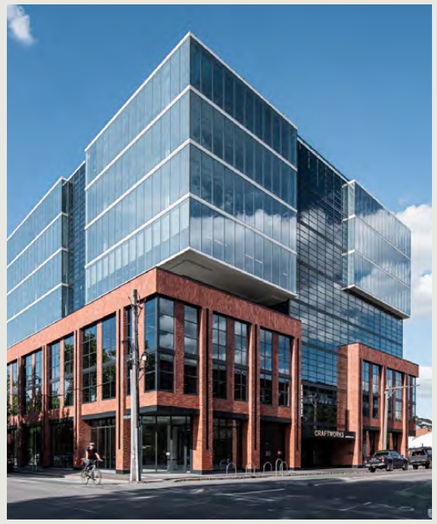
2.3 Surrounding Multi Residential + Commercial Developments



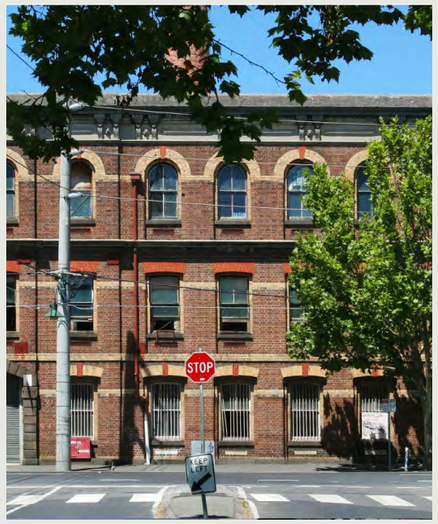
URBAN CONTEXT (NTS)



1. 15 Lithgow Street



2. Craftworks



3. 60 Nicholson St

4. Abbotsford Hive

2.4 Existing Context - Street Scape

SUBJECT SITE

LITHGOW STREET ELEVATION (EAST)

Directly North of the site, 49 Lithgow street is a double storey terrace house with a central courtyard which sits against the sites current brick boundary wall. 51 Lithgow street is a single storey terrace with a large garden. Further north, there is a mix of single and double storey houses with a mix or archiectural styles.

Directly South of the site 27 to 35 Lithgow street are all single storey Victorian terrace houses. They all have small gardens on the laneway side of the site. 21 Lithgow street is a two and half storey warehouse building, whihc is neighboured by the 4-5 storey apartment building at 17 Lithgow steet.

SUBJECT SITE

LITTLE LITHGOW STREET ELEVATION (WEST)

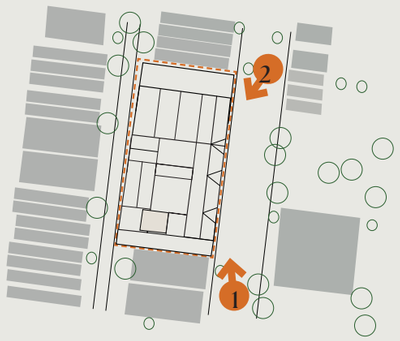
The Laneway side of the site features the rear entry garages of the terrace houses, with a mix of materials and strucutres at varying heights. On the wester side of the lanway there is a series of rear gardens for the houses on William Street, these will need to be considered for overshadowing.

2.4 Existing Context - Lithgow Street

The subject site contains the former Schweppes Cordial Factory, predominately a two-storey nineteenth-century brick industrial complex with a steeply pitched slate roof, located on the west side of Lithgow Street, Abbotsford. The Lithgow Street façade is articulated with three shallow projecting gable bays at first-floor level, underscored by stylised brackets above roller-door openings that historically provided vehicular access. Regular rectangular window openings extend along the upper level, while the ground floor presents a mix of barred windows, pedestrian entries, and vehicular doorways.

The bluestone plinth, sills, and original red brickwork have since been painted, diminishing some of the authentic character, though the overall industrial form remains largely intact. Later additions to the north and south mimic the 1927 redevelopment, including the third gable, while the northern end of the façade, with its large ground-floor openings, is considered of lesser heritage significance. Historically, deliveries were made into the internal courtyard from the southern section of the building, where bluestone reveals remain evident.

The site is identified as an 'individually significant' heritage place within the broader William Street Precinct (HO339). The Heritage Overlay also extends across adjoining streets including Albert, Lithgow, William, and Mollison Streets. Lithgow Street itself is characterised by a mix of building typologies, including substantial nineteenth-century industrial buildings (some repurposed for residential use), educational institutions, and single-storey Victorian cottages, with some Edwardian infill contributing to the precinct's layered



1. View North Up Lithgow St

2. View South Down Lithgow St

2.4 Existing Context - Lithgow Street

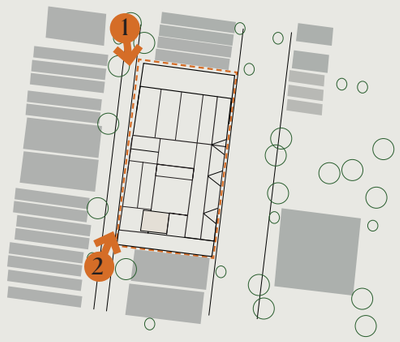
The stitched elevation illustrates the current Lithgow Street frontage of the former Schweppes Cordial Factory. The overlay of construction dates highlights the contrast between the original 1927 façade and later additions, most evident in the treatment of bluestone plinths, window openings, and brick detailing. While the painted brickwork has diminished some of the building's authentic character, the overall industrial form and gabled façade remain clearly legible.

Stitched Elevation

2.5 Existing Context - Little Lithgow Street

The factory's original brickwork remains largely intact, expressing the site's layered history of adaptation over time. An iconic chimney defines the lane way edge, while the north-west tower from the 1927 redevelopment continues to embody the architectural character of the period. Together, these two elements should be celebrated as defining features within the overall redevelopment of the precinct.

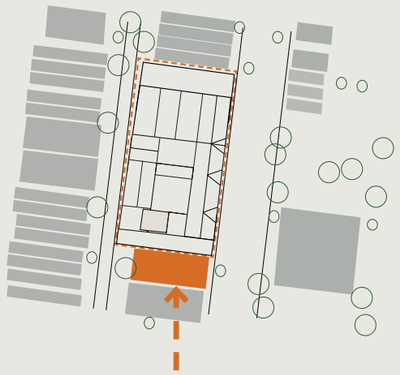
Opposite the eastern brick facade of the factory are a series of residential garages and roller doors for access into the low rise residential dwellings on William St.



1. View South Down Little Lithgow

2. View North Up Little Lithgow

2.5 Existing Context - Neighbours

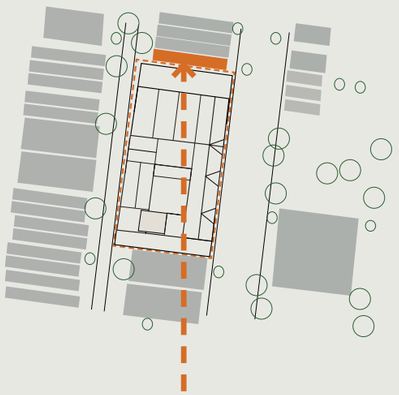


33 Lithgow Street

Lithgow Street

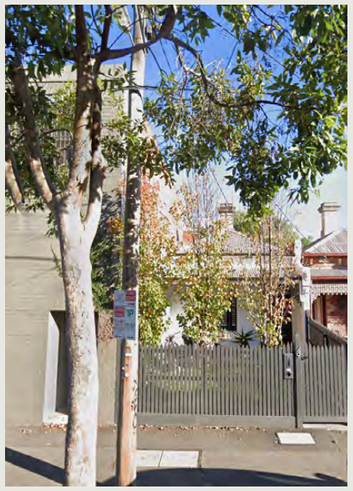
Lithgow Street

Little Lithgow Street

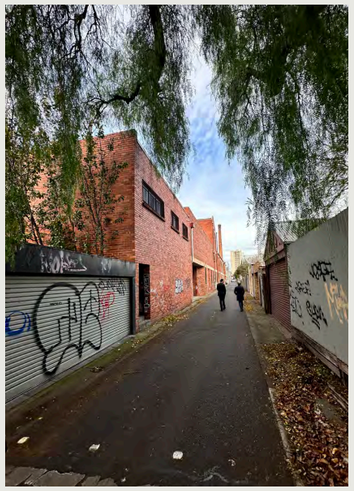


49 Lithgow Street

Lithgow Street

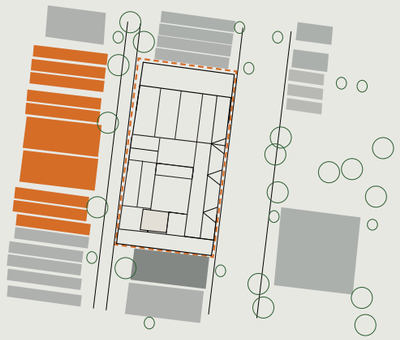


Lithgow Street



Little Lithgow Street

2.5 Existing Context - Neighbours



West Laneway

Along Little Lithgow Street the houses on the Western edge have a mix of garage strucutres, feneces and roller doors access into gardens.

Our new building will have to respond to each of these and be mindful of the overlooking into gardens that sit just behind these walls in the locations where this occurs.

2.6 Site Analysis

Sun

North, East and West Facades will require adequate sun control to ensure resident comfort.

Summer Sun

Winter Sun

Prevailing Wind

The site is subjected to prevailing wind from the north-west. This is require
adequate screening to the rooftop garden and balconies to ensure comfort for
residents.

Prevailing Wind

Vehicles

Victoria street south of the site represents one the main pedestrian, tram and vehicle corridors through Abbotsford. Our site will be primary accessed by Lithgow street for drop off and visitors, with access to the car park from the Little Lithgow laneway.

Site Access

Laneway Access

Primary Roads

URBAN CONTEXT DIAGRAMS(NTS)

2.6 Site Analysis

Pedestrians Transport Bicycle

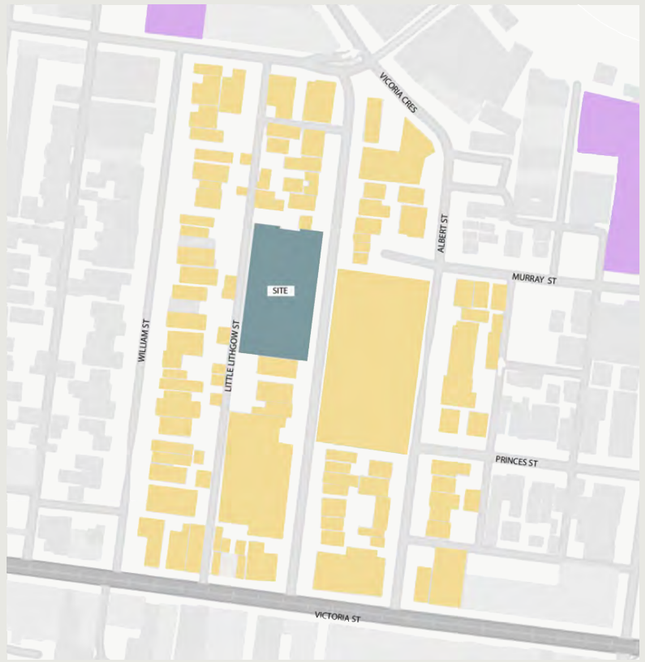
The site is located with a strong adjacency and connection to Victoria which services two tram routes into the city the 12 and 109, providing residents with a 25minute journey to the center of the CBD. It is connected to the city via dedicated bike lanes on Mollison and Gipps street. The site is a 15minute walk to North Richmond Station.

Tram Infrastructure

Pedestrian Movement

Cycle Paths

Yarra City Trail



Building Heights

The majority of the immediate context and urban massing surrounding the site sits between 1 and 4 storeys, with newer commercial and apartment development in the broader map sitting at 5-8 storeys.

1-4 Storeys, 5-15 m

4-10 Storeys, 15-35 m

10+ Storeys, 35m+

Building Use

Victoria street has a strong retail offering with both sides of the street presenting cafes, restaurants and stores to the neighborhood. Opposite the site is the Abbotsford primary school, creating a great opportunity for this project to offer something back to the school community. The rest of the immediate context is made up of a mix of residential townhouses and commercial warehouses.

Residential

Retail

Commercial

Education

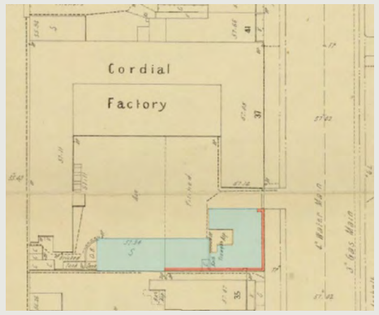
Industrial

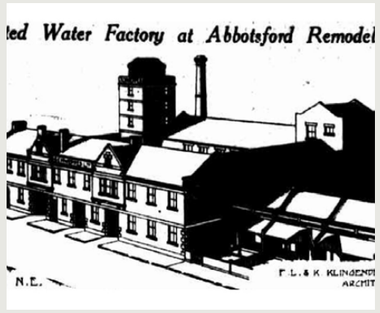
URBAN CONTEXT DIAGRAMS(NTS)

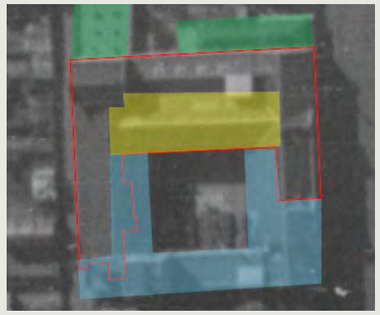
3.0 Heritage Context Analysis

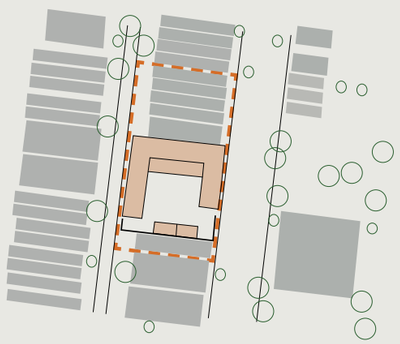
3.1 Site Time line

The following information is from the Former Schweppes Cordial Factory - 35-45 Lithgow Street, Abbotsford Site Development History and Heritage response Prepared for Fathom | April 2025



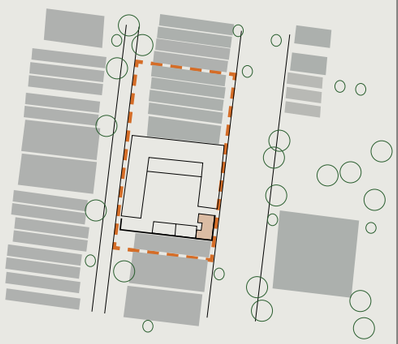






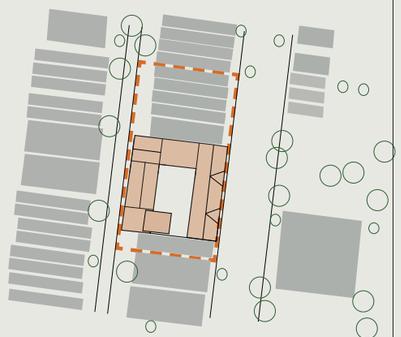
1897 MMBW Plan

- Site limited to 37-39 Lithgow St.
- Open courtyard.
- Single storey wing to centre.
- Stables to the south.
- Wall to the south and south-east.



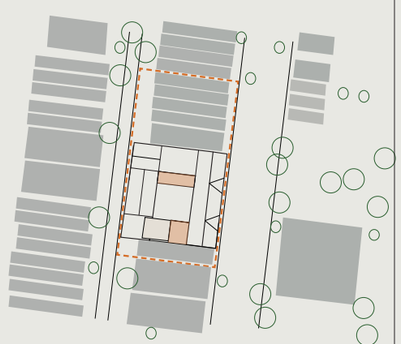
1901 MMBW Plan

- No apparent change from 1897.
- Stables to the south clearly outlined (blue).
- Wall to the south



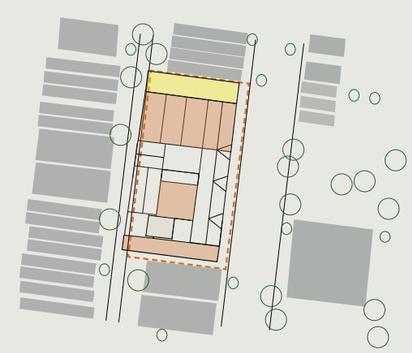
c.1927 Illustration

- Subject site is remodeled to designs of FL & K Klingender, Clements Langford builders.
- Full extent of the works not clear, described as extensive, and more than duplicating the business capacity.
- Building described as ‘completely transformed in appearance.’



1942 Aerial photograph

- Aerials provide evidence of the works likely undertaken in 1927 remodeling.
- It is possible the works are more extensive than shown in changes to the building footprint
- New works: Potential extension of roof form to west (yellow), Infill of stables to south (blue).
- Infill of Lithgow Street entrance (blue)

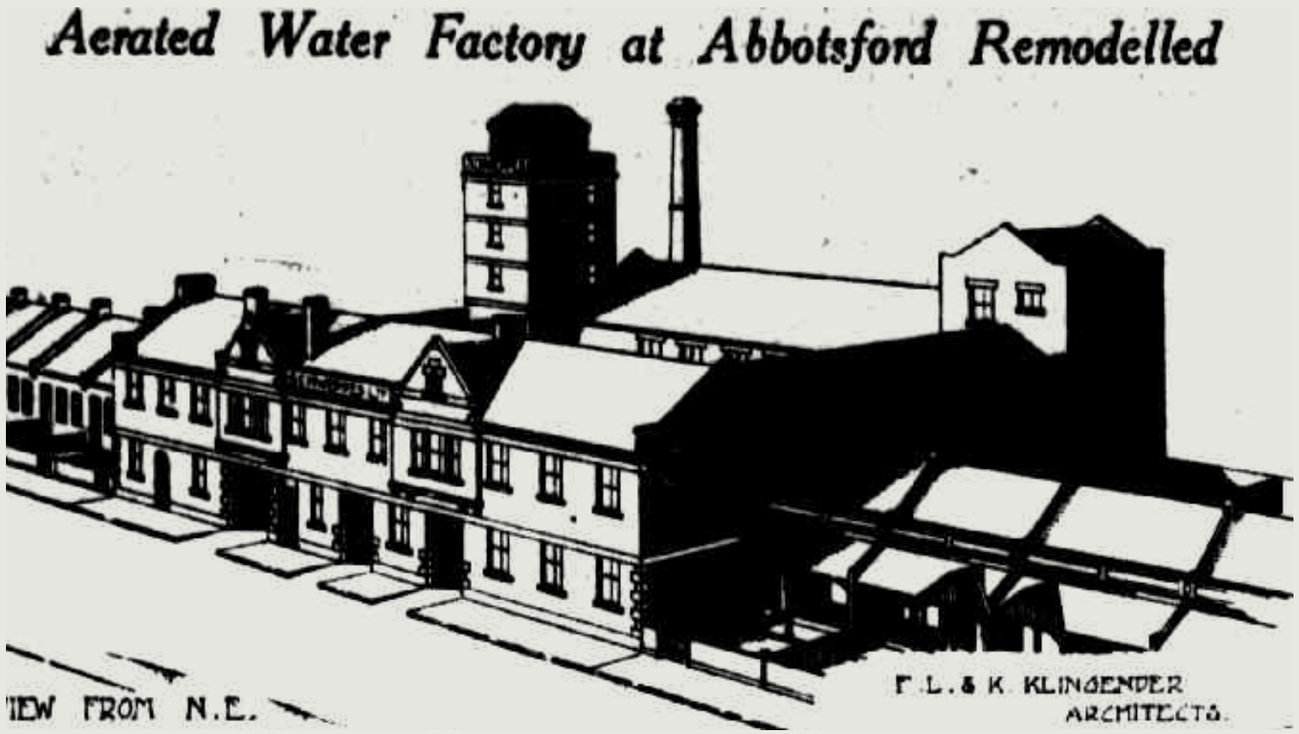


1951- 1960 Aerial photograph

- Sawtooth roofed warehouse to the north.
- Infill of courtyard with lantern.
- Extension of Lithgow St façade to the south
- Post 1960 2 level warehouse addition shown in yellow

KEY PLAN DIAGRAMS OF DEVELOPMENT (NTS)

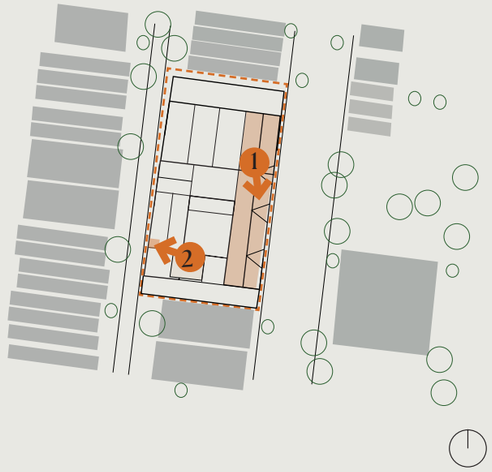
3.2 Celebrating the 1927 Design

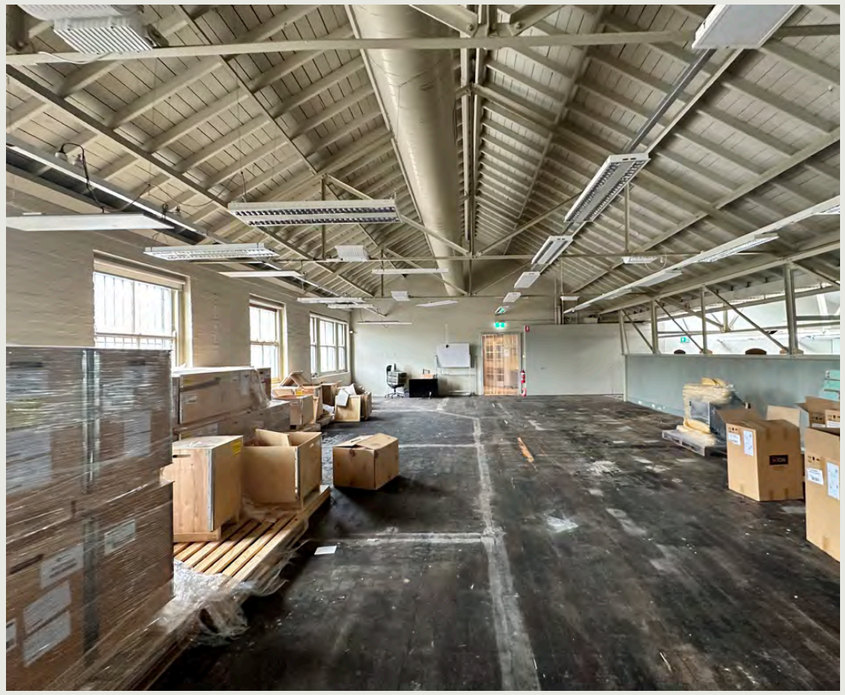


We love the idea of celebrating the 1927 original intent of the FL & K design that transformed the factory to its current recognisable fabric and language, per the heritage opportunities advice prepared by Bryce Raworth in 2019:

*"[the design response will] ensure the '**primacy of the three-dimensional form of the heritage building as viewed from the public realm to avoid 'facadism'**.*

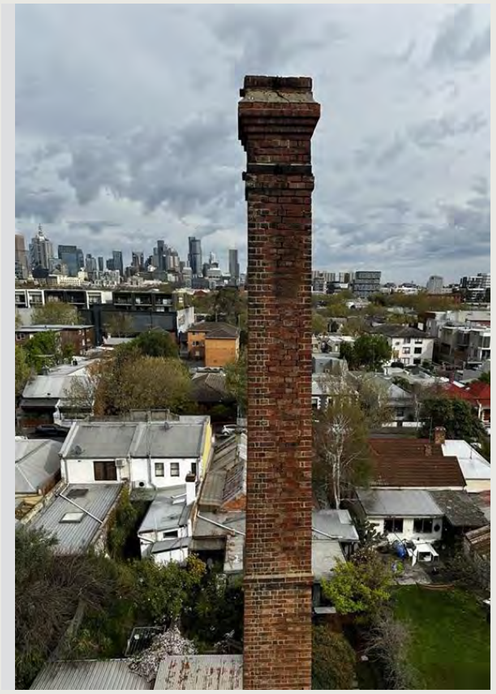
3.3 Existing Historical Elements





The internal volumes of the Lithgow Street building remain substantially intact, particularly at the upper level, and present an important opportunity for adaptive reuse. By introducing residential amenities such as co-working and wellness spaces, these generous interiors can be reactivated in a way that honours their original scale and industrial purpose.

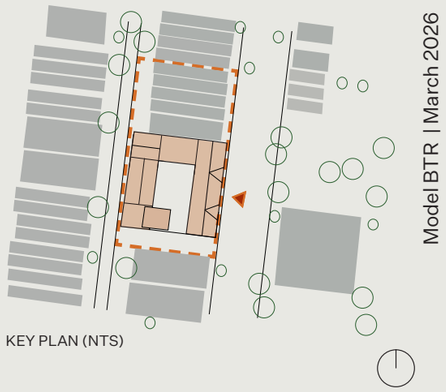
This approach prioritises the retention of significant heritage fabric, including where feasible original window openings, roof trusses, and the overarching spatial proportions. In doing so, it safeguards the architectural integrity of the front building while ensuring its continued relevance. The proposal brings renewed life and community use to the once-bustling factory, reinforcing its heritage value through considered and respectful adaptation.



The heritage chimney is an important remnant of Abbotsford's industrial history, contributing to the broader network of brick stacks that characterise the suburb and reinforce its manufacturing origins. As a prominent landmark, it has long held visual and cultural significance both to the surrounding neighbourhood and within the site itself.

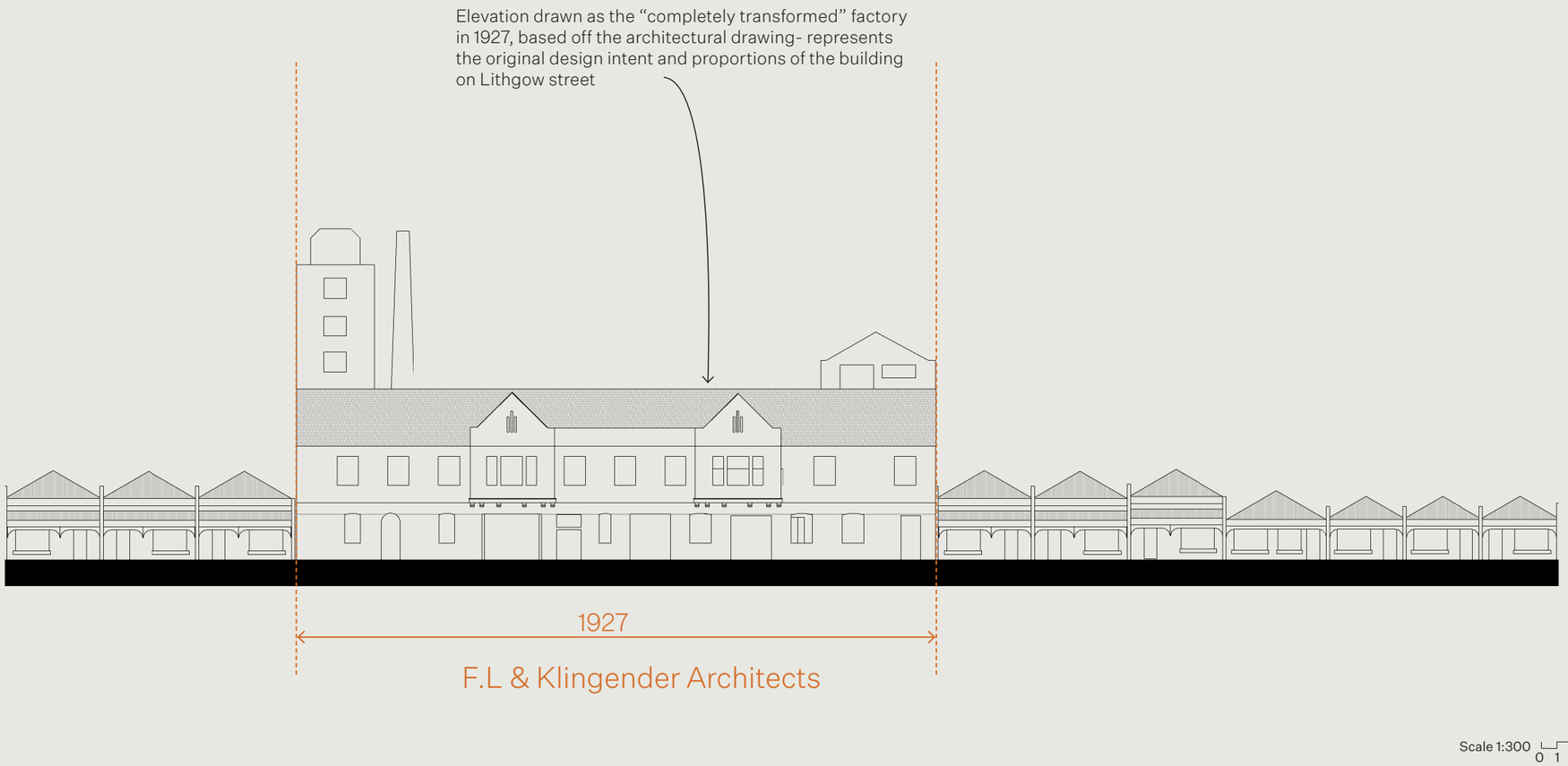
An appropriate design response should respect and maintain the prominence of the chimney within the Little Lithgow streetscape, ensuring its role as a visual anchor remains legible. The response should also enable new residents to positively engage with this heritage feature, allowing the chimney to remain as the tallest structure on the site and continue to be central to the site's identity.

3.4 Heritage Development to 1927



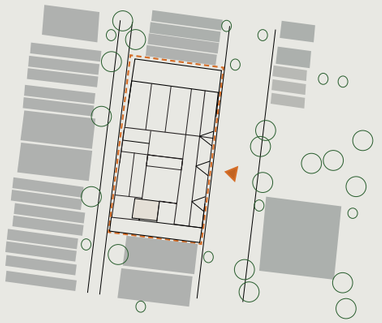
KEY PLAN (NTS)

Model BTR | March 2026



Scale 1:300 0 1 2 5m

3.5 20th Century Adaptation



KEY PLAN (NTS)

Model BTR | March 2026

Scale 1:300 0 1 2 5m

Urban Context Report

3.6 Proposed Demolition & Retention

The heritage response strategy is centred on reinstating the architectural integrity of the 1927 FL & K factory, preserving the primacy of its three-dimensional form in accordance with the heritage advice prepared by Bryce Raworth (2019). The removal of later twentieth-century additions, which obscure the clarity of the original design, will allow the factory to be understood once again as a cohesive and robust industrial building "in the round."

The project seeks to restore the legible extents of the 1927 works and celebrate the sculptural qualities of the original design.

Central to this approach is the retention and emphasis of three defining elements that collectively establish the building's architectural character and volumetric identity:

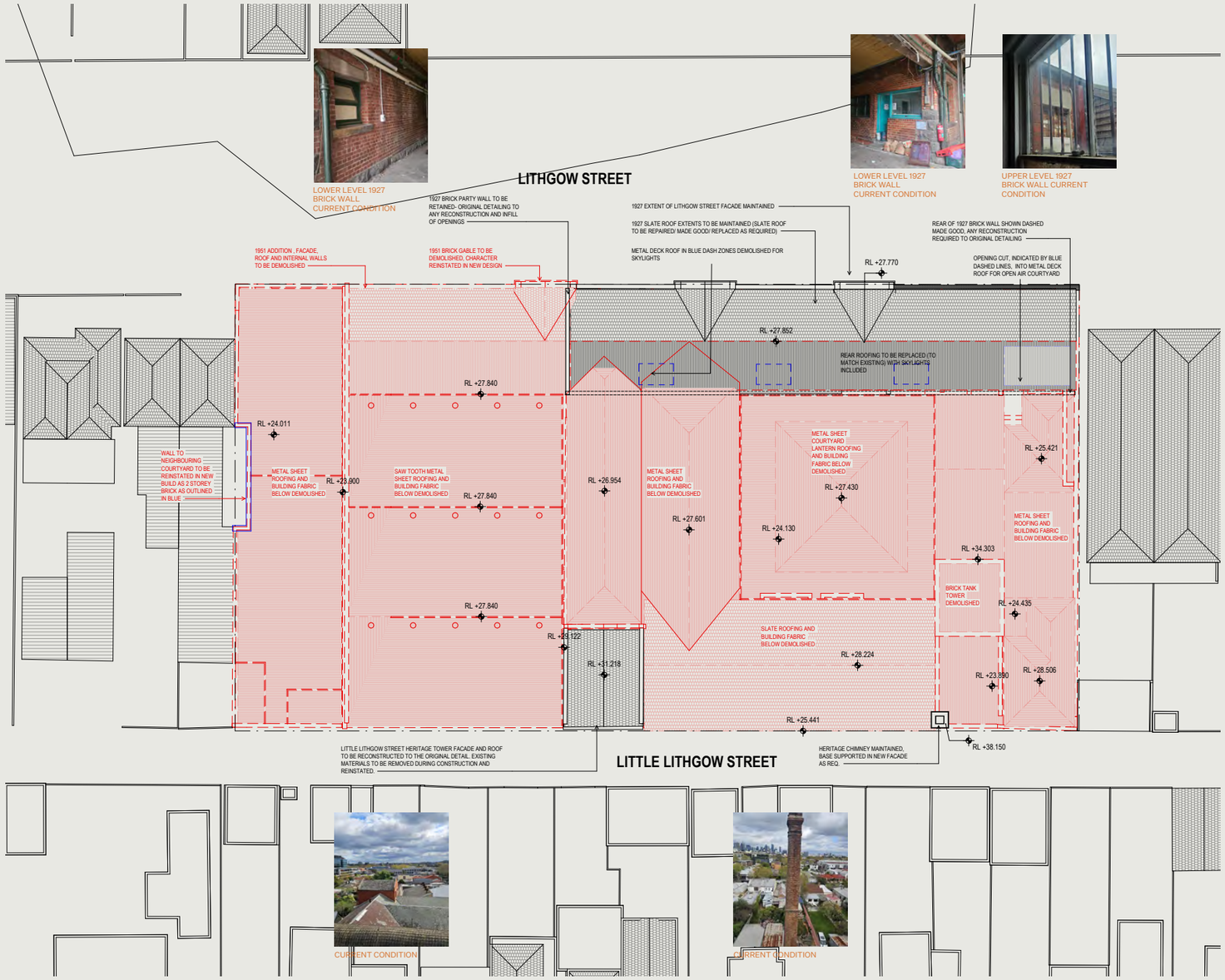
- **The Lithgow Street façade**, with its slate roof, beams, carefully proportioned fenestration, and landmark presence to the public realm.

- **The original factory chimney,** a vertical marker of Abbotsford's industrial origins.

- **The pitched-roof tower on Little Lithgow Street to be reconstructed**, a distinctive form defining the elevation to the east.

These three components represent the core masses of the 1927 design and provide the framework for interpreting the site's architectural significance. Infill metal-deck roofing and intrusive internal walls will be demolished, enabling the new development to be composed around these primary heritage forms. This strategy directly responds to Raworth's and Urbis Heritage recommendation to avoid facadism by reinstating the clarity and integrity of the original sculptural volumes, as expressed in early drawings of the complex.

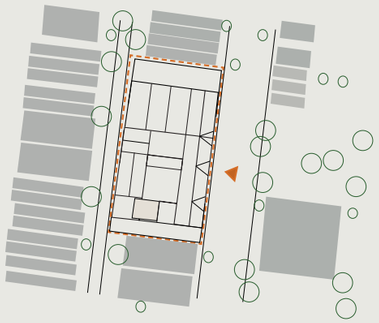
The design response is not one of replication, but of respect. Contemporary insertions are deliberately differentiated, ensuring new fabric is distinguishable while heritage elements remain legible and celebrated. In this way, the proposal reinstates the architectural language and prominence of the 1927 FL & K factory, reaffirming its place as a landmark within the Abbotsford urban landscape.



Proposed Demolition Plan

Scale 1:400 0 5 10m

3.6 Proposed Demolition & Retention



KEY PLAN (NTS)

Model BTR | March 2026

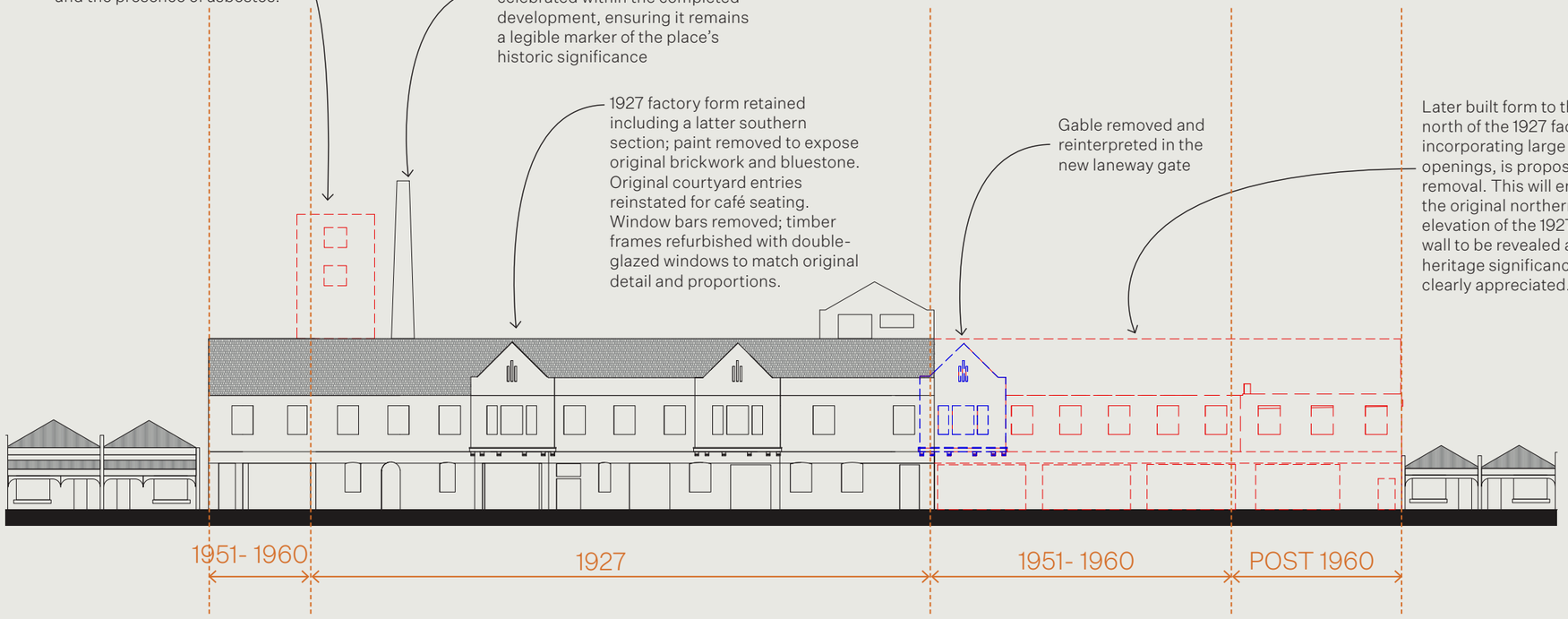
Demolition of the tank tower is proposed. The structure is identified as non-contributory, is not recognised as being of heritage significance, and investigations have confirmed both structural deficiencies and the presence of asbestos.

The chimney, as a contributory and highly visible element of the site's industrial character, will be retained in situ and carefully conserved. Its architectural form and detailing will be celebrated within the completed development, ensuring it remains a legible marker of the place's historic significance

1927 factory form retained including a latter southern section; paint removed to expose original brickwork and bluestone. Original courtyard entries reinstated for café seating. Window bars removed; timber frames refurbished with double-glazed windows to match original detail and proportions.

Gable removed and reinterpreted in the new laneway gate

Later built form to the north of the 1927 factory, incorporating large delivery openings, is proposed for removal. This will enable the original northern elevation of the 1927 factory wall to be revealed and its heritage significance more clearly appreciated.

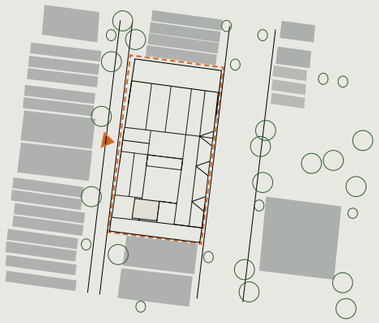


Proposed Demolition Lithgow Street Elevation

Scale 1:300 0 1 2 5m

Urban Context Report

3.6 Proposed Demolition & Retention



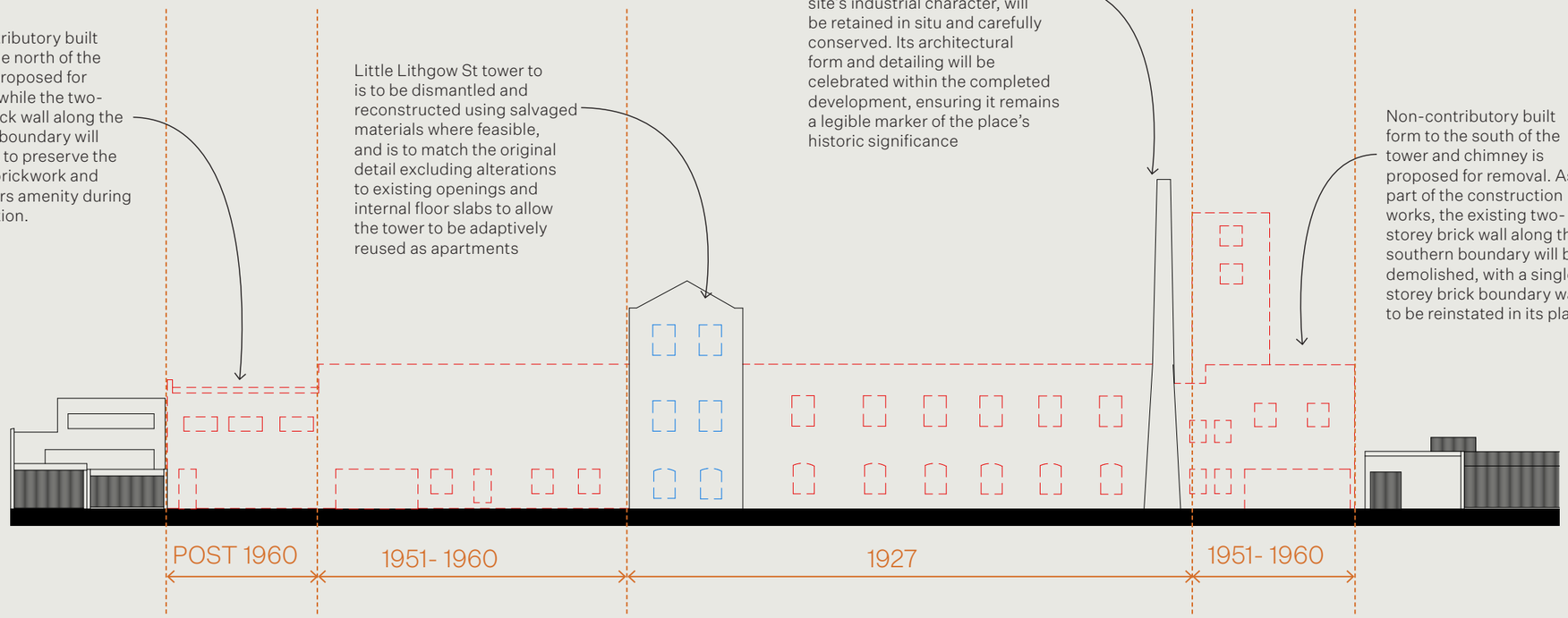
KEY PLAN (NTS)

Non-contributory built form to the north of the tower is proposed for removal, while the two-storey brick wall along the northern boundary will be rebuilt to preserve the existing brickwork and neighbours amenity during construction.

Little Lithgow St tower to is to be dismantled and reconstructed using salvaged materials where feasible, and is to match the original detail excluding alterations to existing openings and internal floor slabs to allow the tower to be adaptively reused as apartments

The chimney, as a contributory and highly visible element of the site's industrial character, will be retained in situ and carefully conserved. Its architectural form and detailing will be celebrated within the completed development, ensuring it remains a legible marker of the place's historic significance

Non-contributory built form to the south of the tower and chimney is proposed for removal. As part of the construction works, the existing two-storey brick wall along the southern boundary will be demolished, with a single-storey brick boundary wall to be reinstated in its place



Proposed Demolition Little Lithgow Street Elevation

Scale 1:300 0 1 2 5m

4.0 Design Response

4.1 Design Principles/Strategies

Through a series of workshops we redefined five Guiding Principles. These principles capture the core values and aspirations essential to repositioning the historic Cordial Factory redevelopment for long-term success.

Future-Focused Living

We design for longevity — creating sustainable, resilient, and energy-efficient homes that meet the needs of today without compromising the needs of tomorrow.
Passivhaus principles have been considered to ensure climate-concious living for future generations.

Honouring Heritage, Shaping the Future

We view heritage as a living asset — one that can anchor a bold, forward-thinking vision. By preserving the Schweppes Cordial Factory's character and integrating it with contemporary design, we bridge past and future to create a meaningful and enduring place.

Setting a New Standard

This is an exemplar project — one that sets a benchmark for what adaptive reuse and sustainable urban living can achieve. Through innovation in design, construction, and community engagement, we aim to lead by example.

Strengthening Community

We believe buildings should bring people together. This project is designed to foster social connection, inclusivity, and a sense of belonging — both within the development and in the broader Abbotsford neighbourhood.

Inclusive & Diverse Housing

We champion housing diversity by delivering a range of apartment types and price points to suit varied lifestyles and life stages. Our build-to-rent model is designed to promote long-term stability, affordability, and tenant wellbeing.

4.2 Urban Design Response

Model BTR | March 2026

Urban Context Report

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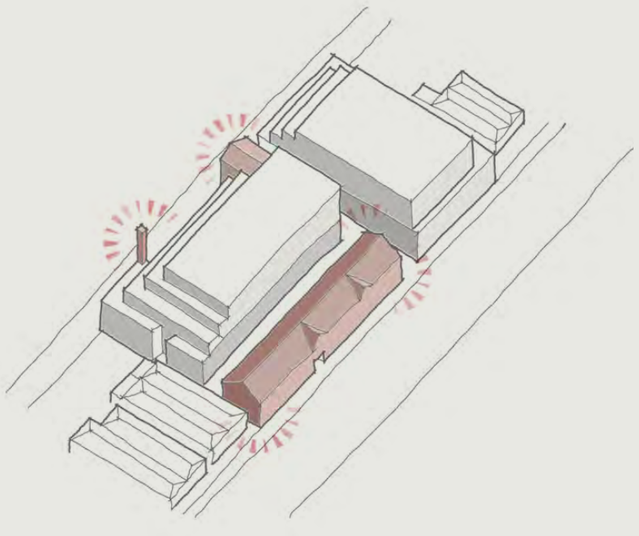
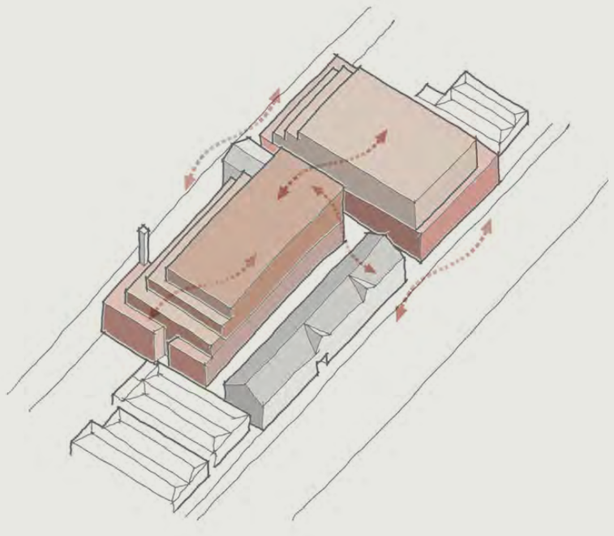
4.3 Built Form Massing



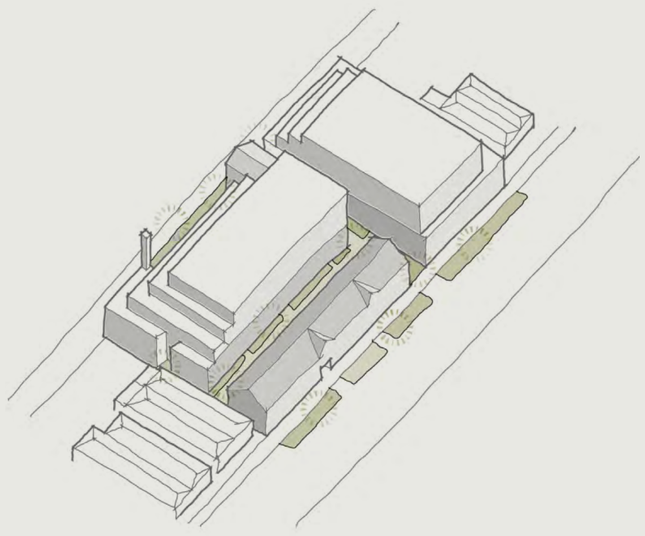
Celebrate 1927 Heritage, Repurpose for Living

Retain and celebrate the strongest heritage fabric of the 1927 redevelopment ‘in the round,’ while repurposing its extraordinary spaces to create unique residential amenity.



Neighbourhood Fabric: Contextual, Scaled, Connected

Develop new residential fabric as a neighbourhood of buildings that reflects the site’s heritage context while breaking down scale to create a sensitive interface with street, lane and neighbours.



Porous Green Links & Active Edges

Create a porous and green site network of courtyards throughout the site, with active street edges, and a generous landscaped communal link connecting Lithgow Street and the rear lane way.

4.4 Site Organisation - Public Activation & Landscape Zones

Scale 1:500 0 5 10m

Key Elements:

01. Main reception desk and entry for residents

02. Residents lounge for gatherings and events

03. Cafe seating for public use during opening hours

04. Resident bike store, with lane way connection to street for easy access

05. Cafe servery and kitchen, spilling out to lane way and street seating to offer up new amenity to the street

06. Open air lane way between residential buildings. Connecting Lithgow and Little Lithgow and providing access to the stair and lifts to travel up through the buildings

07. Main lift core

08. Secure loading area for taxi boxes and resident goods during move in and move out

09. Feature communication stair connecting ground to roof and all open air walkways

10. Deep soil garden zone at end of lane way for large tree. Planter edge used for cafe seating.

11. Fire booster cupboard and fire services

12. Private resident gardens create a generous planted space between new built form and existing Lithgow Street Heritage building.

13. Existing brick wall to side of terrace to be reconstructed in current height and position ensuring terrace house protected. Creates a rear garden wall for residents

14. New planting to green street and add amenity in lieu of existing crossovers and loading zones

15. New gardens with private terraces to Little Lithgow street, adding greenery and softening the rear laneway

16. Vehicle entry into the site + waste truck entry for collection of bins in basement

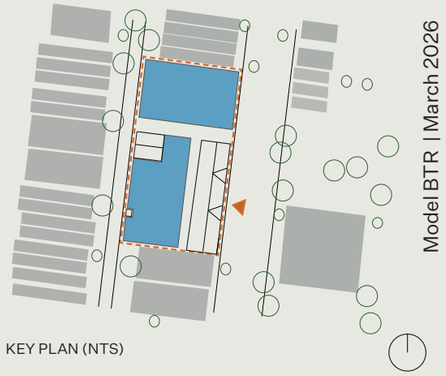
17. Open air planted courtyard at end of corridor

- Planting
- Private Terrace/ Balcony
- Residential Amenity
- Apartments
- Pedestrian Entry
- Vehicle Entry
- Open to sky lane-ways + planting
- Deep Planting zones
- Public glazed openings to street or gardens
- Security Gate (closed at night)
- Waste Vehicle Entry

4.5 Street Activation - Lithgow St

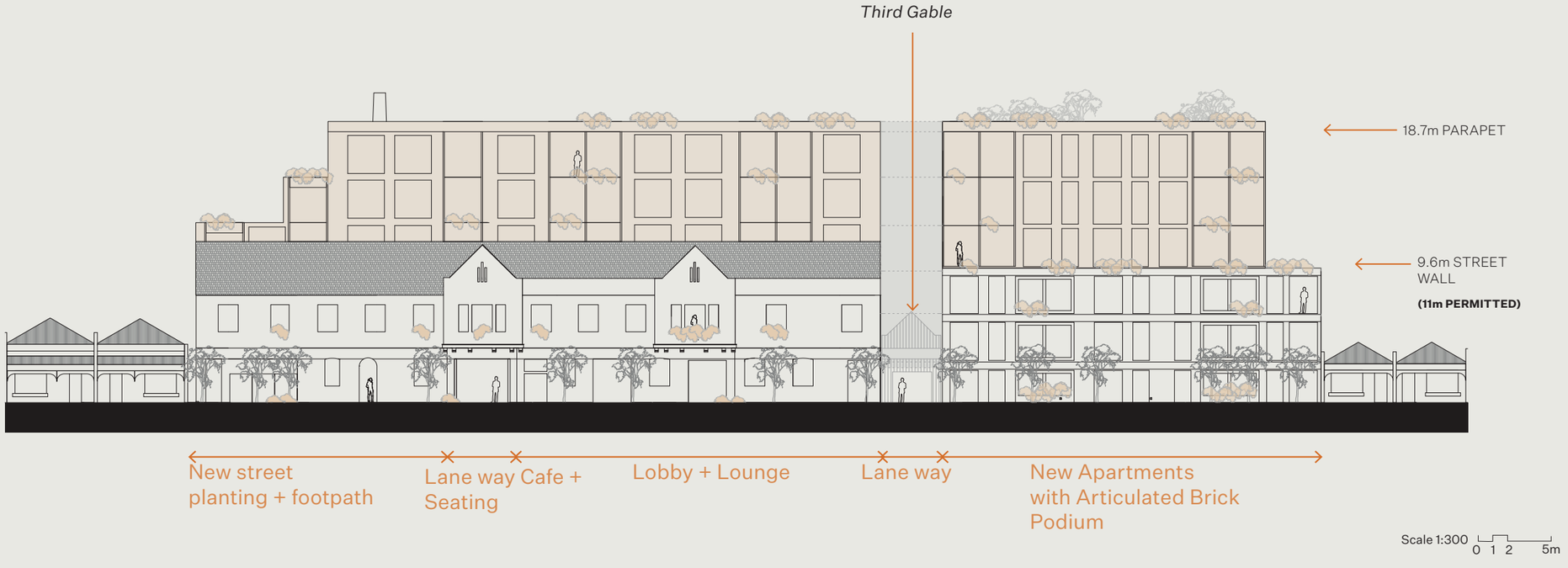
The revised proposal highlights the original 1927 Lithgow Street buildings as standalone heritage assets, experienced “in the round.” The north tower is extended to Lithgow Street with a brick podium that respects neighbouring heritage fabric. Residential use is shifted from the heritage building, which is instead activated with a residential entry, shared amenity, and café to engage the street and showcase interiors.

The development is now broken into a “neighbourhood” of buildings, referencing the site’s industrial heritage. A true open-air lane way connects Lithgow Street to Little Lithgow. The new built form removes its uppermost level to meet the 18-metre height limit, ensuring sensitivity to context and heritage.



KEY PLAN (NTS)

Model BTR | March 2026

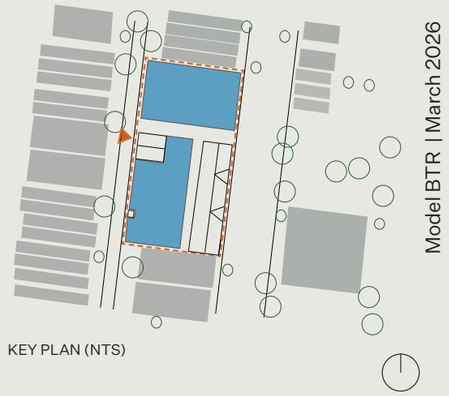


4.5 Street Activation - Little Lithgow St

The Little Lithgow elevations are thoughtfully crafted to accentuate and integrate the heritage chimney and tower, seamlessly embedding them within the new neighbourhood of buildings. creating an engaging streetscape for the residential neighbours to the west.

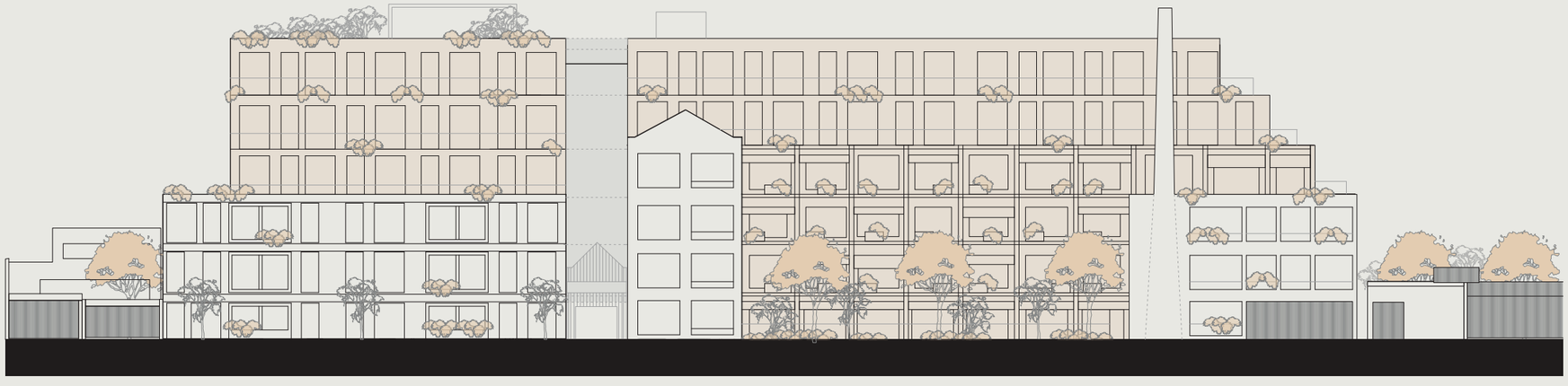
The basement entry has been repositioned, enabling the through-site link from Lithgow Street to Little Lithgow to function as a genuine open-air connection traversing the site.

Opportunities for deep soil planting are incorporated along the lane way edge, softening the urban environment, creating healthier environs and elevating the everyday experience of traversing the lane way



KEY PLAN (NTS)

Model BTR | March 2026



4.5 Street Activation - Key Setbacks

The design approach places significant emphasis on respecting the heritage factory as a three-dimensional form, ensuring it can be appreciated in the round without visual competition from the new built form. To achieve this, the proposed building has been deliberately set back a substantial distance from the heritage façade on Lithgow Street. The front edge of the new development sits 15 metres behind the original façade, creating a generous spatial buffer that allows the heritage fabric to retain its primacy in the streetscape.

This outcome not only responds to but also exceeds the advice prepared by Bryce Raworth in 2019, which recommended a setback of 6 metres to limit visibility of the new building to approximately one-quarter of its height above the street. By contrast, the proposed 15-metre setback achieves a far more recessive profile, limiting visibility to approximately one-sixteenth of the new building above the original factory.

This strategy ensures that the distinctive heritage volumes read as independent and legible elements. The new form sits discreetly behind, allowing the 1927 fabric to remain the dominant expression within the public realm.

This matter is further addressed by our independent heritage consultant, Urbis, whose detailed assessment and recommendations are contained in the Heritage Report submitted as part of this development application.

^ Eye level view from across street

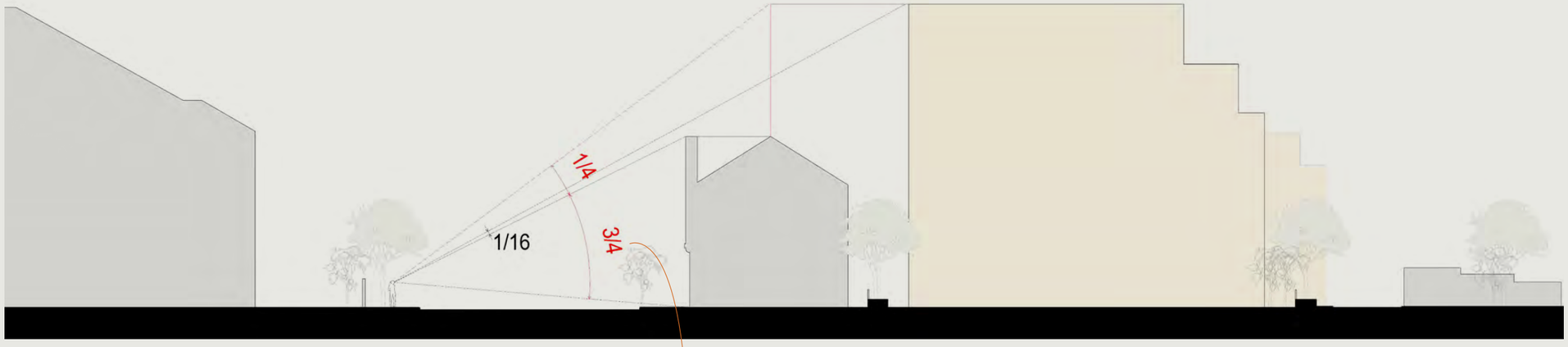
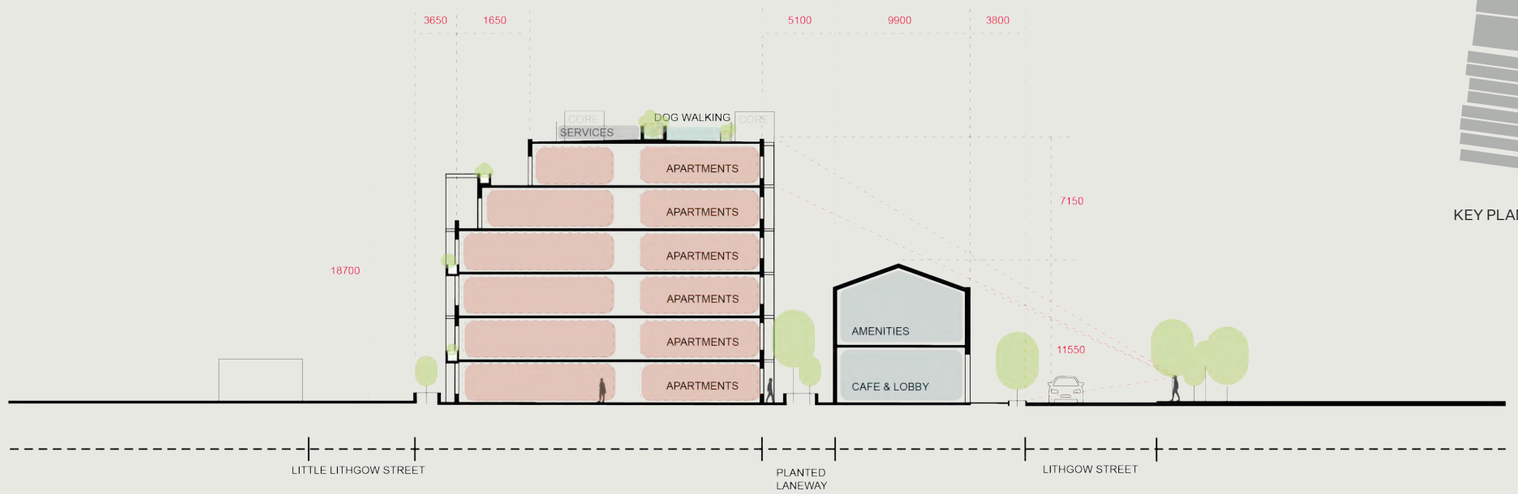


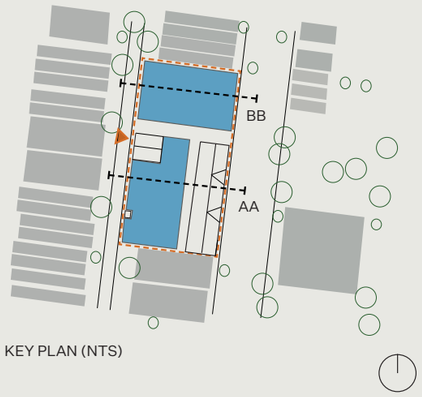
DIAGRAM REPRESENTING BRYCE RAWORTH HERITAGE ADVICE VIEWLINES FROM OPPOSITE FOOTPATH TO SHOW MASSING RELATIONSHIP (NTS)

HERITAGE OVERALY WOULD ALLOW UP TO **1/4** OF VISIBILITY (SEEN IN RED)

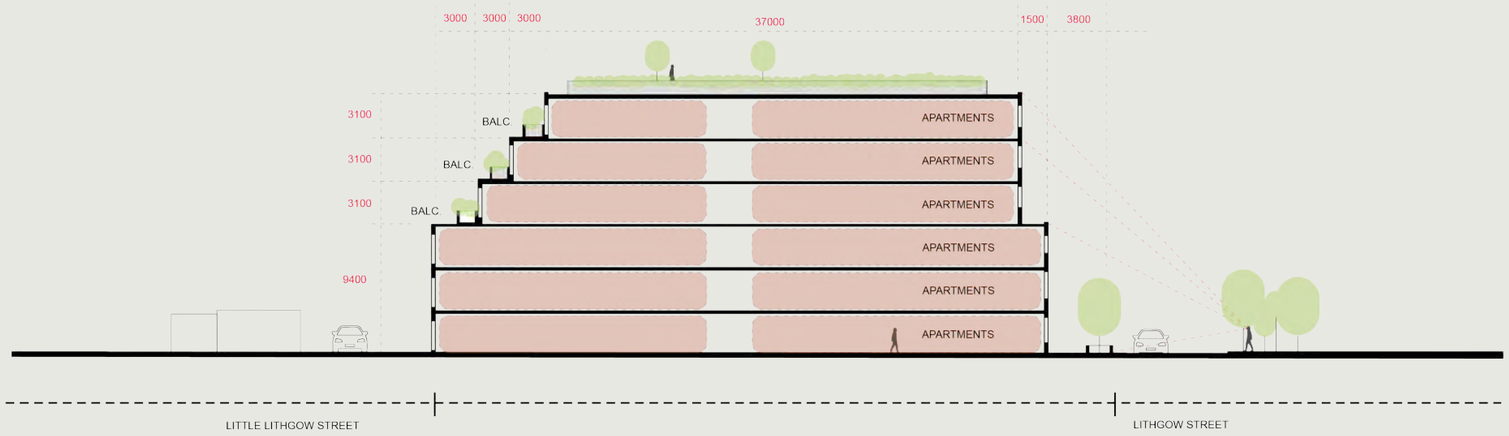
4.5 Street Activation - Key Setbacks



SECTION AA- Setback in Relation to Heritage



KEY PLAN (NTS)



SECTION BB- Setback to Street in New Build

0 1 2 5 10 15

Model BTR | March 2026

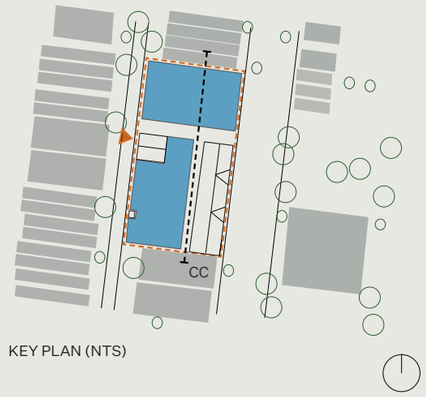
Urban Context Report

4.5 Street Activation - Key Setbacks

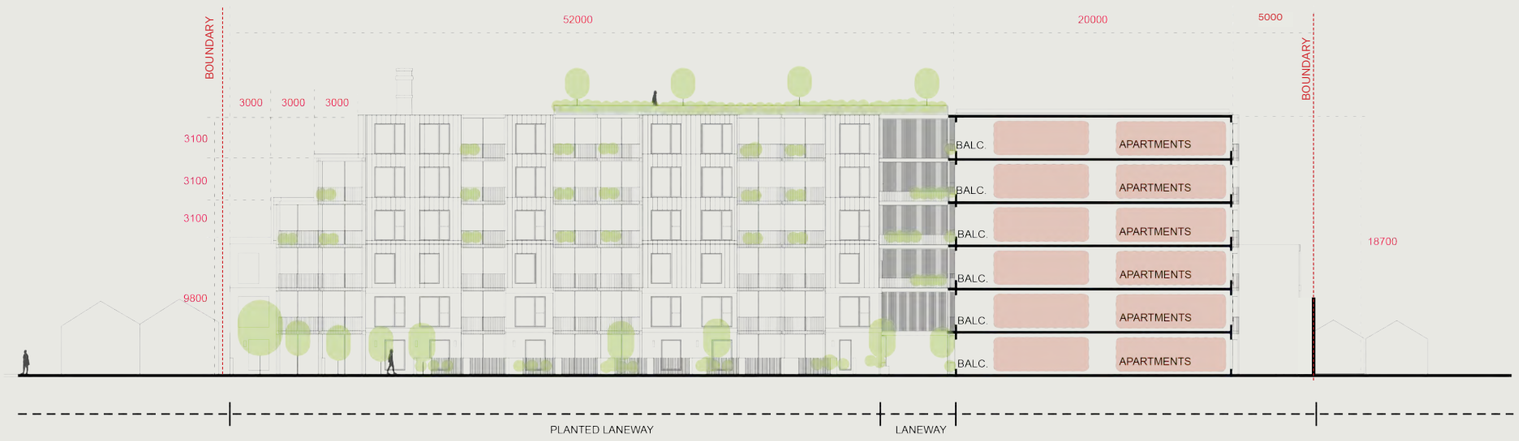
The south side of the building is setback in 3m steps above Level 2 to ensure the building does not overshadow the neighbouring private space.

The new lane way introduced through the site separates the two forms, providing relief to the heritage building on Lithgow street and creating a new public realm that weaves through the site.

On the Northern side the facade typically sits 5m off the boundary providing courtyard spaces for the residents on the ground floor and relief to the neighbouring townhouses. The existing two storey high brick wall on the boundary will be reconstructed in it's current detailing and form (and if possible retained) to ensure the closet neighbour has no reduction in amenity.



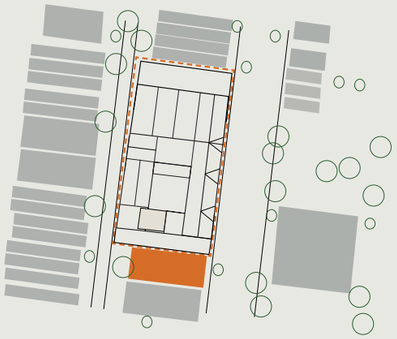
KEY PLAN (NTS)



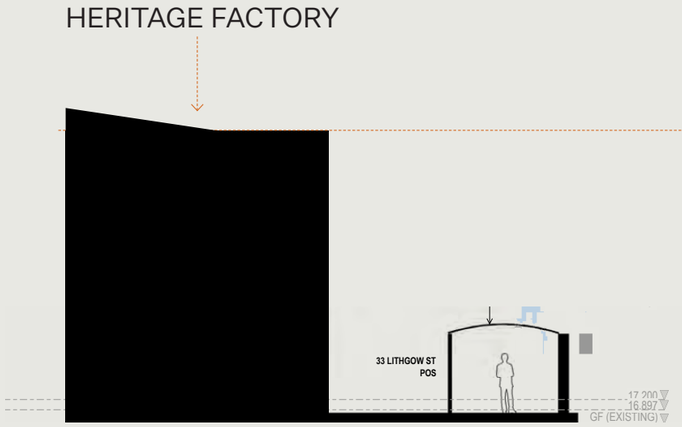
Sectional Studies- CC

0 1 2 5 10 15

4.5 Street Activation - Relationship to Neighbours

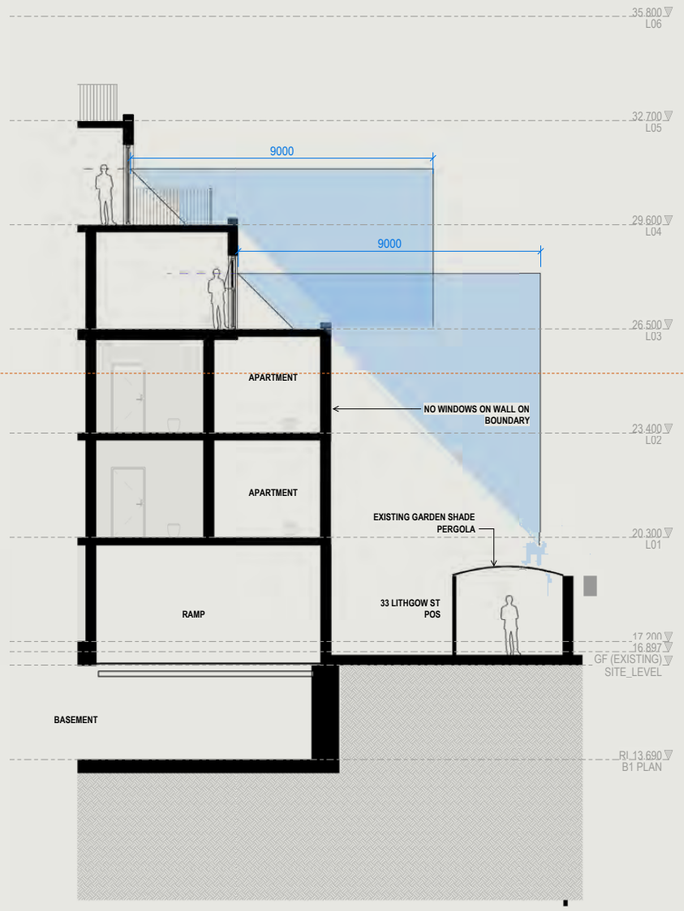


33 Lithgow Street



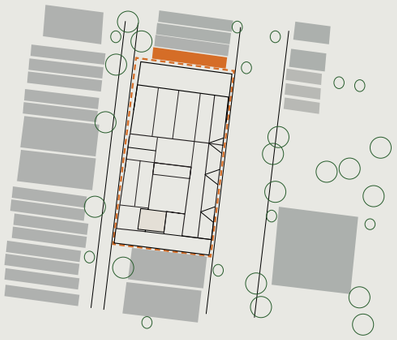
Current Relationship Section
(Garden)

REFER TO ARCH DRAWING SET FOR ALL
RELATIONSHIPS ALONG BOUNDARY



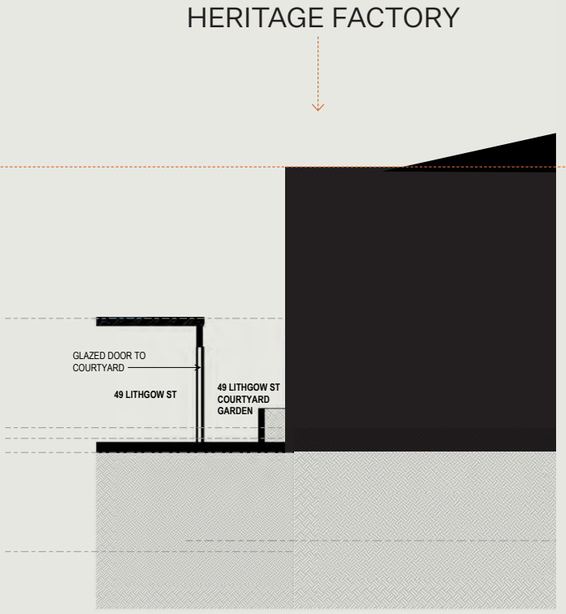
Proposed Relationship Section
(Garden)

4.5 Street Activation - Relationship to Neighbours



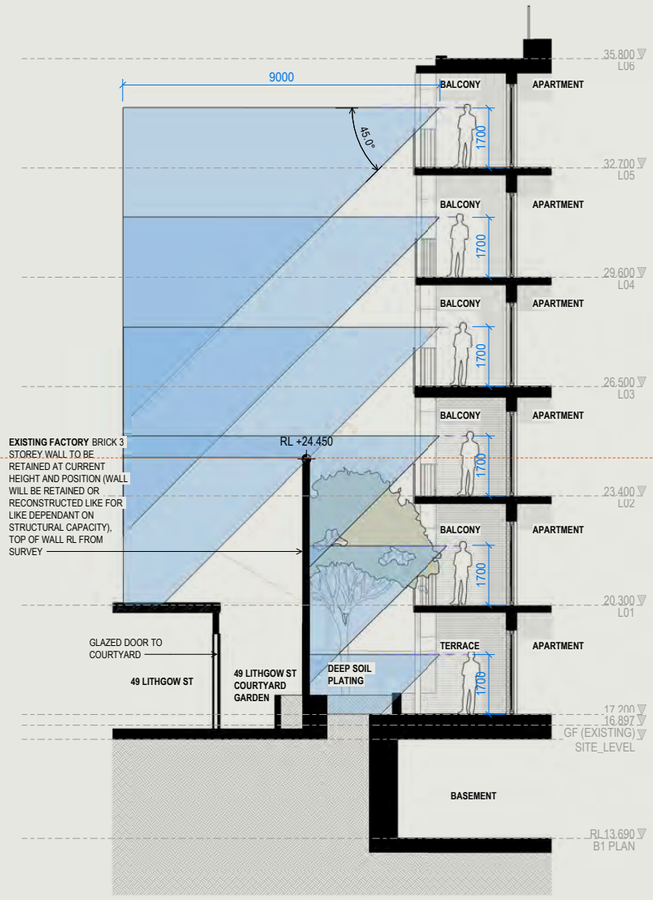
49 Lithgow Street

The heritage factory currently has a 2.5 storey wall on the boundary line separating itself with the neighbouring house. There is a notch in this wall the currently creates a courtyard space spilling out of the homes living area. The new scheme will retain this wall (if structurally possible) or return it to it's current position as a like for like. This retention of the wall ensure the boundary condition for this home is largely unchanged.



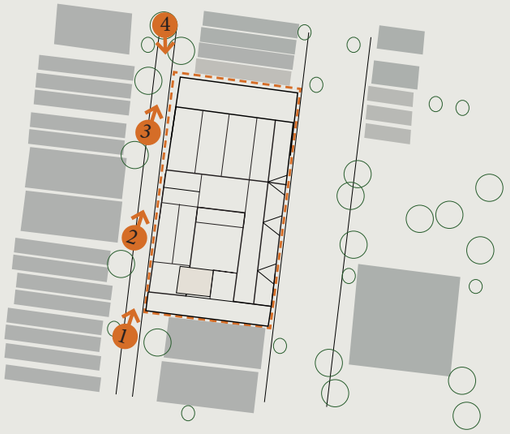
Current Relationship Section (Courtyard)

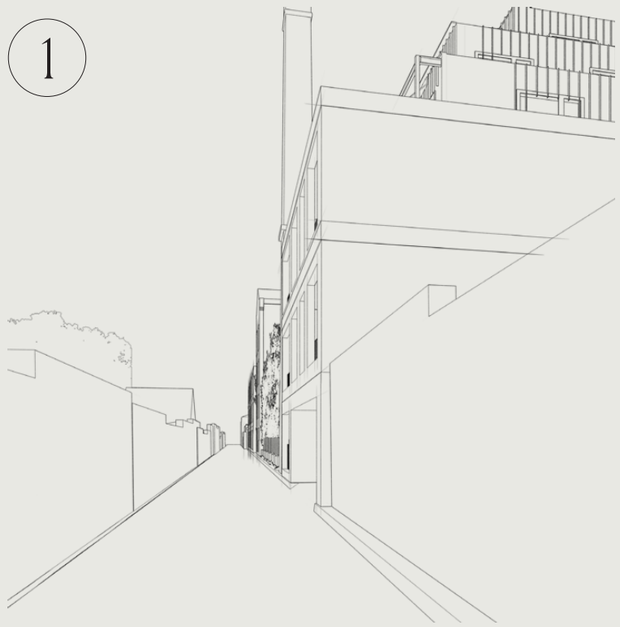
REFER TO ARCH DRAWING SET FOR ALL RELATIONSHIPS ALONG BOUNDARY

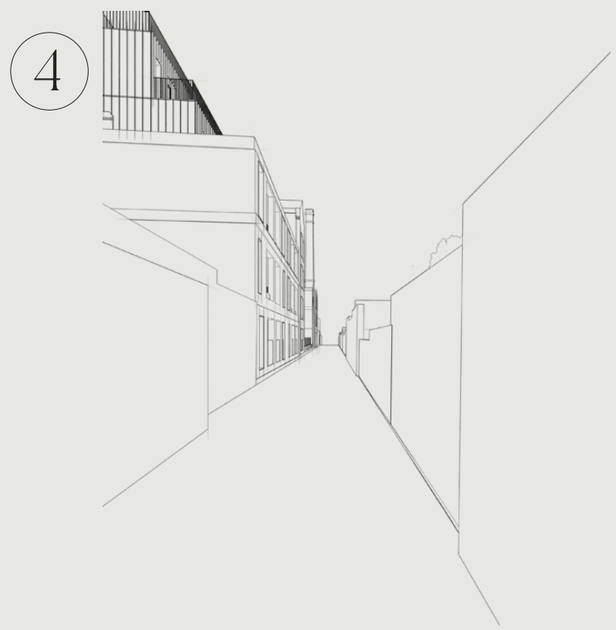


Proposed Relationship Section (Courtyard)

4.5 Street Activation - Relationship to Neighbours

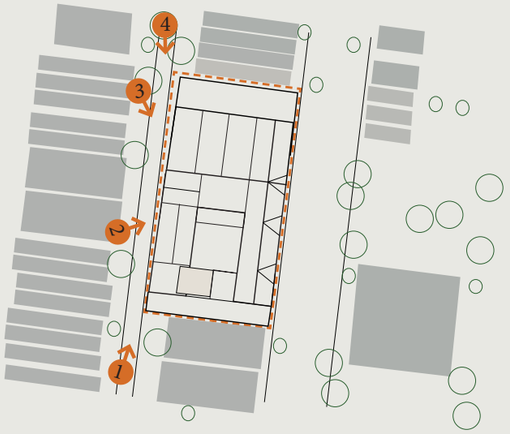






LITTLE LITHGOW STREET ELEVATION (EAST) MASSING STUDIES ON STREET

4.5 Street Activation - Relationship to Neighbours



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2

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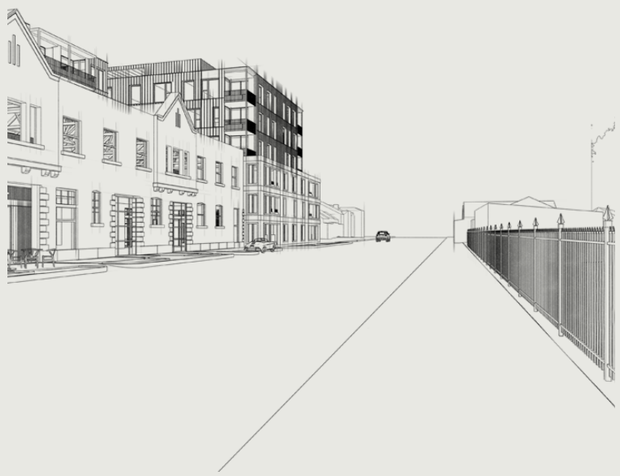

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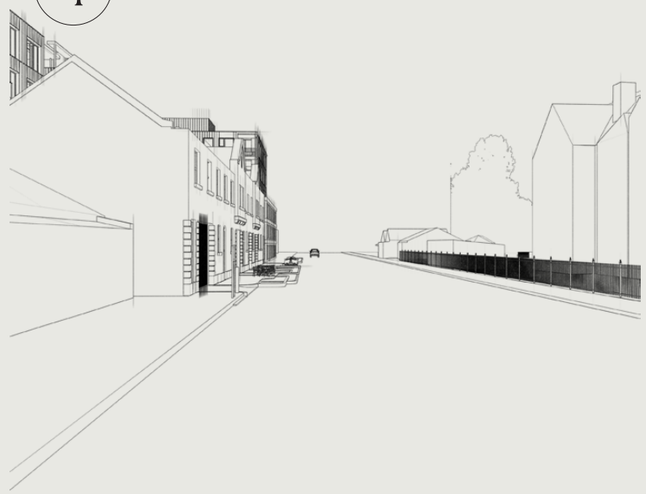


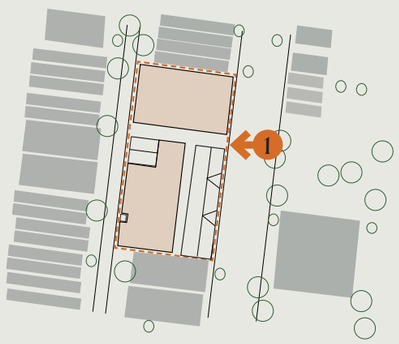
LITHGOW STREET ELEVATION (EAST) MASSING STUDIES ON STREET

4.5 Street Activation - Lithgow St Through Lane way

The proposal carefully reveals the 1927 factory as a three-dimensional form, reinstating its architectural clarity and ensuring it remains the dominant element on Lithgow Street. A new lane way is introduced between the heritage façade and the new apartment building, creating a generous laneway connection for residents that frames views of the original factory in the round while enhancing the pedestrian experience across the site.

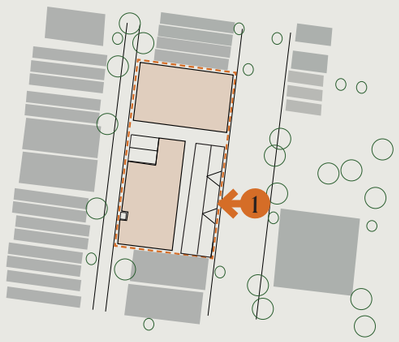
The new apartment building addresses Lithgow Street with a sympathetic three-storey brick podium, referencing the materiality and proportions of the heritage façade while reinterpreting its detailing in a contemporary manner. This approach creates a respectful dialogue between old and new, reinforcing the industrial character of the precinct without resorting to imitation.

The streetscape is further animated by generous planting, softening the built form, and open-air bridges connecting the two buildings at the rear of the site, contributing to a layered, vibrant, and community-focused urban edge.



KEY PLAN (NTS)

4.5 Street Activation - A New Cafe



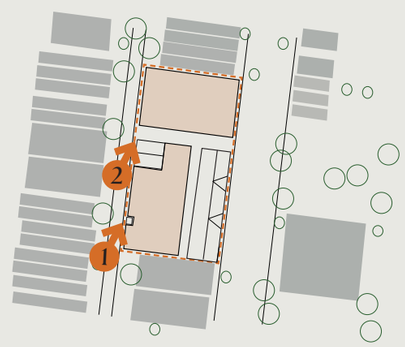
KEY PLAN (NTS)

The proposal introduces a new café within the restored 1927 factory fabric, activating the ground floor and creating a welcoming community space. Positioned directly opposite the school, the café will provide a vibrant meeting place for parents, teachers, residents, and neighbours, strengthening the social life of the precinct. By reoccupying the heritage building with a publicly accessible use, the project brings daily activity and energy back into the historic fabric, ensuring it remains a living part of Abbotsford's community while reinforcing the site's connection to its urban context.

4.5 Street Activation - Little Lithgow St

Unlike the existing sheer brick wall that presents a hard edge to the lane way, the new building is set back to create private garden spaces for the apartments. These gardens form a green threshold, softening the street interface and offering outlook, character, and amenity to both residents and passers-by.

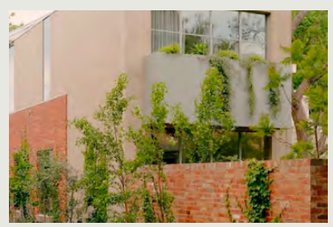
The planting along Little Lithgow Street contributes directly to the public realm, providing visual relief and a more welcoming pedestrian environment. This landscaped edge not only enhances the quality of the lane way but also offers something back to the community by transforming the experience of the street. The setback of the built form has been carefully designed to ensure the new built form does not overshadow existing residential gardens nearby, maintaining equitable access to sunlight and respecting neighbouring amenity.



KEY PLAN (NTS)

1. View of Chimney

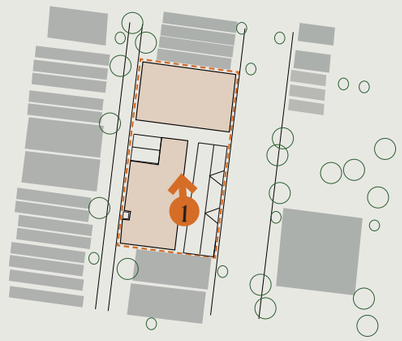
2. View of Tower



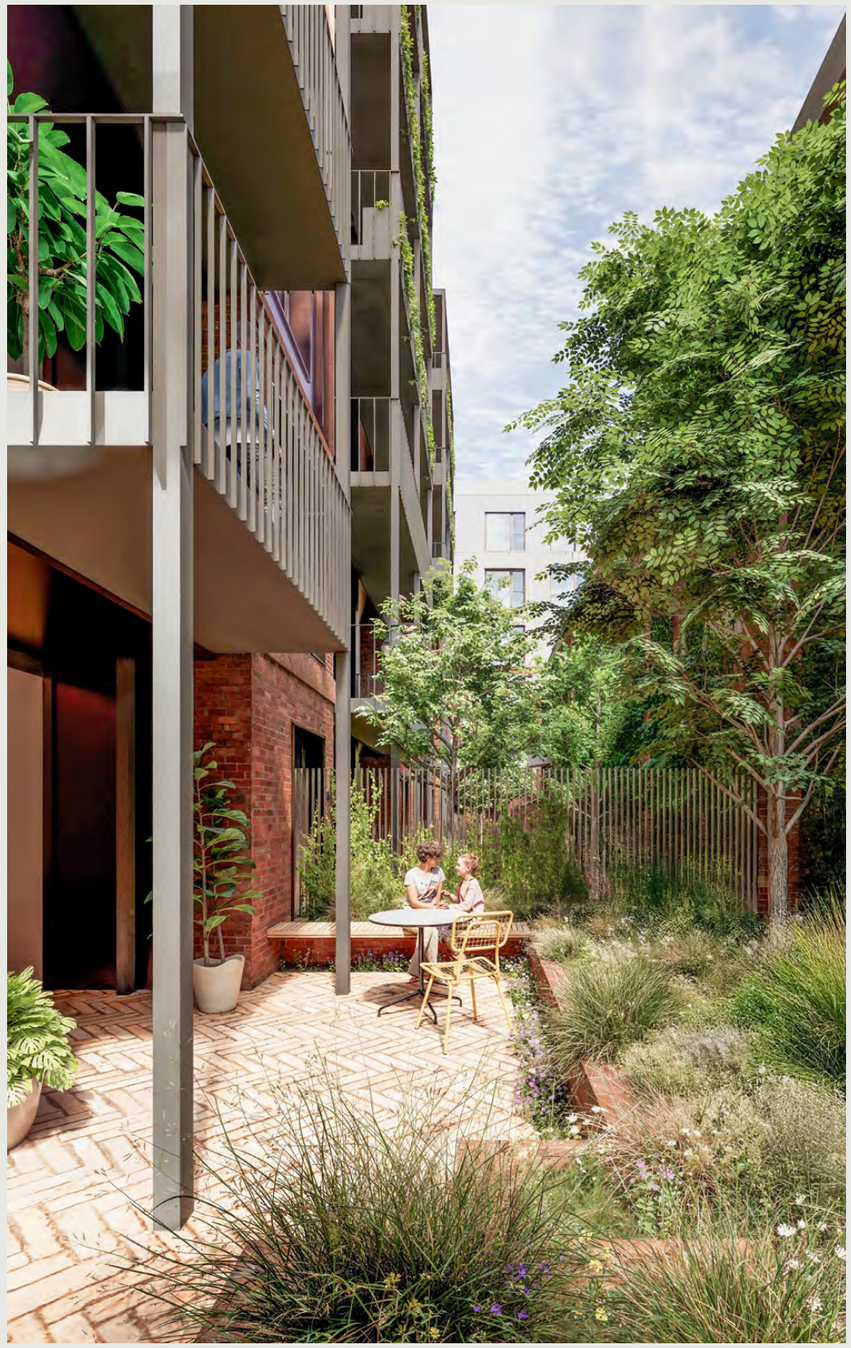
4.6 Internal Gardens

The design incorporates generous internal gardens that bring greenery deep into the site and provide residents with a strong connection to nature. Areas of deep soil allow for mature trees and substantial planting, ensuring long-term ecological value and visual amenity. Ground floor apartments benefit from large private gardens and lawn areas, offering a rare opportunity for expansive outdoor living within a dense urban setting.

At the same time, extensive planting along the street edges and laneways extends these benefits to the broader community, enriching the precinct and contributing to a greener, more inviting neighbourhood character.



KEY PLAN (NTS)



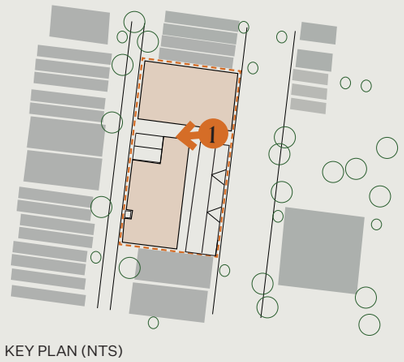
1. View of resident courtyards

4.6 External Bridge Connections

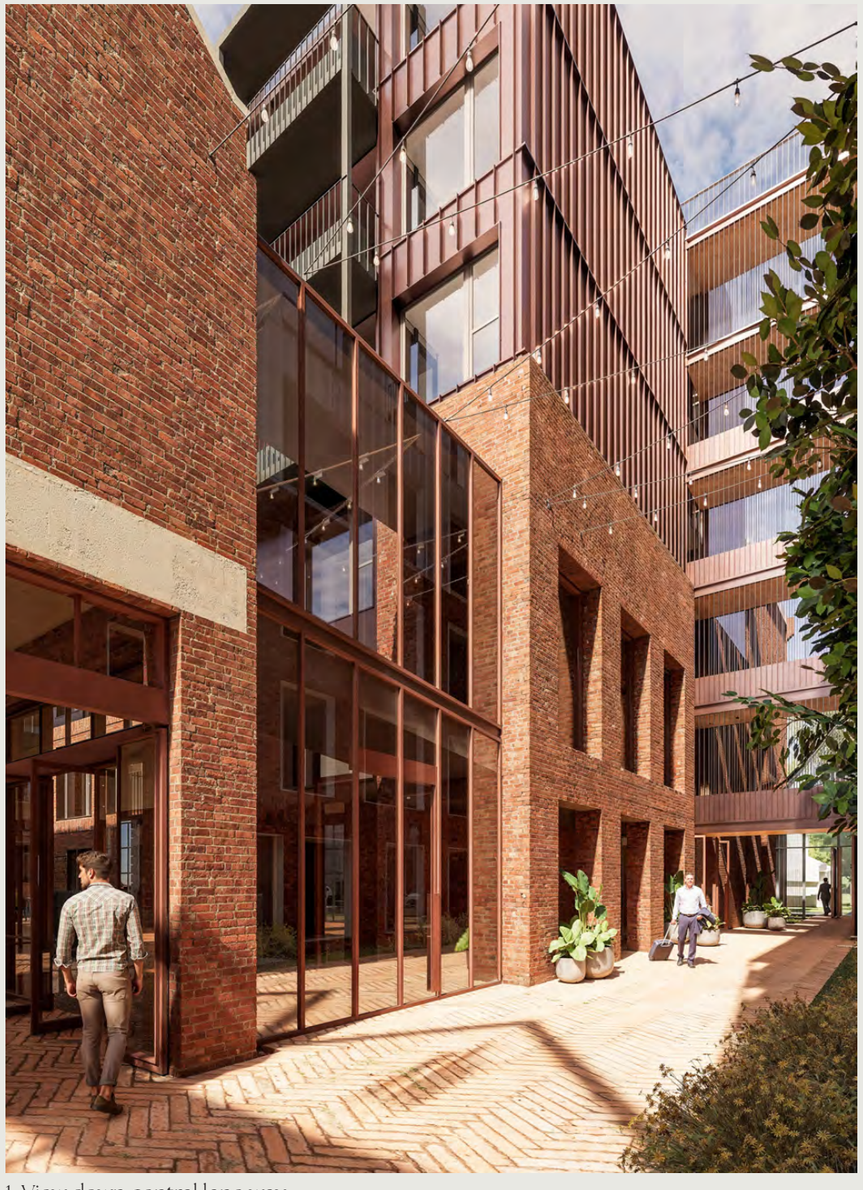
The central internal lane way is a defining element of the design, creating a strong visual and physical connection through the heart of the site. By providing a clear, inviting route from Lithgow Street through to Little Lithgow Street, the lane way encourages pedestrian permeability and strengthens links between the surrounding streetscapes, and activating the site.

Architecturally, the lane way features a series of open-air bridges that connect the north and south residential buildings at each level. These bridges act as dynamic architectural markers, expressing the vertical and horizontal movement through the buildings while providing residents with direct connections between towers. The interplay of solid and void, combined with generous planting and natural light penetration, creates a visually engaging space that balances private amenity with public interface.

The lane way is framed by carefully considered landscape and communal areas, fostering social interaction and encouraging incidental encounters. This central circulation spine not only enhances the functionality and legibility of the precinct but also establishes a vibrant, welcoming environment that supports community engagement, reinforces the relationship between buildings, and brings life into the centre of the development.

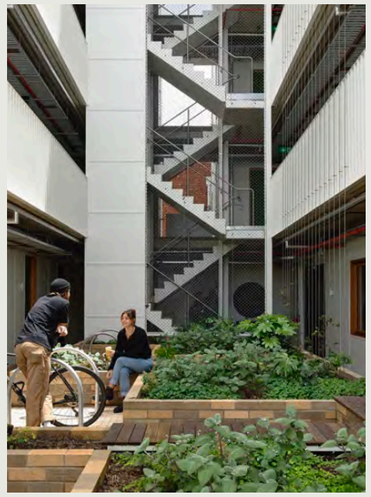


KEY PLAN (NTS)

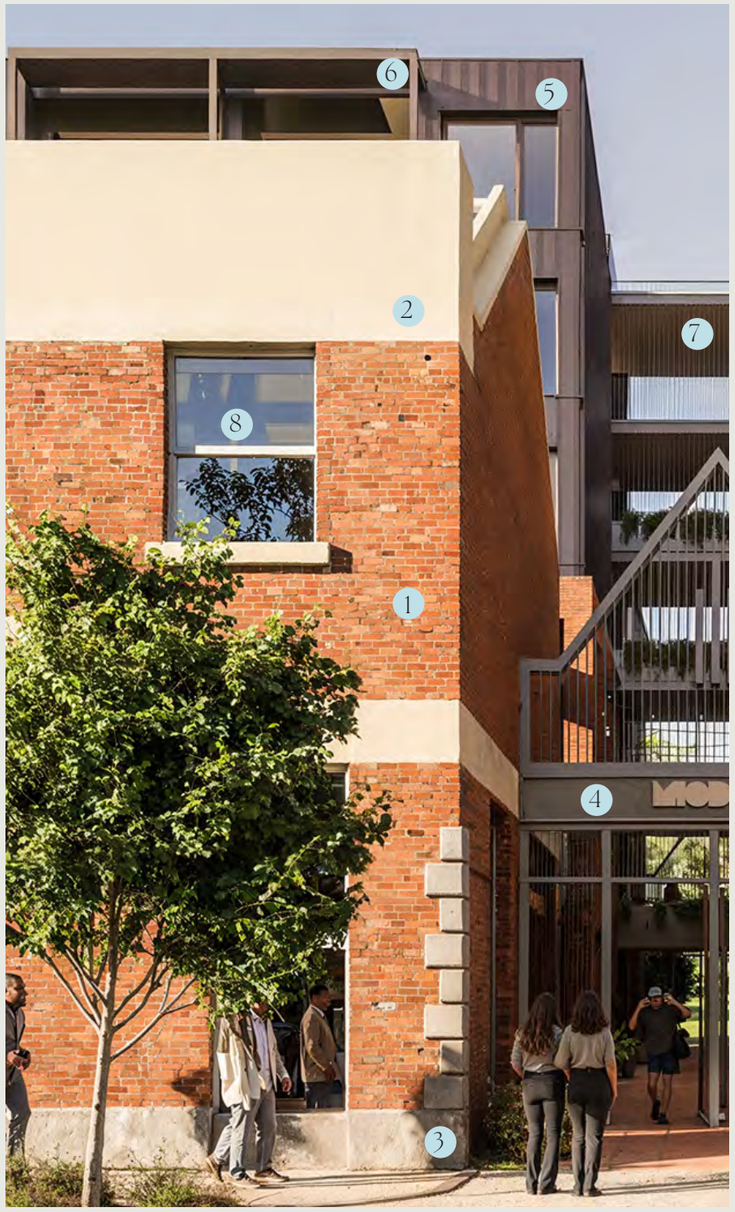


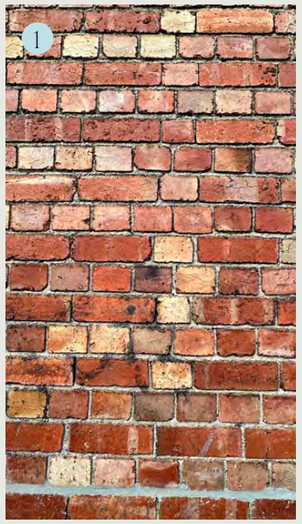
1. View down central lane way

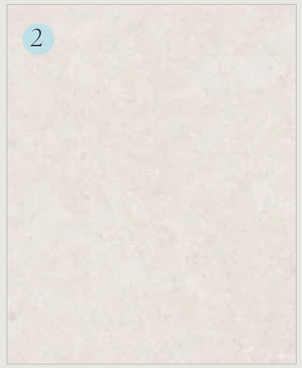
Look and Feel

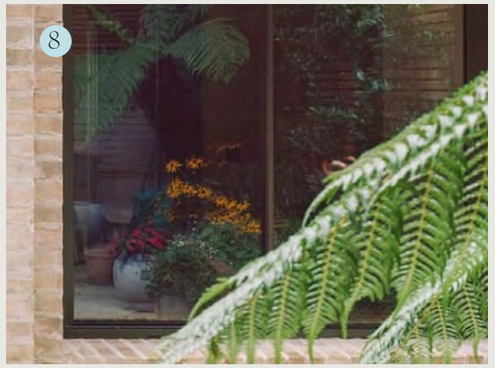


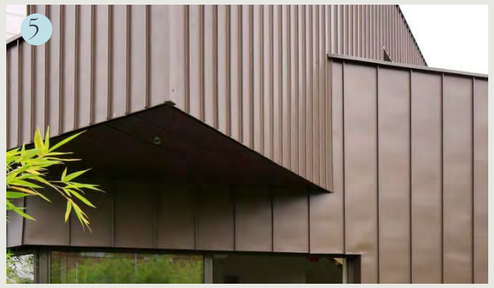
4.7 Facade Look & Feel

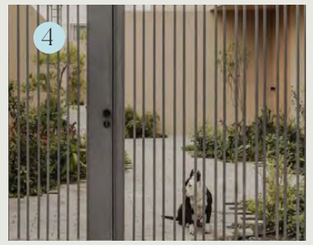


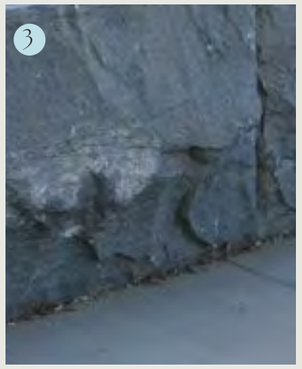












1. **BK-01**: Existing heritage brick, paint stripped, waster blasted, cleaned and returned to original red

2. **CONC-01**: Existing heritage painted cream

3. **SN-01**: Existing heritage blue stone

4. **ST-02:** Steel work in light silver

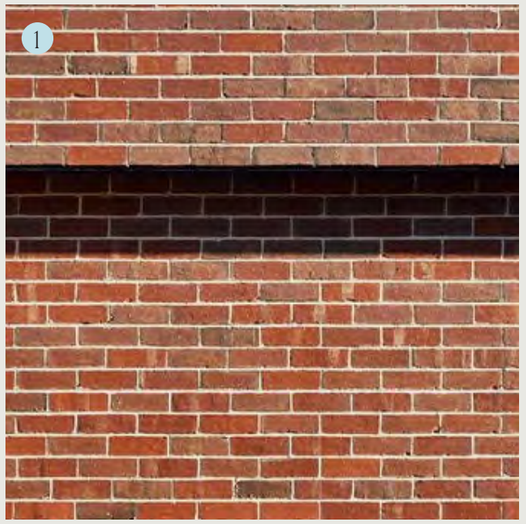
5. **ME-01**: Standing seam metal cladding in red tone

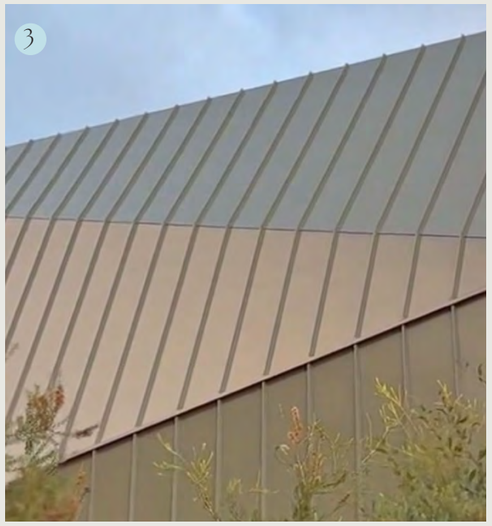
6. **ST-01**: Steel work in red tone

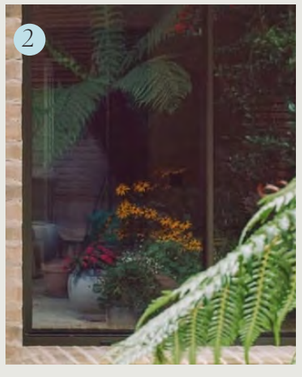
7. **TM-01**: Timber soffit exposed to underside of bridges

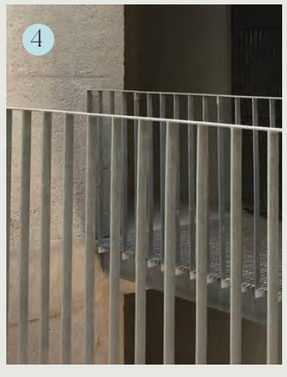
8. **GL-01:** High Performance glazing systems, clear glass. timber sashes

4.7 Facade Look & Feel



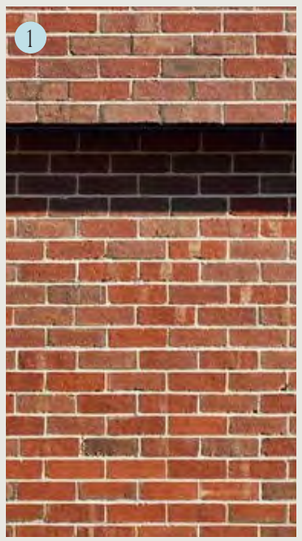


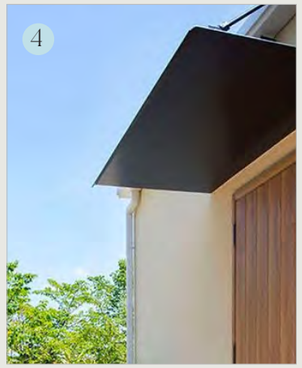


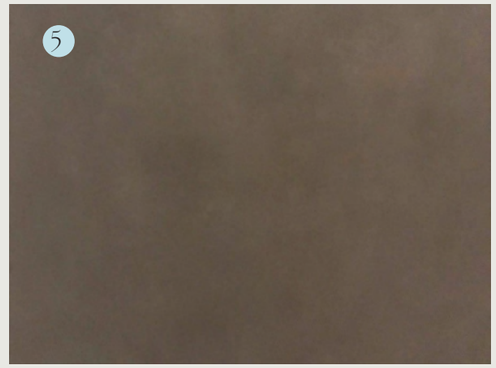


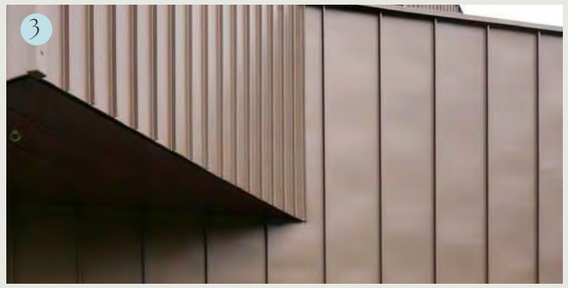
1. **BK-02**: Red brick (new)
2. **GL-01:** High Performance Glazing, clear glass
3. **ME-02**: Standing seam metal cladding in silver tone
4. **SC-02**: Vertical metal balustrade in silver/ grey
5. **PL-01:** Planter Boxes to balcony and parapet edges

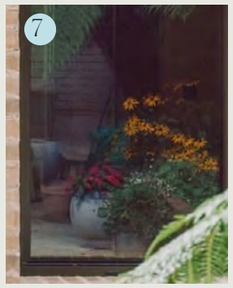
4.7 Facade Look & Feel

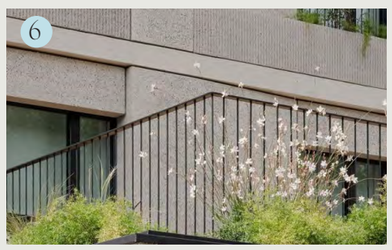






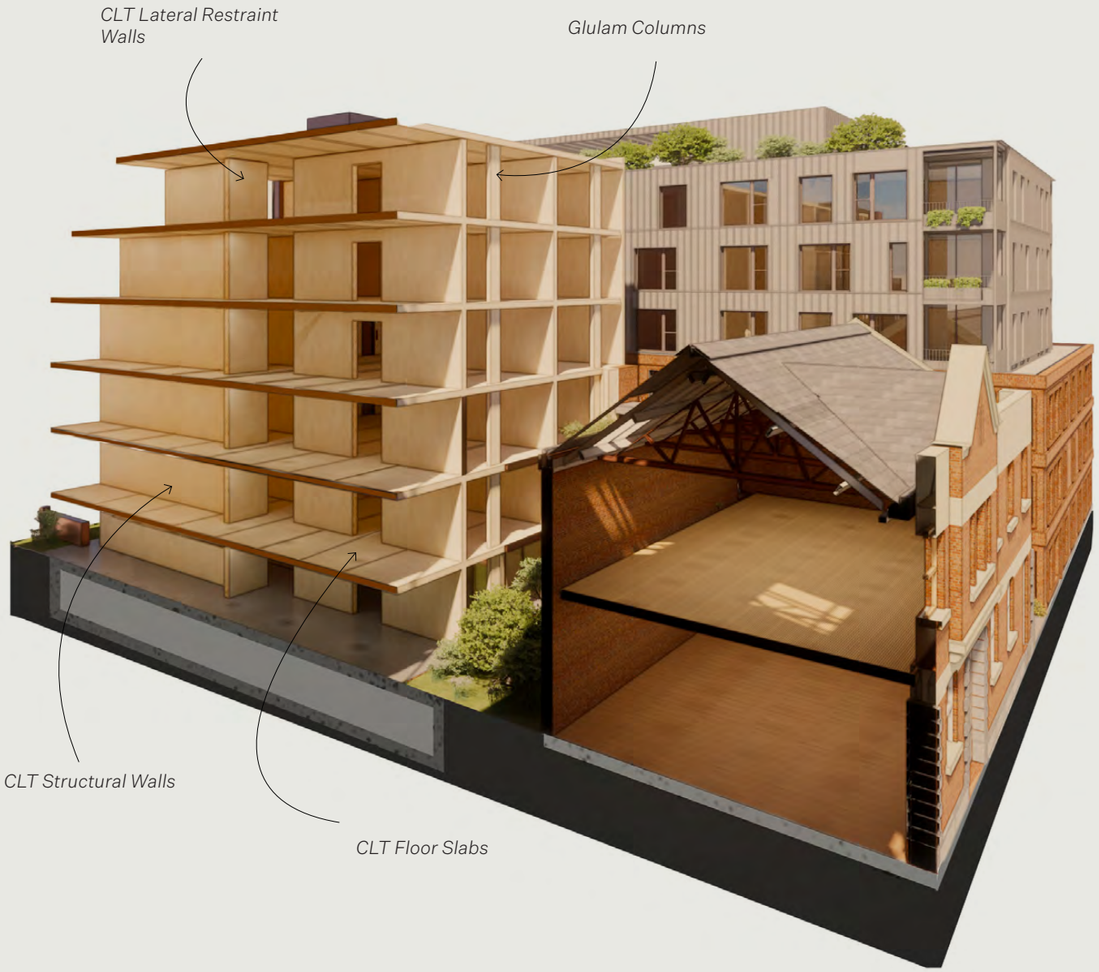




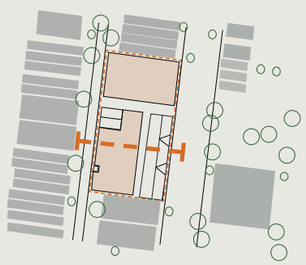


1. **BK-02**: Red brick (new)
2. **BK-01**: Existing heritage brick, cleaned and repaired
3. **ME-01**: Standing seam metal cladding in red tone
4. **AW-01:** Metal work horizontal shade awning
5. **ST-01**: Steel work in red/ brown tone
6. **SC-01**: Vertical metal balustrade in red/ brown tone
7. **GL-01:**High Performance glazing systems, clear glass
8. **PL-01:** Planter Boxes to balcony and parapet edges

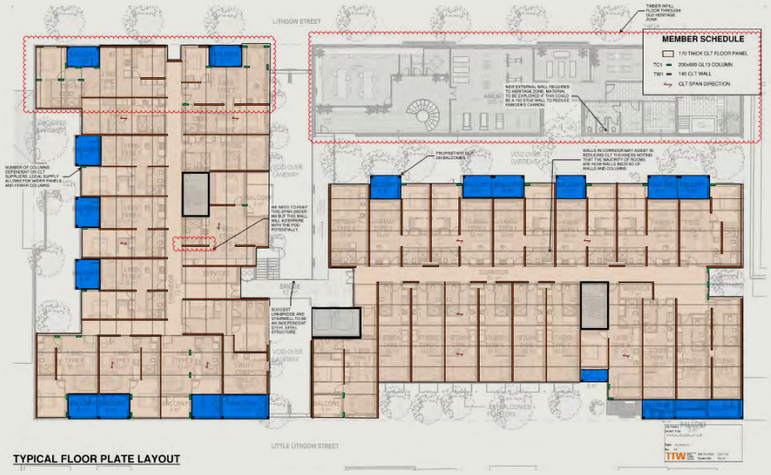
4.8 CLT Structure



Sectional Diagram of CLT Structure



KEY PLAN (NTS)



TYPICAL FLOOR PLATE LAYOUT

The development has been designed for the opportunity to consider cross-laminated timber (CLT) as its primary structural system. This will be further confirmed during the detailed design phase of the project reflecting a strong commitment to sustainability, innovation, and resident wellbeing. CLT offers significant environmental advantages over traditional concrete and steel construction, with substantially reduced embodied carbon and the capacity to act as a long-term carbon store. By choosing this material, the project directly contributes to Melbourne's broader climate action goals while demonstrating leadership in progressive construction methods.

Beyond sustainability, CLT provides architectural and experiential benefits that enhance the quality of living spaces. Exposed timber surfaces create warm, tactile, and inviting interiors, offering residents a natural material palette that promotes comfort and wellbeing. The precision of CLT construction also enables efficient fabrication and rapid assembly, reducing on-site disruption and minimising construction waste.

Importantly, CLT supports the development's carbon reduction ambitions and Green Star targets.

The use of this material ensures that apartments are not only environmentally responsible but also healthy, quiet, and resilient homes.

4. Visualisation

Building Amenity & Community
A View from the School

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Street Experience - Lane way Entry

Arrival Experience - Lithgow Street

Arrival Experience - Lithgow Street

Internal gardens and laneways

Little Lithgow Street

5. Typical Program

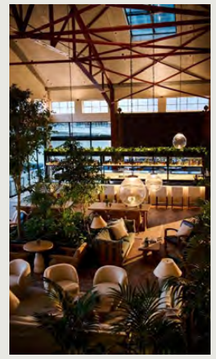
Ground Floor Plan - Communal Amenity

Scale 1:250 0 2.5 5m

Description:

The ground floor of the development activates the heritage building with a mix of communal and functional spaces that engage both residents and to a limited extent the surrounding precinct. Within the restored 1927 fabric, a lush lounge offers a welcoming space for residents to gather, complemented by a reception area, mail room, and bike storage. A vibrant café anchors the street edge, spilling out onto the lane way and landscaped zones, enhancing pedestrian activity and creating a lively connection to the public realm. Rich planting throughout these spaces reinforces the relationship between heritage, new architecture, healthy environs and the broader streetscape.

Look and Feel:



Level 01 Plan - Communal Amenity

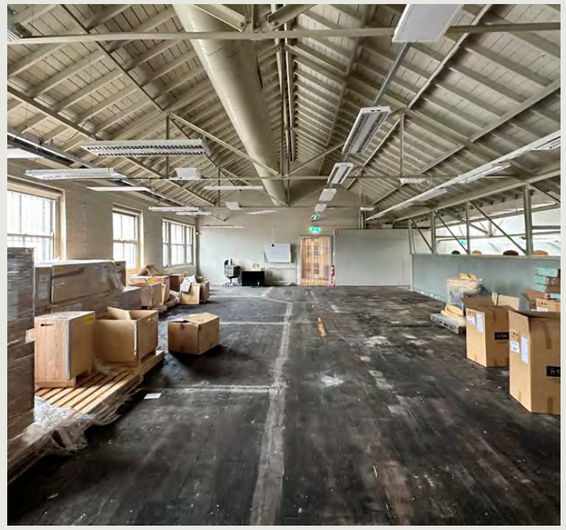
Scale 1:250 0 2.5 5m

Description:

Level 01 reimagines the 1927 heritage factory as a distinctive wellness hub for residents. The design will carefully exposes the original brickwork and steel beams, celebrating the building's industrial character while giving it new life as a place of retreat and renewal. Wellness-focused amenities such as fitness spaces, yoga areas, and quiet zones are integrated within the historic fabric, creating an environment that is both authentic and restorative. This adaptive reuse ensures the heritage building remains active and relevant, contributing to community wellbeing while preserving its presence on the site.

It also incorporates dedicated coworking spaces, responding to the limitations of traditional apartment living by providing a flexible 'third place' between home and work — supporting productivity, social interaction, and community connection within the development.

Look and Feel:



^ CURRENT INTERIORS

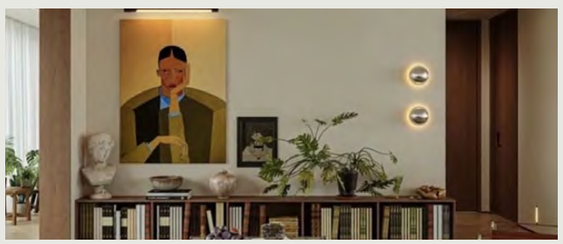
Level 04 Plan - Typical Residential

Scale 1:250 0 2.5 5m

Description:

The development offers a diverse mix of apartments, including studios, one-bedroom, and two-bedroom dwellings, designed to provide choice and flexibility for a range of residents. A distinctive feature of the apartments will be the use of authentic natural materials within interiors, creating warm, tactile, and inviting spaces that celebrate the material's natural character. This approach not only enhances the visual quality of each home but also contributes to a sense of wellbeing and biofilic connection to the built environment. The apartment mix has been developed in response to the site's unique context, integrating seamlessly with the heritage elements and landscaped areas.

Look and Feel:



Level 06 (Roof) Plan - Communal Amenity

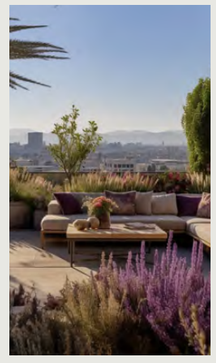
Scale 1:250 0 2.5 5m

Description:

The rooftop terrace is designed as a shared space that enhances community life while celebrating the site's elevated position. Offering expansive views across the city skyline, it provides residents with a unique setting for dining, gathering, and relaxation. Rich native planting softens the built form and creates a biodiverse landscape that supports urban ecology while offering shade and seasonal character.

Model understand a large proportion of renters are pet owners. A dedicated dog-walk area ensures the space caters to a wide range of resident needs, encouraging daily use and interaction. The rooftop becomes a vibrant communal destination, reinforcing the development's commitment to amenity and wellbeing.

Look and Feel:

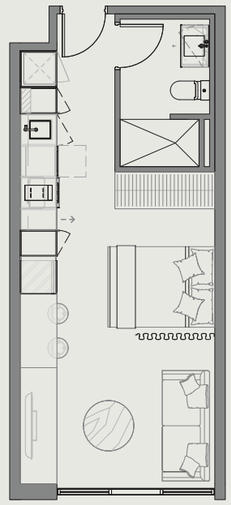


6. Apartment Study

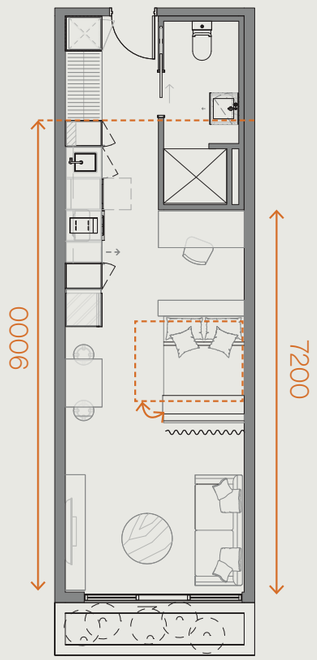
6.1 Typical Apartment Layouts

The development delivers a mix of apartment typologies, including studios, one-bedroom, and two-bedroom dwellings, ensuring a broad range of housing options for future residents. Each typology has been designed through architectural studies to maximise space efficiency, natural light, and ventilation, while maintaining a high standard of amenity. Importantly, all apartments comply with the requirements of the Better Apartments Design Standards, guaranteeing quality outcomes in areas such as daylight access, acoustic privacy, energy efficiency, and functional layouts.

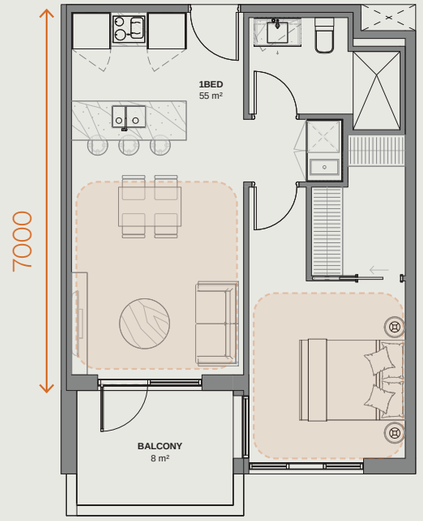
= BADS Clearances



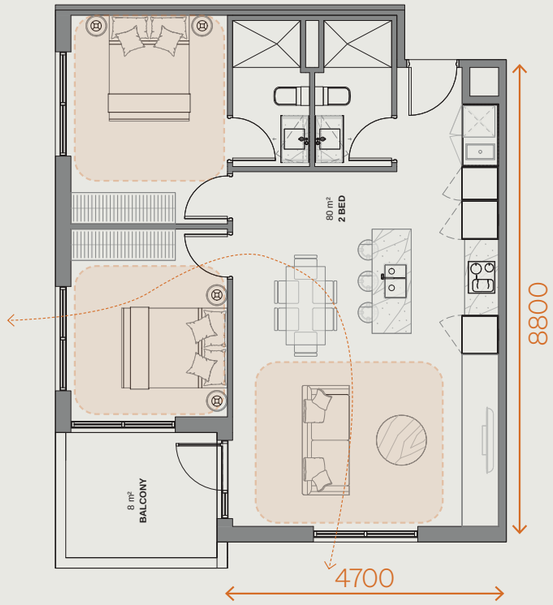
Typical Studio



Typical Studio with Study



Typical 1 Bed



Typical 2 Bed

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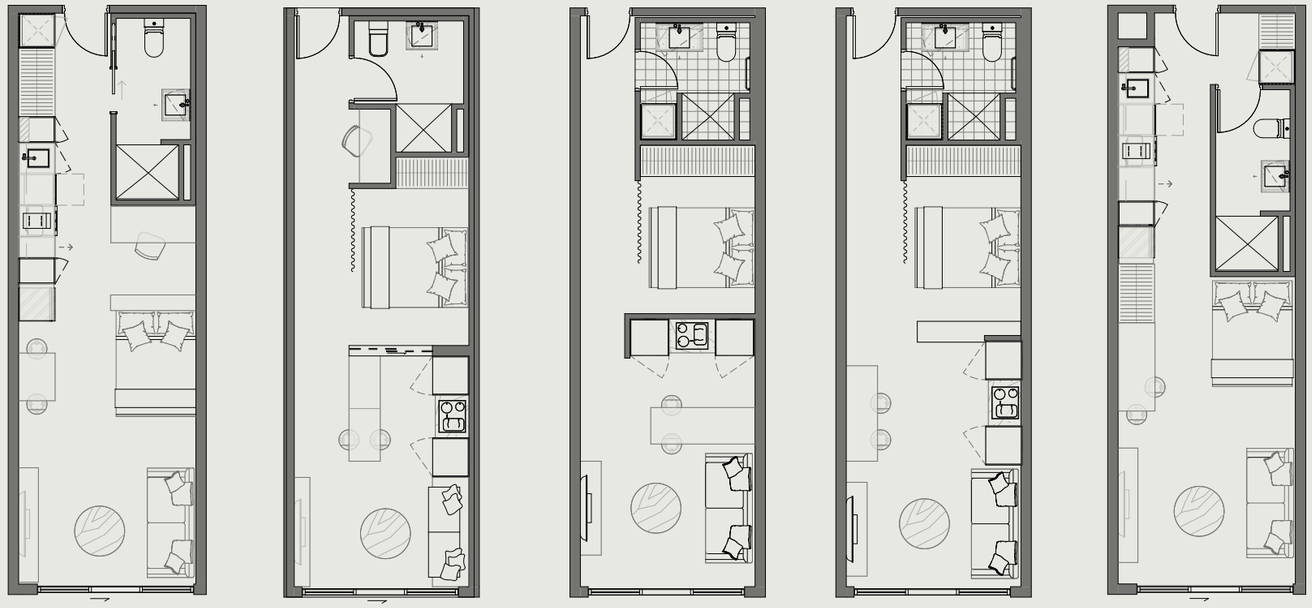
Scale 1:100 0 1 2m

6.2 Studio Testing and Development

As part of the development, the design team is exploring the creation of a fun and unique studio apartment typology, with architectural studies aimed at unlocking the full potential of compact living. Rather than defaulting to a standard model, the focus has been on testing spatial arrangements that optimise functionality while delivering variety and character.

The studies investigate how joinery, adaptable furniture, and clever planning can transform small footprints into highly liveable homes that work seamlessly for everyday life. Opportunities such as elevated sleeping platforms, integrated storage, and playful detailing are being considered to create apartments that feel generous, flexible, and engaging.

This process is ongoing, with the ambition to craft a studio product that is practical, distinctive, and aligned with the development's broader design and sustainability goals. The outcome will offer residents compact homes that prioritise both usability and architectural quality.



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Urban Context Report

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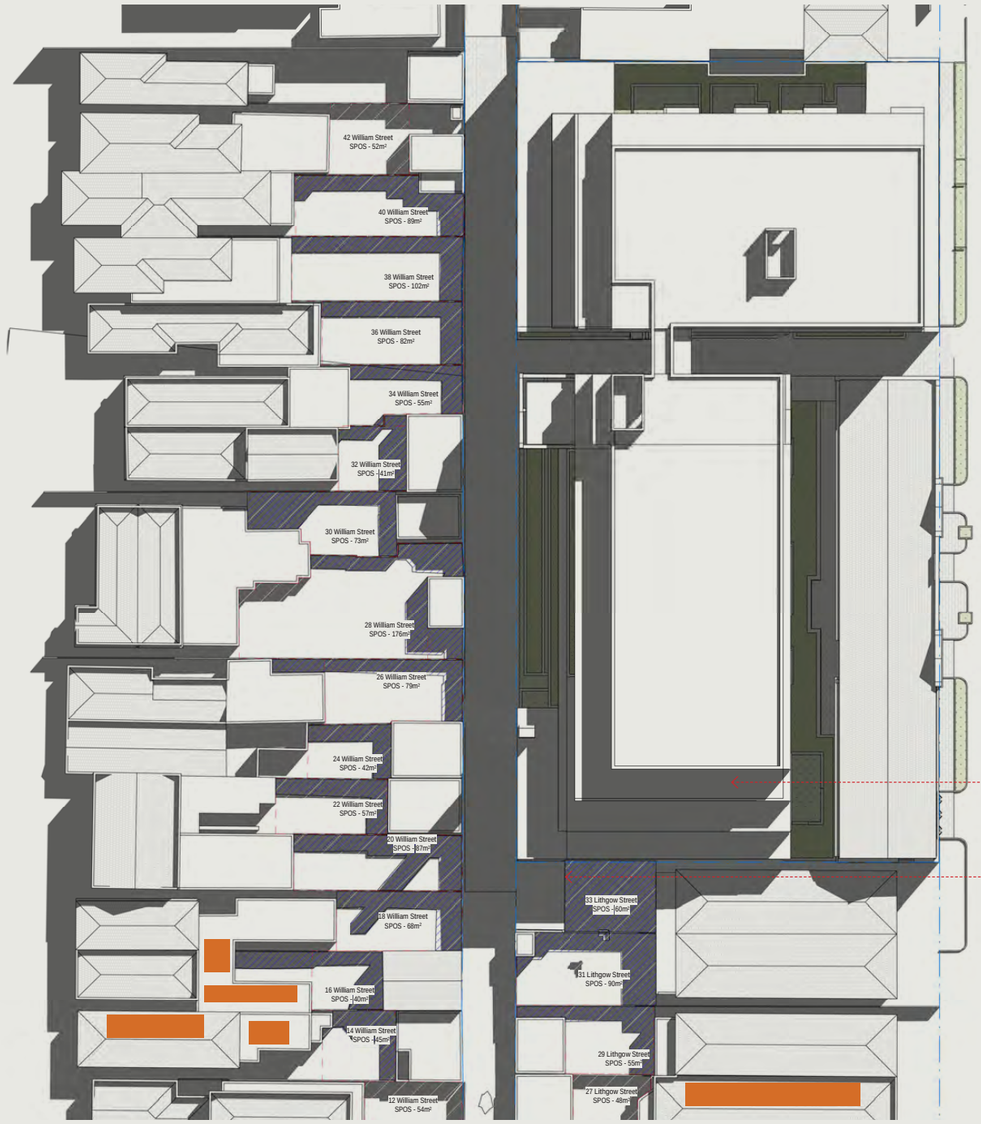
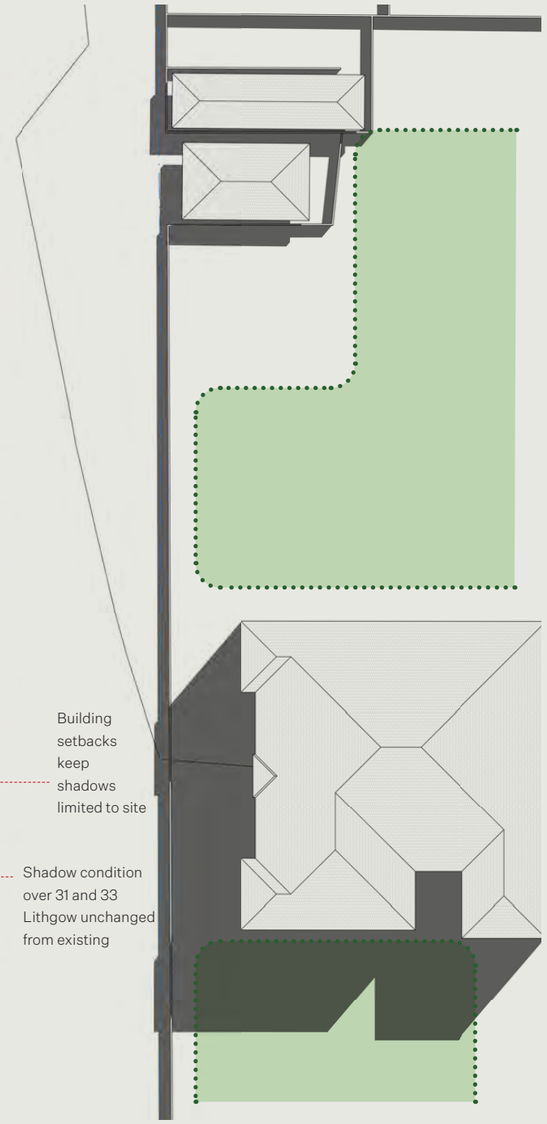
Scale 1:100 0 1 2m

7. Shadow Analysis

Shadow Studies





Building setbacks keep shadows limited to site

Shadow condition over 31 and 33 Lithgow unchanged from existing

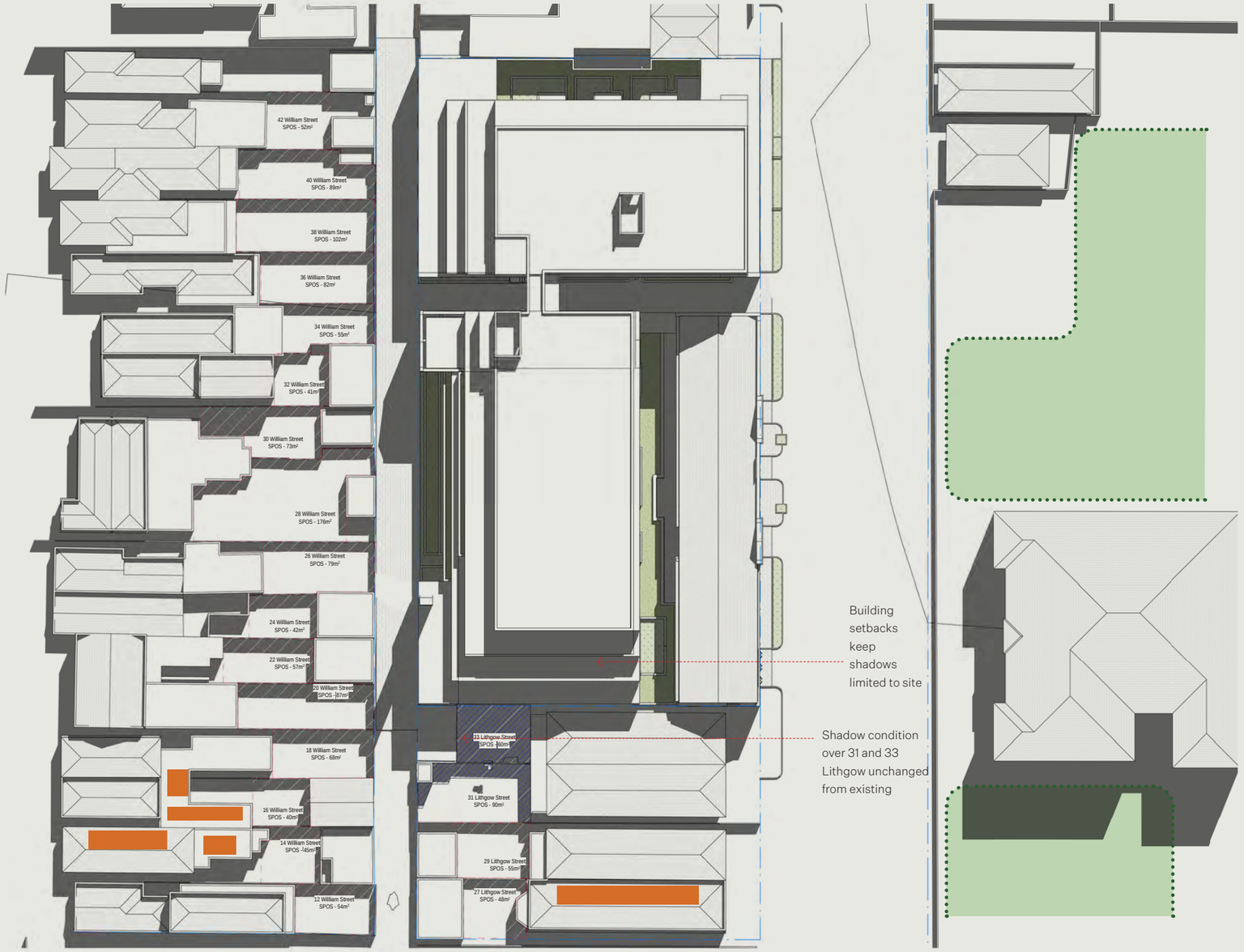
Scale 1:500 0 5 10m

Key

- Existing Shadow Study Area
- Approx. location of School Open Space
- Solar Panels on Neighbouring Properties

Model BTR | March 2026

10am Sept 22nd



11am Sept 22nd

Model BTR | March 2026

Urban Context Report

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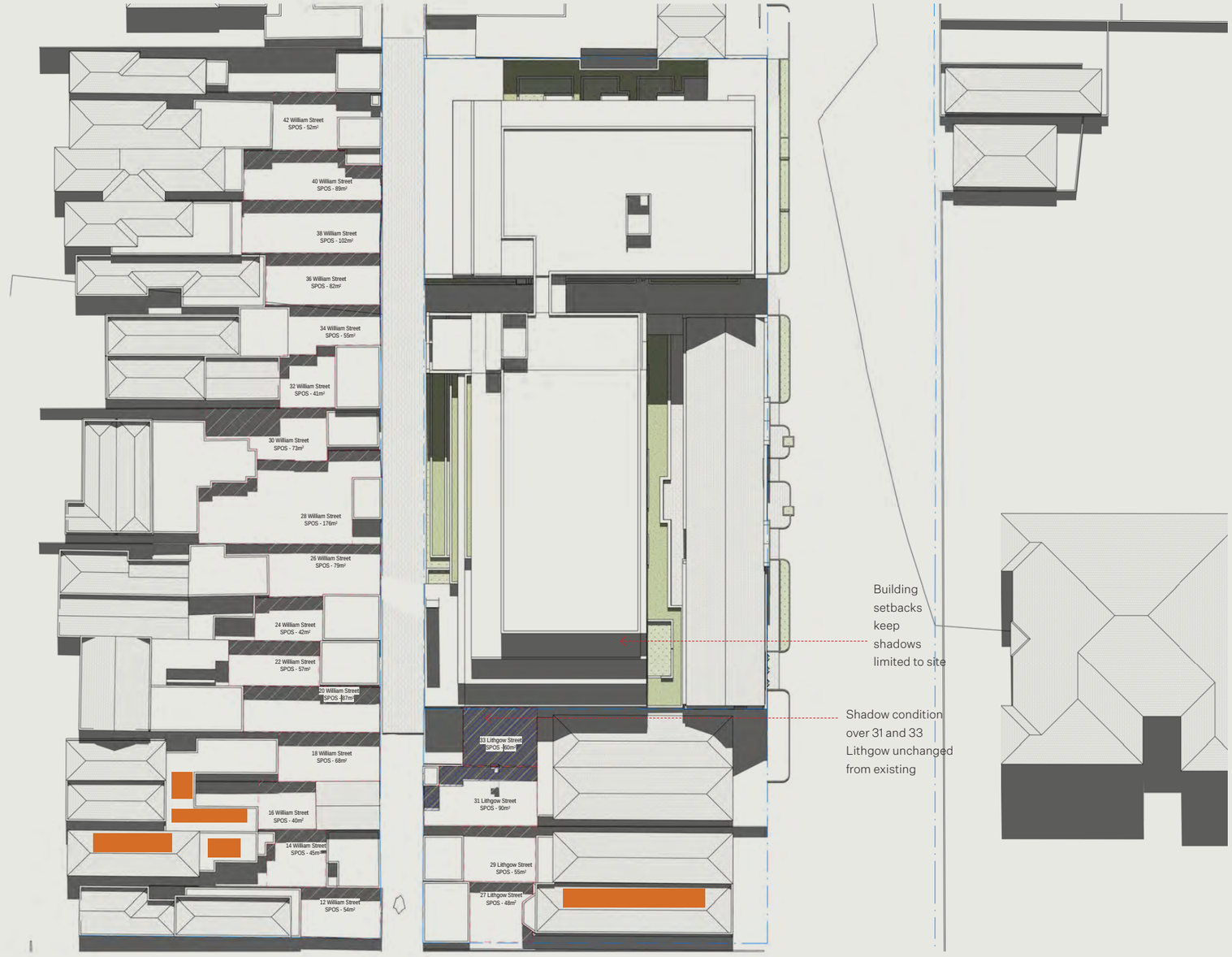

12pm Sept 22nd

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Key

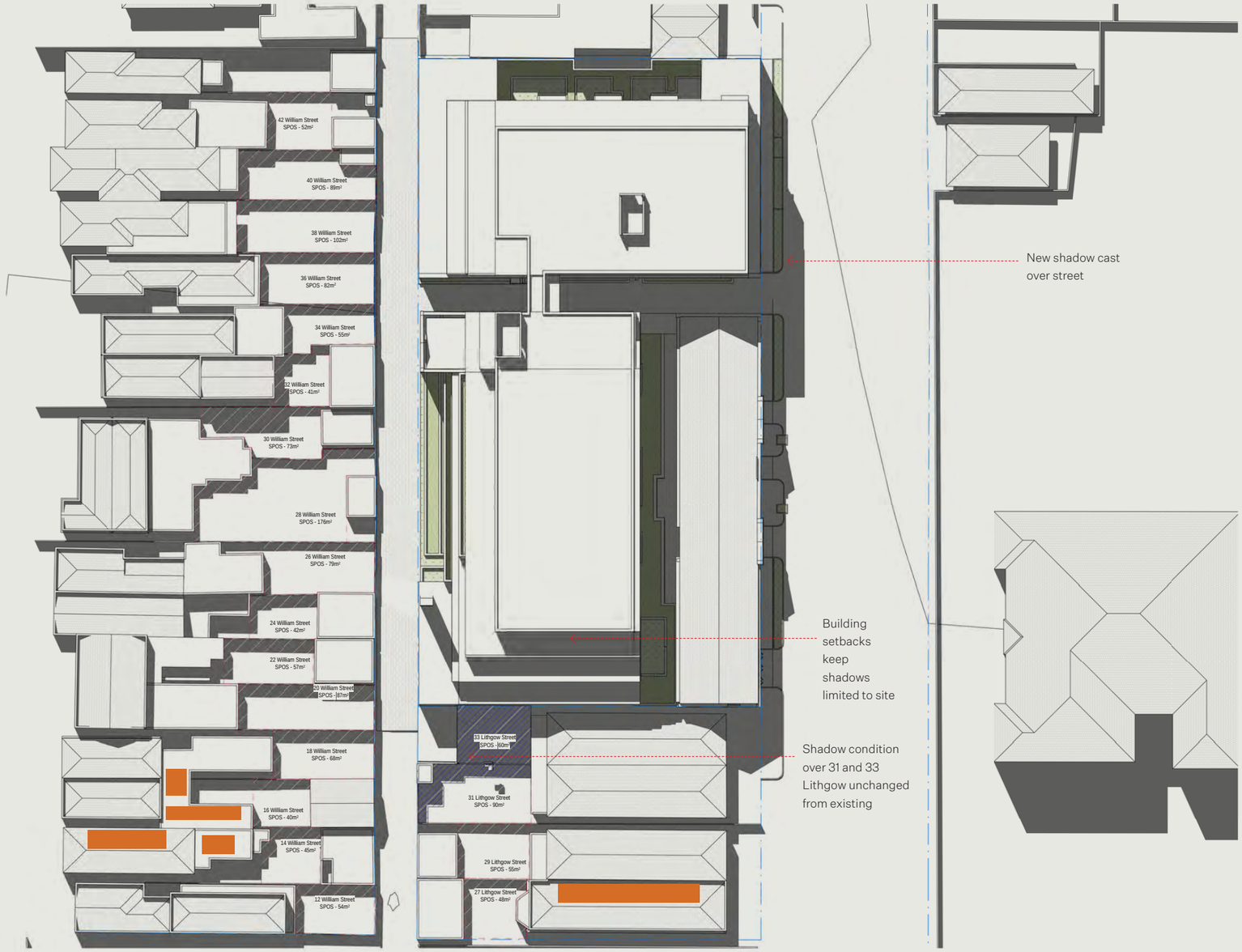
Existing Shadow Study Area

Approx. location of School Open Space

Solar Panels on Neighbouring Properties

Model BTR | March 2026

Urban Context Report



1pm Sept 22nd

Model BTR | March 2026

Urban Context Report

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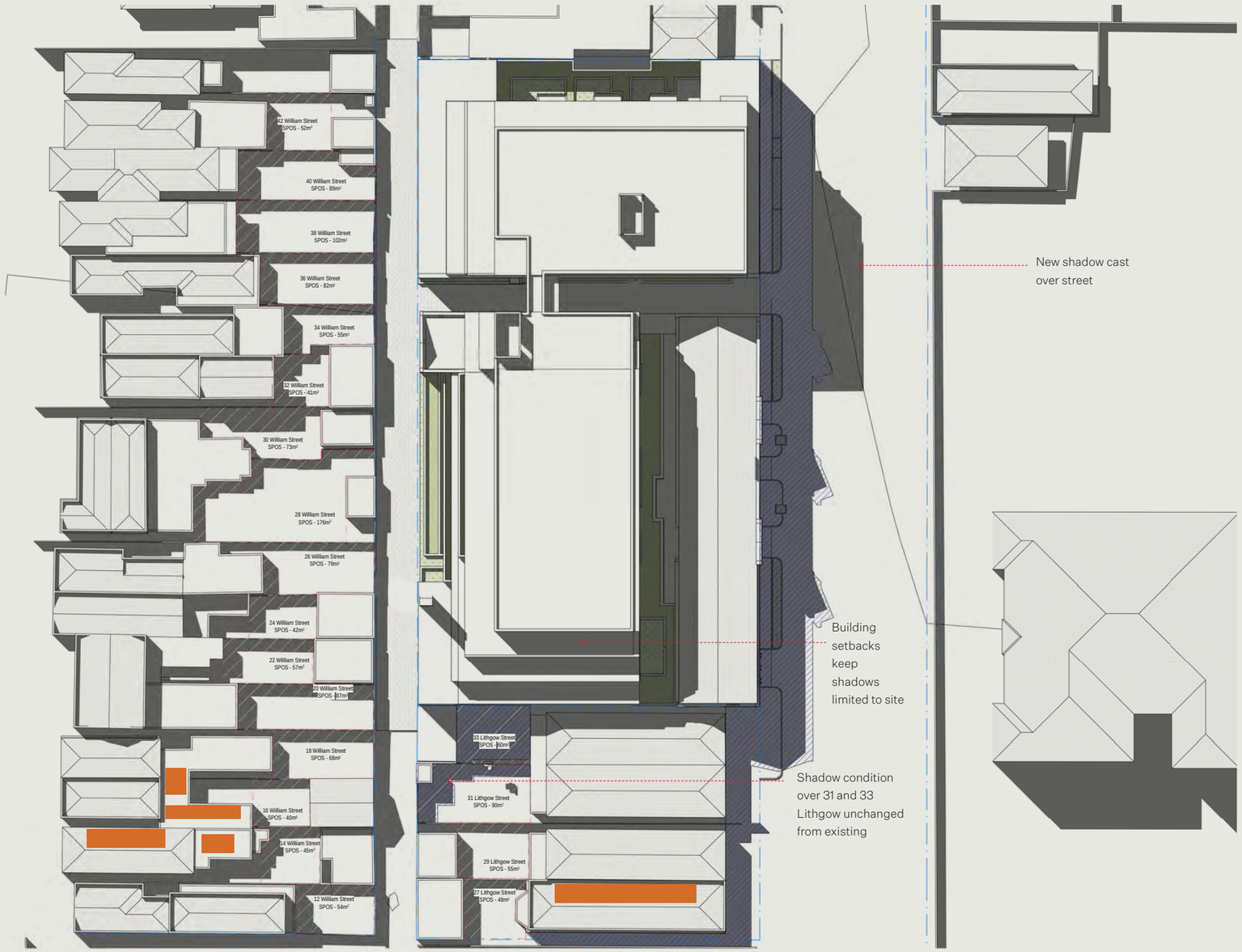

2pm Sept 22nd

Scale 1:500 0 5 10m

Key

- Existing Shadow Study Area
- Approx. location of School Open Space
- Solar Panels on Neighbouring Properties

Model BTR | March 2026

Urban Context Report

3pm Sept 22nd

Scale 1:500 0 5 10m

Key

- Existing Shadow Study Area
- Approx. location of School Open Space
- Solar Panels on Neighbouring Properties

Model BTR | March 2026

Urban Context Report

DRAWING LIST

	SHEET NAME	Current Revision
TP00.01	COVER SHEET	C
TP00.02	EXISTING SITE PLAN	C
TP00.03	DEMOLITION PLAN	C
TP00.04	DEMOLITION PLAN- GROUND + LEVEL 01	A
TP00.05	DEMOLITION ELEVATIONS	A
TP00.06	SITE PLAN	D
TP10.00	BASEMENT FLOOR PLAN	C
TP10.01	GROUND FLOOR PLAN	E
TP10.02	LEVEL 01 FLOOR PLAN	E
TP10.03	LEVEL 02 FLOOR PLAN	E
TP10.04	LEVEL 03 FLOOR PLAN	D
TP10.05	LEVEL 04 FLOOR PLAN	D
TP10.06	LEVEL 05 FLOOR PLAN	D
TP10.07	LEVEL 06 (ROOF) FLOOR PLAN	D
TP20.01	NORTH ELEVATION	C
TP20.02	EAST ELEVATION	C
TP20.03	SOUTH ELEVATION	C
TP20.04	WEST ELEVATION	D
TP20.05	LANEWAY ELEVATION - NORTH	C
TP20.06	LANEWAY ELEVATION - EAST	C
TP20.07	LANEWAY ELEVATION - SOUTH	C
TP20.08	LANEWAY ELEVATION - WEST	C
TP30.01	SECTION AA	E
TP30.02	SECTION BB	E
TP30.03	SECTION CC	E
TP30.04	SECTION DD	E
TP30.10	OVERLOOKING SECTIONS NORTH BOUNDARY	A
TP30.11	OVERLOOKING SECTIONS SOUTH BOUNDARY	A
TP30.12	OVERLOOKING SECTIONS WEST BOUNDARY	A
TP40.00	FACADE MATERIALS	C
TP50.01	SHADOW ANALYSIS - SEPT 22 10AM	D
TP50.02	SHADOW ANALYSIS - SEPT 22 11AM	D
TP50.03	SHADOW ANALYSIS - SEPT 22 12PM	D
TP50.04	SHADOW ANALYSIS - SEPT 22 1PM	D
TP50.05	SHADOW ANALYSIS - SEPT 22 2PM	D
TP50.06	SHADOW ANALYSIS - SEPT 22 3PM	D
TP60.00	APARTMENT TYPES- BADS OVERVIEW	D
TP60.01	APARTMENT TYPE PLANS - STUDIOS	F
TP60.02	APARTMENT TYPE PLANS - STUDIOS	F
TP60.03	APARTMENT TYPE PLANS - STUDIOS	F
TP60.10	APARTMENT TYPE PLANS - 1 BED TYPES	F
TP60.11	APARTMENT TYPE PLANS - 1 BED TYPES	F
TP60.12	APARTMENT TYPE PLANS - 1 BED TYPES	F
TP60.13	APARTMENT TYPE PLANS - 1 BED TYPES	F
TP60.20	APARTMENT TYPE PLANS - 2 BED TYPES	F
TP60.22	APARTMENT TYPE PLANS - 2 BED TYPES	E
TP60.23	APARTMENT TYPE PLANS - 2 BED TYPES	E
TP60.24	APARTMENT TYPE PLANS - 2 BED TYPES	E
TP60.25	APARTMENT TYPE PLANS - 2 BED TYPES	F

All dimension to be verified on site before producing shop drawings or ordering materials.
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Issue Status & No

—

WORK IN PROGRESS

Consultants

—

FATHOM
Project Manager

TTW
Structural Engineer

Neuron
Mechanical Engineer

NEURON
Fire Engineer

Electrical Engineer

Client

—

MODEL

Warren and Mahoney Living Australia Pty Ltd

—

Level 3, 380 Collins Street
Melbourne VIC 3000
Australia
Phone + 61 3 8547 6977

—

Registered Architects and Designers
www.warrenandmahoney.com

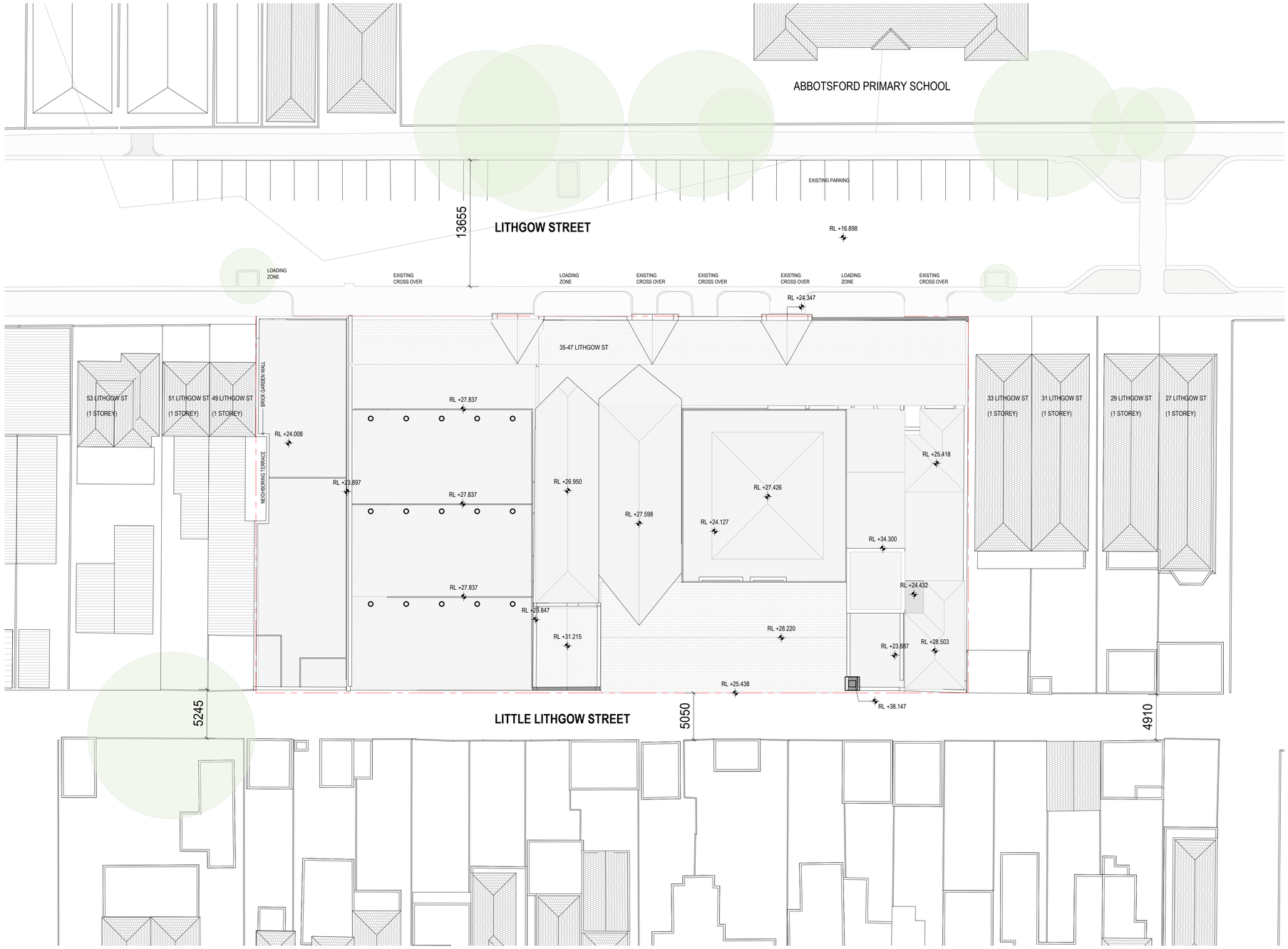
Project Title

—

THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

WARREN AND MAHONEY



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Registered Architects and Designers
www.warrenandmahoney.com
WARREN AND MAHONEY®

Revisions
—

A 25/09/25	FOR REVIEW
B 02/10/25	FOR REVIEW
C 20/10/25	TOWN PLANNING

Notes
—

N
TRUE NORTH

Consultants
—
FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client
—
MODEL

Project Title
—
THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title
—
EXISTING SITE PLAN

Drawing Status
—
WORK IN PROGRESS

Drawing Details
—

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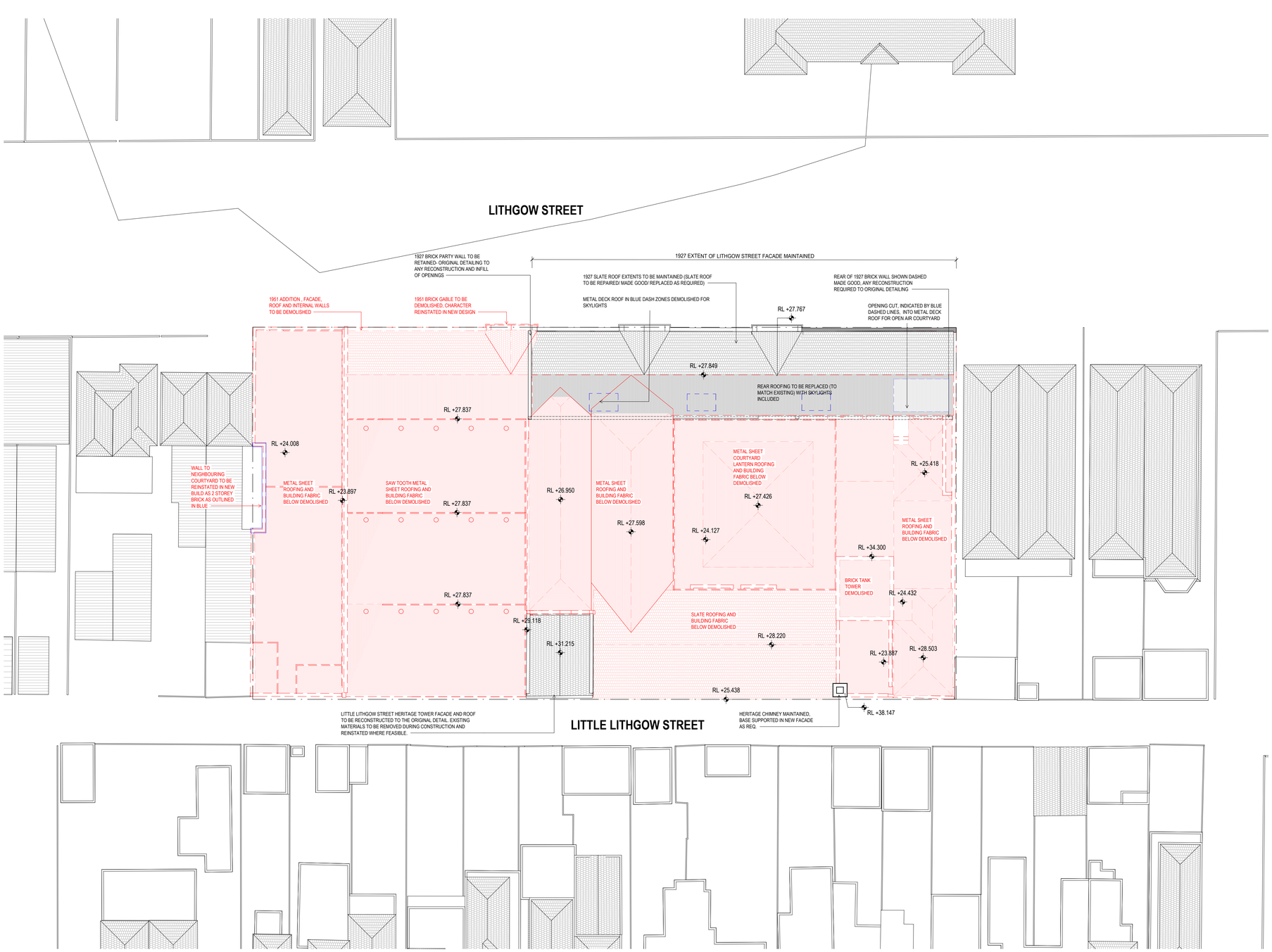
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No
—
TP00.02

Revision
C



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Revisions
—

A 25/09/25	FOR REVIEW
B 02/10/25	FOR REVIEW
C 20/10/25	TOWN PLANNING

Notes
—

N
TRUE NORTH

Consultants
—
FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client
—
MODEL

Project Title
—
THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title
—
DEMOLITION PLAN

Drawing Status
—
WORK IN PROGRESS

Drawing Details
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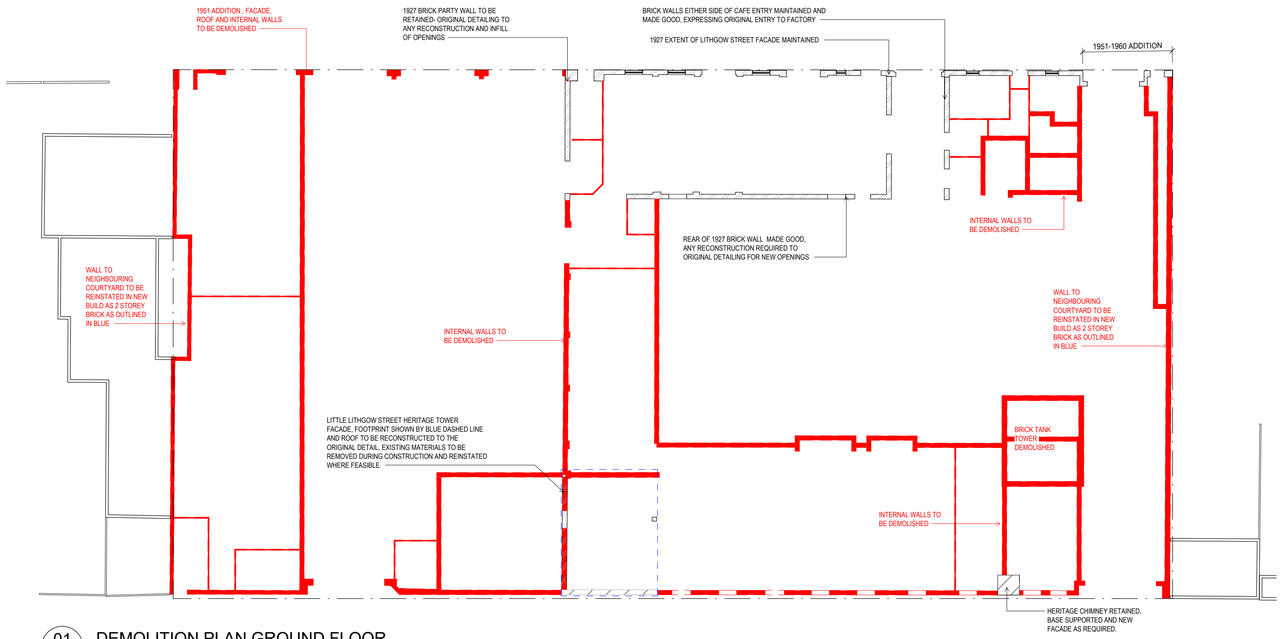
Date	26/03/2026 2:56:40 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

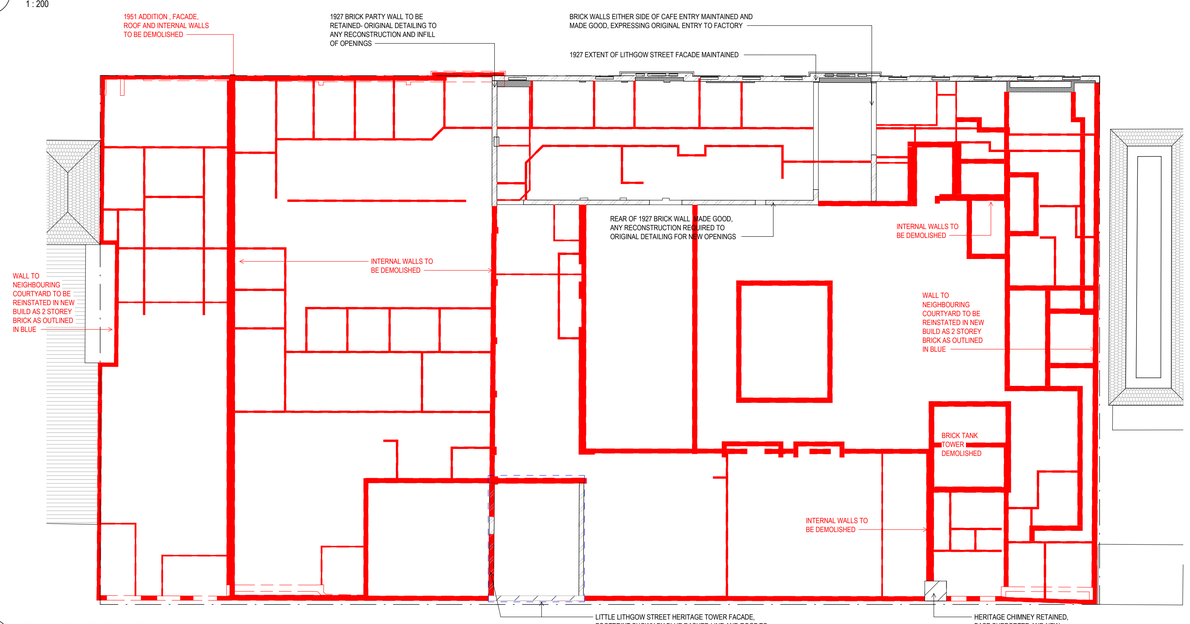
Drawing No — TP00.03

Revision C



01 0.0X DEMOLITION PLAN GROUND FLOOR

1 : 200



02 0.0X DEMOLITION PLAN LEVEL 01

1 : 200

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Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

35 - 45 LITHGOW STREET, ABBOTSFORD

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Drawing Title

DEMOLITION PLAN- GROUND + LEVEL 01

Drawing Status

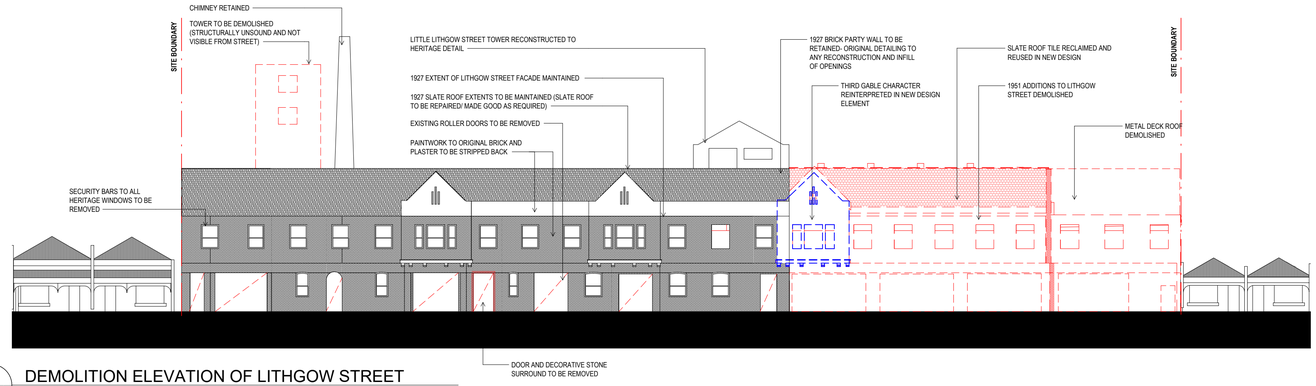
WORK IN PROGRESS

Drawing Details

Scale	1 : 200@ A1
Date	26/03/2026 2:56:46 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

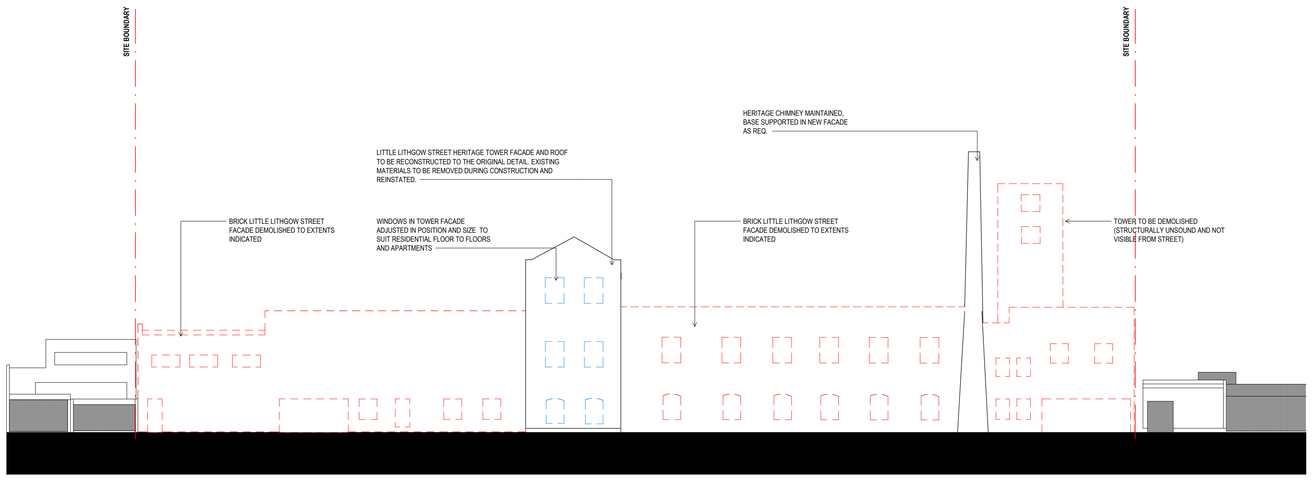
Drawing No TP00.04

Revision A



01 DEMOLITION ELEVATION OF LITHGOW STREET

1 : 200



02 DEMOLITION ELEVATION OF LITTLE LITHGOW STREET

1 : 200

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Drawing Title
—
DEMOLITION ELEVATIONS

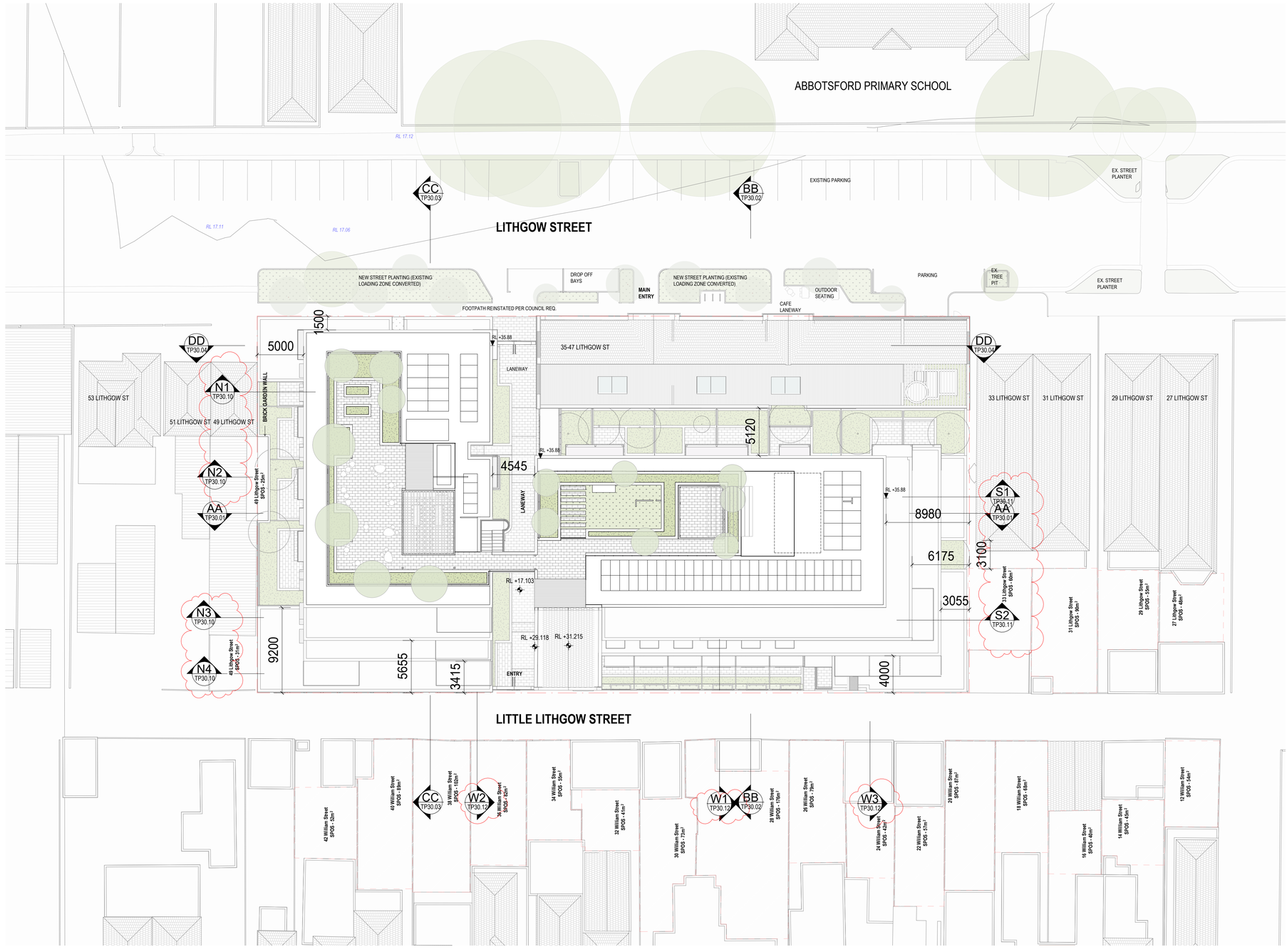
Drawing Status
—
WORK IN PROGRESS

Drawing Details
—

Scale	1 : 200@ A1
Date	26/03/2026 2:57:03 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No — TP00.05

Revision A



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Drawing Title

SITE PLAN

Drawing Status

WORK IN PROGRESS

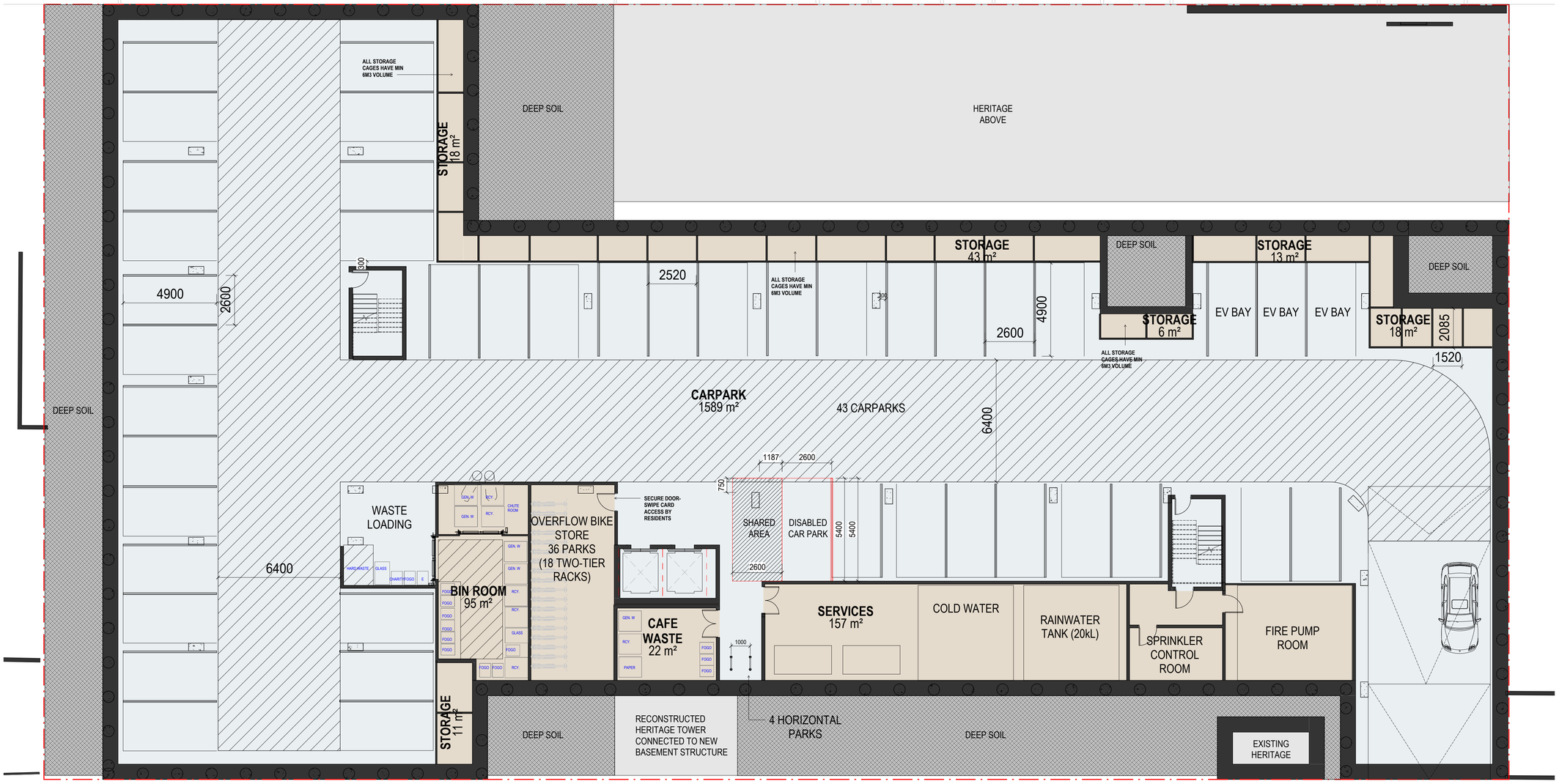
Drawing Details

Scale	1 : 200@ A1
Date	26/03/2026 2:57:19 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP00.06

Revision D

LITHGOW STREET



LITTLE LITHGOW STREET

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BASEMENT FLOOR PLAN

Drawing Status

WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
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Job No	10463
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PROPERTY LINE
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Drawing Title

GROUND FLOOR PLAN

Drawing Status

WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	26/03/2026 2:58:24 pm
Job No	10463
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E	27/03/26	TP UPDATE

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PROPERTY LINE
OVERSHADOWING PLANE
MINIMUM P.O.S AREA (SHOWN ON PLAN)

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Drawing Title
—
LEVEL 01 FLOOR PLAN

Drawing Status
—
WORK IN PROGRESS

Drawing Details
—

Scale	1 : 100@ A1
Date	26/03/2026 2:59:15 pm
Job No	10463
Drawn	BS, PG, VC
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Drawing No — TP10.02
Revision E

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E	27/03/26	TP UPDATE

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PROPERTY LINE
OVERSHADOWING PLANE
MINIMUM P.O.S AREA (SHOWN ON PLAN)

TRUE NORTH

Consultants

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Drawing Title

LEVEL 02 FLOOR PLAN

Drawing Status

WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	26/03/2026 2:59:48 pm
Job No	10463
Drawn	BS, PG, VC
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Drawing No TP10.03

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PROPERTY LINE
OVERSHADOWING PLANE
MINIMUM P.O.S AREA (SHOWN ON PLAN)

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Drawing Title

LEVEL 03 FLOOR PLAN

Drawing Status

WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	26/03/2026 3:00:23 pm
Job No	10463
Drawn	BS, PG, VC
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Drawing No TP10.04

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PROPERTY LINE
OVERSHADOWING PLANE
MINIMUM P.O.S AREA (SHOWN ON PLAN)

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Drawing Title
LEVEL 04 FLOOR PLAN

Drawing Status
WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	26/03/2026 3:00:55 pm
Job No	10463
Drawn	BS, PG, VC
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Drawing No TP10.05
Revision D

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OVERSHADOWING PLANE
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Drawing Title

LEVEL 05 FLOOR PLAN

Drawing Status

WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	26/03/2026 3:01:27 pm
Job No	10463
Drawn	BS, PG, VC
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Drawing No TP10.06

Revision D

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THE FACTORY
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Drawing Title
LEVEL 06 (ROOF) FLOOR PLAN

Drawing Status
WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	26/03/2026 3:02:04 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP10.07
Revision D

1 SK.101 ELEVATION - NORTH

1 : 100

MATERIAL KEY CODE

CODE: BK-01
MATERIAL: EXISTING BRICK
COLOUR: EXISTING

CODE: BK-02
MATERIAL: BRICK
COLOUR: LIGHT BEIGE

CODE: ME-01
MATERIAL: METAL CLADDING
COLOUR: LIGHT BRONZE

CODE: ME-02
MATERIAL: METAL CLADDING
COLOUR: LIGHT

CODE: CONC-01
MATERIAL: EXISTING HERITAGE CONCRETE PAINTED
COLOUR: CREAM

CODE: GL-01
MATERIAL: GLAZING
COLOUR: CLEAR (PERFORMANCE COATINGS AS REQ. BY ESD)

CODE: SC-01
MATERIAL: SCREEN - METAL BALUSTRADE
COLOUR: TO MATCH ME-01

CODE: SC-02
MATERIAL: SCREEN - METAL BALUSTRADE
COLOUR: TO MATCH ME-02

CODE: SC-03
MATERIAL: SCREEN - SUN SHADE
COLOUR: TO MATCH ME-01

CODE: AW-01
MATERIAL: METAL AWNING
COLOUR: DARK GREY

CODE: ST-01
MATERIAL: METAL SHROUD
COLOUR: TO MATCH ME-01

CODE: ST-02
MATERIAL: STEEL
COLOUR: TO MATCH ME-02

REFER DRAWING TP60 - TOWN PLANNING - MATERIAL SCHEDULE FOR MATERIAL FINISHES AND DETAILS

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Drawing Title
—
NORTH ELEVATION

Drawing Status
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WORK IN PROGRESS

Drawing Details
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Scale	1 : 100@ A1
Date	26/03/2026 3:03:53 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No — TP20.01

Revision C

1 SK.101 ELEVATION - EAST

1 : 100

MATERIAL KEY CODE

CODE: BK-01
MATERIAL: EXISTING BRICK
COLOUR: EXISTING

CODE: BK-02
MATERIAL: BRICK
COLOUR: LIGHT BEIGE

CODE: ME-01
MATERIAL: METAL CLADDING
COLOUR: LIGHT BRONZE

CODE: ME-02
MATERIAL: METAL CLADDING
COLOUR: LIGHT

CODE: CONC-01
MATERIAL: EXISTING HERITAGE CONCRETE PAINTED
COLOUR: CREAM

CODE: GL-01
MATERIAL: GLAZING
COLOUR: CLEAR (PERFORMANCE COATINGS AS REQ. BY ESD)

CODE: SC-01
MATERIAL: SCREEN - METAL BALUSTRADE
COLOUR: TO MATCH ME-01

CODE: SC-02
MATERIAL: SCREEN - METAL BALUSTRADE
COLOUR: TO MATCH ME-02

CODE: SC-03
MATERIAL: SCREEN - SUN SHADE
COLOUR: TO MATCH ME-01

CODE: AW-01
MATERIAL: METAL AWNING
COLOUR: DARK GREY

CODE: ST-01
MATERIAL: METAL SHROUD
COLOUR: TO MATCH ME-01

CODE: ST-02
MATERIAL: STEEL
COLOUR: TO MATCH ME-02

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Drawing Title
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EAST ELEVATION

Drawing Status
—
WORK IN PROGRESS

Drawing Details
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Scale	1 : 100@ A1
Date	26/03/2026 3:05:44 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No — TP20.02

Revision C

2 SK.101 ELEVATION - SOUTH

1 : 100

MATERIAL KEY CODE

CODE: BK-01
MATERIAL: EXISTING BRICK
COLOUR: EXISTING

CODE: BK-02
MATERIAL: BRICK
COLOUR: LIGHT BEIGE

CODE: ME-01
MATERIAL: METAL CLADDING
COLOUR: LIGHT BRONZE

CODE: ME-02
MATERIAL: METAL CLADDING
COLOUR: LIGHT

CODE: CONC-01
MATERIAL: EXISTING HERITAGE CONCRETE PAINTED
COLOUR: CREAM

CODE: GL-01
MATERIAL: GLAZING
COLOUR: CLEAR (PERFORMANCE COATINGS AS REQ. BY ESD)

CODE: SC-01
MATERIAL: SCREEN - METAL BALUSTRADE
COLOUR: TO MATCH ME-01

CODE: SC-02
MATERIAL: SCREEN - METAL BALUSTRADE
COLOUR: TO MATCH ME-02

CODE: SC-03
MATERIAL: SCREEN - SUN SHADE
COLOUR: TO MATCH ME-01

CODE: AW-01
MATERIAL: METAL AWNING
COLOUR: DARK GREY

CODE: ST-01
MATERIAL: METAL SHROUD
COLOUR: TO MATCH ME-01

CODE: ST-02
MATERIAL: STEEL
COLOUR: TO MATCH ME-02

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Drawing Title

SOUTH ELEVATION

Drawing Status

WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
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Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP20.03

Revision C

2 ELEVATION - WEST

SK.101 1 : 100

MATERIAL KEY CODE

CODE: BK-01
MATERIAL: EXISTING BRICK
COLOUR: EXISTING

CODE: BK-02
MATERIAL: BRICK
COLOUR: LIGHT BEIGE

CODE: ME-01
MATERIAL: METAL CLADDING
COLOUR: LIGHT BRONZE

CODE: ME-02
MATERIAL: METAL CLADDING
COLOUR: LIGHT

CODE: CONC-01
MATERIAL: EXISTING HERITAGE CONCRETE PAINTED
COLOUR: CREAM

CODE: GL-01
MATERIAL: GLAZING
COLOUR: CLEAR (PERFORMANCE COATINGS AS REQ. BY ESD)

CODE: SC-01
MATERIAL: SCREEN - METAL BALUSTRADE
COLOUR: TO MATCH ME-01

CODE: SC-02
MATERIAL: SCREEN - METAL BALUSTRADE
COLOUR: TO MATCH ME-02

CODE: SC-03
MATERIAL: SCREEN - SUN SHADE
COLOUR: TO MATCH ME-01

CODE: AW-01
MATERIAL: METAL AWNING
COLOUR: DARK GREY

CODE: ST-01
MATERIAL: METAL SHROUD
COLOUR: TO MATCH ME-01

CODE: ST-02
MATERIAL: STEEL
COLOUR: TO MATCH ME-02

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WEST ELEVATION

Drawing Status
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Drawing Details

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Date	26/03/2026 3:09:40 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP20.04

Revision D

4 SK.101 ELEVATION - LANEWAY (NORTH)

1 : 100

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ABBOTSFORD

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Drawing Title

LANEWAY
ELEVATION - NORTH

Drawing Status

WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	26/03/2026 3:13:48 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP20.05

Revision C

3 SK.101 ELEVATION - LANEWAY (EAST)

1 : 100

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Revisions

A 25/09/25	FOR REVIEW
B 02/10/25	FOR REVIEW
C 20/10/25	TOWN PLANNING

Notes

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title

LANEWAY
ELEVATION - EAST

Drawing Status

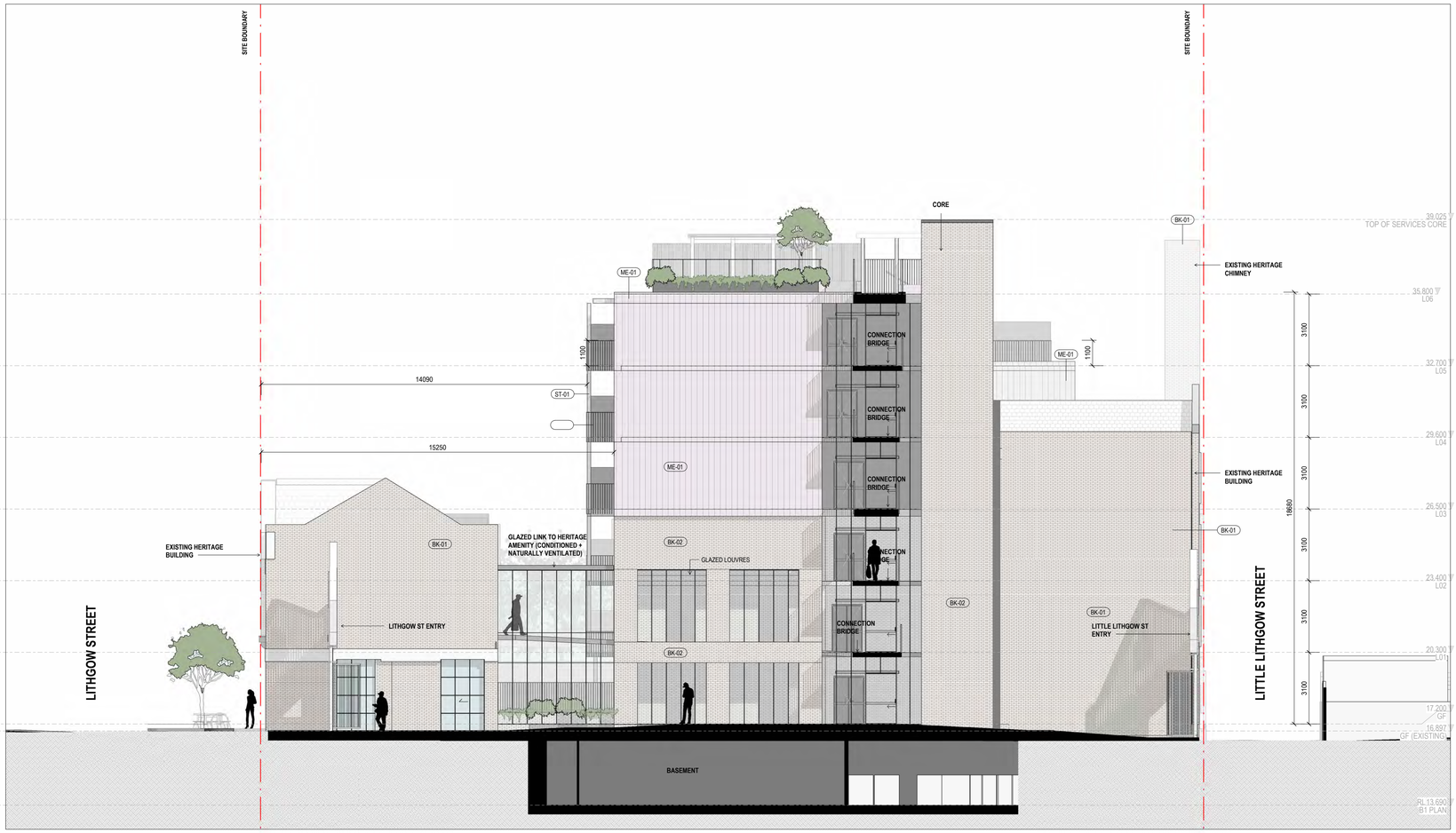
WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	26/03/2026 3:16:09 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP20.06

Revision C



ELEVATION - LANEWAY (SOUTH)

1 : 100

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Notes

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title

LANEWAY
ELEVATION - SOUTH

Drawing Status

WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	26/03/2026 3:18:59 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP20.07

Revision C

1 SK.101 ELEVATION - LANEWAY (WEST)

1 : 100

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C 20/10/25	TOWN PLANNING

Notes

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title

LANEWAY
ELEVATION - WEST

Drawing Status

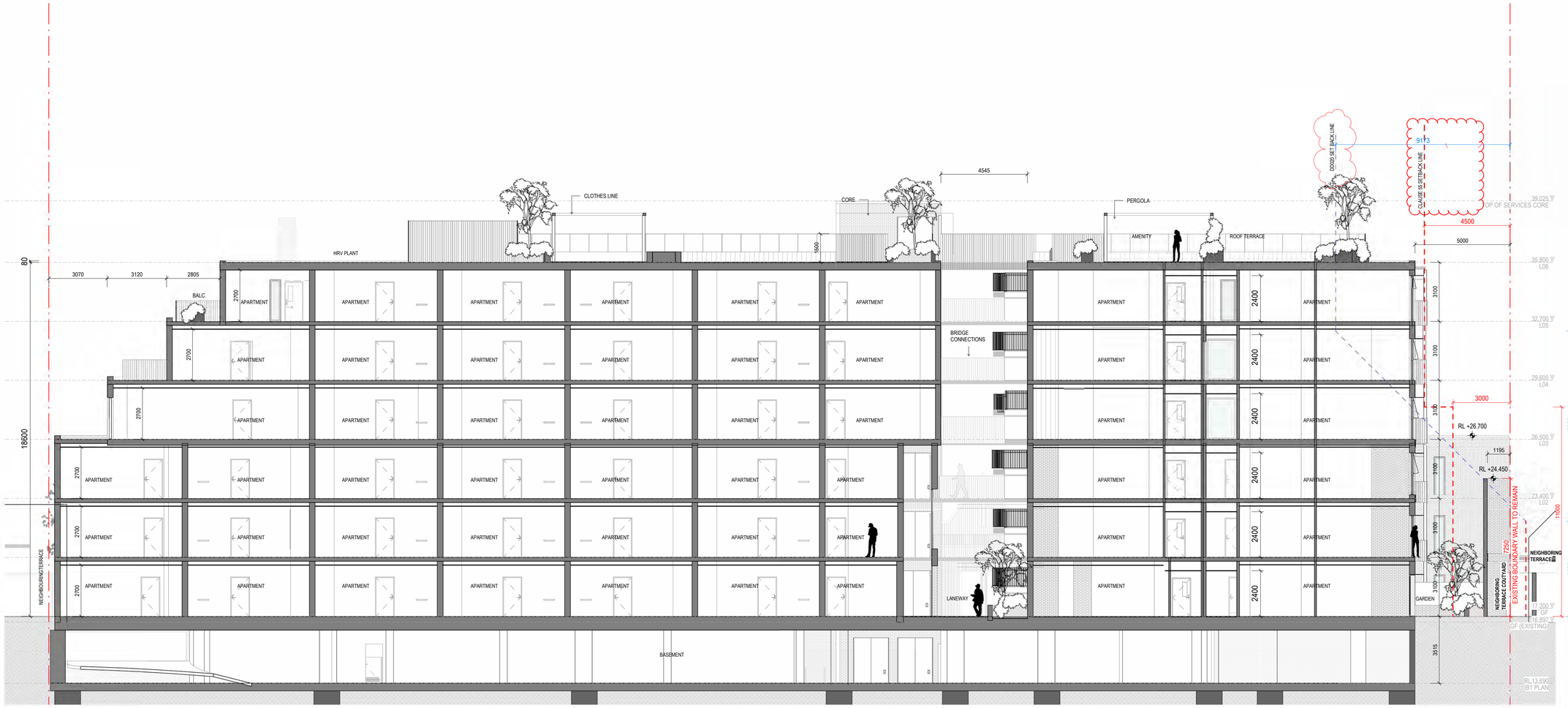
WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	26/03/2026 3:23:41 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP20.08

Revision C



AA SK.101 SECTION_AA

1 : 100

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C	20/10/25	TOWN PLANNING
D	03/12/25	TOWN PLANNING RFI RESPONSE
E	27/03/26	TP UPDATE

Notes

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title

SECTION AA

Drawing Status

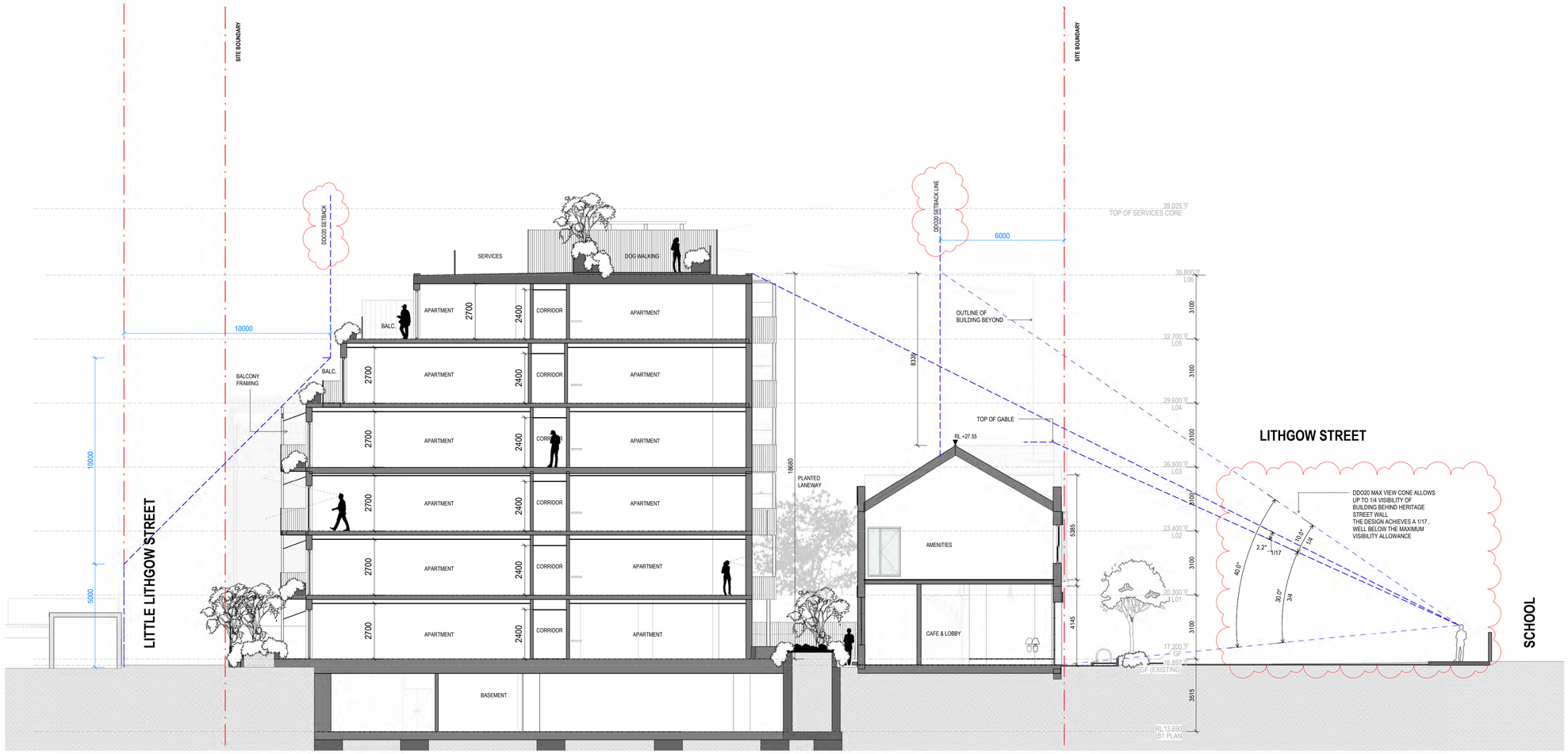
WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	27/03/2026 3:59:48 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP30.01

Revision E



BB SK.101 SECTION_BB
1 : 100

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D	03/12/25	TOWN PLANNING RFI RESPONSE
E	27/03/26	TP UPDATE

Notes

Consultants
FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client
MODEL

Project Title
THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title
SECTION BB

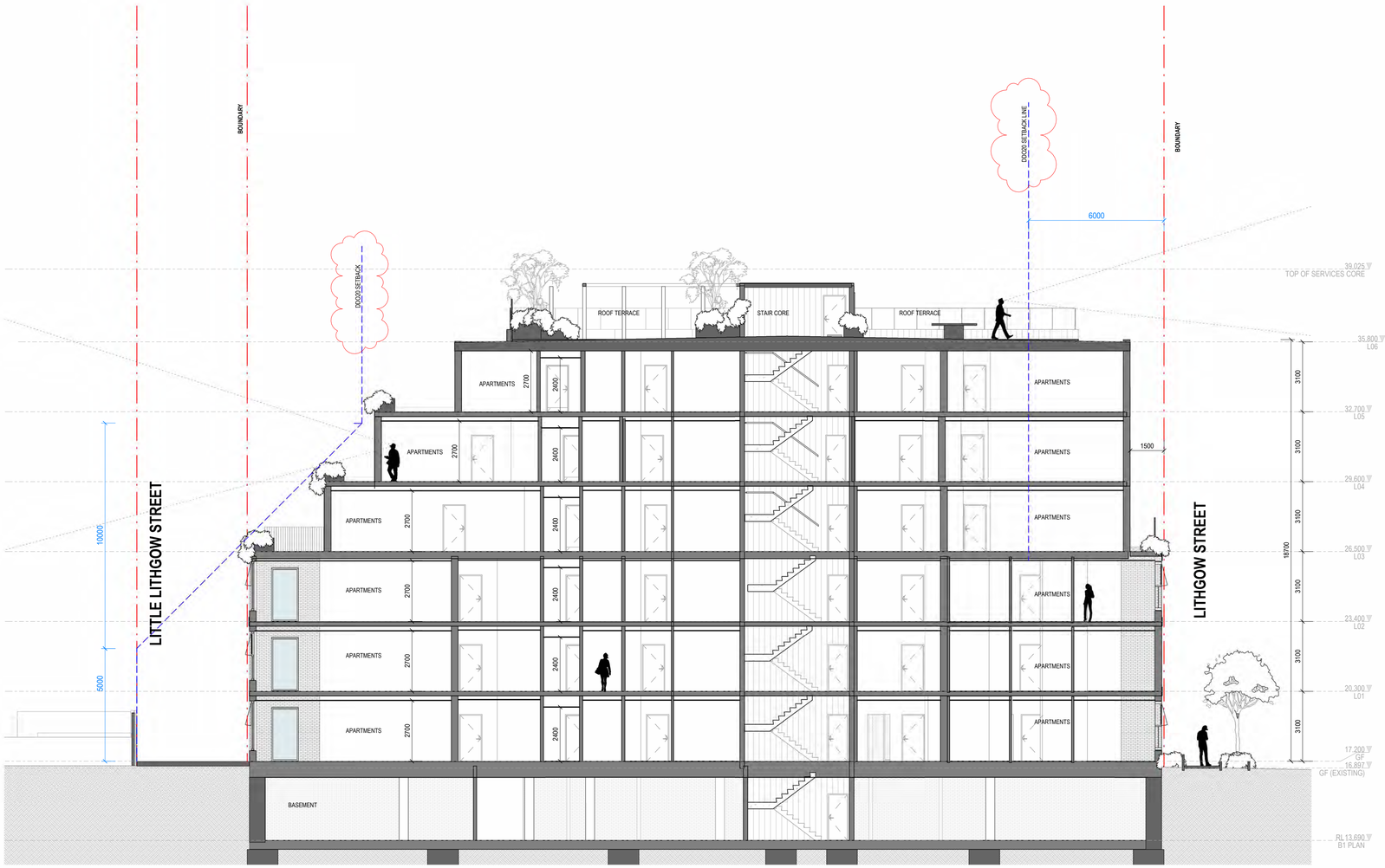
Drawing Status
WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	26/03/2026 3:25:57 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP30.02

Revision E



CC SK.101 SECTION CC
1 : 100

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E 27/03/26	TP UPDATE

Notes

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title

SECTION CC

Drawing Status

WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	26/03/2026 3:26:59 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP30.03

Revision E

DD
SK.101

SECTION_DD

1 : 100

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D	03/12/25	TOWN PLANNING RFI RESPONSE
E	27/03/26	TP UPDATE

Notes

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title

SECTION DD

Drawing Status

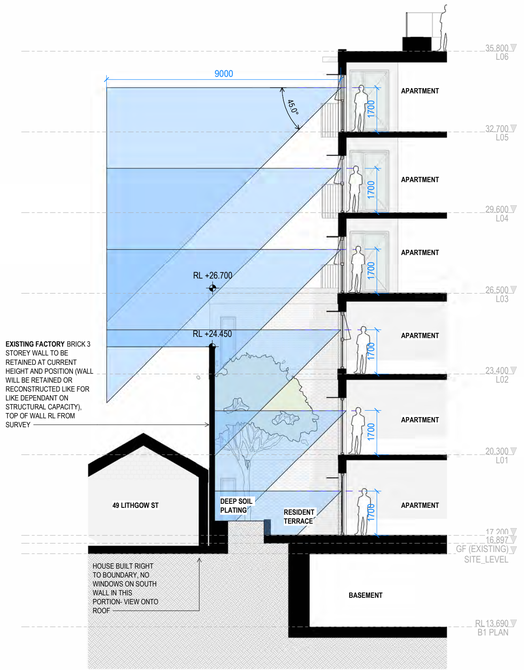
WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	27/03/2026 4:00:20 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

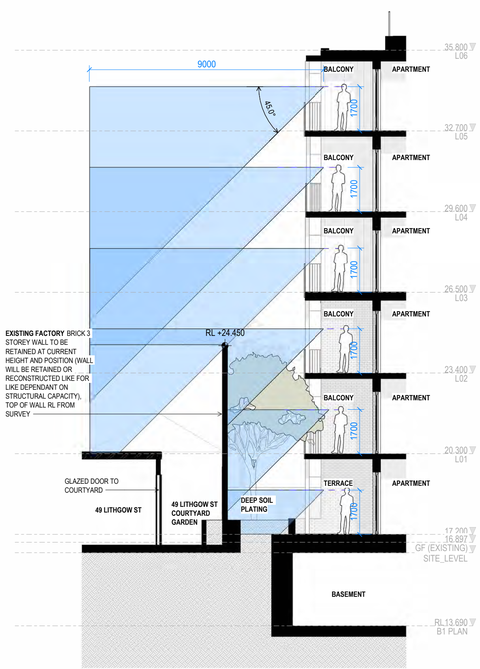
Drawing No TP30.04

Revision E



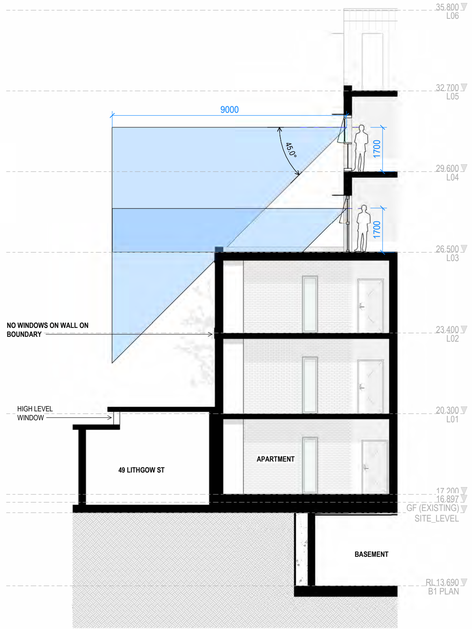
N1 SK.101 NORTH BOUNDARY OVERLOOKING CONDITION 01

1 : 100



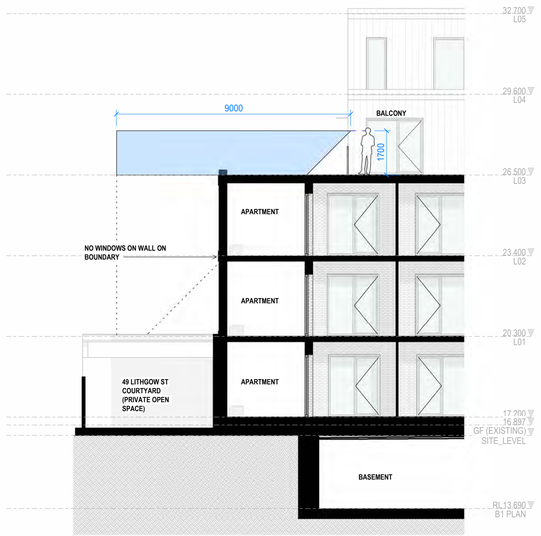
N2 SK.101 NORTH BOUNDARY OVERLOOKING CONDITION 02

1 : 100



N3 SK.101 NORTH BOUNDARY OVERLOOKING CONDITION 03

1 : 100



N4 SK.101 NORTH BOUNDARY OVERLOOKING CONDITION 04

1 : 100

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A 27/03/26 TP UPDATE

Notes
—

Consultants
—
FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client
—
MODEL

Project Title
—
THE FACTORY

35 - 45 LITHGOW STREET, ABBOTSFORD

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Drawing Title
—
OVERLOOKING SECTIONS NORTH BOUNDARY

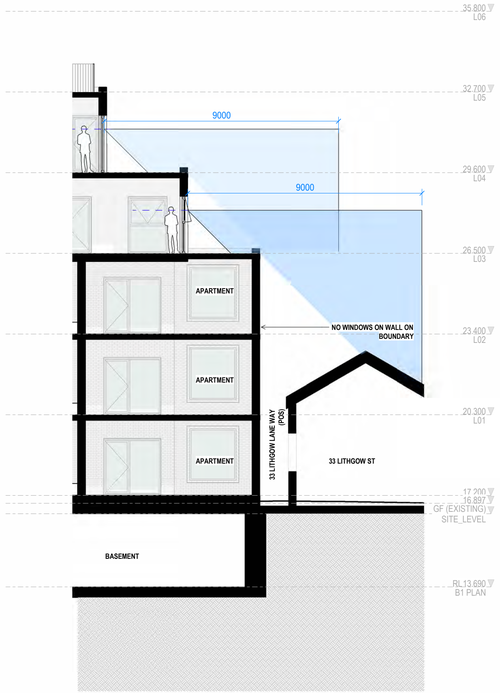
Drawing Status
—
WORK IN PROGRESS

Drawing Details
—

Scale	1 : 100@ A1
Date	26/03/2026 3:29:59 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

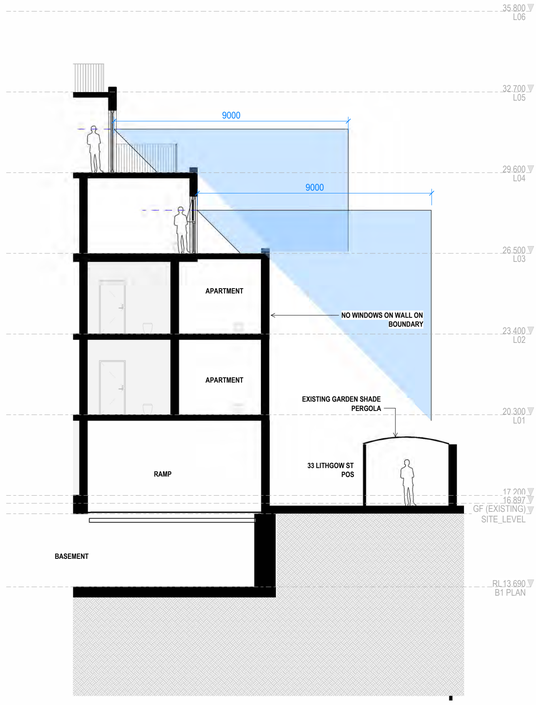
Drawing No — TP30.10

Revision — A



S1 SK.101 SOUTH BOUNDARY OVERLOOKING CONDITION 01

1 : 100



S2 SK.101 SOUTH BOUNDARY OVERLOOKING CONDITION 02

1 : 100

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Revisions

A 27/03/26	TP UPDATE

Notes

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title

OVERLOOKING SECTIONS SOUTH BOUNDARY

Drawing Status

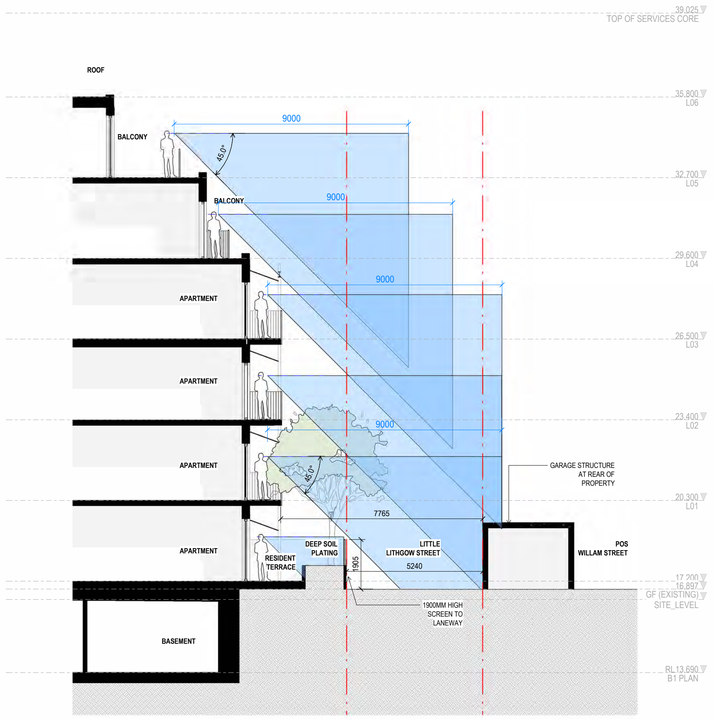
WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	26/03/2026 3:31:47 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

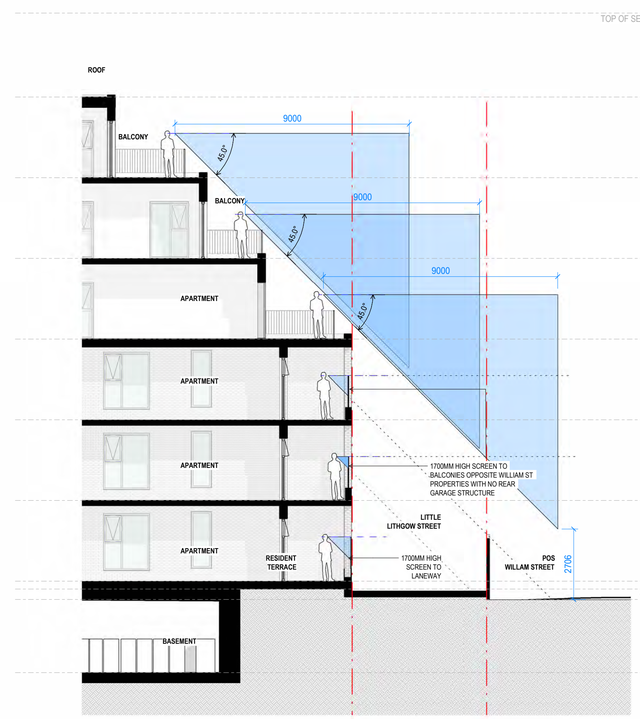
Drawing No TP30.11

Revision A



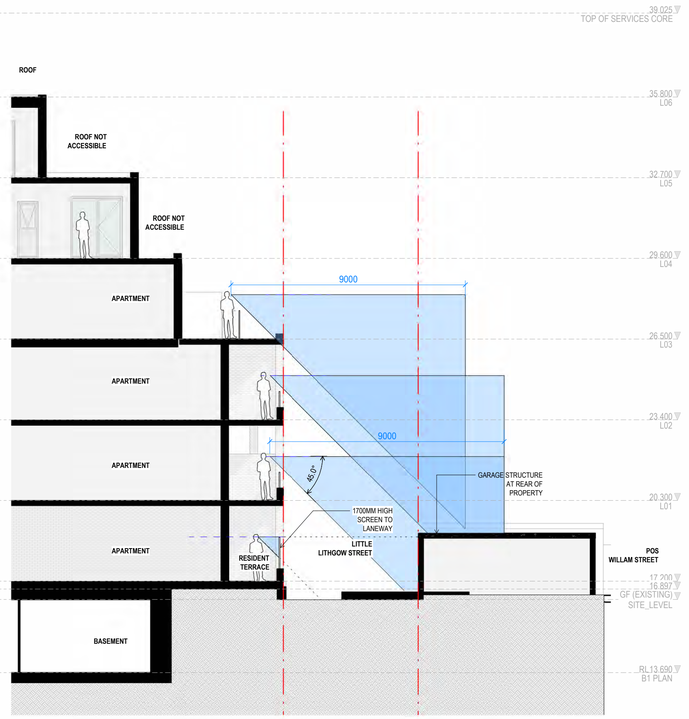
W1 SK.101 WEST BOUNDARY OVERLOOKING CONDITION 01

1 : 100



W2 SK.101 WEST BOUNDARY OVERLOOKING CONDITION 02

1 : 100



W3 SK.101 WEST BOUNDARY OVERLOOKING CONDITION 03

1 : 100

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Revisions

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Notes

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title

OVERLOOKING SECTIONS WEST BOUNDARY

Drawing Status

WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	27/03/2026 4:01:05 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP30.12

Revision A

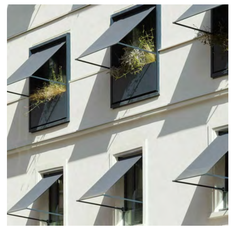
MATERIALS

CODE: ME-01
MATERIAL: METAL CLADDING
COLOUR: LIGHT BRONZE / RED

CODE: ME-02
MATERIAL: METAL CLADDING
COLOUR: LIGHT / NATURAL

CODE: BK-01
MATERIAL: EXISTING BRICK
COLOUR: EXISTING

CODE: BK-02
MATERIAL: BRICK
COLOUR: CLAY



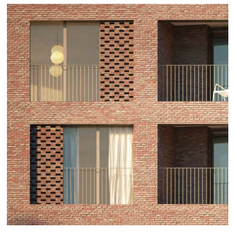
CODE: AW-01
MATERIAL: SHADING AWNING

CODE: GL-01
MATERIAL: DOUBLE GLAZED WINDOW SYSTEMS
COLOUR: CLEAR, WITH PERFORMANCE COATINGS AS REQ.

CODE: ST-01
MATERIAL: METAL FRAMING
COLOUR: TO MATCH ME-01

CODE: ST-02
MATERIAL: METAL FRAMING
COLOUR: TO MATCH ME-02

CODE: SC-01
MATERIAL: SCREEN - BALUSTRADE
COLOUR: TO MATCH ME-01



CODE: SC-02
MATERIAL: SCREEN - BALUSTRADE
COLOUR: TO MATCH ME-02

CODE: SC-03
MATERIAL: SCREEN - SUN SHADE
COLOUR: TO MATCH ME-01

N
PROJECT NORTH

N
TRUE NORTH

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Drawing Status

WORK IN PROGRESS

Drawing Details

Scale	@ A1
Date	26/03/2026 3:33:08 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No **Revision**

TP40.00

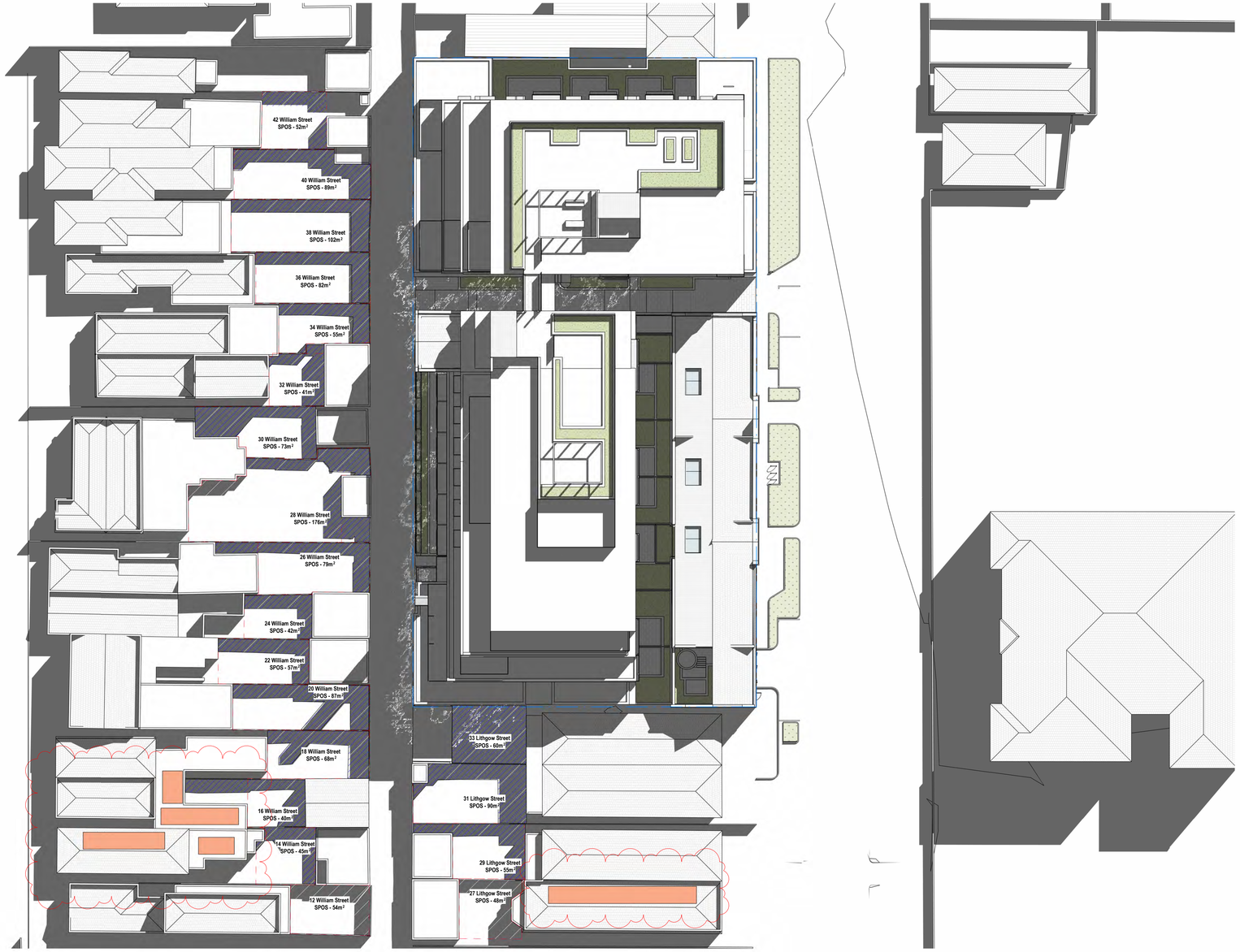
THE FACTORY

FACADE MATERIALS

WARREN AND MAHONEY

SHADOW LEGEND

- Existing Shadow Outline
- Private Open Space
- Property Boundary
- Solar Panels (on Neighboring Properties)



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B 02/10/25	FOR REVIEW
C 20/10/25	TOWN PLANNING
D 27/03/26	TP UPDATE

Notes

N
TRUE NORTH

Consultants
FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client
MODEL

Project Title
THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title
SHADOW ANALYSIS
- SEPT 22 10AM

Drawing Status
WORK IN PROGRESS

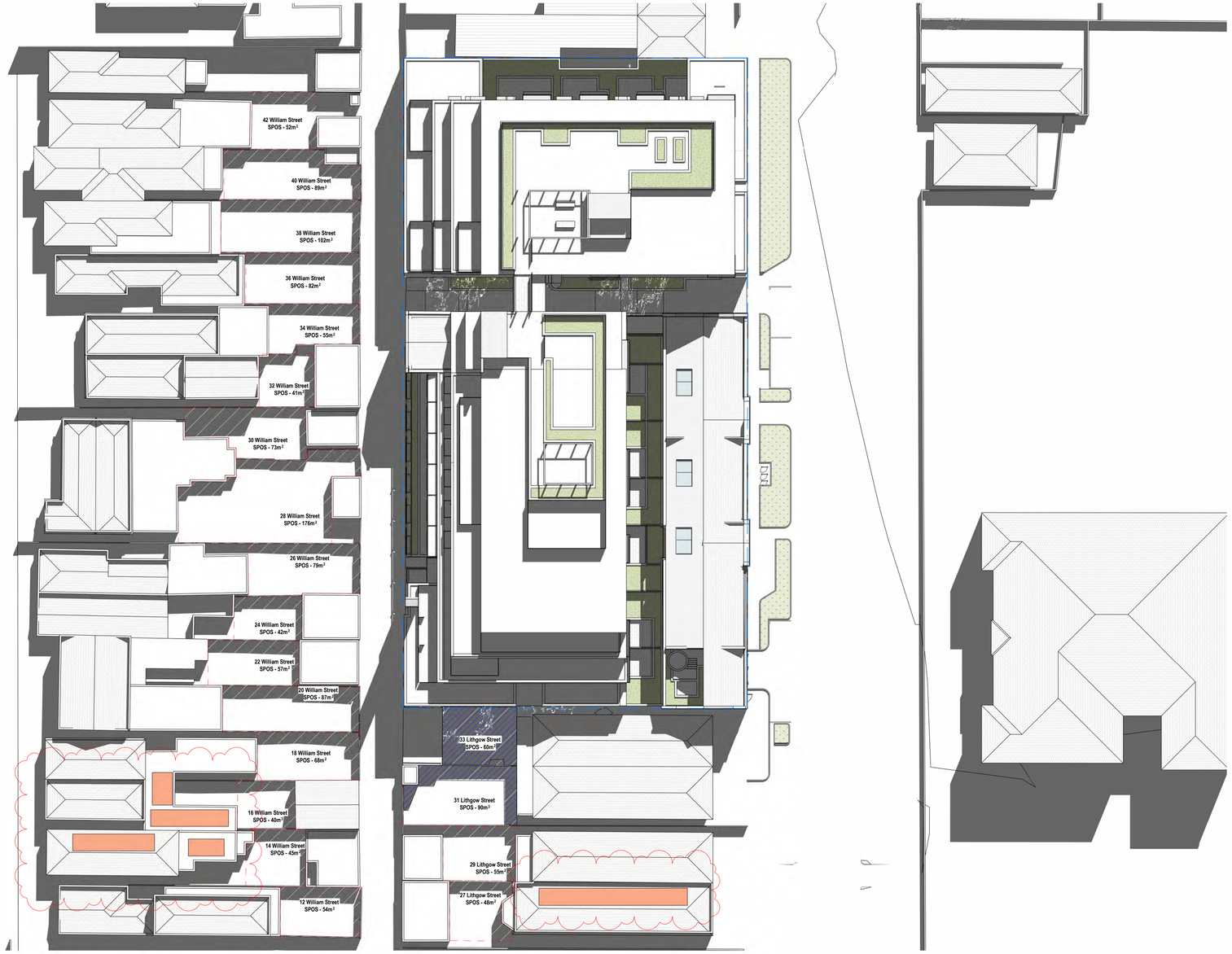
Drawing Details

Scale	As indicated@ A1
Date	27/03/2026 4:01:41 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP50.01
Revision D

SHADOW LEGEND

- Existing Shadow Outline
- Private Open Space
- Property Boundary
- Solar Panels (on Neighboring Properties)



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C 20/10/25	TOWN PLANNING
D 27/03/26	TP UPDATE

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—

N
TRUE NORTH

Consultants
—
FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client
—
MODEL

Project Title
—
THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title
—
SHADOW ANALYSIS
- SEPT 22 11AM

Drawing Status
—
WORK IN PROGRESS

Drawing Details
—

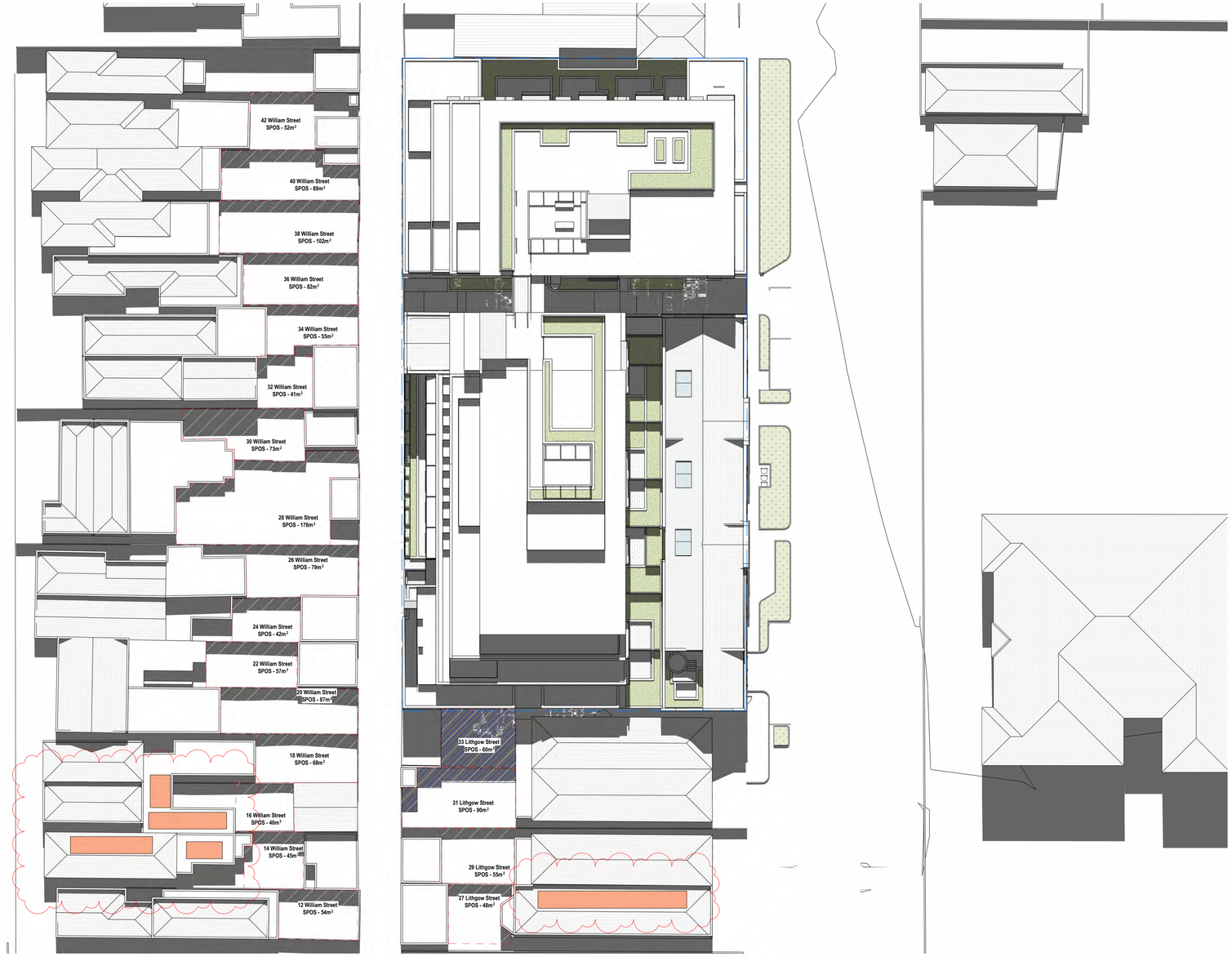
Scale	As indicated@ A1
Date	27/03/2026 4:02:24 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No
—
TP50.02

Revision
D

SHADOW LEGEND

- Existing Shadow Outline
- Private Open Space
- Property Boundary
- Solar Panels (on Neighboring Properties)



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C	20/10/25	TOWN PLANNING
D	27/03/26	TP UPDATE

Notes

N
TRUE NORTH

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

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Drawing Title

SHADOW ANALYSIS - SEPT 22 12PM

Drawing Status

WORK IN PROGRESS

Drawing Details

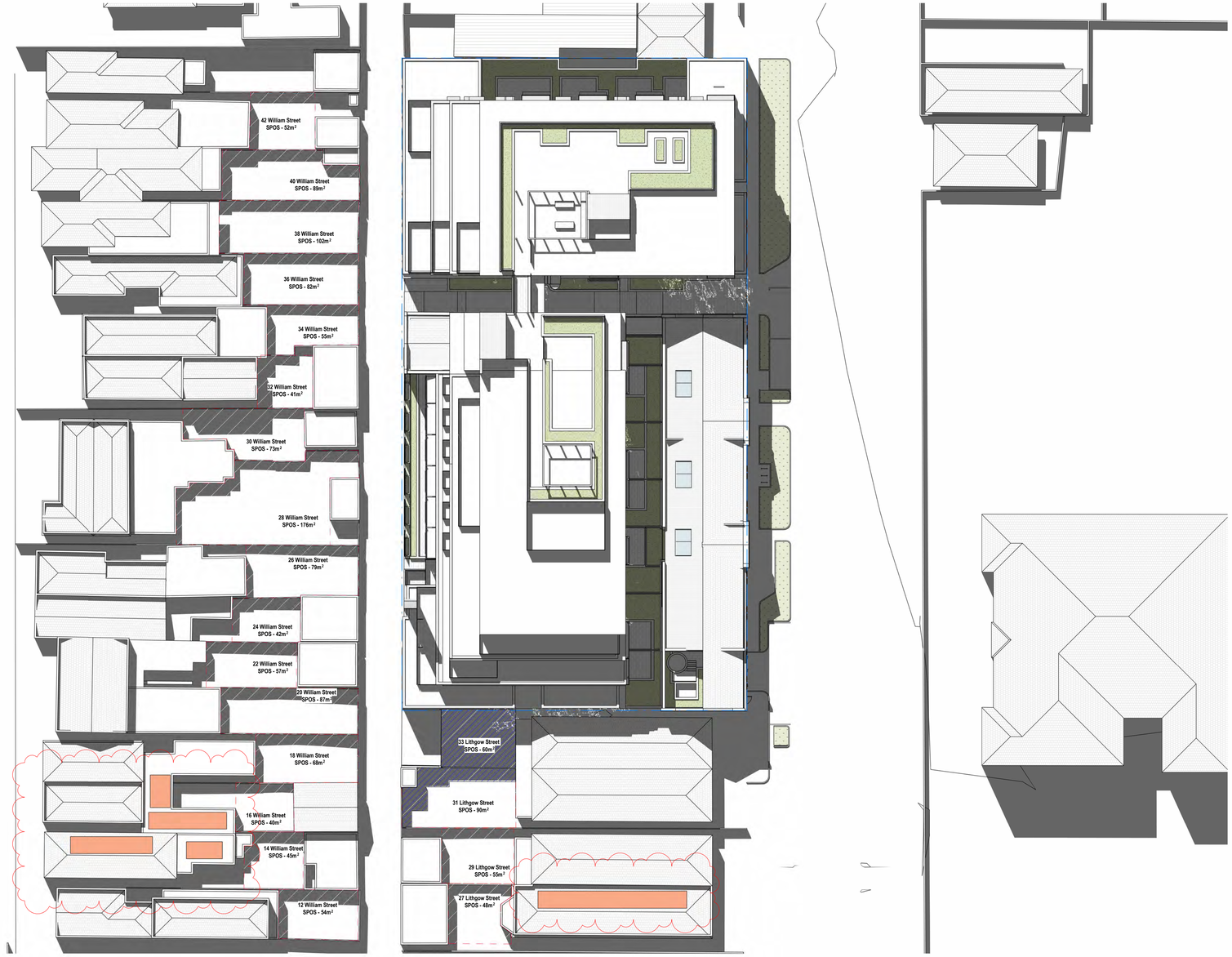
Scale	As indicated@ A1
Date	27/03/2026 4:02:56 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP50.03

Revision D

SHADOW LEGEND

- Existing Shadow Outline
- Private Open Space
- Property Boundary
- Solar Panels (on Neighboring Properties)



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Revisions
—

A 25/09/25	FOR REVIEW
B 02/10/25	FOR REVIEW
C 20/10/25	TOWN PLANNING
D 27/03/26	TP UPDATE

Notes
—

N
TRUE NORTH

Consultants
—
FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client
—
MODEL

Project Title
—
THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title
—
SHADOW ANALYSIS - SEPT 22 1PM

Drawing Status
—
WORK IN PROGRESS

Drawing Details
—

Scale	As indicated@ A1
Date	27/03/2026 4:03:27 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No
—
TP50.04

Revision
D

SHADOW LEGEND

- Existing Shadow Outline
- Private Open Space
- Property Boundary
- Solar Panels (on Neighboring Properties)

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TRUE NORTH

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

35 - 45 LITHGOW STREET,
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Drawing Title

SHADOW ANALYSIS - SEPT 22 2PM

Drawing Status

WORK IN PROGRESS

Drawing Details

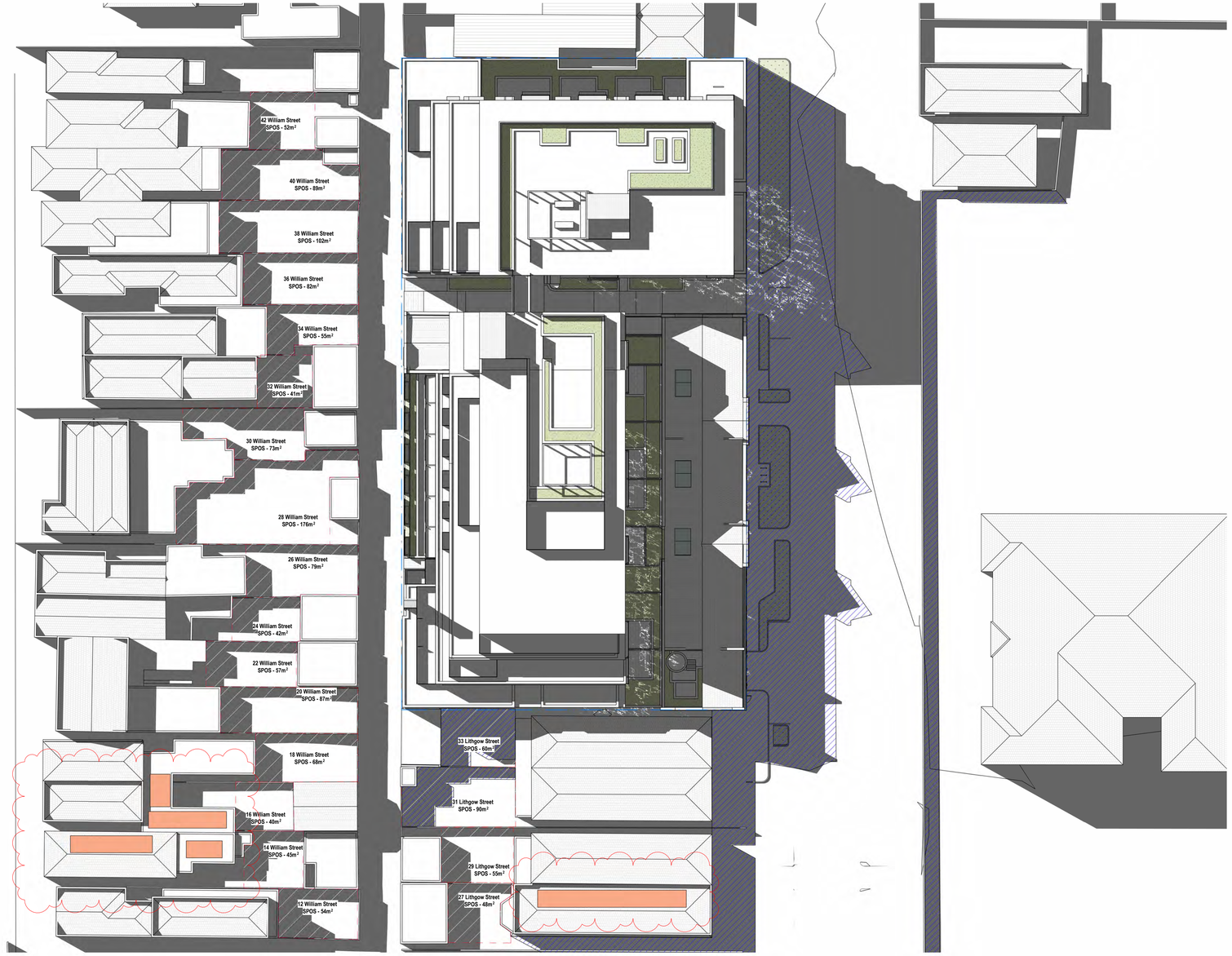
Scale	As indicated@ A1
Date	27/03/2026 4:04:00 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP50.05

Revision D

SHADOW LEGEND

- Existing Shadow Outline
- Private Open Space
- Property Boundary
- Solar Panels (on Neighboring Properties)



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D 27/03/26	TP UPDATE

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Consultants
—
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Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client
—
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Drawing Title
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SHADOW ANALYSIS - SEPT 22 3PM

Drawing Status
—
WORK IN PROGRESS

Drawing Details
—

Scale	As indicated@ A1
Date	27/03/2026 4:04:47 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No
—
TP50.06

Revision
D

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APARTMENT DESIGN GUIDELINE COMPLIANCE SCHEDULE

JOB NUMBER	10463
JOB NAME	35-45 Lithgow Street
STAGE	Town Planning
REV	DATE
C	18/12/2025
SITE AREA	3096m2

						LIVING AREA				BEDROOM		BALCONIES (LEVEL 01-ROOF) DEPTH / AREA / USEASBLE AREA	STUDIO		STORAGE 1 BEDROOM		STORAGE 2 BEDROOM	
APARTMENT TYPE	NO. OF TYPE IN BUILDING	DRAWING REFERENCE	BEDROOMS	CROSS VENTILATION	ACCESSIBLE	STUDIO 3.3m / 10m2	1 BED 3.3m / 10m2	2 BED 3.6m / 12m2	ROOM DEPTH max. 9m	MAIN BEDROOM 3 x 3.4m / 10.2m2	BED 2 3 x 3m / 9m2	1 BED / 2 BED / 3 BED 1.8m - 8m2 / 2m - 8m2 / 2.4m - 12m2	5m3 INTERNAL	8m3 TOTAL	6m3 INTERNAL	10m3 TOTAL	9m3 INTERNAL	14m3 TOTAL
S-01	28	TP60.01	studio			✓			✓	■	■	■	✓	✓				
S-02	9	TP60.01	studio			✓			✓	■	■	■	✓	✓				
S-03	2	TP60.01	studio			✓			✓	■	■	■	✓	✓				
S-04	2	TP60.02	studio	✓		✓			✓	■	■	■	✓	✓				
S-05	1	TP60.02	studio	✓		✓			✓	■	■	■	✓	✓				
S-06	5	TP60.02	studio			✓			✓	■	■	■	✓	✓				
S-07	1	TP60.03	studio		✓	✓			✓	■	■	■	✓	✓				
S-08	1	TP60.03	studio		✓	✓			✓	■	■	■	✓	✓				
S-09	3	TP60.03	studio		✓	✓			✓	■	■	■	✓	✓				
S-10	1	TP60.04	studio	✓	✓	✓			✓	■	■	■	✓	✓				
S-11	1	TP60.01	studio			✓			✓	■	■	■	✓	✓				
1BS-01	3	TP60.10	1	✓	✓		✓		✓	✓	■	✓			✓	✓		
1BS-02	5	TP60.10	1	✓	✓		✓		✓	✓	■	✓			✓	✓		
1BS-03	1	TP60.10	1				✓		✓	✓	■	✓			✓	✓		
1B-01	44	TP60.11	1		✓		✓		✓	✓	■	✓			✓	✓		
1B-02	4	TP60.11	1				✓		✓	✓	■	✓			✓	✓		
~~1B-03~~	~~8~~	~~#~~	~~1~~	~~■~~	~~■~~		~~■~~		✓	~~■~~	~~■~~	~~■~~			~~■~~	~~■~~		
1B-04	2	TP60.12	1		✓		✓		✓	✓	■	✓			✓	✓		
1B-05	1	TP60.12	1				✓		✓	✓	■	✓			✓	✓		
1B-06	1	TP60.12	1	✓	✓		✓		✓	✓	■	✓			✓	✓		
1B-08	1	TP60.13	1				✓		✓	✓	■	✓			✓	✓		
1B-09	15	TP60.13	1				✓		✓	✓	■	✓			✓	✓		
2B-01	3	TP60.20	2	✓				×	✓	✓	✓	✓					✓	✓
2B-02	3	TP60.20	2	✓	✓			✓	✓	✓	✓	✓					✓	✓
2B-04	6	TP60.21	2	✓	✓			✓	✓	✓	✓	✓					✓	✓
2B-05	1	TP60.22	2	✓	✓			✓	✓	✓	✓	✓					✓	✓
2B-06	1	TP60.22	2	✓	✓			✓	✓	✓	✓	✓					✓	✓
2B-07	2	TP60.23	2	✓	✓			✓	✓	✓	✓	✓					✓	✓
2B-08	1	TP60.23	2	✓				✓	✓	✓	✓	✓					✓	✓
2B-09	1	TP60.24	2	✓				✓	✓	✓	✓	✓					✓	✓
2B-10	1	TP60.24	2	✓	✓			✓	✓	✓	✓	✓					✓	✓
2B-11	1	TP60.25	2	✓	✓			✓	✓	✓	✓	✓					✓	✓

APARTMENT TYPES	APARTMENT COUNT		CROSS VENTILATION	ACCESSIBLE
31	151	Count	33	76
		%	22%	50%

GROUND FLOOR PRIVATE OPEN SPACE

APARTMENT NUMBER	APARTMENT TYPE	PRIVATE OPEN SPACE GROUND FLOOR MIN 25SQM POS AREA (15QM)	25SQM ACHIEVED
G.01	2B-02	15sqm	○
G.02	S-02	×	○
G.03	1BS-02	8sqm	○
G.04	1BS-04	12sqm	○
G.05	1B-09	9sqm	○
G.06	1B-09	9sqm	○
G.07	1B-09	9sqm	○
G.08	1B-01	15sqm	✓
G.09	1B-01	30sqm	✓
G.10	1B-01	30sqm	✓
G.11	S-02	16sqm	○
G.12	2B-08	9sqm	○
G.13	1B-01	38sqm	✓
G.14	1B-01	38sqm	✓
G.15	1B-01	34sqm	✓
G.16	1B-01	30sqm	✓
G.17	1B-01	33sqm	✓
G.18	1B-01	40sqm	✓
G.19	S-01	8sqm	○
G.20	S-11	7sqm	○
G.21	S-01	10sqm	○
G.22	S-01	12sqm	○
G.23	S-01	10sqm	○
G.24	S-01	10sqm	○
G.25	S-01	10sqm	○
G.26	S-01	10sqm	○
G.27	1B-02	8sqm	○
G.28	S-09	×	○

○= 25SQM NOT MET BUT MIN 8SQM BALCONY SPACE ACHIEVED

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D 23/12/2025	TP UPDATE

Notes

Consultants
FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client
MODEL

Project Title
THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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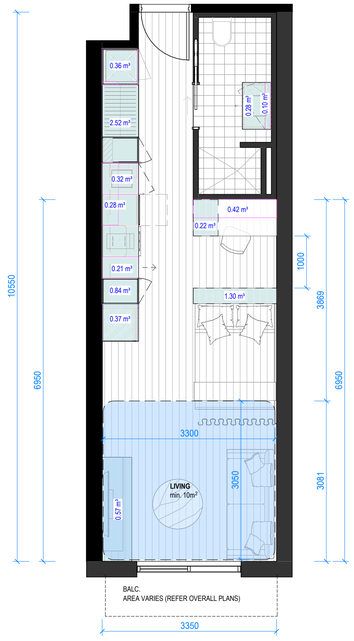
Drawing Title
APARTMENT TYPES-BADS OVERVIEW

Drawing Status
WORK IN PROGRESS

Drawing Details

Scale	@ A1
Date	26/03/2026 3:41:46 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP60.00
Revision D

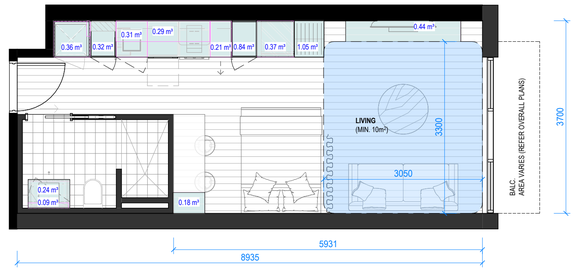


APARTMENT BADS SUMMARY:

APARTMENT TYPE:	STUDIO TYPE 01 (SB.01)
LOCATION:	L00 / L01 / L02
NUMBER OF INSTANCES:	28
ACCESSIBLE:	-
CROSS VENTILATED:	-
TOTAL USABLE BALCONY AREA:	NA

STUDIO TYPE 01

1 : 50

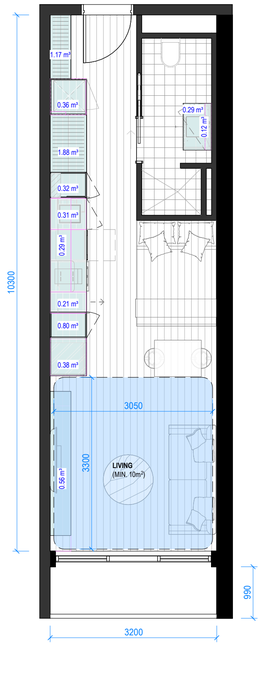


APARTMENT BADS SUMMARY:

APARTMENT TYPE:	STUDIO TYPE 02 (SB.02)
LOCATION:	L00 / L01 / L02 / L03 / L04 / L05
NUMBER OF INSTANCES:	9
ACCESSIBLE:	-
CROSS VENTILATED:	-
TOTAL USABLE BALCONY AREA:	NA

STUDIO TYPE 02

1 : 50

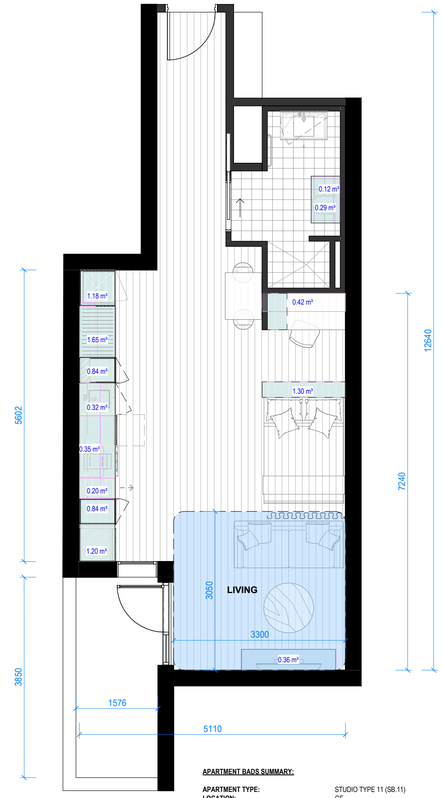


APARTMENT BADS SUMMARY:

APARTMENT TYPE:	STUDIO TYPE 03 (SB.03)
LOCATION:	L01 / L02
NUMBER OF INSTANCES:	2
ACCESSIBLE:	-
CROSS VENTILATED:	-
TOTAL USABLE BALCONY AREA:	NA

STUDIO TYPE 03

1 : 50



APARTMENT BADS SUMMARY:

APARTMENT TYPE:	STUDIO TYPE 11 (SB.11)
LOCATION:	GF
NUMBER OF INSTANCES:	1
ACCESSIBLE:	X
CROSS VENTILATED:	-
TOTAL USABLE BALCONY AREA:	NA

STUDIO TYPE 11

1 : 50

USEABLE APARTMENT AREA - STUDIO

Type	Area
STUDIO TYPE 01	35 m²
STUDIO TYPE 02	33 m²
STUDIO TYPE 03	32 m²
STUDIO TYPE 04	33 m²
STUDIO TYPE 05	31 m²
STUDIO TYPE 06	29 m²
STUDIO TYPE 07	37 m²
STUDIO TYPE 08	39 m²
STUDIO TYPE 09	32 m²
STUDIO TYPE 10	42 m²
STUDIO TYPE 11	48 m²

Note: Areas are taken from the interior of party walls, corridor walls and riser walls. Areas include internal apartment partition walls.

CEILING HEIGHTS

STUDIOS:

BATHROOMS- 2400 AFFL
LIVING SPACE- 2700 AFFL
KITCHEN- 2700 AFFL
BED ZONE- 2700 AFFL

1 BED / 2 BEDS:

BATHROOMS- 2400AFFL
KITCHEN- 2400 AFFL
LIVING ROOM- 2700 AFFL
BEDROOMS- 2600 AFFL

INTERNAL STORAGE VOLUMES

APARTMENT TYPE	STORAGE VOLUME
SB.01	8.03 m³
SB.02	4.70 m³
SB.03	7.06 m³
SB.11	9.29 m³

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B 02/10/25	FOR REVIEW
C 20/10/25	TOWN PLANNING
D 03/12/25	TOWN PLANNING RFI RESPONSE
E 23/12/2025	TP UPDATE
F 27/03/26	TP UPDATE

Notes

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

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Drawing Title

APARTMENT TYPE PLANS - STUDIOS

Drawing Status

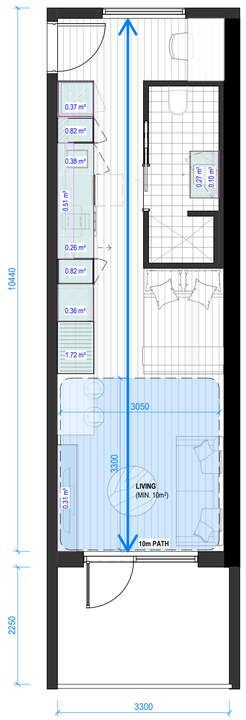
WORK IN PROGRESS

Drawing Details

Scale	As indicated@ A1
Date	26/03/2026 3:42:01 pm
Job No	10463
Drawn	BS, PG, YC
Checked	ST

Drawing No TP60.01

Revision F

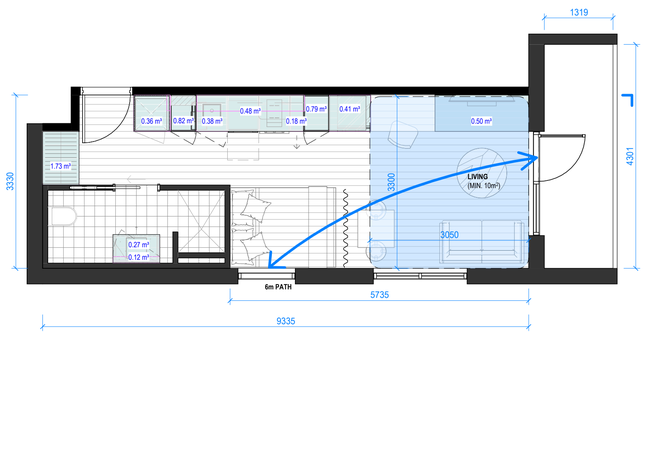


APARTMENT BADS SUMMARY:

APARTMENT TYPE:	STUDIO TYPE 04 (SB.04)
LOCATION:	L01 / L02
NUMBER OF INSTANCES:	2
ACCESSIBLE:	-
CROSS VENTILATED:	YES
TOTAL USABLE BALCONY AREA:	N/A

STUDIO TYPE 04

1 : 50

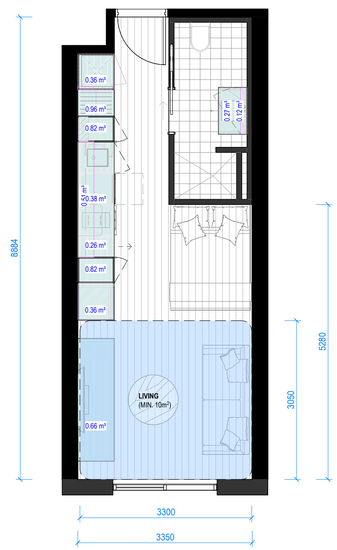


APARTMENT BADS SUMMARY:

APARTMENT TYPE:	STUDIO TYPE 05 (SB.05)
LOCATION:	L05
NUMBER OF INSTANCES:	1
ACCESSIBLE:	-
CROSS VENTILATED:	YES
TOTAL USABLE BALCONY AREA:	N/A

STUDIO TYPE 5

1 : 50



APARTMENT BADS SUMMARY:

APARTMENT TYPE:	STUDIO TYPE 06 (SB.06)
LOCATION:	L04
NUMBER OF INSTANCES:	5
ACCESSIBLE:	-
CROSS VENTILATED:	-
TOTAL USABLE BALCONY AREA:	N/A

STUDIO TYPE 6

1 : 50

CEILING HEIGHTS

STUDIOS:

BATHROOMS- 2400 AFFL
LIVING SPACE- 2700 AFFL
KITCHEN- 2700 AFFL
BED ZONE- 2700 AFFL

1 BED / 2 BEDS:

BATHROOMS- 2400AFFL
KITCHEN- 2400 AFFL
LIVING ROOM- 2700 AFFL
BEDROOMS- 2600 AFFL

USEABLE APARTMENT AREA - STUDIO

Type	Area
STUDIO TYPE 01	35 m²
STUDIO TYPE 02	33 m²
STUDIO TYPE 03	32 m²
STUDIO TYPE 04	33 m²
STUDIO TYPE 05	31 m²
STUDIO TYPE 06	29 m²
STUDIO TYPE 07	37 m²
STUDIO TYPE 08	39 m²
STUDIO TYPE 09	32 m²
STUDIO TYPE 10	42 m²
STUDIO TYPE 11	48 m²

Note: Areas are taken from the interior of party walls, corridor walls and riser walls. Areas include internal apartment partition walls.

INTERNAL STORAGE VOLUMES

APARTMENT TYPE	STORAGE VOLUME
SB.04	6.28 m³
SB.05	6.06 m³
SB.06	5.54 m³

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F 27/03/26	TP UPDATE

Notes

Consultants
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Structural Engineer
Neuron
Services Engineer

Client
MODEL

Project Title
THE FACTORY
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Drawing Title
APARTMENT TYPE PLANS - STUDIOS

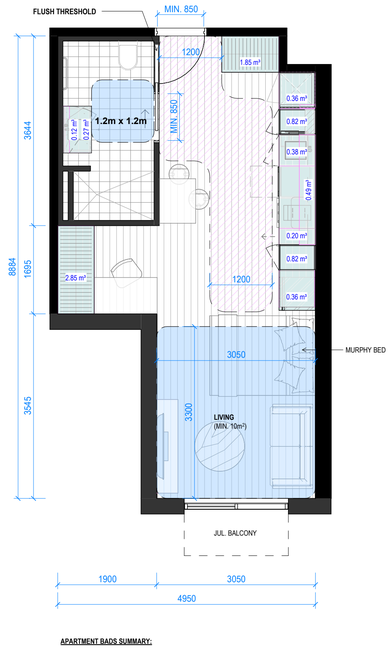
Drawing Status
WORK IN PROGRESS

Drawing Details

Scale	As indicated@ A1
Date	26/03/2026 3:42:20 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP60.02

Revision F

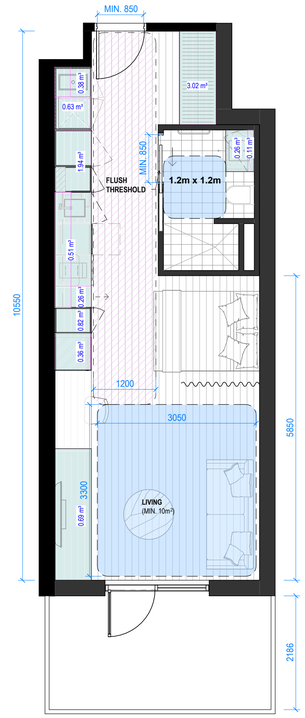


APARTMENT BADS SUMMARY:

APARTMENT TYPE:	STUDIO TYPE 07 (SB.07)
LOCATION:	L04
NUMBER OF INSTANCES:	1
ACCESSIBLE:	**YES**
CROSS VENTILATED:	X
TOTAL USABLE BALCONY AREA:	NA

STUDIO TYPE 07

1 : 50

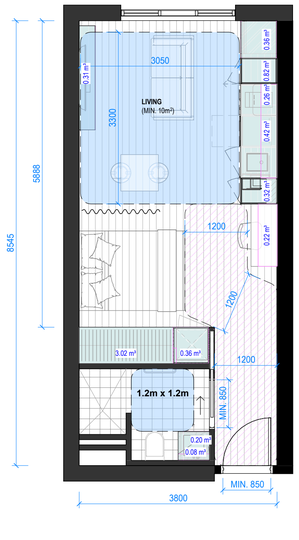


APARTMENT BADS SUMMARY:

APARTMENT TYPE:	STUDIO TYPE 08 (SB.08)
LOCATION:	L03
NUMBER OF INSTANCES:	1
ACCESSIBLE:	YES
CROSS VENTILATED:	X
TOTAL USABLE BALCONY AREA:	N/A

STUDIO TYPE 8

1 : 50

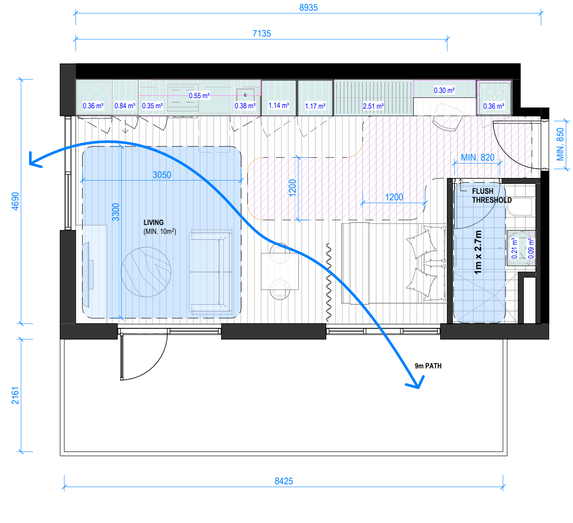


APARTMENT BADS SUMMARY:

APARTMENT TYPE:	STUDIO TYPE 09 (SB.09)
LOCATION:	L00/L01/L02
NUMBER OF INSTANCES:	3
ACCESSIBLE:	X
CROSS VENTILATED:	X
TOTAL USABLE BALCONY AREA:	Varies refer to plan m ²

STUDIO TYPE 9

1 : 50



APARTMENT BADS SUMMARY:

APARTMENT TYPE:	STUDIO TYPE 10 (SB.10)
LOCATION:	L04
NUMBER OF INSTANCES:	1
ACCESSIBLE:	Yes
CROSS VENTILATED:	Yes
TOTAL USABLE BALCONY AREA:	N/A

STUDIO TYPE 10

1 : 50

CEILING HEIGHTS

STUDIOS:

BATHROOMS- 2400 AFFL
LIVING SPACE- 2700 AFFL
KITCHEN- 2700 AFFL
BED ZONE- 2700 AFFL

1 BED / 2 BEDS:

BATHROOMS- 2400AFFL
KITCHEN- 2400 AFFL
LIVING ROOM- 2700 AFFL
BEDROOMS- 2600 AFFL

USEABLE APARTMENT AREA - STUDIO

Type	Area
STUDIO TYPE 01	35 m²
STUDIO TYPE 02	33 m²
STUDIO TYPE 03	32 m²
STUDIO TYPE 04	33 m²
STUDIO TYPE 05	31 m²
STUDIO TYPE 06	29 m²
STUDIO TYPE 07	37 m²
STUDIO TYPE 08	39 m²
STUDIO TYPE 09	32 m²
STUDIO TYPE 10	42 m²
STUDIO TYPE 11	48 m²

Note: Areas are taken from the interior of party walls, corridor walls and rear walls. Areas include internal apartment partition walls.

INTERNAL STORAGE VOLUMES

APARTMENT TYPE	STORAGE VOLUME
SB.07	8.83 m³
SB.08	8.99 m³
SB.09	6.37 m³
SB.10	8.25 m³

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D	03/12/25	TOWN PLANNING RFI RESPONSE
E	23/12/2025	TP UPDATE
F	27/03/26	TP UPDATE

Notes

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title

APARTMENT TYPE PLANS - STUDIOS

Drawing Status

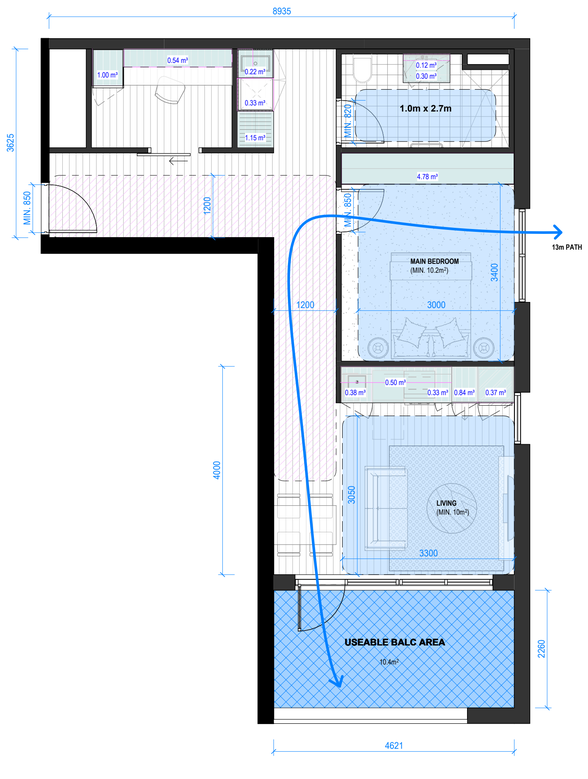
WORK IN PROGRESS

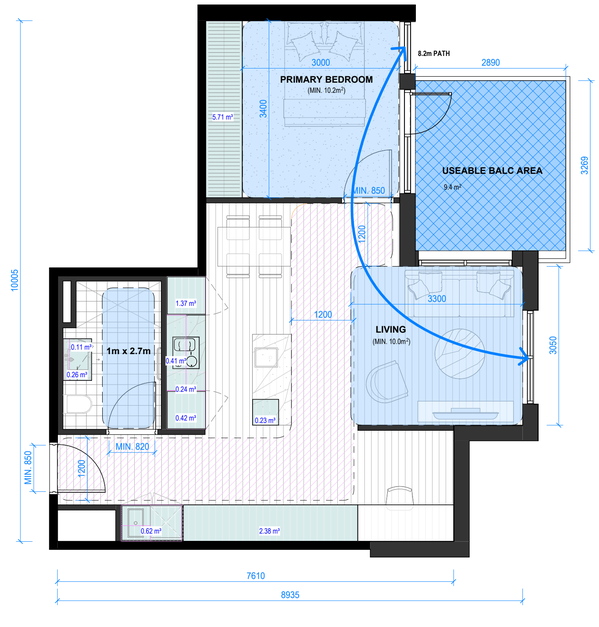
Drawing Details

Scale	As indicated@ A1
Date	26/03/2026 3:42:38 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP60.03

Revision F





APARTMENT BADS SUMMARY:

APARTMENT TYPE:	1 BED + STUDY (1BS.01)
LOCATION:	L00/L01/L02
NUMBER OF INSTANCES:	3
ACCESSIBLE:	YES
CROSS VENTILATED:	YES
TOTAL USABLE BALCONY AREA:	10.4m²

BADS APARTMENT 1 (+STUDY).01

1 : 50

APARTMENT BADS SUMMARY:

APARTMENT TYPE:	1 BED + STUDY (1BS.02)
LOCATION:	L01/L02/L03/L04/L05
NUMBER OF INSTANCES:	5
ACCESSIBLE:	YES
CROSS VENTILATED:	YES
TOTAL USABLE BALCONY AREA:	9.4m²

BADS APARTMENT 1 (+STUDY).02

1 : 50

APARTMENT BADS SUMMARY:

APARTMENT TYPE:	1 BED + STUDY (1BS.03)
LOCATION:	L00
NUMBER OF INSTANCES:	1
ACCESSIBLE:	X
CROSS VENTILATED:	X
TOTAL USABLE BALCONY AREA:	9.3m²

BADS APARTMENT 1 (+STUDY).03

1 : 50

CEILING HEIGHTS

STUDIOS:

BATHROOMS- 2400 AFFL
LIVING SPACE- 2700 AFFL
KITCHEN- 2700 AFFL
BED ZONE- 2700 AFFL

1 BED / 2 BEDS:

BATHROOMS- 2400AFFL
KITCHEN- 2400 AFFL
LIVING ROOM- 2700 AFFL
BEDROOMS- 2600 AFFL

USEABLE APARTMENT AREA - 1 BED

Type	Area
1 BED TYPE 01	49 m²
1 BED TYPE 02	53 m²
1 BED TYPE 04	43 m²
1 BED TYPE 05	49 m²
1 BED TYPE 06	54 m²
1 BED TYPE 08	43 m²
1 BED TYPE 09	45 m²
1 BED+ TYPE 01	61 m²
1 BED+ TYPE 02	60 m²
1 BED+ TYPE 03	56 m²

Note: Areas are taken from the interior of party walls, corridor walls and riser walls. Areas include internal apartment partition walls.

INTERNAL STORAGE VOLUMES

APARTMENT TYPE	STORAGE VOLUME
1BS.01	10.63 m³
1BS.02	11.75 m³
1BS.03	11.70 m³

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E 23/12/2025	TP UPDATE
F 27/03/26	TP UPDATE

Notes

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

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Drawing Title

APARTMENT TYPE PLANS - 1 BED TYPES

Drawing Status

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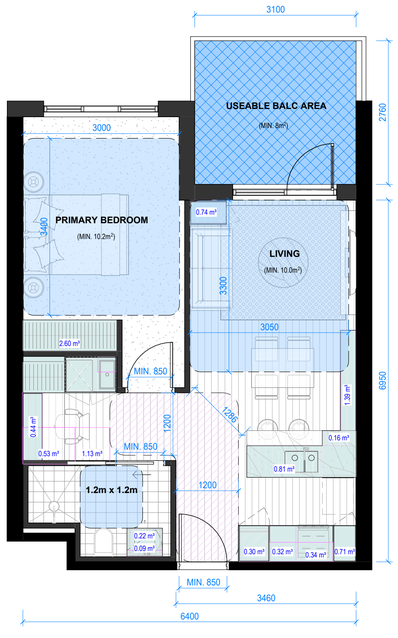
Drawing Details

Scale	As indicated@ A1
Date	26/03/2026 3:42:51 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP60.10

Revision F

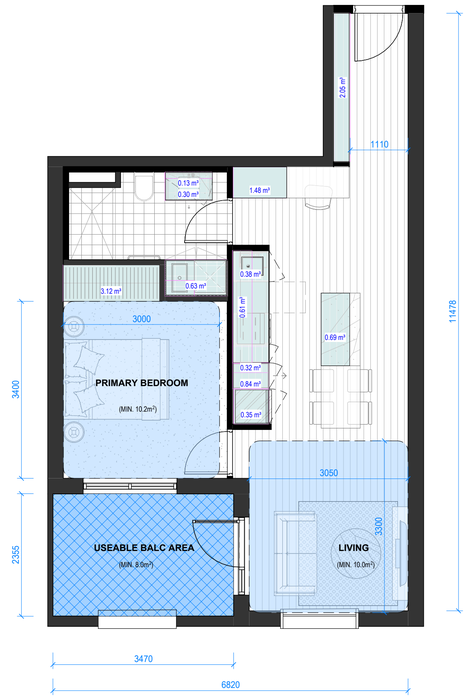


APARTMENT BADS SUMMARY:

APARTMENT TYPE:	1 BED TYPE 01
LOCATION:	L00 / L01 / L02 / L03 / L04 / L05
NUMBER OF INSTANCES:	44
ACCESSIBLE:	YES
CROSS VENTILATED:	x
TOTAL USABLE BALCONY AREA:	Varies - Min. 8 m²

BADS APARTMENT 1.01

1 : 50

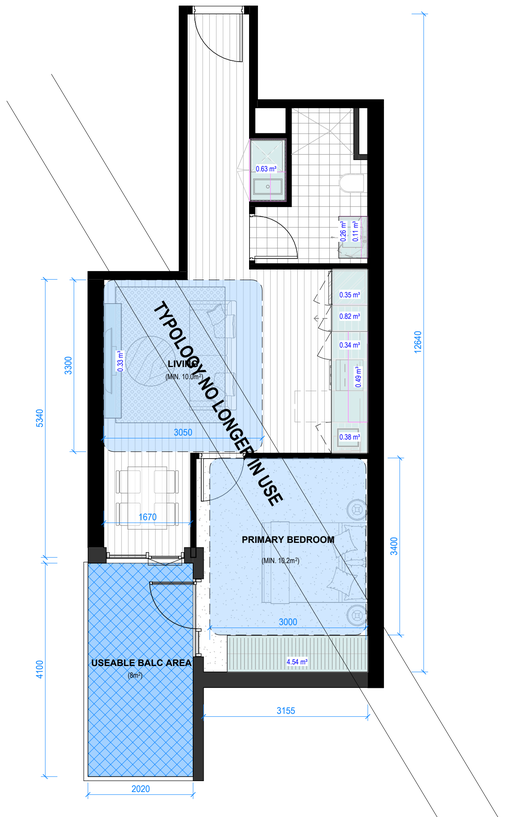


APARTMENT BADS SUMMARY:

APARTMENT TYPE:	1 BED TYPE 02
LOCATION:	L00 / L01 / L02 / L03
NUMBER OF INSTANCES:	4
ACCESSIBLE:	X
CROSS VENTILATED:	X
TOTAL USABLE BALCONY AREA:	8 m²

BADS APARTMENT 1.02

1 : 50



APARTMENT BADS SUMMARY:

APARTMENT TYPE:	1 BED TYPE 03
LOCATION:	L00
NUMBER OF INSTANCES:	1
ACCESSIBLE:	X
CROSS VENTILATED:	X
TOTAL USABLE BALCONY AREA:	8 m²

BADS APARTMENT 1.03

1 : 50

CEILING HEIGHTS

STUDIOS:

BATHROOMS- 2400 AFFL
LIVING SPACE- 2700 AFFL
KITCHEN- 2700 AFFL
BED ZONE- 2700 AFFL

1 BED / 2 BEDS:

BATHROOMS- 2400AFFL
KITCHEN- 2400 AFFL
LIVING ROOM- 2700 AFFL
BEDROOMS- 2600 AFFL

USEABLE APARTMENT AREA - 1 BED

Type	Area
1 BED TYPE 01	49 m²
1 BED TYPE 02	53 m²
1 BED TYPE 04	43 m²
1 BED TYPE 05	49 m²
1 BED TYPE 06	54 m²
1 BED TYPE 08	43 m²
1 BED TYPE 09	45 m²
1 BED+ TYPE 01	61 m²
1 BED+ TYPE 02	60 m²
1 BED+ TYPE 03	56 m²

Note: Areas are taken from the interior of party walls, corridor walls and riser walls. Areas include internal apartment partition walls.

INTERNAL STORAGE VOLUMES

APARTMENT TYPE	STORAGE VOLUME
1B.01	9.79 m³
1B.02	10.89 m³
1B.03	8.24 m³

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Notes

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

35 - 45 LITHGOW STREET,
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Drawing Title

APARTMENT TYPE PLANS - 1 BED TYPES

Drawing Status

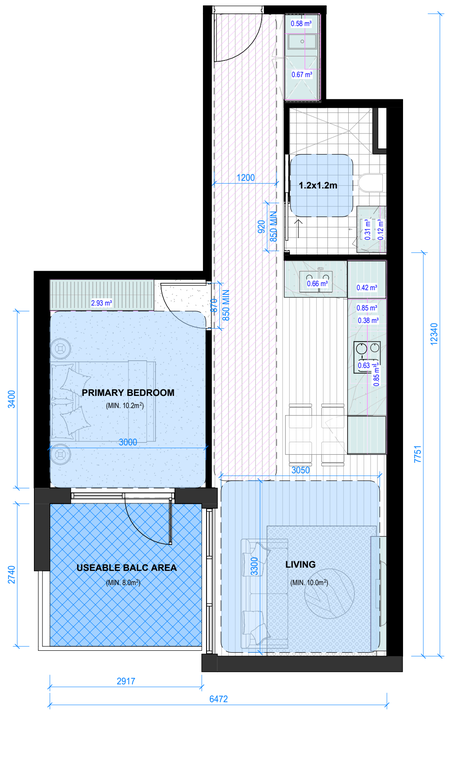
WORK IN PROGRESS

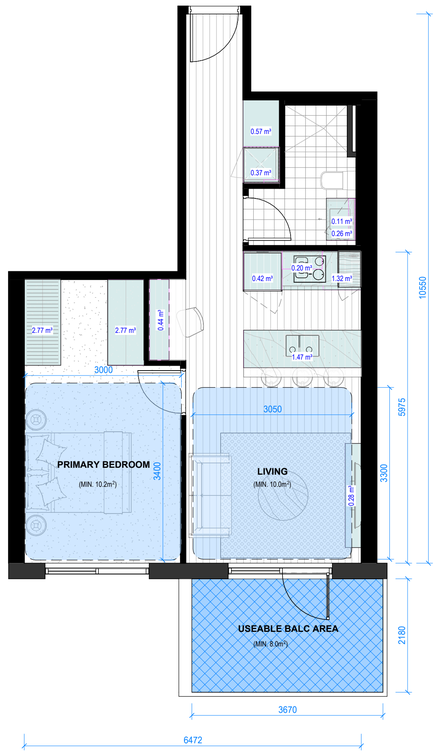
Drawing Details

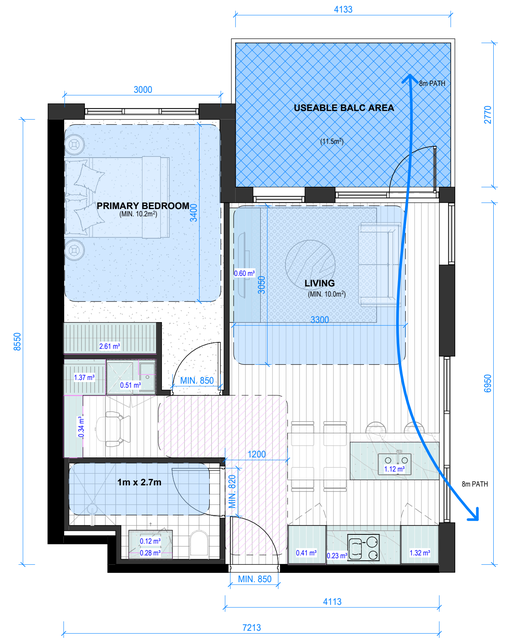
Scale	As indicated@ A1
Date	26/03/2026 3:43:06 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP60.11

Revision F







APARTMENT BADS SUMMARY:

APARTMENT TYPE:	1 BED TYPE 04
LOCATION:	L01 / L02
NUMBER OF INSTANCES:	2
ACCESSIBLE:	YES
CROSS VENTILATED:	X
TOTAL USABLE BALCONY AREA:	8 m²

BADS APARTMENT 1.04

1 : 50

APARTMENT BADS SUMMARY:

APARTMENT TYPE:	1 BED TYPE 05
LOCATION:	L03
NUMBER OF INSTANCES:	1
ACCESSIBLE:	X
CROSS VENTILATED:	X
TOTAL USABLE BALCONY AREA:	8 m²

BADS APARTMENT 1.05

1 : 50

APARTMENT BADS SUMMARY:

APARTMENT TYPE:	1 BED TYPE 06
LOCATION:	L04
NUMBER OF INSTANCES:	1
ACCESSIBLE:	X
CROSS VENTILATED:	X
TOTAL USABLE BALCONY AREA:	11.5 m²

BADS APARTMENT 1.06

1 : 50

CEILING HEIGHTS

STUDIOS:

BATHROOMS- 2400 AFFL
LIVING SPACE- 2700 AFFL
KITCHEN- 2700 AFFL
BED ZONE- 2700 AFFL

1 BED / 2 BEDS:

BATHROOMS- 2400AFFL
KITCHEN- 2400 AFFL
LIVING ROOM- 2700 AFFL
BEDROOMS- 2800 AFFL

USEABLE APARTMENT AREA - 1 BED

Type	Area
1 BED TYPE 01	49 m²
1 BED TYPE 02	53 m²
1 BED TYPE 04	43 m²
1 BED TYPE 05	49 m²
1 BED TYPE 06	54 m²
1 BED TYPE 08	43 m²
1 BED TYPE 09	45 m²
1 BED+ TYPE 01	61 m²
1 BED+ TYPE 02	60 m²
1 BED+ TYPE 03	56 m²

Note: Areas are taken from the interior of party walls, corridor walls and riser walls. Areas include internal apartment partition walls.

INTERNAL STORAGE VOLUMES

APARTMENT TYPE	STORAGE VOLUME
1B.04	8.70 m³
1B.05	10.97 m³
1B.06	10.01 m³

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Notes

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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Drawing Title

APARTMENT TYPE PLANS - 1 BED TYPES

Drawing Status

WORK IN PROGRESS

Drawing Details

Scale	As indicated@ A1
Date	26/03/2026 3:43:23 pm
Job No	10463
Drawn	BS, PG, VC
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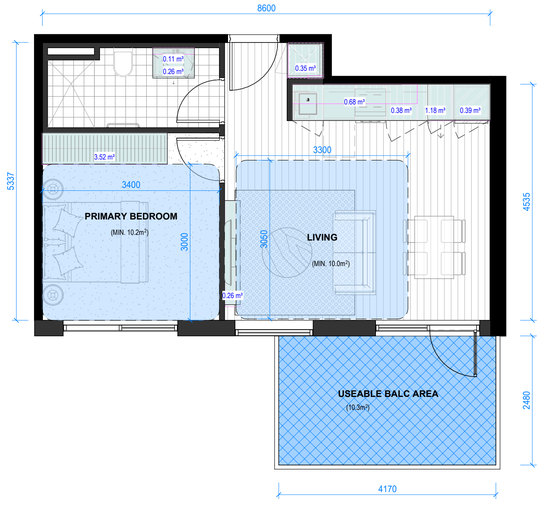
Drawing No TP60.12

Revision F

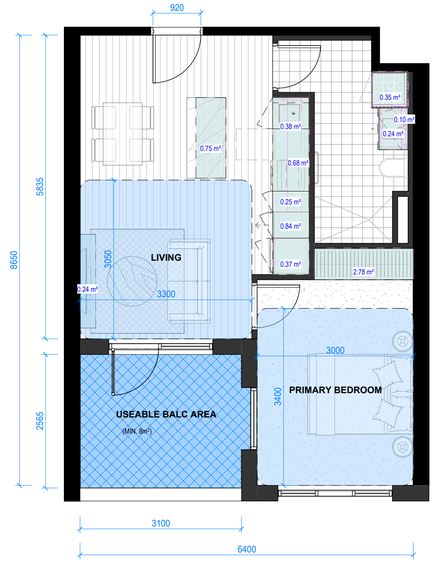


APARTMENT BADS SUMMARY:

APARTMENT TYPE:	1 BED TYPE 08
LOCATION:	L05
NUMBER OF INSTANCES:	1
ACCESSIBLE:	X
CROSS VENTILATED:	X
TOTAL USABLE BALCONY AREA:	10.3 m²

BADS APARTMENT 1.08

1 : 50



APARTMENT BADS SUMMARY:

APARTMENT TYPE:	1 BED TYPE 09
LOCATION:	GF / L01 / L02 / L03
NUMBER OF INSTANCES:	15
ACCESSIBLE:	X
CROSS VENTILATED:	X
TOTAL USABLE BALCONY AREA:	Varies - Min. 8 m²

BADS APARTMENT 1.09

1 : 50

CEILING HEIGHTS

STUDIOS:

BATHROOMS- 2400 AFFL
LIVING SPACE- 2700 AFFL
KITCHEN- 2700 AFFL
BED ZONE- 2700 AFFL

1 BED / 2 BEDS:

BATHROOMS- 2400AFFL
KITCHEN- 2400 AFFL
LIVING ROOM- 2700 AFFL
BEDROOMS- 2600 AFFL

USEABLE APARTMENT AREA - 1 BED

Type	Area
1 BED TYPE 01	49 m²
1 BED TYPE 02	53 m²
1 BED TYPE 04	43 m²
1 BED TYPE 05	49 m²
1 BED TYPE 06	54 m²
1 BED TYPE 08	43 m²
1 BED TYPE 09	45 m²
1 BED+ TYPE 01	61 m²
1 BED+ TYPE 02	60 m²
1 BED+ TYPE 03	56 m²

Note: Areas are taken from the interior of party walls, corridor walls and riser walls. Areas include internal apartment partition walls.

INTERNAL STORAGE VOLUMES

APARTMENT TYPE	STORAGE VOLUME
1B.08	7.12 m³
1B.09	7.17 m³

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Notes

Consultants

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Structural Engineer
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MODEL

Project Title

THE FACTORY

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Drawing Title

APARTMENT TYPE PLANS - 1 BED TYPES

Drawing Status

WORK IN PROGRESS

Drawing Details

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Job No	10463
Drawn	BS, PG, VC
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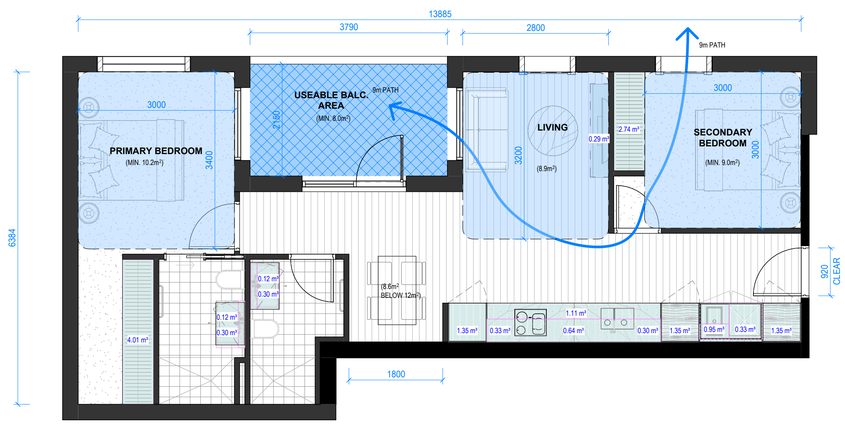
Drawing No TP60.13

Revision F

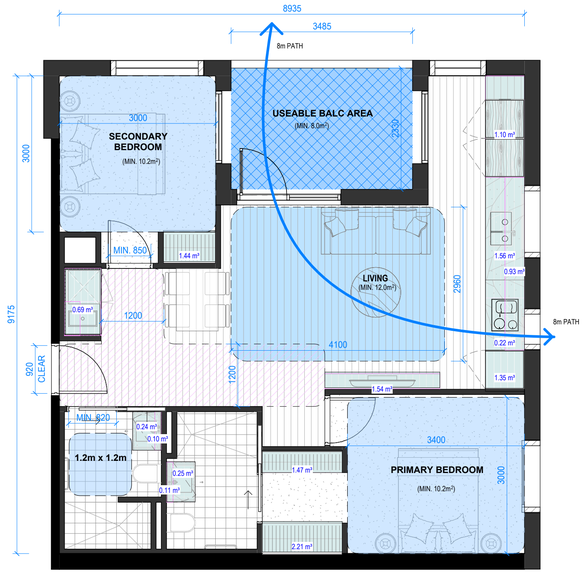


APARTMENT BADS SUMMARY:

APARTMENT TYPE:	2 BED TYPE 01
LOCATION:	L00 / L01 / L02
NUMBER OF INSTANCES:	3
ACCESSIBLE:	X
CROSS VENTILATED:	YES
TOTAL USABLE BALCONY AREA:	Varies - Min. 8 m²

BADS APARTMENT 2.01

1 : 50

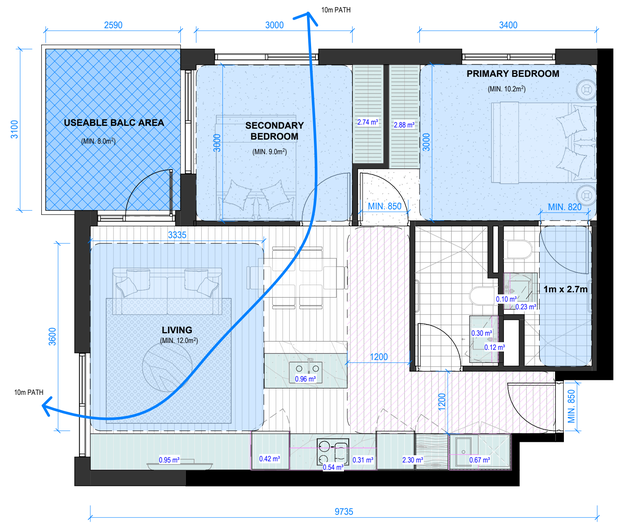


APARTMENT BADS SUMMARY:

APARTMENT TYPE:	2 BED TYPE 02
LOCATION:	L00 / L01 / L02
NUMBER OF INSTANCES:	3
ACCESSIBLE:	YES
CROSS VENTILATED:	YES
TOTAL USABLE BALCONY AREA:	8 m²

BADS APARTMENT 2.02

1 : 50



APARTMENT BADS SUMMARY:

APARTMENT TYPE:	2 BED TYPE 04
LOCATION:	L03 / L04 / L05
NUMBER OF INSTANCES:	6
ACCESSIBLE:	YES
CROSS VENTILATED:	YES
TOTAL USABLE BALCONY AREA:	8 m²

BADS APARTMENT 2.04

1 : 50

CEILING HEIGHTS

STUDIOS:

BATHROOMS- 2400 AFFL
LIVING SPACE- 2700 AFFL
KITCHEN- 2700 AFFL
BED ZONE- 2700 AFFL

1 BED / 2 BEDS:

BATHROOMS- 2400AFFL
KITCHEN- 2400 AFFL
LIVING ROOM- 2700 AFFL
BEDROOMS- 2600 AFFL

USEABLE APARTMENT AREA - 2 BED

Type	Area
2 BED TYPE 01	68 m²
2 BED TYPE 02	71 m²
2 BED TYPE 04	67 m²
2 BED TYPE 05	82 m²
2 BED TYPE 06	76 m²
2 BED TYPE 07	61 m²
2 BED TYPE 08	78 m²
2 BED TYPE 09	62 m²
2 BED TYPE 10	76 m²
2 BED TYPE 11	77 m²

Note: Areas are taken from the interior of party walls, corridor walls and riser walls. Areas include internal apartment partition walls.

INTERNAL STORAGE VOLUMES

APARTMENT TYPE	STORAGE VOLUME
2B.01	15.58 m³
2B.02	13.21 m³
2B.04	12.52 m³

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Notes

Consultants

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Client

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Project Title

THE FACTORY

35 - 45 LITHGOW STREET,
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Drawing Title

APARTMENT TYPE PLANS - 2 BED TYPES

Drawing Status

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Drawing Details

Scale	As indicated@ A1
Date	26/03/2026 3:43:51 pm
Job No	10463
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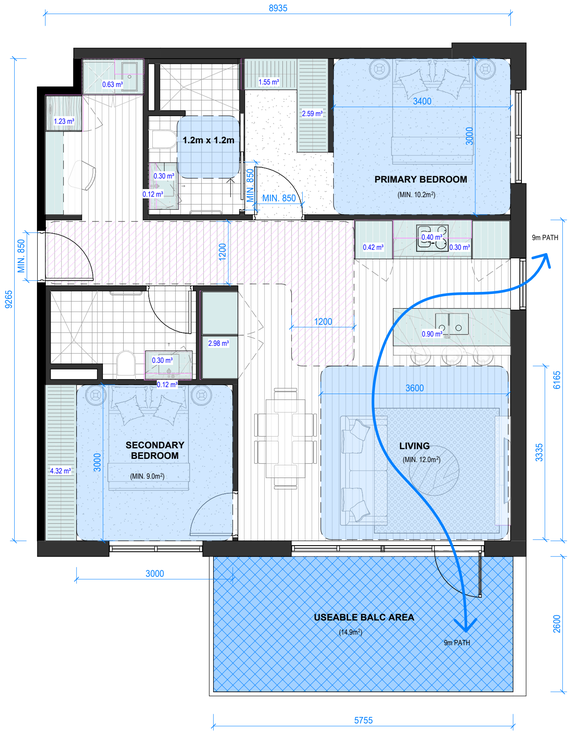
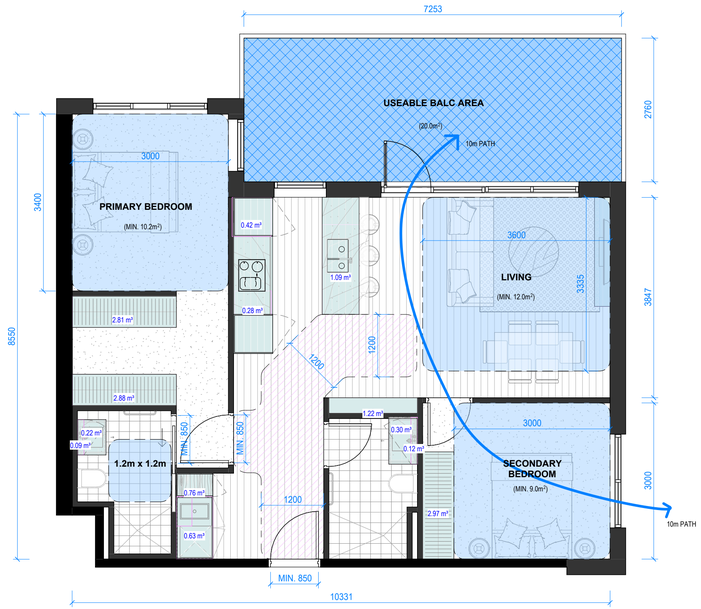
Drawing No TP60.20

Revision F





APARTMENT BADS SUMMARY:

APARTMENT TYPE:	2 BED TYPE 05
LOCATION:	L03
NUMBER OF INSTANCES:	1
ACCESSIBLE:	YES
CROSS VENTILATED:	YES
TOTAL USABLE BALCONY AREA:	14.9 m²

BADS APARTMENT 2.05

1 : 50

APARTMENT BADS SUMMARY:

APARTMENT TYPE:	2 BED TYPE 06
LOCATION:	L03
NUMBER OF INSTANCES:	1
ACCESSIBLE:	YES
CROSS VENTILATED:	YES
TOTAL USABLE BALCONY AREA:	20.0 m²

BADS APARTMENT 2.06

1 : 50

CEILING HEIGHTS

STUDIOS:

BATHROOMS- 2400 AFFL
LIVING SPACE- 2700 AFFL
KITCHEN- 2700 AFFL
BED ZONE- 2700 AFFL

1 BED / 2 BEDS:

BATHROOMS- 2400AFFL
KITCHEN- 2400 AFFL
LIVING ROOM- 2700 AFFL
BEDROOMS- 2600 AFFL

USEABLE APARTMENT AREA - 2 BED

Type	Area
2 BED TYPE 01	68 m²
2 BED TYPE 02	71 m²
2 BED TYPE 04	67 m²
2 BED TYPE 05	82 m²
2 BED TYPE 06	76 m²
2 BED TYPE 07	61 m²
2 BED TYPE 08	78 m²
2 BED TYPE 09	62 m²
2 BED TYPE 10	76 m²
2 BED TYPE 11	77 m²

Note: Areas are taken from the interior of party walls, corridor walls and riser walls. Areas include internal apartment partition walls.

INTERNAL STORAGE VOLUMES

APARTMENT TYPE	STORAGE VOLUME
2B.05	16.44 m³
2B.06	14.09 m³

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Phone + 61 3 8547 6977

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C 20/10/25	TOWN PLANNING
D 03/12/25	TOWN PLANNING RFI RESPONSE
E 27/03/26	TP UPDATE

Notes

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

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APARTMENT TYPE PLANS - 2 BED TYPES

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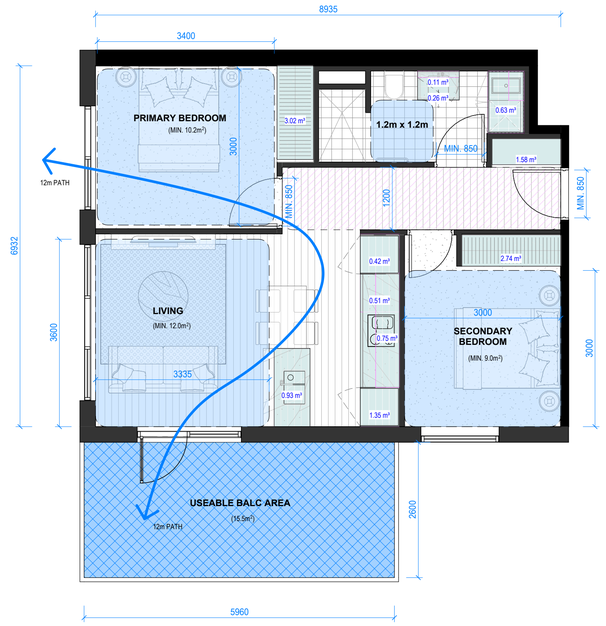

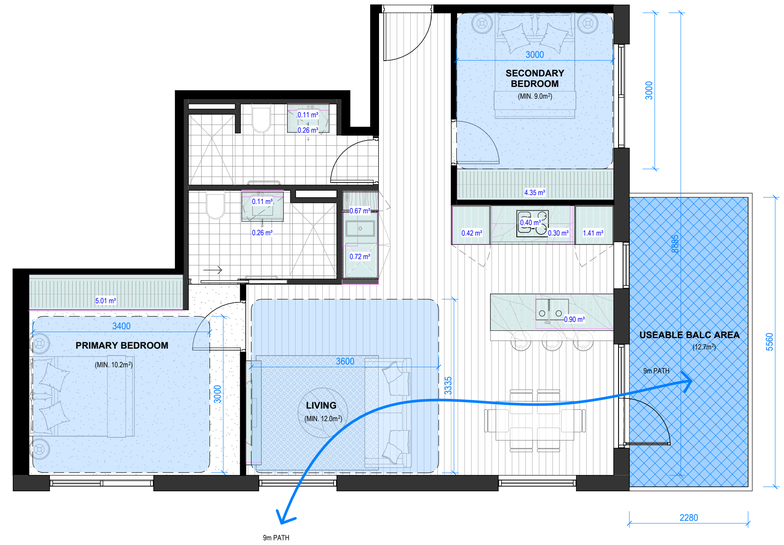

APARTMENT BADS SUMMARY:

APARTMENT TYPE:	2 BED TYPE 07 (2B.07)
LOCATION:	L03 / L04
NUMBER OF INSTANCES:	2
ACCESSIBLE:	YES
CROSS VENTILATED:	YES
TOTAL USABLE BALCONY AREA:	15.5 m²

BADS APARTMENT 2.07

1 : 50

APARTMENT BADS SUMMARY:

APARTMENT TYPE:	2 BED TYPE 08
LOCATION:	L04
NUMBER OF INSTANCES:	1
ACCESSIBLE:	X
CROSS VENTILATED:	YES
TOTAL USABLE BALCONY AREA:	12.7 m²

BADS APARTMENT 2.08

1 : 50

CEILING HEIGHTS

STUDIOS:

BATHROOMS- 2400 AFFL
LIVING SPACE- 2700 AFFL
KITCHEN- 2700 AFFL
BED ZONE- 2700 AFFL

1 BED / 2 BEDS:

BATHROOMS- 2400AFFL
KITCHEN- 2400 AFFL
LIVING ROOM- 2700 AFFL
BEDROOMS- 2600 AFFL

USEABLE APARTMENT AREA - 2 BED

Type	Area
2 BED TYPE 01	68 m²
2 BED TYPE 02	71 m²
2 BED TYPE 04	67 m²
2 BED TYPE 05	82 m²
2 BED TYPE 06	76 m²
2 BED TYPE 07	61 m²
2 BED TYPE 08	78 m²
2 BED TYPE 09	62 m²
2 BED TYPE 10	76 m²
2 BED TYPE 11	77 m²

Note: Areas are taken from the interior of party walls, corridor walls and riser walls. Areas include internal apartment partition walls.

INTERNAL STORAGE VOLUMES

APARTMENT TYPE	STORAGE VOLUME
2B.07	12.31 m³
2B.08	15.17 m³

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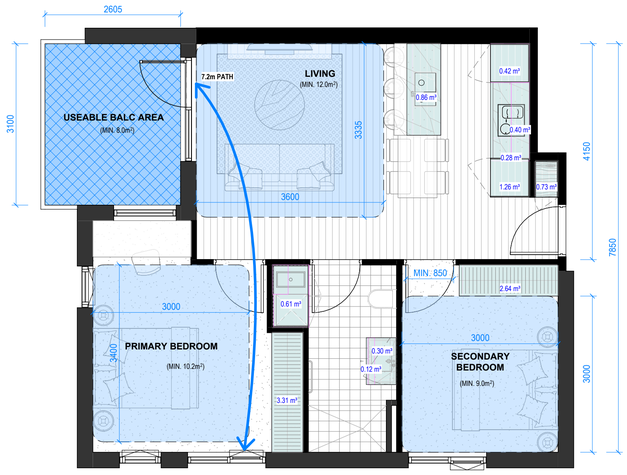
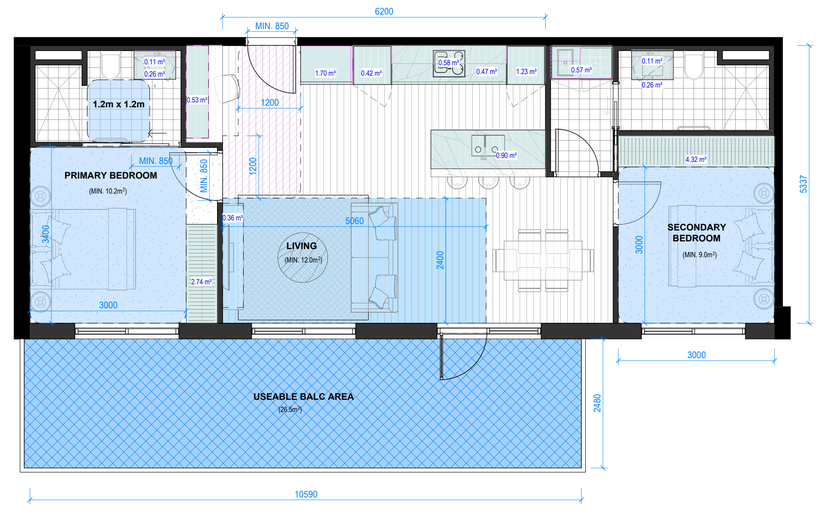


APARTMENT BADS SUMMARY:

APARTMENT TYPE:	2 BED TYPE 09
LOCATION:	L05
NUMBER OF INSTANCES:	1
ACCESSIBLE:	X
CROSS VENTILATED:	YES
TOTAL USABLE BALCONY AREA:	8 m²

BADS APARTMENT 2.09

1 : 50



APARTMENT BADS SUMMARY:

APARTMENT TYPE:	2 BED TYPE 10
LOCATION:	L05
NUMBER OF INSTANCES:	1
ACCESSIBLE:	YES
CROSS VENTILATED:	NO
TOTAL USABLE BALCONY AREA:	26.5 m²

BADS APARTMENT 2.10

1 : 50

CEILING HEIGHTS

STUDIOS:

BATHROOMS- 2400 AFFL
LIVING SPACE- 2700 AFFL
KITCHEN- 2700 AFFL
BED ZONE- 2700 AFFL

1 BED / 2 BEDS:

BATHROOMS- 2400AFFL
KITCHEN- 2400 AFFL
LIVING ROOM- 2700 AFFL
BEDROOMS- 2600 AFFL

USEABLE APARTMENT AREA - 2 BED

Type	Area
2 BED TYPE 01	68 m²
2 BED TYPE 02	71 m²
2 BED TYPE 04	67 m²
2 BED TYPE 05	82 m²
2 BED TYPE 06	76 m²
2 BED TYPE 07	61 m²
2 BED TYPE 08	78 m²
2 BED TYPE 09	62 m²
2 BED TYPE 10	76 m²
2 BED TYPE 11	77 m²

Note: Areas are taken from the interior of party walls, corridor walls and riser walls. Areas include internal apartment partition walls.

INTERNAL STORAGE VOLUMES

APARTMENT TYPE	STORAGE VOLUME
2B.09	11.20 m³
2B.10	14.56 m³

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Structural Engineer
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Services Engineer

Client

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Project Title

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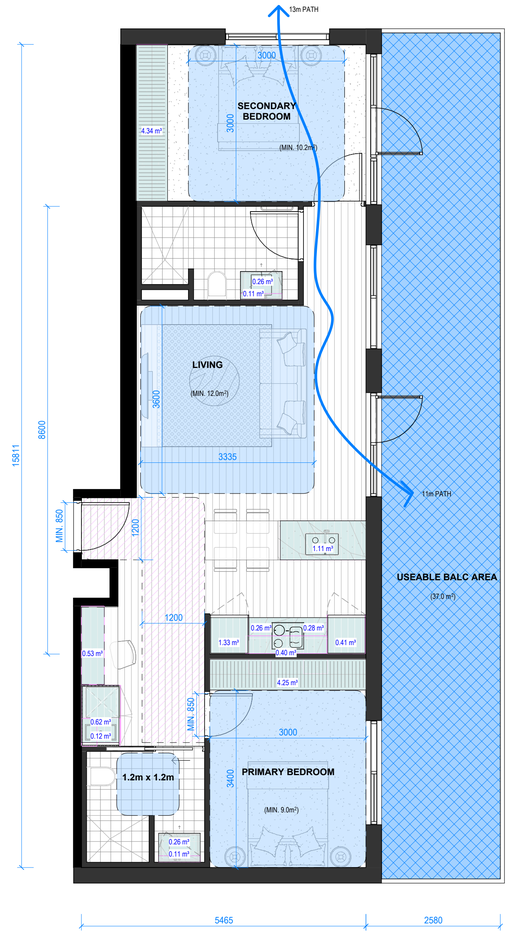

APARTMENT BADS SUMMARY:

APARTMENT TYPE:	2 BED TYPE 11
LOCATION:	L05
NUMBER OF INSTANCES:	1
ACCESSIBLE:	**YES**
CROSS VENTILATED:	**YES**
TOTAL USABLE BALCONY AREA:	37.0 m²

APARTMENT TYPE 2.11

1 : 50

CEILING HEIGHTS

STUDIOS:

BATHROOMS- 2400 AFFL
LIVING SPACE- 2700 AFFL
KITCHEN- 2700 AFFL
BED ZONE- 2700 AFFL

1 BED / 2 BEDS:

BATHROOMS- 2400AFFL
KITCHEN- 2400 AFFL
LIVING ROOM- 2700 AFFL
BEDROOMS- 2600 AFFL

USEABLE APARTMENT AREA - 2 BED

Type	Area
2 BED TYPE 01	68 m²
2 BED TYPE 02	71 m²
2 BED TYPE 04	67 m²
2 BED TYPE 05	82 m²
2 BED TYPE 06	76 m²
2 BED TYPE 07	61 m²
2 BED TYPE 08	78 m²
2 BED TYPE 09	62 m²
2 BED TYPE 10	76 m²
2 BED TYPE 11	77 m²

Note: Areas are taken from the interior of party walls, corridor walls and riser walls. Areas include internal apartment partition walls.

INTERNAL STORAGE VOLUMES

APARTMENT TYPE	STORAGE VOLUME
2B.11	14.70 m³

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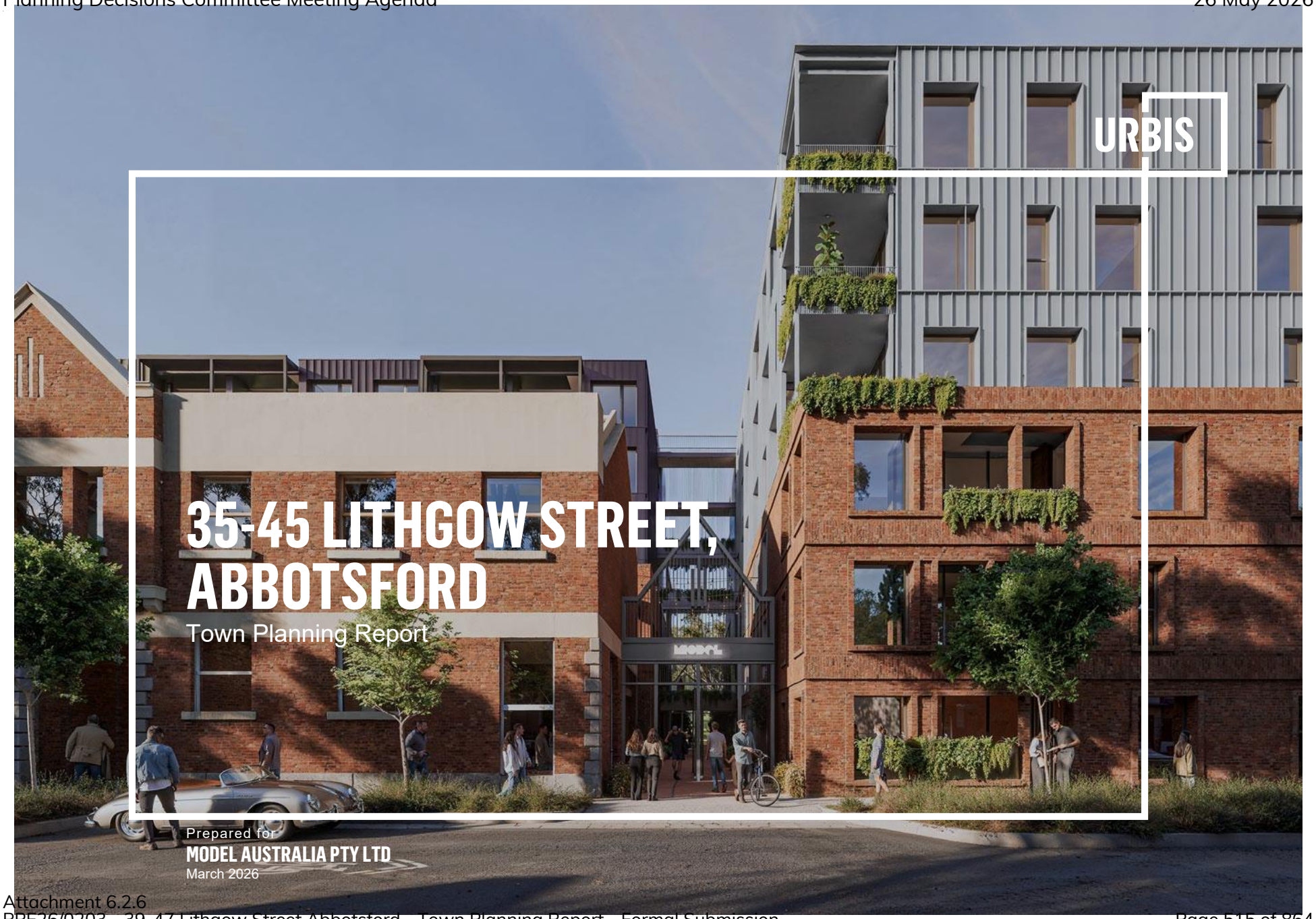

URBIS

35-45 LITHGOW STREET, ABBOTSFORD

Town Planning Report

Prepared for
MODEL AUSTRALIA PTY LTD
March 2026

URBIS STAFF RESPONSIBLE FOR THIS REPORT

Director	Billy Rebakis
Associate Director	Rochelle Fleming
Consultant	Hamish Redgrove
Project Code	P0053112
Report Number	Rev 3

SUBMISSION DOCUMENTS

This report is to be read in conjunction with:

- Certificates of Title (purchased 30/03/2026)
- Metropolitan Planning Levy Certificate, issued on 25 March 2026.
- Land Survey, prepared by Breese Pitt Dixon, and dated 04 September 2024.
- Architectural Plans, prepared by Warren and Mahoney Architects, and dated 27 March 2026.
- 3D Digital Model, prepared by Warren and Mahoney.
- Amended Town Planning Report prepared by Urbis dated 30 March 2026.
- Urban Context and Design Response Report, prepared by Warren and Mahoney Architects, and dated March 2026.
- Daylight Modelling, prepared by ARUP, and dated 02 February 2026.
- Landscape Plan, prepared by Ratio, and dated 29 October 2025.
- Sustainability Management Plan, prepared by ARUP, and dated 29 October 2025.
- Wind Report, prepared by ViPAC, and dated 30 October 2025.
- Acoustic Report, prepared by Acoustic Logic, and dated 29 October 2025.
- Waste Management Plan, prepared by Traffic Group, and dated 30 October 2025.
- Traffic Engineering Assessment, prepared by Traffic Group, and dated 30 March 2026.
- Affordable Housing Report, prepared by Model, and dated 25 March 2026.
- Quantity Surveyor Report, prepared by Slattery, and dated 04 December 2025.

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EXECUTIVE SUMMARY

Urbis has prepared the current report for Model Australia in support of the proposed redevelopment of 35-45 Lithgow Street, Abbotsford (site).

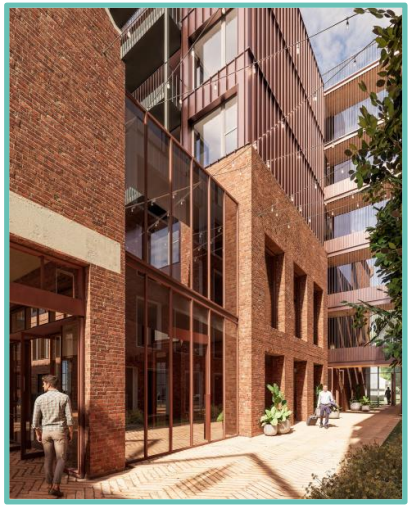
The proposal will see the demolition and redevelopment of parts of the site to deliver 151 dwellings across two apartment buildings, alongside the adaptive reuse of the original warehouse building at the south-eastern corner of the site for a cafe and resident amenities.

This approach will make a meaningful contribution to housing supply in an area with a clear local need for new, well-located, sustainable and high-quality homes, whilst also allowing for security of tenure for future renters.

The proposed scheme is the result of an extensive consultation process with the Department of Transport (DTP) and Office of the Victorian Government Architect (OVGA). This has led to a design that is heritage-led, sympathetic to its surrounds and delivers public benefit through the renewal of a blighted site, generous streetscape upgrades and affordable housing. As the OVGA observes, the proposal achieves these outcomes with distinction:

> ***…repositioning heritage as a design driver rather than a site constraint, has established an exemplary conceptual approach to the unique site.***

The project team is genuinely proud of what the proposal achieves. It will respect its place, add to the life of the neighbourhood and showcase the principle of 'density done well'. We look forward to engaging with DTP further as this proposal moves through the assessment phase.



WHAT IS THE PLANNING ASK?

The site is in the City of Yarra and as such is subject to the Yarra Planning Scheme (planning scheme). The current permit application seeks permissions under the following provisions of the planning scheme:

Table 1. Summary of the proposal.

CLAUSE	PERMISSION SOUGHT
Clause 32.04 Mixed use zone	▪ Construct a building or construct or carry out works
Clause 43.02 Design and development overlay	▪ Construct a building or construct or carry out works
Clause 43.01 Heritage overlay	▪ Partial demolition ▪ Construction of buildings and construct and carry out works ▪ External alterations ▪ External painting ▪ Carrying out works, repairs and routine maintenance which change the appearance of a heritage place ▪ Roadworks which change the appearance of a heritage place

ASSESSMENT SUMMARY

This report demonstrates that the proposal is an acceptable and appropriate outcome for the site for the following reasons:

- **Strategic fit and location** – The proposal will deliver medium-density housing, including 10% affordable dwellings, in a Major Activity Centre with good access to public transport, services, and employment, directly supporting state and local housing supply and affordability objectives.
- **Heritage-led design** – The proposed scheme will retain and restore the most significant elements of the 1927 Schweppes Cordial Factory, expressing it in the round' and integrating it with new built form in a way that cleverly reinterprets the site's industrial legacy.
- **Contextually responsive built form** – Following OVGA input, the proposed design has evolved into three distinct mid-rise buildings, reducing visual bulk, increasing permeability and open space, and aligning more closely with the DDO22 height control. The final six-storey height represents a significant reduction from the original nine-storey concept and is a reasonable and appropriate built-form outcome.
- **Public realm and landscape benefits** – The proposal delivers a genuine through-site pedestrian link, enhanced streetscape planting, reduced crossovers, widened nature strips, and deep-soil planting zones, improving connectivity, amenity, and urban greening for both residents and the wider community.
- **High-quality internal amenity** – All apartments are provided with a high standard of internal amenity, supported by extensive communal facilities including a rooftop terrace, wellness centre, co-working spaces, and landscaped courtyards.
- **Sustainability leadership** – The project targets best-practice sustainability targets and will set a new benchmark for environmentally responsible build-to-rent housing in inner Melbourne.
- **Transport and access** – Car parking spaces are provided at Basement Level and do not exceed the maximum provision permitted by Clause 52.06. A strong bicycle parking offer is also provided which will encourage sustainable travel behaviour.

1. SITE AND SURROUNDS

The site is 35-45 Lithgow Street, which comprises one rectangular parcel of land between Lithgow Street to the east and Little Lithgow Street to the west. The site is approximately 3,096 square metres in area and is formally known as land on the following titles:

- Lot 1 on Title Plan 190219
- Lot 1 on Title Plan 297588
- Lot 1 on Title Plan 344636
- Lot 1 on Title Plan 381933
- Lot 1 on Title Plan 684290

1.1. EXISTING USE AND DEVELOPMENT

The site hosts a two-storey, currently disused warehouse building known as the former 'Schweppes Cordial Factory'. The building is constructed from brickwork above a bluestone plinth. It has a pitched slate roof along its eastern and western elevations.

Vehicle access to the site is taken via four single-width and one extra-width crossovers to Lithgow Street and two single-width crossovers to Little Lithgow Street.

The building is built to the site's boundaries with no ground-floor setbacks apart from a recess along its northern boundary with the neighbouring properties and slight recesses for access points and windows. At the first floor, some articulation is provided along the first floor of its primary frontage to Lithgow Street where three first-floor gables protrude over the footpath.

As is outlined in the accompanying Heritage Impact Statement (October 2025) prepared by Urbis, the building on the site was initially developed as a warehouse and manufacturing facility. As the facility's operations grew, so too did its footprint, with numerous augmentations of sympathetic design being added over time.

Key features on the site include a 21-metre-high brick smokestack toward the site's south-western corner, and a three-storey brick tower toward the centre of the site's western elevation.

1.2. INTERFACES

1.2.1.1. North

The site interfaces to the north with a single-storey Victorian style terrace dwelling at 49 Lithgow Street, Abbotsford. This dwelling is in the Neighbourhood Residential Zone - Schedule 1 (NRZ1).

Figure 1. The site (on the left) in relation to 49 Lithgow Street (centre of frame), facing south-west from Lithgow Street. Source: Google Maps.an

The dwelling at no. 49 has a contemporary extension built to its rear, and open space along the centre of its southern boundary and at its frontage and rear abuttal. Apart from this open space the original building and extension are built-to-boundary.

The open space along the southern boundary of no. 49 encroaches into the site (see Figure 2). Satellite images suggests that this land has been historically used by no. 49 for use as open space. The current application proposes no development on this land. Dwellings of similar form and scale to that at no. 49 continue on land farther north along Lithgow Street, however, these are punctuated by more modern typologies.

Figure 2. The site in relation to the open space at 49 Lithgow Street. Source: Nearmap.

The site is approximately 90 metres to the south of Lithgow Street's intersection with Mollison Street and by extension Victoria Crescent. The built form around this intersection is less residential and is typified by Victorian warehouses and postwar factoryettes.

1.2.1.2. East

The site's primary frontage faces east to Lithgow Street. Lithgow Street is a two-lane local road with parking and painted bike markings on either side.

Figure 3. The site's interface to Lithgow Street, facing south. Source: Google Maps.

Across from Lithgow Street is Abbotsford Primary School, with the site opposed to the main school building. This building is two-storeys and is built to a Collegiate Gothic style, with polychromatic brick, lancet windows and steep gables. The school is in the Public Use Zone 2 (PUZ2).

Figure 4. Abbotsford Primary School, facing east from Lithgow Street. Source: Google Maps.

1.2.1.3. South

The site interfaces to the south with a single-storey Victorian style terrace building at 33 Lithgow Street. South of no. 33, four similar dwellings line Lithgow Street before the streetscape becomes more built-up toward Victoria Street. 36 metres south of the site is a single-storey showroom at nos. 21-23. 55 metres south of the site is a five-storey apartment building at nos. 11-17. All of the land between the site and Victoria Street shares its MUZ zoning.

Figure 5. The site (on the left) in relation to 49 Lithgow Street (centre of frame), facing south-west from Lithgow Street. Source: Google Maps.

Figure 6. The existing apartment building at 11-17 Lithgow Street, facing south-west from Lithgow Street. Source: Google Maps.

1.2.1.4. West

The site abuts Little Lithgow Street, an access laneway, to the west.

Figure 7. The site's rear (western) interface to Little Lithgow Street, facing north. Source: Google Maps.

Across Little Lithgow Street are the rears of dwellings that front William Street, farther west of the site. William Street is predominantly residential, with a mix of dwelling types on narrow, landscaped lots. William Street is in the NRZ1.

Figure 8. Dwellings along the eastern side of William Street, facing east with the brick tower on the site in the background. Source: Google Maps.

1.3. SURROUNDING CONTEXT

The site is in an established, mixed area that Clause 11.031L Activity centres identifies as the Victoria Street Activity Centre. While this activity centre has common features: a high building density, a fine street grain, compact orthogonal street grid and streetscapes with Victorian-era architecture; its land use and development are mixed, with a range of commercial and residential uses across buildings of varying scale and style.

Relevantly, the site is close to key amenities such as a full-line supermarket (Abbotsford Woolworths), schools (e.g., Collingwood College), open space, community-service centres and a hospital (Epworth Richmond). The site also has good access to existing transport infrastructure, including the Mernda and Hurstbridge railway lines, tram routes 12 and 109, and Hoddle Street and the Eastern Freeway.

1 The Hive Shopping Centre (Woolworths and Aldi, 180 metres from site)

2 Tram stop – routes 12 and 109 (190 metres from site)

3 North Richmond Station (500 metres from site)

4 Collingwood Station (550 metres from site)

5 Collingwood College – P-12 (760 metres from site)

6 Epworth Hospital (930 metres from site)

7 Yarra River and Yarra Bend Park (200 and 500 metres from site)

8 Victoria Gardens Shopping Centre (1,050 metres from site)

2. PRE-APPLICATION PROCESS

Model and Urbis thank DTP and OVGA for their extensive input through the pre-application process and recognise that this has positively shaped the resultant design.

2.1. DTP PRE-APPLICATION MEETINGS

The proposal was lodged through the DFP as pre-application no. PPA- 784 on 23 September 2024 before being assigned a new application number, PPA-788 on 2 October 2024. Since this point, the proposal has been the subject of five (5) in-person pre-application meetings, two with DTP, one with the City of Yarra and two with OVGA (Victorian Design Review Panel).

2.1.1. First pre-application meeting (3 October 2024)

The initial pre-application meeting with DTP was held on 3 October 2024. At this stage, the proposal was a quite different scheme comprising a single-volume addition to the existing building on the site.

Figure 9. An indicative render showing the appearance of the first scheme (20 September 2024) to Lithgow Street. This was the scheme presented at the first DTP pre-application meeting on 3 October 2024. Source: Warren and Mahoney.

This initial design was characterised by sloping mansard roofs, a covered (internal) through-site link, a greater extent of heritage retention, and a building height of 9 storeys, or 26.8 metres excluding services. The initial proposal included 173 apartments and had a GFA of 14,182sqm.

Following this meeting, email advice on the proposed scheme was provided on 23 October 2024, the key points of which can be summarised as follows:

- The proposed height significantly exceeds the mandatory building height limit of 18 metres and consideration should be given to reducing the height to better align with policy and the site's context.
- Some of the apartments appear to have challenges accessing daylight and outlook. Compliance with the provisions of Clause 58 Apartment developments should be achieved.
- As the design response evolves, it will be critical to ensure appropriate treatment of the site's immediate sensitive interfaces, having regard to and minimising the impacts of overshadowing, visual bulk and overlooking.
- The retention of heritage elements such as the roof, rear tower and chimney is supported. The approach to materials is also supported.

2.1.2. Pre-application meeting two (19 December 2024)

A second pre-application meeting with DTP was held on 19 December 2024, at which the second iteration of the development scheme was presented. Following the advice provided by DTP after the first pre-application meeting, the proposed scheme had been modified as follows:

- Upper-level setback to Lithgow Street increased by 1.0m to improve daylight amenity to lower-level apartments, which in this scheme were in a rank behind the fully retained heritage facade.
- Reduced setbacks to Lithgow Street along the two 'wings of the building, to offset for lost yield.
- Expanded upper-level floorplates and reduction in height by one storey.

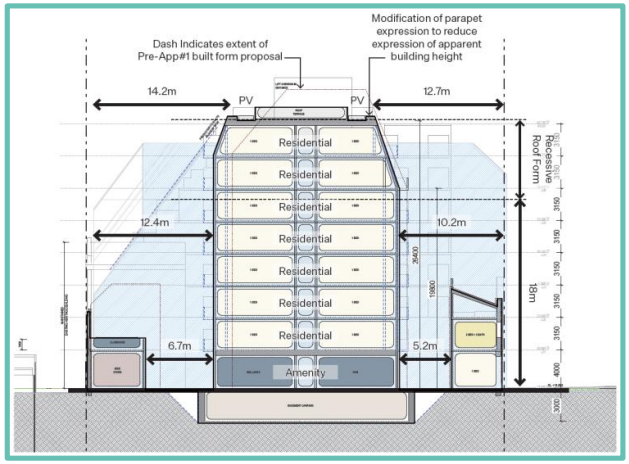


Figure 10. Section of the second scheme (6 December 2024). This was the scheme presented at the second DTP pre-application meeting on 19 December 2024.

At this meeting, DTP officers provided the following high-level design advice:

- The improvements to the design are acknowledged and there is an understanding of the feasibility challenges associated with delivering a scheme of the proposed nature.
- The proposed height remains a challenge and threshold issue, however, these are offset to a degree by the affordable housing, ESD and architectural offer.
- Approbative advice from OVGA would provide additional support from a built-form and design perspective.

2.2. CITY OF YARRA CONSULTATION MEETINGS

2.2.1. Initial meeting

Following the second pre-application meeting, an in-person consultation was held with planning staff at the City of Yarra on 10 February 2025.

At this meeting, the staff raised queries about height of the proposed development, though were also supportive in-principle of the site's redevelopment for a multi-residential scheme that provided for affordable housing, activated the streetscape, achieved high ESD targets and reflected design excellence.

2.2.2. Second meeting

A second meeting was held with planning staff at the City of Yarra on 17 December 2025 to present the proposed development to officers. The scheme presented to planning staff, reflects the current design which had been reduced in height since the initial meeting with Yarra officers. At this meeting, the staff were supportive of the proposed design, including the reduction in height to 6 storeys.

2.3. OVGA / VICTORIAN DESIGN REVIEW PANEL

2.3.1. Initial design consultation

Following the above-mentioned preapplication meetings, DTP officers remitted the application to OVGA to run it through a Victorian Design Review Panel (VDRP). As a pre-screening ahead of this process, however, the second scheme was referred to OVGA, which on 22 May 2025 issued written advice in the form of a memo.

This advice was constructive and found that the proposal would benefit from a stronger conceptual approach that was clearly informed by the heritage building and immediate context. Adjustments to height, bulk, and site planning, it found, could also help achieve a more balanced outcome.

In its advice, the following specific design items were raised:

- A residential use with a minor retail component is appropriate.
- The proposed height and bulk may detriment the streetscape and public realm, and the design would benefit from being more clearly led by the heritage building's proportions and character.
  - The bulk, massing and modulation could be better balanced if the design were led less by planning constraints and more by an appraisal of the site's unique qualities.
  - The relationship between the new development on the site and its existing heritage identity could be strengthened through a refreshed

development approach and through the adoption of referential and sympathetic materials.

  - The response to the site's heritage values could be bolder by keeping the heritage that matters, and overlaying the site with a stronger, more considered, contemporary-companion response.

- There are opportunities to improve the site through enhanced permeability and landscaping.

2.3.2. Panel one (2 July 2025)

In response to the OVGA's memo and in order to prepare it for the VDRP, the proposal was updated with *a refreshed design response guided by heritage, context and quality* (OVGA Panel One Submission Package, 1 July 2025, Warren and Mahoney).

This updated scheme had a revised massing approach that was intended to reduce the prominence of the addition. This brought the removal of an additional building level, the abandonment of the mansard rooflines and the deepening of upper-level setbacks (Figure 11).

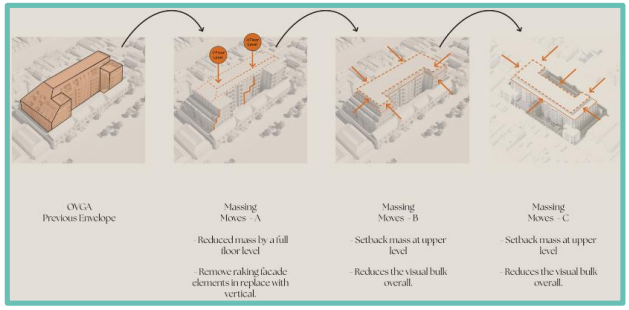


Figure 11. Revised massing approach as shown in the submission package (1 July 2025) presented to the first VDRP on 2 July 2025. Source: Warren and Mahoney.

Other key changes in this scheme were:

- The consideration of a greater extent of demolition, with the c.1960–1973 northern annex on the site identified as having potential *greater extent of works* (Figure 12).
- An updated material palette, which was considered to better integrate with the surrounding context (in evidence at Figure 13).

Figure 13 opposite shows an indicative visualisation of the scheme presented at the first VDRP.

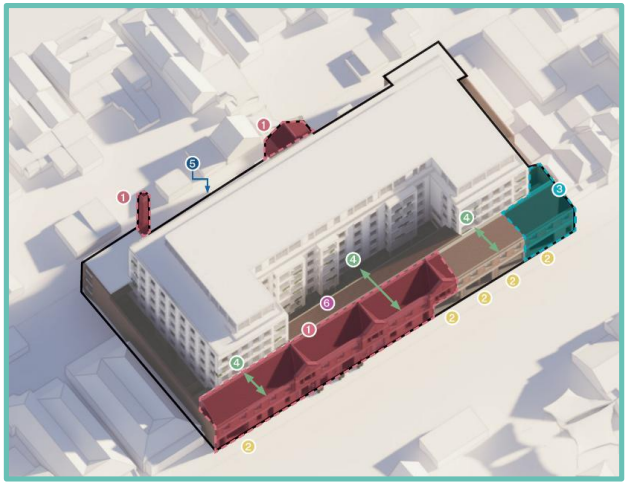


Figure 12. Visualisation of the scheme presented to the first VDRP (1 July 2025), with high-value heritage fabric shown in red and lower-value fabric in blue. Source: Warren and Mahoney.

Figure 13. Render of the scheme presented to the first VDRP (1 July 2025) on 2 July 2025. Source: Warren and Mahoney.

2.3.3. Panel two – 27 August 2025

Following the first VDRP on 2 July 2025, OVGA issued a Design Review Report dated 16 July 2025 encouraged a clearer heritage-led approach, noting that the initial concept could better express the site's industrial history. It suggested exploring a *collection of forms* rather than a singular mass, refining the relationship between new and retained buildings, and improving the integration of landscape and public realm.

OVGA also raised points for refinement around building height, recommending the proposed built form more strongly consider the current 18-metre height control, and to rethink materiality, encouraging a palette that more directly responded to the retained heritage fabric.

In response to this feedback, the design team undertook a substantial reworking of the proposal. The revised scheme, which was presented to a second VDRP on 27 August 2025, adopted a contextual 'neighbourhood of buildings' approach, breaking the mass into three distinct forms. The building height was also reduced further to sit broadly in alignment with the DDO22 control, improving the scheme's fit with the surrounding context. Within this scheme, the heritage building was repositioned as the centrepiece of the site, expressed 'in the round' and activated with residential amenities and a cafe to engage the street.

Materiality was refined, with brickwork at the podiums podium and distinctive metal cladding above. And public realm outcomes were strengthened through enhanced streetscape planting, reduced crossovers, and the introduction of a clear-to-sky pedestrian link.

At the second review on 27 August 2025, the OVGA considered the new site composition to be a significant improvement over from earlier concepts. It found the revised scheme to be a more nuanced response to the heritage context, with the current density – still high yield but reduced from the original concept – appropriate for a site of this scale.

The Panel in particular lauded the design team's boldness in reinventing proposal as three separated buildings, which it found created a more convincing 'collection of forms,' reminiscent of the site's original accretion of factory buildings. The Panel supported this redistribution of yield into lower-scale, clearly separated forms that respectfully address the primary heritage building, and strongly endorsed the adaptive reuse of the heritage building on Lithgow Street as residential support amenity. The OVGA also acknowledged and supported the reduction in height from the original nine storeys, to seven, and now to a more appropriate six storeys, and emphasised the importance of delivering an attractive, enhanced public realm to Lithgow Street as part of the project offer.

We consider that the following quotes from the OVGA's final Design Review Report to be of relevance:

> *We consider the built form composition is significantly improved from concepts discussed in previous OVGA workshops. The revised concept suggests a more nuanced approach to the heritage context, and the current density (still high yield although reduced from the original concept) seems on balance to be appropriate for this large urban site. We commend the design team for their bold reinvention of the site organisation. Proposing three separated buildings rather than a singular approach has led to a more convincing 'collection of forms', separated by lanes, reminiscent of the original accretion of factory buildings across the site.*
>
> *Generally, we consider the development concept for this large site, being residential with minor retail use, is both appropriate and desirable in this locale.*
>
> *We support the redistribution of yield using lower scale, clearly separated forms which respectfully address the primary heritage building. This creates a far stronger and more appropriate response to site and context than previously reviewed concepts.*
>
> *We strongly support the revised concept to re-vision the heritage building to Lithgow Street as residential support amenity. This seems an appropriate use for the building, adding important amenity to support the increased population on the site.*
>
> *To support the proposed reduced setback to Lithgow Street, we consider it critical that the project delivers an attractive, enhanced public realm to this street…There is potential significant community benefit from the changed conditions (including reduced crossovers and traffic, potential for widened nature strips etc) on Lithgow Street, and it is important this is part of the project offer.*
>
> *We acknowledge and support the reduction in height which has significantly improved the design composition and the way it sits in its context. We note that over the course of OVGA workshops, the original scheme proposed 9 storeys, followed by a reduction to 7 storeys, with the current revised concept proposing a more appropriate 6 storeys.*

2.4. CURRENT DESIGN RESPONSE

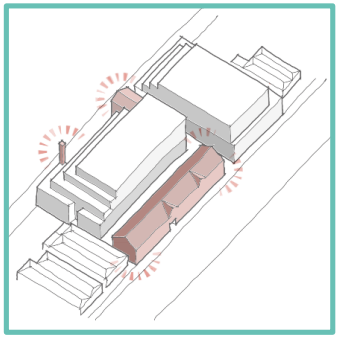
A common thread through the design advice to date from DTP, OVGA and the City of Yarra is the recognition that more housing is needed in Abbotsford and broadly in the municipality. It has also been agreed that the site is a suitable location to deliver on this priority. The key issue remains the preferred built form outcome on the site.

While the development schemes that were presented at the DTP pre-applications and first VDRP have architectural merit, they were based on the plausible assumption that the full extent of the site's heritage fabric needed to be retained. As outlined above, the advice from the OVGA following the first VDRP gave an imprimatur to think differently.

This licence from OVGA to 'prune' the site, by clearing away its non-original and less-contributory fabric, enabled the design team to then recast the proposal as the current scheme: a neighbourhood of forms that responds sympathetically to its local context and provides for a 'broken-up' and finer grain appreciation of the site.

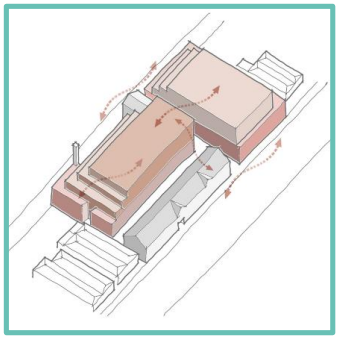
This scheme retains the same design philosophy that was presented in October 2024, however a massing arrangement that is more contextually responsive and an expression that is respectful to the heritage warehouse. The removal of lower-value elements has allowed the heritage building to stand as its own distinct, legible form. The new forms – varied in height and setback – create a layered composition that frames and complements the building while maintaining visual deference to it. Additionally, they are intended to make more of the heritage that is to be retained that the original response did, through the removal of less significant fabric in a manner that enhances and celebrates the original 1927 design by FL&K Klingender.

As discussed at Section 4.3 of Warren and Mahoney's Urban Context Report (September 2025), the three key principles for the proposal's built-form massing are as follows (quoted):



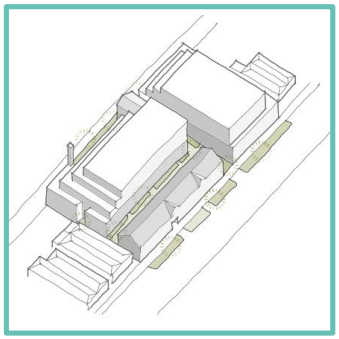
Celebrate 1927 heritage, repurpose for living

Retain and celebrate the strongest heritage fabric of the 1927 redevelopment 'in the round,' while repurposing its extraordinary spaces to create unique residential amenity.



Neighbourhood fabric: contextual, scaled, connected

Develop new residential fabric as a neighbourhood of buildings that reflects the site's heritage context while breaking down scale to create a sensitive interface with street, lane and neighbours.



Porous green links and active edges

Create a porous and green site network of courtyards throughout the site, with active street edges, and a generous landscaped communal link connecting Lithgow Street and the rear lane way.

2.5. RESPONSE TO OVGA DESIGN REVIEW REPORT DATED 27 AUGUST 2025

In response to feedback received from the OVGA the proposed development:

- Proposes to deliver high quality public realm improvements to Lithgow Street, which will deliver an attractive and enhanced public realm. Subject to detailed design to be agreed with Council this includes new street planting through conversion of existing loading zones including allowing for space for provision of outdoor seating, associated with the proposed café.
- The design carefully responds to the heritage significance of the 1927 FL & K factory, retaining and celebrating three defining elements: the Lithgow Street façade and factory building, the original chimney, and the pitched-roof tower on Little Lithgow Street. As set out in the supporting Heritage Impact Report, appropriate structural support will be provided for the retained chimney.
- Bicycle parking has largely been accommodated at ground level which will provide for convenient use for residents. The secure door accessible by swipe car will ensure 24-hour easy and safe access. A small provision of overflow bike storage is provided at basement level which is easily accessible from the lifts.
- The south facing studio apartments on the lower levels in the north building, located between the fire stair and corridor have been replaced with larger dwellings to improve internal amenity.
- An east facing window has been added to the northern building corridors in response to OVGA's comments. This will allow for natural light at all termination points of the north buildings corridors.

2.6. ELIGIBILITY

On 19 March 2026, eligibility for the proposal known as PPA-778 for the subject site was confirmed by the Development Facilitation Program (DFP) within the Department of Transport and Planning (DTP).

Under delegation from the Minister for Planning, written advice was provided confirming that a planning permit application for the proposal may be made under Category 1 of Clause 53.23 of the Yarra Planning Scheme. This determination was made on the basis that:

- *The proposed land use is accommodation;*
- *The proposed estimated cost of development cost is at least $50 million; and*
- *Information demonstrating the likely feasibility of the proposal has been provided to the satisfaction of the Minister for Planning, including written advice from the Chief Executive Officer (or delegate) of Invest Victoria.*

The eligibility letter also included preliminary comments in relation to building height and setbacks, heritage, residential amenity (Clause 58), environmentally sustainable design, and the affordable housing report, along with other matters identified in the Further Information section.

All matters raised in the eligibility correspondence have since been formally addressed. Responses to each item are set out in detail in the cover letter accompanying this report or addressed in this Town Planning Report.

3. PROPOSAL

3.1. PROPOSAL SUMMARY

The proposal will redevelop the one site for two apartment buildings and retain and restore (with some alterations to improve functionality) the site's original key heritage features, including the original 1927 factory on the land.

Additionally, the proposal includes various streetscape upgrades, on-site open space with deep-soil planting and a single-level basement car park with areas for bike parking, a waste room and resident storage cages.

In planning terms, the proposal seeks permission under the following clauses:

- **Clause 32.04 Mixed Use Zone (MUZ)**
  - Construct a building or construct or carry out works
- **Clause 43.02 Design and development overlay – Schedule 22 (DDO22)**
  - Construct a building or carry out works
- **Clause 43.01 Heritage overlay – Schedule (HO339)**
  - Partial demolition
  - Construction of buildings and construct and carry out works
  - External alterations
  - External painting
  - Carrying out works, repairs and routine maintenance which change the appearance of a heritage place
  - Roadworks which change the appearance of a heritage place

The proposed use of the land is *Dwelling* (apartments) and *Food and drink premises* (cafe smaller than 150 square metres). No permission is sought for the use of land as both of these land uses are as of right under Clause 32.04 Mixed use zone.

These requested permissions are sought under Clause 53.23 Significant residential development with affordable housing. As confirmed by the Department of Transport and Planning on 19 March 2026, the proposal is eligible to be assessed under Category 1 in Table 1 to Clause 53.23 for the following reasons:

- The proposed land use is accommodation;
- The proposed estimated cost of development cost is at least $50 million;
- The application will provide for an affordable housing contribution of 10 per cent of the total number of dwellings in the proposed development; and
- Information demonstrating the likely feasibility of the proposal has been provided to the satisfaction of the Minister for Planning, including written advice from the Chief Executive Officer (or delegate) of Invest Victoria.

3.2. PROPOSED DEVELOPMENT

The proposal will see parts of the site demolished to facilitate the land for two new apartment buildings and open space. This demolition will be targeted and remove only the later, non-original additions to the building on the site, with the key elements of its original 1927 footprint to be retained and conserved. The two new apartment buildings will then form a 'neighbourhood' of complementary mid-rise forms, arranged to respect the retained warehouse's primacy and integrate with the surrounding streetscape.

This approach will support a distinct visual separation between the heritage warehouse and apartment buildings, allowing for it to be appreciated in the round and read more distinctly. It will also create a vertical break toward the north of the site that brings both visual relief and the overall built form into closer alignment with its fine-grain context – while also enabling extensive open space at the ground floor and opportunities for deep-soil planting.

Across the site, varied facade treatments and modulations to building depth will reinforce this distinction, add visual interest and ensure the new elements are recessive and complement the retained heritage fabric.

Figure 14 opposite shows an indicative site plan of the proposed development. Table 2 below and Table 3 and Table 4 overleaf summarise the key details of the proposed development.

Table 2. Development summary.

DEVELOPMENT AREA	PROPOSAL
Gross Floor Area	• 10,493sqm (excluding basement)
Net Floor Area	• 62sqm (commercial)
Resident amenity	• 575sqm (internal) • 720sqm (external)

Figure 14. Indicative proposed site arrangement. Source: Warren and Mahoney.

Table 3. Key features of proposed development.

ELEMENT	PROPOSAL
Height of building:	• 18.7 metres (excluding services) • Six storeys (excluding lift overrun and basement)
ESD benchmarks	Committed targets: • 5 Star Green Star 'Australian Excellence' • 7 Star NatHERS average and 6 Star NatHERS minimum Aspirational targets, subject to detailed design resolution: • 6 Star Green Star 'World Leadership' • Passivhaus Classic Certification • 9 Star NatHERS average or equivalent
Dwelling mix	151 apartments across: • 54 studios • 68 one-bedroom apartments • 9 one-bedroom plus study apartments • 20 two-bedroom apartments
Car parking spaces	• 43 in basement • 2 drop-off spaces on Lithgow Street • 2 loading bay spaces on Lithgow Street
Bicycle parking	94 spaces across: • 6 spaces on Lithgow Street (3 x bike hoops) • 48 spaces in ground-floor locked room in heritage building • 40 spaces in locked room in the basement
Resident amenities	Rooftop terrace: • Dog run • Clotheslines • Communal planters • Covered and uncovered seating • Cooking facilities Heritage warehouse: • Communal lounge • Cafe • Coworking space • Gym and wellness centre with spa, cold plunge and saunas.
Storage	Storage cages for residents in basement, with 6 cubic metres each.

3.2.1. Waivers sought to mandatory controls sought under Clause 53.23-2

Clause 52.32-2 Planning scheme requirements provides that the Minister for Planning may waive or vary any of the following controls for an application that is eligible to be assessed under Clause 52.23 Significant residential development with affordable housing:

- *A minimum garden area requirement.*
- *Any building height or setback requirement.*
- *A condition opposite a use in Section 2 in a zone or a schedule to a zone.*
- *Any application requirement in this planning scheme if in the opinion of the responsible authority the requirement is not relevant to the assessment of the application.*

Noting that the site is subject to mandatory building height and setback requirements under DDO22, the current proposal seeks the Minister for Planning's discretion to waive these controls as follows:

The relevant built-form controls for which waivers are sought are located at Section 2.2 and Map 4 to Schedule 22 to Clause 43.02.

Table 4. Summary of variances sought under Clause 53.23-2 to mandatory controls.

MANDATORY CONTROL	PROPOSAL	VARIANCE SOUGHT
Maximum height of building of 18.0 metres.	18.7 metres (excluding services, lift overrun and rooftop canopy).	700mm
Minimum upper-level setback above street wall of 6.0 metres.	1.50 metres (only at north of site).	4.50 metres.

3.2.2. Demolition

The proposal will involve the removal of later, non-original additions to the former Schweppes Cordial Factory complex, along with some internal elements at the warehouse to be retained. This demolition will make way for new apartment buildings and open space.

The scope of demolition has been designed to retain the key elements of the building's c.1927 footprint and other landmark features, while debriding fabric from subsequent phases of development that is not considered integral to the site's heritage significance.

Specifically, the buildings proposed for demolition include the following:

Northern extensions

- Demolition of the northern extensions to the original building on the site reveal its original northern return to the warehouse building, including:
  - Demolition of the sawtooth-roofed section and the northern gabled end of the Lithgow Street facade, both constructed between 1951 and 1960; and
  - removal of the flat-roofed section to the northern part of the site, dating from c.1960–1973.
- These elements occupy the northern allotments and are built to the street boundary. They will be replaced by the northern apartment building.

Figure 15. Indicative elevation of the proposed demolition along the Lithgow Street frontage. Source: Warren and Mahoney.

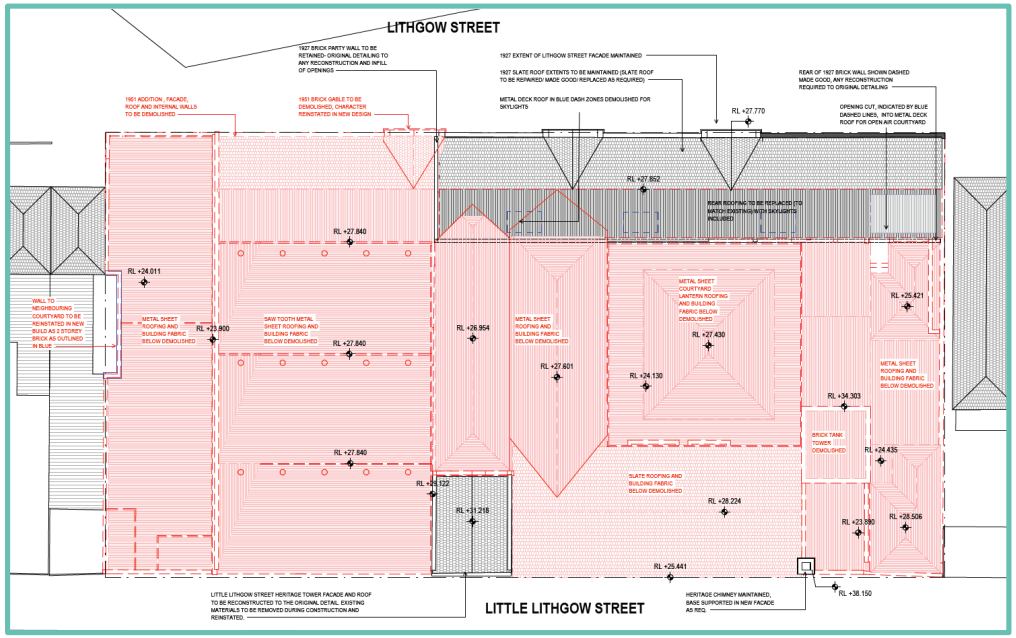


Figure 16. The demolition plan for the site. Source: Warren and Mahoney.

Central and western built form

- Demolition of built form west of the main north–south gable-roofed section fronting Lithgow Street, excluding the existing chimney and tower to Little Lithgow Street.
- Removal of the brick tank tower to the south-west of the site.
- Removal of roof lantern, and hipped roof sections in the central part of the site.
- Dismantling of the gable-roofed tower, with reconstruction using salvaged materials. Some alterations to openings are proposed to facilitate its conversion into apartments.

Openings and roof fabric

- Replacement of existing windows in the retained warehouse with new double-glazed timber-framed units, and removal of window security bars and mesh screens.
- Removal of non-original signage from the Lithgow Street façade.
- Western portion of heritage roof to be removed with parts reconstructed, to accommodate skylights and a roof terrace in the southern part of the retained warehouse.
- The demolition plan also includes the removal of later roller doors along Lithgow Street, with these openings to be adapted for new uses such as cafe entries, resident access, and building services.

For further information on the proposed demolition, please see the accompanying Heritage Impact Statement (October 2025) Urbis and Architectural Drawings (October 2025) Warren and Mahoney.

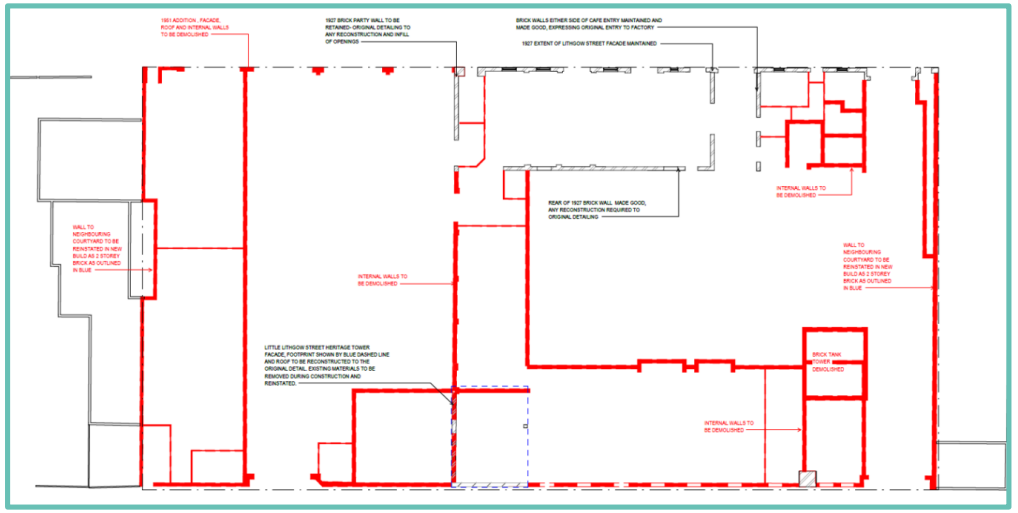


Figure 17. Site demolition plan (ground floor). Source: Warren and Mahoney.

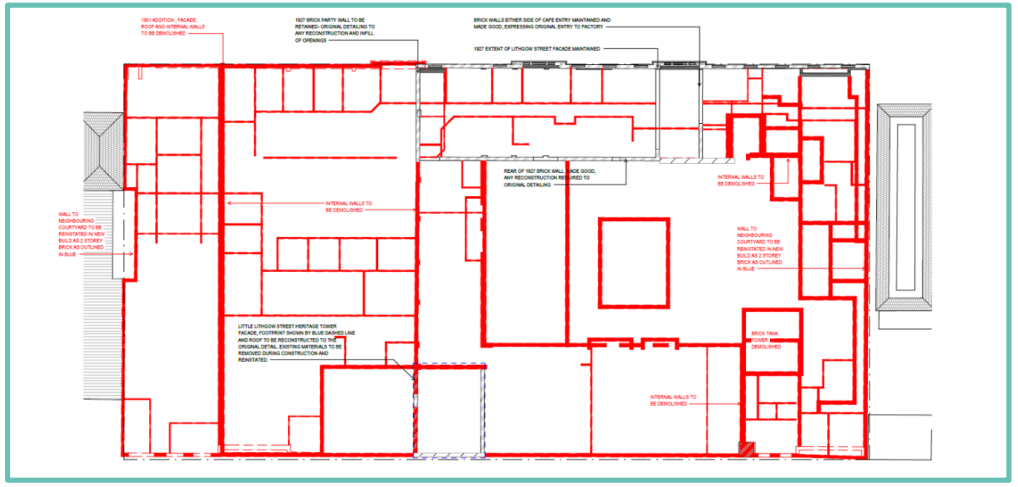


Figure 18. Site demolition plan (first floor). Source: Warren and Mahoney.

3.2.3. Retained warehouse

The retained warehouse will comprise the c. 1927 fabric and the original volume of the former Schweppes Cordial Factory fronting Lithgow Street. This portion is identified in the above-mentioned Heritage Impact Statement and in written advice from OVGA as having the most significant heritage value.

The proposal will entail conservation works to stabilise and restore the warehouse's eastern facade. These works will also involve the removal of the building's existing paint coat to reveal its bluestone plinth, rendered banding and brickwork. The full program of conservation works to the retained warehouse will comprise the following:

- Removal of paint from brick and stone surfaces using non-abrasive methods.
- Repair of exposed brickwork, stone foundations, and rendered detailing as required.
- Refurbishment of timber window frames, with replacement of glazing to improve thermal performance.
- Removal of later security bars and mesh screens from window openings.
- Removal of non-original signage from the parapet and façade.

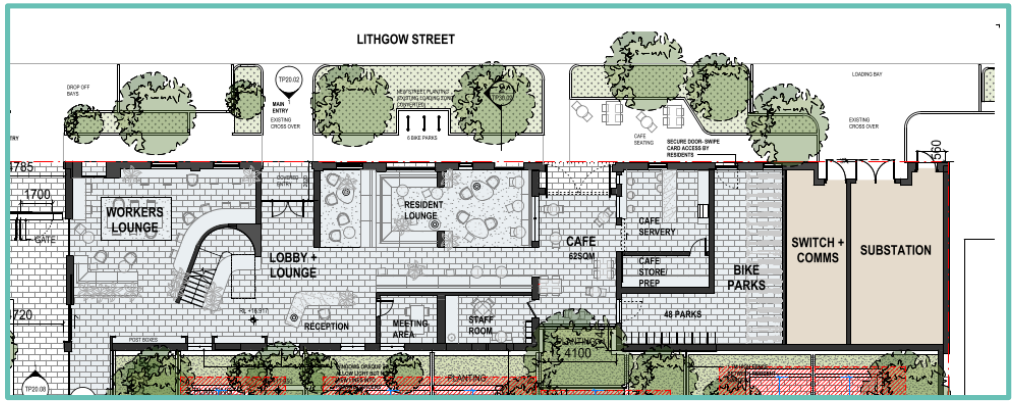


Figure 19. Ground-floor plan for the retained warehouse building. Source: Warren and Mahoney.

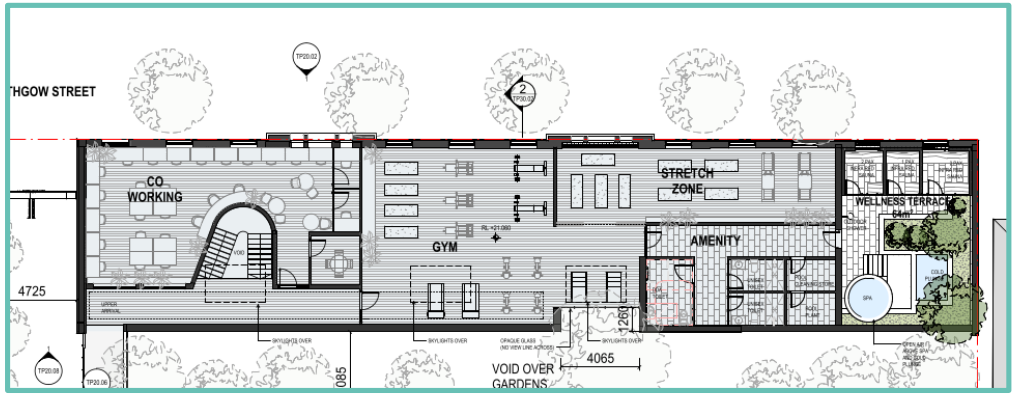


Figure 20. First-floor plan for the retained warehouse building. Source: Warren and Mahoney.

Ground floor

After its restoration, it is proposed that the heritage warehouse be adapted for resident and community amenity uses. At ground level, the building will accommodate a public cafe, as well as facilities for residents including a lobby and lounge, co-working space, bike parking room, and mail room. Services including a switch and comms room and a substation will also be developed to at the southern extent of the ground floor.

First floor

The upper level of the warehouse building will provide additional co-working spaces and a gym and wellness space for residents. These spaces will be arranged to fit the warehouse's existing layout, with original features such as exposed brickwork and steel beams retained where feasible.

The first floor will also include a roof terrace at the southern end of the building set behind the retained roof form where it will be concealed from street views.

Figure 21. 'Look and feel' images for the first-floor resident amenities. Source: Warren and Mahoney.

3.2.4. Apartment buildings

Two new apartment buildings will be constructed on the site, creating a single development with north and west 'wing' as well as the retained heritage warehouse to the east. Bridges will connect these to one another and the heritage warehouse.

Each apartment will be developed as a podium with set-back levels above. Lower levels will be clad in brick, a reference to the retained warehouse and broader heritage context. Standing-seam metal will clad upper levels, with each building in a separate colour to reinforce the appreciation of a 'neighbourhood' of forms.

3.2.4.1. Northern building

The northern building will front Lithgow Street and Little Lithgow Street. Apart from a recess along its west, it will be built-to-boundary.

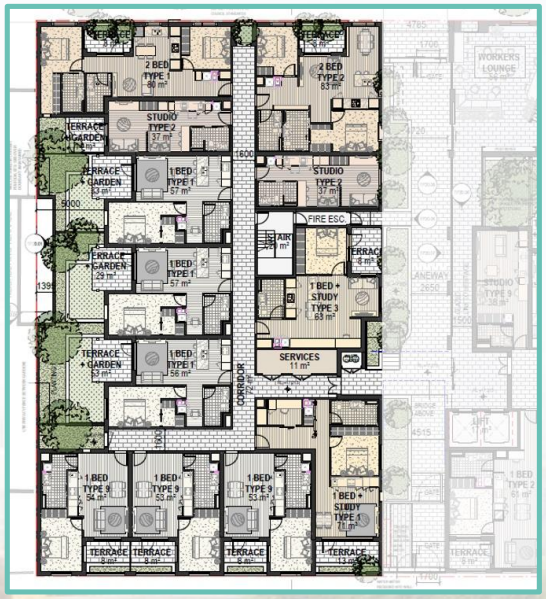


Figure 22. Northern building ground-floor plan. Source: Warren and Mahoney.

Along its northern elevation, the northern building will adopt a ground-level setback to the centre of its northern boundary. This space will provide for terraces to apartments and deep soil planting. Separately, a brick wall on boundary will be constructed along the northern boundary to provide privacy between the site and adjoining residential tenancy. The adjoining tenancy's brick wall (which encroaches onto the site by about 1.4 metres) will also be retained in situ.

Along its eastern elevation, the northern building will present a three-storey (9.50 metre) street wall, with inset balconies, integrated planter boxes and simple, regular fenestration. Upper levels along the northern elevation will adopt a continuous 1.50-metre setback from the title boundary.

Figure 23. Eastern elevation of northern building. Source: Warren and Mahoney.

Along its southern elevation, the northern building will carry nil setbacks up to its top floor (level five), though incorporate some modulation through recessed windows, balconies and an external staircase. Apart from where balconies are present physical break of between 4.735 and 4.515 metres is maintained at all points between the northern and two south-adjoining buildings.

Along its western elevation, the northern building presents a similar scheme to the eastern elevation with a three-storey brick podium and recessed (3.145-metre setback including balcony) tower clad in light-grey metal above. The tower is then tiered back further from Little Lithgow Street with multiple added setbacks above.

3.2.4.2. Western building

The western building will be situated behind the heritage warehouse, fronting Little Lithgow Street to the west and extending to the southern site boundary. It will incorporate the reconstructed heritage tower at its north-western corner and feature a podium that is built to the site's southern and western boundaries.

Along the ground floor of the building's southern elevation, a courtyard and terrace will provide two ground-floor setbacks. Similarly, along the western elevation, a row of terraces and raised planters, as well as a recess to accommodate the existing smokestack, will provide offsets to the street edge.

Figure 24. Western building ground-floor plan. Source: Warren and Mahoney.

The building's northern elevation will feature no windows and be built up as a sheer wall, with articulation provided through varied building depths. At no point will the western building reduce the separation to the northern building to less than 4.515 metres (excluding balconies).

Along the eastern boundary of the western building, a series of ground-floor terraces with deep-soil planting will provide private open space and amenity to the lower-level apartments. Upper levels along this elevation will be clad in light-bronze metal and be set back generously from Lithgow Street (over the heritage warehouse) by between 15.035 and 15.335 metres.

To provide for open space and a visual break between the warehouse and western building, a setback of between 4.080 and 5.120 metres will be provided between the two elements

Along the southern elevation, apart from a 3.790-metre-deep courtyard to the south, the western building's podium will be effectively built to the common boundary. At the third floor, a 3.055-metre-deep setback is introduced, with this expanding to 6.175 metres (including balcony) at floor four. An expanded setback of 8.975 metres is then provided at the level above (floor five).

Figure 25. Elevation of the western building's southern edge (facing east). Source: Warren and Mahoney.

At its western elevation, the proposal will reconstruct the existing tank tower from salvaged materials where feasible and provide for the retention in-situ of the landmark smokestack (with supporting structures as necessary).

Then, from the ground plane – which is recessed along the centre of the elevation owing to outdoor terraces – the podium will rise to four storeys (12.40 metres) before setting back by 5.655 metres (excluding balconies and existing tank tower) the fourth floor. This setback increases to 9.2 metres (excluding balconies) at the fifth floor, with the tank tower falling beneath.

3.2.5. Basement

The proposal will include a single-level basement with car and bike parking spaces, resident storage cages, services including a rainwater tank, and two waste loading and bin storage rooms – one for the residents and one for the cafe's waste stream. The basement will be accessible via two internal staircases and a lift.

3.2.6. Car parking, access and servicing

The basement will accommodate 43 car parking spaces, with three bays for electric vehicles. The basement will be accessible to vehicles via a ramp to the south-west of the site, with grades of 1:8 (top), 1:4 (middle) and 1:8 (bottom). In accordance with planning scheme requirements, all car parking spaces will be 2.6-metres wide, 4.9-metres long and accessible from a 6.4-metre-wide aisle.

At the ground plane, the proposed streetscape upgrades will provide for two time-limited drop-off bays toward the north of the site and two loading bays at the south of the site. All of these spaces will be 2.5-metres wide by 6.0-metres long.

The loading bay will enable loading and servicing for the proposed cafe, as well as direct access to the building services for contractors.

Waste collections for both the dwellings and cafe will occur twice per week and via the basement. A private contractor will be engaged to collect the waste generated on the site.

For further detail on parking and access arrangements, please refer to the accompanying Traffic Engineering Assessment (October 2025) prepared by Traffix.

Figure 26. The proposed basement arrangement. Source: Warren and Mahoney.

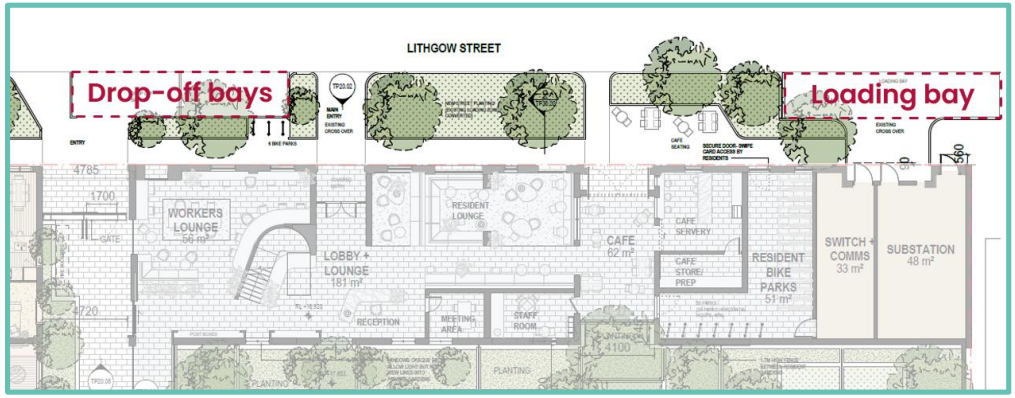


Figure 27. The proposed access arrangement at the ground floor frontage to Lithgow Street. Source: Warren and Mahoney.

3.2.7. Open space, streetscape upgrades and landscaping

The arrangement of buildings will allow for a high proportion of open space at the ground plane, supporting a distinctively landscaped outcome for a development of this scale and context. The layout also supports ground-floor terraces for residents and accommodates deep-soil planting – features uncommon in comparable inner-urban projects.

The multiple-building arrangement creates a central, clear-to-sky link between Lithgow Street and Little Lithgow Street, forming a primary pedestrian circulation spine and allowing residents to choose their street of entry or exit. The link will be framed by landscaped edges and deep-soil planting, with gated entries at each end for controlled access.

Along Lithgow Street, streetscape upgrades will include new lawn areas, tree planting and garden beds, creating public benefit through the enhancement of an inactive and deteriorated interface. On Little Lithgow Street, planting and raised planters will soften perceptions of built form and the laneway environs.

Additional communal open space will be provided at the roof where planting, including tree planting, will support biodiversity. The design of the rooftop terrace will maximise the usability and function of the space, incorporating communal herb garden, seating areas, cooking facilities, clotheslines, and a designated dog-run.

For more information on open space, please refer to the Architectural Drawings (October 2025) by Warren and Mahoney and Landscape Concept Design (October 2025) by Ratio.

Figure 28. Ground-level public and private greenery plan. Source: Ratio.

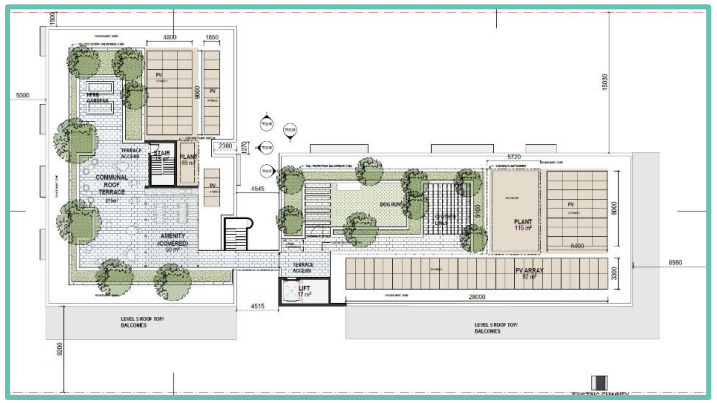


Figure 29. Roof terrace plan. Source: Warren and Mahoney.

Figure 30. Render of ground-floor resident courtyards, facing north. Source: Warren and Mahoney.

3.2.8. ESD benchmarks

The proposal seeks to set a new benchmark for environmentally sustainable development in inner Melbourne, combining superlative building ratings with an adaptive reuse scheme.

The proposal commits to achieving the following targets:

- **5 Star Green Star:** 'Australian Excellence' in sustainable building design.
- **7 Star NatHERS average and 6 Star NatHERS minimum:** delivering strong energy performance across all dwellings.

Additionally, subject to detailed design, the proposal will strive for the following aspirational targets:

- **6 Star Green Star:** 'World Leadership' in sustainability.
- **Passivhaus Classic Certification:** achieving exceptional energy efficiency and indoor environmental quality.
- **9 Star NatHERS average or equivalent:** optimising operational performance and minimising household energy costs.

Beyond these targets, the project will align with industry-leading sustainability principles that go well beyond standard fare:

- **Adaptive reuse of the heritage-listed Schweppes Cordial Factory**
  - The primary volume of the c.1927 factory as well as the site's landmark heritage features will be retained and adapted for the site's future use, avoiding demolition and rebuild emissions that would otherwise occur.
- **Mass timber construction**
  - The primary structure is intended to use cross-laminated timber (CLT) and other engineered timber products in place of concrete and steel, reducing embodied carbon by approximately 50 per cent when compared with conventional construction methods.
  - It is proposed that all timber used in the development of the proposal will be responsibly sourced and third-party certified.

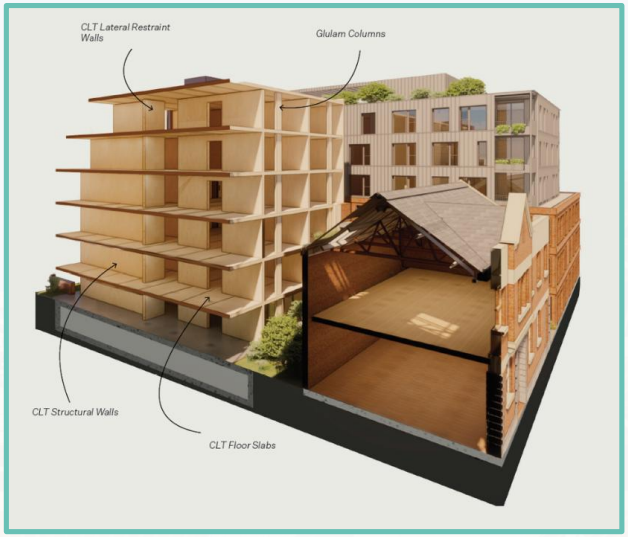


Figure 31. Axonometric section of the proposal's mass-timber construction. Source: Warren and Mahoney.

- **Urban biodiversity**
  - More than 700 square metres of landscaped area will be delivered across the site. Planting design within these areas also contribute to an urban environment that improves local biodiversity.
  - Additionally, a significant nesting tree is proposed as part of the streetscape upgrades and will provide habitat for native birdlife and pollinators.

4. YARRA PLANNING SCHEME

A detailed overview of the relevant planning controls and policies is provided in Appendix A.

A summary of the key controls and policies is provided below.

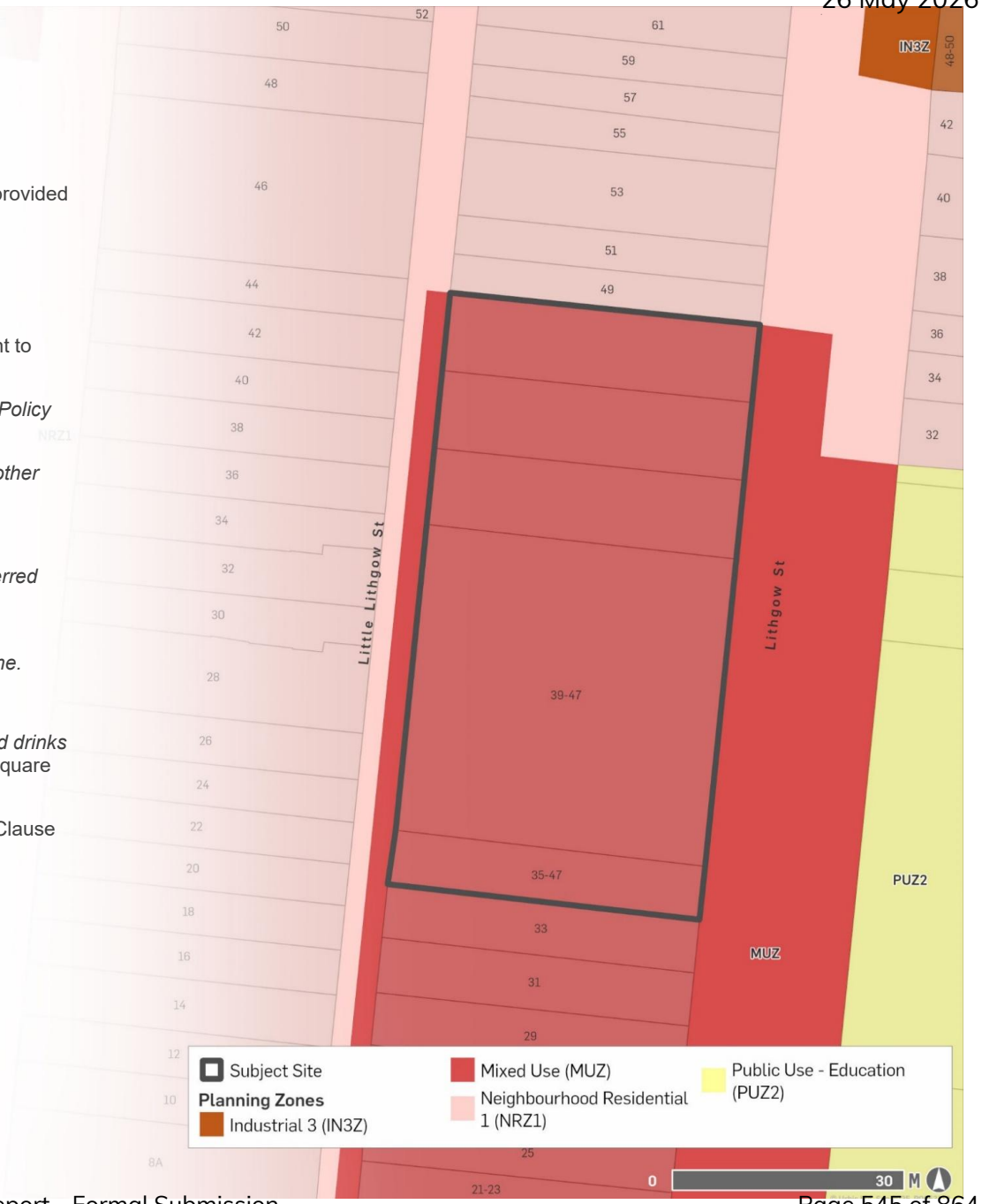
4.1. MIXED USE ZONE

The subject site is located within the Mixed Use Zone (MUZ) pursuant to Clause 32.04 of the Yarra Planning Scheme. The MUZ seeks to:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To provide for a range of residential, commercial, industrial and other uses which complement the mixed-use function of the locality.*
- *To provide for housing at higher densities.*
- *To encourage development that responds to the existing or preferred neighbourhood character of the area.*
- *To facilitate the use, development and redevelopment of land in accordance with the objectives specified in a schedule to this zone.*

Relevantly, the zone provides that:

- A permit is not required to use land for *Dwelling* or for a *Food and drinks premises* with a leasable floor area of equal to or less than 150 square metres (Clause 32.04-2).
- A permit is required to construct two or more dwellings on a lot (Clause 32.04-7).



4.2. OVERLAYS

4.2.1. Design and Development Overlay – Schedule 22

The site is affected by the Design and Development Overlay – Schedule 22 (DDO22), which refers to the 'Victoria Street Activity Centre'. DDO22 provides the following design objectives:

- *To support a mid rise scale built from character with lower built form at the interfaces with streets and the adjoining low rise residential areas.*
- *To ensure that new development respects the values of heritage buildings and maintains their prominence in the streetscape.*
- *To maintain a prominent street wall character along Victoria Street with new development at upper levels setback, visually recessive and clearly distinct.*
- *To provide a comfortable level of street enclosure and ensure a high-quality built form interface to all streets and public spaces.*
- *To minimise amenity impacts on residential properties adjoining the Victoria Street activity centre including overlooking, overshadowing and visual bulk impacts.*

More specifically within DDO22, the site is located within 'Precinct 4 – Victoria South East'. It is policy for this area that development must:

- *not overwhelm the heritage buildings on Victoria Street and Lithgow Street;*
- *maintain and reinforce the prominence of the street wall character of Victoria Street;*
- *maintain a sense of openness of Victoria Street;*
- *maintain views to the Skipping Girl sign when viewed from the intersection of Leslie Street and Victoria Street;*
- *provide a respectful transition to heritage buildings along Victoria Street and along Lithgow Street;*
- *provide a transition to the predominantly single storey buildings in heritage precincts adjoining the activity centre; and*
- *respect the low scale existing development adjoining the activity centre.*

The controls for Precinct 4 further provide a mandatory maximum building height of 18 metres. Along the eastern frontage, development must retain the heritage facade, and where no heritage facade exists, an 11-metre street wall must be maintained. Additionally, any built form above a historically significant building must be set back 6 metres.

4.2.1.1. Setback requirements

The subject site is located within a heritage overlay meaning it must *occupy no more than one quarter of the vertical angle defined by the whole building in the view from a sight line at a height of 1.7 metres above the footpath (on the opposite side of the street)*. Figure 32 below provides a of this requirement.

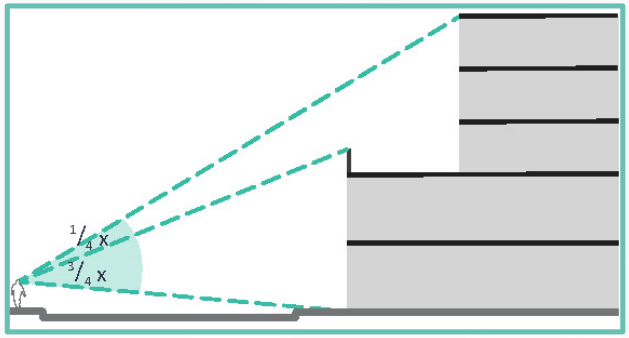


Figure 32. Heritage setback requirement under DDO22.

4.2.1.2. Building separation requirements

The DDO22 outlines that the following should be achieved:

- *Where development shares a common boundary, upper level development must:*
  - *be setback a minimum of 4.5m from the common boundary, where a habitable window or balcony is proposed;*
  - *be setback a minimum of 3.0m from the common boundary where a commercial or non habitable window is proposed.*
- *Where the common boundary is a laneway, the setback is measured from the centre of the laneway.*
  - *In addition to the above, a building that exceeds a height of 21 metres must be setback at least one-sixth of the width of the lot to maintain views to the sky between buildings. Where the boundary is a laneway, the setback is measured from the centre of the laneway.*

4.2.1.3. Vehicular access requirements

DDO22 implements the following requirements for vehicle access:

- *Development must provide vehicular access from rear lanes or from side streets.*
- *Development with redundant vehicle access points must reinstate the kerb, line mark parking bays, and relocate any parking signs.*
- *Pedestrian access to buildings, including upper level apartments, must be from a street or a shared zone. Where pedestrian access can only be provided from a laneway, the pedestrian entrance must be setback from the rear laneway and well lit to enable safe access.*

4.2.1.4. Building design requirements

DDO22 requires that development must:

- *incorporate vertical articulation in the street wall that reflects the prevailing pattern of subdivision and buildings;*
- *allow for commercial activity at the ground and first floor (as a minimum) incorporating commercial floor to floor heights of at least 4m, where heritage elements are not a constraint;*
- *incorporate awnings over the footpath on commercial zoned land for the full width of the lot, continuous with any adjoining awning;*
- *be expressed in the round and provide detail on facades when viewed from all directions;*
- *incorporate an architectural expression at upper levels that is distinct from but complimentary to the street wall.*

4.2.1.5. Heritage building design requirements

Building facades and street frontages for infill buildings and development adjoining a heritage building

Façade treatments and the articulation of infill buildings on land affected by a heritage overlay and of new buildings on land immediately adjoining a heritage building must:

- *ensure the façade treatments and the articulation of new development are simple and do not compete with the more elaborate detailing of the adjoining heritage building(s);*
- *respect the vertical proportions of the nineteenth and early twentieth century facades of the heritage streetscape and/or adjoining heritage building(s);*
- *avoid large expanses of glazing with a horizontal emphasis except to ground floor shopfronts;*
- *maintain the existing canopy/verandah height of the heritage streetscape and/or adjoining heritage building;*
- *be articulated to reflect the fine grained character of the streetscape.*

Building facades and street frontages for contributory or individually significant buildings

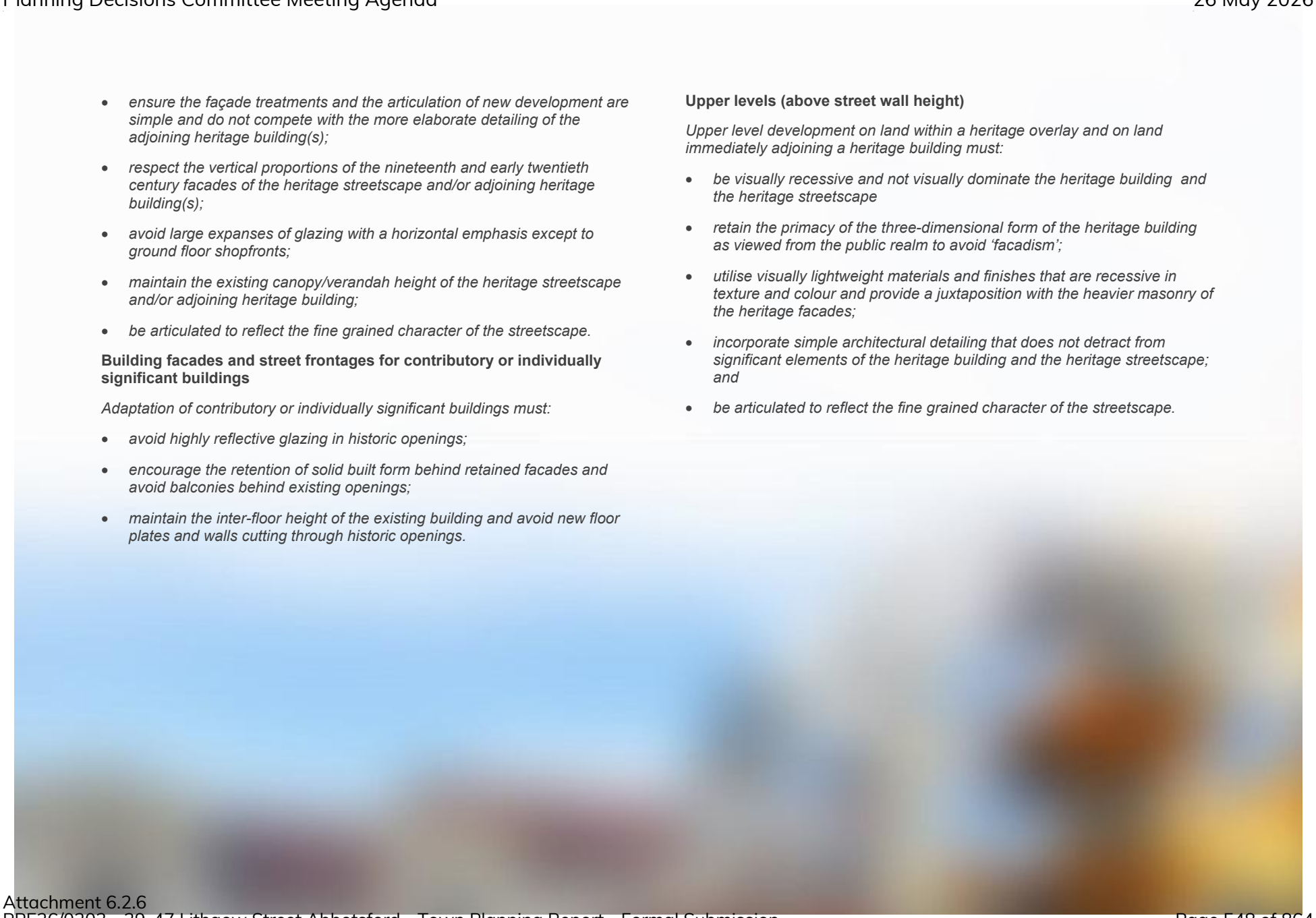
Adaptation of contributory or individually significant buildings must:

- *avoid highly reflective glazing in historic openings;*
- *encourage the retention of solid built form behind retained facades and avoid balconies behind existing openings;*
- *maintain the inter-floor height of the existing building and avoid new floor plates and walls cutting through historic openings.*

Upper levels (above street wall height)

Upper level development on land within a heritage overlay and on land immediately adjoining a heritage building must:

- *be visually recessive and not visually dominate the heritage building and the heritage streetscape*
- *retain the primacy of the three-dimensional form of the heritage building as viewed from the public realm to avoid 'facadism';*
- *utilise visually lightweight materials and finishes that are recessive in texture and colour and provide a juxtaposition with the heavier masonry of the heritage facades;*
- *incorporate simple architectural detailing that does not detract from significant elements of the heritage building and the heritage streetscape; and*
- *be articulated to reflect the fine grained character of the streetscape.*

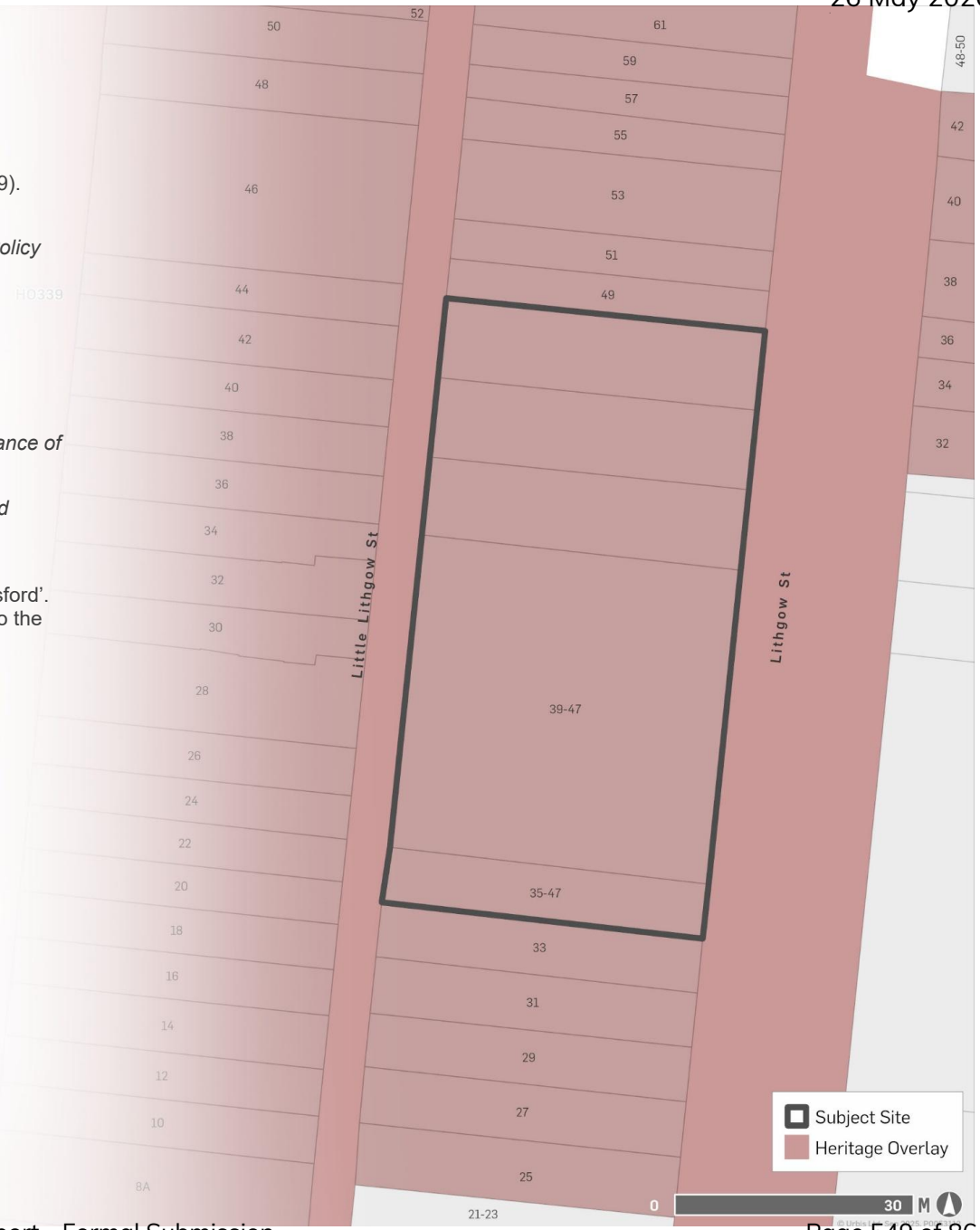


4.2.2. Heritage Overlay

The subject site is subject to Heritage Overlay – Schedule 339 (HO339). Under Clause 43.01, the purpose of the HO is:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To conserve and enhance heritage places of natural or cultural significance.*
- *To conserve and enhance those elements which contribute to the significance of heritage places.*
- *To ensure that development does not adversely affect the significance of heritage places.*
- *To conserve specified heritage places by allowing a use that would otherwise be prohibited if this will demonstrably assist with the conservation of the significance of the heritage place.*

HO339 relates to the heritage place of 'William Street Precinct, Abbotsford'. This heritage policy applies to the subject sites immediate surrounds to the north, south and west, it partially applies to the north eastern sites.



4.2.3. Environmental Audit Overlay

The subject site is located within the Environmental Audit Overlay (EAO Under Clause 45.03, the purpose of the EAO is:

- *To implement the Municipal Planning Strategy and the Planning Policy Framework.*
- *To ensure that potentially contaminated land is suitable for a use which could be significantly adversely affected by any contamination.*

The provisions of the EAO provide that before a sensitive use (including a residential use) commences or before the construction or carrying out of buildings and works in association with these uses commences:

- *A preliminary risk screen assessment statement in accordance with the Environment Protection Act 2017 must be issued stating that an environmental audit is not required for the use or the proposed use; or*
- *An environmental audit statement under Part 8.3 of the Environment Protection Act 2017 must be issued stating that the land is suitable for the use or proposed use; or*
- *A certificate of environmental audit must be issued for the land in accordance with Part IXD of the Environment Protection Act 1970; or*
- *A statement of environmental audit must be issued for the land in accordance with Part IXD of the Environment Protection Act 1970 stating that the environmental conditions of the land are suitable for the use or proposed use.*

4.2.4. Development Contributions Plan Overlay – Schedule 1

The site is affected by Development Contributions Plan Overlay – Schedule 1 (DCPO1), this refers to 'Yarra Development Contributions Plan'.

The DCPO aims to:

- *…identify areas which require the preparation of a development contributions plan for the purpose of levying contributions for the provision of works, services and facilities before development can commence.*

Schedule 1 of Clause 45.01 outlines that the subject site is within Area 07-Abbotsford requiring $2,040.56 per dwelling.

4.3. GENERAL AND PARTICULAR PROVISIONS

The following general and particular provisions are relevant:

- Clause 52.06 – Car parking
- Clause 52.29 – Land adjacent to the Principal Road Network
- Clause 52.34 – Bicycle parking
- Clause 53.23 – Significant residential development with affordable housing
- Clause 58 – Apartment developments

4.4. MUNICIPAL PLANNING STRATEGY AND PLANNING POLICY FRAMEWORK (PPF)

The following clauses of the Municipal Planning Strategy and PPF are relevant.

Municipal Planning Strategy

- Clause 02.01 – Context
- Clause 02.01-2 – Community and population growth
- Clause 02.01-3 – Activity centres
- Clause 02.01-5 – Climate change
- Clause 02.01-6 – Built environment and heritage
- Clause 02.01-7 – Housing
- Clause 02.02 – Vision
- Clause 02.03-1 – Settlement
- Clause 02.03-4 – Built environment and heritage
- Clause 02.03-5 – Housing
- Clause 02.04 – Strategic Framework Plans

Planning Policy Framework

- Clause 11 – Settlement
- Clause 11.01.1S – Settlement
- Clause 11.01-1R – Settlement – Metropolitan Melbourne
- Clause 11.03-1S – Activity centres and precincts
- Clause 11.03-1R – Activity centres and precincts - Metropolitan Melbourne
- Clause 11.03-1L – Activity Centres
- Clause 15.01-1S – Urban design
- Clause 15.01-1R – Urban design - Metropolitan Melbourne
- Clause 15.01-1L – Urban design
- Clause 15.01-2S – Building design
- Clause 15.01-2L – Building design
- Clause 15.01-2L-01 – Environmentally sustainable development
- Clause 15.01-4S – Healthy neighbourhoods
- Clause 15.01-5S – Neighbourhood character
- Clause 15.03-1S – Heritage conservation
- Clause 15.03-1L – Heritage
- Clause 16 – Housing
- Clause 16.01-1S – Housing supply
- Clause 16.01-1R – Housing supply - Metropolitan Melbourne
- Clause 16.01-1L – Location of residential development
- Clause 16.01-1L-01 – Housing diversity
- Clause 16.01-2S – Housing affordability

- Clause 16.01-2L – Housing affordability

4.5. STRATEGIC DOCUMENTS

4.5.1. Plan for Victoria

Plan for Victoria is a long-term strategy that aims to create a state which offers choice and opportunity in housing and employment, while providing for the environment and caring for Country. The Plan is intended to guide land use and development across the state at a high level until 2051. The Plan's key pillars are:

- Self-determination and Caring for Country
- Housing for All Victorians
- Accessible Jobs and Services
- Great Places, Suburbs, and Towns
- Sustainable Environments

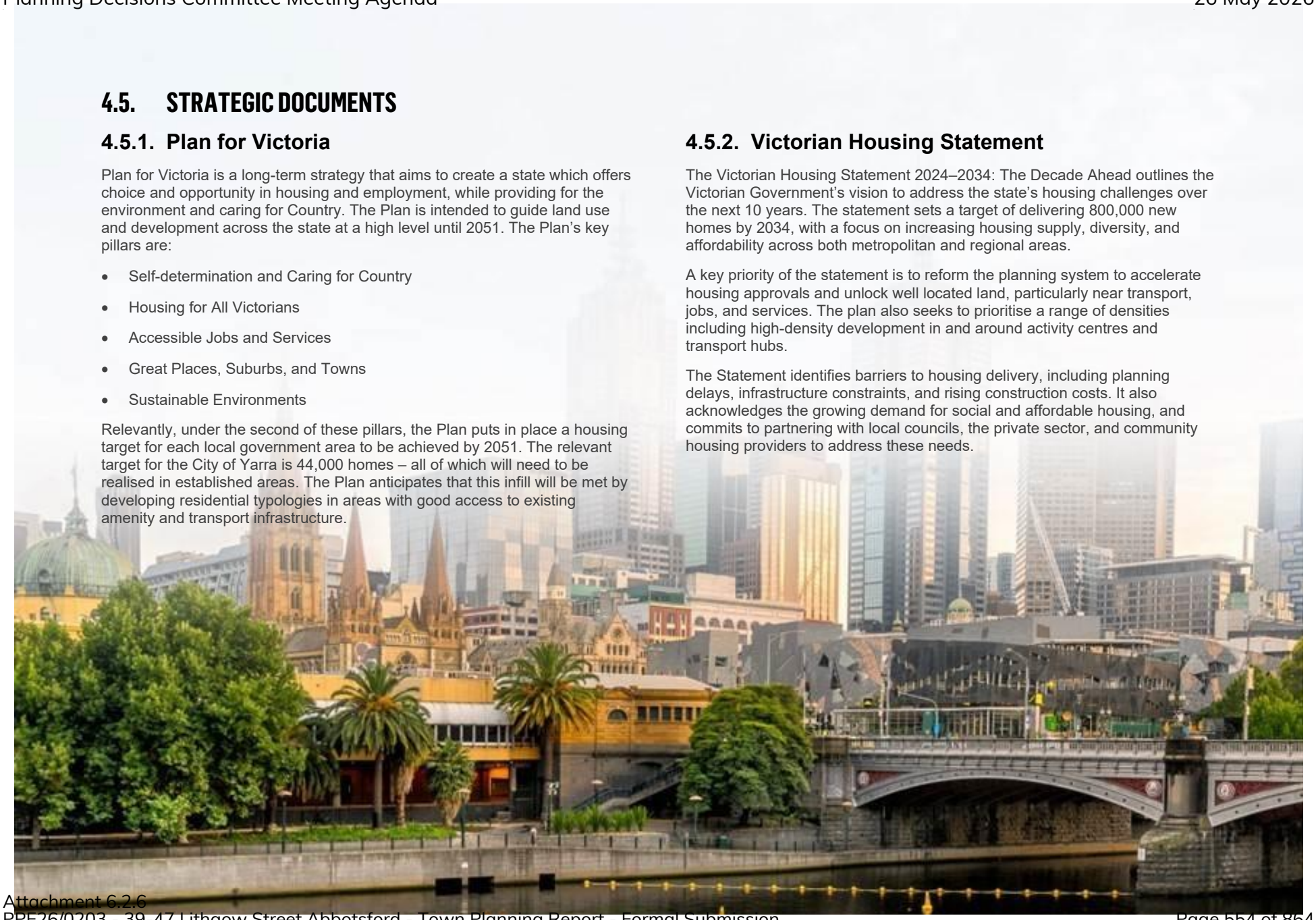
Relevantly, under the second of these pillars, the Plan puts in place a housing target for each local government area to be achieved by 2051. The relevant target for the City of Yarra is 44,000 homes – all of which will need to be realised in established areas. The Plan anticipates that this infill will be met by developing residential typologies in areas with good access to existing amenity and transport infrastructure.

4.5.2. Victorian Housing Statement

The Victorian Housing Statement 2024–2034: The Decade Ahead outlines the Victorian Government's vision to address the state's housing challenges over the next 10 years. The statement sets a target of delivering 800,000 new homes by 2034, with a focus on increasing housing supply, diversity, and affordability across both metropolitan and regional areas.

A key priority of the statement is to reform the planning system to accelerate housing approvals and unlock well located land, particularly near transport, jobs, and services. The plan also seeks to prioritise a range of densities including high-density development in and around activity centres and transport hubs.

The Statement identifies barriers to housing delivery, including planning delays, infrastructure constraints, and rising construction costs. It also acknowledges the growing demand for social and affordable housing, and commits to partnering with local councils, the private sector, and community housing providers to address these needs.



5. ASSESSMENT

The following sections of this report provide an assessment of the proposal against the relevant statutory and strategic provisions of the Planning Scheme having regard to the site's physical context.

This assessment focuses on the appropriateness of the following key matters:

1. Planning merit
2. Built form
3. Heritage
4. Environmental and amenity impacts
5. Internal amenity
6. Sustainability
7. Landscaping
8. Transport
9. Waste
10. Potential for land contamination

Each of these matters is dealt with in turn below.

5.1. PLANNING MERIT

The housing proposition has strong strategic merit.

The Municipal Planning Strategy and Planning Policy Framework provide substantial strategic support for a development of the proposed nature on the site. The site is in an identified economic and activity area (Victoria Street Activity Centre) and is walkable to railway stations and tram stops.

Plan for Victoria recognises the need for *well-designed homes at an affordable price point and close to daily needs*. It also recognises that *ensuring housing is affordable, diverse and accessible is central to creating inclusive, prosperous, liveable communities* and, to this end, promotes the increased development of medium- and high-density housing close to transport.

North Richmond Station is located 500 metres south-west of the site, and Collingwood station is located 550 metres north-west of the site. These stations are served by frequent, high-quality public transport services towards the Melbourne CBD and other employment and amenity clusters. Additionally, the tram stops 190 metres to the south of the site provide services along Victoria Street between Port Melbourne, the CBD and Box Hill.

The Municipal Planning Strategy also supports growth of this scale at this location. The Strategic Framework Plan at Clause 02.04 notes that the land on and around the site is in a 'Major Activity Centre,' to which Clause 11.03-1L directs *high-quality mid-rise buildings* alongside wider urban consolidation. In addition, Clause 2.03-1 specifies that:

- *Activity centres are a focus of growth in Yarra with the addition of mid-rise commercial development and apartments. They will continue to accommodate most of the city's growth because of their proximity to transport infrastructure, shops and services making them the most suitable locations for development.*

Under this clause, areas where residents can access most of their daily needs within a convenient walking, cycling or public transport journey are also recognised for housing growth.

The Planning Policy Framework also recognises the suitability of the site for change and residential development. Clause 16.01-1L directs *new housing development to locations in a major or neighbourhood activity centre…as shown in clause 02.04*. Clause 16.01-1R recognises that areas in activity centres with good access to public transport and near existing railway stations as ideal locations for housing change. Clause 16.01-1S includes strategies to:

- *Increase the proportion of housing in urban areas with good access to opportunities and services (including under-utilised urban land)*
- *Encourage higher density housing development on sites that are well located in relation to jobs, services and public transport.*
- *Identify opportunities for increased residential densities to help consolidate urban areas.*
- *Facilitate diverse housing that offers choice and meets changing household needs by widening housing diversity through a mix of housing types.*

The proposal will support housing affordability and choice.

Clauses 16.01-1L-01, 16.01-2S and 16.01-2L provide policy backing for residential developments that incorporate a proportion of affordable housing and integrate these with the remainder of the development. Consistent with these policies, the proposal will provide for 10 per cent of the dwellings on the site as affordable housing.

These provisions, as well as Clause 16.01-1S, also emphasise a need to widen the stock of dwelling types in established areas to increase choice and social mobility. The proposal will provide an appropriate diversity of apartment types and increase the range of dwelling types in an area where land is currently defined by a largely homogenous mix of lower-density single dwellings. While the proportion of apartments with two bedrooms is less than other types, the proposal's contribution to apartment dwellings is in this wider context remains a meaningful aspect of the proposal and there is a sufficient response to Clause 16.01-1S.

Clause 16.01-1S in particular has an objective to *facilitate diverse housing that offers choice and meets changing household needs by widening housing diversity through a mix of types*. Build-to-rent housing is an emerging model that provides an important contribution to the housing mix, particularly in inner areas, offering an alternative to typical ownership structures and providing choice to its occupants. Prospective occupants may choose to lease an apartment in a build-to-rent development rather than committing to a

conventional lease or purchasing an apartment owing to the extensive communal facilities and services offered within the complex.

The site is a strategic opportunity site with the capacity to contribute substantively to the City of Yarra's housing target.

Under Clause 16.01-1S, the City of Yarra is required to accommodate 44,000 additional dwellings between 2025 and 2051. Within this context, the subject site is relatively large for its neighbourhood and therefore one of a limited number in Abbotsford capable of making a meaningful contribution to this target. The strategic significance of such sites lies not only in the outsize share of growth they can shoulder, but in their capacity to do so without the cumulative cost to neighbourhood character that would arise if the same housing yield were achieved through the piecemeal and dispersed upscaling of Abbotsford's residential hinterlands.

The site responds appropriately to its strategic context and physical location.

The clear direction for change is tempered by policies and directions that seek development which responds appropriately to both its physical context (Clauses 15.01-1S, 15.01-1R, 15.01-1L). Additionally, Clause 16.01-1L identifies the site in a 'minimal change area' and encourages development be of a density and scale that is respectful of the existing streetscape character.

While Clause 16.01-1L designates the site as a 'minimal change' location, its provisions should be approached on the presumptive basis that they are to be construed reasonably, and, as policy, weighed alongside other applicable policies in the planning scheme. When interpreting the effect of the clause, regard must also be given to its overarching strategies of supporting *residential growth that is appropriate to both its physical location and strategic context* and development in minimal change areas that *respects the prevailing type, scale and character of development in the street*.

In this context, the proposal can be understood as a reasonable reconciliation of the site's strategic potential to accommodate housing growth with its designation as a minimal change area. By distributing development across the site in a way that avoids a singular, monolithic outcome, the scheme introduces a finer grain that is more consistent with the street's prevailing character.

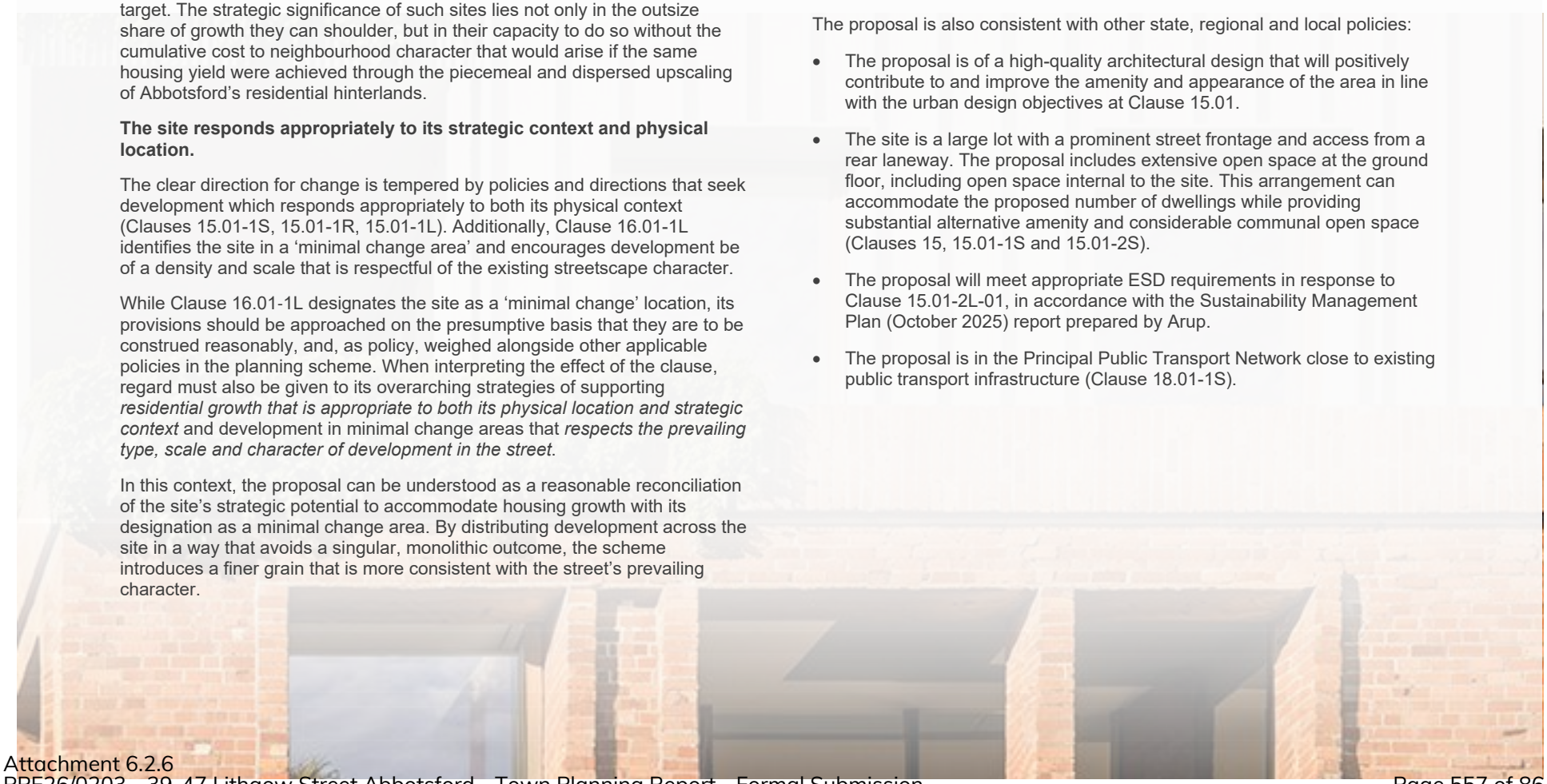
The weight of policy is for housing growth and urban renewal on the site.

The proposal responds to this by providing a medium-density residential development with affordable housing in a location with excellent access to public and active transport infrastructure, jobs, services and open space.

In doing so, it appropriately manages its impact to the public realm and to adjoining properties and provides suitable internal amenity, as will be discussed in subsequent sections of this report.

The proposal is also consistent with other state, regional and local policies:

- The proposal is of a high-quality architectural design that will positively contribute to and improve the amenity and appearance of the area in line with the urban design objectives at Clause 15.01.
- The site is a large lot with a prominent street frontage and access from a rear laneway. The proposal includes extensive open space at the ground floor, including open space internal to the site. This arrangement can accommodate the proposed number of dwellings while providing substantial alternative amenity and considerable communal open space (Clauses 15, 15.01-1S and 15.01-2S).
- The proposal will meet appropriate ESD requirements in response to Clause 15.01-2L-01, in accordance with the Sustainability Management Plan (October 2025) report prepared by Arup.
- The proposal is in the Principal Public Transport Network close to existing public transport infrastructure (Clause 18.01-1S).



5.2. BUILT FORM

5.2.1. Background and design evolution

As outlined in Section 2 above, the proposed built form is the result of an extensive design and pre-application process with input from DTP, OVGA and the City of Yarra. The evolution of the scheme through this process has led to a design that represents architectural excellence and responds positively to the site's unique attributes, immediate interfaces and wider context.

Following the current scheme's presentation to a VDRP on 27 August 2025, OVGA in its Design Review Report dated 10 September 2025 was generally supportive of the scheme in its current form (see relevant excerpts at Section 2.3.3 above).

5.2.2. DDO22

General design objectives

Council's urban design policy at Clause 15.01-1L and building design policy at Clause 15.01-2L provide general guidance with respect to built form in the City of Yarra. However, DDO22 provides more site-specific requirements which address the range of policy direction included in these clauses.

The following design objectives for DDO22 are relevant:

- *To support a mid-rise scale built from character with lower built form at the interfaces with streets and the adjoining low rise residential areas.*
- *To minimise amenity impacts on residential properties adjoining the Victoria Street activity centre including overlooking, overshadowing and visual bulk impacts*
- *To provide a comfortable level of street enclosure and ensure a high-quality built form interface to all streets and public spaces.*
- *To ensure that new development respects the values of heritage buildings and maintains their prominence in the streetscape.*

The proposal responds sufficiently to these objectives. It proposes a mid-rise building that tapers down along its interfaces to the street and adjoining low-rise residential areas.

Height of building

The proposal seeks a minor (0.7 metre excluding roof services) variation from the 18.0-metre height control. We submit that this variance, in the context of the proposed design and strategic public benefit offer, is an appropriate design response.

The surrounding urban context is generally consistent in height at between one- and two-storeys, with the notable exception of the five-storey apartment building to the south. While it is clear that a six-storey proposal is different from this context, it is a reasonable outcome when weighed against the applicable policy direction and the site's strategic context.

It is appropriate, too, to consider the contribution the proposal can make to the area in the long-term, rather than what exists today. To this end, we note that the proposed height will still achieve the sought-after local stepping down from the activity centre 'core' (i.e., the alignment of Victoria Street) to its fringes. Land to the south is subject to greater building-height limits of up to 24.0 metres and some of these height limits are not mandatory. It is a reasonable expectation that the Victoria Street Activity Centre will undergo further change in the future, and that this level of change will result in a new character that has not yet developed in the area. As the area changes, it is also reasonable to expect that greater developments of greater height than the proposal (including buildings over 24.0 metres) will develop along Victoria Street. In this context, the proposal – at just over 18-metres tall – will continue to support the design objective to 'downscale' built form from the activity centre core to surrounding lower-density land.

Importantly, the proposed height has been designed to protect the amenity of the area, and will only cause minimal additional overshadowing on adjoining dwellings' secluded private open space during September equinox mornings, as well as no additional overshadowing to Abbotsford Primary School's open space during school hours on a September equinox afternoon.

We consider that, viewed in the context of the streetscape and future character expected in the Victoria Street Activity Centre, the proposed height is an appropriate design response and assists delivering more housing where it is needed.

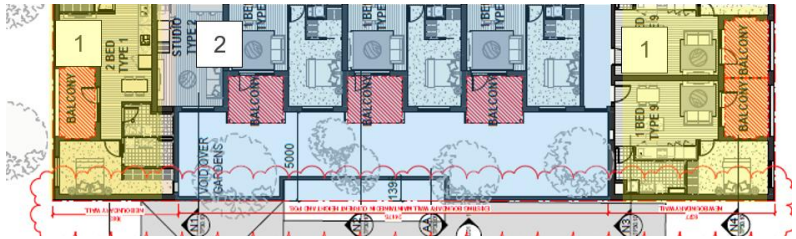
5.2.3. Side and Rear Setbacks

Northern Interface:

For the purposes of assessment, the northern interface of the proposed development can be considered as two distinct components as shown at Figure 33 below:

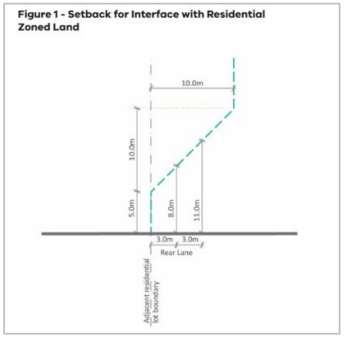
1. The north east and north west corners; and
2. Light court.

Figure 33 Mark-up of northern boundary interface at lower levels



The Design and Development Overlay – Schedule 22 outlines the following setback requirements for the northern interface which abuts No. 49 Lithgow Street, Abbotsford.

- Buildings must be setback from residentially zoned land (excluding MUZ) as shown below:



Component 1 comprises the north-east and north-west corners of the northern building, shown in yellow at Figure 33. These elements are built to the title boundary to a height of 9.5 metres (ground level to Level 2). Above this 9.5m the building is setback 5 metres from the boundary from Level 3 through to Level 6 (roof).

Component 2, shown in blue, addresses the northern interface and incorporates a light court through a 5-metre setback from the northern title boundary to the building edge, noting that the existing 7.5 metre boundary wall will be retained/reinstated in this location.

The DDO22 setback requirement is shown on the sections provided within the architectural plans package. These demonstrate compliance with the setback requirement up to Level 2. There is a very minor exceedance at Level 3 which increases slightly at the upper most levels. While there is a minor exceedance of the DDO22 setback requirement to the north it is submitted that the generous 5 metre setback for the majority of this interface and above the walls built to boundary to the north-east and north-west corners of the site, that the proposal will not result in an adverse amenity impact on 49 Lithgow Street or the other dwellings to the north. Due to the orientation of the site, the proposed northern building will not cast any additional shadow on the dwelling to the north. Additionally, 49 Lithgow Street is generally orientated with outlook to the east and west, with these outlooks maintained by the proposed development.

Additionally, these setbacks create a clear stepping-down of the built form to the north, ensuring an appropriate transition from the site's activity centre context to the neighbourhood-residential character to the north.

Eastern interface

The eastern interface is primarily defined by the retained heritage warehouse which establishes a fine-grain and human-scaled street presence. The interface and presentation of the warehouse building to Lithgow Street will be enhanced through works that reveal its brick and bluestone materials and original form, in addition to the introduction of a café tenancy and associated streetscape upgrades. These interventions will strengthen the public realm and reinforce the heritage character of the street.

The remaining, smaller portion of the eastern interface is formed by the northern apartment building. DDO22 requires a 6 metre setback above the Lithgow Street street-wall, which is a mandatory requirement for individually significant buildings.

Above the retained warehouse building, the western apartment building is set back approximately 15.035 metres. This generous setback ensures the upper levels of the development remain balanced and visually recessive.

The northern building proposes a 1.5 metre setback above the street wall. It is submitted that the reduced setback of 1.5 metres will have a limited visual and amenity impact due to the building's orientation. Only the narrower end of the northern apartment building addresses Lithgow Street, significantly reducing the perceived bulk when viewed from the public realm. This condition is further moderated by the generous width of Lithgow Street and its relationship to the grand-scale school building opposite.

The limited reduction in setback to the northern building is also appropriately offset by meaningful public realm improvements, including enhanced landscaping, active frontages and improved pedestrian amenity along Lithgow Street.

This approach is consistent with the OVGA advice, which supports the reduced upper-level setbacks to Lithgow Street where they are justified by contextual conditions and deliver a demonstrably enhanced public realm outcome.

Southern Interface:

For the purposes of this assessment, the southern interface of the proposed development has also been considered as two distinct components as shown at Figure 34 below:

1. The eastern retained heritage building; and
2. The western apartment building.

Figure 34 Mark-up of southern boundary interface at lower levels

Despite the land to the south sharing the site's MUZ1 zoning, it is recognised as a sensitive interface and has therefore been carefully considered. Along the eastern portion of the southern boundary, the retention of the existing warehouse building will result in the interface remaining largely unchanged.

DDO22 requires that upper level development is setback 4.5 metres from this boundary where a habitable window or balcony is proposed or 3 metres where a non habitable window is proposed.

Component 1 comprises the existing heritage building, which is proposed to be retained. No additional setback is provided; however, this maintains the existing setback condition and does not result in any additional impacts on surrounding or adjoining properties.

Behind the retained warehouse building (component 2), the western building is generally constructed to the boundary for the first three storeys, with no windows orientated to the south. The upper levels are sequentially set back by approximately 3 metres per level. As such except for Level 3, the proposed development complies with the setback requirements along this boundary.

It is submitted the 3 metre setback to the south at Level 3 is appropriate and represents a minor variation to the requirement. At Level 3 there are three windows orientated to the south of which only one is the primary outlook for the habitable room. Should the adjoining sites be developed in the future it is submitted that the southern setbacks will allow for equitable development opportunities to the south and the setbacks provided on site will ensure an appropriate outlook for the Level 3 dwellings with windows overlooking this boundary.

This built form provides an appropriate visual transition and assists in mitigating potential impacts, thereby addressing the setback requirement.

Between Components 1 and 2, a break in the built form with a width of 5.085 metres is provided. This area contains no development other than ground-level terraces and landscaping and therefore does not result in any impact to the southern adjoining boundary.

Western Interface

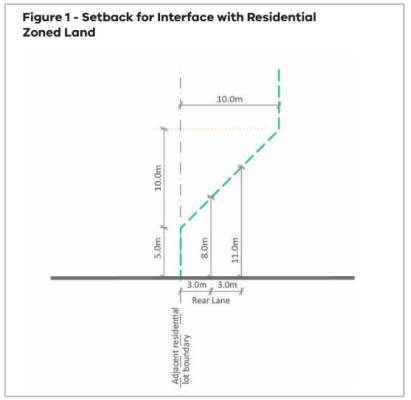
For the purposes of this assessment, the western interface of the proposed development can be considered as three distinct components as shown at Figure 35 below:

3. The northern building;
4. The western building; and
5. The retained heritage buildings, which form part of the western building.

Figure 35 Mark-up of western elevation

DDO22 outlines the following setback requirements for the western interface which abuts Little Lithgow Street, Abbotsford.

- Buildings must be setback from residentially zoned land (excluding MUZ) as shown below:



As demonstrated on Drawings TP30.02 and TP30.03 of the Architectural Plans, Components 1 and 2 of the proposed development complies with the western interface setback requirements. These components provide a podum height of 9.5 metres (ground floor to Level 2), with upper levels setback in a stepped form from Level 3 to Level 6 (roof).

Component 3 incorporates the retained heritage tower. As the existing building is being retained, the current setback conditions are maintained and no additional built form or impacts are introduced. It is also noted that the development achieves full compliance with the applicable setback requirements from Level 4 and above.

The land to the immediate west of the site is used residentially and is included in the Neighbourhood Residential Zone. A guiding principle in responding to this interface, since the inception of the proposal, has been setting back to reduce the extent of adverse amenity impacts on these dwellings.

These dwellings fronting William Street have backyards at the rear that count as secluded private open space. Mindful of these, the proposal has been designed to include setbacks which cast practically nil additional overshadowing on these backyards across a morning on the September equinox.

5.3. HERITAGE

The site is an individually significant place under the applicable HO339. This overlay recognises the precinct's heritage values and seeks to ensure that new buildings and works respect and conserve their significance.

5.3.1. Demolition

As outlined in the Heritage Impact Statement (October 2025) which accompanies this application, the proposal responds to the demolition objectives of the heritage overlay through the confinement of its extent to the non-original and less-contributory parts of the proposal. This is consistent with planning policy that buildings and works which affect a heritage place should *not affect the significance of the heritage place* (Clause 15.03-1S).

A summary of the assessment set out in the HIS in support of the proposed demolition is provided below:

- The northern annexes to the warehouse were constructed during the latter part of the twentieth century and are *considered to be of little significance* (p. 54). While the HIS recognises the northern gable, which falls between the newer annex and the 1927 warehouse, as having some heritage value, it posits that the proposed reinterpretation through the laneway gate is a sufficient response to this item.
- The HIS finds that the existing heritage fabric toward the centre of the site which is proposed to demolition has been extensively modified and, being at the centre of the site, cannot make an appreciable contribution to the significance of the wider heritage precinct.
- The HIS also finds that the fabric proposed for removal along the Little Lithgow interrace is appropriate to be demolished, owing to its extensive modification over past decades and the relatively low quality of Little Lithgow Street as a heritage environment.
- The proposed dismantling and reconstruction of the tank tower is supported on the basis that it will help allow for urgently required structural remediation works that will in turn help facilitate its adaptive reuse as apartments.

5.3.2. New development

The proposal will introduce two new apartment buildings alongside the retained 1927 factory building, which will remain the primary heritage element on the site. The proposed arrangement of these built forms, as outlined in the HIS, is central to achieving the respectful heritage outcome sought.

By physically separating the new buildings from the heritage warehouse with a through-block link, the scheme will allow the factory to be read as a freestanding element, consistent with its historic role in the streetscape. The HIS finds that this approach responds positively to Council's heritage policy and the objectives of DDO22.

In terms of street wall, the HIS identifies the proposed three-storey street wall to Lithgow Street as acceptable in heritage terms, as it will align with the datum set by the existing warehouse's gable and parapet heights and provide for a cohesive link between the old and the new. Above the street wall, while the northern building's upper-level setback to Lithgow Street is less than the mandatory six-metre requirement, the HIS notes that this is offset by the building's clear separation from the heritage building and the reading of this portion as an infill element within an already mixed-scale streetscape.

From a heritage perspective, the HIS is also supportive of the proposed height of 18.7 metres, noting that the vertical breaks and upper-level setbacks across the site provide enough visual relief to avoid a monolithic outcome.

The proposed materiality – in particular the use of brick at podium levels – is identified as an appropriate way of referencing the texture and tone of the heritage warehouse. The use of metal cladding at the upper levels, in distinct tones for each new building, is similarly supported for its role in distinguishing new from old.

Finally, when it comes to building detailing, the HIS supports the approach for the proposed new buildings, which has been deliberately kept simple so as not to compete with the heritage building's utilitarian and modest presentation.

5.4. EXTERNAL AMENITY IMPACTS

The proposed development is located within the Mixed Use Zone. In accordance with Clause 32.04-11, where land in this zone adjoins land zoned General Residential Zone, Neighbourhood Residential Zone, Residential Growth Zone, or Township Zone, consideration must be given to Clauses 55.02-3, 55.02-4, 55.04-1, 55.04-3, 55.04-4 and 55.05-2 along that boundary. The subject site adjoins residentially zoned land (NRZ1) to the north and west; noting Little Lithgow Street forms the immediate western interface. The site also partially adjoins residentially zoned land to the east. The development has been designed to respond appropriately to the site and its surroundings, with measures incorporated to limit external amenity impacts on neighbouring residential properties.

5.4.1. Clause 55.02-3 Side and Rear Setbacks

As outlined above, the proposal is required to consider Clause 55.02-3. Accordingly, the setbacks to the northern boundary must be assessed.

Standard B2-3 requires that where a new building is not constructed on or within 200 millimetres of a boundary, the building must be set back from side and rear boundaries in accordance with either Standard B2-3.1 or B2-3.2. This assessment has adopted Standard B2-3.2, which requires a minimum setback of 3 metres for building heights up to 11 metres, and a minimum setback of 4.5 metres for any part of the building above 11 metres in height.

The northern boundary, which adjoins 49 Lithgow Street, Abbotsford, provides a 5 metre setback within the internal portion of the site, where walls are not constructed to the boundary. This setback accommodates a light court and terrace garden areas. The 5 metre setback is provided for the full height of the building and therefore exceeds the minimum setback requirements of the standard.

The north-east and north-west corners of the site are constructed on the boundary up to a height of three storeys and are assessed under Clause 55.02-4, as they comprise walls on boundaries to a height of 9.5 metres. Above this height, a setback of 5 metres is provided, which complies with the relevant standard.

5.4.2. Clause 55.02-4 Walls on boundary

The existing built form on the subject site includes a two-storey wall constructed along the full length of the northern boundary, inclusive of a setback that mirrors the light court at 49 Lithgow Street. The proposal seeks to retain/reinstate the 24.175 metres of this existing boundary wall, along with the construction of two new wall sections on the northern boundary. These comprise a 7.083-metre-long wall to the eastern portion of the northern boundary and a 9.377-metre-long wall to the western portion of the northern boundary. Both new walls on the northern boundary are to be constructed to a height of 9.5 metres.

While the proposed walls do not strictly comply with the numerical standard of Clause 55.02-4 due to their length and height, they are consistent with and reinforce the established built form and character of the development currently on the site. Walls built to the boundary are a common and defining feature of the surrounding area, which is predominantly characterised by terrace housing and development constructed boundary to boundary. Additionally, the new walls on boundary will be constructed in the same location as the existing walls on boundary but to a height of three storeys noting the existing wall on boundary in these locations are two storeys. This results in a replacement wall on boundary with a height 2.2 metres taller than existing.

49 Lithgow Street benefits from an east-west orientation with outlook to Lithgow Street and the east. Due to the existing wall on boundary, it is submitted that the new wall on boundary will not result in unacceptable visual bulk and the outlook from 49 Lithgow Street is maintained.

In this context, the proposed boundary walls represent a logical continuation of the existing development pattern on the site and are compatible with the prevailing neighbourhood character.

5.4.3. Clause 55.04-1 – Daylight to existing windows

49 Lithgow Street includes glazed doors orientated towards the site. The proposal retains the existing light court arrangement and wall on boundary in this location, which has a minimum width of 1.395 metres and provides approximately 25 square metres of secluded private open space for the dwelling at 49 Lithgow Street, Abbotsford.

On this basis, the proposal satisfies the requirements of the relevant standard.

5.4.4. Clause 55.04-3 – Overshadowing secluded open space objective

Clause 55.04-3 seeks to ensure that new development does not result in unreasonable overshadowing of existing secluded private open space. The standard requires that at least 50 per cent of the secluded private open space, or 25 square metres with a minimum dimension of 3 metres (whichever is the lesser), remains free from shadow cast by the development for a minimum of five hours between 9.00 am and 3.00 pm on 22 September.

A shadow analysis demonstrating the shadow impacts of the proposed development has been prepared by Warren and Mahoney Architects and is included within the submitted architectural plans. The analysis illustrates the extent of shadows at the Spring Equinox (22nd September).

The shadow diagrams confirm that the proposed development does not result in any additional overshadowing of the secluded private open space of adjoining properties in the NRZ1 surrounding the site.

Accordingly, the proposal complies with the requirements of Clause 55.04-3.

5.4.5. Clause 55.04-4 Overlooking objective

Clause 55.04-4 seeks to limit views into existing secluded private open space and habitable room windows of adjoining dwellings. In accordance with this clause, overlooking to the adjoining NRZ1 zoned land has been considered as part of the proposal and is demonstrated within the submitted architectural plans, specifically Drawings TP30.10 to TP30.12.

Having regard to the orientation of windows, the retention of boundary walls, and the provision of appropriate setbacks, the proposal complies with the objective and standard of Clause 55.04-4.

5.4.6. Clause 55.05-2 – Overshadowing domestic solar energy systems objective

As shown on the shadow analysis plans, the nearest domestic solar energy systems are located at 27 Lithgow Street, Abbotsford; 14 William Street, Abbotsford; and 16 William Street, Abbotsford. The proposed development does not result in any overshadowing of these properties or their solar energy systems and is therefore compliant with the relevant clause.

5.5. INTERNAL AMENITY

The proposed development has been designed to provide for a high level of internal and external amenity for future residents.

The proposed apartment buildings have been designed in compliance with the Apartment Design Guidelines (ADGs) and achieve a high level of compliance against the relevant standards. Additionally, the proposal makes a generous contribution to communal amenities for all occupants, with a focus on health, wellbeing and recreation. The Architectural Drawings prepared by Warren and Mahony provide a comprehensive assessment against the ADGs, however we highlight the following key elements in particular:

Communal facilities

- **Communal outdoor open space areas:** Significant communal landscape space, including a 215 square metre rooftop terrace with a communal herb garden and seating areas. Also provided at roof level is a dog run and external clothes drying area.
- **Indoor recreational facilities:** First-floor health and wellness space including a gym, pool, spa, cold plunge and saunas.
- **Work and social hubs:** Residential lounge and co-working spaces located at ground and first-floor levels, designed to support remote work and social interaction.
- In total 1,295sqm of internal and external communal facilities are provided for building occupants comprising 575sqm of internal communal facilities and 720sqm of external communal facilities.

Apartment amenity (ADGs)

The key elements of the detailed design and internal amenity of residential apartments are summarised below:

- 50 per cent of dwellings provide accessible design exceeding the requirements of Standard D18 of the Yarra Planning Scheme.
- 100 per cent of dwellings provide storage facilities in accordance with Standard D21 of the Yarra Planning Scheme.
- 100 per cent of dwellings provide room depths in accordance with Standard D27 of the Yarra Planning Scheme.

- 100 per cent of dwellings provide windows in accordance with Standard D28 of the Yarra Planning Scheme.
- The development will achieve highly compliant and functional dwelling layouts having regard to the requirements of Standard D26. Notwithstanding, it is acknowledged that 3 of the 151 apartments propose minor intrusions to the functional room dimensions required for living areas. The affected apartment type is 2B-01 which does not meet the standard for the minimum living room area and dimension. The living room provided measures 3.2m x 2.8m providing a total of 8.9sqm. On balance, the variation is considered appropriate noting:
  - The variation only applies to a minority of apartments within the development. The variation proposed is very minor and the minor shortfall in overall size (3.1sqm) and minimum width (0.4sqm) is not considered to compromise the functionally of the apartment overall.
  - The living area provided is still highly functional and provides sufficient space for future residents to utilise the space including a location for a couch and TV. The living area is located adjacent to the kitchen with immediate accessibility to the balcony.

  'Living areas' for all studios are indicated on the ADG plans prepared by Warren and Mahoney. However, it is acknowledged that these 'living areas' are also immediately adjacent to the sleeping area and kitchen for each studio dwelling. The studios are considered to provide a high standard of amenity and meet the objections of Standard D26, noting:
  - The studios are generously sized and provide floor plans that provide a high level of internal amenity for future occupants.
  - Studios are, for the majority, single occupancy units and accordingly it is considered sufficient space has been provided for future resident needs.
  - The 'living area' shown on the ADG plans meets the minimum width 3.3 and minimum area 10sqm for a studio as required by Table 12 under Standard D26. This area does not incorporate the sleeping or cooking areas for the studio. We note there is no bedroom dimension requirement by Table D11, under Standard D26 for a studio apartment given the open plan nature of this dwelling typology.
  - An efficient and functional bathroom is provided at the rear of the floor plan.
  - The studio apartments play an appropriate role in contributing to the development's dwelling diversity and providing an increasingly popular dwelling type for renters. The functional layout and sizes of these apartments are considered to meet the Clause 58.07-1 objective.
- 33 (22%) apartments achieve effective cross ventilation. It is acknowledged that this falls short of the Standard which requires 40%. Due to the shape and size of the site and the unique heritage restrictions including required setbacks, there are a limited number of corner apartments which typically lend them self to achieving 'cross ventilation'. Despite this, the development includes the installation of a Heat Recovery Ventilation (HRV) mechanical system that provide a constant supply of fresh, filtered air while maintaining indoor thermal comfort and energy efficiency. By continuously extracting stale air and replacing it with fresh outdoor air, HRV systems significantly improve indoor air quality, reducing pollutants, moisture, and odours. The heat recovery process transfers warmth from exhaust air to incoming air, minimising energy loss and lowering heating and cooling demands. This results in more stable indoor temperatures, reduced condensation and mould risk, and improved occupant health and comfort. A constant supply of fresh air also supports cognitive performance, wellbeing, and long-term building durability. This HRV system is part of the PassivHaus principles being embedded into the project, which also includes high performance windows, super insulation and ultimately an energy efficient building that has exceptional air quality and internal comfort year round. As such, it submitted that the proposal complies with the objective at Clause 58.07-4 and the HRV system will allow occupants to effectively manage natural ventilation of dwellings that do not benefit from cross ventilation.
- The proposal incorporates private open space for the majority of dwellings through a terrace garden or balcony. The exception to this Studio Type 6 (5 apartments total) and Type 9 (3 apartments total) which do have an area of private open space. 44 studio apartments are provided with an area of private open space, some of which are Juliet balconies which fall short of the minimum area required by Standard D20. Studio Type 8 (1 apartment total) and Type 10 (1 apartment total) meet the minimum dimension and area for private open. Additionally, the private open space provisions for ground level apartments vary between dwellings, with the minimum provision being 7sqm and the maximum provision being 54sqm. As such, 9 of the 28 ground floor apartments will meet the minimum 25sqm POS provision as required by Clause 58. As such, a total of 73

apartments representing 48% of dwellings do not meet Standard D20. On balance, the variation is considered appropriate noting:

– To offset these variations of the standard, the design includes a range of high-quality communal facilities for residents, including a rooftop terrace. A total of 720sqm of communal open space is provided for residents in addition to 575sqm of internal residential amenity spaces. This represents an excellent provision for residents which will offset the studios and ground floor dwellings which do not meet the standard.

– The ground floor terraces provided are well proportioned and will provide for a high quality private open space area for residents despite many not meeting the minimum sqm required by the standard. It is noted having these ground floor apartments assists with activation and activity to the overall building and streetscape, so is considered a positive for the scheme. This is in lieu of having a large number of carparks at ground floor and lower levels, which we typically see in apartment buildings.

– The one and two bedroom dwellings at Level 1 and above will all meet the minimum sqm and dimensions for balcony sizes required by Standard D20.

For a more detailed assessment of the proposal against the ADGs, please refer to Appendix B.

5.6. SUSTAINABILITY

Arup has prepared the accompanying Sustainability Management Plan (October 2025) in support of the proposal. This document outlines the Environmentally Sustainable Design (ESD) initiatives to be incorporated into the project, demonstrating how it achieves best practice in sustainable building design and performance. To this end, the proposal commits the following specific sustainability targets:

- 5 Star Green Star Buildings v1 rating, with 35 points targeted – exceeding the relevant planning requirements.
- 7 Star NatHERS average and 6 Star minimum (or equivalent).

Further confirmed sustainability outcomes include:

- Sourcing 100% renewable energy for all residential common area energy uses.
- Installation of 70 kW of rooftop photovoltaic (PV) panels.

In addition, the project team is seeking to achieve the following stretch targets, subject to detailed design resolution:

- 6 Star Green Star Buildings v1 rating (70 points targeted).
- Passivhaus Classic certification for the apartment buildings.
- 9 Star NatHERS average (or equivalent).
- Achieving a 40% reduction in upfront carbon emissions through the use of low-carbon materials (such as cross-laminated timber) and efficient design strategies.

The planning scheme includes objectives relating to building design and ESD factors such as energy and thermal performance, integrated water management, indoor environment quality and waste management – all of which the proposal is considered to generously exceed.

Under Clause 15.01-2L-01, residential developments comprising more than 10 dwellings must undertake a sustainability assessment using either the BESS or Green Star framework. For 35–45 Lithgow Street, the project team is targeting a 5 Star Green Star Buildings v1 rating, which exceeds the planning requirement and represents Australian Excellence in sustainability leadership. A stretch target of 6 Star Green Star is also under consideration and will be sought to be implemented at the detailed design stage.

Relatedly, the project team is investigating Passivhaus Classic certification for the proposed two new apartment buildings. This is an internationally recognised standard focuses on exceptional energy efficiency and indoor comfort, with strict performance criteria.

5.7. LANDSCAPING

Ratio has prepared a Landscape Plan that identifies strategic opportunities for urban greening across the site and as part of the proposed development. .

Specifically, the following landscape elements will be incorporated across key areas of the development:

- **Ground level planting** – Public and private green spaces will be created through a mix of native shade-tolerant species, year-round flowering natives in sunny areas, and ferns along the central laneway.
- **Level 1** – The outdoor wellness area will be planted to deliver an immersive spa-like experience, featuring shallow-soil natives, mallee trees, native grasses, ferns, and ground covers. Planting will be positioned to optimise sunlight access and enhance overall amenity.
- **Rooftop terrace** – A diverse mix of hardy perennials, compact shrubs, and native grasses will provide seasonal variation in colour and texture. Cascading greenery will soften planters, seating areas, and edges, creating a sense of openness. Informal steppers will guide movement through garden zones, encouraging exploration. Native species will support biodiversity and frame views of the city and sky, offering a welcoming space for gatherings.
- I**ntegrated balustrade and site planters** – Native evergreens in grey and green tones, with varied textures, will complement the historic built form. Trailing plants will cascade over edges, softening terraces and façades while adding depth and movement.

The Plan details the proposed planting and material selections for the project. It includes indicative planting schedules for each area of the site, specifying plant sizes and quantities. The proposal incorporates a total of 55 native trees and an additional 16 native ferns. A separate shrub schedule outlines the indicative selection of shrubs, grasses, and groundcovers to be used across the site.

5.8. TRANSPORT

The subject site is located partially within category 2 and category 3 as identified in the *Car Parking Requirement Maps* (Department of Transport and Planning, 2025) (CPR maps). In accordance with the requirements of Clause 52.06, the rates associated with category 3 apply to the site.

In accordance with Clause 52.06, there is a 0 minimum car parking requirement for dwellings and food and drink premises. The maximum for dwellings is 2 spaces to each dwelling. A total of 43 car parking spaces for residents are proposed which does not exceed the maximum car parking provision set out at Clause 52.06.

The proposed car parking provision is considered an appropriate outcome for the locality on the following bases:

- The site's location supports a suite of alternate travel modes and is well positioned in regard to public transport, with multiple tram and train options within a short walk.
- Nearby car share pods offer an alternative to private car ownership, encouraging sustainable travel for most trips.
- The proposed build-to-rent model will support efficient parking management, with spaces allocated separately from apartments and managed by the future Building Manager based on demand. This will ensure that spaces are only leased when required and avoids under-utilisation.
- The cafe on site is expected to primarily serve locals, who will be unlikely to access it using private vehicles.

Traffix Group has prepared the accompanying Traffic Engineering Assessment Report (March 2026) in support of the current application. This report finds that the proposed traffic engineering response is appropriate. The report's discussion points and findings are summarised below:

The following additional findings of Traffix's report are relevant:

- The proposed parking layout and access arrangements comply with the Planning Scheme (Clause 52.06-9), AS/NZS 2890.1:2004 and align with current industry practice.
- The residential and cafe uses are expected to generate up to 13 vehicle movements during peak hours and approximately 129 movements per day via Little Lithgow Street.
  - This impact, including the restriction of site access to right-in/right-out movements only (northbound on Little Lithgow Street), is considered acceptable.
- Bicycle parking provision of 88 spaces will exceed the minimum requirements outlined in Clause 52.34 of the Planning Scheme.
- The proposal will result in a net gain of two on-street parking spaces within Lithgow Street.

5.9. WASTE

Traffix Group has prepared a Waste Management Plan. For a discussion on how the proposed waste arrangement for the cafe tenancy and the apartment dwellings, please refer to this document.

The relevant conclusions of this Plan may be summarised as follows:

- The proposed bin supply, which is detailed as follows, is suitable to meet the waste needs of the proposed land uses:
  - Residential
    - Bin room provision 95 square metres
    - 4 x 1,110L General waste collected twice per week
    - 5 x 1,110L Recycling collected twice per week
    - 10 x 240L FOGO (Food and Organic Waste) collected twice per week
    - 2 x 660L Glass collected twice per week
  - Café
    - Bin (*café waste*) room provision 22 square metres
    - 1 x 1,110L and 1x 660L General waste, each collected once per week
    - 1 x 1,110L Recycling collected once per week
    - 1 x 660L Paper and Cardboard collected once per week
    - 3 x 240L FOGO (Food and Organic Waste) collected once per week
- There is ample room within the proposed development to store these bins.
- The building management will ensure that the bin storage areas remain clear and clear to avoid attracting vermin and maintain easy access
- Ventilation to the waste area will be provided in accordance with the relevant Australian standards
- Waste is proposed to be collected twice per week via the rear (Little Lithgow Street) site access. It is proposed that a private contractor use a Mini-Hino rear loader waste collection vehicle to do this.

6. CONCLUSION

This report described the subject site and its surrounding context. It further details the proposed works and provides a detailed assessment against the relevant planning controls and policies outlined in the Planning Scheme.

Overall, this report demonstrates that the proposal is an acceptable and appropriate outcome for the site for the following reasons:

- The proposal is consistent with the statutory and strategic frameworks of the Yarra Planning Scheme.
- Strategic fit and location – The proposal will deliver medium-density housing, including 10% affordable dwellings, in a Major Activity Centre with good access to public transport, services, and employment, directly supporting state and local housing supply and affordability objectives.
- Heritage-led design – The proposed scheme will retain and restore the most significant elements of the 1927 Schweppes Cordial Factory, expressing it in the round' and integrating it with new built form in a way that cleverly reinterprets the site's industrial legacy.
- Contextually responsive built form – Following OVGA input, the proposed design has evolved into two distinct mid-rise buildings, reducing visual bulk, increasing permeability and open space, and aligning more closely with the DDO22 height control. The final six-storey height represents a significant reduction from the original nine-storey concept and is a reasonable and appropriate built-form outcome.
- Public realm and landscape benefits – The proposal delivers a genuine through-site pedestrian link, enhanced streetscape planting, reduced crossovers, widened nature strips, and deep-soil planting zones, improving connectivity, amenity, and urban greening for both residents and the wider community.
- High-quality internal amenity – All apartments are afforded with excellent internal amenity, supported by extensive communal facilities including a rooftop terrace, wellness centre, co-working spaces, and landscaped courtyards.
- Sustainability leadership – The project targets best-practice sustainability targets and will set a new benchmark for environmentally responsible build-to-rent housing in inner Melbourne.
- Transport and access – The proposal provides adequate car parking provision and the site benefits from excellent transport connectivity, and a strong bicycle parking offer, which will encourage sustainable travel behaviour.

7. DISCLAIMER

This report is dated 30 March 2026 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Ltd **(Urbis)** opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, MODEL **(Instructing Party)** for the purpose of Planning Report **(Purpose)** and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

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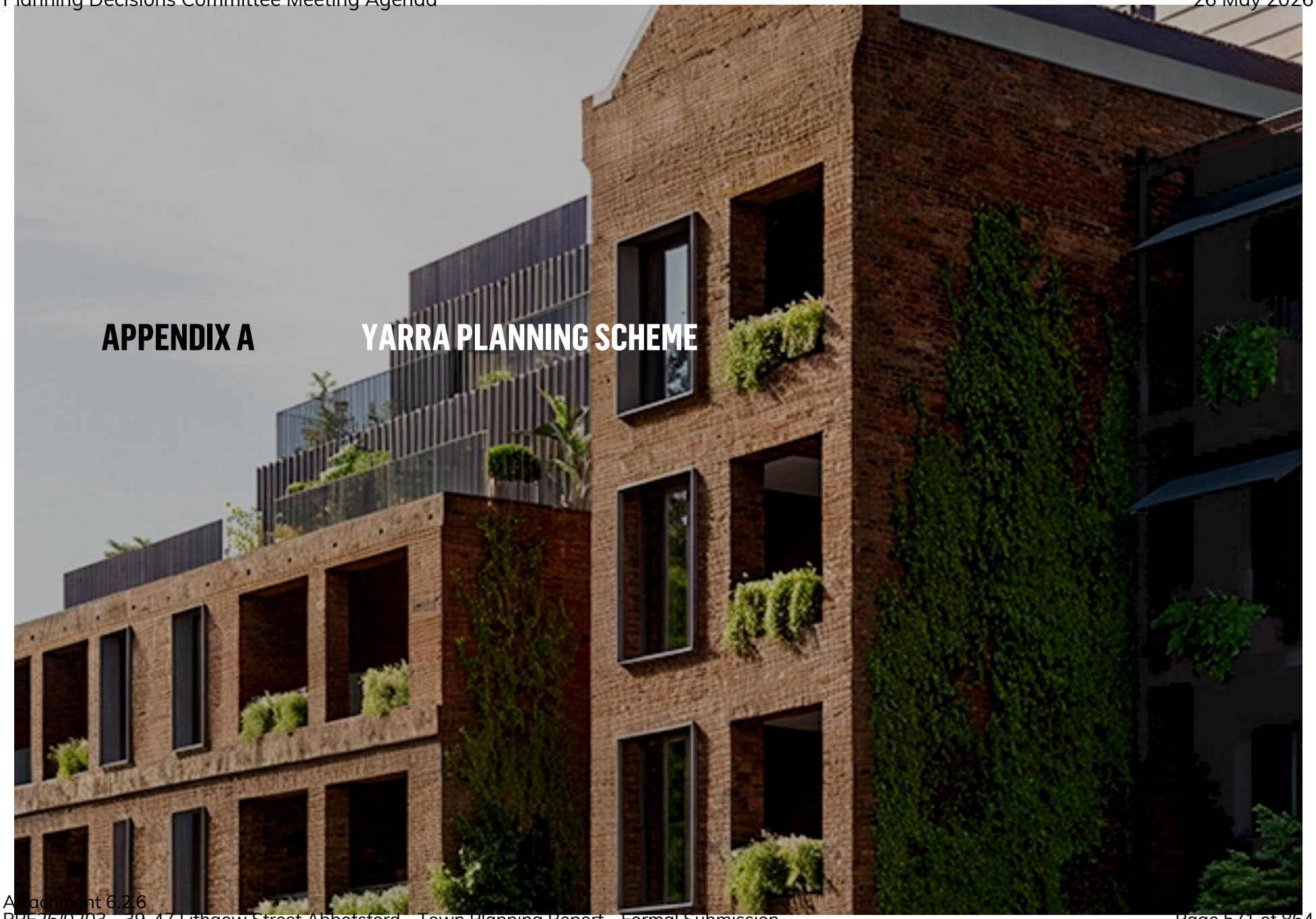
This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.


APPENDIX A
YARRA PLANNING SCHEME

A.1 RELEVANT PARTICULAR PROVISIONS

A.2 CLAUSE 52.06 CAR PARKING

This clause seeks to ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.

Under this clause, a permit is required to:

- Reduce (including reduce to zero) the number of car parking spaces required under Clause 52.06-5
- Provide some or all of the car parking spaces required under Clause 52.06-5.
- Provide more than the maximum parking requirement specified in clause 52.06-5 or in a schedule to the Parking Overlay.

A.2.1 CLAUSE 52.29 LAND ADJACENT TO THE PRINCIPAL ROAD NETWORK

This clause seeks to ensure appropriate access to the Principal Road Network or land planned to form part of the Principal Road Network and ensure appropriate subdivision of land adjacent to Principal Road Network or land planned to form part of the Principal Road Network.

Under this Clause, a permit is required to:

- Create or alter access to a road in a Transport Zone 2.
- Subdivide land adjacent to a road in a Transport Zone 2.

Referral

An application must be referred under section 55 of the Act to Head, Transport for Victoria, the determining referral authority.

Notice and Review

An application under Clause 52.29 is exempt from notice requirements.

A.2.2 CLAUSE 52.34 BICYCLE PARKING

This clause seeks to encourage cycling as a mode of transport. provide secure, accessible and convenient bicycle parking spaces.

A permit may be granted to vary, reduce or waive the bicycle parking requirements.

A.2.3 CLAUSE 53.23 – SIGNIFICANT RESIDENTIAL DEVELOPMENT WITH AFFORDABLE HOUSING

Clause 53.23 was recently introduced to facilitate residential development that includes affordable housing to meet existing and future needs. This clause applies to an application for the use or development of residential land use (other than camping and caravan park, group accommodation and residential hotel).

Clause 53.23-2 allows the Responsible Authority to waive height, setback, and minimum garden area requirements. However, a proposal will still need to have regard to all planning considerations for the site.

Eligibility for this process includes:

- The cost of development for accommodation is at least $50 million; and
- At least 10% of the total number of dwellings are affordable housing; and
- Written advice from CEO – Invest Victoria confirming the likely financial feasibility of the proposal.

The Minister for Planning is the responsible authority for applications under this clause and these applications are not subject to third party review at VCAT.

A.2.4 CLAUSE 58 – BETTER APARTMENT DESIGN STANDARDS

This clause aims to promote apartment developments that offer reasonable standards of amenity for both existing and new residents, while being responsive to the site and its surrounding area. The provisions apply to applications for constructing or extending apartment developments, or

dwellings within such developments, if they are five or more storeys (excluding basements) and located in the Mixed Use Zone.

Under this clause, a development must meet all the objectives and should meet all the standards outlined.

A.3 STATE AND LOCAL PLANNING POLICY

The Planning Policy Framework (PPF) seeks to develop the objectives for planning in Victoria, and Council, to foster appropriate land-use and practices that encompass relevant environmental, social, and economic factors. The framework includes a Municipal Planning Strategy and various policies to address planning matters that are contextual to the municipality including, but not limited to, settlement, economic development, transport, and preferred neighbourhood character.

MUNICIPAL PLANNING POLICY

- **Clause 02.01-2 – Community and population growth** outlines that Yarra is a well-connected, diverse community of over 100,000 people, projected to grow by nearly 30,000 by 2031, requiring 13,000+ new homes. The Council is committed to inclusion and affordable housing, but faces challenges in managing growth while protecting heritage, open space, infrastructure and neighbourhood character.
- **Clause 02.01-3 – Activity centres** states Yarra's activity centres are located along main retail streets, featuring valued and intact heritage streetscapes. With strong access to services, public transport and walkable streets. Yarra intends to support the strengthening of these places to ensure they remain vibrant, liveable and able to support growing local economies and changing communities.
- **Clause 02.01-5 – Climate change** outlines how inner-city growth can improve sustainability by maximising infrastructure use, boosting access to services and jobs, encouraging sustainable transport, and reducing sprawl. In Yarra, development must also address climate impacts such as heat, extreme weather and flooding.
- **Clause 02.01-6 – Built environment and heritage** states Yarra's rich heritage, including some of Melbourne's oldest suburbs and shopping strips, shapes its inner-city character. Built form ranges from uninterrupted terrace frontages with minimal setbacks, to modest suburban-style homes, to spacious garden settings in Fairfield and Alphington. Mid-rise and taller buildings, often in activity centres and along main roads, are increasing, with apartment living becoming more common and expected to dominate housing over the next 15 years
- **Clause 02.01-7 – Housing** highlights that new apartment development is concentrated in areas such as Abbotsford and around activity centres. Yarra's focus is on providing accessible, adaptable and affordable housing options that meet the needs of its diverse community, both now and into the future.
- **Clause 02.02 – Vision** sets out a range of goals for the municipality, with policy noting in particular 'New housing will provide homes in a range of sizes to meet the needs of the population, and be supported by the necessary community facilities and infrastructure. High quality urban design will respect the city's heritage and built form character, provide new public and open spaces, and improved connections for walking and cycling.'
- **Clause 02.03-1 – Settlement** highlights how activity centres are a focus of growth in Yarra with the addition of mid-rise commercial development and apartments. They will continue to accommodate most of the city's growth because of their proximity to transport infrastructure, shops and services making them the most suitable locations for development.
- **Clause 02.03-4 – Built environment and heritage** outlines the intention to conserve and enhance heritage places and streetscapes while still allowing appropriate development is a key driver in Yarra.
- **Clause 02.03-5 – Housing** states Yarra will manage residential growth according to each site's capacity and context, while supporting more and better social, public and affordable housing with access to services and jobs. ***Plan for future housing growth and for more housing choice to support Yarra's diverse community:***
  - Direct housing growth to appropriate locations including major regeneration areas (Alphington Paper Mill, the former Gasworks site in Fitzroy North and south-west Cremorne, south of Gough Street) as shown in clause 02.04 (Strategic Framework Plan), and areas within activity centres that have good access to public transport, jobs, open space and other services.
  - Support Yarra's diverse community by facilitating accessible, adaptable, affordable housing options that:
    - Provide for diverse housing types including shared, sole person, couple and family households.
    - Include housing for people with disabilities, older persons, students and those in need of crisis accommodation.

- Provide for a range of affordable housing types appropriate to the needs of very low, low and moderate-income households.
- Include greater housing choice for key workers.
- Encourages the supply of additional social housing and improvements to existing social housing.

LOCAL PLANNING POLICY

- **Clause 11.01.1S – Settlement** is a state level policy which aims to facilitate sustainable, resilient development across Victoria. Growth should be directed towards existing settlements to combat urban sprawl
- **Clause 11.01-1R – Settlement – Metropolitan Melbourne** aims to focus growth on Melbourne towards places of significance, including activity centres. The policy desires a variety of housing types at varying densities
- **Clause 11.03-1S – Activity centres and precincts** seeks to encourage the concentration of major retail, residential, commercial, administrative, entertainment and cultural developments into activity centres with good public transport services
- **Clause 11.03-1R – Activity centres and precincts - Metropolitan Melbourne** contains similar goals to the state level policy above. This policy aims to support activity centre growth which achieves a high level of amenity and is well serviced by transport and infrastructure.
- **Clause 11.03-1L – Activity Centres** seeks to manage a sustainable network of activity centres that facilitate appropriate economic and housing growth and provide attractive places for social and community interaction. Specifically, the subject site is located within the 'Victoria Street Activity Centre Plan' that outlines the following relevant objectives:
  - Retain the visual prominence of the heritage buildings
  - Reinforce the concentration of height, density and mixed uses east of Burnley Street, to provide a visual mark to the east end of Victoria Street.
  - Allow for mid-rise development elsewhere in the activity centre that responds to the mix of heritage forms.
- **Clause 15.01-1S – Urban design** aims to promote developments with high quality urban design aspects. This includes high quality landscaping, public/private interfaces, walking/cycling environments, and safety.
- **Clause 15.01-1R – Urban design - Metropolitan Melbourne** aims to support high-quality designs which are memorable, distinctive and liveable.
- **Clause 15.01-1L – Urban design** outlines strategies regarding public realm, wind, weather protection, projections over a public realm, development adjoining land in a Heritage Overlay, laneways, boulevards, and development adjacent to a public open space. These strategies aim to guide development to address relevant topics, ensuring a coherent and well-considered design outcome across the City of Yarra
- **Clause 15.01-2S – Building design** highlights the importance of responding to the local context by considering height, scale, and massing of the development. The policy also aims to support developments incorporating ESD.
- **Clause 15.01-2L – Building design** outlines strategies for building form, building heights, building setbacks, walls on boundaries, site coverage, internal amenity, impact of development on adjoining properties, roof form, materials, landscaping, pedestrian access, frontages, front fences and gates, carparking, loading facilities and outbuildings, and service equipment. Implementing these strategies will enable future development to enhance both the existing and planned built form of the municipality.
- **Clause 15.01-2L-01 – Environmentally sustainable development** aims to achieve best practice in environmentally sustainable development from the design stage through to construction and operation.
- **Clause 15.01-4S – Healthy neighbourhoods** is intended to achieve neighbourhoods that foster healthy and active living and community wellbeing.
- **Clause 15.01-5S – Neighbourhood character** aims to recognise, support and protect neighbourhood character, cultural identity, and sense of place.
- **Clause 15.03-1S – Heritage conservation** seeks to protect and conserve places of heritage significance.

- **Clause 15.03-1L – Heritage** aims to conserve and enhance Yarra's natural and cultural heritage by preserving the scale and pattern of streetscapes in heritage areas. It supports the adaptation of heritage places in line with sound conservation principles and encourages signage that respects and reinforces their heritage significance.
- **Clause 16.01-1S – Housing supply** is a state level housing policy which aims to encourage housing that is suitable for the elderly, students, and those with disabilities. Higher density development is supported on sites close to jobs, services and public transport.
- **Clause 16.01-1R – Housing supply - Metropolitan Melbourne** aims to manage the supply of new housing to encourage transit-oriented development and housing in activity centres. Council aims to create 20-minute neighbourhoods and create mixed-use neighbourhoods with a variety of housing options.
- **Clause 16.01-1L – Location of residential development** outlines Yarra's aim to encourage new housing development to locations in a major or neighbourhood activity centre or major regeneration area as shown in clause 02.04, in which the subject site is located.
- **Clause 16.01-1L-01 – Housing diversity** supports the delivery of well-designed apartment developments within designated high and moderate change areas. These developments should provide a diverse mix of housing types, including larger dwellings suitable for families and shared households, particularly at lower building levels, with direct access to high-quality communal open space. The policy encourages design outcomes that facilitate social interaction and supports housing models such as cohousing, as well as purpose-built student accommodation located in proximity to tertiary institutions and accessible via walking, cycling, or public transport.
- **Clause 16.01-2S – Housing affordability** aims to deliver more affordable housing which is closer to jobs and services. This is partly achieved through greater housing diversity, facilitating a mix of private, affordable, and social housing, and encouraging a significant proportion of new development to be affordable housing.
- **Clause 16.01-2L – Housing affordability** seeks to support and facilitate the provision of affordable housing and social housing (public and affordable community housing), including new social housing and upgrades to existing social housing.

APPENDIX B

CLAUSE 58 (APARTMENT DESIGN GUIDELINES) ASSESSMENT

CLAUSE 58 (ADG) ASSESSMENT

Objectives	Standard	Assessment (✓ Complies, V Variation Required)	
Clause 58.02 – Urban Context			
58.02-1 – Urban Context objectives To ensure that the design responds to the existing urban context or contributes to the preferred future development of the area. To ensure that development responds to the features of the site and the surrounding area.	**Standard D1** The design response must be appropriate to the urban context and the site. The proposed design must respect the existing or preferred urban context and respond to the features of the site.	✓ ✓	Does the proposal meet the **objective**? Does the proposal meet the **standard**? The proposed design response is appropriate to the site context and the urban surrounds. For further discussion please refer to the Town Planning Report prepared by Urbis, to be read in conjunction with the Architectural Package prepared by Warren and Mahoney accompanying this submission.
58.02-2 - Residential policy objectives To ensure that residential development is provided in accordance with any policy for housing in the Municipal Planning Strategy and the Planning Policy Framework. To support higher density residential development where development can take advantage of public and community infrastructure and services.	**Standard D2** An application must be accompanied by a written statement to the satisfaction of the responsible authority that describes how the development is consistent with any relevant policy for housing in the Municipal Planning Strategy and the Planning Policy Framework.	✓	Does the proposal meet the **objective**? Does the proposal meet the **standard**? The proposed high density residential development is supportable in its location that benefits from proximity to established public and community infrastructure, services and transport infrastructure. Please refer to the town planning report for a written statement describing how the proposal is consistent with state and local planning policy relating to housing.

58.02-3 - Dwelling diversity objective To encourage a range of dwelling sizes and types in developments of ten or more dwellings.	**Standard D3** Developments of ten or more dwellings should provide a range of dwelling sizes and types, including dwellings with a different number of bedrooms.	Does the proposal meet the **objective**? Does the proposal meet the **standard**? The proposal provides a range of dwelling sizes and types. As noted within the enclosed documents and Urbis Town Planning Report, the following dwelling mix is provided within the proposed development: • 54 Studios • 68 one bedroom apartments • 9 one bedroom and study apartments • 20 two bedroom apartments Please refer to the enclosed Architectural Plans which further specify the dwelling mix and sizes.
58.02-4 - Infrastructure objectives To ensure development is provided with appropriate utility services and infrastructure. To ensure development does not unreasonably overload the capacity of utility services and infrastructure.	**Standard D4** Development should be connected to reticulated services, including reticulated sewerage, drainage and electricity, if available. Development should not unreasonably exceed the capacity of utility services and infrastructure, including reticulated services and roads. In areas where utility services or infrastructure have little or no spare capacity, developments should provide for the upgrading of or mitigation of the impact on services or infrastructure.	Does the proposal meet the **objective**? Does the proposal meet the **standard**? The proposed development will be connected to reticulated services, including sewerage, drainage and electricity.
58.02-5 - Integration with the street objective To integrate the layout of development with the street.	**Standard D5** Development should be oriented to front existing and proposed streets. Along street frontage, development should: Incorporate pedestrian entries, windows, balconies or other active spaces.	Does the proposal meet the **objective**? Does the proposal meet the **standard**?

To support development that activates street frontage.	Limit blank walls. Limit high front fencing, unless consistent with the existing urban context. Provide low and visually permeable front fences, where proposed. Conceal car parking and internal waste collection areas from the street. Development next to existing public open space should be designed to complement the open space and facilitate passive surveillance.	The proposed development, as outlined in the Town Planning Report and shown on the plans, has been designed to maximise activation along the primary street frontages while retaining the heritage façade, which is central to the project's character. Along Lithgow Street, activation is achieved through the use of a cafe, while the balance of the frontages to both Lithgow and Little Lithgow Streets adopt pedestrian entrances, balconies, and windows to apartments enhance engagement and passive surveillance. Consistent with permitted street wall development, no fences are proposed. Security gates will be permeable, supporting both safety and visual connection with the public realm. Car parking and internal waste collection will be located in the basement, keeping these functions out of sight and contributing positively to the amenity of the surrounding area.

Clause 58.03: Site Layout		
58.03-1 Energy efficiency objectives To achieve and protect energy efficient dwellings and buildings.	**Standard D6** Buildings should be: • Oriented to make appropriate use of solar energy.	Does the proposal meet the **objective**? Does the proposal meet the **standard**?

To ensure the orientation and layout of development reduce fossil fuel energy use and make appropriate use of daylight and solar energy.

To ensure dwellings achieve adequate thermal efficiency.

- Sited and designed to ensure that the energy efficiency of existing dwelling or small second dwellings on adjoining lots is not unreasonably reduced.

Living areas and private open space should be located on the north side of the development, if practicable.

Developments should be designed so that solar access to north-facing windows is optimised.

Dwellings located in a climate zone identified in Table D1 should not exceed the maximum NatHERS annual cooling load specified in the following table.

Table D1 – Cooling Load

NatHERS climate zone	**NatHERS maximum cooling load** MJ/M² per annum
Climate zone 21 Melbourne	30
Climate zone 22 East Sale	22
Climate zone 27 Mildura	69
Climate zone 60 Tullamarine	22
Climate zone 62 Moorabbin	21
Climate zone 63 Warrnambool	21
Climate zone 64 Cape Otway	19
Climate zone 66 Ballarat	23

The provision of north-facing windows has been maximised throughout the proposal via the architectural built form design on site.

The dwellings will not exceed the maximum NatHERS annual cooling load for Climate Zone 21 Melbourne.

Please refer to the Sustainable Management Plan and Architectural Drawings, prepared by for further details.

58.03-2 Communal open space objective

To provide communal open space that meets the recreation and amenity needs of residents.

To ensure that communal open space is accessible, practical, attractive, easily maintained.

To ensure that communal open space is integrated with the layout of

Standard D7

A development of 10 or more dwellings should provide a minimum area of communal outdoor open space of 30 square metres.

If a development contains 13 or more dwellings, the development should also provide an additional minimum area of communal open space of 2.5 square metres per dwelling or 220 square metres, whichever is the lesser. This additional area may be indoors or outdoors and may consist of multiple separate areas of communal open space.

Each area of communal open space should be:

Does the proposal meet the **objective**?

Does the proposal meet the **standard**?

As the development contains more than 13 dwellings (151), the development is required to provide an additional minimal communal open space area of 220 square metres.

the development and enhances resident amenity.	▪ Accessible to all residents. ▪ A useable size, shape and dimension. ▪ Capable of efficient management. ▪ Located to: – Provide passive surveillance opportunities, where appropriate. – Provide outlook for as many dwellings as practicable. – Avoid overlooking into habitable rooms and private open space of new dwellings. – Minimise noise impacts to new and existing dwellings and existing second small dwellings. Any area of communal outdoor open space should be landscaped and include canopy cover and trees.		The proposed development offers generous communal outdoor open spaces, primarily a 325sqm terrace open space (including 110sqm dog run) is located on the rooftop, with additional area provided at ground level and Level 1.
58.03-3 Solar access to communal outdoor open space objective To allow solar access into communal outdoor open space.	**Standard D8** The communal outdoor open space should be located on the north side of a building, if appropriate. At least 50 per cent or 125 square metres, whichever is the lesser, of the primary communal outdoor open space should receive a minimum of two hours of sunlight between 9am and 3pm on 21 June.	✓ ✓	Does the proposal meet the **objective**? Does the proposal meet the **standard**? The primary communal outdoor open space is located on the rooftop, ensuring ample solar access throughout the day. As displayed within the enclosed Architectural Plans, the principal terrace comprising 215 square metres of open space, is situated atop the northern building and benefits from unobstructed sunlight, with no impact from shadowing or other forms of solar obstruction.
58.03-4 Safety objective To ensure the layout of development provides for the safety and security of residents and property.	**Standard D9** Entrances to dwellings should not be obscured or isolated from the street and internal accessways.	✓ ✓	Does the proposal meet the **objective**? Does the proposal meet the **standard**?

	Planting which creates unsafe spaces along streets and accessways should be avoided. Developments should be designed to provide good lighting, visibility and surveillance of car parks and internal accessways. Private spaces within developments should be protected from inappropriate use as public thoroughfares.		Safety and security for residents have been a prevalent consideration for the proposed development as a whole. Access via Lithgow Street is considered its primary access. As such, the Architectural Plans, prepared by Warren and Mahoney demonstrates appropriate lighting solutions, pathways and internal access and pedestrian wayfinding to ensure passive surveillance for residents. The proposal has been designed to ensure that no dwellings are obscured or isolated. The development has been designed to provide good visibility and surveillance of car park entries and internal accessways.
58.03-5 Landscaping objectives To provide landscaping that supports the existing or preferred urban context of the area and reduces the visual impact of buildings on the streetscape. To preserve existing canopy cover and support the provision of new canopy cover. To ensure landscaping is climate responsive, supports biodiversity, wellbeing and amenity and reduces urban heat.	**Standard D10** Development should retain existing trees and canopy cover. Development should provide for the replacement of any significant trees that have been removed in the 12 months prior to the application being made. Development should: • Provide the canopy cover and deep soil areas specified in Table D2. • Existing trees can be used to meet the canopy cover requirements of Table D2. Provide canopy cover through canopy trees that are: • Located in an area of deep soil specified in Table D3. Where deep soil cannot be provided trees should be provided in planters specified in Table D3. • Consistent with the canopy diameter and height at maturity specified in Table D4. • Located in communal outdoor open space or common areas or street frontages. • Comprise smaller trees, shrubs and ground cover, including flowering native species.	✓ ✓	Does the proposal meet the **objective**? Does the proposal meet the **standard**? The proposal includes extensive deep space and creates generous opportunities for deep-soil planting. For further information, please refer to the accompanying Landscape Plan (October 2025) Ratio.

- Include landscaping, such as climbing plants or smaller plants in planters, in the street frontage and in outdoor areas, including communal outdoor open space.
- Shade outdoor areas exposed to summer sun through landscaping or shade structures and use paving and surface materials that lower surface temperatures and reduce heat absorption.
- Be supported by irrigation systems which utilise alternative water sources such as rainwater, stormwater and recycled water.
- Protect any predominant landscape features of the area.
- Take into account the soil type and drainage patterns of the site.
- Provide a safe, attractive and functional environment for residents.
- Specify landscape themes, vegetation (location and species), irrigation systems, paving and lighting.

Table D2 – Canopy Cover and Deep Soil Requirements

Site Area	**Canopy Cover**	**Deep Soil**
1000 sqm or less	5% of site area Include at least 1 Type A Tree	5% of site area or 12 sqm (whichever is the greater)
1001 – 1500 sqm	50 sqm plus 20% of site area above 1,000 sqm Include at least 1 Type B Tree	7.5% of site area
1501 – 2500 sqm	150 sqm plus 20% of site area above 1,500 sqm Include at least 2 Type B trees or 1 Type C Tree	10% of site area
2500+ sqm	350 sqm plus 20% of site area above 2,500 sqm Include at least 2 Type B trees or 1 Type C Tree	15% of site area

Table D3 – Soil Requirements for Trees

Tree Type	**Tree in deep soil** **- Area of deep soil**	**Tree in planter** **- Volume of planter soil**	**Depth of planter soil**

A	12 sqm (min. plan dimension of 2.5 metres)	12 cubic metres (min. plan dimension of 2.5 metres)	0.8 metres
B	49 sqm (min. plan dimension of 4.5 metres)	28 cubic metres (min. plan dimension of 4.5 metres)	1 metre
C	121 sqm (min. plan dimension of 6.5 metres)	64 cubic metres (min. plan dimension of 6.5 metres)	1.5 metres

Note: Where multiple trees share the same section of soil the total required amount of soil can be reduced by 5% for every additional tree, up to a maximum reduction of 25%

Table D4 – Tree Type

Tree Type	Minimum canopy diameter at maturity	Minimum height at maturity
A	4 metres	6 metres
B	8 metres	8 metres
C	12 metres	12 metres

58.03-6 Access objective

To ensure that vehicle crossovers are designed and located to provide safe access for pedestrians, cyclists and other vehicles.

To ensure the vehicle crossovers are designed and located to minimise visual impact.

Standard D11

Vehicle crossovers should be minimised.

Car parking entries should be consolidated, minimised in size, integrated with the façade and where practicable located at the side or rear of the building.

Pedestrian and cyclist access should be clearly delineated from vehicle access.

The location of crossovers should maximise pedestrian safety and the retention of on-street car parking spaces and street trees.

Developments must provide for access for service, emergency and delivery vehicles.

Does the proposal meet the **objective**?

Does the proposal meet the **standard**?

In accordance with Standard D11, the proposal reduces the number of vehicular access points on the site. While the existing site currently has multiple access points along both frontages, the new design consolidates vehicle access to a single entry from Little Lithgow Street.

Pedestrian and cyclist access along Little Lithgow Street is positioned at the northern end of the site, away from the basement entry

			area. The main pedestrian and cyclist entries are located on Lithgow Street, which has no vehicle access, ensuring a safe and unobstructed arrival experience. Overall, the proposed access arrangement supports the urban design objectives, minimises potential conflicts between vehicles and pedestrians, and reduces any adverse impacts on the public realm.
58.03-7 Parking location objectives To provide convenient parking for resident and visitor vehicles. To protect residents from vehicular noise within developments.	**Standard D12** Car parking facilities should: Be reasonably close and convenient to dwellings. Be secure. Be well ventilated if enclosed. Shared accessways or car parks of other dwellings should be located at least 1.5 metres from the windows of habitable rooms. This setback may be reduced to 1 metre where there is a fence at least 1.5 metres high or where window sills are at least 1.4 metres above the accessway.	✓ ✓	Does the proposal meet the **objective**? Does the proposal meet the **standard**? The proposal contains 43 car parking spaces. The car parking areas are easily accessed by residents via internal stairwells and internal lift facilities, the parking is secure, well ventilated and provides the apartment development with the full suite of amenity including services, bicycle spaces and utility areas.
58.03-8 Integrated water and stormwater management objectives To encourage the use of alternative water sources such as rainwater, stormwater and recycled water. To facilitate stormwater collection, utilisation and infiltration within the development. To encourage development that reduces the impact of stormwater run-off on the drainage system and	**Standard D13** Buildings should be designed to collect rainwater for non-drinking purposes such as flushing toilets, laundry appliances and garden use. Buildings should be connected to a non-potable dual pipe reticulated water supply, where available from the water authority. The stormwater management system should be: • Designed to meet the current best practice performance objectives for stormwater quality as contained in the Urban Stormwater - Best Practice Environmental Management Guidelines (Victorian Stormwater Committee, 1999).	✓ ✓	Does the proposal meet the **objective**? Does the proposal meet the **standard**? The development has been designed with integrated water and stormwater management objectives in mind. The proposal is generally consistent with the relevant objectives of stormwater standards and practices as

filters sediment and waste from stormwater prior to discharge from the site.	• Designed to maximise infiltration of stormwater, water and drainage of residual flows into permeable surfaces, tree pits and treatment areas.		outlined within the Sustainable Management Plan, prepared by Arup. The overall proposal has been afforded 1,785 sqm of rainwater collection area that is serviced by a 20-kilolitre underground water tank. It is considered the proposal adequately meets the objectives of Standard D13.
Clause 58.04 – Amenity Impacts			
58.04-1 Building setback objectives To ensure the setback of a building from a boundary appropriately responds to the existing urban context or contributes to the preferred future development of the area. To allow adequate daylight into new dwellings. To limit views into habitable room windows and private open space of new and existing dwellings. To provide a reasonable outlook from new dwellings and existing small second dwellings. To ensure the building setbacks provide appropriate internal amenity to meet the needs of residents.	**Standard D14** The built form of the development must respect the existing or preferred urban context and respond to the features of the site. Buildings should be set back from side and rear boundaries, and other buildings within the site to: • Ensure adequate daylight into new habitable room windows. • Avoid direct views into habitable room windows and private open space of new and existing dwellings and existing small second dwellings. Developments should avoid relying on screening to reduce views. • Provide an outlook from dwellings that creates a reasonable visual connection to the external environment. • Ensure the dwellings are designed to meet the objectives of Clause 58.	✓ Does the proposal meet the **objective**? ✓ Does the proposal meet the **standard**?	The proposal is appropriately set back from adjoining buildings, in line with the prevailing urban context.
58.04-2 Internal views objective To limit views into the private open space and habitable room windows of dwellings within a development.	**Standard D15** Windows and balconies should be designed to prevent overlooking of more than 50 per cent of the private open space of a lower-level dwelling directly below and within the same development.	✓ Does the proposal meet the **objective**? ✓ Does the proposal meet the **standard**?	

The orientation of the site combined with the layout of the proposed dwellings will result in no internal overlooking as a result of the dwelling design.

58.04-3 Noise impacts objectives

To contain noise sources in developments that may affect existing dwellings or small second dwellings.

To protect residents from external and internal noise sources.

Standard D16

Noise sources, such as mechanical plants should not be located near bedrooms of immediately adjacent existing dwellings or small second dwellings.

The layout of new dwellings and buildings should minimise noise transmission within the site.
Noise sensitive rooms (such as living areas and bedrooms) should be located to avoid noise impacts from mechanical plants, lifts, building services, non-residential uses, car parking, communal areas and other dwellings.

New dwellings should be designed and constructed to include acoustic attenuation measures to reduce noise levels from off-site noise sources. Buildings within a noise influence area specified in Table D5 should be designed and constructed to achieve the following noise levels:

- Not greater than 35dB(A) for bedrooms, assessed as an LAeq,8h from 10pm to 6am.
- Not greater than 40dB(A) for living areas, assessed LAeq,16h from 6am to 10pm.

Buildings, or part of a building screened from a noise source by an existing solid structure, or the natural topography of the land, do not need to meet the specified noise level requirements.

Noise levels should be assessed in unfurnished rooms with a finished floor and the windows closed.

Table D5 - Noise influence area

Noise Source	Noise Influence Area
Zone Interface	
Industry	300 metres from the Industrial 1, 2 and 3 zone boundary
Roads	

Does the proposal meet the **objective**?

Does the proposal meet the **standard**?

The development has included relevant design measures to minimise the environmental and building services noise to the Australian Standard levels, ensuring that indoor spaces are comfortable and amenable.

Freeways, tollways, and other roads carrying 40,000 Annual Average Daily Traffic Volume	300 metres from the nearest trafficable lane
Railways	
Railway servicing passengers in Victoria	80 metres from the centre of the nearest track
Railway servicing freight outside Metropolitan Melbourne	80 metres from the centre of the nearest track
Railway servicing freight in Metropolitan Melbourne	135 metres from the centre of the nearest track

58.04-4 Wind impacts objective

To ensure the built form, design and layout of development does not generate unacceptable wind impacts within the site or on surrounding land.

Standard D17

Development of five or more storeys, excluding a basement should:

- Not cause unsafe wind conditions specified in Table D6 in public land, publicly accessible areas on private land, private open space and communal open space; and
- Achieve comfortable wind conditions specified in Table D6 in public land and publicly accessible areas on private land

Within a distance of half the greatest length of the building, or half the total height of the building measured outwards on the horizontal plane from the ground floor building façade, whichever is greater.

Trees and landscaping should not be used to mitigate wind impacts. This does not apply to sitting areas, where trees and landscaping may be used to supplement fixed wind mitigation elements.

Wind mitigation elements, such as awnings and screens should be located within the site boundary, unless consistent with the existing urban context or preferred future development of the area.

Table D6 – Wind Conditions

Unsafe	**Comfortable**
Annual maximum 3 second gust wind speed exceeding 20 metres per second with a probability of exceedance of 0.1% considering at least 16 wind direction.	Hourly mean wind speed or gust equivalent mean speed (3 second gust wind speed divided by 1.85), from all wind directions combined with probability of exceedance less

Does the proposal meet the **objective**?

Does the proposal meet the **standard**?

The VIPAC wind assessment evaluates the proposed development against Clause 58.04-4m and finds it compliant. The design is expected to deliver acceptable wind conditions for comfort and safety across all key areas of the site. Key findings are:

- Ground-level footpaths and access ways meet walking comfort criteria.
- Building entrances meet standing comfort criteria.
- Private balconies and gardens meet walking comfort criteria.
- The rooftop communal terrace meets standing or walking comfort criteria, subject to recommended measures.
- Gust wind conditions meet safety criteria.

For additional detail, please refer to the enclosed Wind Impact Assessment.

	than 20% of the time, equal to or less than: 3 metres per second for sitting areas, 4 metres per second for standing areas, 5 metres per second for walking areas.

Clause 58.05: On-Site Amenity and Facilities

58.05-1 Accessibility objective

To ensure the design of dwellings meets the needs of people with limited mobility.

Standard D18

At least 50 per cent of dwellings should have:

- A clear opening width of at least 850mm at the entrance to the dwelling and main bedroom.
- A clear path with a minimum width of 1.2 metres that connects the dwelling entrance to the main bedroom, an adaptable bathroom and the living area.
- A main bedroom with access to an adaptable bathroom.
- At least one adaptable bathroom that meets all of the requirements of either Design A or Design B specified in Table D7.

Table D7 – Bathroom Design

	Design option A	**Design option B**
Door opening	A clear 850mm wide door opening.	A clear 820mm wide door opening located opposite the shower.
Door design	Either: A slide door, or A door that opens outwards, or A door that opens inwards that is clear of the circulation area and has readily removable hinges.	Either: A slide door, or A door that opens outwards, or A door that opens inwards and has readily removable hinges.

Does the proposal meet the **objective**?

Does the proposal meet the **standard**?

The Architectural Plans show a total of 151 apartments, with 76 (50%) designed to be accessible. This meets the requirements of Standard D18.

The mix of apartment types has been designed to support a wide range of resident needs, incorporating features such as generous clear openings, main bedrooms with ensuites, and functional layouts that facilitate ease of movement throughout the dwelling.

Circulation area	A clear circulation area that is: A minimum area of 1.2 metres by 1.2 metres. Located in front of the shower and the toilet. Clear of the toilet, basin, and the door swing. The circulation area for the toilet and shower can overlap.	A clear circulation area that is: A minimum width of 1 metre. The full length of the bathroom and a minimum length of 2.7 metres. Clear of the toilet and basin. The circulation area can include a shower area.
Path to circulation area	A clear path with a minimum width of 900mm from the door opening to the circulation area.	Not applicable.
Shower	A hobless (step-free) shower.	A hobless (step-free) shower that has a removable shower screen and is located on the furthest wall from the door opening.
Toilet	A toilet located in the corner of the room.	A toilet located closest to the door opening and clear of the circulation area.

58.05-2 Building entry and circulation objectives

To provide each dwelling and building with its own sense of identity.

Standard D19

Entries to dwellings and buildings should:

- Be visible and easily identifiable.
- Provide shelter, a sense of personal address and a transitional space around the entry.

Does the proposal meet the **objective**?

Does the proposal meet the **standard**?

To ensure the internal layout of buildings provide for the safe, functional and efficient movement of residents. To ensure internal communal areas provide adequate access to daylight and natural ventilation.	• The layout and design of buildings should: • Clearly distinguish entrances to residential and non-residential areas. • Provide windows to building entrances and lift areas. • Provide visible, safe and attractive stairs from the entry level to encourage use by residents. Provide common areas and corridors that: • Include at least one source of natural light and natural ventilation. • Avoid obstruction from building services. • Maintain clear sight lines.		Pedestrian access to the development is provided at ground level along both Lithgow Street and Little Lithgow Street, with entry points designed to be visible and easy to identify. The primary access for residents is via a gated entry on Lithgow Street, which is clearly distinguished as a private entry. Public access to the café is located on the eastern façade, where two large doors provide both entry and shelter. Passive surveillance is supported through the arrangement of landscaped areas, ensuring clear sight lines to all main entry points. This design approach enhances safety and visibility for residents and visitors. Each dwelling is accessed via internal corridors, with windows positioned to provide natural light to both the corridors and the lift core. All common areas benefit from daylight, contributing to a comfortable and welcoming environment. Safe and well presented stairs, along with open bridge walkways, are available from ground level for resident use, offering convenient vertical and external connectivity within the development.
58.05-3 Private open space objective To provide adequate private open space for the reasonable recreation and service needs of residents.	**Standard D20** A dwelling should have private open space consisting of at least one of the following: • An area at ground level of at least 25 square metres, with a minimum dimension of 3 metres and convenient access from a living room.	✓ V	Does the proposal meet the **objective**? Does the proposal meet the **standard**?

- A balcony with at least the area and dimensions specified in Table D8 and convenient access from a living room.
- An area on a podium or other similar base of at least 15 square metres, with a minimum dimension of 3 metres and convenient access from a living room.
- An area on a roof of 10 square metres, with a minimum dimension of 2 metres and convenient access from a living room.

If a cooling or heating unit is located on a balcony, the minimum balcony area specified in Table D8 should be increased by at least 1.5 square metres.

If the finished floor level of a dwelling is 40 metres or more above ground level, the requirements of Table D8 do not apply if at least the area specified in Table D9 is provided as living area or bedroom area in addition to the minimum area specified in Table D11 or Table D12 in Standard D25.

Table D8 – Balcony Size

Orientation of dwelling	Dwelling Type	Minimum area	Minimum dimension
North (between north 20 degrees west to north 30 degrees east)	All	8 sqm	1.7m
South (between south 30 degrees west to south 30 degrees east)	All	8 sqm	1.2m
Any other orientation	Studio or 1 bedroom dwelling	8 sqm	1.8m
	2 bedroom dwelling	8 sqm	2m
	3 or more bedroom dwelling	12 sqm	2.4m

Table D9 – Additional Living Area or Bedroom Area

Dwelling Type	Additional area
Studio or 1 bedroom dwelling	8 sqm

The proposal incorporates private open space for the majority of dwellings through a terrace garden or balcony. The exception to this Studio Type 6 (5 apartments total) and Type 9 (3 apartments total) which do have an area of private open space. 44 studio apartments are provided with an area of private open space, some of which are Juliet balconies which fall short of the minimum area required by Standard D20. Studio Type 8 (1 apartment total) and Type 10 (1 apartment total) meet the minimum dimension and area for private open.

Additionally, the private open space provisions for ground level apartments vary between dwellings, with the minimum provision being 7sqm and the maximum provision being 54sqm. As such, only 9 of the 28 ground floor apartments will meet the minimum 25sqm POS provision as required by Clause 58.

As such, a total of 73 apartments representing 48% of dwellings do not meet Standard D20.

To offset these variations of the standard, the design includes a range of high-quality communal facilities for residents, including a rooftop terrace.

Additionally, the ground floor terraces provided are well proportioned and will provide for a high quality private open space area for residents despite many not meeting the minimum sqm required by the standard. The size of the terraces is considered to be appropriate given the build-to-rent nature of

2 bedroom dwelling	8 sqm
3 + bedroom dwelling	12 sqm

the building and will meet the private open space objective of Clause 58.05-3.

58.05-4 Storage objective

To provide adequate storage facilities for each dwelling.

Standard D21

Each dwelling should have convenient access to usable and secure storage space.

The total minimum storage space (including kitchen, bathroom and bedroom storage) should meet the requirements specified in Table D10.

Table D10 – Storage

Dwelling type	Total minimum storage	Minimum storage volume within the dwelling
Studio	8 cubic metres	5 cubic metres
1 bedroom dwelling	10 cubic metres	6 cubic metres
2 bedroom dwelling	14 cubic metres	9 cubic metres
3 or more bedroom dwelling	18 cubic metres	12 cubic metres

Does the proposal meet the **objective**?

Does the proposal meet the **standard**?

As displayed within the Apartment Design Guideline Compliance Schedule, all apartments are provided with sufficient total minimum storage.

Appropriate internal storage volume is also provided throughout each apartment layout.

Clause 58.06: Detailed Design

58.06-1 Common property objectives

To ensure that communal open space, car parking, access areas and site facilities are practical, attractive and easily maintained.

To avoid future management difficulties in areas of common ownership.

Standard D22

Developments should clearly delineate public, communal and private areas. Common property, where provided, should be functional and capable of efficient management.

Does the proposal meet the **objective**?

Does the proposal meet the **standard**?

The proposal clearly delineates communal and private areas, with common property designed to be functional and capable of efficient management.

58.06-2 Site services objectives To ensure that site services are accessible and can be installed and maintained. To ensure that site services and facilities are visually integrated into the building design or landscape.	**Standard D23** Development should provide adequate space (including easements where required) for site services to be installed and maintained efficiently and economically. Meters and utility services should be designed as an integrated component of the building or landscape. Mailboxes and other site facilities should be adequate in size, durable, water-protected, located for convenient access and integrated into the overall design of the development.	Does the proposal meet the **objective**? Does the proposal meet the **standard**? The proposed development services are designed to be install and easily maintained through ease of access and adaptability of site location and facilities.
58.06-3 Waste and recycling objectives To ensure dwellings are designed to encourage waste recycling. To ensure that waste and recycling facilities are accessible, adequate and attractive. To ensure that waste and recycling facilities are designed and managed to minimise impacts on residential amenity, health and the public realm.	**Standard D24** Developments should include dedicated areas for: Waste and recycling enclosures which are: • Adequate in size, durable, waterproof and blend in with the development. • Adequately ventilated. • Located and designed for convenient access by residents and made easily accessible to people with limited mobility. • Adequate facilities for bin washing. These areas should be adequately ventilated. • Collection, separation and storage of waste and recyclables, including where appropriate opportunities for on-site management of food waste through composting or other waste recovery as appropriate. • Collection, storage and reuse of garden waste, including opportunities for on-site treatment, where appropriate, or off-site removal for reprocessing. • Adequate circulation to allow waste and recycling collection vehicles to enter and leave the site without reversing. • Adequate internal storage space within each dwelling to enable the separation of waste, recyclables and food waste where appropriate. Waste and recycling management facilities should be designed and managed in accordance with a Waste Management Plan approved by the responsible authority and: • Be designed to meet the better practice design options specified in Waste Management and Recycling in Multi-unit Developments (Sustainability Victoria, 2019).	Does the proposal meet the **objective**? Does the proposal meet the **standard**? In accordance with Standard D23, the proposal demonstrates commitment to ensure the dwellings are encouraged to recycle and manage waste effectively. A bin room and waste collection point is provided within the basement. The Waste Management Plan prepared by Traffix Group, further details the waste collection and management services relating to this proposal.

	• Protect public health and amenity of residents and adjoining premises from the impacts of odour, noise and hazards associated with waste collection vehicle movements.	
58.06-4 External walls and materials objective To ensure external walls use materials appropriate to the existing urban context or preferred future development of the area. To ensure external walls endure and retain their attractiveness.	**Standard D25** External walls should be finished with materials that: • Do not easily deteriorate or stain. • Weather well over time. • Are resilient to the wear and tear from their intended use. External wall design should facilitate safe and convenient access for maintenance.	Does the proposal meet the **objective**? Does the proposal meet the **standard**? As shown in the Architectural Plans, the external walls and finishes have been designed to ensure durability, respect the site's heritage context, withstand wear from intended use, and present a high-quality architectural outcome to both Lithgow Street and Little Lithgow Street. Further detail on the proposed materials and finishes, and their integration with the surrounding streetscapes, is provided in the Architectural Package.
Clause 58.07: Internal Amenity		
58.07-1 Functional layout objective To ensure dwellings provide functional areas that meet the needs of residents.	**Standard D26** Bedrooms should: • Meet the minimum internal room dimensions specified in Table D11. • Provide an area in addition to the minimum internal room dimensions to accommodate a wardrobe.	Does the proposal meet the **objective**? Does the proposal meet the **standard**?

Living areas (excluding dining and kitchen areas) should meet the minimum internal room dimensions specified in Table D12.

Table D11 – Bedroom Dimensions

Bedroom type	Minimum width	Minimum depth
Main bedroom	3 metres	3.4 metres
All other bedrooms	3 metres	3 metres

Table D12 – Living Area Dimensions

Dwelling type	Minimum width	Minimum area
Studio and 1 bedroom dwelling	3.3 metres	10 sqm
2 or more bedroom dwelling	3.6 metres	12 sqm

As displayed within the Apartment Design Guideline Compliance Schedule and Architectural Plans Package, all apartments except for 2B-01 are provided with sufficient functional layouts and dimensioned rooms.

Apartment Type 2B-01 does not meet the standard for the minimum living room area and dimension. The living room provided measures 3.2m x 2.8m providing a total of 8.9sqm. There are only 3 apartments of this type within the overall development. It is submitted that despite this non-compliance with the standard, Apartment Type 2B-01 still meets the functional layout objective. The living area provided is still highly functional and provides sufficient space for future residents to utilise the space including a location for a couch and TV. The living area is located adjacent to the kitchen with immediate accessibility to the balcony. The minor shortfall in overall size (3.1sqm) and minimum width (0.4sqm) is not considered to compromise the functionally of the apartment overall.

58.07-2 Room depth objective

To allow adequate daylight into single aspect habitable rooms.

Standard D27

Single aspect habitable rooms should not exceed a room depth of 2.5 times the ceiling height.

The depth of a single aspect, open plan, habitable room may be increased to 9 metres if all the following requirements are met:

Does the proposal meet the **objective**?

Does the proposal meet the **standard**?

	• The room combines the living area, dining area and kitchen. • The kitchen is located furthest from the window. • The ceiling height is at least 2.7 metres measured from finished floor level to finished ceiling level. This excludes where services are provided above the kitchen. • The room depth should be measured from the external surface of the habitable room window to the rear wall of the room.		No single aspect habitable room has a depth which exceeds 9m. All apartments are compliant with Standard D27.
58.07-3 Windows objective To allow adequate daylight into new habitable room windows.	**Standard D28** Habitable rooms should have a window in an external wall of the building. A window may provide daylight to a bedroom from a smaller secondary area within the bedroom where the window is clear to the sky. The secondary area should be: A minimum width of 1.2 metres. A maximum depth of 1.5 times the width, measured from the external surface of the window.	 	Does the proposal meet the **objective**? Does the proposal meet the **standard**? The proposal meets the objectives and requirements of Standard D27 by allowing adequate daylight into new habitable room windows. Where windows are provided from a secondary area, they have a minimum width of 1.2 metres and maximum depth of 1.5 metres.
58.07-4 Natural ventilation objectives To encourage natural ventilation of dwellings.	**Standard D29** The design and layout of dwellings should maximise openable windows, doors or other ventilation devices in external walls of the building, where appropriate.	 	Does the proposal meet the **objective**? Does the proposal meet the **standard**?

To allow occupants to effectively manage natural ventilation of dwellings.	At least 40 per cent of dwellings should provide effective cross ventilation that has: A maximum breeze path through the dwelling of 18 metres. A minimum breeze path through the dwelling of 5 metres. Ventilation openings with approximately the same area. The breeze path is measured between the ventilation openings on different orientations of the dwelling.	33 (22%) apartments achieve effective cross ventilation. Falling short of the Standard which requires 40%. Due to the shape and size of the site and heritage restrictions, there are not a lot of corner apartments which typically lend them self to achieving 'cross ventilation'. As displayed in the architectural plans provided with this application, the following apartment types achieve cross ventilation: • S-04, S-05 & S-10 • 1BS-01, 1BS-02 & 1BS-06 • 2B-01 – 2B-11. Despite this, the development includes the installation of a Heat Recovery Ventilation (HRV) mechanical system that provide a constant supply of fresh, filtered air while maintaining indoor thermal comfort and energy efficiency. By continuously extracting stale air and replacing it with fresh outdoor air, HRV systems significantly improve indoor air quality, reducing pollutants, moisture, and odours. The heat recovery process transfers warmth from exhaust air to incoming air, minimising energy loss and lowering heating and cooling demands. This results in more stable indoor temperatures, reduced condensation and mould risk, and improved occupant health and comfort. A constant supply of fresh air also supports cognitive performance, wellbeing, and long-term building durability.

URBIS

Affordable Housing Report

35–45 Lithgow Street, Abbotsford

1. Executive Summary

This Affordable Housing Report has been prepared to support the planning application for the Build-to-Rent (BTR) development at 35–45 Lithgow Street, Abbotsford, under the Victorian Government's Development Facilitation Program (DFP).

MODEL proposes to deliver affordable housing via the alternative contribution pathway under Clause 53.23, providing on-site discounted rental dwellings in lieu of a cash contribution.

Based on current design intent, the development will deliver approximately 16 affordable dwellings (equivalent to 10% of total yield). These dwellings are expected to experience strong demand given the well-documented shortage of affordable rental housing in inner Melbourne.

The affordable housing contribution will be satisfied through the accrual of rental discount over time, secured via a Section 173 Agreement.

2. Introduction and Project Context

MODEL is committed to delivering high-quality, long-term rental housing that supports diverse, inclusive and resilient communities. The Lithgow Street development is proposed as a Build-to-Rent project under single ownership and management, enabling a consistent resident experience, professional onsite operations and long-term stewardship.

As part of the planning approval pathway, the development is required to make a contribution toward affordable housing. MODEL has elected to satisfy this requirement through the provision of discounted rental housing within the development, consistent with State planning policy and DFP guidance.

This report explains the proposed affordable housing strategy, demonstrates consistency with statutory requirements, and outlines how the contribution will be governed and secured.

3. Statutory and Policy Framework

3.1 Section 3AA – Planning and Environment Act 1987

Affordable housing will be provided to eligible households (very low, low and moderate income), with rents not exceeding 30% of gross household income, in accordance with the Governor in Council Order (2025): https://www.planning.vic.gov.au/__data/assets/pdf_file/0024/712590/Governor-in-Council-Order-2025.pdf

3.2 Clause 53.23 – Affordable Housing

MODEL is relying on the alternative contribution pathway under Clause 53.23, delivering affordable housing via discounted rental rather than transfer to a registered housing agency.

The contribution will be delivered through discounted rental dwellings, with value accrued over time until the required contribution is met.

3.3 Development Facilitation Program

The proposal aligns with DFP expectations, including:

- Provision of affordable housing equivalent to ~10% of dwellings;
- A minimum affordability duration of 15 years; and
- Delivery of measurable public benefit outcomes.

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4. Affordable Housing Strategy

4.1 Quantum and Mix

Approximately 16 affordable dwellings (subject to final plans):

- 8 studio apartments
- 7 one-bedroom apartments
- 1 two-bedroom apartment

4.2 Market Rent Context (2025 Indicative)

Indicative market rents for the proposed development have been informed by comparable Build-to-Rent projects in inner Melbourne and are supported by benchmarking from the JLL Value & Risk Advisory report.

Affordable Housing Report

Recent comparable evidence indicates the following typical ranges:

- Studios: approximately $690–$785 per week
- One-bedroom: approximately $775–$965 per week
- Two-bedroom: approximately $1,190–$1,345 per week

Based on this evidence, the adopted indicative market rents for the development are:

- Studio: $732/week
- One-bedroom: $910/week (average across with and without study)
- Two-bedroom: $929/week

These figures are considered conservative and appropriate having regard to current market conditions, location, and the quality of the proposed development.

					Unit Type							
					Studio		1 Bed		2 Bed*		Avg. Rent ($/m²)	% Occupied
Project	Year Completed (Est.)	Current Status	No. of Units	Sample Size	Min	Max	Min	Max	Min	Max		
Home Richmond	2022	Stabilised	358	350	-	-	$581	$820^	$950^	$1,095^	$11.3	95%
The Yarra	2025	Lease-up	382	68	$490	$708	$818	$893	$1,039	$1,290	$13.6	18%
The Claremont^	2025	Lease-up	235	45	$766	$1,076	$1,075	$1,200	$1,467	$1,679	$20.8	19%
Fitzroy & Co	2024	Stabilised	94	15	-	-	$725	$825	$850	$1,200	$13.3	100%
LIV Albert	2025	Lease-up	498	16	$600	$655	$660	$710	$870*	$985*	$12.3	-
Private Rents	-	BTS	-	21	$450	$699	$650	$825	$950	$1,580	-	-
Subject Assessed	-	-	**158**	**158**	**$690**	**$785**	**$775**	**$965**	**$1,190**	**$1,345**	**$16.2**	-

JLL Value & Risk Advisory

4.3 Affordable Rent Approach

Indicative maximum affordable rents:

- Studio: $559 (~24% below indicative market rent)
- One-bedroom: $641 (~30% below indicative market rent)
- Two-bedroom: $641 (~31% below indicative market rent)

All rents will be capped to ensure compliance with the 30% income threshold at the time of leasing.

4.4 Income Band Alignment

Type	Target Group	Income Band	Max Rent (30% of income)	Proposed Rent	Compliant
Studio	Single / Couple	Moderate	~$641	$559	✓
1 Bed	Couple	Moderate	~$641	$641	✓
2 Bed	Couple	Moderate	~$641	$641	✓

*Average indicative rents. These are to be adjusted per prospective tenants and subject to annual rent increases.

5. Integration and Community Outcomes

Affordable housing dwellings will be distributed across a range of apartment types and fully integrated throughout the building.

Affordable housing residents will:

- Be accommodated in studios, one-bedroom and two-bedroom apartments;
- Be dispersed throughout the development rather than clustered;
- Have no distinguishable features in terms of design or location;
- Have equal access to all building amenities, services, and entrances.

This approach ensures a fully inclusive, mixed-tenure community and aligns with best-practice affordable housing delivery principles.

6. Delivery and Management Approach

MODEL will appoint an appropriate delivery and management partner to support the affordable housing component of the development. This may include a registered Community Housing Provider such as Evolve Housing, Housing First, or another suitably experienced provider.

MODEL has received indicative interest from providers, demonstrating that credible delivery pathways are available.

Regardless of the model adopted: -

- MODEL will retain responsibility for compliance with planning permit conditions and the Section 173 Agreement;
- Affordable housing residents will be managed as part of the broader onsite community;

- Governance and reporting obligations will remain clearly defined.

---

7. Location and Housing Need

The Lithgow Street site is well located with access to:

- Public transport;
- Employment opportunities;
- Retail and community infrastructure.

The provision of affordable housing in this location responds to strong demand for well-located rental housing and contributes to broader housing diversity.

7.1 Demographic and Rental Market Analysis

MODEL has undertaken a review of demographic, income and rental market data for Abbotsford, the City of Yarra and Greater Melbourne (including Census data and market analysis inputs).

Key findings include:

- A high proportion of renter households within the City of Yarra (in excess of 50% of total households);
- Strong representation of working-age cohorts (20–39 years), aligning with typical BTR demand profiles;
- Median household incomes and income distributions that support demand for discounted rental products within the moderate income band;
- A significant pool of renter households within the target demographic capable of meeting affordable rent thresholds at or below 30% of income.

Analysis indicates a substantial addressable market of eligible renter households within the relevant income brackets, even after applying conservative income thresholds and vacancy assumptions.

Affordable Housing Report

2021 Census	Suburb	LGA	Capital City
	Abbotsford	Yarra	Greater Melbourne
Population			
2011	4,912	74,091	3,999,980
2016	8,184	86,652	4,485,210
2021	9,088	90,114	4,917,750
Population change (2016-2021)	11.0%	4.0%	9.6%
14 and under	8%	11%	18%
15 to 64 (working age)	83%	78%	67%
65 and over	9%	12%	15%
Population Density (persons / sq.km)	5,221	4,611	492
Median age	33	34	37
Median Weekly personal income	$1,354	$1,324	$841
Median Weekly household income	$2,197	$2,270	$1,901
% born in Australia	61%	66%	60%
% born overseas	39%	34%	40%
Median no. of people per household	1.9	2.0	2.6
Dwelling Type			
Separate house	10%	13%	68%
Semi-detached, terrace house, townhouse etc	24%	37%	16%
Flat or apartment	63%	49%	16%
Other dwelling	3%	1%	0%
Tenure			
Owned outright	16%	20%	30%
Mortgage	27%	24%	37%
Renter	55%	53%	30%
Other	1%	1%	2%
Not Stated	1%	1%	1%

Yarra LGA Stats	
Renters (% of total population)	53.41%
Age 20-39 Population	42,319
Implied Renter Population in Target Demographic	22,603
Adopted Threshold ($/week) – based on implied ~30% of Income to Rents as Assessed	$2,197
% of Total LGA Population above Income Threshold	54.04%
Implied Renter Population in Target Demographic Above Income Threshold	12,215
Vacancy and implied current potential renters (vacancy at 2% per SQM and JLL Research)	*243*
No. of Units in Subject Property	**158**
Penetration Rate for Target Demographic Above Income Threshold	**1.29%**

JLL Value & Risk Advisory

Affordable Housing Report

7.2 Depth of Demand and Leasing Risk

Based on the above analysis, MODEL is satisfied that there is sufficient market depth to support the leasing of the proposed affordable dwellings at the indicated discount levels.

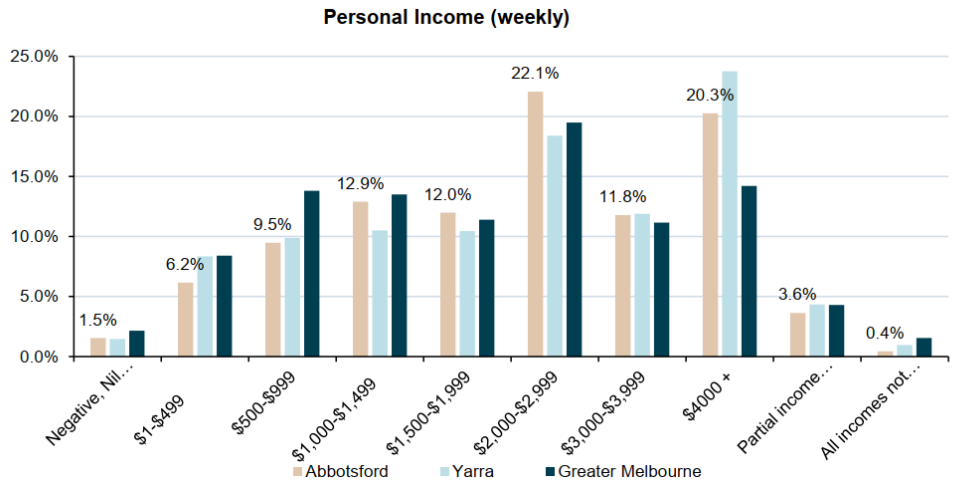
The proposed affordable rents are set to align with moderate income households and, where applicable, low–moderate income families. This cohort represents a large and active segment of the inner Melbourne rental market.

MODEL also notes that:

- The affordable dwellings are located within a high-demand inner-urban location;
- The BTR model provides professionally managed, high-quality accommodation, which typically experiences strong absorption;
- The affordable housing offer will benefit from integration within a premium building and access to full amenities.

In the event that further discounting is required to support leasing outcomes, the proposed delivery model provides flexibility to adjust rents in accordance with Section 3AA requirements. This ensures that the dwellings can be leased efficiently while continuing to contribute toward the accrued affordable housing benefit under the Section 173 Agreement.

Accordingly, the risk of prolonged vacancy of affordable dwellings is considered low.



JLL Value & Risk Advisory

8. Financial Contribution and Public Benefit

The development cost is currently estimated at approximately $75.4 million (excluding GST). This figure is indicative only and provided for context, with final costs to be confirmed following endorsement of plans and builder appointment.

The notional affordable housing contribution benchmark (3%) equates to approximately $2.26 million. This benchmark is provided for context only, noting that the contribution will ultimately be delivered through discounted rental over time in accordance with the Section 173 Agreement.

8.1 Discounted Rental Calculation

- Studios:
  - $732 – $559 = $173 × 8 = $1,384/week
- 1 Beds:
  - $910 – $641 = $269 × 7 = $1,883/week
- 2 Bed:
  - $929 – $641 = $288 × 1 = $288/week

Total weekly discount = $$3,555 Annual = $184,860 15 years = $2,772,900 (~$2.8m)

This demonstrates a substantial public benefit delivered over the minimum affordability period, with indexation expected to increase the total contribution over time.

---

9. Governance, Reporting and Compliance

The affordable housing contribution will be secured via a Section 173 Agreement registered on title.

The agreement will include:

- Annual reporting requirements;
- Market rent verification;
- Income eligibility checks;
- Indexation of outstanding contribution;
- A Schedule of Accrued Benefit tracking progress toward the required contribution.

---

10. Conclusion

The proposal:

- Meets Clause 53.23 requirements;
- Demonstrates compliance with Section 3AA;
- Provides a clear pathway to delivering the required public benefit;
- Delivers integrated, high-quality affordable housing outcomes.

The approach is robust, flexible, and aligned with the objectives of the Development Facilitation Program.

Note: Final dwelling numbers, rents and contribution values will be confirmed and formalised through the Section 173 Agreement following endorsement of plans.

Traffix Group

Traffic Engineering Assessment

Proposed Build to Rent Development

35-45 Lithgow Street, Abbotsford

Prepared for
Model Australia Pty Ltd

March 2026

G35649R-01C

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Appendix B

Swept Path Assessment

1. Introduction

Traffix Group has been engaged by Model Australia Pty Ltd to undertake a Traffic Engineering Assessment for the Proposed Build to Rent Development at 35-45 Lithgow Street, Abbotsford.

This report provides a detailed traffic engineering assessment of parking and traffic associated with the proposed development.

In the course of undertaking this assessment, we inspected the subject site, reviewed development plans and background material, and assessed the car parking and traffic impacts of the proposal.

Our assessment is as follows.

2. Existing Conditions

2.1. Subject Site

The subject site is located on the west side of Lithgow Street, between Little Lithgow Street (to the west) and Lithgow Street (to the east) in Abbotsford.

The site was observed to be unoccupied, at the time of our site inspection in September 2025, with existing vehicle access provided via both Lithgow Street and Little Lithgow Street.

A locality plan and an aerial of the site are provided at Figure 1 and Figure 2, respectively.

Figure 1: Locality Map *Source: Melway Publishing Pty Ltd*

Figure 2: Aerial Site Overview *Source: Nearmap*

2.2. Planning Scheme Zones & Surrounding Uses

The subject site is zoned Mixed Use (MUZ) under the Yarra Planning Scheme. A planning zone map is provided at Figure 3.

Land uses in the immediate vicinity of the subject site are generally industrial/residential in nature with the notable exception being Abbotsford Primary School located opposite the subject site.

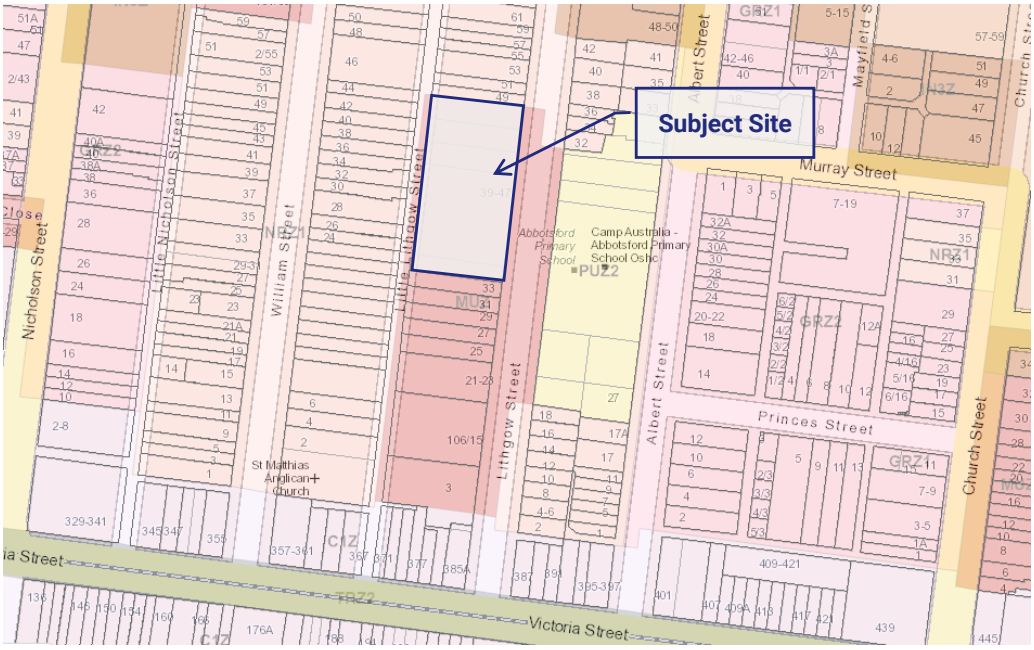


Figure 3: Planning Zone Map - Melbourne *Source: VicPlan*

2.3. Road Network

Lithgow Street is a local road running in a north-south direction. In the vicinity of the subject site, Lithgow Street provides for a single lane of traffic in both directions with angled parking on the eastern side and kerbside parking on the western side.

In the vicinity of the site, angled parking on the eastern side of Lithgow Street is subject to '4P 7:30am-5:30pm Monday-Friday, 2P 7:30am-5:30pm Monday-Friday, 1P 9:30am-3pm 4pm-5:30pm Monday-Friday, and 5 minutes 8:30am-9:30am 3pm-4pm Monday-Friday'. On-street car parking on the western side of Lithgow Street, in the vicinity of the site, is subject to '1P 7:30am-5:30pm Monday-Friday' restrictions.

The current frontage of the site (western side of Lithgow Street) is a loading zone subject to '15 minute 7:30am-4:30pm Monday-Friday and 15 minute 7:30am-12:30pm Saturday' time based restrictions. There are considered to be three existing loading zone spaces fronting the site[1].

Photographs of Lithgow Street are provided at Figure 4 and Figure 5.

[1] A car space is defined as an on-street area measuring at least 5.4m in width in which a vehicle can park; clear of vehicle crossovers and associated crossover radius/kerb segment.

Figure 4: Lithgow Street – View North

Figure 5: Lithgow Street - View South

Little Lithgow Street is a local road running in a north-south direction. In the vicinity of the subject site, Little Lithgow Street provides for a single lane of traffic in both directions within a approx. 3.7m wide carriageway. A posted speed limit of 40km/h applies to Little Lithgow Street past the site.

Photographs of Lithgow Street are provided at Figure 6 and Figure 7.

Figure 6: Little Lithgow Street – View North

Figure 7: Little Lithgow Street - View South

3. Proposal

3.1. The Development

The application proposes to develop the site for the purposes of a Build to Rent residential development.

The proposed development schedule is provided in Table 1 with development plans provided within Appendix A.

Table 1: Proposed Development Schedule

Use		Current Scheme
Residential	Studio dwelling	54 no.
	1 bed dwelling	78 no.
	2 bed dwelling	19 no.
	Total	151 no.
Food and Drink (Café)		62 m^2

3.2. Car Parking Provisions and Access

The development will be constructed with a total of 43 parking spaces within a single basement level. Access to the on-site car parking will be provided from Little Lithgow Street along the site's southern boundary; which is proposed to be restricted to right-in and right-out movements only.

3.3. Bicycle Parking

A total of 88 bicycle parking spaces are proposed within the site, including 48 spaces at ground floor and 40 spaces within the basement level. A further six spaces are proposed within the Lithgow Street public realm.

3.4. Loading & Waste Collection

Loading is proposed to occur via nearby on-street loading zones and on-street car parking more generally (if marked loading zones are already occupied).

Waste is proposed to be collected within the basement car park, by a private contractor, utilising a 6.4m long low-profile waste collection vehicle.

4. Car Parking Considerations

4.1. Transitional Provisions

Planning Scheme Amendment VC277 came into effect on 18 December, 2025, implementing substantial changes to the car parking rates at Clause 52.06-5.

A six-month transition period[2] applies to these changes (until 16 June, 2026) as noted following:

- Minimum car parking requirements - the lower of the former or the new car parking requirement applies to:
  - an application or parking plan submitted before or within 6 months after the commencement of Amendment VC277; or
  - a use or development started within 6 months of the commencement of Amendment VC277 (if a permit or car parking is not required).
- Maximum car parking requirements
  - the new maximum car parking requirement will not apply to an application or parking plan submitted before the commencement of Amendment VC277,
  - the new maximum car parking requirement will apply to any proposal after the commencement of Amendment VC277 regardless of whether a permit or car parking plan is required.

The subject site is located within category 3, to which both a minimum and maximum rate applies. As the application was submitted after the commencement of Amendment VC277, the new maximum car parking rates apply. Additionally, minimum requirements also apply, as the application was made within 6 months after the commencement of Amendment VC277.

The following therefore outlines an assessment of the statutory car parking requirements.

4.2. Statutory Requirements – Clause 52.06

The car parking requirements for the proposed development are outlined under Clause 52.06 of the Melbourne Planning Scheme. The purpose of Clause 52.06 is:

- *To ensure that car parking is provided in accordance with the Municipal Planning Strategy and the Planning Policy Framework.*
- *To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality.*
- *To support sustainable transport alternatives to the motor car.*
- *To promote the efficient use of car parking spaces through the consolidation of car parking facilities.*
- *To ensure that car parking does not adversely affect the amenity of the locality.*

[2] As described in the Car Parking Reforms FAQ – December 2025

- *To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.*

4.2.1. Former Minimum Statutory Requirements – Clause 52.06

Clause 52.06-5 states that:

> *"Column B rates apply to a site if any part of the land is identified as being within the Principal Public Transport Network Area as shown on the Principal Public Transport Network Area Maps"*

The subject site falls within the PPTN area map, based upon the former statutory requirements, and therefore Column B rates apply to the proposal.

A statutory assessment of the proposal under Clause 52.06 (former requirements) is provided at Table 2.

Table 2: Former Statutory Car Parking Requirements (Clause 52.06)

Use	No / Size	Statutory Requirement	No of Spaces Required
Dwellings	151 dwellings	1 car space to each one or two bedroom dwelling Zero car spaces for visitors	151 resident spaces 0 visitor spaces
Food and Drink Premises (Café)	62sq.m	3.5 spaces to each 100 square metres	2 spaces
Total			**153 spaces**

Based on the above, the development is statutorily, based upon former rates, required to provide 153 car spaces, inclusive of 151 spaces for residents and two spaces for the food and drink premises.

4.2.2. Current Minimum Statutory Requirements – Clause 52.06

The current statutory parking requirements are set out at Clause 52.06-5 of the Planning Scheme. Clause 52.06-5 states:

Table 1 of this clause sets out the minimum and maximum car parking requirements that apply to a use specified in the table based on the land category identified in the Car Parking Requirement Maps (Department of Transport and Planning, 2025) (CPR maps).

The site is located in Category 3 of the CPR system (PTAL rating - good public transport access).

A statutory car parking assessment under the current car parking requirements, with respect to minimum requirements, is set out in Table 3.

Table 3: Current Minimum Statutory Car Parking Assessment – Category 3 of Clause 52.06-5

Use	Size	Statutory Parking Rate (Category 3 – Minimum Requirement) [1]	Minimum Parking Requirement
Dwellings	151 dwellings	0 spaces to each dwelling	0 spaces
Food and Drink Premises (Café)	62sq.m	0 spaces to each 100 square metres	0 spaces
		Total	***0 spaces***

Based on the new statutory parking rates under Clause 52.06, the proposed development has a statutory requirement to provide a minimum of zero car parking spaces.

4.2.3. Summary – Statutory Minimum Car Parking Requirements

The statutory car parking requirement is to provide a minimum of zero car spaces (current requirements), being the lesser of the current and former 52.06 provisions, consistent with the aforementioned transitional provisions.

The proposed provision of 43 car spaces exceeds the minimum statutory requirement of zero spaces, with no reduction in minimum statutory requirements sought.

4.2.4. Maximum Statutory Car Parking Requirements

The current statutory parking requirements are set out at Clause 52.06-5 of the Planning Scheme. Clause 52.06-5 states:

Table 1 of this clause sets out the minimum and maximum car parking requirements that apply to a use specified in the table based on the land category identified in the Car Parking Requirement Maps (Department of Transport and Planning, 2025) (CPR maps).

The site is located in Category 3 of the CPR system (PTAL rating - good public transport access).

A statutory car parking assessment under the current car parking requirements, with respect to maximum requirements, is set out in Table 3.

Table 4: Current Maximum Statutory Car Parking Assessment – Category 3 of Clause 52.06-5

Use	Size	Statutory Parking Rate (Category 3 – Maximum Requirement) [1]	Maximum Parking Requirement
Dwellings	151 dwellings	2 spaces to each dwelling	302 spaces
Food and Drink Premises (Café)	62sq.m	2 spaces to each 100 square metres	1 space

Use	Size	Statutory Parking Rate (Category 3 – Maximum Requirement) [1]	Maximum Parking Requirement
		Total	***303 spaces***

Based on the new statutory parking rates under Clause 52.06, the proposed development has a statutory requirement to provide a maximum of 303 car parking spaces. The proposed provision of 43 car spaces is less than the maximum statutory requirement of 303 spaces, with no increase in maximum statutory requirements sought.

4.2.5. Overall Summary

The development has a statutory requirement to provide a minimum of zero spaces and up to a maximum of 303 car parking spaces.

The provision of 43 car parking spaces therefore adheres to the statutory car parking requirements, both minimum and maximum requirements.

Notwithstanding, for completeness, the following provides an assessment of the anticipated car parking demand and an assessment of the suitability of the proposed car parking provision. It is emphasised that this is for completeness only, given that no statutory car parking dispensation is being sought.

4.3. Car Parking Demand Assessment

The Scheme requires the assessment of car parking demand likely to be generated by the proposed use to have regard for listed factors, as appropriate, including:

- *The likelihood of multi-purpose trips within the locality which are likely to be combined with a trip to the land in connection with the proposed use*
- *The variation of car parking demand likely to be generated by the proposed use over time*
- *The short-stay and long-stay car parking demand likely to be generated by the proposed use.*
- *The availability of public transport in the locality of the land.*
- *The convenience of pedestrian and cyclist access to the land.*
- *The provision of bicycle parking and end of trip facilities for cyclists in the locality of the land.*
- *The anticipated car ownership rates of likely or proposed visitors or occupants (residents or employees) of the land.*
- *Any empirical assessment or case study.*

An assessment of the projected car parking demand for the proposed development, accounting for these factors follows.

4.3.1. Sustainable Modes of Transport

The site has excellent access to sustainable transport modes and is well located with regard to retail, employment, education and essential services.

Walking

The site is well located to promote walking to everyday services.

This site is proximate to Victoria Street, which is approximately 200 metres to the south. Victoria Street provides access to a variety of restaurants, commercial and retail land uses.

Bicycle Accessibility

The City of Yarra is well serviced by the Principal Bicycle Network (PBN) with on-road and off-road bicycle paths directly linking the City of Yarra with surrounding municipalities and the CBD.

The subject site has access to bicycle infrastructure with formal bicycle lanes located on Albert Street (to the east) and Nicholason Street (to the west) and informal bicycle routes along Victoria Street and Lithgow Street. The Elizabeth Street bicycle path is also located 350 metres south of the site and provides an on-road separated bike lane connection to nearby activity centres, including the Melbourne CBD.

Public Transport

The site is well serviced by public transport with multiple tram and train services located within a short walking distance of the site.

Table 5 summarises the available services, whilst Figure 8 illustrates the nearby routes.

Table 5: Public Transport Services in the Vicinity of the Subject Site

Service		Route	Distance to Node
Tram Services	Route 12	Victoria Gardens – St Kilda via Richmond	~250m southwest
Tram Services	Route 109	Box Hill – Port Melbourne via City	~250m southwest
Tram Services	Route 78	North Richmond – Balaclava via South Yarra	~350m southeast
Tain Services	North Richmond Station	Hurstbridge and Mernda Lines	~550m northwest
Tain Services	Collingwood Station	Hurstbridge and Mernda Lines	~600m southwest
Bus Services	Various	Clifton Hill, Elsternwick, La Trobe University, Doncaster Park & Ride and Eastern Suburbs generally	~600m west

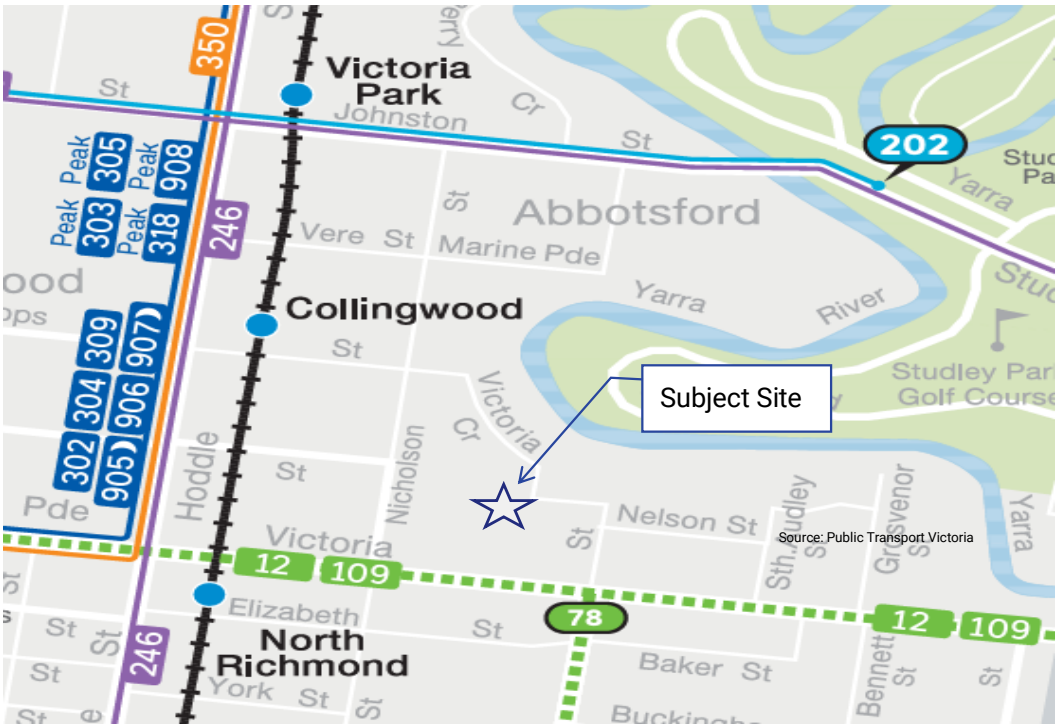


Figure 8: PTV Public Transport Map

Car Share

Car sharing schemes have been operating in Melbourne since 2003 with a number of inner metropolitan Councils actively supporting their use by allocating public spaces throughout their municipalities for the purposes of accommodating 'car share' cars[3].

Yarra City Council supports 'car sharing' schemes by allocating spaces within private developments, on-street and Council operated off-street car parks for the purposes of accommodating 'car share' cars operated by Flexicar, Go Get and GreenShareCar.

The car share scheme provides an alternative to owning a car and encourages the use of sustainable modes of transport for the majority of trips.

For residents, car share vehicles can be utilised for trips which may require a personal vehicle such as larger shopping trips or for the transport of bulky items or for day trips where public transport or bicycle access is difficult. They offer opportunities to reduce the need for residents to own a vehicle, or for multi-person households to have a second or third vehicle.

Commercially operated car share cars currently available proximate to the subject site, include:

- Corner of Shellby Stret and Butler Street (Flexicar).

[3] The three main schemes supported by these Councils are Flexicar (www.flexicar.com.au), Go Get Car Share (www.goget.com.au) and Green Share Car (www.greensharecar.com.au).

- Corner of Baker Street and Lambert Street (Flexicar).
- Corner of Shellby Stret and Butler Street (GoGet).
- Corner of Albert Street and Princes Street (GoGet).

The nearest existing car share pods (spaces) are shown in Figure 9.

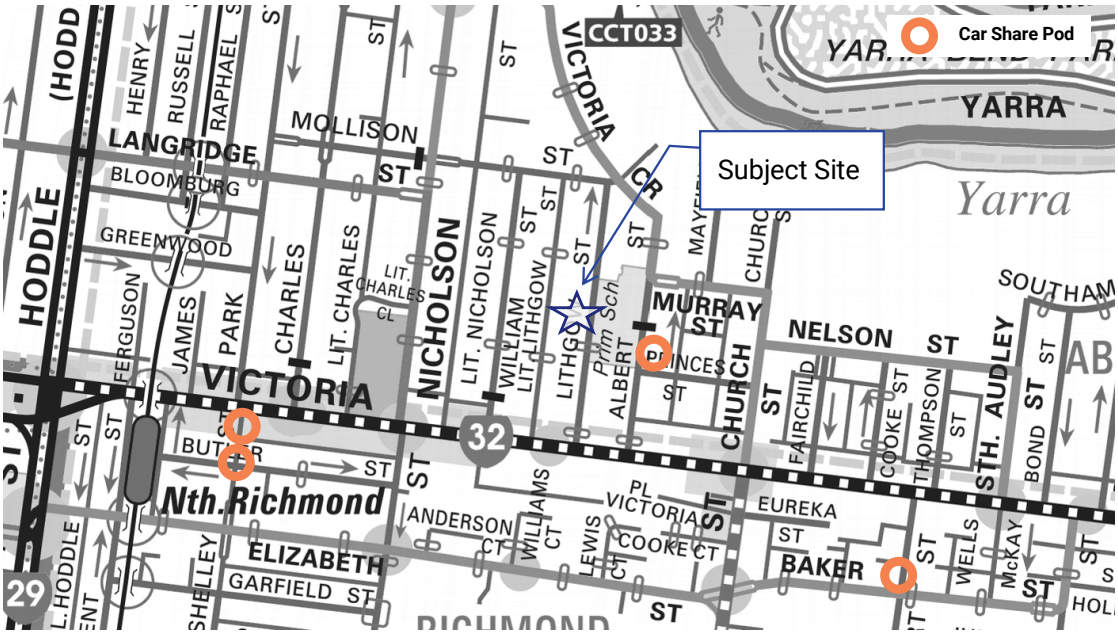


Figure 9: Proximate Car Share Pods

4.3.2. Anticipated Parking Demand

Residents

To understand existing car ownership proximate to the site, the 2021 Australian Bureau of Statistics (ABS) Census data for 'flats, units or apartments' within the suburb of Abbotsford and the Yarra LGA have been sourced.

The data highlights the average car ownership statistics shown in Table 6 and indicates there is a considerable demand for residential dwellings where limited or no parking is needed. More specifically, the data shows 78% of studio apartments, and 40% of one-bedroom apartments are occupied, in Abbotsford, without a car.

This means there is a strong market demand for apartments without car spaces.

Table 6: ABS Car Ownership Statistics (2021)

Type of Dwelling	Number of Cars	Abbotsford Suburb	Yarra LGA
Studio	**Av. no. of cars per dwelling**	0.2	0.3
	0 cars	78%	69%
	1 car	22%	30%
1 bedroom	**Av. no. of cars per dwelling**	0.7	0.7
	0 cars	40%	38%
	1 car	54%	56%
2 bedrooms	**Av. no. of cars per dwelling**	1.0	1.0
	0 cars	19%	23%
	1 car	64%	61%

Application of the average number of cars per dwelling for the Abbotsford suburb to the development proposal results in an anticipated car parking demand of 84 spaces[4]. It is emphasised that this anticipated numerical demand is based on an average site within Abbotsford, not specifically a build to rent development and within a partially unconstrained market scenario.

The subject site is well served by public transport and is highly walkable. Accordingly, the development is well positioned to attract residents who wish to enjoy the benefits of inner city living and have little or no need for a private car, with the reduced provision likely to encourage those residents not provided with an on-site car space to seek alternate modes of transport.

Furthermore, future residents will not have access to residential parking permits. In consideration of the largely short-term parking restrictions which apply to parking within the surrounding area, there will be limited opportunity for future residents without an on-site car space to park on street.

It is also important to note this proposal incorporates Build-to-Rent residential apartments. The Build to Rent model allows for greater efficiencies in managing parking as car spaces are allocated separately rather than being tied to an individual apartment. This means car spaces do not go unused.

For example, in a traditional residential development, car spaces form part of the contract of sale, and therefore these spaces will lay dormant if the purchaser / renter does not own a car. In the Build to Rent model, these car spaces would simply be leased to another apartment that has a need for a car space.

More simply, parking is managed through the Building Manager, and allocated purely on a demand basis. It allows tenants to only lease a car space if it is necessary.

An added benefit is that residents over time can cease leasing a car space once they become familiar with the opportunities afforded by sustainable transport and the amenity accessibility

[4] Calculated as 54 studios x 0.2 spaces/dwelling plus 78 one-bedders x 0.7 spaces/dwelling plus 19 two-bedders x 1.0 spaces/dwelling.

within the area. These residents will weigh up the ongoing costs involved with car ownership compared to more sustainable travel choices that are available.

In view of the foregoing, we are of the view the parking supply will largely dictate the residential demand, that is **a resident car parking demand of 43 spaces, consistent with the nominated supply, is expected.**

Food and Drink Premises

Food and drink tenancies typically operate to provide convenient access to nearby residents, including those within the development itself, as well as the broader existing retail/café catchment of the area.

Given this, we are satisfied that the on-site café, in its own right, is unlikely to increase the car parking demands within the surrounding area, associated with customers, as it is servicing the existing customer base of the area.

Given the size of the tenancy the development could typically be expected to generate a car parking demand of up to one space. In this instance, given that no on-site car parking spaces are proposed to be specifically allocated to the café tenancy, and given that nearby car parking spaces are restricted (to not allow for long-term / all day parking), it is our view that the café will generate a car parking demand of zero staff spaces. Notwithstanding, it is understood that an on-site car space could potentially be leased by the food and drink premises operator if they requested this.

Given the above, we derive a **food and drink premises demand of zero spaces**.

Total Demand

Based on the foregoing assessment, we expect the residential and food and drink premises demands will be dictated by the supply of on-site parking and other nominated key factors.

We derive an anticipated car parking demand of 43 resident spaces and zero spaces associated with the food and drink premises.

4.4. Appropriateness of Car Parking Provision

Notwithstanding that no statutory car parking reduction is sought by this application, we are satisfied that the residential and food and drink premises parking provisions are appropriate.

The provision of resident parking is considered to be aligned with the market demand and an appropriate target that will actively encourage reduced reliance on private vehicles and will be supported by the generous provision of bicycles proposed, surrounding services which can be reached via walking, as well as nearby public transport services.

Ultimately, by limiting supply, and given the restrictions of on-street parking in the vicinity of the site, future residents and staff will be actively encouraged to make more sustainable transport choices, we are of the view the proposal is appropriately sited to support these parking allocations.

4.5. Car Parking Layout & Access Arrangements

The car park layout and access arrangements have been developed with design advice provided to the project architect and is considered to meet the relevant requirements of the Yarra Planning Scheme and where applicable relevant Australian Standards.

A review of the car park layout indicates the following:

General Car Parking Layout

- Standard car spaces are 2.6 metres wide and 4.9 metres long, accessible from 6.4 metre-wide aisles, meeting Planning Scheme requirements.
- A single disabled car parking space, and adjacent shared area, is provided at dimensions of 2.6 metres wide and 4.9 metres long, accessed via from an effective 6.2 metre-wide aisle, noting that the Planning Scheme allows for disabled car parking spaces to encroach into an accessway width specified in Table 2 of Clause 52.06 of the Planning Scheme by up to 0.5 metres.
- Car spaces adjacent to walls and columns have been provided with appropriate clearances, in accordance with Diagram 1 of Clause 52.06 of the Planning Scheme.
- The column located within the shared area accords with the dimensional zone, for column placement, as per Figure 2.3 of AS 2890.6:2022.
- A minimum head clearance of 2.2 metres is provided within all trafficable areas of the car parking area with 2.5 metres provided above the disabled car parking space and adjacent shared area.
- Swept path assessments of key vehicle movements, including access to end of aisle car parking spaces, is shown within Appendix B.

Access & Ramps

- The vehicle access ramp is 6.4m wide.
- Vehicle ramp grades are as follows:
  - 1:8 for 2.5m (top)
  - 1:4 for 10m, and
  - 1:8 for 2.9m (bottom).
- We are satisfied that the above grades are appropriate, including the first 5m into the site, noting that there is no footpath within Little Lithgow Street and that Lithgow Street is the frontage road to the property.
- A convex mirror(s) are be provided at the top of the ramp to provide visibility into the site and onto Little Lithgow Street in accordance with the requirement of Clause 52. 06.

In this regard, the above access arrangements, grades, transitions and clearances have been assessed and, in our view, meet the intent of the relevant standards.

Based on the foregoing, the car park layout and access arrangements are considered satisfactory.

5. Traffic Considerations

5.1. Traffic Generation

Traffic generation rates of residential dwellings vary dependent on the size of the dwelling and proximity to everyday services and the location of nearby public and alternative transport modes.

For the purpose of this assessment, it has been assumed that all dwellings allocated parking will be provided with a single car space.

In consideration of the location of the site and size of the dwellings, a daily traffic generation rate of 3 vehicle movements per dwelling, inclusive of 0.3 movements per dwelling in peak hours is considered appropriate.

Application of this rate to the potential 43 dwellings allocated parking equates to a projected daily traffic generation of 129 movements, inclusive of 13 movements in peak hours.

Assuming a typical AM peak traffic split of 20% arrivals and 80% departures and PM peak traffic split of 60% arrivals and 40% departures it is projected the development will generate:

- AM PEAK: 3 arrivals and 10 departures
- PM PEAK: 5 arrivals and 8 departures.

As discussed previously, the food and drink premises (café) component of the site is expected to service the existing customer base of the area. Additionally, noting limited practical options for staff to park nearby for long-term periods, no traffic movements associated with staff are expected with staff expected to walk, cycle or catch public transport to/from the site. Given this, negligible additional traffic movements are assumed associated with the café component of the site; noting that any such movements would not occur on-site (that is, vehicles would not utilise Little Lithgow Street).

5.2. Traffic Impact

Based on an inspection of Little Lithgow Street, and aerial photography, we understand that there are a limited number of existing car spaces accessed via Little Lithgow Street, other than the multi-storey development at 15 Lithgow Street (also known as the '2 Girls' development). We understand that the development at 15 Lithgow Street comprises 15 dwellings. Whilst we are not aware of the exact number of on-site car parking spaces, a review of property listings for the building indicates that each dwelling appears to be allocated 1-2 on-site car parking spaces.

Currently there are no restrictions on vehicle directionality along Little Lithgow Street, nor to/from any properties (within any visible signage within Little Lithgow Street itself). Given that Little Lithgow Street is approx. 300m in length, consideration has to be given to the potential for two vehicles travelling in opposing directions to meet along the single width street.

In this regard, AS/NZS 2890.1:2004 (which applies to private property as opposed to a public street such as Little Lithgow Street) nominates that as a guide 30 or more movements (in and out combined) in a peak hour would usually require provision for two vehicles to pass within a driveway, with passing opportunities provided at least every 30m, in such a scenario.

As outlined above the site is expected to generate up to 13 vehicle movements during peak hours. Whilst the existing traffic generation within Little Lithgow Street has note been quantified it is unlikely, with the addition of 13 additional vehicle movements, to exceed this threshold of 30 vehicle movements during a peak hour. This is not to say that two motorists, travelling in opposing directions, won't ever meet, whether existing or future conditions, but rather that based on this guidance that passing bays may not necessarily be required in such a situation.

Notwithstanding, it is proposed to limit vehicle movements (through signage) to/from the site via right-turn movements only. The theology of this is to remove the potential for motorists exiting the site to block motorists entering from Victoria Street (being a Transport Zone 2 road). That is, motorists travelling to/from the site would do so in a northbound direction only on Little Lithgow Street. Through this, the development is seeking, as much as practical to limit its impact upon the safety and operation of Little Lithgow Street; given that it is single width.

The question, either by virtue of this development, or other developments (either existing, proposed or future), is what happens within a single width roadway when traffic volumes exceed or approach a point at which there becomes an 'unreasonable' likelihood of two motorists travelling in opposing directions meeting within a single width street. Previously this was identified as being in the order of 30 peak hour vehicle movements, however, this also needs to have consideration to the directional split of vehicles, length over which conflict could occur, and impact on motorists turning into the street if a vehicle is already there blocking their path of travel.

In examples, such as Lithgow Street, where there are more than a handful of peak hour vehicle movements within a single width roadway, ultimately the road authority (being Council) has the ability to convert the street to a one-way street if these impacts are considered to be too significant. Whilst this (conversion to one-way) is not being proposed as part of the development proposal we provide this for completeness and to give Council a level of comfort that a future option exists to ameliorate any potential issues associated with the current and future operation of Little Lithgow Street.

Based on the preceding assessment, we are satisfied that the traffic impact of the development is appropriate and that the addition of 13 additional peak hour movements can be absorbed by the surrounding external road network without a material decrease to the safety and operational efficiency of the same.

6. Bicycle Considerations

Clause 52.34 of the Planning Scheme specifies the bicycle parking requirement for new developments.

The relevant requirements are summarised in Table 7.

Table 7: Statutory Bicycle Parking Requirements

Use	Units	Statutory Requirement	No. Of Spaces Required
Dwellings	151 dwellings	1 space per 5 dwellings for residents 1 space per 10 dwellings for visitors	30 resident spaces 15 visitor spaces
Food and Drink Premises [1]	62 m^2	1 space per 300 square metres for staff 1 space per 500 square metres for customers	0 staff spaces 0 customer spaces
Total		**30 resident spaces** **15 visitor spaces**	

[1] There is no specified statutory bicycle parking rate for a 'food and drink premises', however, is nested underneath the 'retail premises' use, for which there is a statutory rate and is applicable as such.

Based on the above assessment, the development is required to provide a total of 45 bicycle spaces, comprising 30 resident and 15 visitor spaces.

A total of 88 bicycle parking spaces are proposed including 48 spaces at ground floor and 40 spaces within the basement level; within the site. A further six bicycle parking spaces are proposed within the ground floor within the public realm.

Bicycle parking spaces have been provided as a mixture of two-tier horizontal rails, double-sided horizontal rails and wall hanging 'ned kelly' racks.

The minimum requirements for these spaces are as follows:

Bicycle Hoops (Four Basement Level Spaces, Six Ground Level Spaces)

- Each hoop can accommodate two parked bicycles.
- 1.0m intervals/spacing of hoops.
- Allowance for a 1.8m long parked bicycle.
- 1.5m wide access aisle.

Multi Tier (36 Basement Level Spaces, 36 Ground Level Spaces)

- One parked bicycle within both the upper and lower tier of each rack.
- Specifications as per the Cora multi-tier bicycle parking system for staggered height with dynamic upper/lower tiers.
- 2.7m height clearance.
- 0.4m rack spacing and 0.35m offset to walls.

- Allowance of 1.86m for a parked bicycle.
- 2.0m wide access aisle.

Wall Hanging 'Ned Kelly' Bicycle Racks (12 Ground Level Spaces)

- 0.4m spacing, and wall offset, as per the Bicycle Network specifications for the 'Ned Kelly' bicycle parking system.
- Allowance of 1.2m for parked bicycles to extend from the rack.
- 1.5m wide access aisle.

We are satisfied that the plans comply with the above dimensions, and are appropriate, subject to adoption of the following recommended changes, which could be mandated by way of an appropriately worded permit condition:

- The six ground level spaces within bicycle hoops, within the public realm, to allow for a 1.8m long parked bicycle (currently 1.4m)
- The 36 ground level multi tier spaces to allow for a 2.0m wide access aisle (currently 1.74m).

7. Other Considerations

7.1. Loading

Clause 65.01 of the Planning Scheme states that the responsible authority must consider a number of matters as appropriate including:

- *The adequacy of loading and unloading facilities and any associated amenity, traffic flow and road safety impacts.*

Loading is proposed to occur via nearby on-street loading zones and on-street car parking more generally (if marked loading zones are already occupied). This is inclusive of a proposed on-street loading zone (two x 6.0m long spaces) directly abutting the subject site.

Accordingly, we are satisfied that appropriate loading provisions can be accommodated in accordance with the objectives of the Planning Scheme.

7.2. Waste Collection

Waste collection is proposed via the basement level, via a private contractor, utilising a low-profile waste collection vehicle for all on-site uses.

Traffix Group have prepared a Waste Management Plan which specifies these arrangements in further detail, with a swept path of the waste collection vehicle affixed at Appendix B.

7.3. On-Street Car Parking

There are currently three on-street parking spaces fronting the subject site, all of which are marked as a time restricted 'loading zone'; as outlined within Section 2.3 of this report.

As part of the development proposal a total of four[5] on-street car parking spaces measuring 2.5 wide x 6.0m long are proposed. Two of these spaces are nominated as being for general parking with two spaces nominated as being for loading.

That is, the development proposal results in a net increase in the on-street car parking provision of one space (from three existing to four proposed spaces). The exact car parking restrictions applicable to all on-street car parking spaces are at the discretion of Council.

The proposed landscaping works along Lithgow Street provide an urban realm / streetscape improvement and generally match, the intent of, albeit within a larger area, the existing landscape/tree kerb outstands along Lithgow Street.

The detailed design of this parking/landscaping area fronting the subject site, including adherence with AS 2890.5:2020, as well as the through traffic lane widths of Lithgow Street adjacent to the subject site, is subject to Council review and requirements, noting that the proposed works are within a Council Road Reserve.

[5] It is recognised that a single larger vehicle/truck may occupy both of the proposed loading zone spaces.

Based on the above, we are satisfied, subject to feedback from Council regarding the required minimum Lithgow Street road width (clear of car parking spaces / landscaping) and minimum length 'a' (from Figure 3.2 of AS 2890.5:2020), that the proposed arrangements are both appropriate and indeed offer a streetscape upgrade from existing conditions (increase in on-street parking provision and additional landscaping). We note that any such requirements, and associated changes to the landscaping/parking layout within the Lithgow Street road reserve, could be mandated by way of an appropriately worded permit condition.

8. Conclusions

Having undertaken a detailed traffic engineering assessment of the proposed build to rent development at 35-45 Lithgow Street, Abbotsford, we are of the opinion that:

a. the proposed development has a statutory car parking requirement to provide a minimum of zero car spaces and up to a maximum of 303 car parking spaces under Clause 52.06-5 of the Planning Scheme,

b. the provision of 43 car spaces meets the statutory requirements, and no permit is sought with respect to the statutory car parking requirements,

c. notwithstanding that no statutory car parking waiver is sought, we are further satisfied that the proposed car parking provision is appropriate, having regard to the following considerations:

   – The site is well located to promote walking to everyday services.

   – The site is well serviced by public transport with multiple tram and train services located within a short walking distance of the site.

   – There are nearby car share scheme pods that provide an alternative to owning a car and encourage the use of sustainable modes of transport for the majority of trips,

   – Future residents will not have access to residential parking permits. In consideration of the largely short-term parking restrictions which apply to parking within the surrounding area, there will be limited opportunity for future residents without an on-site car space to park on street.

   – The Build to Rent model allows for greater efficiencies in managing parking as car spaces are allocated separately rather than being tied to an individual apartment. This means car spaces do not go unused. Parking is managed through the Building Manager, and allocated purely on a demand basis. It allows tenants to only lease a car space if it is necessary.

   – The food and drink premises (café) is expected to largely service the existing customer base of the area.

d. the proposed parking layout and access arrangements accord with the requirements of the Planning Scheme, relevant Australian Standards, and current practice,

e. the development is anticipated to generate up to 13 peak hour movements and 129 daily traffic movements via Little Lithgow Street,

f. the level of traffic generated as a result of this proposal, including restriction of the site access to right-in/out movements only (being northbound only movements on Little Lithgow Street) is acceptable,

g. bicycle parking is provided in excess of the requirements set out at Clause 52.34 of the Planning Scheme,

h. the proposed layout of bicycle parking areas is appropriate, subject to adoption of the following recommended changes, which could be mandated by way of an appropriately worded permit condition:

- The six ground level spaces within bicycle hoops, within the public realm, to allow for a 1.8m long parked bicycle (currently 1.4m)
- The 36 ground level multi tier spaces to allow for a 2.0m wide access aisle (currently 1.74m).

i. the development proposal will result in the net addition of one on-street car parking space within Lithgow Street,

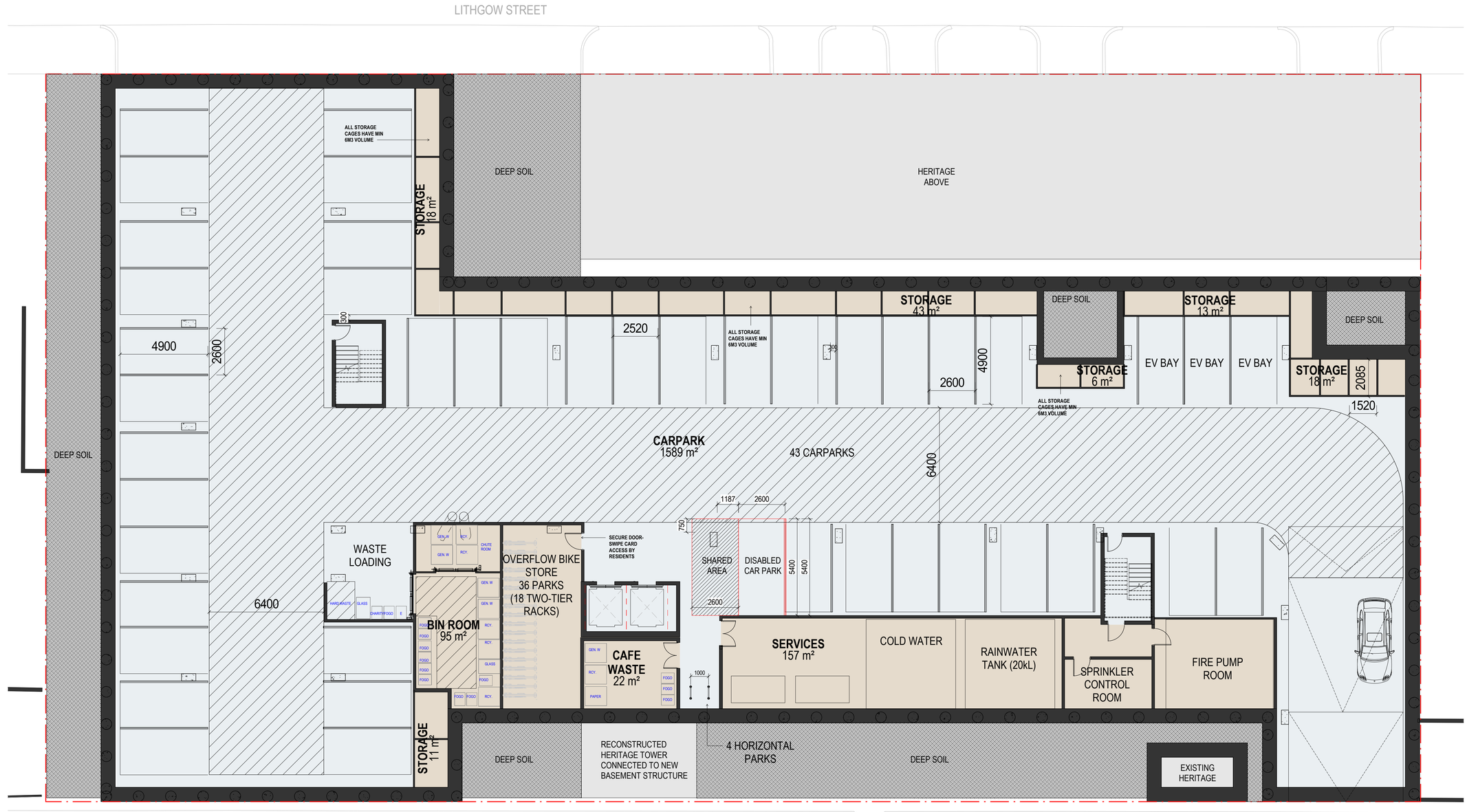
j. we are satisfied, subject to feedback from Council regarding the required minimum Lithgow Street road width (clear of car parking spaces / landscaping) and minimum length 'a' (from Figure 3.2 of AS 2890.5:2020), that the proposed streetscape works within the Lithgow Street Road Reserve are appropriate. Any such requirements, and associated changes to the landscaping/parking layout within the Lithgow Street road reserve, could be mandated by way of an appropriately worded permit condition.

k. there are no traffic engineering reasons, subject to adoption of the abovementioned bicycle layout recommendations, why a planning permit for the proposed build to rent development at 35-45 Lithgow Street, Abbotsford, should be refused, subject to appropriate conditions.

Appendix A

Development Plans

Traffix Group G35649R-01C



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WARREN AND MAHONEY

Revisions

A 25/09/25	FOR REVIEW
B 02/10/25	FOR REVIEW
C 20/10/25	TOWN PLANNING

Notes

N
TRUE NORTH

Consultants

FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client

MODEL

Project Title

THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

All dimension to be verified on site before producing shop drawings or commencing any work.
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Drawing Title

BASEMENT FLOOR PLAN

Drawing Status

WORK IN PROGRESS

Drawing Details

Scale	1 : 100@ A1
Date	30/10/2025 10:39:31 am
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP10.00

Revision C

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ABBOTSFORD

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Drawing Title

GROUND FLOOR PLAN

Drawing Status

WORK IN PROGRESS

Drawing Details

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Checked	ST

Drawing No TP10.01

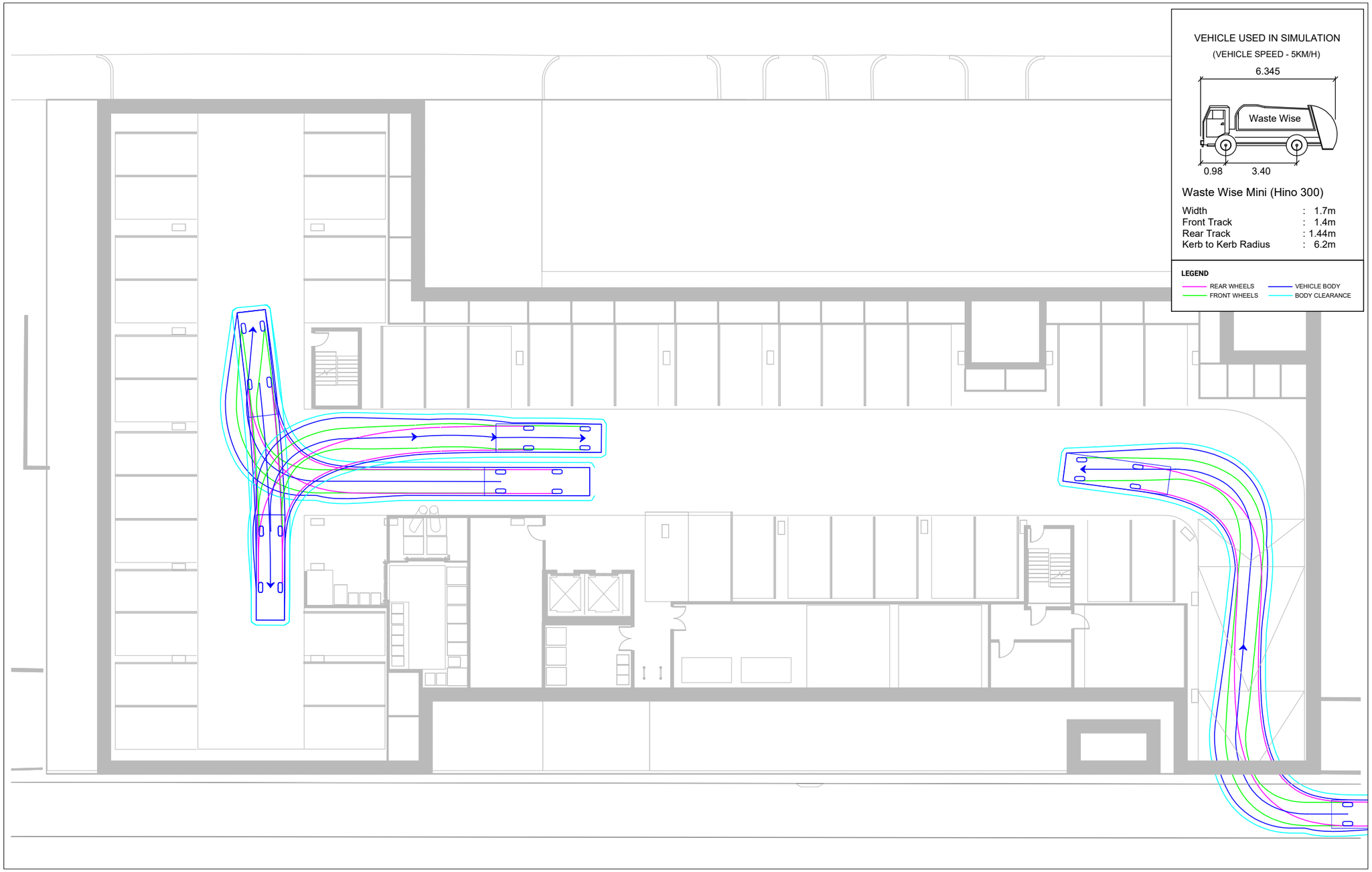
Revision C

Appendix B

Swept Path Assessment

Traffix Group G35649R-01C

SITE ACCESS - WASTE TRUCK INGRESS / EGRESS



VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)

Waste Wise Mini (Hino 300)

Width	:	1.7m
Front Track	:	1.4m
Rear Track	:	1.44m
Kerb to Kerb Radius	:	6.2m

LEGEND

REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	09/10/2025	ORIGINAL ISSUE	P. NGUYEN	D. TROTTER (RPE6797)
B	30/10/2025	UPDATED ISSUE	P. NGUYEN	D. TROTTER (RPE6797)

35-45 LITHGOW STREET, ABBOTSFORD
PROPOSED BUILD TO RENT DEVELOPMENT

GENERAL NOTES:
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SHEET NO.: 01

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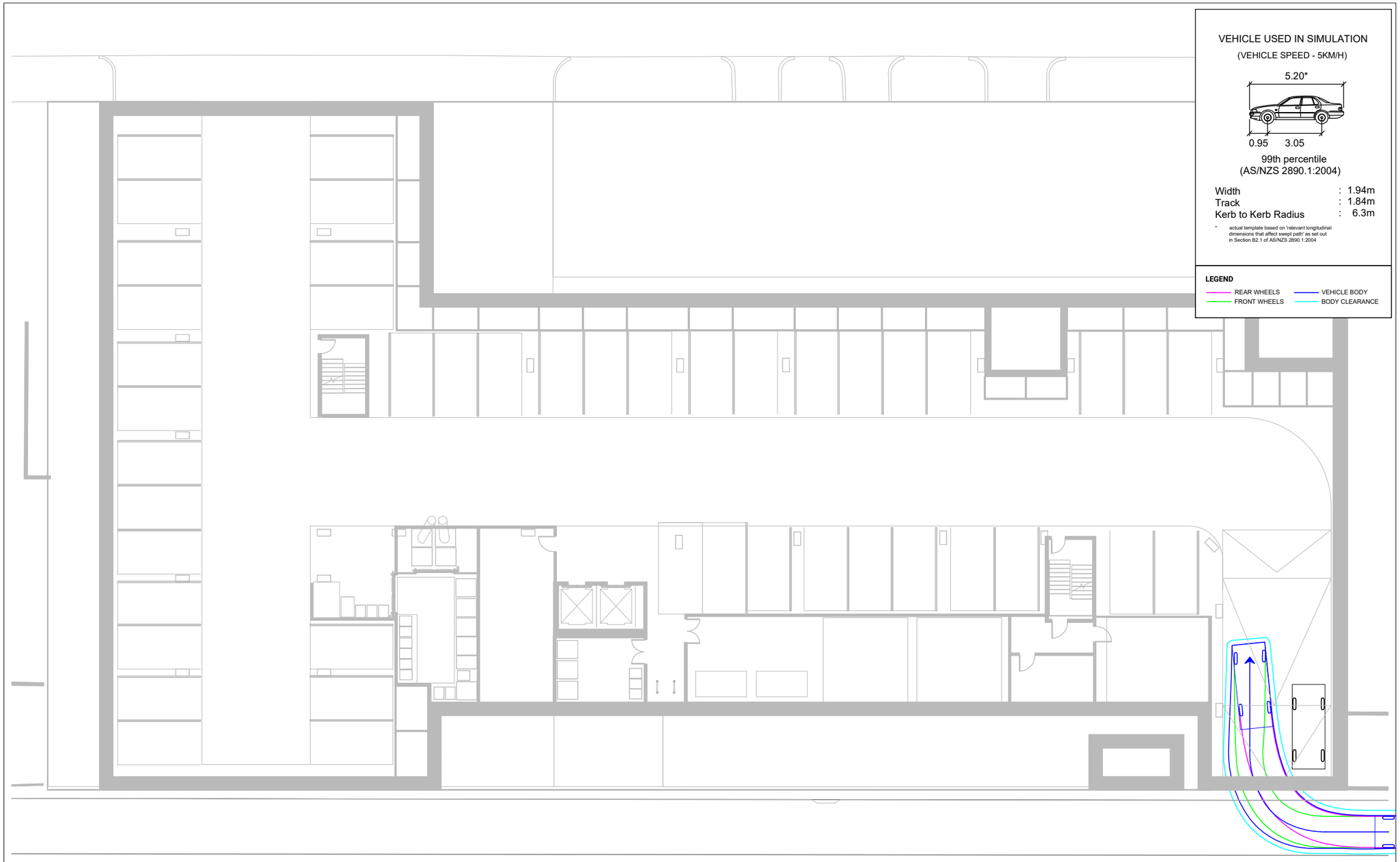
SITE ACCESS - B99 INGRESS



VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)

5.20*

0.95 3.05

99th percentile
(AS/NZS 2890.1:2004)

Width	:	1.94m
Track	:	1.84m
Kerb to Kerb Radius	:	6.3m

* actual template based on 'relevant longitudinal dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004

LEGEND

REAR WHEELS
FRONT WHEELS
VEHICLE BODY
BODY CLEARANCE

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35-45 LITHGOW STREET, ABBOTSFORD
PROPOSED BUILD TO RENT DEVELOPMENT

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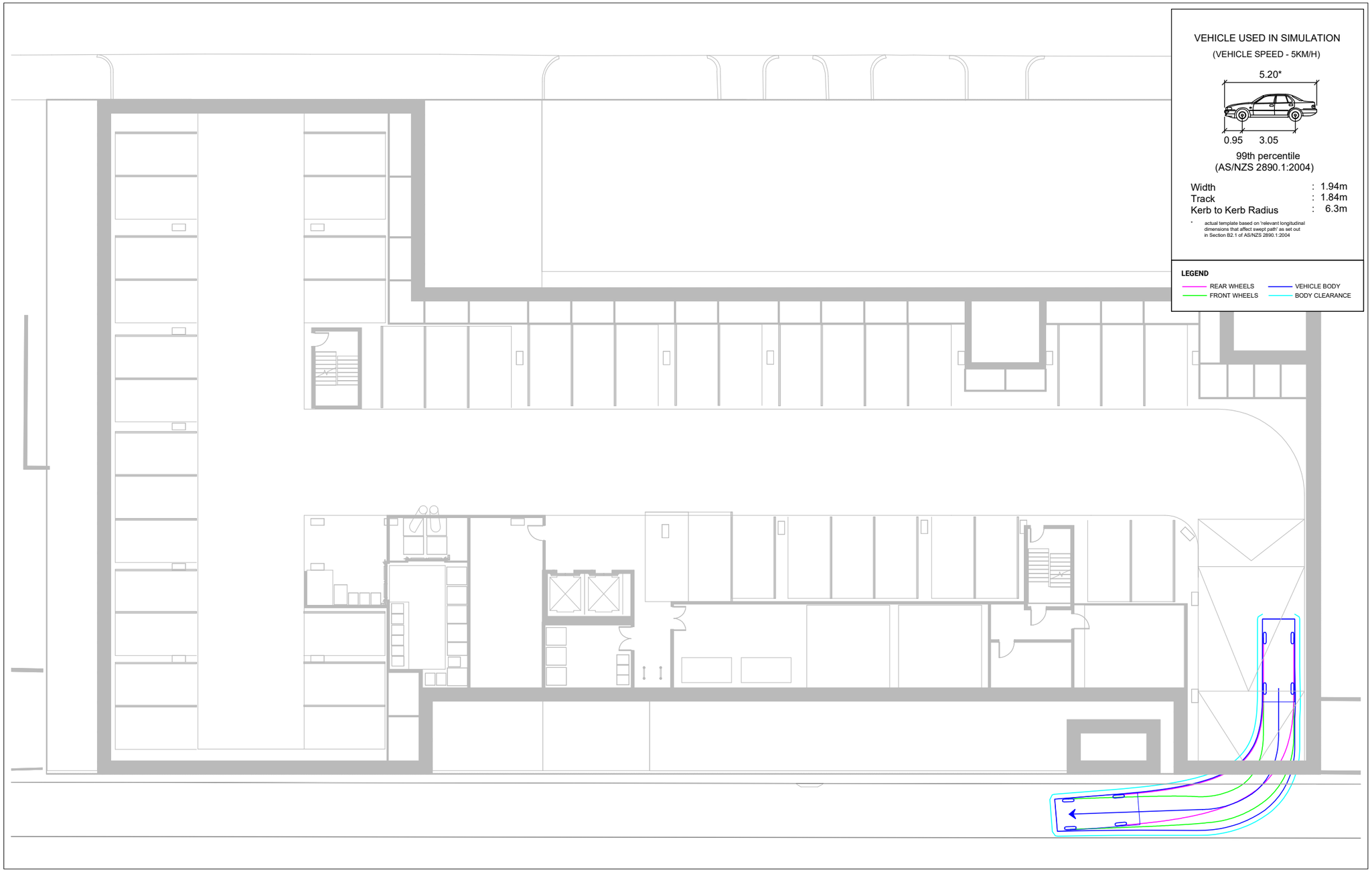
SITE ACCESS - B99 EGRESS



VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)

5.20*

0.95 3.05

99th percentile
(AS/NZS 2890.1:2004)

Width	:	1.94m
Track	:	1.84m
Kerb to Kerb Radius	:	6.3m

* actual template based on 'relevant longitudinal dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004

LEGEND

REAR WHEELS
FRONT WHEELS
VEHICLE BODY
BODY CLEARANCE

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35-45 LITHGOW STREET, ABBOTSFORD
PROPOSED BUILD TO RENT DEVELOPMENT

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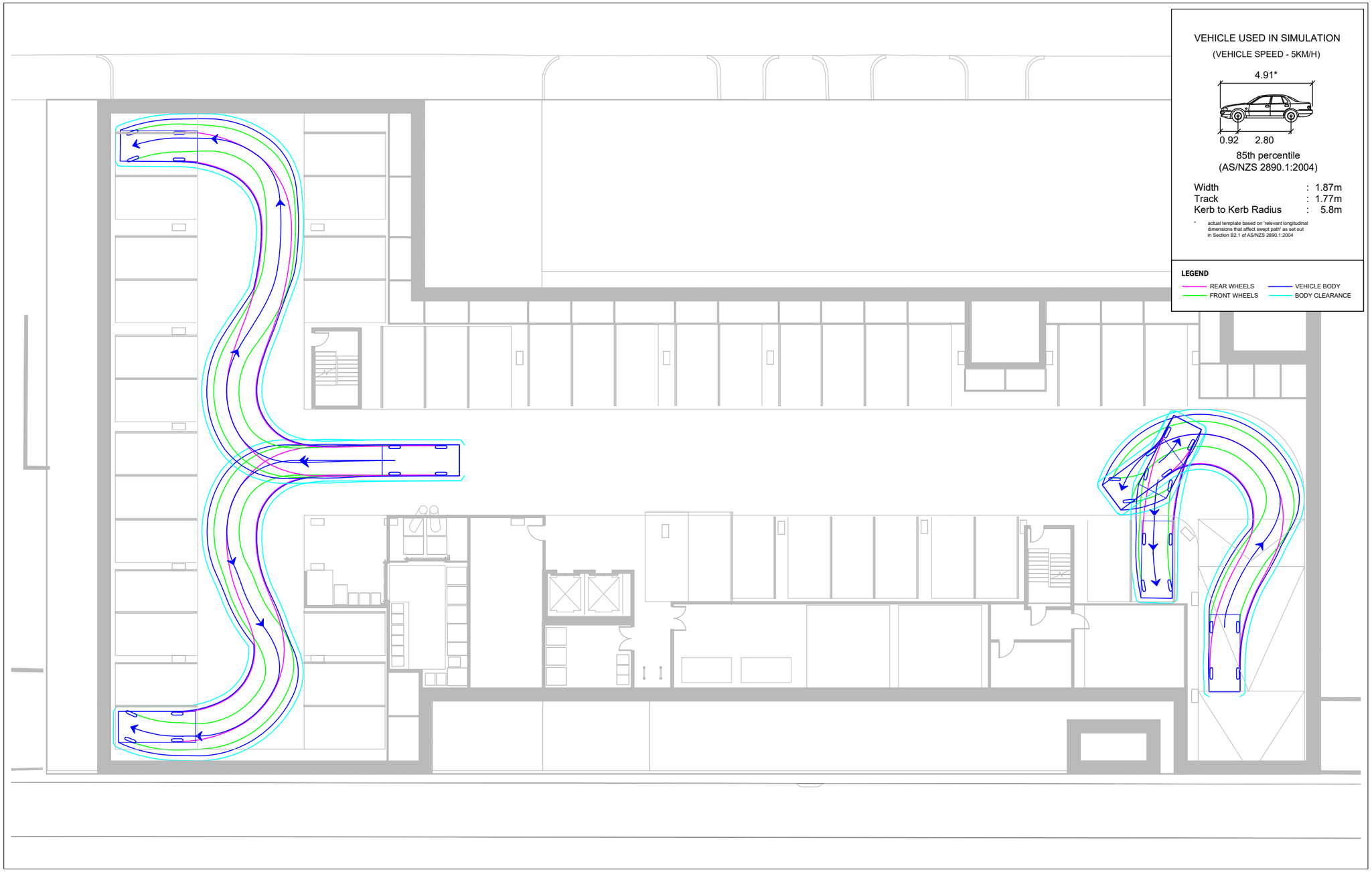
PARKING - B85 INGRESS



VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)

4.91*

0.92 2.80

85th percentile
(AS/NZS 2890.1:2004)

Width	:	1.87m
Track	:	1.77m
Kerb to Kerb Radius	:	5.8m

* actual template based on 'relevant longitudinal dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004

LEGEND

REAR WHEELS
FRONT WHEELS
VEHICLE BODY
BODY CLEARANCE

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35-45 LITHGOW STREET, ABBOTSFORD
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GENERAL NOTES:
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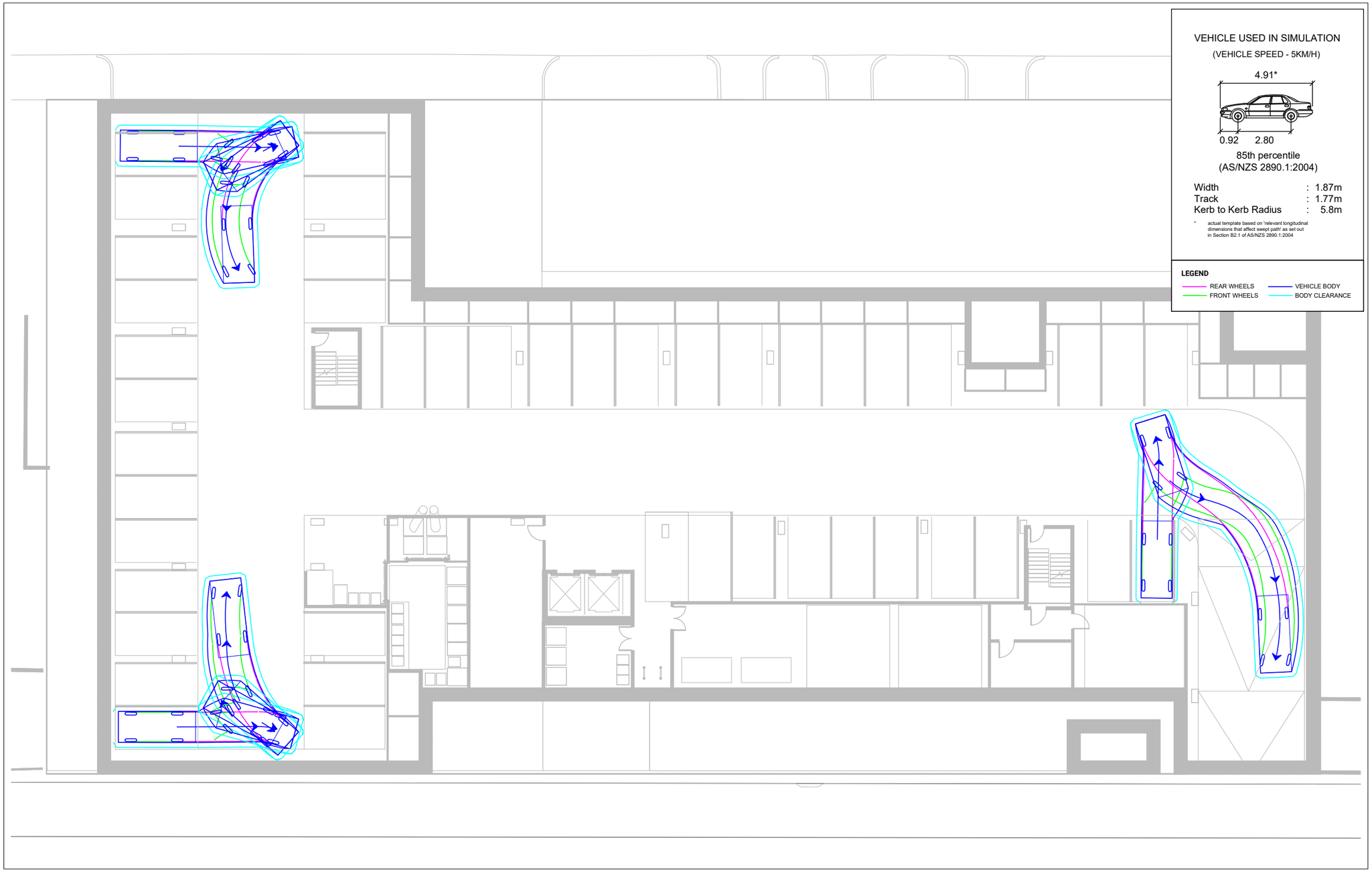
PARKING - B85 EGRESS



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(VEHICLE SPEED - 5KM/H)

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0.92 2.80

85th percentile
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VEHICLE BODY
BODY CLEARANCE

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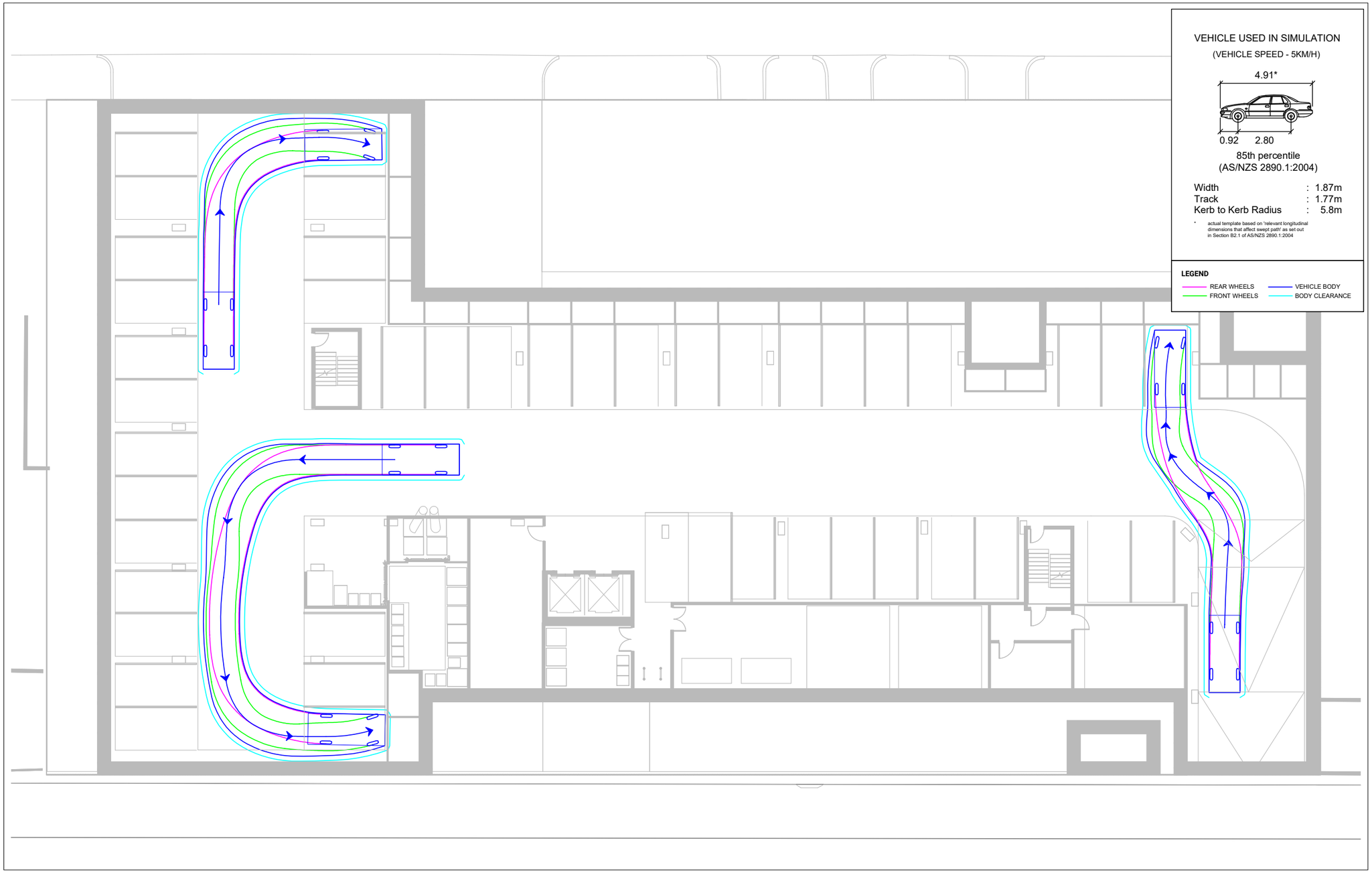

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)

85th percentile
(AS/NZS 2890.1:2004)

Width	:	1.87m
Track	:	1.77m
Kerb to Kerb Radius	:	5.8m

* actual template based on 'relevant longitudinal dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004

LEGEND

REAR WHEELS
FRONT WHEELS
VEHICLE BODY
BODY CLEARANCE

REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	09/10/2025	ORIGINAL ISSUE	P. NGUYEN	D. TROTTER (RPE6797)
B	30/10/2025	UPDATED ISSUE	P. NGUYEN	D. TROTTER (RPE6797)

35-45 LITHGOW STREET, ABBOTSFORD
PROPOSED BUILD TO RENT DEVELOPMENT

GENERAL NOTES:
ARCHITECTURAL PLANS, RECEIVED 30-10-2025

FILE NAME: G35649-01
SHEET NO.: 06

N

SCALE: 1:200 (A3)
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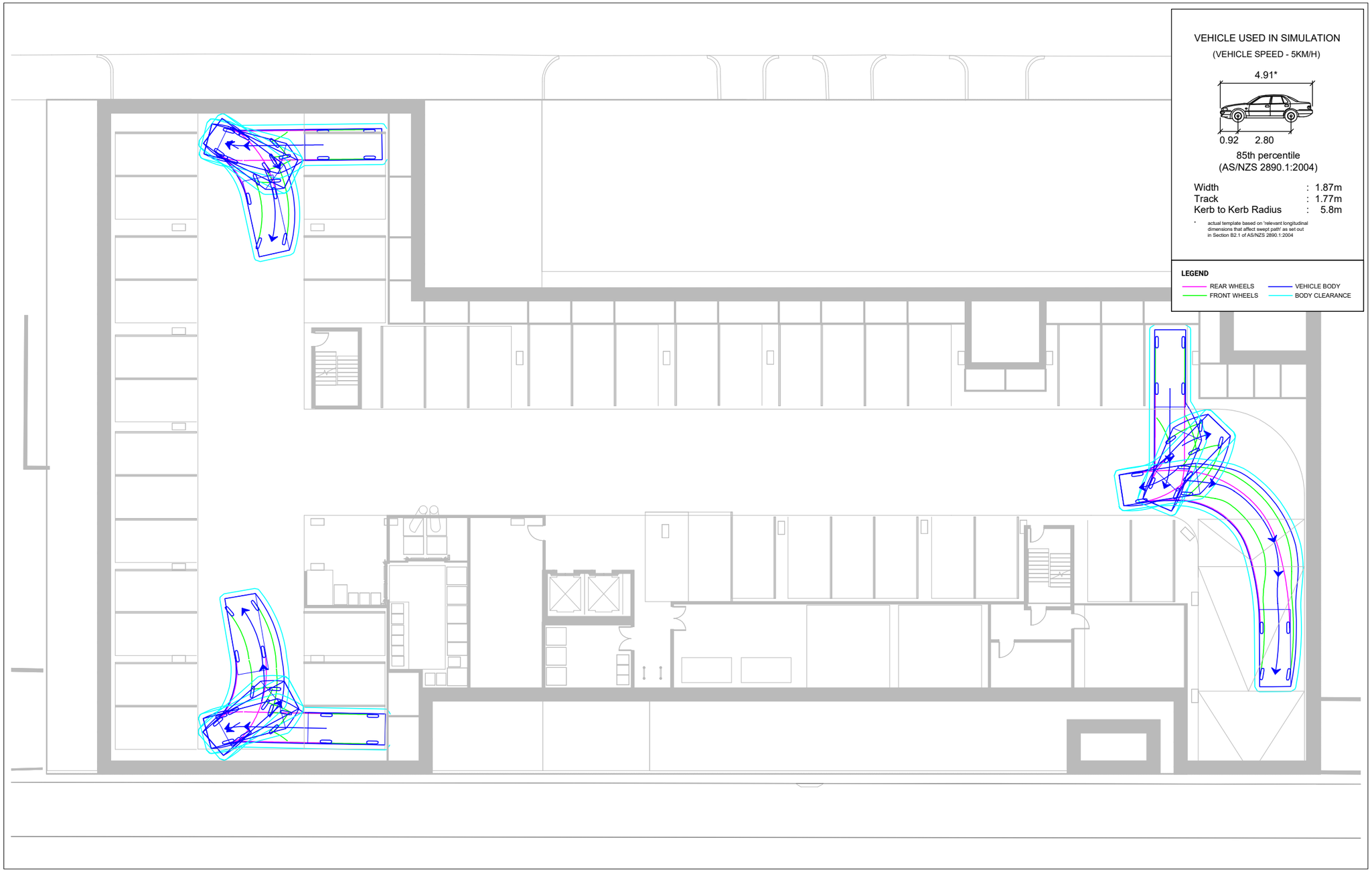

VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)

4.91*

0.92 2.80

85th percentile
(AS/NZS 2890.1:2004)

Width	:	1.87m
Track	:	1.77m
Kerb to Kerb Radius	:	5.8m

* actual template based on 'relevant longitudinal dimensions that affect swept path' as set out in Section B2.1 of AS/NZS 2890.1:2004

LEGEND

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FILE NAME: G35649-01
SHEET NO.: 07

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Model Australia Pty Ltd

35-45 Lithgow St, Abbotsford

Wind Impact Assessment

30N-25-0395-TRP-121641-1

30 October 2025

Job Title:	35-45 Lithgow St, Abbotsford
Report Title:	Wind Impact Assessment
Document Reference:	30N-25-0395-TRP-121641-1

Prepared For:	**Prepared By:**
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Revision History:

Rev. #	*Comments / Details of change(s) made*	*Date*	*Revised by:*
Rev. 00	Original issue	15 Oct 2025	
Rev. 01	Amendments	24 Oct 2025	PM

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Executive Summary

Model Australia Pty Ltd commissioned Vipac Engineers and Scientists Ltd to prepare a statement of wind effects for the ground level areas adjacent to the proposed development at **35-45 Lithgow St, Abbotsford.** This appraisal is based on Vipac's experience as a wind-engineering consultancy.

Drawings of the proposed development were provided by Warren and Mahoney in **Oct 2025**.

The findings of this study with the proposed design can be summarised as follows:

- Wind conditions in the ground level footpath areas and access ways would be expected to be within the **walking** comfort criterion;
- Wind conditions in front of building entrances would be expected to be within the **standing** comfort criterion;
- The private balconies/gardens would be expected to be within the recommended **walking** comfort criterion.
- The rooftop communal terrace is expected to have wind conditions within the recommended **standing/walking** comfort criterion **with the recommendations**.
- The gust winds are expected to fulfil safety criterion.

As a general statement, educating occupants about wind conditions at open terrace/balcony areas during high-wind events and fixing loose, lightweight furniture on the terrace are highly recommended.

The assessments provided in this report have been made based on experience of similar situations in Melbourne and around the world. As with any opinion, it is possible that an assessment of wind effects based on experience and without experimental validation may not account for all complex flow scenarios in the vicinity.

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1 Introduction

Vipac Engineers and Scientists has been commissioned by **Model Australia Pty Ltd** to carry out an appraisal of the pedestrian wind effects at the ground level of the proposed development at **35-45 Lithgow St, Abbotsford.**

Strong winds in pedestrian areas are frequently encountered in central business districts of cities around the world, including Sydney, Melbourne and Brisbane. Wind characteristics such as the mean speed, turbulence and ambient temperature determine the extent of disturbance to users of pedestrian areas. These disturbances can cause both comfort and safety problems and require careful consideration to mitigate successfully.

The proposed development is a G + 5-storey residential building with a roof height of 18.7 m from the street level. The site is bounded by Lithgow Street to the east, Little Lithgow Street to the west, and existing development to the south and north. A site plan of the proposed development and the east elevation of the building are shown in Figure 1 and Figure 2, respectively.

This report details the opinion of Vipac as an experienced wind engineering consultancy regarding the wind effects in ground level footpath areas adjacent to the development as proposed. No wind tunnel testing has been carried out for this development at this stage. Vipac has carried out wind tunnel studies on many developments of similar shape and having similar exposure to that of the proposed development. These serve as a valid reference for the prediction of wind effects. Empirical data for typical buildings in boundary layer flows has also been used to estimate the likely wind conditions on the ground level areas of the proposed development [2] & [3].

Drawings of the proposed development were supplied to Vipac by Warren and Mahoney in **Oct 2025.** A list of drawings supplied is provided in Appendix C of this report.

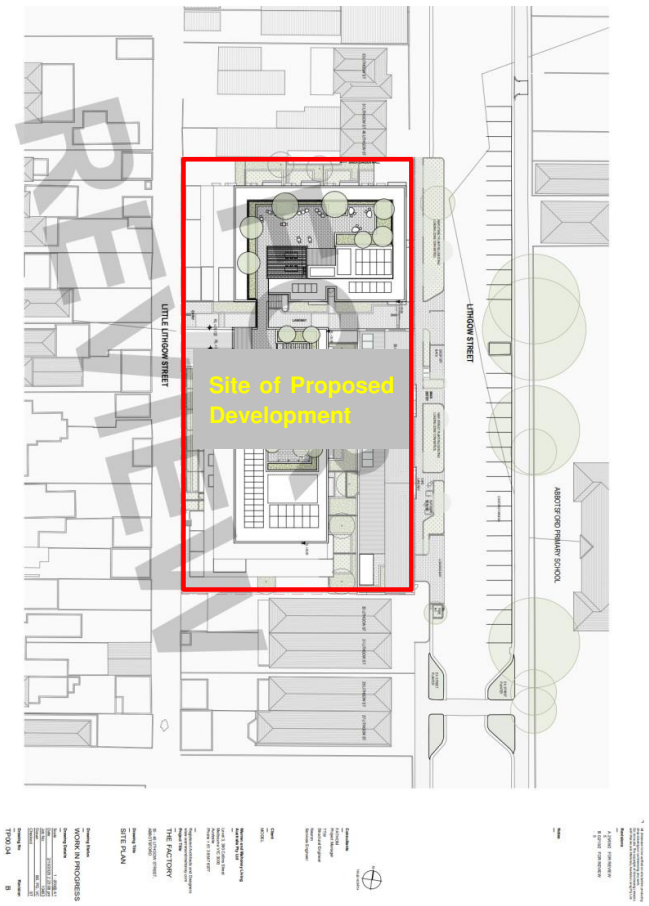


Figure 1: The site plan of the proposed development.

Figure 2: East elevation of the proposed development.

2 Analysis Approach

In assessing whether a proposed development is likely to generate adverse wind conditions in ground level footpath areas, Vipac has considered the following five main points:

- The exposure of the proposed development to wind;
- The regional wind climate;
- The geometry and orientation of the proposed development;
- The interaction of flows with adjacent developments; and
- The assessment criteria determined by the intended use of the areas affected by wind flows generated or augmented by the proposed development.

The pedestrian wind comfort at specific locations of ground level footpath areas may be assessed by predicting the gust and mean wind speeds with a probability of 0.1% and 20% expected at that location. The location may be deemed generally acceptable for its intended use while gust and mean wind speeds are within the threshold values noted in Section 2.5. Where Vipac predicts that a location would not meet its appropriate comfort criterion, the use of wind control devices and/or local building geometry modifications to achieve the desired comfort rating may be recommended. For complex flow scenarios or where predicted flow conditions are well more than the recommended criteria, Vipac recommends scale model wind tunnel testing to determine the type and scope of the wind control measures required to achieve acceptable wind conditions.

2.1 Site Exposure

The proposed development is located on a relatively flat terrain. The site is surrounded within an approximately 1.2 km radius predominately by low -rise developments with treed open areas (Golf courts) lies to the northeast. A satellite image showing these site surroundings is shown in Figure 3.

Considering the immediate surroundings and terrain, for the purposes of this study, the site of the proposed development is assumed to be within Terrain Category 2.5 for the northeast sector and Terrain Category 3 for all other wind directions (Figure 3).

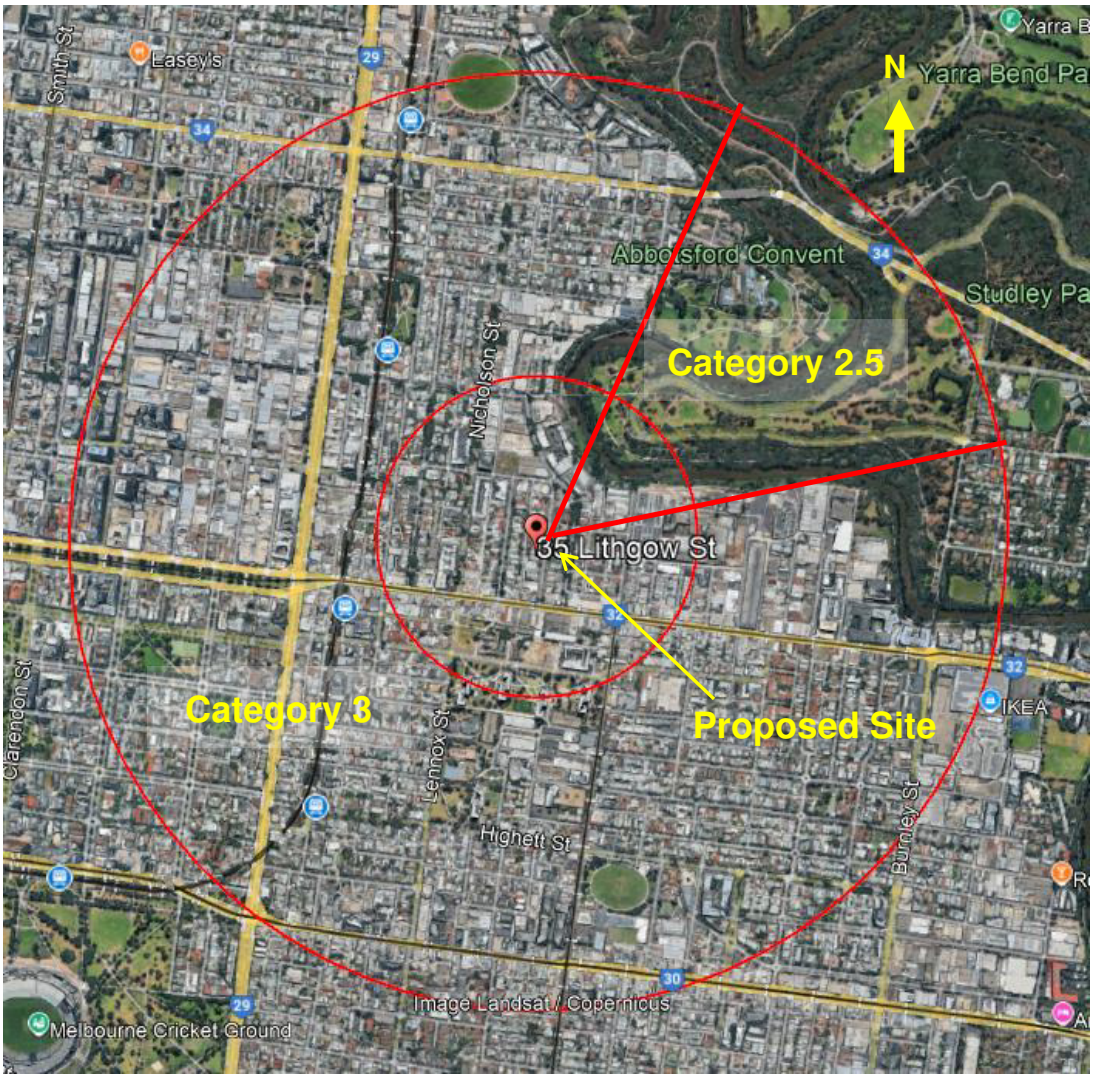


Figure 3: Assumed terrain categories for wind speed estimation.

2.2 Regional Wind Climate

The mean and gust wind speeds have been recorded in the Melbourne area for over 30 years. This data has been analysed and the directional probability distribution of wind speeds has been determined. The directional distribution of hourly mean wind speed at the gradient height, with a probability of 0.1% of time and 20% of time exceeded are shown in Figure 4. The wind data at this free stream height is common to all Melbourne city sites and may be used as a reference to assess ground level wind conditions at the site.

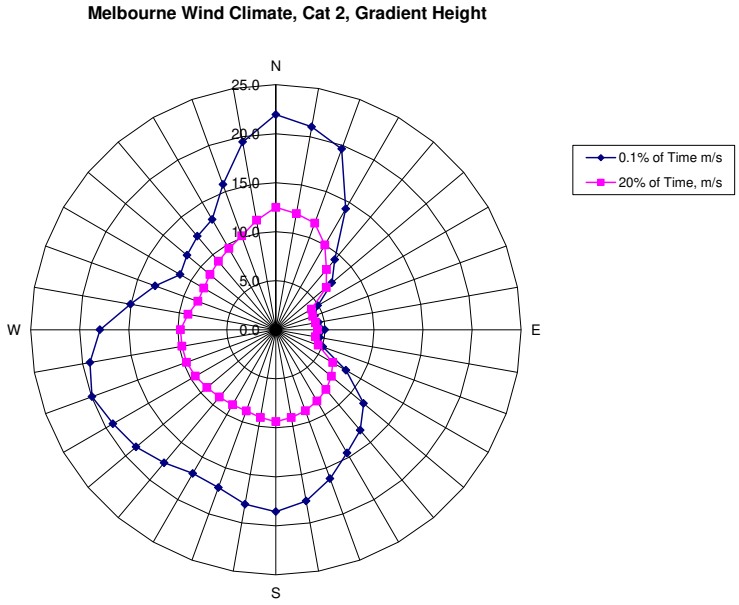


Figure 4: Directional Distribution of Mean Hourly Wind Velocities (m/s) for 0.1% and 20% exceeded at Gradient Height for Melbourne.

2.3 Building Geometry and Orientation

The proposed development is a G + 5-storey residential building. The overall plan-form dimensions are approximately 40m x 78m as shown in Figure 5. The main entrances are located on Lithgow Street and Little Lithgow Street. The development incorporates tower setbacks from all surrounding street boundaries.

Figure 5: Ground floor plans with the plan-form dimensions overlaid.

2.4 Flow interactions with Adjacent Developments

The immediately adjacent developments are shown in Figure 6. At ground level, the site is exposed to direct winds from the northerly directions channelling along Lithgow and Little Lithgow Streets. The building is oriented such that adverse impacts from corner acceleration of northerly winds is not expected at ground level. The development is taller than the surrounding buildings and so is exposed to winds from all directions at the upper levels.

Figure 6: Immediately adjacent surroundings and their approximate number of floors (F).

2.5 Assessment Criteria

The following wind comfort criteria detailed in Table 1 were applied in this study.

Table 1: Wind Comfort Criteria as per Clause 58.04-4

Unsafe	Comfortable
Annual maximum 3 second gust wind speed exceeding **20m/sec** with a probability of exceedance of 0.1% considering at least 16 wind directions.	Hourly mean wind speed or gust equivalent mean speed from all wind directions combined with probability of exceedance less than 20% of the time, equal to or less than: **3m/sec** for sitting areas (outdoor cafés) **4m/sec** for standing areas (window shopping, queuing) **5m/sec** for walking areas (steady steps for most pedestrians)

This criterion specifically calls for the safety criterion to be used to assess infrequent winds (e.g. peak event of ≤ 0.1% of the time); and the perceived pedestrian comfort to be assessed based on frequently occurring winds (e.g. winds that occurs 80% of the time).

In Table 1, the mean wind velocity is defined as the maximum of hourly mean or gust equivalent mean (Gust/1.85)

This criterion specifies that safe and comfortable wind conditions must be achieved in publicly accessible areas within a distance equal to half the longest width of the building measured from all facades or half the overall height of the building, whichever is greater, as shown in Figure 7.

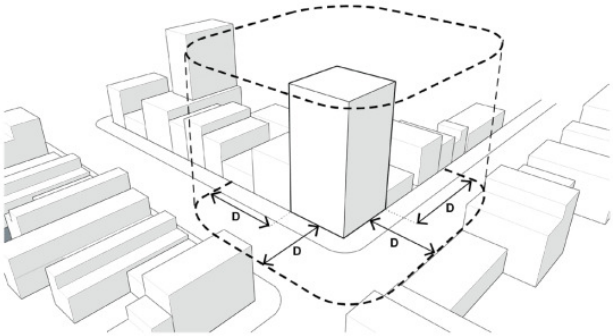


Figure 7: Assessment distance.

2.5.1 Use of Adjacent Pedestrian Occupied Areas & Recommended Comfort Criteria

The consideration of the (intended) function of the environment heavily influences the appropriateness of the recommended wind comfort criteria. For example, people frequenting locations such as parks are will likely tolerate a windier environment when compared to people dining at an outdoor café.

This is partly due to the pedestrian's judgement in clothing and predetermined expectation of the wind environment and partly due to the sensitivity of their activities to wind. For example, patrons at outdoor dining areas are highly sensitivity to wind due to the stationary nature of the activity; whereas pedestrians on the public footpaths may maintain a level of comfort under otherwise uncomfortable conditions by partaking in general activities performed on the footpath such as walking.

The following table lists the specific areas adjacent to the proposed development and the corresponding recommended criteria.

Table 2: Recommended application of criteria

Area	Specific location	Recommended Criteria
Public Footpaths, Access ways	Along Lithgow and Little Lithgow Streets and laneway between north and south buildings (Figure 8)	Walking
Building Entrances	Along Lithgow and Little Lithgow Streets and laneway between north and south buildings (Figure 8)	Standing
Outdoor Communal Areas	Located on the Rooftop (Figure 9)	Walking/Standing
Balcony/Terraces	Up the height of the building	Walking (See discussion below)

2.5.2 Terrace / Balcony Recommended Criterion Discussion

There are Private Balconies and Terraces located up the height of the development. Vipac recommends as a minimum that balcony/terrace areas meet the criterion for walking since:

- these areas are not public spaces;
- the use of these areas is optional, and only intended to be used on fair weather days with calm winds.
- residents at private open spaces can chose to retreat indoors during uncomfortable wind conditions, whiel a pedestrian or person using a public area may not have this option.
- many similar developments in Melbourne and other Australian capital cities experience wind conditions on balconies and elevated deck areas in the vicinity of the criterion for walking.

In this study, some areas of the roof top communal terraces are assessed against the more stringent sdanding criterion.

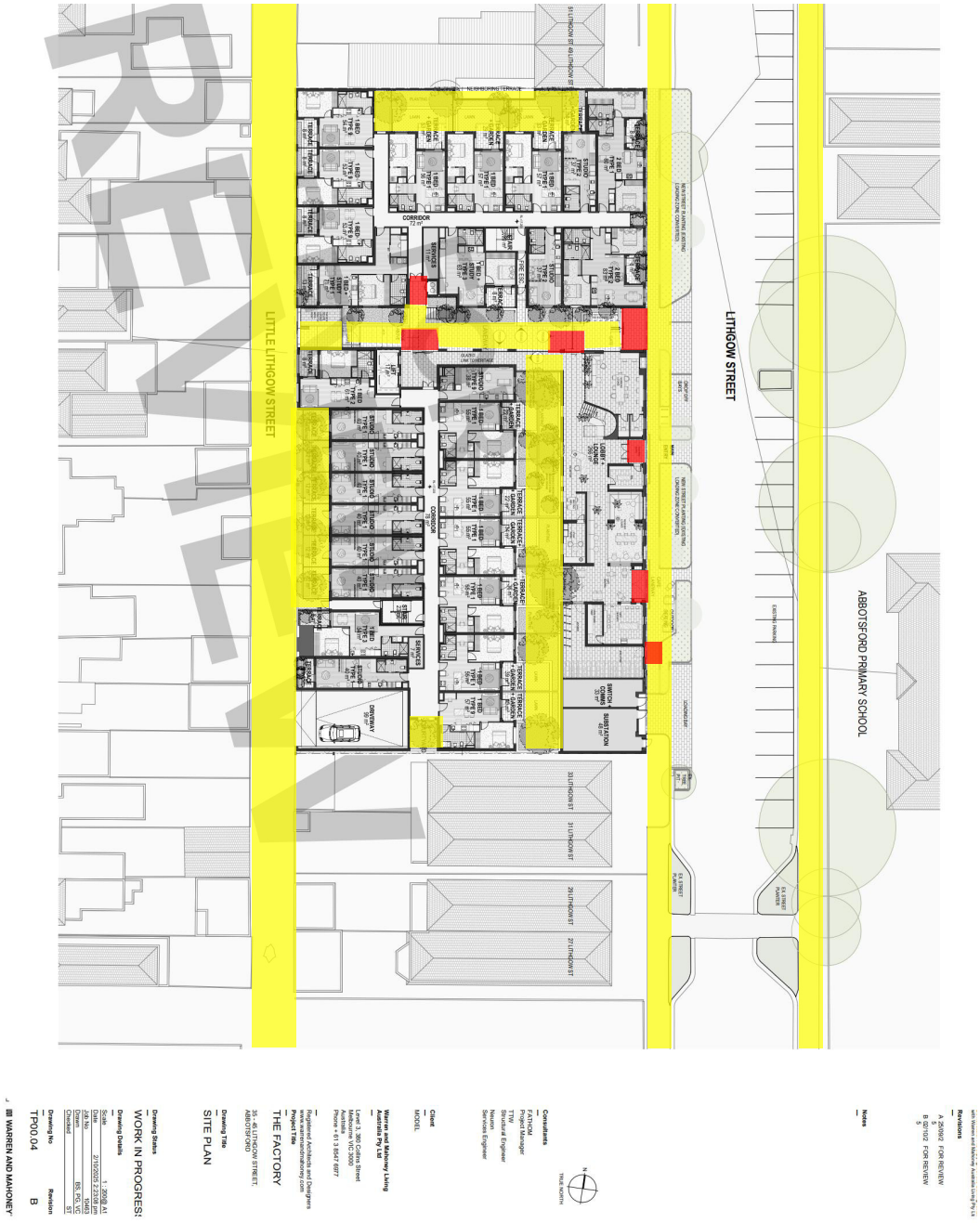
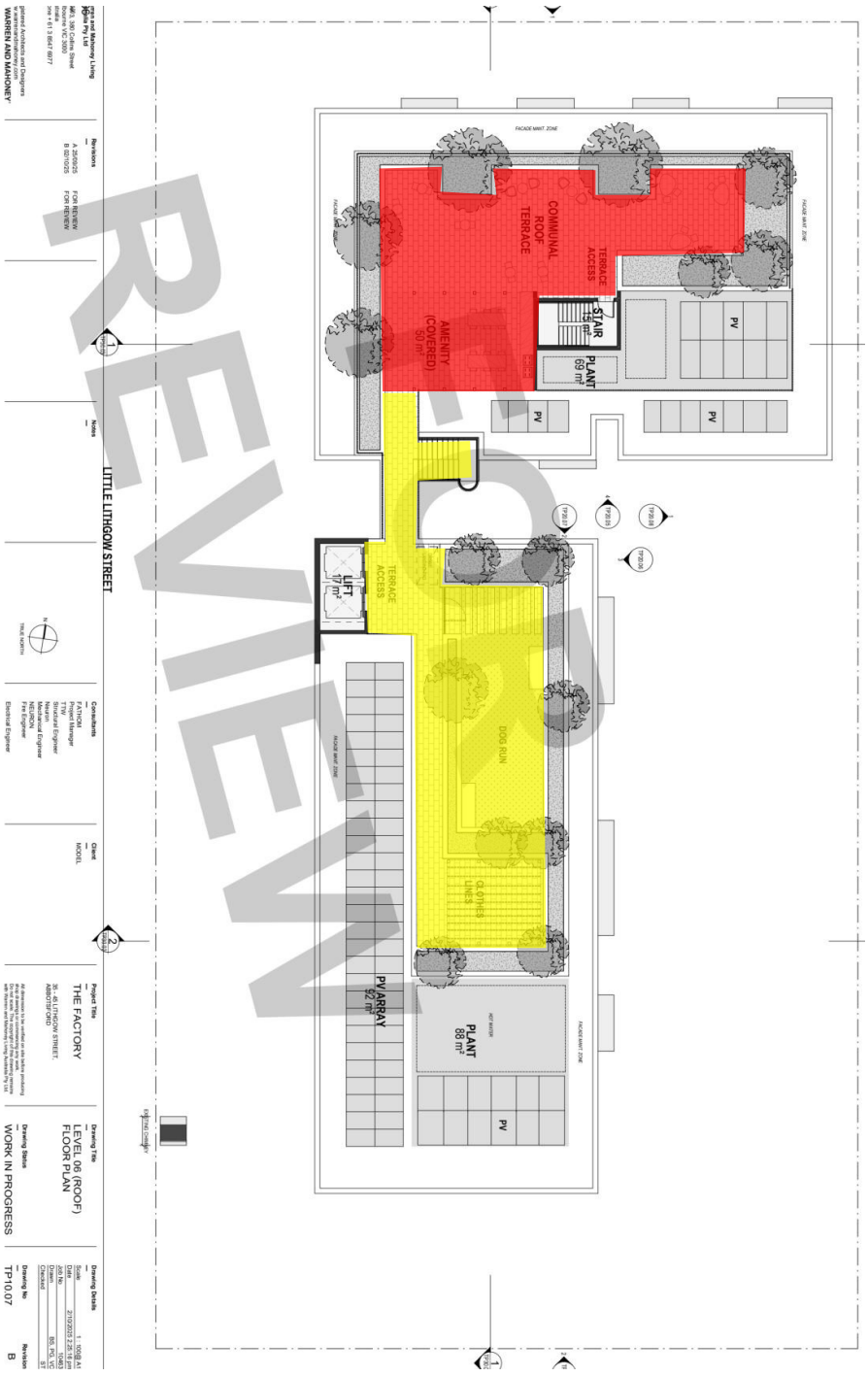


Figure 8: Ground floor plan with recommended wind criteria overlaid.



Recommended to fulfil Walking *Recommended to fulfil Standing*

Figure 9: Roof Plan with recommended wind criteria overlaid.

3 Pedestrian Level Wind Effects

3.1 Discussion & Recommendations

The proposed design has several features that are expected to be beneficial to the pedestrian wind environment. This is inclusive but not limited to the following:

- Residential entrances setback,
- Landscaping at ground floor and roof top terraces.

Due to the proposed height above the surrounding areas, the proposed development is particularly exposed to adverse northerly and westerly winds. Such that high wind levels are expected along Lithgow and Little Lithgow Streets. However, the proposed development has a stage setback tower design from level 3 upwards. These tower setbacks are expected to be beneficial to the wind environment on the ground floor; such that the surrounding pedestrian streetscape is expected to be within the recommended walking comfort criterion.

The laneway between north and south buildings are expected to have channelling winds from the west, resulting in the west end of the laneway experiencing high wind conditions, however as this a service entry with limited pedestrian use we expect this area to be within the recommended walking comfort criterion.

The communal terraces on rooftop are expected to have high windspeeds due to the dimensions and height. It is recommended to have higher wind barries at the perimeter of the terraces, 1.5 m high for standing wind conditions and 1.2 m high for walking conditions (Figure 10).

The private balconies are expected to fulfil walking criterion.

The wind conditions are expected to fulfil safety criterion.

It should be noted that this study is based on experience only and has not utilised any experimental data for the analysis.

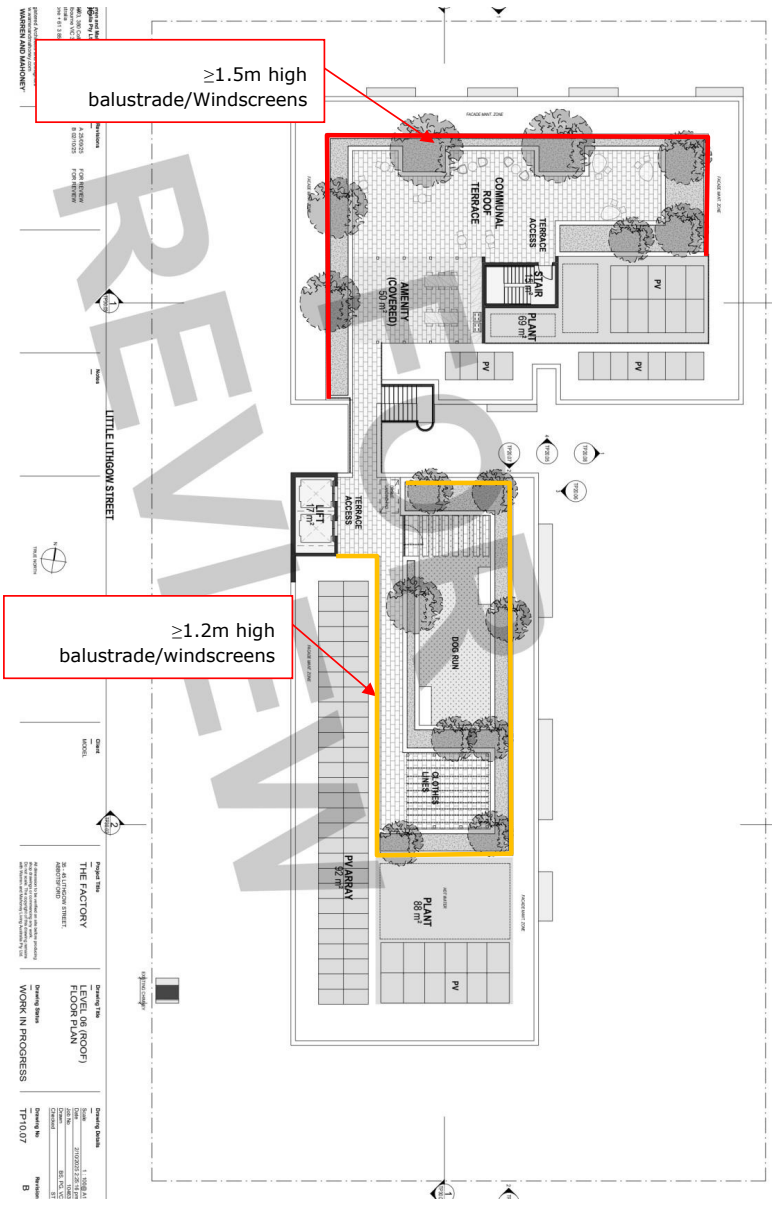


Figure 10: Roof plan with the recommended wind control measures overlaid.

4 Conclusions

An appraisal of the likely wind conditions at the pedestrian ground level and balcony/terrace areas of the proposed development at **35-45 Lithgow St, Abbotsford** has been made.

Vipac has carefully considered the form and exposure of the proposed development, nominated criteria for various public areas according to their function and referred to past experience to produce our opinion of likely wind conditions.

The findings of this study with the proposed design can be summarised as follows:

- Wind conditions in the ground level footpath areas and access ways would be expected to be within the **walking** comfort criterion**.**
- Wind conditions in front of building entrances would be expected to be within the **standing** comfort criterion.
- The private balconies/gardens would be expected to be within the recommended **walking** comfort criterion.
- The rooftop communal terrace is expected to have wind conditions within the recommended **standing/walking** comfort criterion **with the recommendations**.
- The gust winds are expected to fulfil safety criterion.

As a general statement, educating occupants about wind conditions at open terrace/balcony areas during high-wind events and fixing loose, lightweight furniture on the terrace is highly recommended.

The assessments provided in this report have been made based on experience of similar situations in Melbourne and around the world. As with any opinion, it is possible that an assessment of wind effects based on experience and without experimental validation may not account for all complex flow scenarios in the vicinity.

This Report has been Prepared

For

***Model* Australia Pty Ltd**

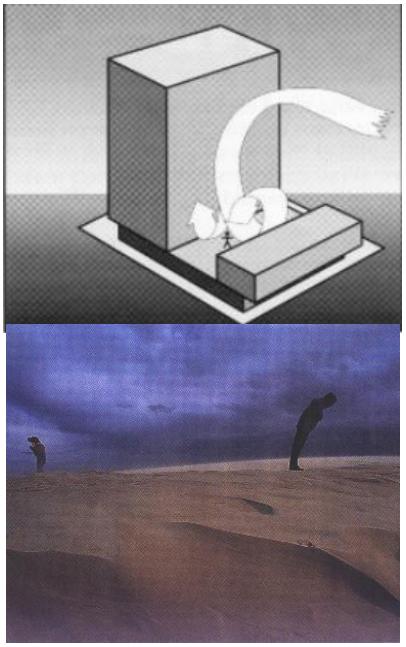
By

VIPAC ENGINEERS & SCIENTISTS PTY LTD.

Appendix A Environmental Wind Effects

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 unattenuated velocity, driven by atmospheric pressure gradients. The resultant increase in wind speed with height above ground is known as a wind velocity profile. When this wind profile encounters a tall building, some of the fast-moving wind at upper elevations is diverted down to ground level resulting in local adverse wind effects.



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.

Downwash – refers to a flow of air down the exposed face of a tower. A tall tower can deflect a fast-moving wind at higher elevations downwards.

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 aeroplane wing.

Flow separation – when wind flowing along a surface suddenly detaches from that surface and the resultant energy dissipation produces increased turbulence in the flow. Flow separation at a building corner or at a solid screen can result in gusty conditions.

Flow channelling – 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. Examples of this might occur between two towers, in a narrowing street or under a bridge.

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.

Appendix B References

[1] *Structural Design Actions, Part 2: Wind Actions*, Australian/New Zealand Standard 1170.2:2011

[2] *Wind Effects on Structures* E. Simiu, R Scanlan, Publisher: Wiley-Interscience

[3] *Architectural Aerodynamics* R. Aynsley, W. Melbourne, B. Vickery, Publisher: Applied Science Publishers

[4] *The Aerodynamic Characteristics of Windbreaks, Resulting in Empirical Design Rules* J. Gandemer, Publisher: *Journal of Wind Engineering and Industrial Aerodynamics*

[6] *Wind Protection by Model Fences in a simulated Atmospheric Boundary Layer* J.K. Rain, D.C. Stevenson, Publisher: *Journal of Industrial Aerodynamics, 2*

[7] *Criteria for Environmental Wind Conditions* W.H Melbourne, Publisher: *Journal of Wind Engineering and Industrial Aerodynamics*

[8] *Wind Design Guide* J. Bennett Publisher: *BBSC 433 – Architectural Aerodynamics*

[9] *Central City Built Form Review: Wind Assessments*, Global Wind Technology Services

[10] *Wind Guidelines for Planning Applicants* H. Fricke Publisher: *Moonee Valley City Council*

Appendix C Drawings List

Drawings Received: **Oct, 2025.**

Name	Date modified
TP00.02- EXISTING SITE PLAN_ B	10/14/2025 8:47 AM
TP00.03- DEMOLITION PLAN_ B	10/14/2025 8:47 AM
TP00.04- SITE PLAN_ B	10/14/2025 8:47 AM
TP10.00- BASEMENT FLOOR PLAN_ B	10/14/2025 8:47 AM
TP10.01- GROUND FLOOR PLAN_ B	10/14/2025 8:47 AM
TP10.02- LEVEL 01 FLOOR PLAN_ B	10/14/2025 8:47 AM
TP10.03- LEVEL 02 FLOOR PLAN_ B	10/14/2025 8:47 AM
TP10.04- LEVEL 03 FLOOR PLAN_ B	10/14/2025 8:47 AM
TP10.05- LEVEL 04 FLOOR PLAN_ B	10/14/2025 8:47 AM
TP10.06- LEVEL 05 FLOOR PLAN_ B	10/14/2025 8:47 AM
TP10.07- LEVEL 06 (ROOF) FLOOR PLAN_ B	10/14/2025 8:47 AM
TP20.01- NORTH ELEVATION_ B	10/14/2025 8:47 AM
TP20.02- EAST ELEVATION_ B	10/14/2025 8:47 AM
TP20.03- SOUTH ELEVATION_ B	10/14/2025 8:47 AM
TP20.04- WEST ELEVATION_ B	10/14/2025 8:47 AM
TP20.05- LANEWAY ELEVATION - NORTH_ B	10/14/2025 8:47 AM
TP20.06- LANEWAY ELEVATION - EAST_ B	10/14/2025 8:47 AM
TP20.07- LANEWAY ELEVATION - SOUTH_ B	10/14/2025 8:47 AM
TP20.08- LANEWAY ELEVATION - WEST_ B	10/14/2025 8:47 AM
TP30.01- SECTION AA_ B	10/14/2025 8:47 AM
TP30.02- SECTION BB_ B	10/14/2025 8:47 AM
TP30.03- SECTION CC_ B	10/14/2025 8:47 AM
20251002_ Architectural TP Set_ For Review	10/14/2025 8:47 AM

Final Issue 23035L

MODEL 29 October 2025

MODEL Lithgow Street

35-45 Lithgow Street, Abbotsford

Wurundjeri Woi-wurrung Country

Landscape Concept Design

ratio:

Planning Transport Urban Design Waste Management **Landscape Architecture** Civil Engineering

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Acknowledgment of Country

We respectfully acknowledge the Traditional Custodians of the lands where we live and work. We appreciate the rich cultures and deep spiritual connection to Country and pay our respects to Elders past, present, and emerging.

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Introduction

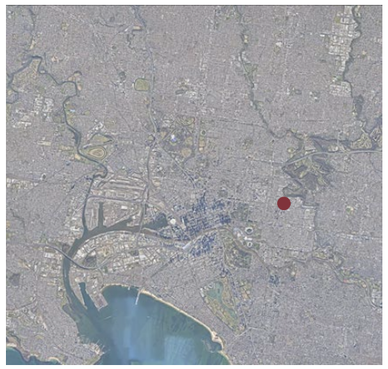
1

Site Context

Lithgow St, Abbotsford

- Lithgow Street, Abbotsford is a highly walkable, transit-rich inner-city corridor located just 2 km northeast of Melbourne's CBD.
- The street is characterized by a charming mix of heritage homes, thoughtfully modernised residences, and a rich history of industrialization.
- Residents enjoy seamless access to trams, buses, and trains, vibrant cafes, boutique shops, and nearby green spaces and cultural assets, all within a heritage-steeped, low-traffic street setting.

KEY PLAN



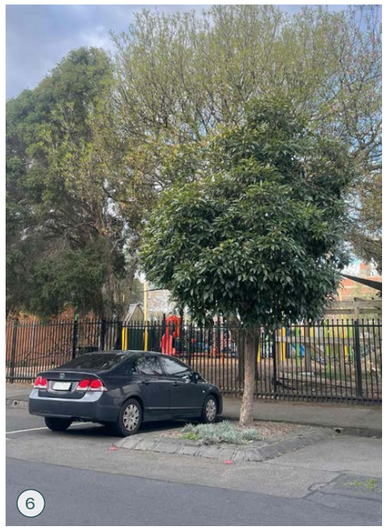
Existing Conditions

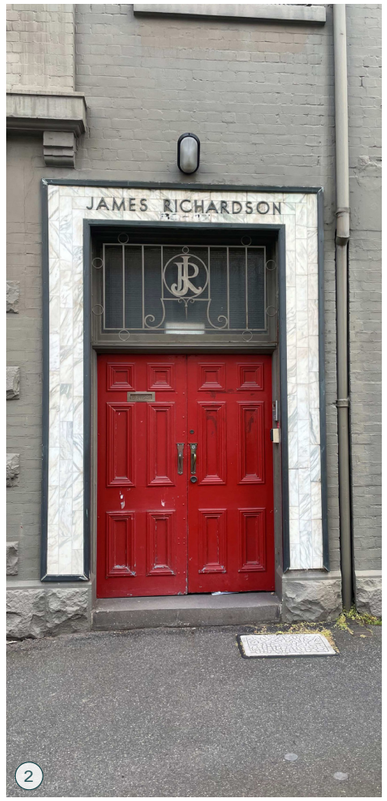
Lithgow St, Abbotsford

KEY PLAN

LEGEND

1. Existing *Lophostemon confertus* with shrub planting
2. Main building entrance
3. Existing built form on site
4. Existing *Lophostemon confertus* in curb
5. Climbing plants interating with architecture
6. Existing *Lophostemon confertus* as car park divider
7. Abottsford Primary School

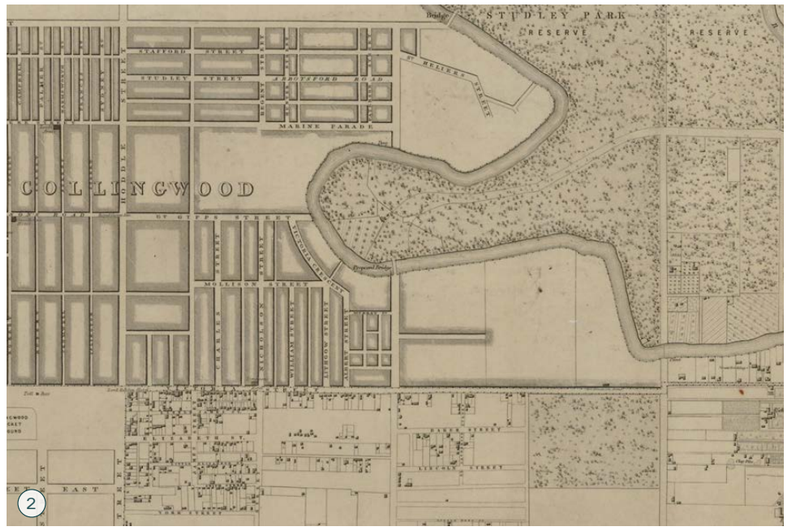




Site History

Schweppes Warehouse

1



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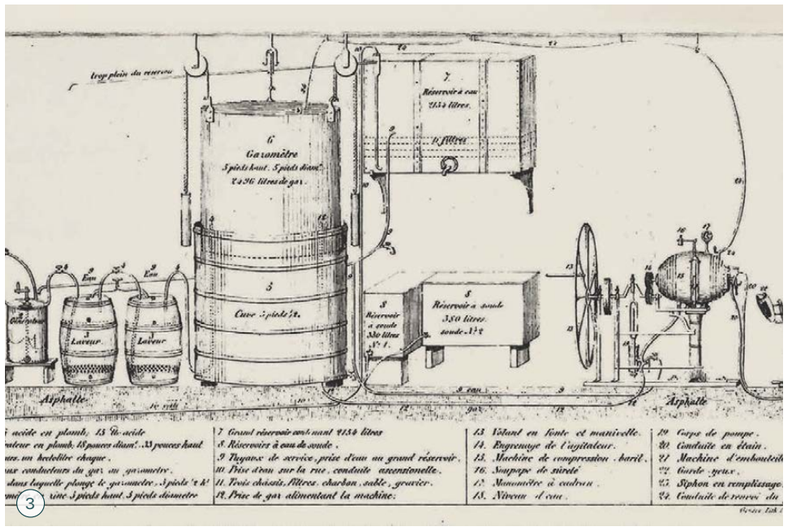


3

LEGEND

1. Original advertisement from the Lithgow St warehouse
2. Approximately 1850s map showcasing the industrial surrounding of Lithgow St
3. Making process of the classic Schweppes tonic

- The iconic warehouse on Lithgow St was built in 1886 by Jacob Schweppe and used as the hub of the cordial empire for several decades.
- The building itself is two storeys with a three storeyed section at north end former cordial factory in red brick with bluestone plinths and sills.
- Openings are slightly arched continuous to with ground stuccoed floor lintels and openings. A square tapering chimney in the south-west corner is an important heritage element.
- The main facade to Lithgow Street has bluestone quoining to the vehicular entrances and a gabled treatment with steeply pitched slated and parapetted gables in the Tudoresque manner, three upper level portions projecting by one brick course to heighten the illusion.

EVC Study

Indigenous Flora

Ecological Vegetation Classes

- Ecological Vegetation Classes (EVCs) are the standard system used in Victoria to describe and map native vegetation.
- Each EVC represents a group of plant communities that occur in similar environmental conditions (such as landform, soil and climate), and share characteristic species, vegetation structure and ecological processes.
- EVCs are benchmarked against their pre-1750 condition and are assigned a conservation status, which helps guide biodiversity planning, impact assessment and ecological restoration.

EVC 55 - Plains Grassy Woodland

- Plains Grassy Woodland is a low to medium open woodland found on fertile volcanic plains and gently undulating terraces.
- The canopy is typically sparse to moderately dense, dominated by River Red-gum, Yellow Box or Grey Box.
- Shrubs are usually sparse or absent, while the ground layer is species-rich and grassy, dominated by Kangaroo Grass, Wallaby-grasses and Spear-grasses, with a wide variety of wildflowers such as Chocolate Lily, Bluebells and Everlastings.
- Once widespread across Victoria, it has been heavily cleared and fragmented for agriculture, with remnants now mainly occurring along roadsides, in reserves and as scattered paddock trees. It is listed as endangered due to extensive habitat loss.

Landscape Vision

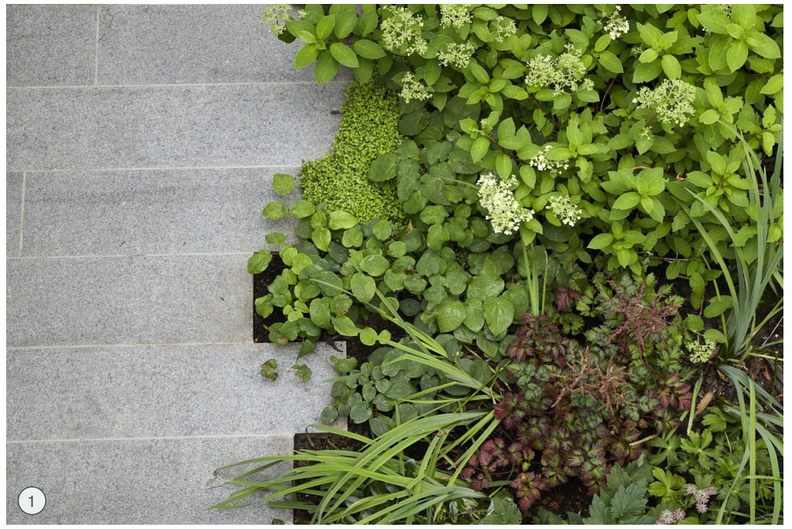
2

ratio: Planning Transport Urban Design Waste Management **Landscape Architecture** Civil Engineering

Landscape Character

Ground Level - Public & Private Greenery

- The ground plane forms a green threshold between the building and its urban context, offering residents a calm and immersive retreat.
- Shaded by tall, elegant trees and layered with rich fern understorey, the landscape feels cool, sheltered, and restorative.
- Soft textures, filtered light, and a sense of enclosure define this level, a place of arrival and quiet reflection.
- The landscape evokes the character of a temperate forest and flowing grassland, creating a tranquil base for the building and an immediate connection to nature.



LEGEND

1. Rich native shade tolerant planting
2. Central laneway framed by ferns
3. Native palette to provide enhanced pollination and biodiversity
4. Streetscape seating set in native perennial garden
5. Year round flowering native palette in full sun zones

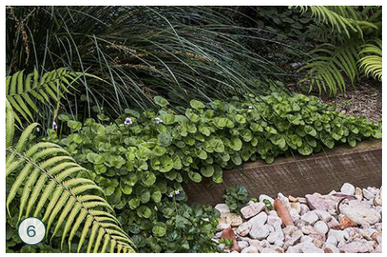
Landscape Character

Level 01 - Outdoor Wellness

- The landscape focuses on wellbeing and retreat.
- Framed by natural materials and surrounded by textured, aromatic planting, this level accommodates spa and sauna facilities that open onto greenery.
- Planting is arranged to provide privacy, movement, and softness, while maintaining openness to sky and light.
- The atmosphere is warm, sensorial, and restorative, a place to unwind within a garden that feels both elevated and grounded.
- This zone embodies a balance between structure and sanctuary, encouraging daily moments of calm.

LEGEND

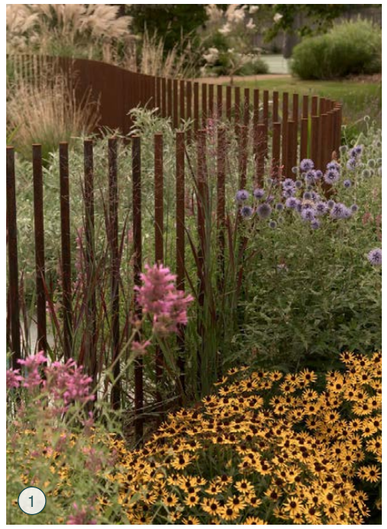
1. Immersive spa experience
2. Elevated pools offering views across the neighborhood
3. Shallow soil native planting and rockery
4. Mallee tree character to frame the unique architecture
5. Native grasses to provide movement and reflect sunlight
6. Native fernery and groundcovers to south elevation and low light zones

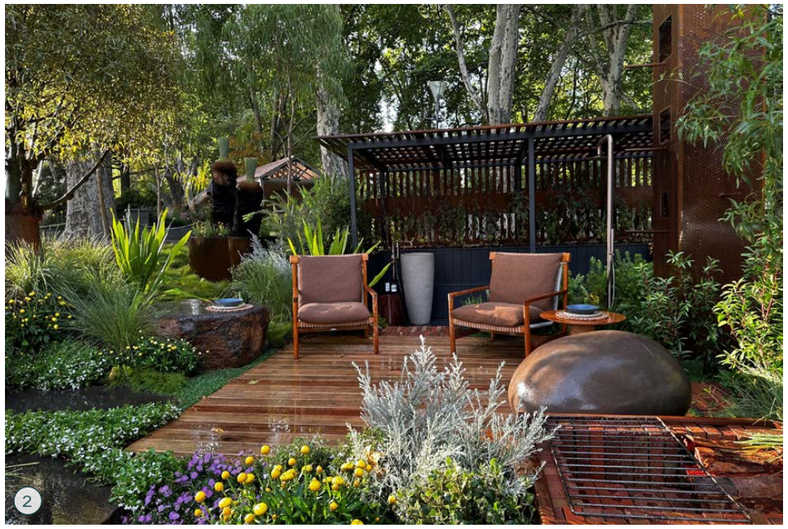


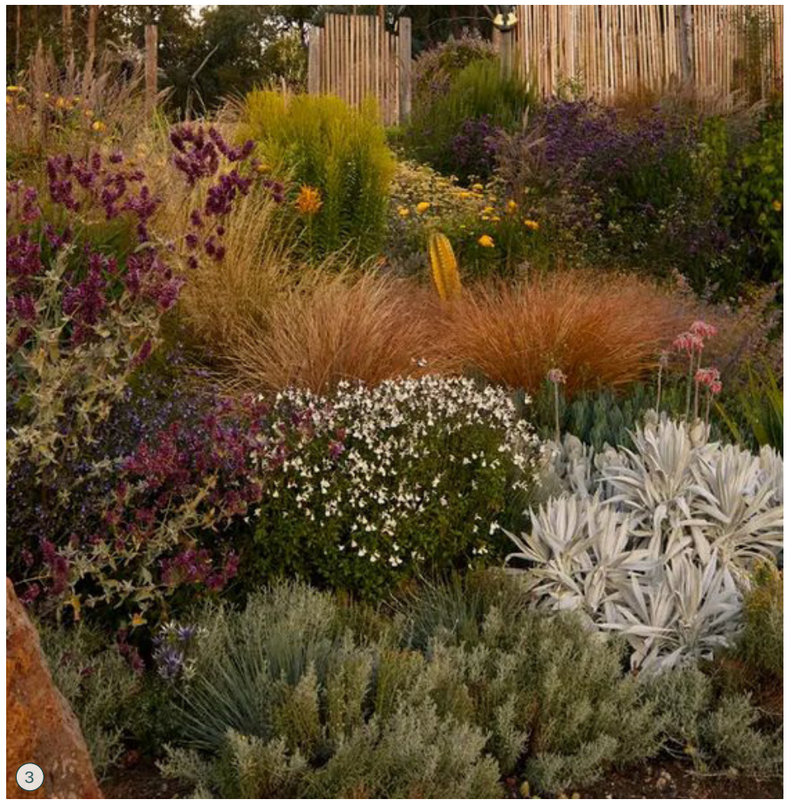
Landscape Character

Level 06 - Rooftop Terrace

- The rooftop landscape expresses lightness, openness, and community.
- Hardy perennials, compact shrubs, and native grasses create a vibrant mosaic of colour and texture that responds to changing light and season.
- Planters, seating nodes, and open edges are softened with cascading greenery, framing views of the city and sky.
- The atmosphere is social yet relaxed, a communal garden where residents can gather, rest, or simply enjoy being surrounded by nature above the bustle of the street.







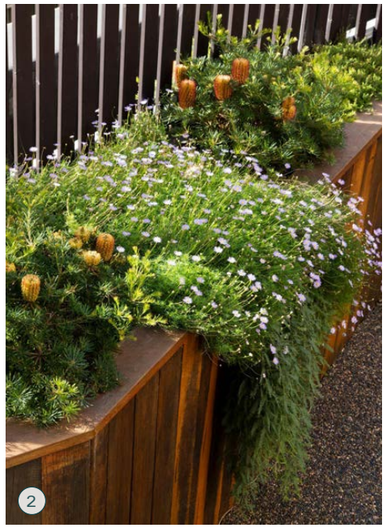
LEGEND

1. Integrated balustrade and garden
2. Intimate seating and gathering zones set within the landscape
3. Layered native palette to provide seasonal interest
4. Independent seating and gathering area
5. Informal steppers throughout garden zones
6. Dappled light and afternoon shading

Landscape Character

Integrated Balustrade & Planters

- Informal, draping plants spill gently over the edges of the facade-edge planters, creating a soft, cascading effect that contrasts with the architectural lines.
- These planters are filled with a curated mix of native species, chosen for their varied textures and tones—from vibrant green to deep, rich green foliage.
- This layered planting palette adds visual depth and movement, while reinforcing a lush, naturalistic character that softens the building's edge and enhances its connection to the surrounding landscape.



LEGEND

1. A range of grey and green plant selections and trailing forms
2. Varied textural range to complement the historic built form
3. Evergreen plant selection to soften the architecture facade
4. Integrated planters to trail over the facade edge and soften the terraces

Landscape Concept

3

Design Pillars

Celebrate Connection to Country & Yarra River

- Honour the rich cultural heritage of the Wurundjeri Woi-wurrung by embedding indigenous stories and native planting.
- Deepen the relationship between land, people, and history through understanding of local waterway influences.

Promote Native Floral Diversity

- Craft a calm, immersive sequence of landscape zones that showcase the rich floral tapestry of Australia's native plant palette within an urban context.

Enhance Urban Ecology

- Rebuild local biodiversity .
- Integrate native plant communities that support pollinators, provide habitat, and reconnect the site to the ecological systems of the Yarra River.

Foster Human Connection

- Shape inclusive, welcoming spaces that encourage gathering, rest, and movement.
- Landscape becomes a bridge between nature, heritage, and everyday community life.

Ground the Design in Industrial Heritage

- Celebrate the site's legacy in industry as the Schweppes warehouse.
- Promote landscape integration with the historic facade and chimney stack.

Landscape Plan

Ground Level - Private & Public Greenery

LEGEND

1. Central laneway
2. Nesting tree
3. Private garden bed
4. Private lawn
5. Private terrace
6. Shaded fernery
7. Streetside swale
8. Outdoor cafe seating
9. Heritage chimney stack
10. Deep soil

Landscape Plan

Level 01 - Outdoor Wellness

LEGEND

1. Private terrace
2. Juliette planter
3. Outdoor wellness pools
4. Sauna
5. Raised planter with semi-mature trees
6. Heritage chimney stack

Landscape Plan

Level 02 - Balustrade & Planters

LEGEND

1. Private terrace
2. Juliette planter
3. Heritage roof
4. Heritage chimney stack

ratio: Planning Transport Urban Design Waste Management **Landscape Architecture** Civil Engineering

Scale: 1:250 @A3 0 2.5 5 7.5 10m

Landscape Plan

Level 03 - Balustrade & Planters

LEGEND

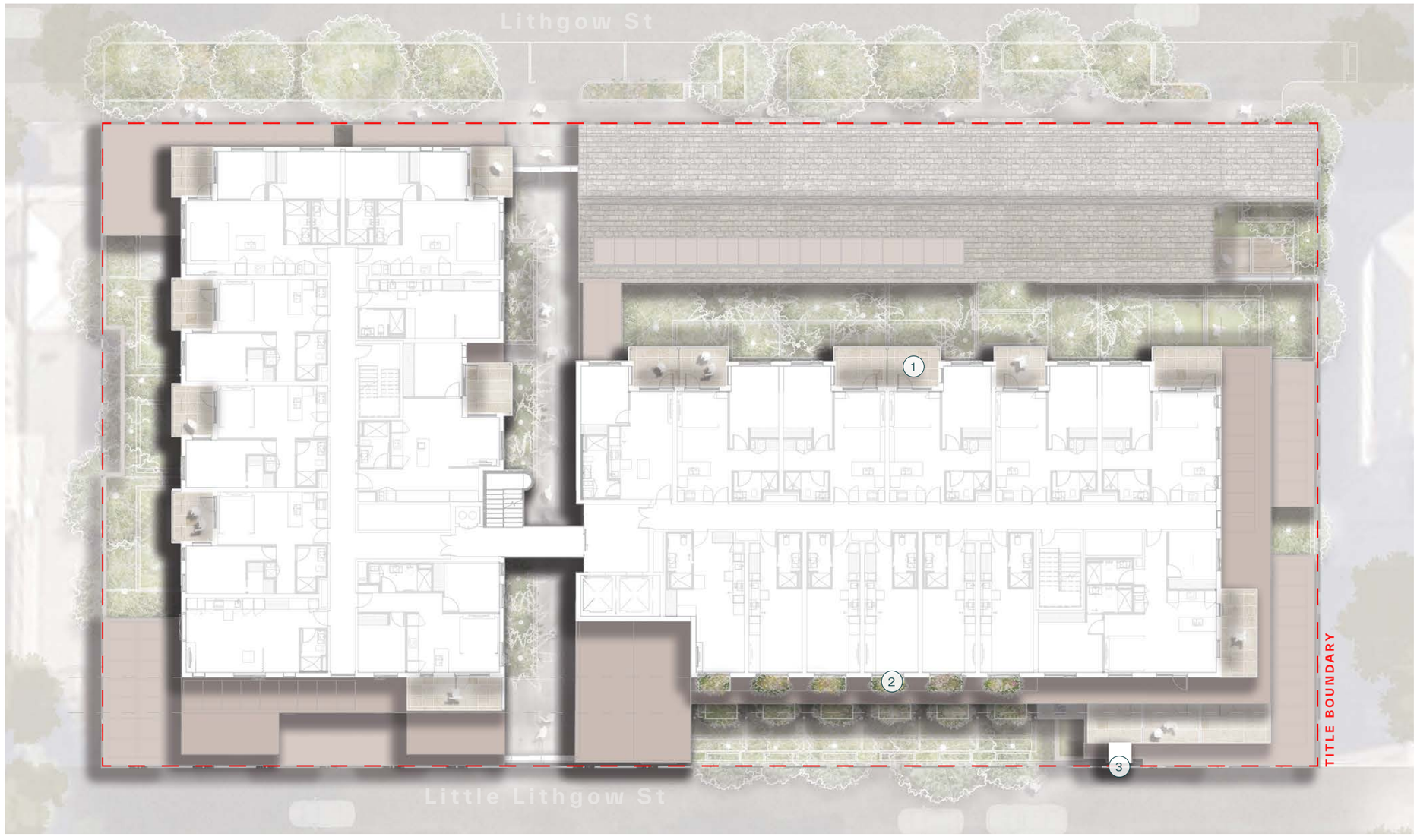
1. Private terrace
2. Juliette planter
3. Heritage chimney stack

Landscape Plan

Level 04 - Balustrade & Planters

LEGEND

1. Private terrace
2. Juliette planter
3. Heritage chimney stack



ratio: Planning Transport Urban Design Waste Management **Landscape Architecture** Civil Engineering

Scale: 1:250 @A3 0 2.5 5 7.5 10m

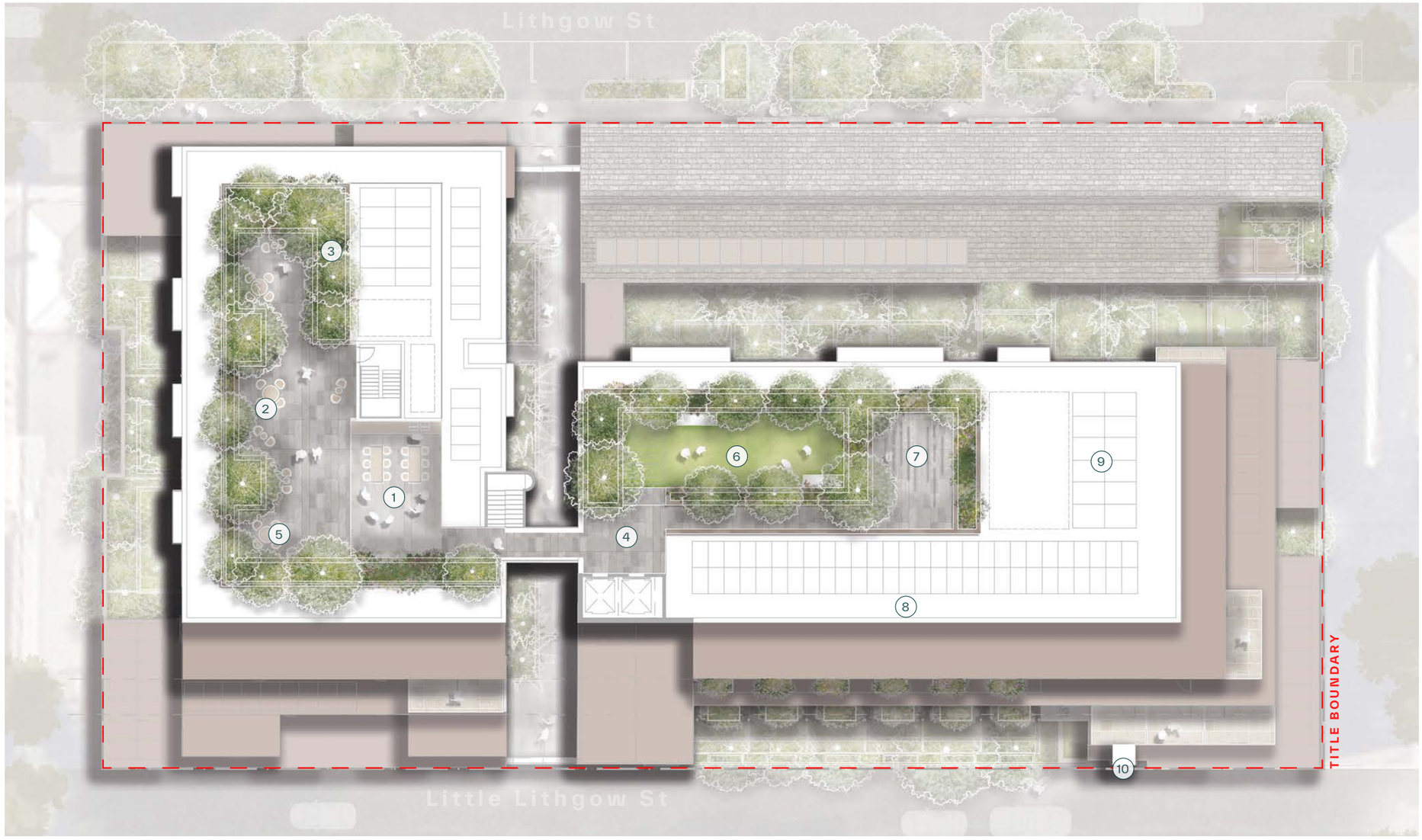
20

Landscape Plan

Level 06 - Rooftop Terrace

LEGEND

1. Undercover dining & BBQ area
2. Seating nodes
3. Raised planter with semi-mature trees
4. Paving on pedestal
5. Lightweight furniture
6. Enclosed dog run
7. Open air clothes line
8. Facade maintenance zone
9. PV panels
10. Heritage chimney stack



ratio: Planning Transport Urban Design Waste Management **Landscape Architecture** Civil Engineering

Scale: 1:250 @A3 0 2.5 5 7.5 10m

Landscape Plan

Ground Floor - Central Laneway

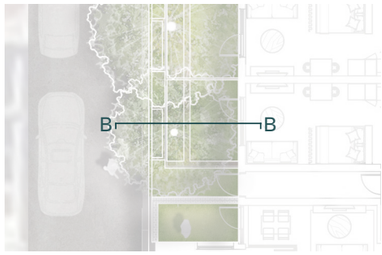
Apartment | Fernery Garden Bed | Central Laneway | Glazed Walkway | Private Garden Bed

ratio: Planning Transport Urban Design Waste Management **Landscape Architecture** Civil Engineering

Scale: 1:30 @A3 0 0.3 0.6 0.9 1.2m

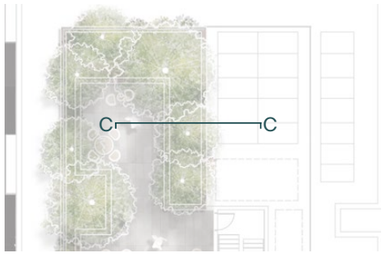
Landscape Plan

Ground Floor - Little Lithgow St



Landscape Plan

Level 06 - Rooftop Garden



Communal Rooftop

Raised Garden Bed with Perennial Planting

Rooftop with Maintenance Access

Planting & Materials

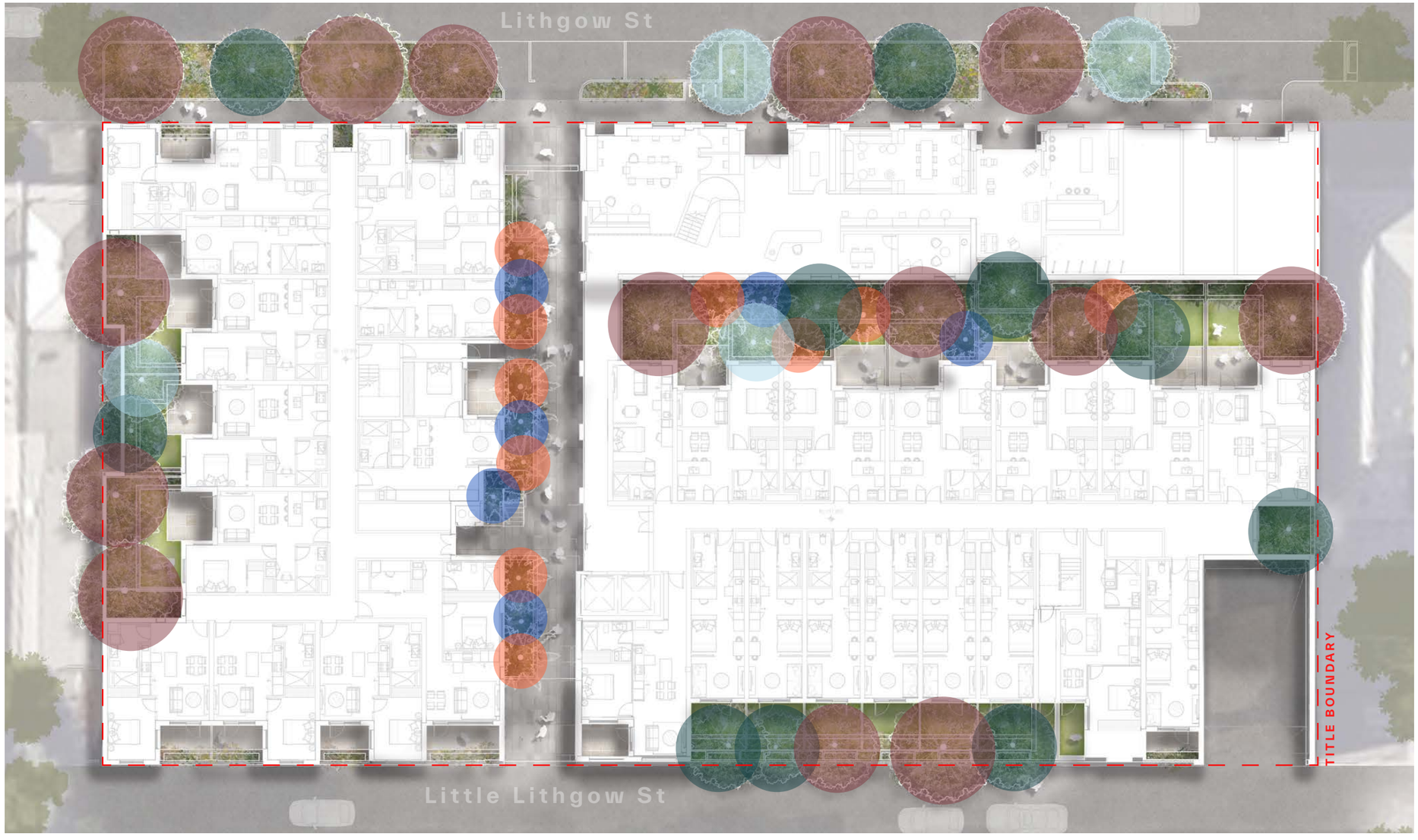
4

Planting Palette

Indicative Tree Location - Ground Floor

LEGEND

- Corymbia citriodora ‘Scentuous’
- Elaeocarpus reticulatus
- Eucalyptus leucoxylon 'Euky Dwarf'
- Waterhousea floribunda
- Cyathea cooperi
- Dicksonia antarctica



ratio: Planning Transport Urban Design Waste Management **Landscape Architecture** Civil Engineering

Scale: 1:250 @A3 0 2.5 5 7.5 10m

Planting Palette

Indicative Tree Location - Level 01

LEGEND

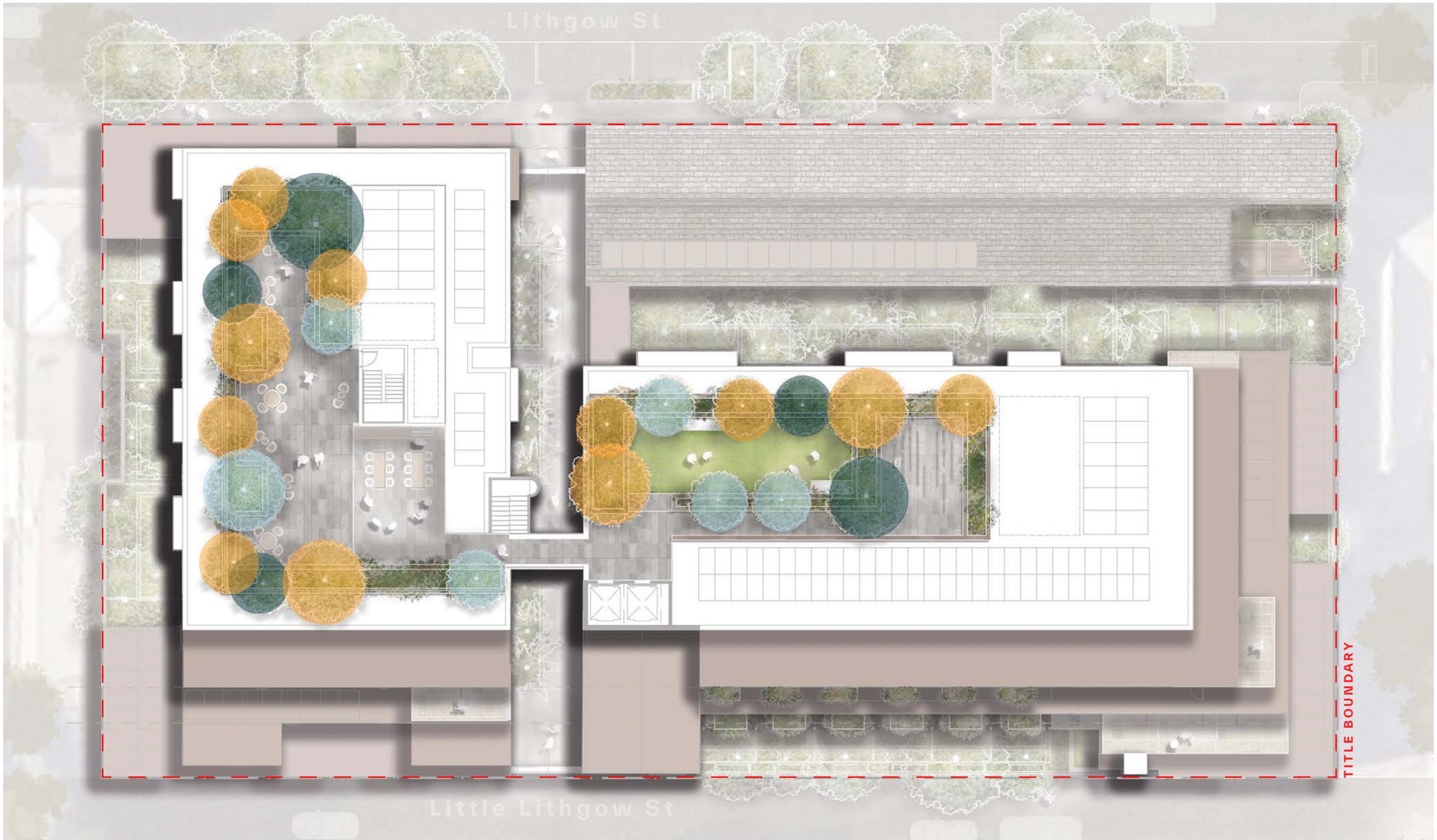
- Corymbia citriodora ‘Scentuous’
- Elaeocarpus reticulatus
- Eucalyptus leucoxylon 'Euky Dwarf'
- Waterhousea floribunda
- Cyathea cooperi
- Dicksonia antarctica

Planting Palette

Indicative Tree Location - Level 06

LEGEND

- Corymbia citriodora ‘Scentuous’
- Elaeocarpus reticulatus
- Eucalyptus leucoxylon 'Euky Dwarf'
- Waterhousea floribunda
- Cyathea cooperi
- Dicksonia antarctica



ratio: Planning Transport Urban Design Waste Management **Landscape Architecture** Civil Engineering

Scale: 1:250 @A3 0 2.5 5 7.5 10m

Planting Palette

Indicative Plant Selection

Ground Level - Private & Public Greenery

- This layered planting palette is designed to bring softness, biodiversity, and year-round interest to a contemporary BTR landscape. Distributed across the building, it balances lush greenery at the ground plane with vibrant, sun-tolerant plantings on elevated terraces and rooftops, creating a unified yet adaptable planting strategy suited to varying light, wind, and microclimatic conditions.
- At ground level, the focus is on calmness and refuge. Canopy trees with smooth, pale trunks and aromatic foliage establish scale and provide dappled shade, while smaller evergreen species contribute texture and seasonal colour through soft flowering displays and glossy foliage.
- Beneath them, a rich understorey of ferns and shade-loving plants forms a cool, green carpet. Their feathery and broad leaves evoke a sense of tranquility and moisture, softening built edges and enhancing the pedestrian experience within courtyards and entry zones.

Waterhousea floribunda

Dicksonia antarctica

Cyathea cooperi

Acacia cognata 'Lime Light'

Viola banksii

Plectranthus argentatus

Westringia fruticosa

Grevillea x hydrida 'Bronze Rambler'

Dianella caerulea 'King Alfred'

Lomandra longifolia 'Tanika'

Planting Palette

Indicative Plant Selection

Level 01 - Outdoor Wellness

- This level supports space for outdoor wellness, including spa and sauna zones framed by resilient, textural planting.
- Hardy shrubs and structural grasses define these areas, creating natural privacy screens and a sense of retreat.
- Their mixed foliage, ranging from fine and upright to dense and rounded, provides contrast and rhythm, while silvery and aromatic leaves contribute to a restorative sensory atmosphere.
- Subtle flowering tones in whites, pinks, and bronzes complement the warmth of timber decking and the calming palette of the wellness facilities, blurring the boundary between nature and relaxation.

Corymbia citriodora 'Scentuous'

Anigozanthos flavidus pulcherimus

Elaeocarpus reticulatus

Grevillea x hydrida 'Bronze Rambler'

Banksia spinulosa 'Birthday Candles'

Poa labillardierei

Austrodanthonia spp.

Planting Palette

Indicative Plant Selection

Level 06 - Rooftop Terrace

- The rooftop level showcases a vibrant and drought-tolerant mix of perennials and compact shrubs.
- Here, bright yellows, whites, and subtle mauves punctuate expanses of green, reflecting sunlight and animating the skyline garden.
- Tufting grasses and trailing groundcovers weave between flowering accents, softening built edges and providing resilience against wind and heat.
- The result is a landscape that evolves vertically offering residents connection to nature at every level.

Elaeocarpus reticulatus

Eucalyptus leucoxylon 'Euky Dwarf'

Pandorea jasminoides

Xerochrysum bracteatum

Scaevola aemula

Xerochrysum bracteatum

Lomandra longifolia 'Tanika'

Grevillea x hybrida 'Bronze Rambler'

Scaevola aemula

Chrysocephalum apiculatum

Dichondra repens

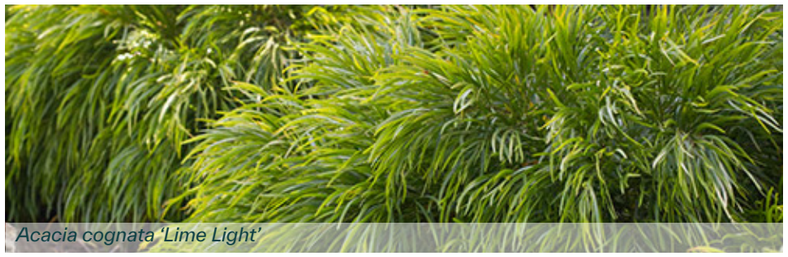
Planting Palette

Indicative Plant Selection

Integrated Balustrades & Planters

- Balustrade planters introduce greenery directly at eye level, softening the building's architectural lines and strengthening the connection between interior and exterior spaces.
- These linear planters host a carefully curated mix of compact, wind-tolerant species selected for their refined form, durability, and year-round appeal.
- Cascading groundcovers and trailing foliage spill gently over edges, providing movement and visual softness against built structure, while small-scale shrubs and tufting grasses offer texture and colour variation.
- The planting composition emphasises subtle contrast, silvery and emerald greens, punctuated with seasonal flowering highlights, ensuring visual interest from both inside the dwellings and from the street below.

Dichondra repens


Acacia cognata 'Lime Light'

Dichondra argentea

Westringia fruticosa

Plectranthus argentatus

Tasmannia lanceolata

Poa labillardierei

Planting Palette

Indicative Plant Schedule

TREE SCHEDULE							
CODE	**BOTANIC NAME**	**COMMON NAME**	**MATURE SIZE** (h x canopy) (m)	**TRUNK SIZE** (diameter, mm)	**POT SIZE** (mm or L)	**NATIVE STATUS**	**QUANTITY**
TREES							**55**
COR cit	*Corymbia citriodora 'Scentuous'*	Dawrf Lemon-Scented Gum	8 x 6	100	20L	Native	16
ELA ret	*Elaeocarpus reticulatus*	Blueberry Ash	4 x 5	150	20L	Native	15
EUC leu	*Eucalyptus leucoxylon 'Euky Dwarf'*	Dwarf Yellow-Gum Tree	7 x 5	200	20L	Native	10
WAT flo	*Waterhousea floribunda*	Weeeping Lilly Pilly	15 x 10	200	20L	Native	14
FERNS							**16**
CYA coo	*Cyathea cooperi*	Rough Tree Fern	4 x 2.5	300	20L	Native	10
DIC ant	*Dicksonia antarctica*	SoftTree Fern	4 x 2	300	20L	Native	6

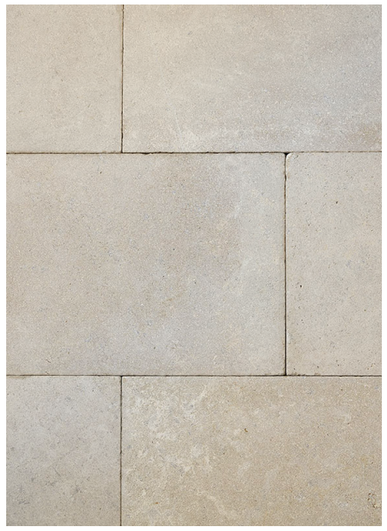
SHRUB SCHEDULE					
CODE	**BOTANIC NAME**	**COMMON NAME**	**MATURE SIZE** (h x w) (m)	**POT SIZE** (mm or L)	**NATIVE STATUS**
SHRUBS & ACCENTS					
Acc	*Acacia cognata 'Lime Light'*	Dwarf River Wattle	1 x 1	140mm	Native
Anf	*Anigozanthos flavidus pulcherimus Yellow Gem*	Kangaroo Paw 'Yellow Gem'	1.5 x 8	140mm	Native
Asa	*Asplenium australasicum*	Bird's Nest Fern	1 x 1.5	140mm	Native
Bas	*Banksia spinulosa 'Birthday Candles'*	Birthday Candles	0.6 x 1.5	140mm	Native
Brk	*Bracteantha 'Kimba Pearl'*	Strawflower 'Kimba Pearl'	0.4 x 0.4	140mm	Native
Brm	*Brachyscome microcarpa*	Creeping Daisy	0.2 x 0.8	140mm	Native
Cha	*Chrysocephalum apiculatum 'Desert Flame'*	Common Everlasting	0.3 x 0.5	140mm	Native
Dic	*Dianella caerulea 'King Alfred'*	King Alfred	0.7 x 0.7	140mm	Native
Ern	*Eremophila nivea 'Gubburra Bells'*	Silky Eremophila	1.5 x 1.5	140mm	Native
Grh	*Grevillea x hydrida 'Bronze Rambler'*	Bronze Rambler	0.5 x 3	140mm	Native
Men	*Melaleuca nesophila*	Showy Honey Myrtle	4 x 2.5	140mm	Native
Pla	*Plectranthus argentatus*	Silver Spurflower	0.8 x 1	140mm	Native
Tal	*Tasmannia lanceolata*	Mountain Pepper	1 x 1	140mm	Native
Wac	*Wahlenbergia communis*	Tufted Bluebells	0.3 x 0.3	140mm	Native
Wef	*Westringia fruticosa 'Flat n'Fruity'*	Coastal Rosemary	0.3 x 0.8	140mm	Native
Xeb	*Xerochrysum bracteatum 'Pilbara Lemon'*	Paper Daisy 'Philbara Lemon'	0.4 x 0.4	140mm	Native
GRASSES & RUSHES					
Aus	*Austrodanthonia spp.*	Wallaby Grass	0.5 x 0.5	140mm	Native
Lol	*Lomandra longifolia 'Tanika'*	Mat Rush 'Tanika'	1 x 1	140mm	Native
Pol	*Poa labillardierei*	Tussock Grass	1 x 1	140mm	Native
GROUNDCOVERS					
Dia	*Dichondra argentea 'Silver Falls'*	Silver Falls	0.1 x spreading	140mm	Native
Dir	*Dichondra repens 'Emerald Falls'*	Emerald Falls	0.1 x spreading	140mm	Native
Vib	*Viola banksii*	Native Violet	0.1 x spreading	140mm	Native

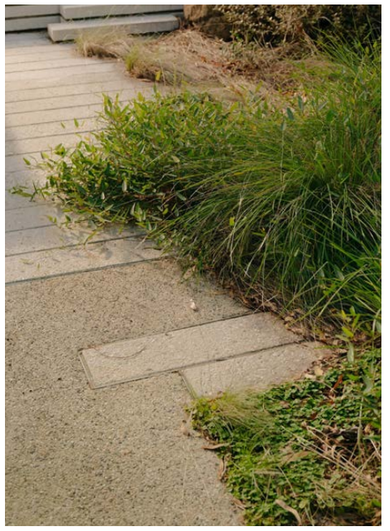
Materials

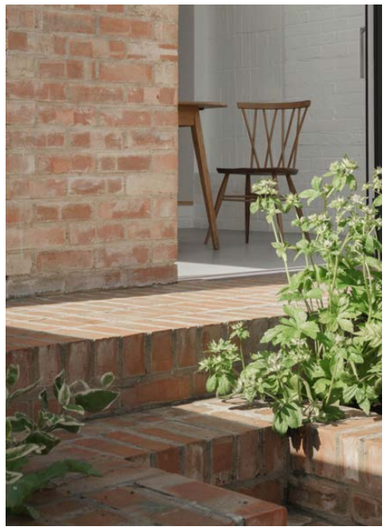
Indicative Material Palette

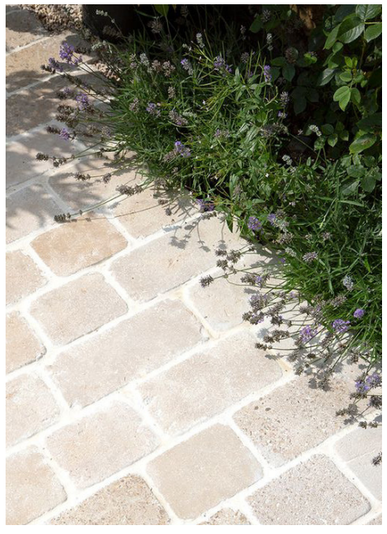
Ground Level to Rooftop

- Showcase timber as the dominant material in the architecture.
- Combination of retained heritage brickwork and terrace pavers to draw the facade heritage into the landscape design.
- Integration of native and indigenous species to complement the architectural language.
- Drive the local colours and textures through planting design.







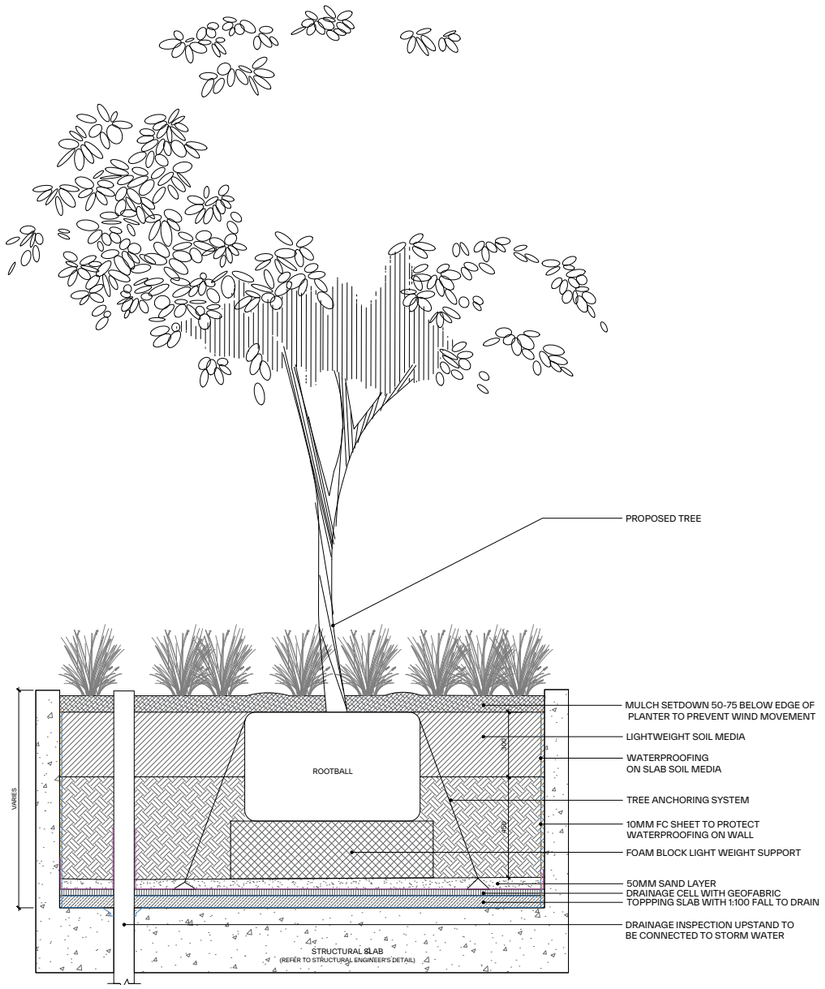


Details & Specifications

5

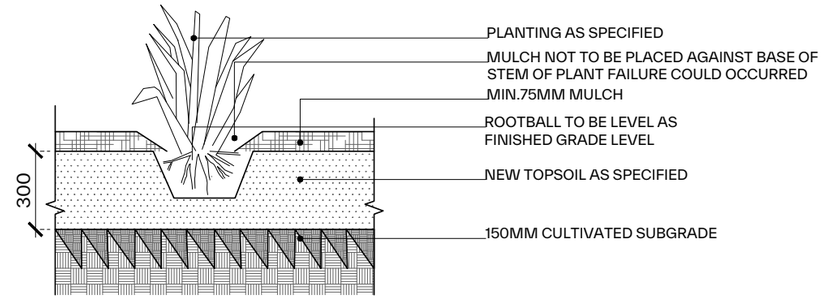
Typical Details

Planting



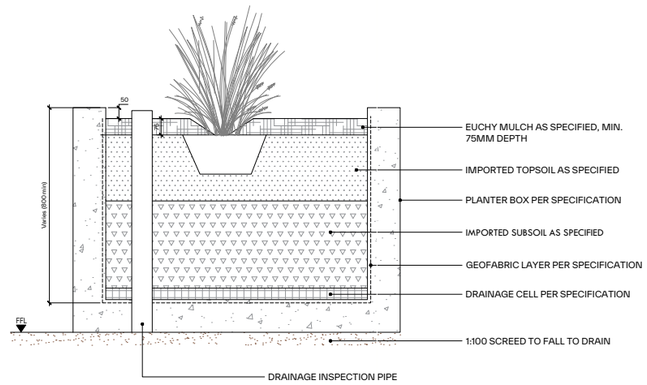
Typical Tree Planting on Slab

Detail



Typical Shrub Planting

Detail



Typical Shrub Planting on Slab

Detail

Specifications

Performance Notes

PLANTING

These notes are to read as a general guide for implementation of the landscape plan. This drawing is not for construction and is to be used for Town Planning purposes only. Final locations of all services and other assets may not be known at the Town Planning stage. It is the responsibility of the contractor to locate and identify all services prior to commencement of works and protect all services during the works. Contractor shall undertake dial before you dig before commencing work.

SOIL PREPARATION

Imported topsoil is to be free of weeds, rubble and other materials damaging to plant. Imported top soil is to be laid over a prepared sub-base which has had any materials damaging to plant growth (e.g. rubble and large rocks) removed, spread to the appropriate depth and cultivated into the existing site soil to a minimum depth of 150mm.
Ensure the soils comply with the latest Australian Standards (AS 4419-2018-Soils for landscaping and garden use). Imported top soil is to be lightly and uniformly compacted in 150mm layers.

PLANTING

Planting shall be carried out using accepted horticultural practices with all plants conforming to the species, size and quantities indicated on the Landscape Plan and Plant Schedule. Plants should be locally sourced.
Plants shall be thoroughly soaked through immersion in water prior to planting and if the planting soil is very dry then the planting hole is also to be filled with water and allowed to drain completely. Deep watering will encourage deep rooting.
Use plants with the following characteristics: Large healthy root systems with no evidence of root curl or pot bound restriction or damage, vigorous, well established, free from disease and pests and of good form, consistent with the species or variety.
Planting holes for shrubs and groundcovers are to be of minimum size 75mm larger than the planting pot in all directions. Semi-advanced tree planting holes are to be the same depth as the rootball and Planting hole to be twice as deep as root ball with at least 150mm around sides for backfilling with imported soil.

MULCH

Fine 'Euchy Mulch' is to be supplied to all garden beds laid to a minimum depth of 75mm, with a surrounding berm constructed at edge of root-ball to hold water. Mulch is to consist of fine dark coloured chipped or shredded euca with not more than 5% fines content by volume (preferably zero fines). Mulch is to be kept back 100mm from the stems of all plants to prevent collar rot. Alternative non- combustible mulch materials from sustainability sourced pebbles, finely crushed recycled bricks or similar.

IRRIGATION

GENERAL

All garden bed, turf areas and raised planters are to be irrigated.

RESPONSIBILITIES

General Requirement: Provide automatically controlled, dripline irrigation systems, as documented.
Performance Requirements:
Achieve the documented flow rates over the irrigated area.
Meet statutory requirements for backflow prevention.

STANDARDS

Water supply General: To AS/NZS 3500.1 (2021).
Backflow prevention and water efficiency: To PCA (2022).

INTERPRETATION

Abbreviations General: For the purposes of this worksection, the following abbreviations apply:
LDPE: Low-density polyethylene.
Definitions General: For the purposes of this worksection, the following definitions apply:
Emitter: A device used to control the rate at which water is applied to a specific area.

SUBMISSIONS

Shop drawings General: Submit drawings and schedules showing the layout and details of the system, including the following:
Micro-irrigation stake layout.
Irrigation controller cabinets.

INSPECTION

Notice Inspection: Give notice so that inspection may be made of the following:
Excavated surfaces ready for installation.
Concealed or underground services ready for backfilling.

AUTOMATIC CONTROL VALVES

General Type: 24 V solenoid actuated hydraulic valves with flow control and a maximum operating pressure rating of at least 1 MPa and able to be serviced without removal from the line.
Materials:
≤ DN 50: Dezincification resistant copper alloy body and bonnet, screwed ends. Stainless steel bonnet holding down bolts and internal metal parts.
≥ DN 65: Cast iron body and bonnet, flanged ends. Stainless steel bonnet holding down bolts and internal metal parts.
Isolating valve: Provide a ball or gate valve of the same size immediately upstream of each automatic control valve.
Housing: House both valves in the same valve box large enough to permit easy operation and servicing of the valves.

SOIL MOISTURE SENSORS

Type: Fixed ceramic moisture sensors.
Connection: Fit to the irrigation controller via moisture control units.

IRRIGATION CONTROLLERS

Type: Automatic controllers that are easily programmed and include the following:
Manual cycle and individual control valve operation.
Manual on/off operation of irrigation without loss of program.
≥ 4 on/off cycles per day.
Day omit.
240 V input and 24 V output capable of operating 2 control valves simultaneously.
Not less than 24 hour battery program backup.
Power surge protection.
Mounted in a lockable cabinet of minimum IP54 to AS 60529 (2004) in external locations.
Electrical connection: If connected to wall outlets, provide 3 core 10 A, 240 V flexible cord and plug. Provide an isolating switch at the controller.

DRIP IRRIGATION SYSTEMS

INTEGRATED DRIP LINE SYSTEMS

Type: Tubing with integral drippers inserted into the tube during manufacture.
Discrete drip emitter systems
Tubing: Polyethylene micro-irrigation pipe.
Drippers: Turbulent flow types, easily dismantled for cleaning.
Emitters Type: If the difference in elevation between the control box and all emitters is:
Less than 1500 mm: Pressure compensated or non-pressure compensated type.
Not less than 1500 mm: Pressure compensated type only.
Fittings Type: Barbed fittings rated for the pressure class of the pipe, fastened with ratchet type clamps.
Valve boxes Requirement: Provide the following in each valve box:
- Automatic control valve.
- Isolating valve.
- Filter: 100 µm.
- Pressure-reducing valve with 170 kPa outlet pressure.

PIPING

General Materials: To AS/NZS 3500.1 (2021) clauses 2.4 and 2.5 and as documented.

VALVE BOXES

General Construction: UV-resistant high impact plastic with high impact snap lock plastic cover and adequately sized for clear access to components inside the box.

EXECUTION

GENERAL

Backflow prevention Requirement: To PCA (2022) and Network Utility Operator requirements.

DRIP IRRIGATION SYSTEMS

INSTALLATION

Discrete drippers: Connect directly into piping or provide appropriately sized micro-tubes.
Piping: Lay polyethylene micro-irrigation pipe on finished ground surface under planting bed mulch and anchor at 1500 mm maximum intervals with U-shaped stakes.
Air release valves: Provide at the highest point in each section to drain the system when flow stops.

COMPLETION

General Requirement: On completion of the irrigation system, carry out the following:
Flush system thoroughly. Check heads, sprays and drippers and clean if blocked.
Clean strainers.
Adjust for even distribution with no dry areas.

LANDSCAPE - MAINTENANCE

GENERAL

RESPONSIBILITIES

General Requirement: Provide landscape maintenance of the contract area during the maintenance period.
Performance
Extent of maintenance:
Weeding of lawn, garden bed areas and pavement.
Supply and spreading of fertiliser to lawn, garden bed areas and pots.
Supply and installation of mulch to existing garden bed areas and pots.
Pruning, trimming and tree surgery.
Adjustment of tree stakes and ties.
Pest and disease control of plants and lawns.
Mowing and edge trimming to all lawn areas including collection and removal of clippings.
Diagnosis of cause of dead or failed plants and recommendations for corrective actions.
Replacement of dead or failed plants and lawns.
Maintenance of irrigation systems.
Removal of rubbish and debris in garden areas.
Removal of leaves, mulch and organic debris from pavement and drains.
Keeping a logbook of maintenance activities and procedures.
Providing monthly reports.

THE SITE

Secure area
Entry permits: Make available, to persons entering designated secure areas, valid entry permits. Make sure these persons comply with conditions of entry.
Secure area visitors: Submit the full name, address and date and place of birth of persons required to enter designated secure areas.
Purpose of submission: For review.
Timing of submission: At least 10 working days before entry is required.
Protection of persons and property
Temporary works: Provide and maintain required guards, fencing, footpaths, signs and lighting.
Access ways and services: Do not obstruct or damage footpaths, drains and watercourses and other existing services in use on or adjacent to the site. Determine the location of such services. Rectify immediately any obstruction or damage to such services and provide temporary services whilst repairs are carried out.
Trees and properties: Do not interfere with or damage trees and properties that are to remain on or adjacent to the site, including adjoining property encroaching onto the site. Rectify immediately any interference or damage to such trees and properties.

GENERAL CONDITIONS
Contractor and staff Representative: Nominate a senior partner/person experienced in maintenance nursery practices and horticulture, to be responsible for taking and carrying out instruction, and reporting to the principal.
Special instructions
Priority: If instructed by the principal, attend to certain areas and procedures as a priority. Obtain approval for additional costs before starting the works.
Notice Inspection: Give at least two working days' notice of the following operations:
Application of herbicide.
Application of fertiliser.
Each site maintenance visit.
Work affecting public access or amenity on the Thursday of the week before the work is planned.
Water restrictions: Give immediate notification of any new restrictions that affect maintenance.
Reporting
Monthly report: Submit regular reports by the last Friday of each month to SELECTIONS, MAINTENANCE REPORT, Monthly reports schedule and as follows:
General status of the works.
Soil test results included as required for the fertilising programs.
Any plant replacement requirements.
Irrigation operation schedules and water consumption.
Incident reports: Report immediately, verbally and confirm in writing, any disturbance or incidence affecting or likely to affect the scheduling of the works.
Records
Logbook: Keep on site and make available for inspection a logbook, recording the following on a weekly basis:
Description, time and method of application of toxic material.
Maintenance work details.
Inclement weather to verify inability to carry out work within the specified time frame.
Replacement plants
Plant species: Submit the supplier's certification as evidence that plants are true to the required species and type, and free from diseases, pests and weeds at the time of delivery.
Coordination with others
Other contractors: Coordinate work with other contractors to minimise conflicting activities and delays. If disturbances to planned works are unavoidable, make arrangements to work around them.

PRODUCTS

FERTILISER
General Description: Proprietary fertilisers, delivered to the site in the manufacturer's labelled and unopened bags or containers.
Labelling
General: To the applicable statutory requirements, including manufacturer or supplier, weight, fertiliser type, N:P:K ratio, recommended uses and application rates. Label type: To withstand transit without erasure or misplacement

EXECUTION

GENERAL
Weeding
Requirement: Remove unwanted broad-leaf plants and grasses considered invasive to the locality.
Program:
Lawns: Quarterly and as required to maintain the general lawn condition.
Trees and shrubs: As required for planted, paved and mulched areas to be weed-free when observed at fortnightly intervals.
Vigorous ground covers: Keep 200 mm clear from the base of any shrub or tree. Remove as follows:
Small areas: By hand.
Large areas: Proprietary herbicides.
Herbicide application: Apply to the manufacturer's recommendations.
Pest and disease control
Requirement: Control any pests or diseases affecting the lawn and garden bed areas as follows:
Identify the problem.
Execute the correct treatment until the problem has been eliminated.
Apply hazardous material out of normal working hours.
Protect staff and public from exposure to hazardous materials.

GRASS SURFACES

Mowing and trimming
Preparation: Remove litter and fallen branches before mowing.
Grass height: Consistent with the growth habit of the grass variety and maintained at 25 to 40 mm throughout the year. Do not remove more than one-third of the grass height at any one time.
Program: Weekly during the mowing season, November to March and at fortnightly intervals from April to October. Do not mow during wet conditions.
Raking: Once every month before mowing during the mowing season, rake the grass with a flexible rake. On alternate mowings, adopt a north-south and east-west pattern.
Edge trimming: At the same time as mowing, trim lawn edges to plant beds, pathways, base of trees and other obstacles. Do not damage trees and shrubs.
Non-selective herbicide: Make sure application does not exceed the area limits of normal manual trimming. Repair any damage from overuse or over spray.
Fertilising Program:
Regular application: Each September and April.
Additional application: Each November and February at reduced rates.
Soil pH adjustment: Apply additional fertilisers and soil conditioners as indicated from soil testing or from the physical soil structure. Maintain a pH range of 5.5 to 6.5.
pH testing program: Two year schedule starting in the first year of the contract.
Application: Spread as follows:
Dry: Crush lumps and broadcast dry material by hand or mechanically when the lawn is dry.
Spray: Acceptable.
Prevent fertiliser from leaching to adjoining planted beds, particularly those with sensitive native trees and shrubs.
Top dressing
Top dressing for established lawns: Weed-free imported sandy topsoil to a depth of 5 mm.
Top dressing for remediation of depressions or irregularities: Apply coarse or medium texture soil to AS 4419 (2018), suitable for application to turf or grass seeded areas.
Renovation
Established lawns of sandy soil profile: Renovate by dethatching or verticutting.

TREES AND SHRUBS

Pruning and trimming
General: Prune to reflect the natural growth, flowering and regrowth habit of the individual species.
Program generally: Spring and Summer and on a spot basis as required.
Shrubs: Prune after flowering.
Hedge trimming: Schedule trimming at times that maintains the character and design of hedges. Allow up to three times per season.
Tip pruning:
Purpose: To encourage development of new shoots during the active growing season.
Method: Removal of the top 25 mm or growing tip of each branch.
Restriction: Do not remove buds before the flowering season in those plants that have terminal flowers.
Radical pruning:
Purpose: To maintain a hedge or formal shape or if a particular problem, growth habit, damage, or disease requires branch removal.
Tree pruning:
Purpose: To eliminate diseased or damaged growth, avoid inter-branch contact and thin out crowns in a natural manner.
Maintain sight lines to signs and lights.
Maintain visibility for personal security.
Crown-lifting or tree branch removal:
To AS 4373 (2007).
Give notice and engage a suitably qualified arborist.
Fertilising
Fertilising program: Base the program on soil testing results.
Soil testing: Test soil as follows:
At the start of the contract.
Take samples from a cross-section of planting beds.
Soil pH adjustment: Apply additional fertilisers and soil conditioners as indicated.

RAINGARDEN

The bioretention soil media specifications require three layers of media. Filter media (600mm deep or as specified in the engineering design), a transition layer (100mm deep) and a drainage layer (150mm deep). The biofiltration system will operate so that water will infiltrate into the filter media and move vertically down through the profile.
Maintaining the prescribed hydraulic conductivity is crucial. Permeability testing using the Australian Standard (AS4419-2003) method will generally be suitable for determining the hydraulic conductivity of a particular soil.
In general the media should be a sandy loam to loamy sand soil with an appropriately high permeability under compaction and should be free of rubbish and deleterious material. The soils should contain some organic matter for increased water holding capacity but be low in nutrient content. In general appropriate material is likely to be approximated by a mix of 80-90% sand, 10-20% loam soil and 3-10% composted organics or peat.

ratio:

Melbourne
Wurundjeri Country
Level 5, 65 Dover Street
Cremorne VIC 3121
P (03) 9429 3111

Geelong
Wadawurrung Country
82 Ryrie Street,
Geelong VIC 3220
P (03) 4224 0240

Sydney
Gadigal Country
388 George Street,
Sydney NSW 2000
P (02) 9696 1225

Brisbane
Jagera Country
Level 1/144 Wickham St,
Fortitude Valley
QLD 4006
P (07) 3724 9277

Tasmania
Nipaluna Country
Level 6/111 Macquarie
St, Hobart TAS 7000
P (07) 6108 9261

mail@ratio.com.au

ARUP

Daylight Modelling

Model | 35-45 Lithgow Street, Abbotsford, Victoria

02 February 2026 | Revision B

ARUP

Overview

Arup has been engaged by Model to provide a daylight strategy including daylight modelling for the proposed build-to-rent development located at 35-45 Lithgow Street in Abbotsford. This has been requested by the Department of Transport and Planning (DTP) to support the project's town planning submission and reassure the state of the project's daylight amenity.

This report provides an overview of the project's estimated daylight levels with consideration of good and best practice daylight levels within the context of the project's 5 Star Green Star Buildings v1 commitment or 6 star target.

The daylight assessment shows that the development meets the Green Star Minimum Expectation for good daylight across the development, with 95% of living rooms featuring daylight access and 95% of bedrooms. Consistent with the Green Star requirements, the project team have met the criteria for remaining apartments by acknowledging the barriers to daylight access that are attributable to the building's adjacent conditions and desire to introduce permeability to the site creating areas of self-shade in the built form.

For the limited areas that have lower levels of daylight access, it is noted that they are ground floor units with access to terraces and units that have relatively good daylight in the living areas, whilst all units have access to daylight through access to the common amenity areas.

	Green Star Minimum Expectation (mandatory) % of apartments with daylight access (160 lux for 80% hours)	
	Living	Bedrooms
Ground Floor	75%	82%
Level 1	100%	93%
Level 2	100%	97%
Level 3*	100%	100%
Level 4*		
Level 5*		
Overall	**95%**	**95%**
	>95%	**>95%**

ARUP

Introduction and methodology

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Project and site context

Site

The development is located at 35-45 Lithgow Street Abbotsford, Victoria. It is a 5-story development positioned adjacent to low-density residential and commercial buildings.

There is an existing building on site that will be retained and refurbished and is ~10m high. This building, as well as all directly adjacent single-story neighbours have been included in the model.

Policy Context

National, State and Local Council

The project is located within the City of Yarra in Victoria and is therefore required to meet the national, state and local council relevant building requirements that pertain to daylight.

The NCC effectively mandates that apartment windows must be at least 10% of the apartment sizes, Victorian Apartment Design Guidelines limit the room depth to less than 9m, whilst the project must also meet the objectives outlined in Yarra Council's ESD Policy, which requires an assessment using BESS or Green Star.

The project is committed to a 5 star Green Star rating, so this pathway will be taken. Within Green Star, the daylight related provisions are as follows:

- **Minimum expectation (mandatory):** Aims to ensure at least 95% of apartments having access to daylight, with mitigation strategies for any loss acceptable. The glazing must have a VLT of >40% with consideration of glare, daylight access, daily activities etc.
- **Credit Achievement (optional 2 points):** 60% of combined living and bedroom area of each unit and minimum 20% of each separate area must have at least 160 lux daylight during 80% of nominated hours.

This report can be used to demonstrate compliance with the Green Star Minimum Expectation. The NCC an ADGV criteria is considered to be met by virtue of the architectural design and is not tested within this document.

Federal Australia	State Victoria	Local City of Yarra
NCC 2022 Volume One	ADGV	Green Star Buildings v1
Architectural dimensions	Architectural dimensions	Daylight strategy
Window size at least 10% of room size	Room depth less than 9m	>95% of apartments have access to daylight.

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Green Star Daylight Credit Criteria

Green Star Credit 11 Light Quality

The project is targeting a 5 star Green Star rating, which includes meeting the Minimum Expectation for Credit 11 Light Quality.

This criteria aims to exceed the Federal and State daylight requirements for daylight and aims to provide enhanced access to a view and daylight for at least 95% of the apartments including the provision for daylight within shared amenity areas.

Daylight autonomy has been used to quantify the daylight levels within the apartments, which reports the extent of the apartment floor area that achieves a moderate level of daylight (160 lux) for 80% of the hours between the occupied hours (nominated as 8am and 6pm) through the year.

For the Minimum Expectation, the daylight autonomy calculation has been used to show whether living rooms and bedrooms have access to moderate levels of daylight, whilst the Credit Achievement level defines specific thresholds that can be attributed to optional points claims.

The more detailed criteria for both the Minimum Expectation and Credit Achievement for Green Star Buildings v1 credit 11 Light Quality are outlined inset.

Minimum Expectation (targeted)

- For 95% of all apartments, the living rooms and all bedrooms have access to a view and daylight.
- Maximise the number of occupants that are in or near daylit areas during their daily activities.
- Control or mitigate external glare in the daylit spaces.
- Provide building occupants with unrestricted access to daylight indoor public common spaces.

Where the requirements cannot be met, it is acceptable to outline the barriers to achieving the requirements, and the measures taken to mitigate the loss of daylight quality for occupants.

This is confirmed in Green Star FAQ 00433.

Credit Achievement (optional and not targeted)

- 60% daylight autonomy per unit. As combined living and bedroom area for each unit. Kitchens are not included.
- 20% daylight autonomy per room. For living and bedrooms separately for each unit.

This is not required to be met by the project to achieve a 5-star Green Star rating.

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Methodology

Process

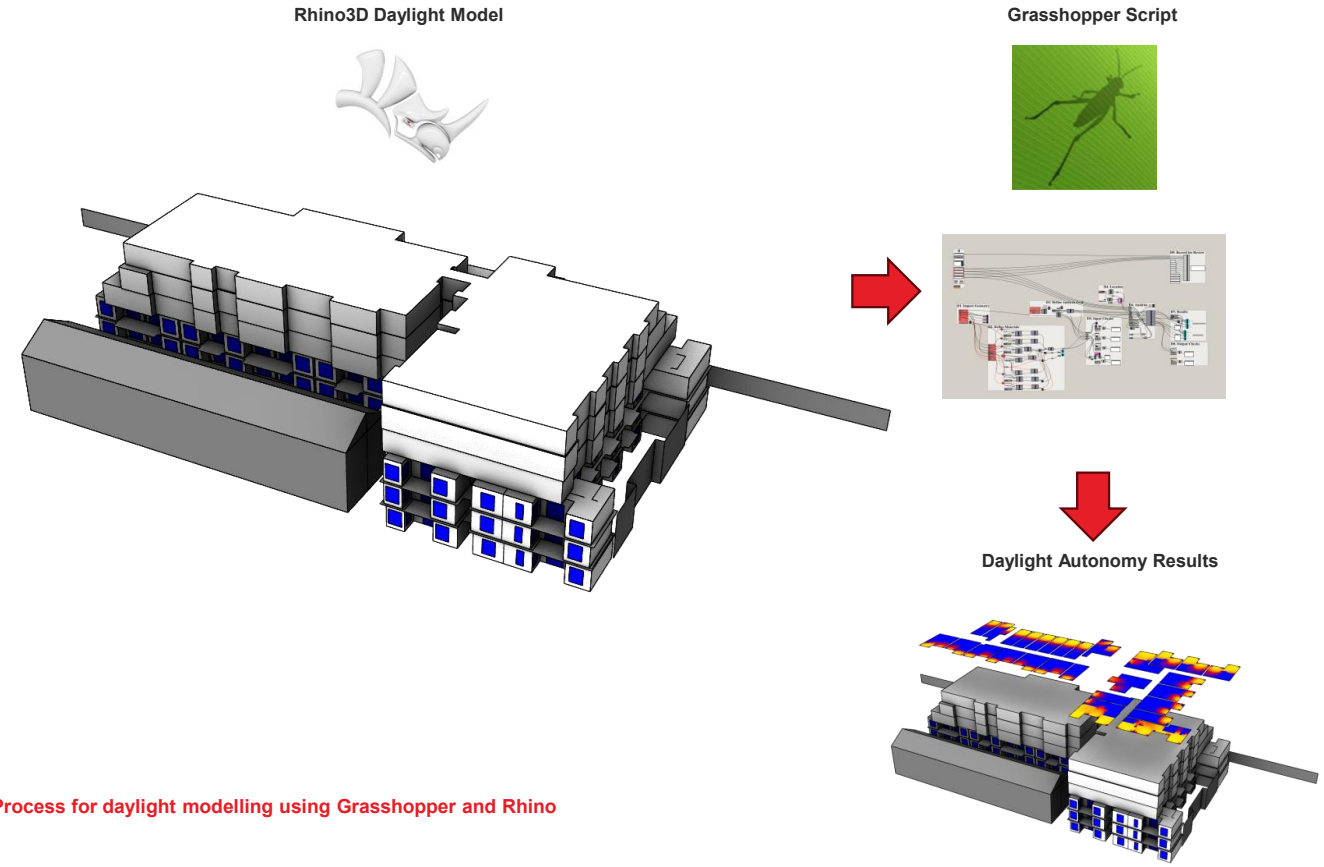
The daylight model is based on the town planning drawing package provided by Warren and Mahoney (dated 29 October 2025). The model includes the geometry for surrounding buildings to account for overshadowing, as well as shading devices.

Daylight Autonomy has been modelled across the nominated area between the assumed nominated hours of 8am to 6pm. The nominated area is comprised of spaces that are regularly occupied for more than two hours – these are highlighted on the following page.

A Radiance simulation was established through a Grasshopper script, incorporating defined values for Light Reflectance and Visible Light Transmittance.

Simulation Settings:

- Calculation engine: Radiance
- Type of analysis: Daylight Autonomy
- Grid size: 0.5m x 0.5m (exceeding 1m x 1m requirement)
- Compliance threshold: 80% of nominated hours (8am-6pm) exceeding 160 lux
- AUS_VIC.Melbourne.948660_IWEC/AUS_VIC.Melbourne.948660_IWEC



Process for daylight modelling using Grasshopper and Rhino

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Areas tested

Nominated area as regularly occupied

A representative selection of floors have been modelled, including:

- Ground floor (representing worst case apartments)
- Level 1 (representing worst case apartments)
- Level 2 (representative of levels 2-5)

For each apartment, regularly occupied spaces continually occupied for more than 2 hours have been assessed.

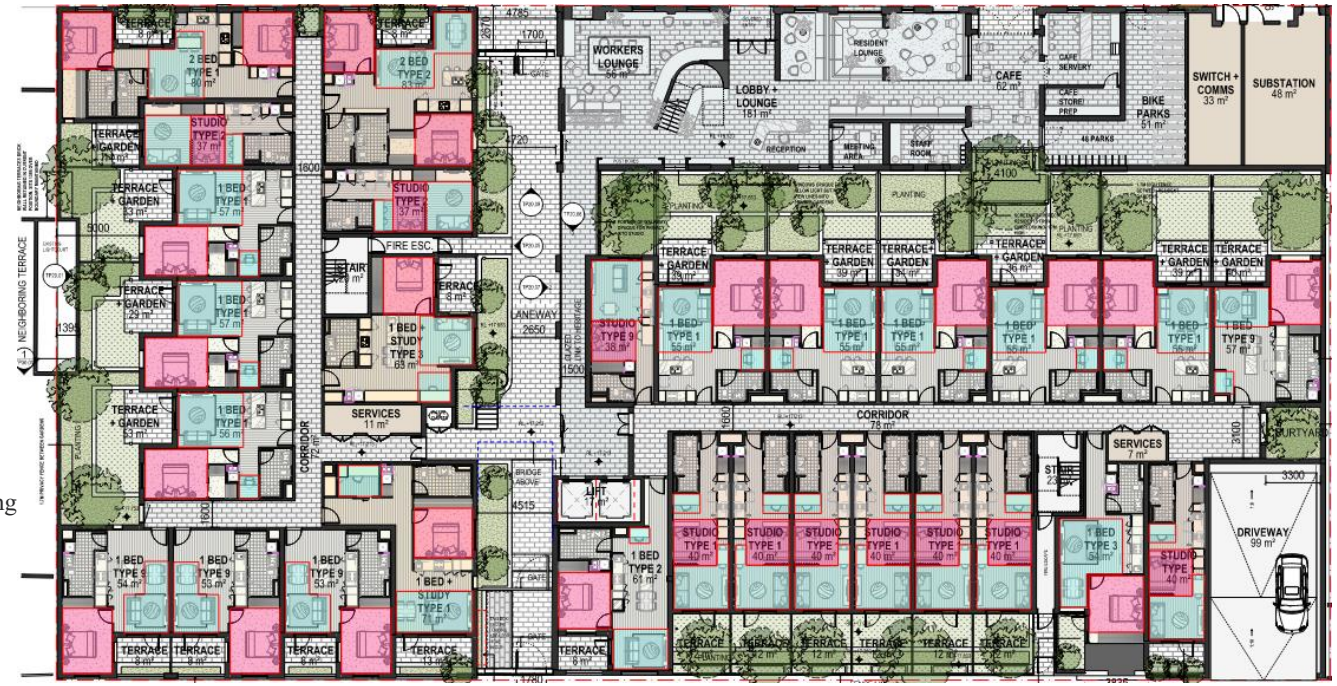
These include:

- Bedrooms
- Living Areas
- Dining areas
- Studies – Note limited use intended with dedicated co-working space in the residential amenities building for longer work.

The following have been excluded:

- Kitchens and kitchen islands plus 1m circulation
- Bathrooms
- Wardrobes, including walk-in wardrobes
- Corridors

Bedroom area included Living area included



Areas to be tested for daylight

Lithgow Street Ground Floor plan example

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Visible light transmittance and light reflectance values

Visible light transmittance (VLT)

The visible light transmittance (VLT) of the glass is a key parameter in daylight modelling calculations as it defines the extent of light that is permitted through the glass.

The VLT is required to be greater than 40% to meet the Green Star Minimum Expectation criteria.

At this stage in the project, VLT has been assumed as 60% for all glazing within the development. This is expected to be achievable for the development whilst maintaining appropriate SHGC values to limit cooling loads.

Light Reflectance Values

At this stage in the project, internal finishes have not been finalised. The following values were defined initially to inform this preliminary target setting exercise and represent typical building materials.

- Floor LRV: 30% (e.g. typical of timber or carpet)
- Walls : 70% (e.g. light-coloured painted plasterboard)
- Ceilings : 80% (e.g. white painted plasterboard)
- Context: 30% (e.g. bricks)

These assumptions are reflective of the current design intent, whilst remaining conservative at this stage.

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Analysis Results

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Results overview

Current status

The daylight analysis results are shown inset.

Minimum Expectation (mandatory)

- 95% of the living rooms feature areas with moderate daylight levels for 80% of the year, with only ground floor units being effectively limited.
- 95% of bedrooms feature areas with moderate daylight levels for 80% of the year.
- Barriers for higher levels of daylight are discussed on the following pages for these areas, particularly the bedrooms, but in terms of mitigation, the residents have access to daylight in other areas of their overall apartment spaces including their terraces as well as the common amenity areas.
- Other aspects of the Minimum Expectation criteria pertaining to glare will be met with blinds or curtains anticipated to be provided for all apartments which will combine with external shading in some locations in coordination with the energy strategy.

	Green Star Minimum Expectation (mandatory) % of apartments with daylight access (160 lux for 80% hours)	
	Living	Bedrooms
Ground Floor	75%	82%
Level 1	100%	93%
Level 2	100%	100%
Level 3*		
Level 4*		
Level 5*		
Overall	**95%**	**95%**
	>95%	**>95%**

* Assumed conservatively based on Level 2 results

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Ground floor

Living rooms

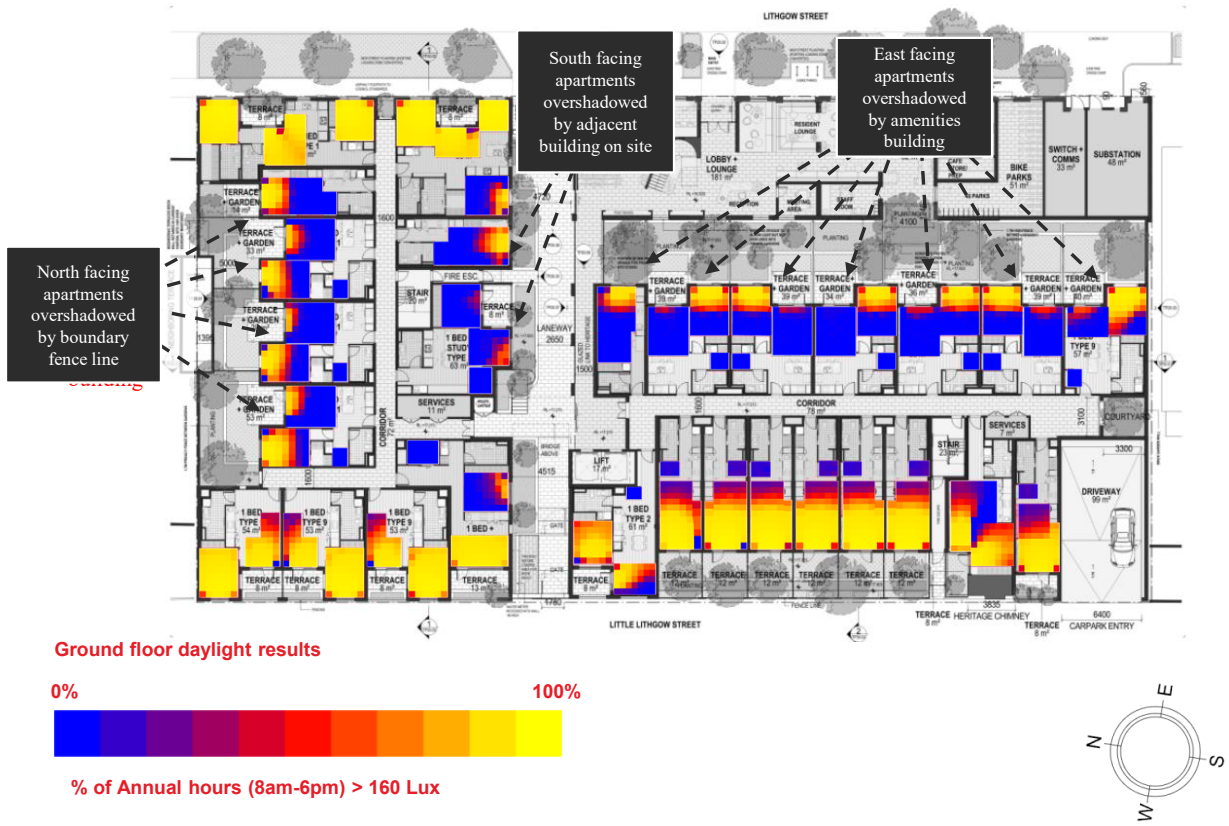
75% of living rooms have daylight access for more than 80% of the year, meeting the Green Star Minimum Expectation for these apartments. Some units also include study areas with limited daylight access, which have been included for a conservative estimate of daylight autonomy.

Bedrooms

Daylight autonomy shows that 82% of apartments have access to daylight in all bedrooms, in accordance with Green Star Minimum Expectation. In many instances, bedrooms within studio apartments do not meet the target, however these are adjacent to well-lit living rooms and as such occupants have direct access to daylight.

Apartments with barriers to daylight access

These are north, east and south-facing apartments, which are overshadowed by other buildings on site. Being on the ground floor, these units have easy access to the amenities building which has a well-lit co-working space and lounge areas. They also have access to outdoor terraces, proving additional daylight access.



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Level 1

The 30 apartments modelled on Level 1 show an improvement compared to the ground floor.

Living rooms

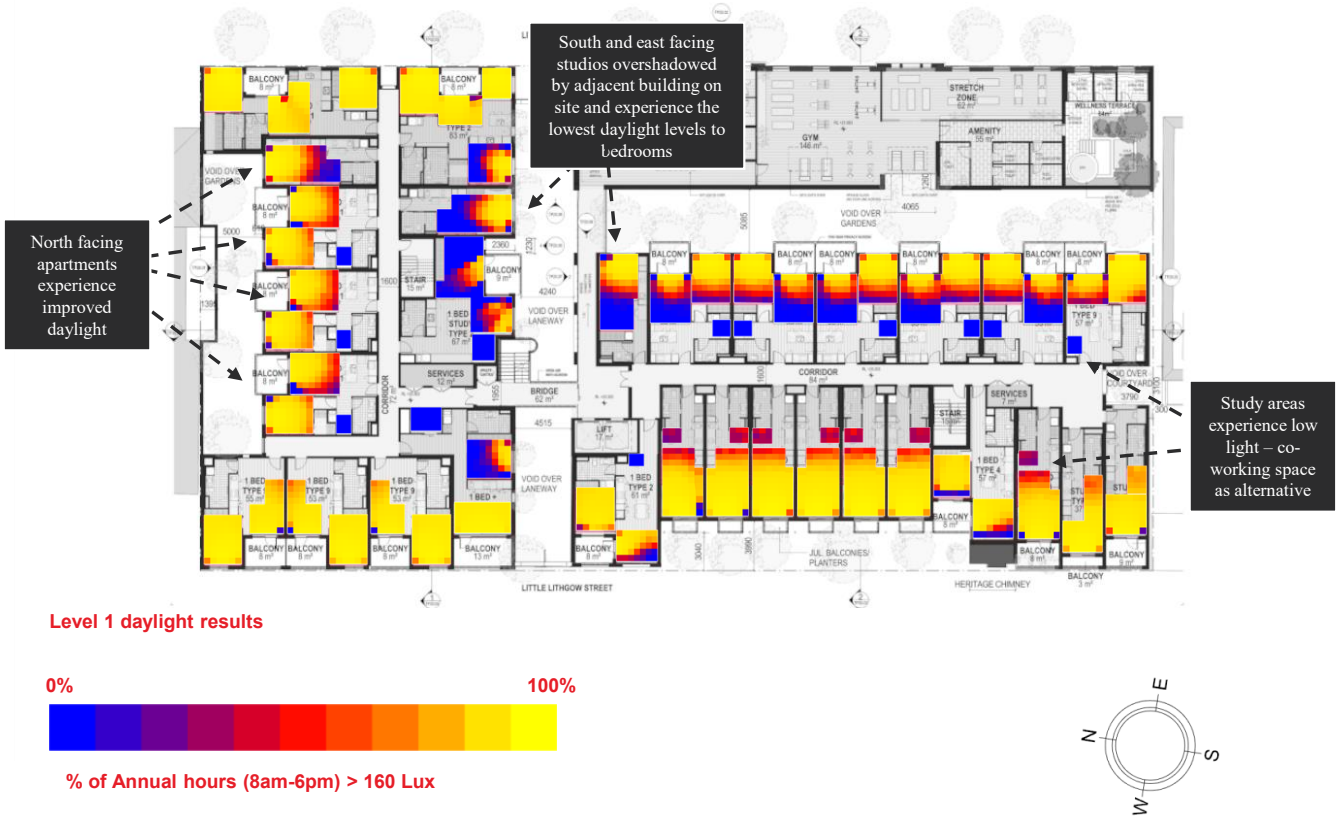
All living rooms achieve daylight access for more than 80% of the year, meeting Green Star Minimum Expectation requirements.

Bedrooms

Daylight autonomy in bedrooms shows that 93% of bedrooms have access to daylight, in line with Green Star Minimum Expectation requirements. Only 2 bedrooms, which are part of studio apartments, do not achieve daylight access for more than 80% of the year.

Apartments with barriers to daylight access

North facing apartments daylight has improved across living and bedrooms spaces. The east and south facing apartments daylight has also improved but still experience moderate overshadowing. These units have access to the amenities building which has a well-lit co-working space and lounge areas. As well, most of these apartments have balconies for additional daylight and views.



ARUP

Level 2

The 30 apartments modelled on Level 2 show another significant improvement compared to Level 1.

Living rooms

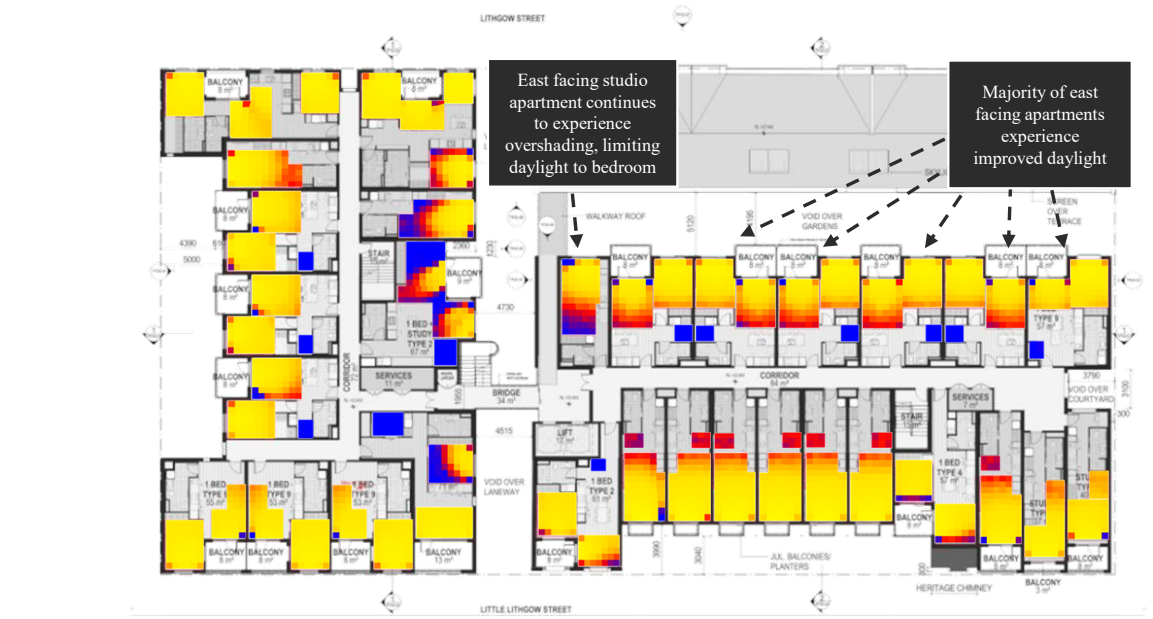
Daylight autonomy improved compared to Level 1, with 100% of the living rooms achieving daylight access for more than 80% of the year, meeting Green Star Minimum Expectation requirements for all apartments.

Bedrooms

Daylight autonomy for bedrooms also improved, with 97% of bedrooms achieving daylight access for more than 80% of the year, meeting Green Star Minimum Expectation. Only one bedroom, which is part of a studio apartment, experiences moderate daylight for less than 80% of the year.

Apartments with barriers to daylight access

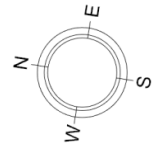
One studio apartment in particular facing east maintains overshadowing from the adjacent building, limiting daylight access to the bedroom. These occupants have excellent daylight access in the living room, however, and have access to the communal building and rooftop terrace. The majority of east facing apartments previously experiencing overshadowing from the amenities building, now experience moderate levels of daylight in all rooms.



Level 2 daylight results

0% 100%

% of Annual hours (8am-6pm) > 160 Lux



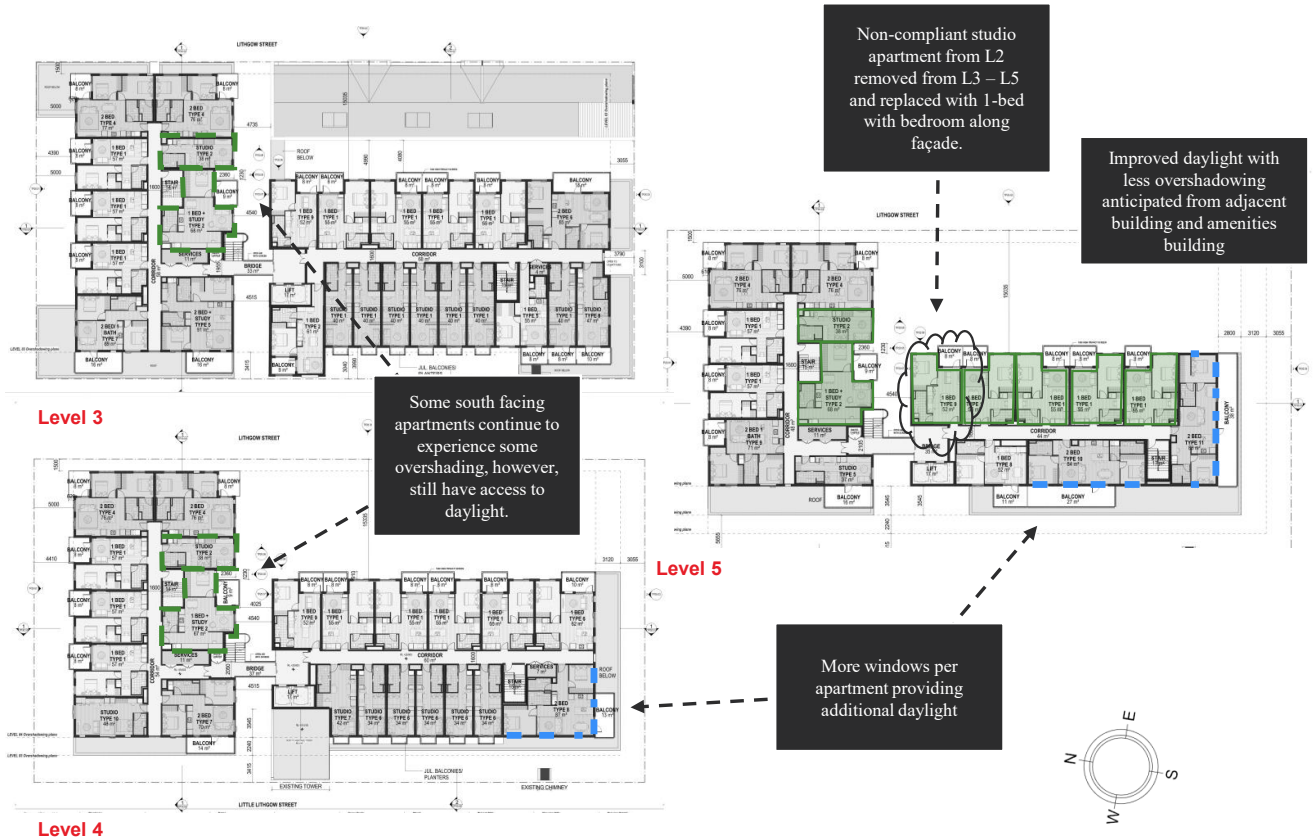
Level 3-5

Extrapolated results

Due to the reduction of overshadowing from level 2 up due to the amenities building and other neighboring buildings, we have assumed that the apartments on these floors experience the same levels of daylight as those on level 2.

This is a conservative estimation, with apartments on level 5 likely experiencing higher levels of daylight with fewer and larger apartments, some with large balconies and more windows.

We also note that the single apartment on level 2 that experiences limited daylight to the bedroom is removed from level 3 up. Therefore, we can assume that 100% of bedrooms and living rooms from level 3 to 5 meet the minimum expectation for access to daylight.



ARUP

Results - Detailed

ARUP

Ground floor

One apartment does not have access to daylight

A breakdown of apartments daylight access against both Green Star Minimum Expectation and Credit Achievement are shown inset for the Ground Floor, which represents the worst-case units.

Most apartments comply with the Green Star Minimum Expectation with:

- A window in each habitable room for all units that covers at least 20% of the floor area, exceeding NCC requirements.
- High levels of natural light are achieved in at least the living room or bedroom of most units – where at least 160lux is met for 80% of hours between 8am and 6pm.

Unit GF.10 is south facing and overshadowed, resulting in no floor area meeting the requirement for high levels of daylight.

Apartment key:

Apartment	Green Star Minimum Expectation		Analysis results			
	All bedrooms	Living room	Bedroom 1	Bedroom 2	Living	Combined living + bedroom
	Access to daylight		% of floor area with 160 lux for 80% of the year			
GF.1	✓	✓	98%	97%	98%	98%
GF.2	×	✓	0%	N/A	29%	18%
GF.3	✓	✓	25%	N/A	6%	14%
GF.4	✓	✓	25%	N/A	3%	16%
GF.5	✓	✓	36%	N/A	6%	19%
GF.6	✓	✓	96%	N/A	58%	79%
GF.7	✓	✓	96%	N/A	53%	77%
GF.8	✓	✓	92%	N/A	50%	74%
GF.9	✓	✓	2%	N/A	69%	42%
GF.10	×	×	0%	N/A	0%	0%
GF.11	×	✓	0%	N/A	18%	11%
GF.12	✓	✓	98%	10%	95%	96%
GF.13	×	✓	0%	N/A	19%	12%
GF.14	✓	×	25%	N/A	0%	11%
GF.15	✓	×	27%	N/A	0%	12%
GF.16	✓	×	25%	N/A	0%	11%
GF.17	✓	×	27%	N/A	0%	12%
GF.18	✓	×	31%	N/A	0%	14%
GF.19	✓	×	46%	N/A	0%	25%
GF.20	✓	✓	43%	N/A	25%	34%
GF.21	✓	✓	20%	N/A	63%	46%
GF.22	✓	✓	30%	N/A	76%	58%
GF.23	✓	✓	33%	N/A	75%	59%
GF.24	✓	✓	30%	N/A	75%	57%
GF.25	✓	✓	30%	N/A	78%	60%
GF.26	✓	✓	24%	N/A	74%	55%
GF.27	✓	✓	39%	N/A	28%	32%
GF.28	×	✓	0%	N/A	56%	35%
% apartments meet criteria	82%	75%				

ARUP

Level 1

All apartments have access to daylight

A breakdown of apartments daylight access against both Green Star Minimum Expectation and Credit Achievement are shown inset for Level 1.

Every apartment complies with the Green Star Minimum Expectation with:

- A window in each habitable room that covers at least 20% of the floor area, exceeding NCC requirements.
- High levels of natural light are achieved in at least the living room or bedroom of each unit – where at least 160lux is met for 80% of hours between 8am and 6pm. Where this isn't met for both bedrooms and living spaces, mitigation measures are in place.

Apartment key:

Apartment	Green Star Minimum Expectation		Analysis results			
	All bedrooms	Living room	Bedroom 1	Bedroom 2	Living	Combined living + bedroom
	Access to daylight		% of floor area with 160 lux for 80% of the year			
L1.1	✓	✓	98%	97%	98%	98%
L1.2	✓	✓	4%	N/A	72%	46%
L1.3	✓	✓	75%	N/A	47%	59%
L1.4	✓	✓	75%	N/A	49%	65%
L1.5	✓	✓	79%	N/A	42%	58%
L1.6	✓	✓	98%	N/A	89%	94%
L1.7	✓	✓	100%	N/A	85%	94%
L1.8	✓	✓	98%	N/A	90%	94%
L1.9	✓	✓	17%	N/A	71%	49%
L1.10	✓	✓	12%	N/A	9%	10%
L1.11	×	✓	0%	N/A	42%	27%
L1.12	✓	✓	98%	26%	97%	76%
L1.13	×	✓	0%	N/A	50%	31%
L1.14	✓	✓	54%	N/A	13%	31%
L1.15	✓	✓	57%	N/A	13%	33%
L1.16	✓	✓	53%	N/A	13%	31%
L1.17	✓	✓	53%	N/A	15%	32%
L1.18	✓	✓	57%	N/A	14%	34%
L1.19	✓	✓	83%	N/A	31%	59%
L1.20	✓	✓	93%	N/A	45%	70%
L1.21	✓	✓	47%	N/A	72%	62%
L1.22	✓	✓	67%	N/A	81%	76%
L1.23	✓	✓	67%	N/A	80%	75%
L1.24	✓	✓	67%	N/A	81%	76%
L1.25	✓	✓	63%	N/A	82%	75%
L1.26	✓	✓	60%	N/A	80%	73%
L1.27	✓	✓	83%	N/A	67%	75%
L1.28	✓	✓	50%	N/A	80%	68%
L1.29	✓	✓	40%	N/A	97%	82%
L1.30	✓	✓	53%	N/A	94%	84%
% apartments meet criteria	93%	100%				

ARUP

Level 2 (representative of levels 2 to 5)

All apartments have access to daylight

A breakdown of apartments daylight access against both Green Star Minimum Expectation and Credit Achievement are shown inset for Level 2. This is representative of levels 2 to 5, which is considered a conservative approach. We note that apartment L2.13 is removed from L3 and above.

Every apartment complies with the Green Star Minimum Expectation with:

- A window in each habitable room that covers at least 20% of the floor area, exceeding NCC requirements.
- High levels of natural light are achieved in at least the living room or bedroom of each unit – where at least 160lux is met for 80% of hours between 8am and 6pm.

Apartment key:

Apartment	Green Star Minimum Expectation		Analysis results			
	All bedrooms	Living room	Bedroom 1	Bedroom 2	Living	Combined living + bedroom
	Access to daylight		% of floor area with 160 lux for 80% of the year			
L2.1	✓	✓	98%	97%	98%	98%
L2.2	✓	✓	54%	N/A	77%	68%
L2.3	✓	✓	96%	N/A	81%	88%
L2.4	✓	✓	96%	N/A	80%	90%
L2.5	✓	✓	98%	N/A	66%	80%
L2.6	✓	✓	98%	N/A	95%	96%
L2.7	✓	✓	100%	N/A	88%	95%
L2.8	✓	✓	98%	N/A	90%	94%
L2.9	✓	✓	31%	N/A	71%	54%
L2.10	✓	✓	21%	N/A	24%	23%
L2.11	✓	✓	12%	N/A	71%	50%
L2.12	✓	✓	98%	50%	97%	83%
L2.13	×	✓	0%	N/A	76%	47%
L2.14	✓	✓	86%	N/A	42%	61%
L2.15	✓	✓	85%	N/A	42%	62%
L2.16	✓	✓	83%	N/A	42%	61%
L2.17	✓	✓	86%	N/A	48%	65%
L2.18	✓	✓	86%	N/A	48%	65%
L2.19	✓	✓	98%	N/A	74%	87%
L2.20	✓	✓	95%	N/A	57%	77%
L2.21	✓	✓	53%	N/A	72%	65%
L2.22	✓	✓	67%	N/A	81%	76%
L2.23	✓	✓	67%	N/A	80%	75%
L2.24	✓	✓	67%	N/A	84%	77%
L2.25	✓	✓	67%	N/A	85%	78%
L2.26	✓	✓	64%	N/A	83%	76%
L2.27	✓	✓	86%	N/A	78%	82%
L2.28	✓	✓	53%	N/A	80%	70%
L2.29	✓	✓	40%	N/A	100%	84%
L2.30	✓	✓	80%	N/A	94%	91%
% apartments meet criteria	97%	100%				

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1 INTRODUCTION

Acoustic Logic Pty Ltd (AL) has been engaged to conduct an acoustic assessment for the proposed mixed-use development located at 35-45 Lithgow Street, Abbotsford. The assessment has been conducted to address external noise intrusion from surrounding noise sources into the proposed development as well as set noise emission levels criteria from the site.

The assessment has been based on the documents referenced in Table 1 below.

Table 1 – Referenced Documents

Company	Document	Reference	Date
Warren and Mahoney	Architectural Drawing Set	Drawing No: TP10.00 – TP10.07	Refer Appendix 1
-	Victorian Planning Provisions Clause 58.04-3	-	2023
-	Australian Standard AS/NZS 2107:2016	-	2016
EPA Victoria	Noise Limit and Assessment Protocol (Noise Protocol)	Publication 1826.5	2025

2 SITE DESCRIPTION

The proposed development is located at 35-45 Lithgow Street, Abbotsford. The proposal is for a 6-storey with one level of basement and a rooftop mixed-use development, incorporating one basement level for carparking, communal amenities and co-working spaces on ground level and level 1, apartments on level 1 to level 6 with rooftop communal terrace.

The subject site is bounded by existing residential dwellings to the north and south, Little Lithgow Street to the west with existing residential dwellings across the street, and Lithgow Street to the east with school across the Lithgow Street.

Figure 1 below shows the subject site and the surrounding environment.

Figure 1: Site Map and surrounding environment (source: Google Maps)

2.1 LOCAL NOISE SOURCES

Inspection and noise level measurements on site indicate that the dominant noise level impacting the subject building is the traffic noise from vehicle movements along Lithgow Street. In addition, it has been identified that the nearest major road is Victoria Street which is located approx. 140m to the south of subject site. Due to proximity of this road, the noise from this road will have minor impact on subject site. Assessment of traffic noise intrusion is discussed in Section 6.

The nearby noise industrial area within 300m of subject site has been identified in Figure 1, which include low emitting noise premises such as offices, storage facilities, etc. Inspection and measurements indicate that noise emission from identified industrial area was inaudible at the subject site. In addition, there are existing residential dwellings located closer to these industrial areas, and therefore it would be their obligation to ensure compliance with EPA Publication 1826.5 is achieved at these dwellings. On this basis, no further assessment has been conducted for the industrial area.

3 ENVIRONMENTAL NOISE DESCRIPTORS

Environmental noise constantly varies in level, due to fluctuations in local noise sources including road traffic. Accordingly, a 15 minute measurement interval is normally utilised. Over this period, noise levels are monitored on a continuous basis and statistical and integrating techniques are used to determine noise description parameters.

In the case of environmental noise three principle measurement parameters are used, namely L_{10}, L_{90} and L_{eq}.

The L_{10} and L_{90} measurement parameters are statistical levels that represent the average maximum and average minimum noise levels respectively, over the measurement intervals.

The L_{10} parameter is commonly used to measure noise produced by a particular intrusive noise source since it represents the average of the loudest noise levels produced by the source.

Conversely, the L_{90} level (which is commonly referred to as the background noise level) represents the noise level heard in the quieter periods during a measurement interval. The L_{90} parameter is used to set the allowable noise level for new, potentially intrusive noise sources since the disturbance caused by the new source depends on how audible it is above the pre-existing noise environment, particularly during quiet periods, as represented by the L_{90} level.

The L_{eq} parameter represents the average noise energy during a measurement period. This parameter is derived by integrating the noise levels measured over the measurement period. L_{eq} is important in the assessment of traffic noise impact as it closely corresponds with human perception of a changing noise environment; such is the character of industrial noise.

The L_1 parameter (or the noise level exceeded for 1% of the time) is used during the night period to assess potential sleep arousal effects due to transient noise sources.

4 NOISE LEVEL MEASUREMENTS

4.1 MEASUREMENT LOCATIONS AND DATE OF MEASUREMENTS

Measurement locations are presented in Figure 1 which are detailed below.

- **Measurement Location 1:** An un-attended noise monitor was installed outside of the level 1 window of the existing building to measure traffic noise levels along Lithgow Street. The monitor location was approximately in-line with the eastern boundary subject site with the microphone located approximately 4 metres above grade. The monitor was on site from 16 to 24 October 2025. The measurements were affected by façade reflection and has full view of Lithgow Street.

- **Measurement Location 2:** An un-attended noise monitor was installed outside of the level 1 window of the existing building to measure background noise levels. The monitor location was approximately in-line with the western boundary subject site with the microphone located approximately 4 metres above grade. The monitor was on site from 16 to 24 October 2025. The measurements were affected by façade reflection

4.2 MEASUREMENT EQUIPMENT

Unattended noise monitoring was conducted using NGARA and Rion Noise Monitors. The noise monitors were programmed to store 15-minute statistical noise levels through the monitoring period. Equipment was calibrated at the beginning and the end of the measurements using a B&K 4231 calibrator; no significant drift was detected. All measurements were taken on fast response mode.

4.3 MEASUREMENT RESULTS

The measurement results are presented in the tables below.

Table 2 – Un-attended Traffic Noise Level Measurements (Location 1)

Location	Period	Measured Noise Levels[1]
Measurement Location 1	Day (7.00 – 22.00)	62 dB(A) $L_{eq,1hr}$
	Night (22.00 – 7.00)	53 dB(A) $L_{eq,1hr}$

Note 1: Noise levels presented corrected -2.5 dB for façade reflections

Table 3 – Un-attended Background Noise Level Measurements

Measurement Location	Period	Time	Measured Background $L_{90,Period}$ dB(A)[1]
Measurement Location 2 in Figure 1	Day	7am – 6pm (Mon – Sat)	39
	Evening	6pm – 10pm (Mon – Sat) 7am – 10pm (Sun)	38
	Night	10pm – 7am	38

Note 1: Noise levels presented corrected -2.5 dB for façade reflections

In addition to above, the traffic noise intrusion from vehicle movement along Victoria Street has been based on attended measurements conducted at nearby development addressed at 675 Victoria Street, Abbotsford. The measured traffic noise level utilised in the assessment is 70dB(A) $L_{eq,\ 15mins}$ at 3m from the roadside curb. This is predicted to be 50dB(A) $L_{eq,15mins}$ at the southern façade of the proposed building.

5 ASSESSMENT CRITERIA

5.1 STANDARD D16 AT CLAUSE 58.04-3

Standard D16 of Clause 58.04-3 contains the following condition:

To contain noise sources in developments that may affect existing dwellings.

To protect residents from external and internal noise sources.

Standard D16

Noise sources, such as mechanical plants should not be located near bedrooms of immediately adjacent existing dwellings.

The layout of new dwellings and buildings should minimise noise transmission within the site.

Noise sensitive rooms (such as living areas and bedrooms) should be located to avoid noise impacts from mechanical plants, lifts, building services, non-residential uses, car parking, communal areas and other dwellings.

New dwellings should be designed and constructed to include acoustic attenuation measures to reduce noise levels from off-site noise sources.

Buildings within a noise influence area specified in Table D5 should be designed and constructed to achieve the following noise levels:

- *Not greater than 35dB(A) for bedrooms, assessed as an LAeq,8h from 10pm to 6am.*
- *Not greater than 40dB(A) for living areas, assessed LAeq,16h from 6am to 10pm.*

Buildings, or part of a building screened from a noise source by an existing solid structure, or the natural topography of the land, do not need to meet the specified noise level requirements.

Noise levels should be assessed in unfurnished rooms with a finished floor and the windows closed.

Table D5 Noise influence area

Noise Source	***Noise influence area***
Zone interface	
Industry	*300 metres from the industrial 1, 2 and 3 zone boundaries*
Roads	
Freeways, tollways and other roads carrying 40,000 Annual Average Daily Traffic Volume	*300 metres from the nearest trafficable lane*
Railways	
Railway servicing passengers in Victoria	*80 metres from the centre of the nearest track*
Railway servicing freight outside Metropolitan Melbourne	*80 metres from the centre of the nearest track*
Railway servicing freight in Metropolitan Melbourne	*135 metres from the centre of the nearest track*

Note: The noise influence area should be measured from the closest part of the building to the noise source.

Decision guidelines

Before deciding on an application, the responsible authority must consider:

- The design response.
- Whether it can be demonstrated that the design treatment incorporated into the development meets the specified noise levels or an acoustic report by a suitably qualified consultant submitted with the application.
- Whether the impact of potential noise sources within a development have been mitigated through design, location and siting.
- Whether the layout of rooms within a dwelling mitigates noise transfer within and between dwellings.
- Whether an alternative design meets the relevant objectives having regard to the amenity of the dwelling and the site context.

Based on these conditions, the subject site has been reviewed as follows:

1. The development **is** within 300m of an industrial zone.
    - The nearest industrial zone is located approximately 50m to the north from the subject site. As mentioned in section 2.1, the industrial noise is inaudible at the subject site, and it is dominated by traffic noise from the Lithgow Street. Therefore, no further investigation is undertaken regarding the industrial zone.

2. The development is **not** within 300m of a freeway, tollway or road carrying an AADT >40,000
    - Based on Vic Road Open Data Hub, Victoria Street carries <40,000 vehicles AADT.

3. The development is **not** within 80 metres of railway servicing passengers and is **not** within 135m of freight train line.

Based on the above, the criteria under Standard D16 is not applicable and therefore the external traffic noise level intrusion has been assessed against the criteria nominated in Australian Standards AS/NZS 2107:2016.

5.2 AUSTRALIAN STANDARD AS/NZS 2107:2016

Australian Standard AS/NZS2107:2016 *"Recommended Design Sound Levels and Reverberation Times for Building Interiors"* sets out recommended design sound levels for residential developments depending on locality to minor or major roads. Table 4 below details the criteria for the proposed development which is located adjacent to a minor road. Assessment is based on apartments suitably furnished ready for occupation with windows/doors closed.

Table 4 – Internal Noise Criteria (Traffic Noise)

Location	Required Internal Noise Level[1]	
	dB(A) $L_{eq\ 1hr}$ (7am – 10pm)	**dB(A) $L_{eq\ 1hr}$ (10pm – 7am)**
Bedrooms	30-40[2]	30-35
Living Areas	30-40	N/A

Note 1: Assessment is based on apartments suitably furnished ready for occupation.
Note 2: Bedrooms assessed as living rooms outside 10pm-7am.

5.3 EPA VICTORIA PUBLICATION 1826.5

To ensure that noise emissions from the proposed development site do not impact adversely on the amenity of the surrounding noise sensitive areas, the proposed development should be designed to comply with the EPA Noise Protocol Publication 1826.5 – Part I.

5.3.1 Zoning Level

The 'Zoning' level is determined by the Influencing Factor (IF) and is calculated by the formula and the 'Zoning Level versus Influencing Factor' graph nominated in Section 1.1 of the EPA Noise Protocol and VicPlan Mapping. The IF is calculated from the proportion of industrial and commercial land around noise sensitive areas. Review of the surrounding area indicates an IF of approximately **0.28** which results in the zoning limits detailed in Table 5 below.

Table 5 - Zoning Levels

Period	Zoning Level dB(A)
Day time	55
Evening	49
Night time	44

5.3.2 EPA Noise Protocol – Part I

Table 6 below details the assessment criteria based on both the zoning levels and the measured background noise levels detailed in Table 3.

Table 6 – Noise Limits

Period	Background dB(A) $L_{90,Period}$[1]	Zoning limit	Classification	Project Noise Limits dB(A) L_{eq}
Day Monday – Saturday (7am – 6pm)	39	55	Low	**52**
Evening Monday – Saturday (6pm – 10pm) Sunday (7am – 10pm)	38	49	Low	**46**
Night Monday – Friday (10pm – 7am)	38	44	Neutral	**44**

Note 1: Based on the measurements presented in Table 3.

6 EVALUATION OF EXTERNAL NOISE INTRUSION

Internal noise levels will primarily be as a result of noise transfer through the windows, doors and roof as these are relatively light building elements that offer less resistance to the transmission of sound. Walls that are proposed to be heavy masonry elements will not require upgrading.

The predicted noise levels through the windows, doors and roof are discussed below. The predicted noise levels have been based on the expected level and spectral characteristics of the external noise, the area of building elements exposed to traffic noise, the absorption characteristics of the rooms and the noise reduction performance of the building elements.

Glazing/façade treatment was determined based on the measured noise levels and transmission loss of the façade. The constructions set out below are necessary for the satisfactory control of external noise to comply with the internal noise level criteria detailed in Table 5.

6.1 RECOMMENDED GLAZING

The minimum glazing requirements schedule for this development is detailed in **Appendix 1 – Façade Mark-up**. The glass thicknesses shown in the schedule do not consider thermal, structural, safety or any other requirements other than acoustic requirements and thus may require upgrading in some instances. In these instances, increasing the glass thickness beyond the acoustic requirement will be acceptable. Where the glazing thickness has not been specified, standard glazing will be acceptable.

Table 7 below details the minimum R_w performance requirements for the glazing assembly installed. Where open-able windows or sliding doors are installed, the total R_w performance of the system shall not be lower than the values listed in Table 7. It is noted that the system supplied shall meet the overall minimum R_w ratings nominated based on a laboratory test report for the system. If an alternative system is proposed the system shall be reviewed and will require approval by a suitably qualified acoustic consultant to ensure that the proposed system is acceptable and will ensure compliance with the nominated internal noise design criteria detailed in Table 5.

Table 7 – Minimum External Glazing Requirements / Performance

Location	Required Glazing Construction[1]	Minimum Rw of Installed Window System	Acoustic Seals[2]
Refer **Appendix 1 – Façade Mark-up**	6mm glass or 6/12/6 IGU	29	Yes
	6.38mm lam or 6/12/6.38 lam IGU	31	Yes

Note 1 – Alternative glazing system may be installed provided they are approved by a suitable qualified acoustic consultant.
Note 2 – Mohair Seals in windows and doors are **not** acceptable where acoustic seals are required. Seals in these instances shall be equal to Schlegel Q-Ion.

6.2 EXTERNAL WALLS

External walls which incorporate concrete or masonry elements and as such will not require upgrading acoustically. Recommended external lightweight wall construction is provided in the figure below.

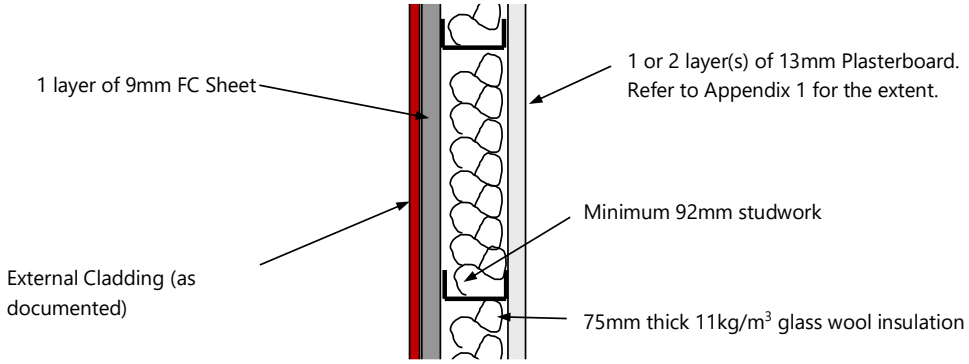

Figure 2 – Lightweight Wall Construction

Penetrations in walls must be sealed gap free with a flexible sealant. Any ventilation openings in the walls would need to be acoustically treated to ensure compliance with the nominated design criteria.

6.3 ROOF / CEILING CONSTRUCTION

Apartment roof/ceiling incorporating concrete or masonry construction will be sufficient to address external traffic noise intrusion and will not require further acoustic treatment. Any lightweight roof shall be reviewed by a suitably qualified acoustic consultant to ensure compliance with the internal traffic noise level criteria detailed in Table 4 is achieved.

Penetrations in ceiling must be sealed gap free with a flexible sealant. Any ventilation openings in should be acoustically treated to maintain the acoustic performance of the roof/ceiling construction.

7 NOISE EMISSION FROM MECHANICAL PLANT AND EQUIPMENT

To ensure that noise emissions from mechanical plant and equipment serving the development do not impact adversely on the amenity of future residents within the development and neighbouring residential properties, noise emissions from the mechanical plant and equipment serving the proposed development shall comply with EPA Noise Protocol – Part I criteria detailed in Table 6.

To ensure amenity for nearby noise sensitive receivers is preserved, the mechanical plant and equipment serving the development shall be reviewed during the detailed design stage by a suitably qualified acoustic consultant to ensure that compliance with EPA Noise Protocol – Part I is achieved. This will be achieved by the use of standard acoustic treatment such as internally lined ductwork, acoustic louvres, acoustic attenuators, variable speed drives, and vibration isolation mounts.

8 CONCLUSION

This report details our acoustic assessment for the proposed mixed-use development site located at 35-45 Lithgow Street, Abbotsford. Provided the acoustic treatment recommendations detailed in Section 6 and 7 are implemented, compliance with the assessment criteria detailed in Section 5 will be achieved.

We trust this information is satisfactory. Please contact us should you have any further queries.

Yours faithfully,

Acoustic Logic Pty Ltd
Stanley Sinatra

APPENDIX 1 – FAÇADE MARK-UP

AL Facade Markup
Date: 28/10/2025

ACOUSTIC LOGIC

Glazing Type

- 6/12/6mm IGU (unmarked) — 1x9mm FC sheet / nom 92mm stud + 75mm 11kg/m3 glasswool insulation / 1x13mm Plasterboard
- 6/12/6.38mm IGU — 1x9mm FC sheet / nom 92mm stud + 75mm 11kg/m3 glasswool insulation / 2x13mm Plasterboard

Lightweight Wall Construction

Note 1 - All windows to be installed with full perimeter acoustic seals equal to Schlegel Q-lon.
Note 2 - If walls/roofs are to be of concrete/masonry construction and require no further acoustic treatment.
Note 3 - If an alternative system is proposed it shall be reviewed and will require approval by a suitable qualified acoustic consultant.
Note 4 - External hinged door and awning window are to contain multi-point latching.

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Consultants
FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client
MODEL

Project Title
THE FACTORY
35 - 45 LITHGOW STREET, ABBOTSFORD

All dimension to be verified on site before producing shop drawings or commencing any work.
Do not scale. The copyright of this drawing remains with Warren and Mahoney Living Australia Pty Ltd.

Drawing Title
GROUND FLOOR PLAN

Drawing Status
WORK IN PROGRESS

Drawing Details

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Date	20/10/2025 1:55:48 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP10.01
Revision C

AL Facade Markup
Date: 28/10/2025

ACOUSTIC LOGIC

Glazing Type

- 6/12/6mm IGU (unmarked)
- 6/12/6.38mm IGU

Lightweight Wall Construction

- (unmarked) 1x9mm FC sheet / nom 92mm stud + 75mm 11kg/m3 glasswool insulation / 1x13mm Plasterboard
- 1x9mm FC sheet / nom 92mm stud + 75mm 11kg/m3 glasswool insulation / 2x13mm Plasterboard

Note 1 - All windows to be installed with full perimeter acoustic seals equal to Schlegel Q-lon.
Note 2 - If walls/roofs are to be of concrete/masonry construction and require no further acoustic treatment.
Note 3 - If an alternative system is proposed it shall be reviewed and will require approval by a suitable qualified acoustic consultant.
Note 4 - External hinged door and awning window are to contain multi-point latching.

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Drawing Title
LEVEL 01 FLOOR PLAN

Drawing Status
WORK IN PROGRESS

Drawing Details

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Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP10.02
Revision C

AL Facade Markup
Date: 28/10/2025

ACOUSTIC LOGIC

Glazing Type

6/12/6mm IGU (unmarked) — 1x9mm FC sheet / nom 92mm stud + 75mm 11kg/m3 glasswool insulation / 1x13mm Plasterboard

6/12/6.38mm IGU — 1x9mm FC sheet / nom 92mm stud + 75mm 11kg/m3 glasswool insulation / 2x13mm Plasterboard

Lightweight Wall Construction

Note 1 - All windows to be installed with full perimeter acoustic seals equal to Schlegel Q-lon.
Note 2 - If walls/roofs are to be of concrete/masonry construction and require no further acoustic treatment.
Note 3 - If an alternative system is proposed it shall be reviewed and will require approval by a suitable qualified acoustic consultant.
Note 4 - External hinged door and awning window are to contain multi-point latching.

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Drawing Title
LEVEL 02 FLOOR PLAN

Drawing Status
WORK IN PROGRESS

Drawing Details

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Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No TP10.03
Revision C

AL Facade Markup
Date: 28/10/2025

ACOUSTIC LOGIC

Glazing Type

- 6/12/6mm IGU
- 6/12/6.38mm IGU

Lightweight Wall Construction

- (unmarked) 1x9mm FC sheet / nom 92mm stud + 75mm 11kg/m3 glasswool insulation / 1x13mm Plasterboard
- 1x9mm FC sheet / nom 92mm stud + 75mm 11kg/m3 glasswool insulation / 2x13mm Plasterboard

Note 1 - All windows to be installed with full perimeter acoustic seals equal to Schlegel Q-lon.
Note 2 - If walls/roofs are to be of concrete/masonry construction and require no further acoustic treatment.
Note 3 - If an alternative system is proposed it shall be reviewed and will require approval by a suitable qualified acoustic consultant.
Note 4 - External hinged door and awning window are to contain multi-point latching.

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Drawing Title
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LEVEL 03 FLOOR PLAN

Drawing Status
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WORK IN PROGRESS

Drawing Details
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Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No — TP10.04

Revision — C

AL Facade Markup
Date: 28/10/2025

ACOUSTIC LOGIC

Glazing Type

6/12/6mm IGU (unmarked) — 1x9mm FC sheet / nom 92mm stud + 75mm 11kg/m3 glasswool insulation / 1x13mm Plasterboard

6/12/6.38mm IGU — 1x9mm FC sheet / nom 92mm stud + 75mm 11kg/m3 glasswool insulation / 2x13mm Plasterboard

Lightweight Wall Construction

Note 1 - All windows to be installed with full perimeter acoustic seals equal to Schlegel Q-lon.
Note 2 - If walls/roofs are to be of concrete/masonry construction and require no further acoustic treatment.
Note 3 - If an alternative system is proposed it shall be reviewed and will require approval by a suitable qualified acoustic consultant.
Note 4 - External hinged door and awning window are to contain multi-point latching.

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Drawing Title
LEVEL 04 FLOOR PLAN

Drawing Status
WORK IN PROGRESS

Drawing Details

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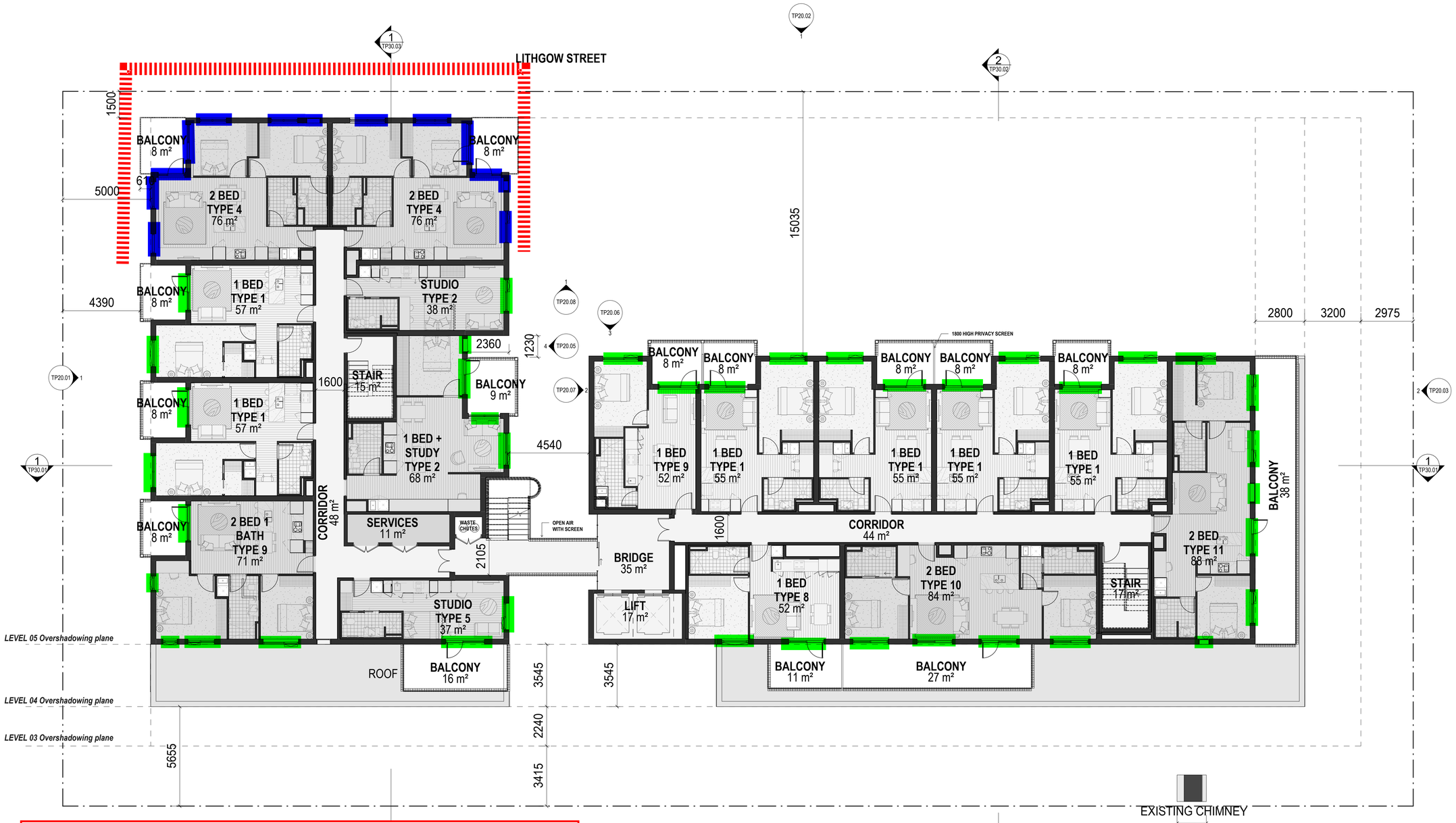
Drawing No TP10.05
Revision C



AL Facade Markup
Date: 28/10/2025

ACOUSTIC LOGIC

Glazing Type

- 6/12/6mm IGU
- 6/12/6.38mm IGU

Lightweight Wall Construction

(unmarked)	1x9mm FC sheet / nom 92mm stud + 75mm 11kg/m3 glasswool insulation / 1x13mm Plasterboard
	1x9mm FC sheet / nom 92mm stud + 75mm 11kg/m3 glasswool insulation / 2x13mm Plasterboard

Note 1 - All windows to be installed with full perimeter acoustic seals equal to Schlegel Q-lon.
Note 2 - If walls/roofs are to be of concrete/masonry construction and require no further acoustic treatment.
Note 3 - If an alternative system is proposed it shall be reviewed and will require approval by a suitable qualified acoustic consultant.
Note 4 - External hinged door and awning window are to contain multi-point latching.

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Drawing Title
—
LEVEL 05 FLOOR PLAN

Drawing Status
—
WORK IN PROGRESS

Drawing Details
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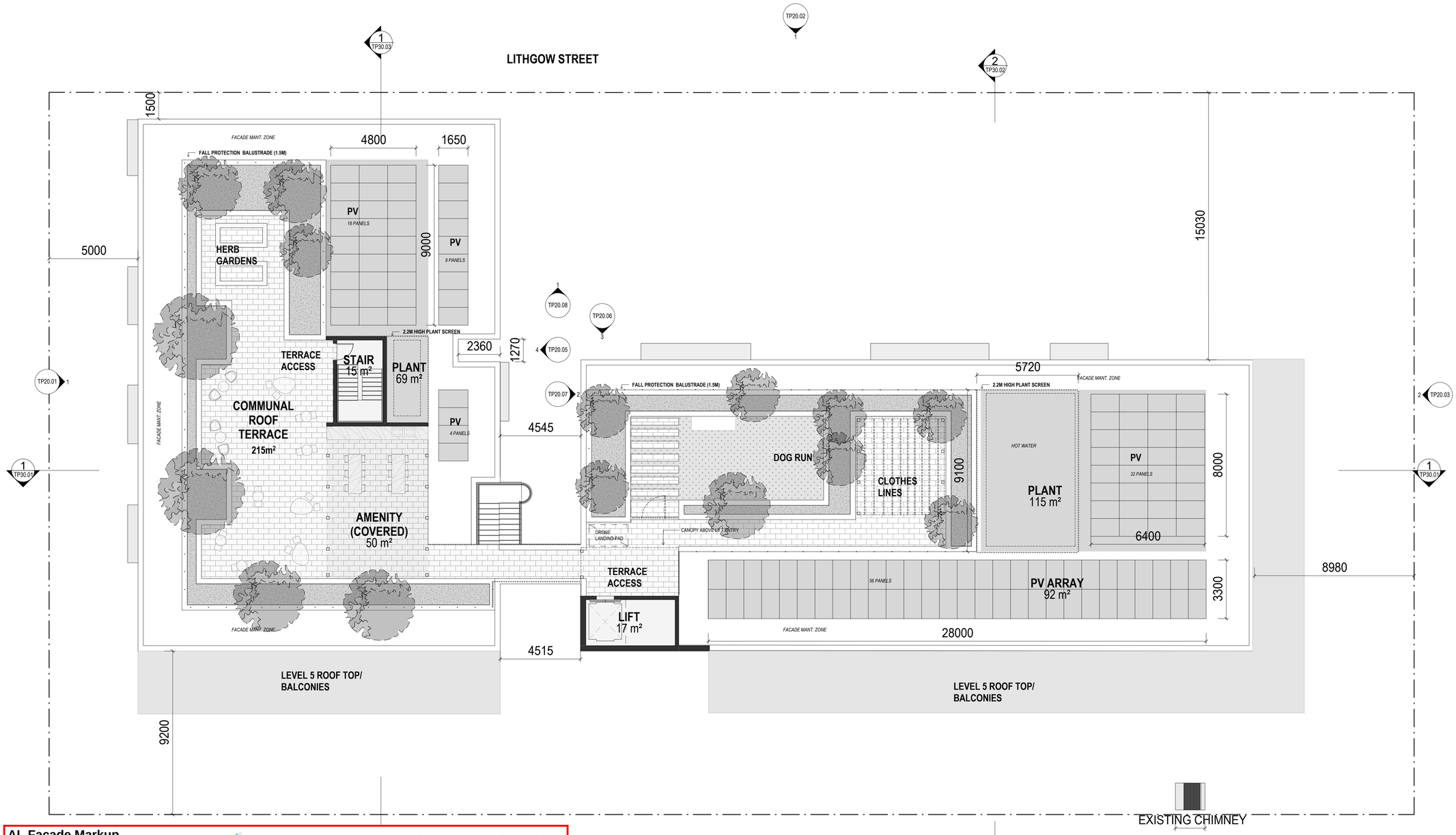
Drawing No — TP10.06
Revision C



AL Facade Markup
Date: 28/10/2025

ACOUSTIC LOGIC

Glazing Type

6/12/6mm IGU	(unmarked)	1x9mm FC sheet / nom 92mm stud + 75mm 11kg/m3 glasswool insulation / 1x13mm Plasterboard
6/12/6.38mm IGU		1x9mm FC sheet / nom 92mm stud + 75mm 11kg/m3 glasswool insulation / 2x13mm Plasterboard

Lightweight Wall Construction

Note 1 - All windows to be installed with full perimeter acoustic seals equal to Schlegel Q-lon.
Note 2 - If walls/roofs are to be of concrete/masonry construction and require no further acoustic treatment.
Note 3 - If an alternative system is proposed it shall be reviewed and will require approval by a suitable qualified acoustic consultant.
Note 4 - External hinged door and awning window are to contain multi-point latching.

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Drawing Title
—
LEVEL 06 (ROOF) FLOOR PLAN

Drawing Status
—
WORK IN PROGRESS

Drawing Details
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Date	20/10/2025 1:58:00 pm
Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No — TP10.07

Revision — C

APPENDIX 2 – SITE PHOTOS

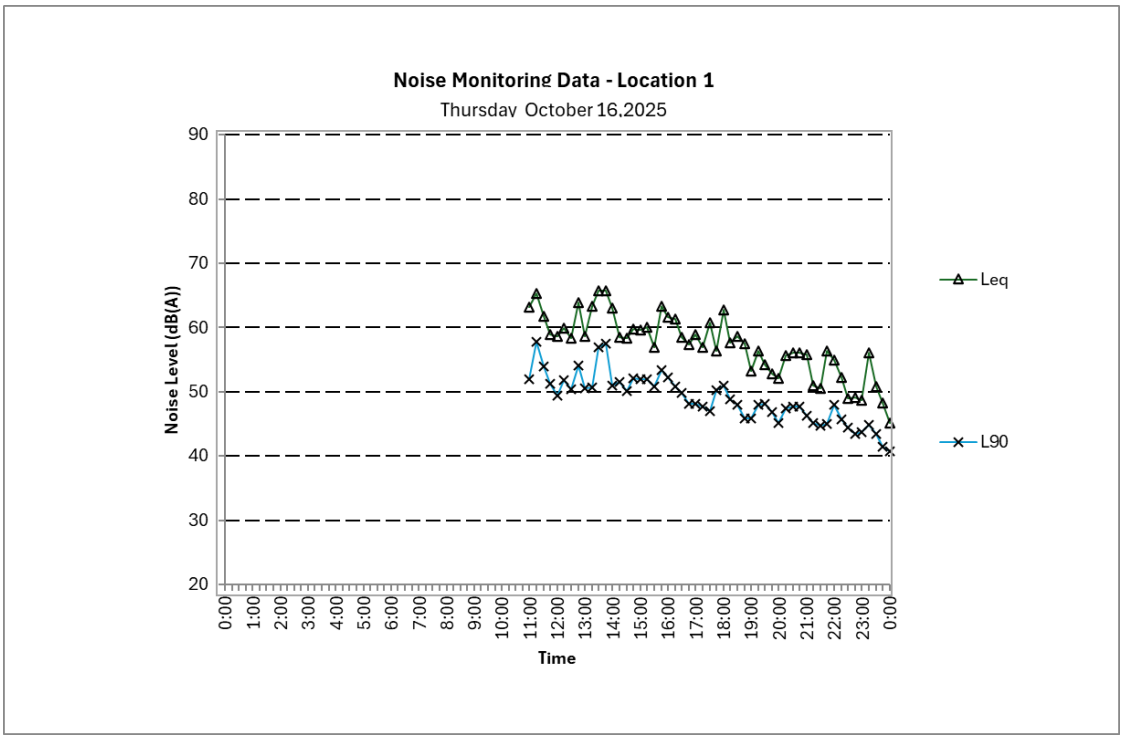
Figure 3 – Noise Monitor at Location 1 (Facing Lithgow Street)

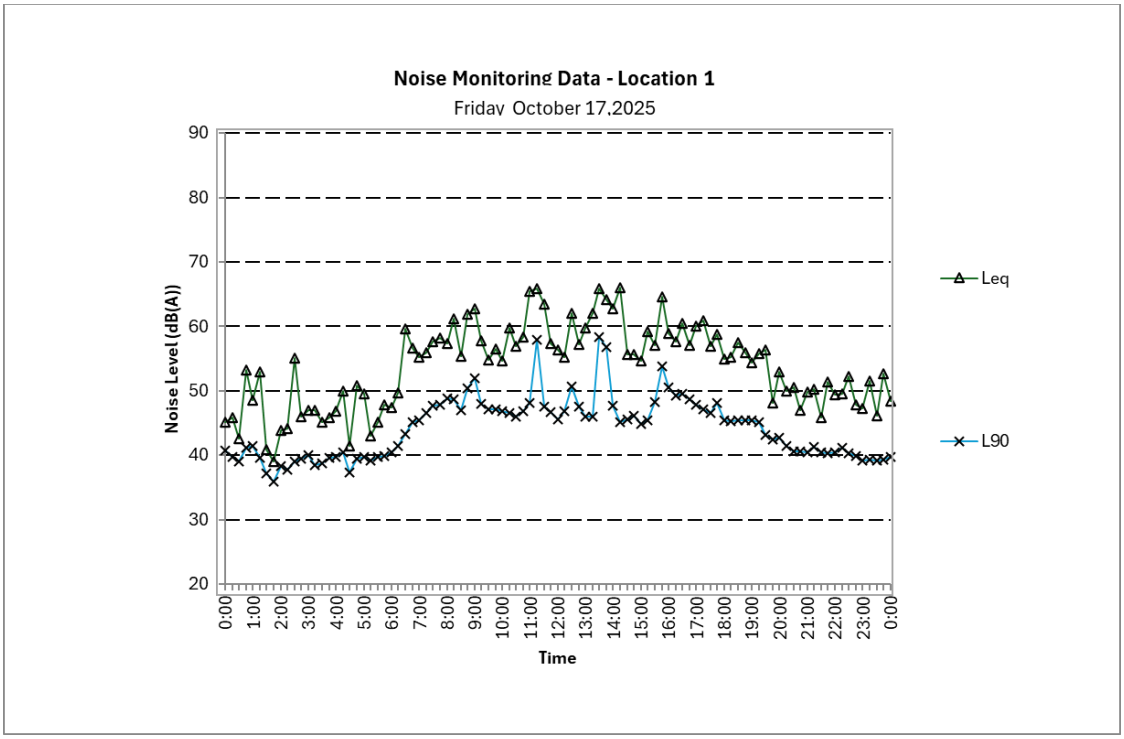
Figure 4 – Noise Monitor at Location 2 (Facing Lt Lithgow Street)

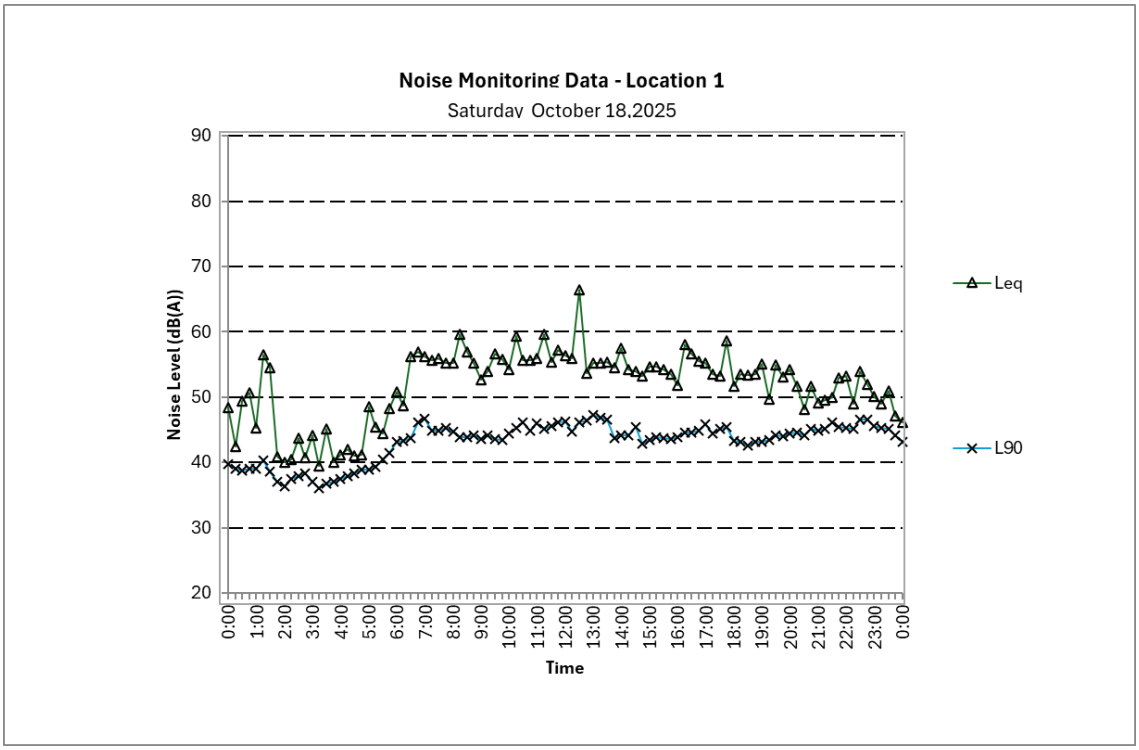
APPENDIX 3 – NOISE MONITORING DATA

Noise monitoring data presented has not been corrected by façade reflections.

LOCATION 1



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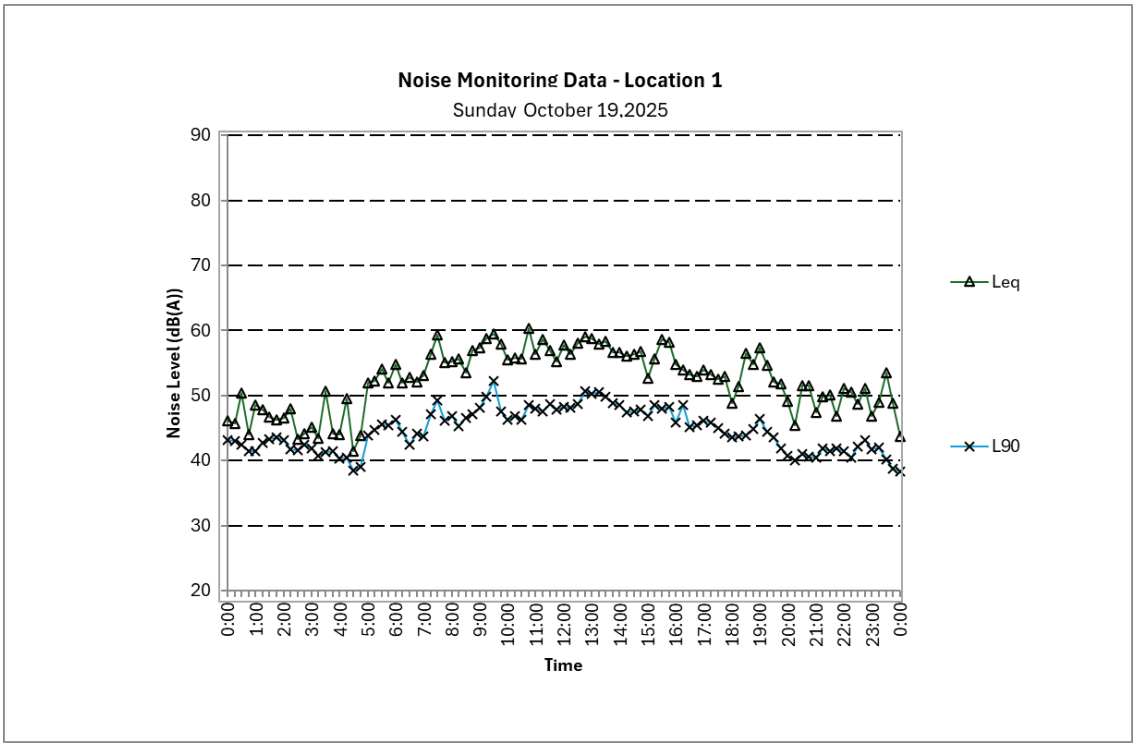
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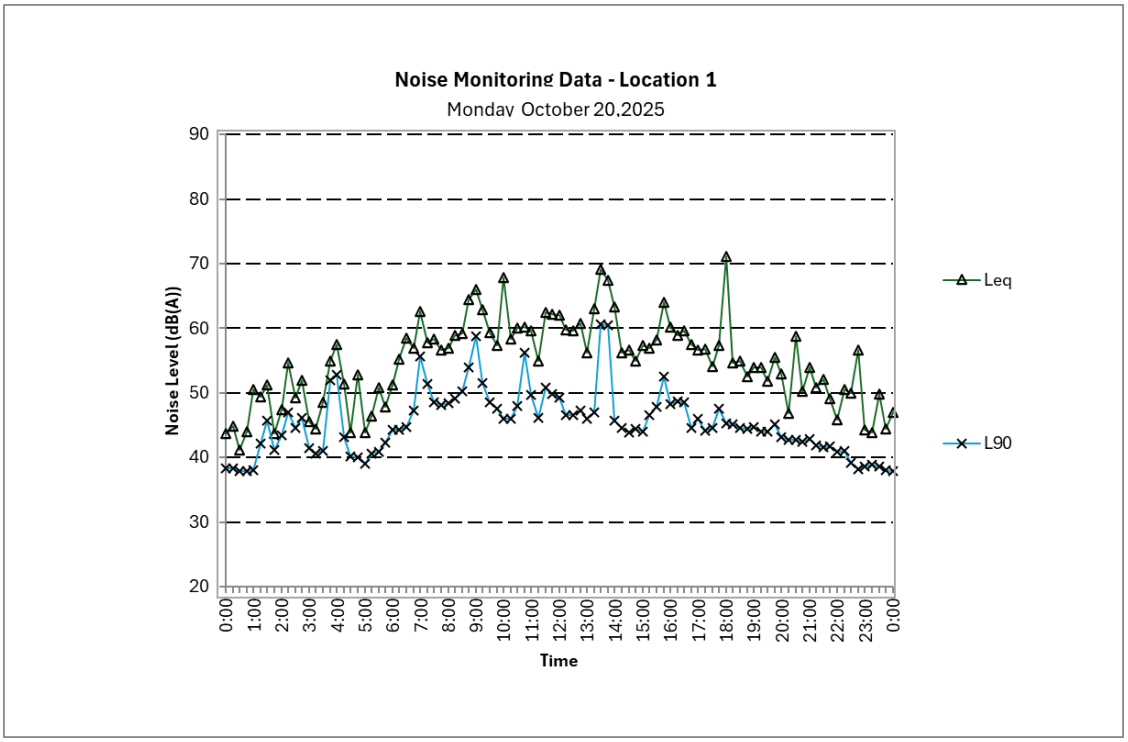
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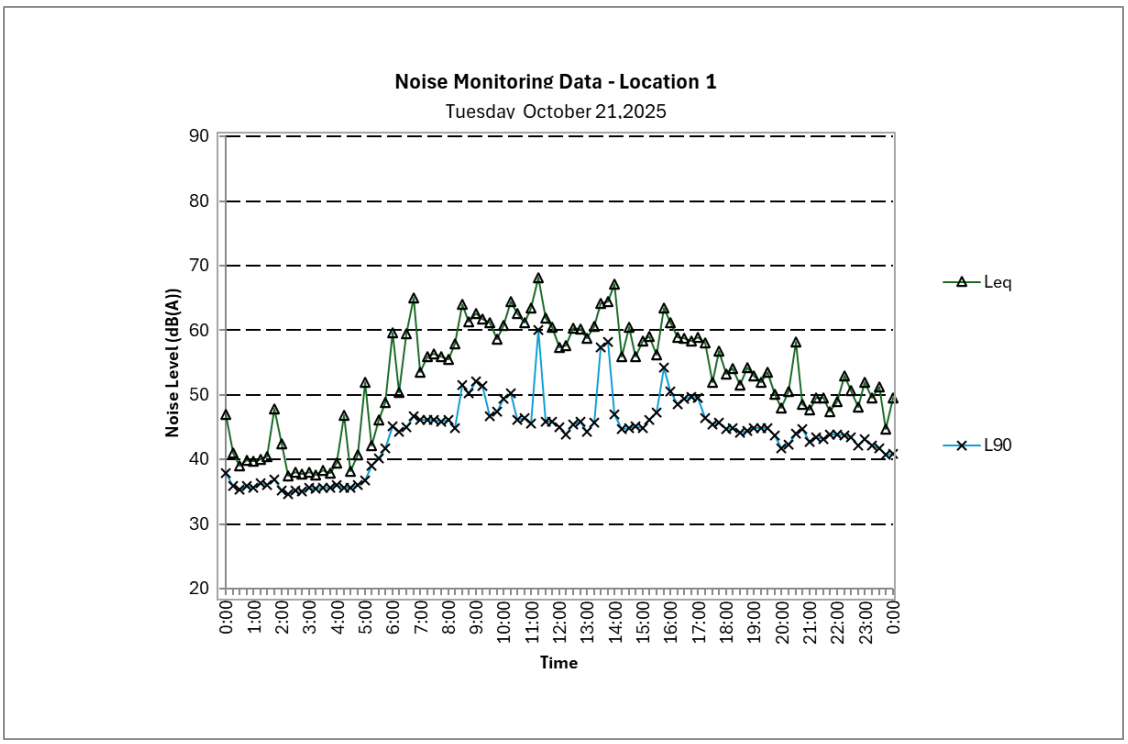
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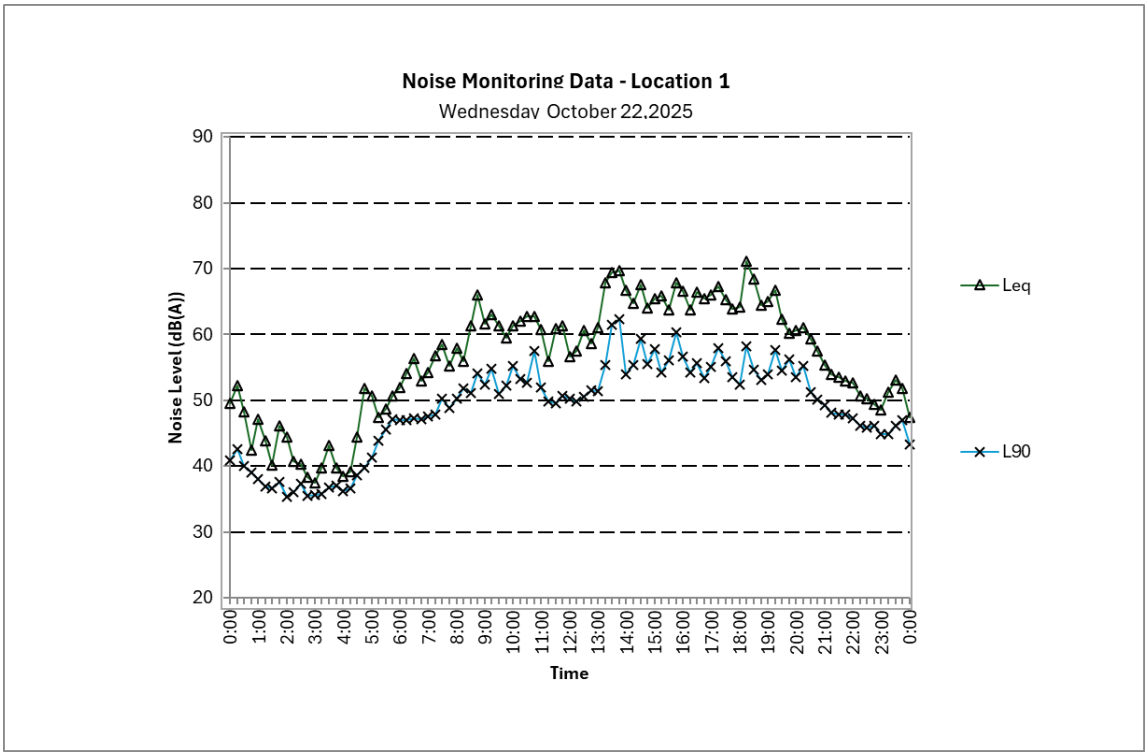
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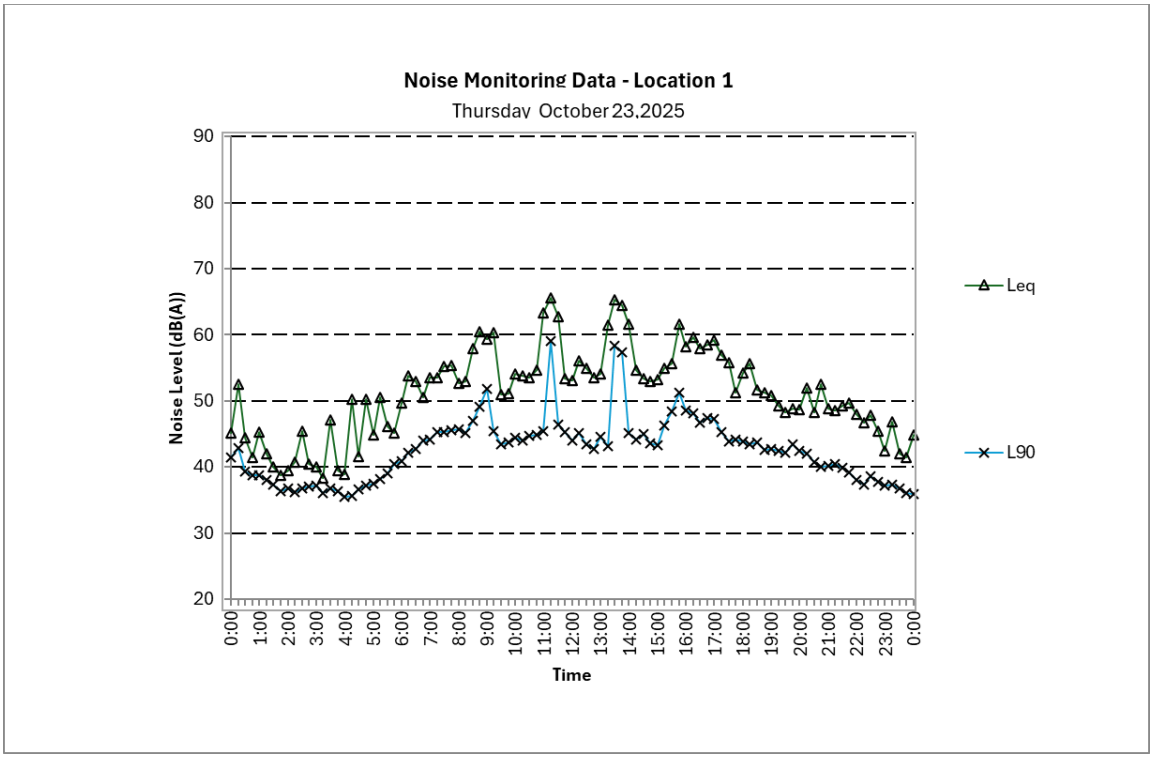
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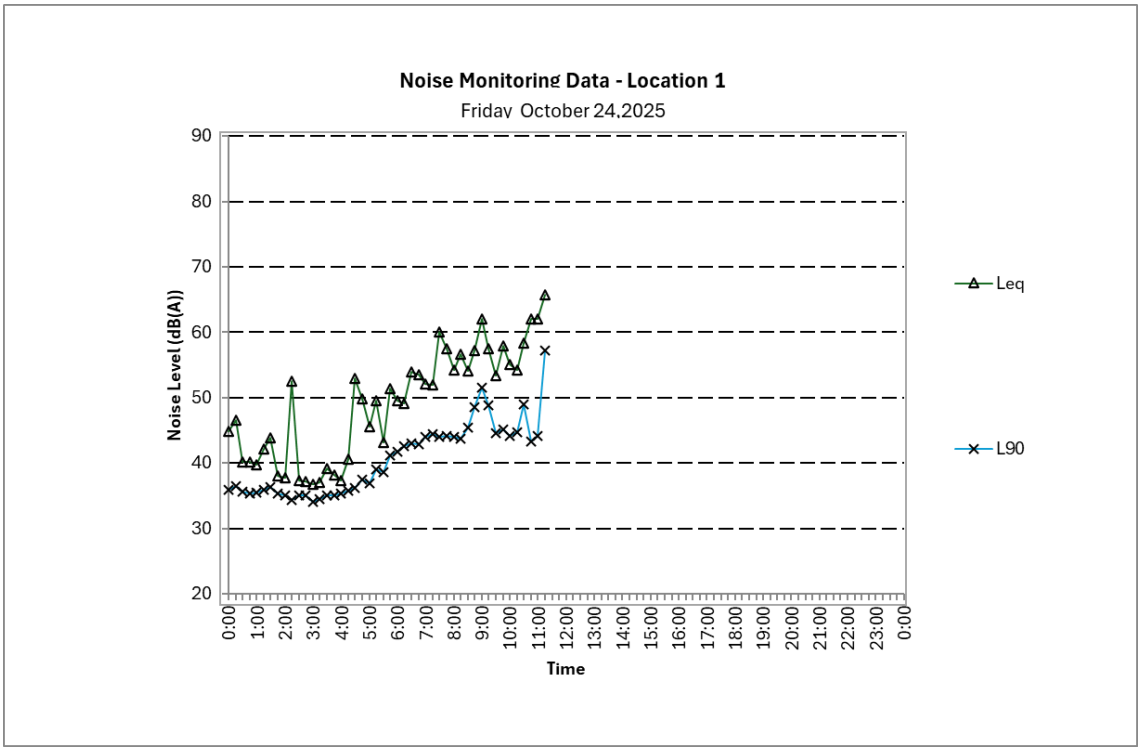
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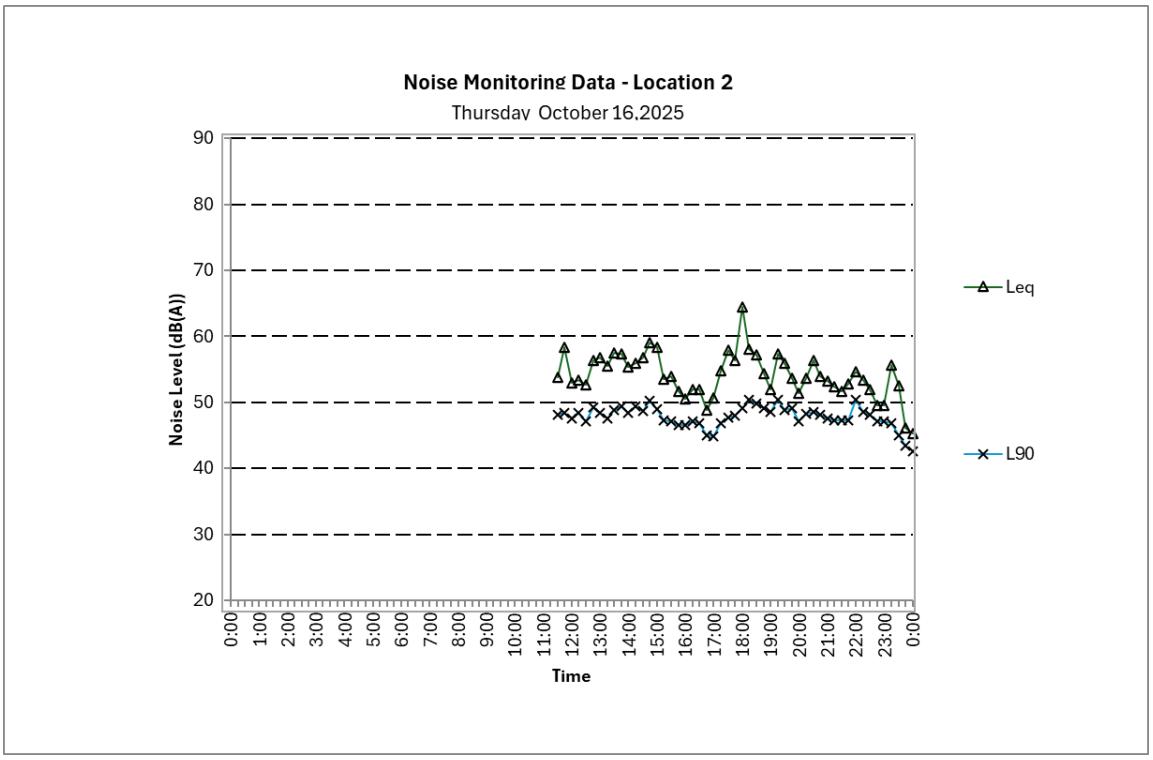
LOCATION 2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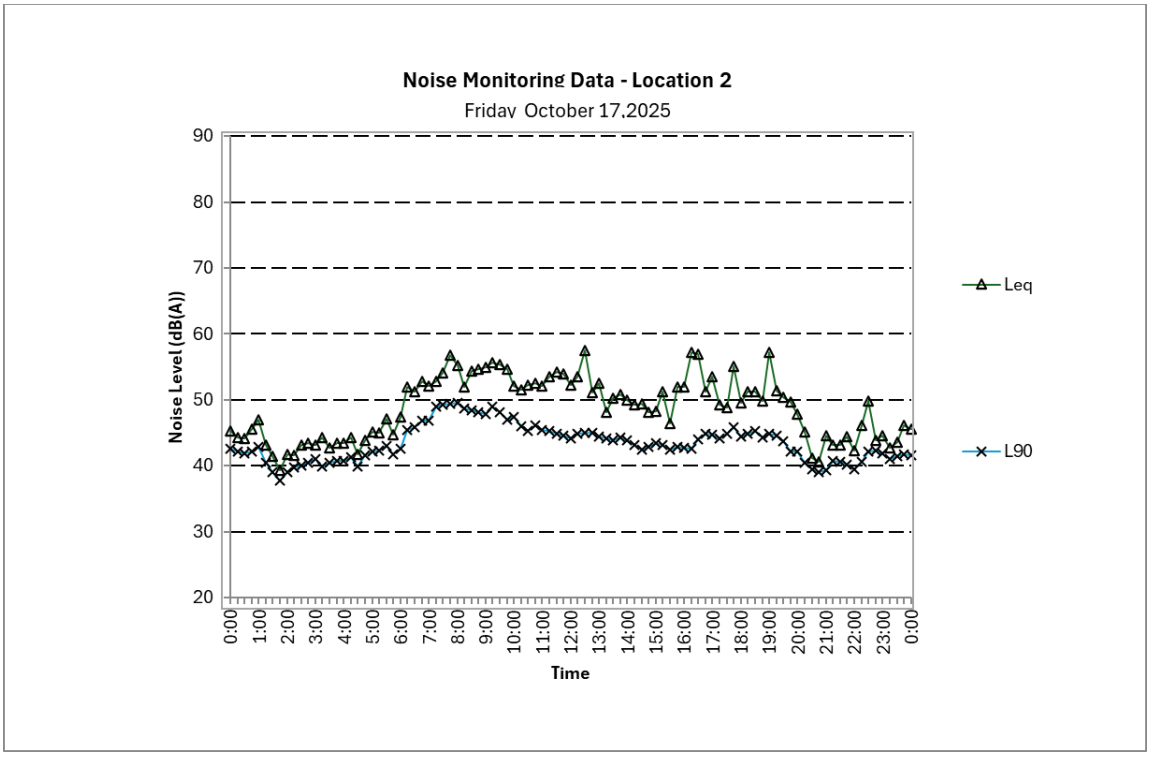
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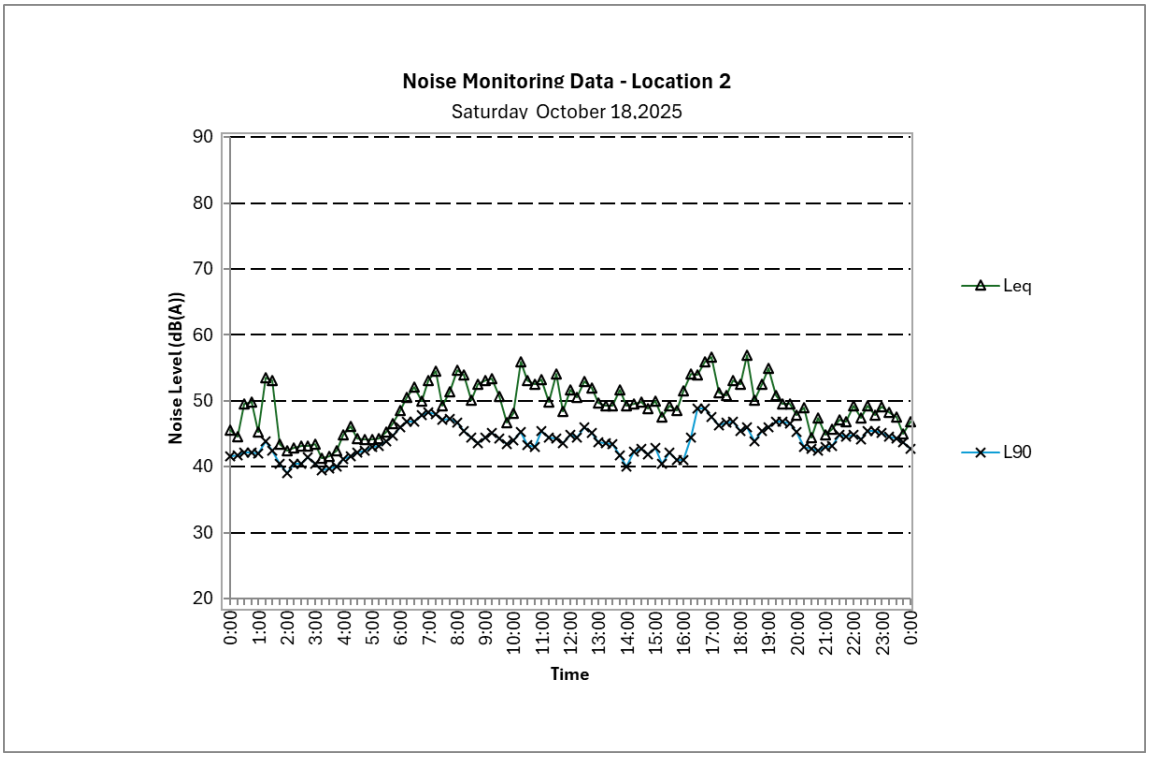
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Time
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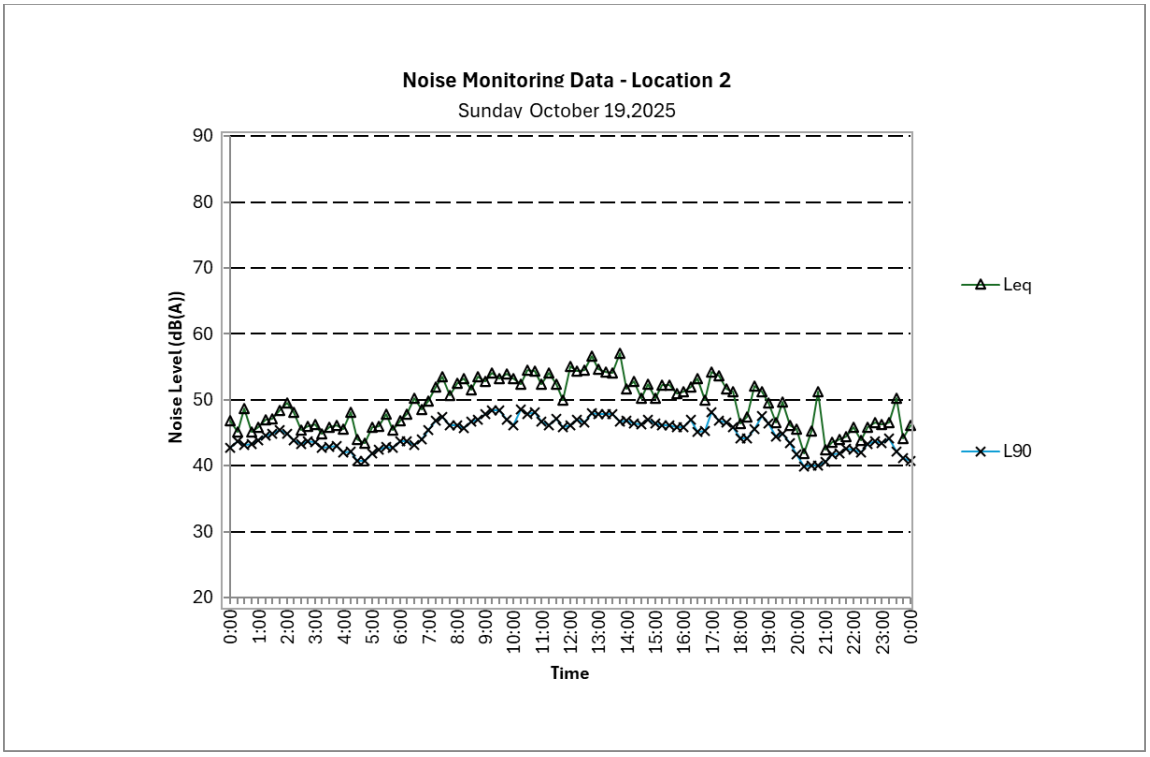
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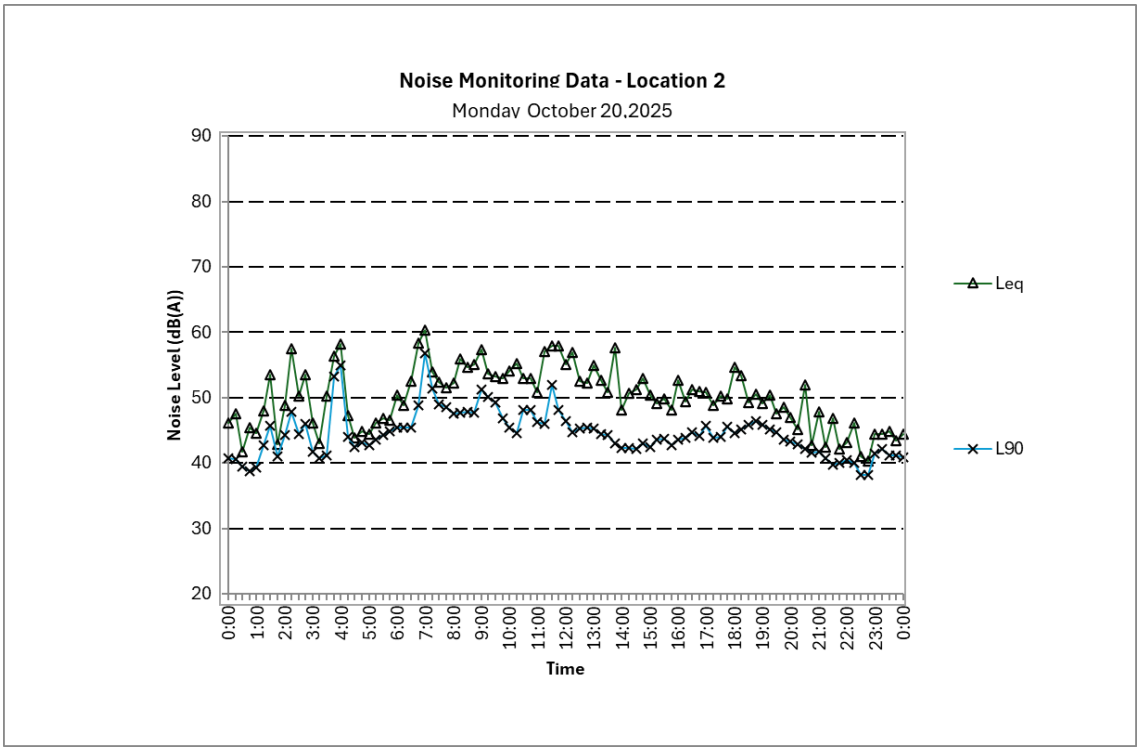
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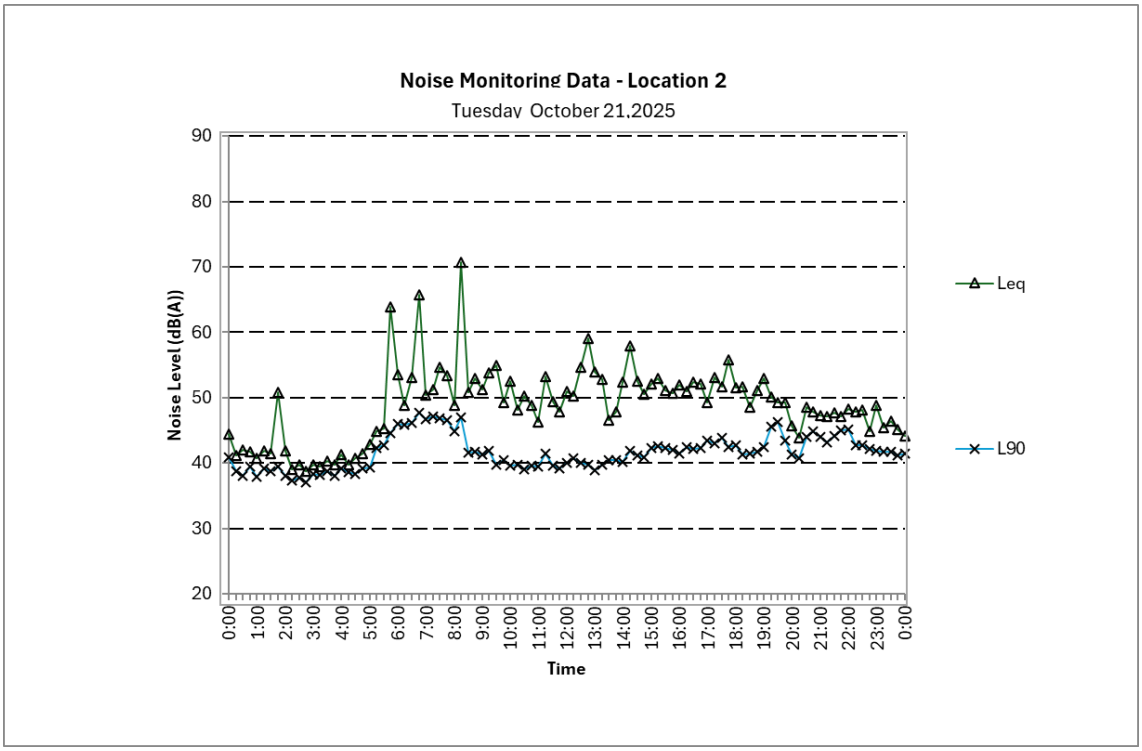
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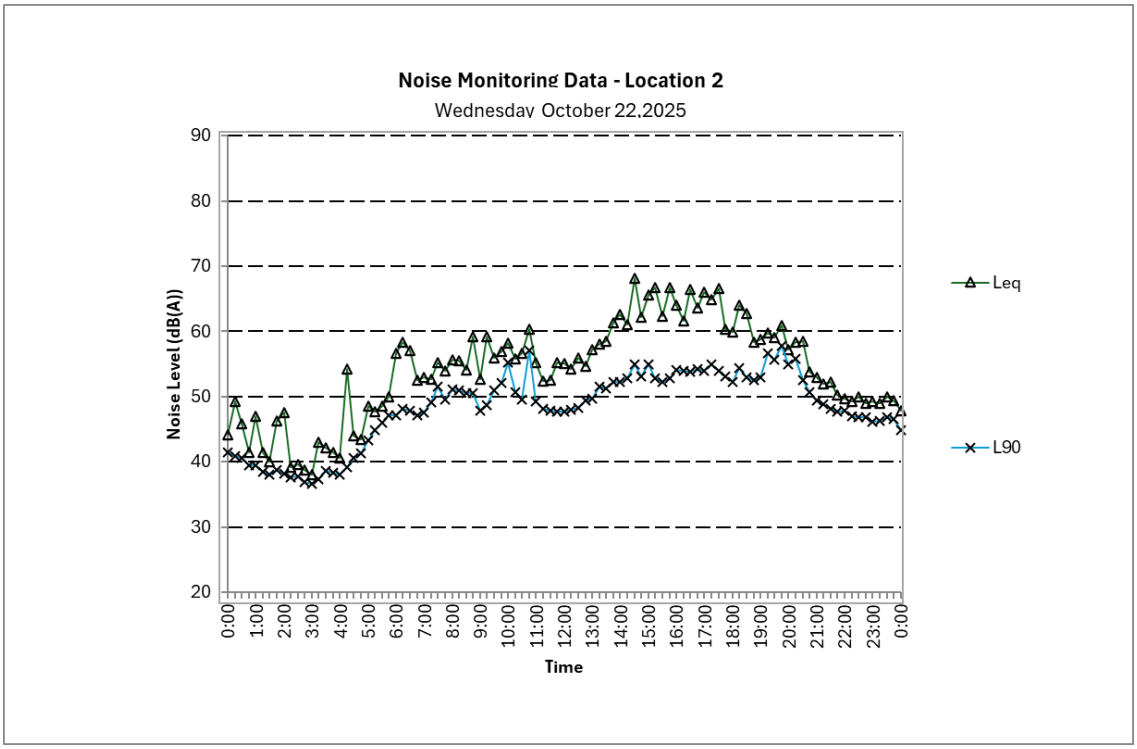
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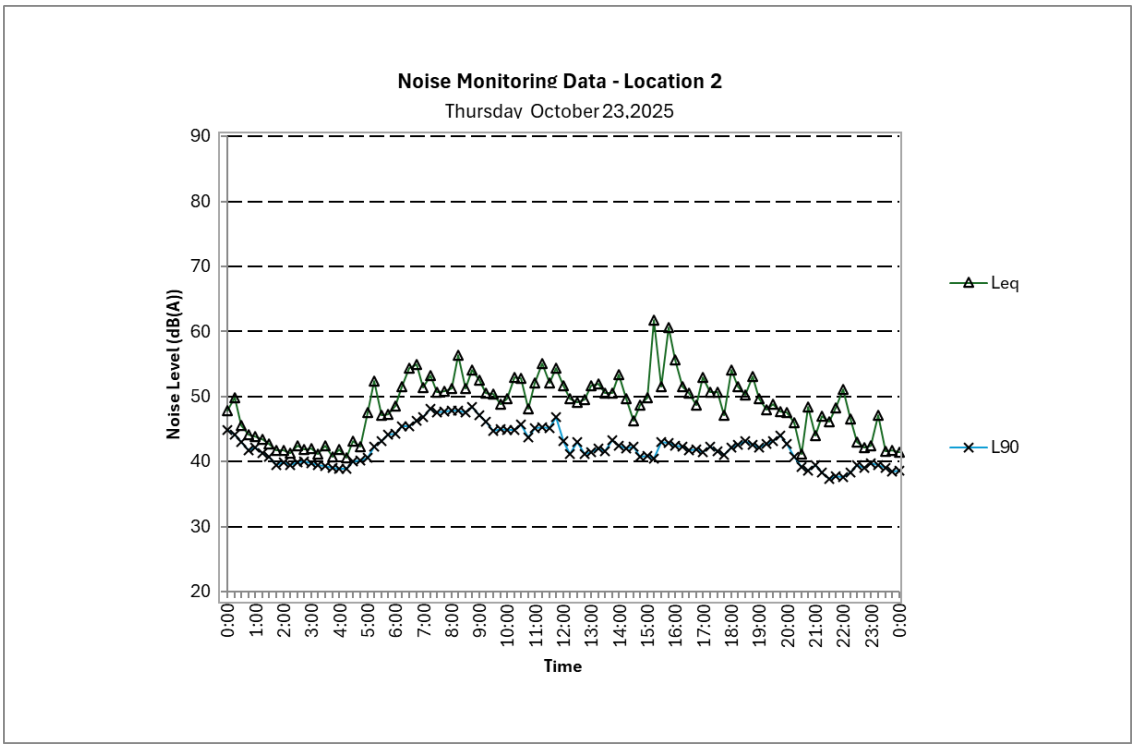
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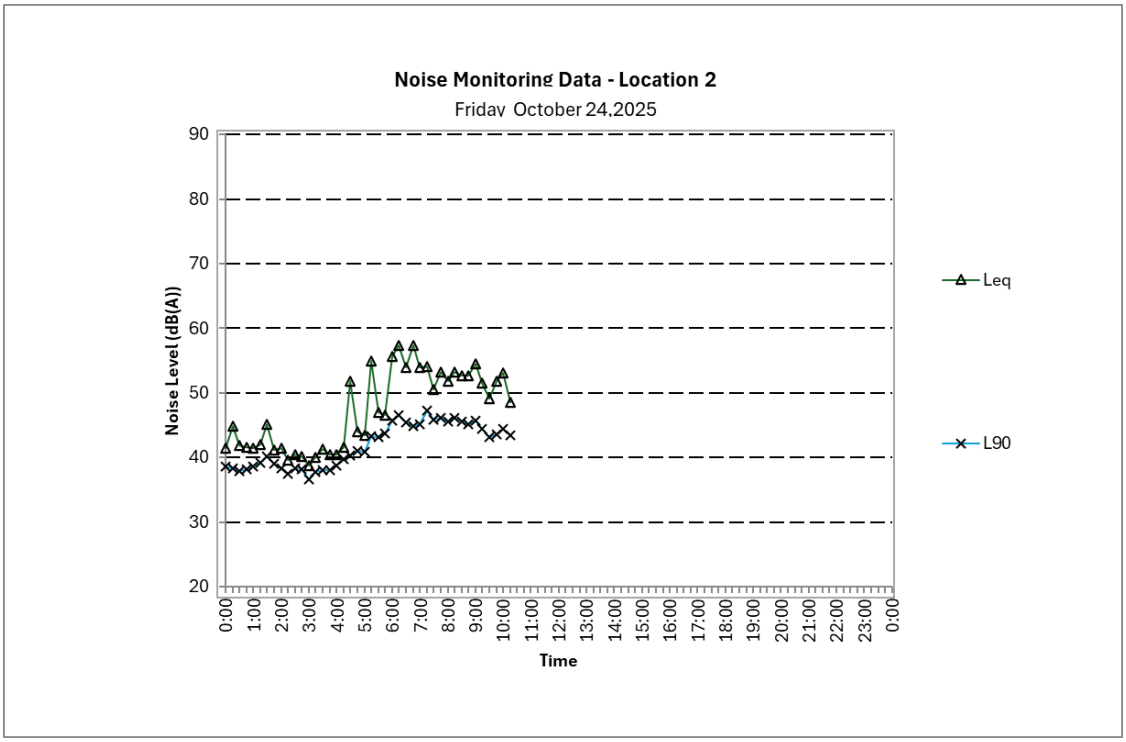
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Sustainability Management Plan

The Factory | 35-45 Lithgow Street | Model

V1 | 29 October 2025

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Document Verification

The Factory (35-45 Lithgow Street)			304461-00		
Sustainability Management Plan			251029-35L-Sustainability Management Plan-v1		
Model					
Revision	Date				
DRAFT v1	17 October 2025	Description	Draft for review and comment by project team		
			Prepared by	Checked by	Approved by
		Name	Jo Gardner-Marlin	Richard Stokes	Richard Stokes
v1	29 October 2025	Description	Issue v1 for Town Planning		
			Prepared by	Checked by	Approved by
		Name	Jo Gardner-Marlin	Richard Stokes	Richard Stokes
		Description			
			Prepared by	Checked by	Approved by
		Name			
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			Prepared by	Checked by	Approved by
		Name			

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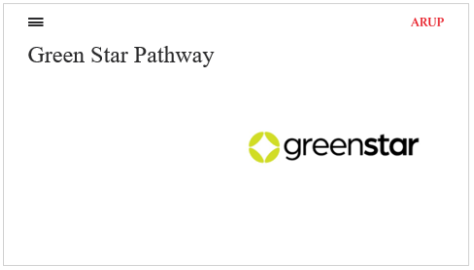
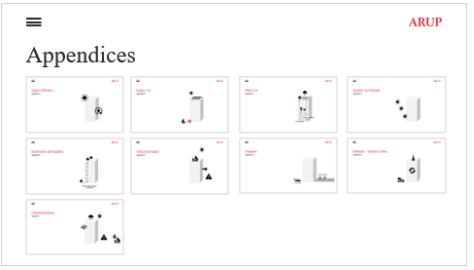
Interactive Contents Menu





Introduction

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Strategy Overview

Regenerative decarbonisation for build-to-rent

This report provides an overview of the Sustainability Management Plan for Model's multi-residential development at 35-45 Lithgow Street, Abbotsford.

Arup has developed a sustainability strategy for this project with Model and the project team which takes a holistic approach with consideration of emerging market expectations for sustainable buildings.

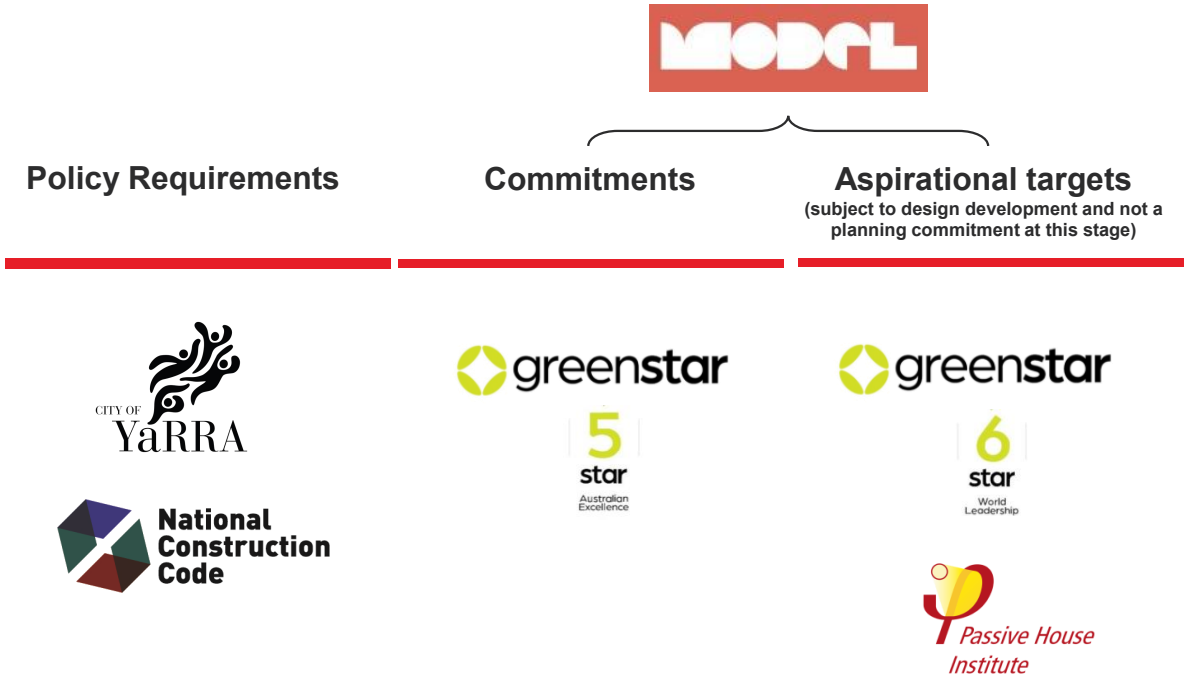
An overview of Yarra City Council's applicable requirements for the development has been outlined and is directly addressed within this report based on the proposed design.

The project is committed to achieving the following minimum requirements, aligning to City of Yarra's current policy expectation:

- 5 star Green Star, including
- 7 star NatHERS average and 6 star minimum, or equivalent

Additionally, Model are pursuing the following targets subject to detailed design resolution. Note these are not commitments for planning purposes at this stage. This includes:

- 6 star Green Star
- Passivhaus Classic certification
- 9 star NatHERS average or equivalent



Project requirements, commitments and aspirational targets

Site Context

Inner Melbourne

The proposed development is located at 35-45 Lithgow Street, Abbotsford, under 5 km east of Melbourne CBD. Abbotsford is rapidly changing towards higher-density living, which support's the areas transformation from industrial to residential. Supporting this transition includes:

- Education facilities such as Abbotsford Primary School and childcare centres
- The site has a Walk Score of 96 and a Transit Score of 82, indicating good accessibility to transport amenity and safe, walkable streets.
- The site is a 5-minute walk from two tram line stops that run from Box Hill towards Melbourne's CBD and from Victoria Gardens to St Kilda. These connect the site to both rapidly growing eastern suburbs as well as the city centre.
- The location is nearby multiple parks as well as the Yarra river and adjacent reserves.

35-45 Lithgow Street Context

Nearby neighbourhood, parks and amenity (GoogleEarth)

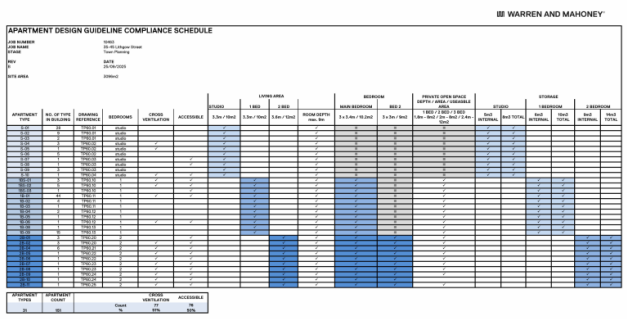
Project Overview

Medium density high performance living

The 35-45 Lithgow Street development is an ambitious build-to-rent project by Model with Warren and Mahoney Architects, comprising of 151 apartments across the 3,096 m^2 site. It will replace the site of the old Schweppes Cordial Factory in Abbotsford and is retaining an existing building to be repurposed for shared amenities such as co-working, wellness spaces and retail.

The project is committed to achieving Green Star 5 Star with the latest Buildings v1 tool and is also pursuing a 6 Star Green Star and Passivhaus Classic certification subject to design development. It is also pursuing the following initiatives to support Model's aim to decarbonise housing at scale:

- 7 star NatHERS average and 6 star minimum (or equivalent).
- 70 kW solar PV array (or sufficient to meet Green Star best practice requirements)
- Low carbon materials with at least a 20% reduction in upfront carbon.
- Well located near both trams, trains and bike paths.
- Bike parking for ~40% residents to encourage active transport.
- Communal and landscapes spaces provided to facilitate health, wellbeing and connection among residents.



35-45 Lithgow Street Development Summary

35-45 Lithgow Street Ground floor plan

35-45 Lithgow Street East Elevation

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Policy Review and Strategy

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City of Yarra Planning Policy

Clause 15.01-2L Environmentally Sustainable Development

Clause 15.01-2L-01 Environmentally sustainable development of the City of Yarra Planning Scheme has several performance measures pertaining to sustainable building design for this type of building (Residential, ten or more dwellings).

All Yarra City Council ESD objectives are being met and exceeded by the proposed development at 35-45 Lithgow Street to meet current and emerging expectations for sustainability.

The table inset summarises the requirements and the project's responses. This is expanded upon in the following pages and documented within this report.

Council ESD Objectives	35-45 Lithgow Street Response
Energy Performance	• Minimum 7 star NatHERS average and 6 star minimum, or equivalent, with 9 star average stretch target • Provision of ~70 kW solar PV array to generate renewable energy on-site • All-electric design with electric heat pump with a COP of at least 3.0 for domestic hot water • Air permeability target of <5m^3/m^2/hr @50Pa, aligned with Australian best practice
Integrated water Management	• Water efficient fixtures and fittings to reduce potable water consumption • 20 kL rainwater tank installed to collect and reuse rainwater in irrigation and toilet flushing in apartments • Native and indigenous planting to reduce irrigation requirements • Targeting minimum 10% reduction in potable water use overall
Indoor Environment Quality	• Passive design measures to enhance thermal comfort without active heating and cooling, such as a high-performance building envelope and moderate glazing area, combined with external shading where required. • Provision of ceiling fans. • Low VOC materials used for a healthy indoor environment • Acoustic design to manage internal noise levels and provide acoustic separation.
Transport	• 90 bike hoops for residents and 6 for visitors • 3 electric vehicle charging spaces and 100% remaining car spaces will have capability to be upgraded to electric charging spaces in the future subject to fire risk.
Waste Management	• Multiple waste streams collected including waste to landfill, commingled recycling, glass, organics, hard-rubbish storage, e-waste bin and charity waste bin. • Diverting 90% of construction and demolition waste from landfill
Urban Ecology	• >700m^2 green space provided– with a significant tree (or equivalent) for nesting to enhance biodiversity and mitigate urban heat island effects. • 60% indigenous planting to promote local flora and fauna.
Innovation	• Climate resilience strategy implemented • Biophilic principles incorporated in the building design • Targeting 20% reduction in upfront carbon through efficient design and use of low carbon materials

Current City of Yarra Planning Policy

Clause 15.01.2L-01 Extract

Overall Sustainability

Mandatory

The Yarra City Council planning scheme requires a sustainability assessment under either the BESS or Green Star framework for residential developments with more than 10 dwellings (Clause 15.01-2L-01).

Model is targeting a 5-star Green Star rating for the 35-45 Lithgow Street project using the latest *Green Star Buildings v1* tool, which is considered to represent Australian Excellence in sustainability leadership. The project is also pursuing a stretch target of 6 star Green Star which will be confirmed as the design develops.

Green Star is Australia's national, voluntary rating system for the sustainable design, construction, and operation of buildings, fit-outs, and communities. The *Green Star Buildings v1* tool is the most ambitious version to date, setting minimum expectations and offering a comprehensive set of credits across environmental, social, and governance themes.

In parallel, the project is pursuing a Passivhaus Classic rating, however, this is pending further development and certification target will be confirmed as the design develops. This is a global best practice rating tool that is an extremely effective mechanism for achieving a high-performance building. It focuses on key targets for maximum heating and cooling demands, primary energy demands, humidity, airtightness and condensation minimisation.

The focus of this report is on demonstrating alignment with the *Green Star Buildings v1* framework, which is the current certification pathway for 35-45 Lithgow Street.

35-45 Lithgow Street is committed to achieving:

- 5 star *Green Star Buildings v1* rating, with 35 points targeted - exceeding planning requirements

Additionally, the following is being pursued, but is provisional and does not form part of the planning commitment at this stage:

- 6 star *Green Star Buildings v1* rating, with 70 points targeted
- A *Passivhaus Classic* rating for the apartment buildings – this aligns with several Green Star Credits and can expect to contribute to Exceptional Performance for energy use.

Model is committed to registering the project in early 2026 before the cut-off date for the v1.1 update.

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Requires assessment using either:

bess OR greenstar

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Overall Sustainability

Mandatory

Model is pursuing a 5 star Green Star Rating for the 35-45 Lithgow Street project and as such is required to meet the energy performance as dictated by the Green Star Credit Achievement Criteria.

Additionally, the project must not exceed minimum cooling load limits as outlined by the Apartment Design Guidelines Victoria (ADGV) whilst also meeting the NCC 2022 criteria (minimum 7-Star average).

Therefore, the following targets have been adopted for the project:

- ✓ 7 star average or equivalent which equates to ~62 MJ/m²/year heating and cooling energy demand, and 6 star minimum for each apartment or *equivalent using J1P2.*
- ✓ Cooling load to not exceed 41 MJ/m² as required for NatHERS climate zone 21 (ADGV).
- ✓ Whole of home average score of at least 50 out of 100 *or equivalent using J1P3.*

Preliminary NCC NatHERS modeling, supporting this performance, is included in Appendix A for a selection of representative apartments.

Non-residential areas must also achieve improvement beyond code requirements, and a target 20% improvement on Section J DtS has been adopted to align with the Green Star Energy Use credit.

Australian Government

NCC 2022
J1V5 performance verification method

J1P2
≈ 7 star NatHERS
≈ 62 MJ/m²
(max. heating + cooling demand for all units, note superseded)

J1P3
Whole of home energy usage
(Less than a reference building)

+

VICTORIA State Government

ADGV
Australian Design Guidelines Victoria

< 41 MJ/m²
(cooling demand – use of J1V5 method proposed for all units)

[No mention of stars or whole of home]

+

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5 Star
Green Star

≈ 7 star NatHERS
≈ 62 MJ/m²
(Target and use of J1V5 requires TQ with GBCA for all units)

[No mention of whole of home]

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Energy Performance

Discretionary

The project must implement design measures to reduce both energy use and energy peak demand. In addition to mandatory NCC energy efficiency requirements, renewable technologies such as onsite solar PV are strongly encouraged where possible.

Onsite renewables increase a buildings resilience against black outs or brown outs. They have the additional benefit of reducing stresses on land use for offsite generation farms that can have negative consequences for ecology and biodiversity on the site they are developed.

These recommendations align with credit 22 Energy Use, where projects are encouraged to provide a minimum 500 kWh of annual electricity generation per dwelling through on-site solar PV.

- ✓ A 70 kW solar PV array will be installed on rooftops of the buildings, which has been sized based on Green Star best practice energy requirements. Refer Appendix B for further information.
- ✓ 35-45 Lithgow Street is committed to achieving these requirements with all an efficient, all electric design.
- ✓ Model will source 100% renewable energy for all residential common area energy uses

Indoor Environment Quality

Mandatory

The project must achieve a healthy indoor environment quality, including thermal comfort and access to fresh air and daylight, prioritising passive design over mechanical heating, ventilation, cooling and lighting.

- ✓ The project has been designed to achieve an average NatHERS star rating of 7, which is beyond current NCC requirements and will facilitate enhanced thermal comfort through passive design measures including a high-quality building fabric and external shading. Refer Appendix A for the design specification.
- ✓ The project ensures that regularly occupied spaces are nearby glazed façades or windows, enhancing access natural light and external views of nature and greenery.
- ✓ An initial daylight review shows the apartments at 35-45 Lithgow Street receive good levels of daylight, with windows to all living and bedrooms and room depths less than 9m. Refer Appendix D for preliminary daylight assessment.

Mandatory Cont.

The project must reduce air pollutants by encouraging use of low-toxicity materials. The project must also minimise noise levels and noise transfer within and between buildings and associated external areas.

These requirement align with Green Star credits 13 Exposure to toxins and 12 Acoustic Comfort.

- ✓ The project is committed to using low VOC paints, adhesives, sealants, carpets and engineered wood products.
- ✓ The project will provide acoustic comfort for building residents through design of internal noise levels and providing acoustic separation. This will be developed during detailed design.

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Urban Ecology

Mandatory

The project should protect and enhance biodiversity by incorporating natural habitats and planting indigenous vegetation. Urban heat island effects should be mitigated through building design, landscape design, water sensitive urban design and the retention and provision of canopy and significant trees.

These requirements align with Green Star credits 36 Biodiversity Enhancement and credit 19 Heat Resilience.

- ✓ >700 m^2 of green space is present throughout the 35-45 Lithgow Street development, and 60% of plants will be native and indigenous species. Over 30 trees will be planted on-site, including one large nesting tree or equivalent. Refer Appendix E for a summary of landscaping on-site.
- ✓ Urban heat island effects will be mitigated through strategies such as greenery and landscaping, and low reflectance paving to more than 75% of the whole site area. Refer Appendix F for more information.

Discretionary

Space for productive gardens is encouraged, particularly in larger residential developments.

- ✓ 35-45 Lithgow Street will include a productive garden area for residents to grow herbs and vegetables on the rooftop.

Transport

Mandatory

The development should promote the use of walking, cycling and public transport and minimise car dependency.

These requirements align with Green Star credit 27 Movement and Place.

- ✓ The project will include 90 bicycle parks for residents and staff, as well as 6 visitor bicycle parks, informed by the Sustainable Transport Plan.

Refer Appendix G for the Green Star Transport calculation.

Discretionary

Promote the use of low emissions vehicle technologies and supporting infrastructure.

- ✓ 35-45 Lithgow Street will include 3 electric vehicle charging spaces representing 5% of the total number of cars. It also includes provision for 100% of the remaining carparks to be fitted with EV charging capability in the future subject to fire safety.

Further information is included in Appendix G.

Waste Management

Mandatory

The project should avoid waste to landfill and prioritise reuse and recycling during the design, construction and operation stages of development. Sufficient space should be allocated for future change in waste management needs, including (where possible) composting and green waste facilities.

These requirements align with Green Star credit 2 Responsible construction and credit 4 Responsible Resource Management.

- ✓ 35-45 Lithgow Street is committed to diverting 90% of construction and demolition waste from landfill
- ✓ The project will retain the heritage façade and will also retrofit an existing building, including non-heritage elements to house amenities and retail.
- ✓ The building is designed for the collection and separation of multiple waste streams including waste to landfill, commingled recycling, glass, organics, e-waste, charity waste bin and hard rubbish storage.

Discretionary

The project should encourage the use of durable and reuseable building materials.

- ✓ Low carbon, durable and reusable materials are to be prioritised and further developed during detail design. Initial information on materials can be found in Appendix H.

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Integrated Water Management

Mandatory

The project must reduce total operating potable water use through appropriate design measures such as water efficient fixtures, appliances, equipment, irrigation and landscaping. Additionally, best practice water sensitive urban design mechanism must be incorporated to improve the quality of stormwater runoff and reduce impacts on water systems and water bodies.

These requirements align with Green Star credits 25 Water Use and Credit 39 Waterway protection.

- ✓ The project is targeting a minimum 10% reduction in potable water use compared to a hypothetical reference building. This will be achieved through the installation of water efficient fixtures and fittings and the collection and reuse of rainwater for toilet flushing and landscape irrigation. Refer Appendix B for further information.
- ✓ Stormwater discharge will be reduced by at least 40% across the site and pollution managed. Refer submission Stormwater Report for further information.

Discretionary

Alternative water sources such a greywater, rainwater and stormwater are encouraged.

- ✓ The 35-45 Lithgow Street project has allowed for a combined 20 kL rainwater system to meet this requirement with water treatment considered not commercially viable at this scale.

Innovation

Further sustainability commitment

The City of Yarra does not mandate the inclusion of additional innovative initiatives, however Model endeavor to commit to several further sustainable outcomes for the 35-45 Lithgow Street project.

The project is pursuing the following initiatives that go beyond council requirements. These have been adopted to align with Model's sustainability ambitions, as part of the developments 5 Star Green Star pathway.

- ✓ 20% reduction in upfront carbon, through the adoption of low carbon materials and efficient design strategies. This will be further developed in subsequent project stages. Refer Appendix H for further information.
- ✓ A climate resilience strategy will be prepared for the development, following a workshop with the project team in the next project phase. We have undertaken a climate pre-screening to identify key risks. Refer Appendix J for further information on risks identified.
- ✓ Biophilic design principles have been adopted in the design and will be further developed as the design progresses. The project is committed to achieving Green Star credit 15 Connection to Nature. Refer Appendix E for further information.

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Green Star Pathway

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Strategy Overview

Driven by 5 star Green Star target

The 35-45 Lithgow Street development is committed to achieving a 5 star Green Star rating for the building, indicating a level of 'Australian Excellence'. Based on the current design, however, the project is well placed to achieve its aspirational pursuit of a 6 Star "World Leadership" rating.

This requires a minimum of 35 credits in the Green Star Buildings v1 Submission (5 star) or 70 points (6 star).

This exceeds the current policy requirement for a Green Star rating or BESS assessment.

It should be noted that the specific credits that are targeted may change throughout the course of the project as final design is detailed and construction documentation is provided, however the project is committed to the overall goal of a 5 star Green Star rating.

The Green Star pathway to achieve a 5 star rating is outlined in further detail within the following pages.

Responsible

Recognises activities that ensure the building is designed, procured, built, and handed over in a responsible manner.

Places

Supports the creation of safe, enjoyable, integrated, and comfortable places.

Healthy

Promotes actions and solutions that improve the physical and mental health of occupants.

People

Encourages solutions that address the social health of the community.

Resilient

Encourages solutions that address the capacity of the building to bounce back from short-term shocks and long-term stresses

Nature

Encourages active connections between people and nature and rewards creating biodiverse green spaces in cities.

Positive

Encourages a positive contribution to key environmental issues of carbon, water, and the impact of materials.

Leadership

Recognises projects that set a strategic direction, build a vision for industry, or enhance the industry's capacity to innovate.

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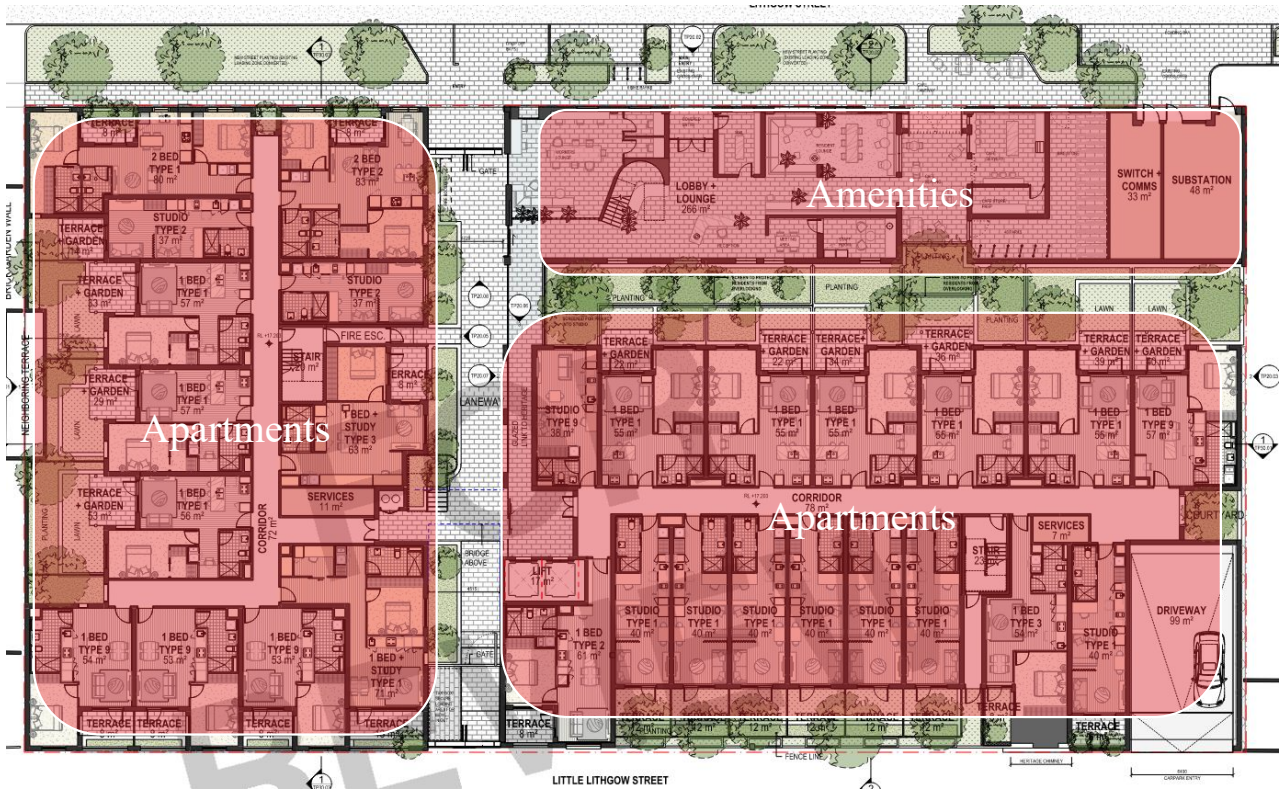
Green Star Approach

5 star Green Star for whole development

The 35-45 Lithgow Street development encompasses three forms connected by a shared basement and multiple above-ground bridges. All apartments are contained within two of the building forms, with the third form housing all residential amenities and retail.

The development is considered one Green Star Buildings v1 rating and will be assessed holistically.



Ground floor plan, WAM

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Responsible

6/17 Green Star points

Recognises activities that ensure the building is designed, procured, built, and handed over in a responsible manner.

The Responsible category in Green Star encourages implementation of practices that support best practice outcomes throughout the different phases of planning, design, procurement, construction, commissioning and operation of a development.

1 **Industry Development** — **Credit Achievement 1/1**

Arup as a Green Star Accredited Professional (GSAP) has been contractually engaged to provide advice, support and information related to Green Star principles, structure, timing and processes, at all stages of the project, leading to certification. The project will also track the cost and market the sustainability outcomes.

2 **Responsible Construction** — **Credit Achievement 1/1**

The project team has committed to set, measure and report on its environmental performance through the implementation of a project specific EMP. The performance shall be reported on quarterly, with methods appropriate for each stakeholder group. The contractor will provide sustainability training to site workers. At least 90% of the waste generated during construction and demolition will be diverted from landfill.

3 **Verification + Handover** — **Credit Achievement 1/1**

The project is committed to achieve various energy, water and indoor environment targets in line with Green Star certification. The project will conduct an airtightness test, be commissioned and tuned as well as deliver comprehensive operations and maintenance documentation at the time of handover. An independent commissioning agent will be engaged to monitor these processes and documentation.

4 **Responsible Resource Management** — **Minimum req.**

The building will be appropriately designed to facilitate the separation and collection of waste and resource streams, including appropriately sized storage areas and safe and efficient access for occupants and collection contractors. This is consistent with the operational waste management plan prepared.

5 **Responsible Procurement** — **Credit Achievement 1/1**

The project will follow ISO 20400 Sustainable Procurement – Guidance by undertaking a risk and opportunities assessment in design development. A responsible procurement plan will be developed to help implement opportunities and mitigate risks and will inform material specification.

6 **Responsible Structure** — **Not targeted**

Not targeted at this stage.

7 **Responsible Envelope** — **Not targeted**

Not targeted at this stage.

8 **Responsible Systems** — **Not targeted**

Not targeted at this stage.

9 **Responsible Finishes** — **Exceptional Performance 2/2**

The project will specify internal building finishes that meet responsible sourcing and procurement requirements. Such as FSC certification for timber finishes and third party eco-labels for carpets, ceilings, partitions etc such as GECA, GreenTag and Declare with EPDs. This strategy will be defined as the design develops in detail to inform material specifications.

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Healthy

10/14 Green Star points

Promotes actions and solutions that improve the physical and mental health of occupants.

We spend the majority of our time indoors so the quality of the indoor environment is crucial for our health and wellbeing and the Heathy category aims to ensure buildings facilitate a healthy environment. Occupant wellbeing may also by supported by having access to nature and natural amenity such as daylight.

10 **Clean Air** — **Credit Achievement 2/2**

A higher level of fresh air (50% more) is provided to ensure levels of indoor pollutants are maintained at acceptable levels. The project will provide mechanical ventilation to meet this target. This can also be considered with 700ppm criteria, with continuous CO_2 measurement and dynamic control of the ventilation system to maintain levels under this limit. Minimum separation distances between supply intake and exhaust are met and internal sources of pollutants are exhausted directly outside.

11 **Light Quality** — **Minimum Req.**

The building provides access to a view and daylight to all the apartments. Some lower-level apartments have limited access to daylight due to overshadowing; however all regularly occupied areas are near windows and residents have access to outdoor areas as well as indoor amenity areas with excellent levels of daylight. Refer to preliminary daylight assessment in Appendix D.

12 **Acoustic Comfort** — **Credit Achievement 2/2**

The buildings will be designed to meet high levels of acoustic comfort, by using appropriate finishes to reduce reverberation, acoustically insulated partitions to separate spaces and reduce the intrusion of external noise with appropriate envelope. This will be detailed as the design develops and tested upon completion.

13 **Exposure to Toxins** — **Credit Achievement 2/2**

95% of paints, adhesives, sealants and carpets will be specified to meet strict VOC content and 95% of engineered wood products must meet thresholds for formaldehyde. This strategy will be defined as the design develops in detail to inform material specifications and tested upon completion.

14 **Amenity and Comfort** — **Credit Achievement 2/2**

The project will include dedicated spaces that act as relaxation areas. The design presently features an array of spaces for dedicated amenity areas for occupants to meet this requirement. Please refer to marked up plans in appendix D.

15 **Connection to Nature** — **Exceptional Performance 2/2**

The building will include indoor plants and incorporate nature-inspired design through the integration of the tenant fit-out and detailed design of the lobby space. At least ~1m^2 of indoor plants to every 300m^2 of regularly occupied spaces (~80% GFA) will be provided. The design presently features ~30m^2 of indoor plants including indoor/outdoor spa with landscaping.

ARUP

Resilient

2/8 Green Star points

Encourages solutions that address the capacity of the building to bounce back from short-term shocks and long-term stresses.

The Resilient category addresses the need for developments to have defences and mechanisms in place to respond to and mitigate changes in climate, supporting infrastructure and in emergency scenarios.

16 **Climate Change Resilience** — **Credit Achievement 1/1**

The project will develop a project-specific climate change risk and adaptation plan for the building. All the high and extreme risks must be addressed with design or operational interventions. A pre-screening check has been undertaken and is included in Appendix J. The detailed strategy will be defined as the design develops in detail which is appropriate given the limited findings from the pre-screening exercise.

17 **Operations Resilience** — **Not Targeted**

The operations resilience strategy is not being pursued on this development at this stage but may be reviewed as the design develops to understand the project opportunities further.

18 **Community Resilience** — **Not Targeted**

The community resilience strategy is not being pursued on this development at this stage but may be reviewed as the design develops to understand the project opportunities further.

19 **Heat Resilience** — **Credit Achievement 1/1**

Strategies will be implemented to reduce the project's contribution to the urban heat island effect by including light shade finishes, vegetation and shading. The design presently features light coloured roofs and vegetation to meet this requirement. Please refer to marked up plans in appendix F.

20 **Grid Resilience** — **Not Targeted**

This credit is not targeted at this stage but will continue to be investigated with the project team as the design develops in case the criteria becomes of interest to the project.

ARUP

Positive

19/30 Green Star points

Encourages a positive contribution to key environmental issues of carbon, water, and the impact of materials.

Promotes actions and solutions that improve the physical and mental health of occupants.

21 **Upfront Carbon Emissions** — **Credit Achievement 3/6**

The building's upfront carbon emissions are at least 20% less than those of a reference building. This will be tested on the basis of the reference design defined by Green Star. A preliminary analysis has been undertaken and is included in Appendix C with various proposed strategies including existing building reuse, structural design optimisation and other low carbon products including ceiling panels with EPDs. This will be further explored in the next design stages.

22 **Energy Use** — **Credit Achievement 3/6**

The building's energy use will be reduced through adopting at least a 7 star NatHERS average rating. This will be demonstrated by undertaking a dynamic energy simulation of the building using the new Performance Pathway for the NCC J1V5 and the addition of 70 kW of solar photo-voltaic (PV) panels on the roof. Refer Appendix A for details.

23 **Energy Source** — **Exceptional Performance 6/6**

100% of the building's energy will come from renewable sources, either on-site, or off-site through strategies such as Power Purchase Agreements (PPAs) or Green Power with an embedded network. This means no on-site gas combustion will be featured on the project, even for heating or cooking with all electric systems.

24 **Other Carbon Emissions** — **Credit Achievement 2/4**

The project will seek to minimise impacts from refrigerants where possible and ultimately commits to offsetting emissions from refrigerants that remain.

25 **Water Use** — **Minimum req.**

The building will use at least 10% less potable water compared to a reference building. The design presently features water efficient fixtures and fittings with rainwater harvesting using an 20 kL tank to meet this requirement. Please refer to marked up plans in appendix B. At this stage the project does not include infrastructure for recycled water connection as there are no known plans for this system in this area.

26 **Life Cycle Impacts** — **Credit Achievement 2/2**

The project will undertake a peer-reviewed life cycle assessment and will show a 30% reduction in life cycle impacts when compared to standard practice. Please refer to the preliminary review in Appendix C. It is noted this credit is high risk as subject to the detailed LCA findings and forms part of the large points buffer adopted on the project.

ARUP

Places

6/8 Green Star points

Supports the creation of safe, enjoyable, integrated, and comfortable places.

Promotes actions and solutions that improve the physical and mental health of occupants.

27 **Movement and Place** **Credit Achievement 3/3**

The building's design and location prioritises walking, cycling, and transport options that reduce the need for private fossil fuel powered vehicles. The architectural strategy to meet these requirements has been implemented early in the design including 90 bike parks and 43 carparking spaces. 6 bike parks for visitors are also provided. Additionally, 3 EV chargers will be provided to carparks. Infrastructure for future EV installation provided for all additional car parks subject to fire risk. Please refer to marked up plans in appendix G.

28 **Enjoyable Places** **Not Targeted**

The project is committed to including communal or public places that offer a memorable, beautiful and vibrant experience for the community. However the extent of space offered at this stage does not meet the Green Star criteria so the credit is not being pursued at this stage.

29 **Contribution to Place** **Credit Achievement 2/2**

The project will contribute to the liveability of the wider urban context and enhance the public realm. This will be verified as part of the WAM Urban Context Report.

30 **Culture, Heritage, Identity** **Credit Achievement 1/1**

Elements of the building's design will celebrate and acknowledge the local people and identity, history and commemorate relevant minorities. The design includes the retention of the existing heritage façade to support this claim and the final design outcome will be reached in collaboration and with meaningful engagement with community groups through the design process as it develops.

ARUP

People

5/9 Green Star points

Encourages solutions that address the social health of the community.

Promotes actions and solutions that improve the physical and mental health of occupants.

31 **Inclusive Construction** — **Credit Achievement 1/1**

The contractor once appointed will provide gender inclusive facilities and PPE and will have policies on site to increase awareness and reduce instances of discrimination and bullying. The head contractor will additionally provide high quality staff support including mental and physical health support. This will be a specified requirement.

32 **Indigenous Inclusion** — **Credit Achievement 2/2**

The building's design and construction will celebrate Aboriginal and Torres Strait Islander people, culture and heritage by incorporating design features using Indigenous design and planning principles. At this stage this is a commitment and will be developed as the design is detailed in consultation with First Nations people.

33 **Procurement and Workforce** — **Not Targeted**

This credit is not targeted at this stage but will continue to be investigated with the project team as the design develops in case the criteria becomes of interest to the project.

34 **Design for Inclusion** — **Credit Achievement 2/3**

The building will be designed to be inclusive to a diverse range of people, acknowledging the different needs of people to ensure they enjoy an equal experience. This will include equal access to the building, diverse wayfinding and introduction of inclusive spaces. This will be documented in detailed design.

ARUP

Nature

2/14 Green Star points

Encourages active connections between people and nature and rewards creating biodiverse green spaces in cities.

Promotes actions and solutions that improve the physical and mental health of occupants.

35 **Impacts to Nature** — **Minimum req.**

The building's site is not of significant ecological value, light pollution will be minimised and the design and construction conserves existing natural soil, hydrological flows and vegetation elements. As a building on a previously developed and now cleared site, the project will demonstrate a positive impact to biodiversity by providing additional site ecology.

36 **Biodiversity Enhancement** — **Credit Achievement 2/4**

The development provides >700 m^2 of landscaped area including >30 trees which will be considered with the GBCA to meet criteria as equivalent to nesting trees. Landscaping will also meet various species targets and include critically endangered and/or endangered plant species native to the bioregion. Please refer to marked up plans in appendix E.

37 **Nature Connectivity** — **Not targeted**

This credit is not targeted at this stage but will continue to be investigated with the project team as the design develops in case the criteria becomes achievable with subsequent development of the landscaping. At this stage, the landscaping design is fragmented and does not meet the criteria.

38 **Nature Stewardship** — **Not Targeted**

This credit is not targeted at this stage but will continue to be investigated with the project team as the design develops in case the criteria becomes of interest to the project.

39 **Waterway Protection** — **Not targeted**

Not currently targeted by the project, however the project team will continue to assess whether an annual average flow reduction (ML/yr) of 40% compared to pre-development levels and specified pollutants targets could be met as the project develops. TBC approach. This would require Civil Engineer to undertake MUSIC modelling and integrate onsite stormwater detention and treatment system.

ARUP

Leadership + Sector Specific points

6 Green Star points

Recognises projects that set a strategic direction, build a vision for industry, or enhance the industry's capacity to innovate.

Promotes actions and solutions that improve the physical and mental health of occupants.

40 **Market Transformation** **Not targeted**

The project is pursuing Passivhaus Certification which is considered world leading for building energy performance. The project team are actively working to meet this target; however this is subject to design development, therefore is not targeted as part of the Green Star pathway at this stage.

41 **Leadership Challenges** **1 points targeted**

The Climate Positive Pathway Leadership challenge has been met through the alignment of the design with the Green Star Climate Positive Pathway credits, gaining an additional point.

Further opportunities for Leadership will be explored as the design is developed with the project team and more Leadership Challenges are published by the Green Building Council of Australia that can be applied to this type of project.

SS **Tenant Energy Source** **Exceptional Performance 5/5**

The sector specific credit available for residential projects awards 5 points where at least 80% of tenants by GFA use renewable electricity. The embedded network design proposed for 35-45 Lithgow Street will effectively offer 100% renewable energy to all tenants as part of their rental agreement consistent with the Victorian State Government requirements for embedded networks. We anticipate this will enable all 5 points to be awarded.

ARUP

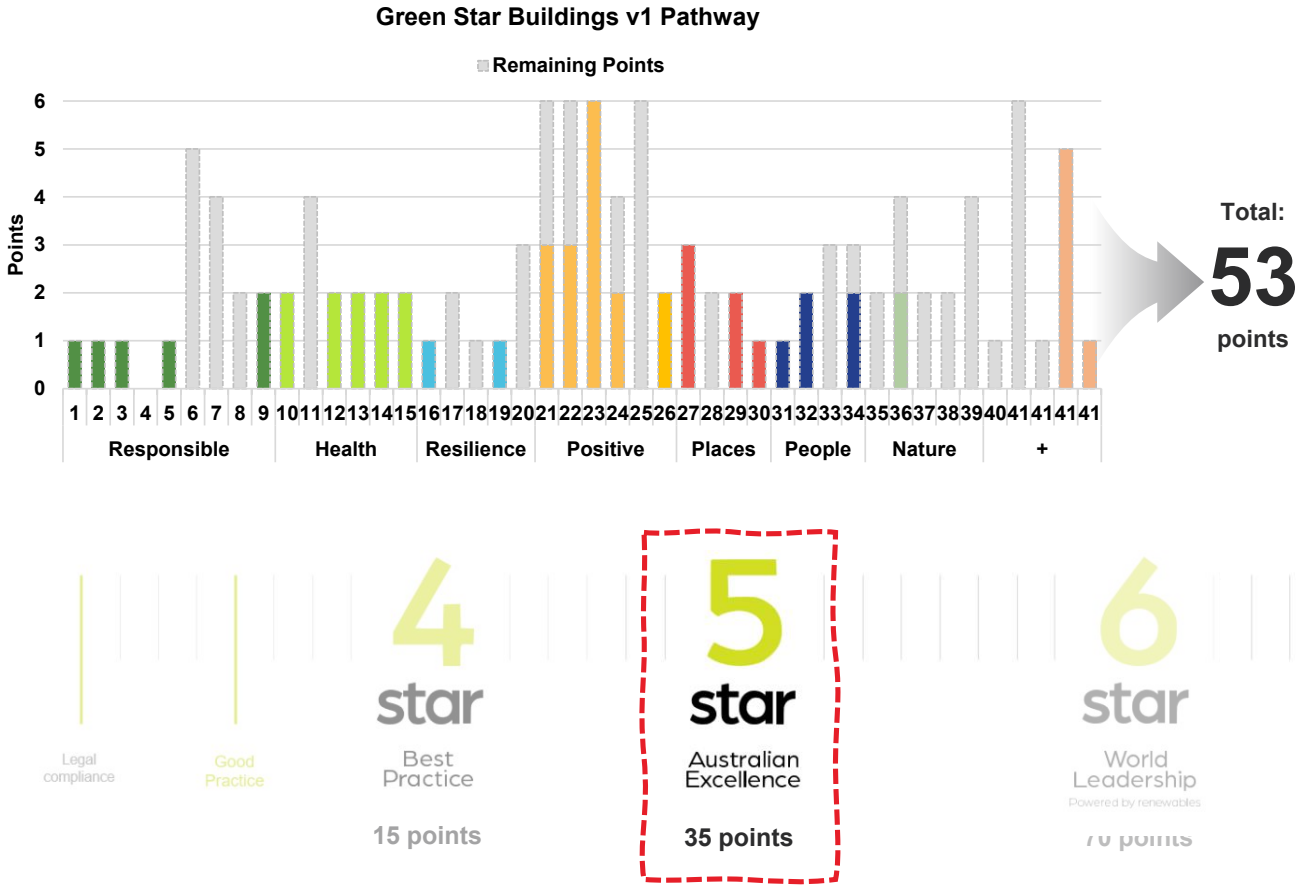
Pathway

5 star Green Star target

The 35-45 Lithgow St development is targeting >35 points, sufficient to achieve a 5 star Green Star rating using the current version of the national Green Star rating tool. This includes an allowance for points to be lost during the detailed design and construction process whilst also positioning the project to potentially reach 6 star as a stretch target.

For the full Green Star scorecard, please refer to the appendix.

A risk assessment demonstrating the total number of points targeted is sufficient for 5 star at this stage is included on the next page in addition to how the points are achieved for each category. At this stage, the project is on track to achieving at least a 5 star Green Star certified rating.



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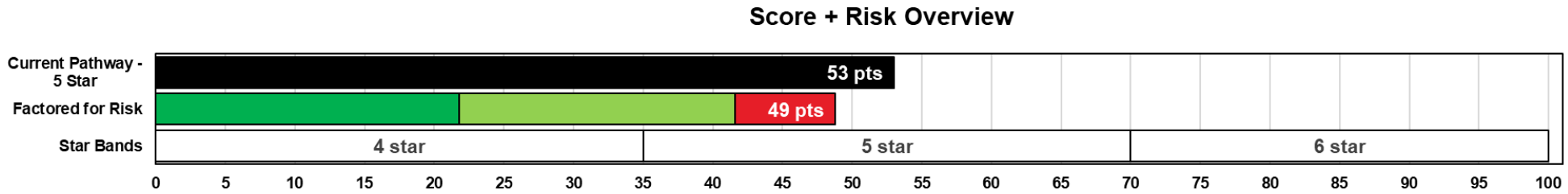
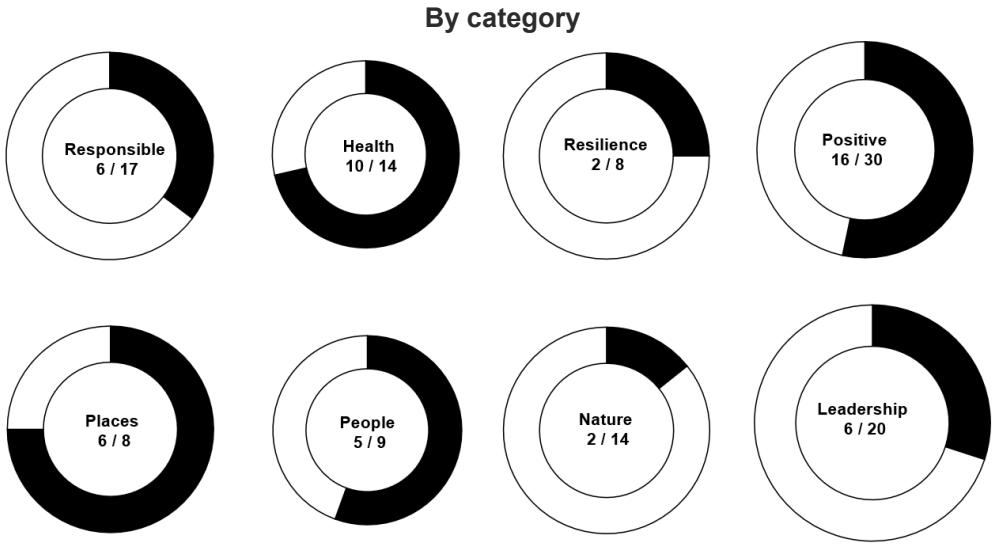
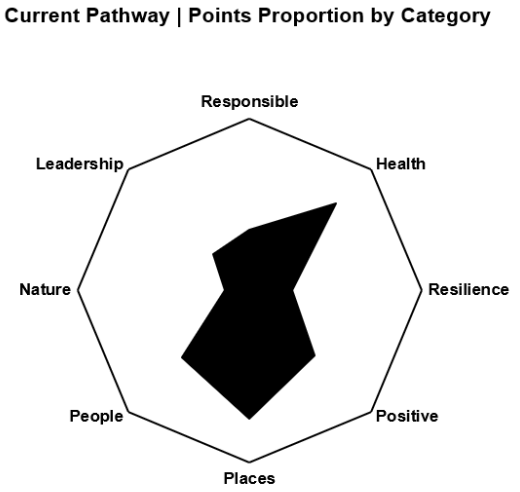
Risk Assessment and Category Outcomes







ARUP

Scorecard

Including risks per credit, responsibilities and timing

The scorecard inset reveals the full pathway and the remaining credits within Green Star that will continue to be considered as the project develops in detail.

Green Star Scorecard

35-45 Lithgow Street Build to Rent | The Model

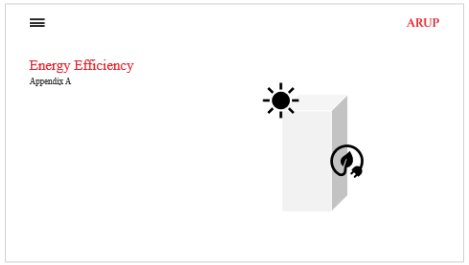
ME = Minimum Expectations | L = Low M = Medium H = High | P = Primary A = Assistance | X = Critical C = Consideration

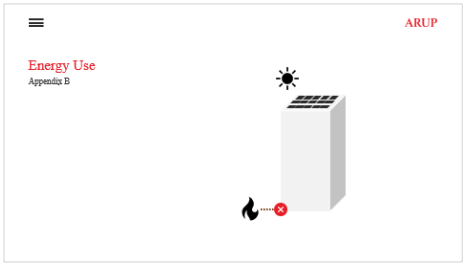
Current Pathway - 5 Star

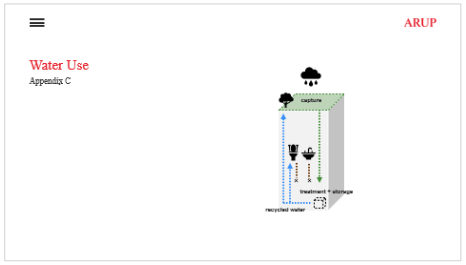
	#	Credit	Min. Req.	Pathway	Pts	Risk	Project Team: Client	Architect	Façade	Mech	Elec	Hydr.	Structure	Landscape	Civil	ESD	Waste	Acoustics	QS	RBS	ICA	Builder	Timing: Strategy	Brief	Concept	Design	Tender	Build	Handover	Use	Queries	Actions / Notes
Responsible	01	Industry Development		Credit	1	L	P	A	-	-	-	-	-	-	-	A	-	-	A	-	-	A	C	C	C	X	C	C	C	X		Appoint a GSAP by SD, disclose the costs + market the outcome.
	02	Responsible Construction	ME	Credit	1	M	A	-	-	-	-	-	-	-	-	A	-	-	-	-	-	P	-	-	-	-	X	C	C	-		EMP, EMS, 90% landfill waste diversion, site staff training and audits
	03	Verification + Handover	ME	Credit	1	L	P	-	-	P	A	A	-	-	-	P	-	-	-	-	P	P	-	C	C	X	X	C	C	C		Envelope air tightness review process that begins in SD
	04	Operational Waste	ME	Minimum	0	L	A	P	-	-	-	-	-	-	-	-	A	P	-	-	-	A	-	-	-	X	-	-	C	C		Allow for suitably seperated waste storage with access
	05	Responsible Procurement		Credit	1	M	P	A	A	A	A	A	A	A	A	A	A	-	A	-	-	-	A	C	C	C	X	X	C	-	-		ISO 20400 Sustainable Procurement guidelines to be followed.
	06	Responsible Structure		-	0	M	A	-	-	-	-	-	P	-	-	-	A	-	-	A	-	-	P	-	-	-	C	X	C	-			The structure must be specified with recognised accredited products.
	07	Responsible Envelope		-	0	H	A	A	P	-	-	-	-	-	-	-	A	-	-	A	-	-	P	-	-	-	C	X	C	-	-	!	The envelope must be specified with recognised accredited products.
	08	Responsible Systems		-	0	H	A	-	-	P	P	P	-	-	-	-	A	-	-	A	-	-	P	-	-	-	C	X	C	-	-	!	The systems must be specified with recognised accredited products.
	09	Responsible Finishes		Exceptional	2	H	A	P	-	-	-	-	-	-	-	-	A	-	A	A	-	-	P	-	-	-	C	X	C	-	-		The finishes must be specified with recognised accredited products.
Health	10	Clean Air	ME	Credit	2	M	A	A	-	P	A	A	-	-	-	A	-	A	-	-	-	P	-	-	-	X	C	C	-	-		Minimising pollutants, maximising fresh air and enabling maintenance.
	11	Light Quality	ME	Minimum	0	M	A	P	A	-	P	-	-	-	-	A	-	-	-	-	-	A	-	-	X	X	C	-	-	-		Best practice daylight and light to be provided.
	12	Acoustic Comfort	ME	Credit	2	M	A	A	A	P	-	-	A	-	-	A	-	P	-	-	-	A	-	-	-	X	C	C	C	-		Acoustic strategy and best practice management.
	13	Exposure to Toxins	ME	Credit	2	M	A	P	-	-	-	-	A	-	-	P	-	-	-	-	-	P	-	-	-	X	X	C	-	-		Low/zero VOCs and Formaledhydes with on-site testing.
	14	Amenity and Comfort		Credit	2	M	A	P	-	-	A	-	-	-	-	A	-	A	-	-	-	-	-	C	C	X	C	-	C	C		Amenity rooms on-site for parents, relaxation and exercise.
	15	Connection to Nature		Exceptional	2	L	A	P	-	-	-	-	-	P	-	A	-	-	-	-	-	-	-	C	X	X	C	-	C	C		Views, plants, nature-inspired design and integrated nature.
Resilience	16	Climate Change Resilience	ME	Credit	1	L	P	A	A	A	A	A	A	A	A	P	-	-	-	-	-	A	C	C	X	X	C	-	-	-		Climate change risk mitigation strategy adopted.
	17	Operations Resilience		-	0	M	A	-	-	A	A	-	-	-	-	P	-	-	-	-	-	A	C	C	C	X	C	-	C	C		
	18	Community Resilience		-	0	M	A	A	-	-	-	-	A	-	P	A	-	-	-	-	-	A	C	C	C	X	-	-	-	-		
	19	Heat Resilience		Credit	1	M	-	P	-	-	-	-	-	A	-	A	-	-	-	-	-	A	-	-	-	X	C	C	-	-		At least 75% of the area mitigates the urban heat island.
	20	Grid Resilience		-	0	M	-	A	A	-	P	-	-	-	-	P	-	-	-	-	-	A	A	C	C	C	X	C	-	C	C		
Positive	21	Upfront Carbon Emissions	NZ	Credit	3	M	P	A	A	A	A	A	P	A	P	P	-	A	A	-	-	P	-	C	C	X	X	C	-	-		Upfront greenhouse gas emissions are reduced compared to BAU.
	22	Energy Use	NZ	Credit	3	M	A	A	A	A	A	A	-	-	-	P	-	-	-	A	A	A	-	-	C	X	C	C	C	-		Energy consumption is reduced compared to BAU.
	23	Energy Source	NZ	Exceptional	6	L	P	A	-	P	A	-	-	-	-	P	-	-	-	-	-	A	-	C	C	X	-	-	X	C		Zero Carbon Action Plan plus 100% renewable energy procurement.
	24	Other Carbon Emissions	NZ	Credit	2	M	P	-	-	A	-	-	A	-	-	A	-	-	-	-	-	A	-	-	C	X	C	-	X	C		All upfront emissions are offset to meet 6 star pathway.
	25	Water Use	ME	Minimum	0	M	A	A	-	A	-	A	-	A	A	P	-	-	-	-	A	A	-	-	C	X	C	C	C	C		The building uses less water than BAU.
	26	Life cycle Impacts		Credit	2	H	A	A	A	A	A	A	A	A	A	P	-	-	-	-	-	A	-	C	C	X	C	C	-	-		The building reduces life cycle impacts compared to BAU.
Places	27	Movement and Place	ME	Credit	3	L	P	P	-	-	P	-	-	-	-	A	-	-	-	A	-	A	X	C	X	X	C	-	-	-		The building includes showers, EOT, EV etc. informed by a plan.
	28	Enjoyable Places		-	0	H	-	A	-	-	P	-	-	-	-	A	-	-	-	-	A	A	-	C	C	X	-	-	-	C		
	29	Contribution to Place		Credit	2	L	P	P	-	-	-	-	-	-	-	A	-	-	-	-	-	-	-	C	C	X	-	-	-	C		The building contributes to the wider urban context.
	30	Culture, Heritage, Identity		Credit	1	M	P	P	-	-	-	-	-	-	-	A	-	-	-	-	-	-	-	C	C	X	-	-	C	C		The building's design reflects and celebrates locals and the history.
People	31	Inclusive Construction	ME	Credit	1	L	A	-	-	-	-	-	-	-	-	A	-	-	-	-	-	P	C	C	-	-	X	C	-	-		The building's construction practices are inclusive.
	32	Indigenous Inclusion		Credit	2	L	P	A	-	-	-	-	-	-	-	A	-	-	-	-	-	-	C	C	C	X	C	C	C	C		Indigenous Design Charter is incorporated and followed.
	33	Procurement and Workforce		-	0	L	P	-	-	-	-	-	-	-	-	A	-	-	-	-	-	P	-	-	-	-	X	C	-	-		
	34	Design for Inclusion		Credit	2	M	P	P	A	A	A	A	A	A	A	A	A	-	-	-	-	A	-	C	X	C	C	C	C	C		The building is designed and constructed to be inclusive to a diverse range of people.
Nature	35	Impacts to Nature	ME	Minimum	0	M	P	A	-	-	P	-	-	P	A	A	-	-	-	-	-	P	X	X	C	X	C	X	C	C		Arup to review site's ecological context and workshop with design team
	36	Biodiversity Enhancement		Credit	2	L	A	A	A	-	-	A	A	P	A	A	-	-	-	-	-	A	-	-	X	X	X	C	X	C		The building's site includes a sizeable and diverse landscape area
	37	Nature Connectivity		-	0	L	A	A	-	-	-	-	-	P	-	A	-	-	-	-	-	A	C	C	C	X	C	C	-	-		Species connectivity is encouraged through the site.
	38	Nature Stewardship		-	0	L	P	A	-	-	-	-	-	P	-	A	-	-	-	-	-	-	C	C	C	X	C	C	-	-	-		
	39	Waterway Protection		-	0	H	A	-	-	-	-	-	-	-	P	A	-	-	-	-	-	A	-	-	-	C	X	C	C	-	-		Stormwater discharge to be reduced and pollution targets to be met.
+	40	Market Transformation		-	0	H	A	A	A	A	A	A	A	A	A	P	A	A	A	A	A	A	C	C	C	X	C	C	C	C		The project targets Passivhaus and undergoes review process
	41	Leadership Challenges		-	0	H	A	P	P	P	P	P	P	-	-	A	-	-	-	-	-	P	C	C	C	C	X	C	C	C		
		Sector Specific | Collaborative Leasing		-	0	H	P	-	-	A	A	-	-	-	-	P	-	-	A	A	-	-	C	C	C	C	C	C	X	X		
		Sector Specific | Tenant Energy Source		-	5	H	P	-	-	A	A	-	-	-	-	P	-	-	A	A	-	A	C	C	C	C	C	C	X	X		At least 80% of tenant space (by NLA) uses 100% renewable energy
		Climate Positive Pathway		Pass	1	L	P	A	A	P	A	A	P	A	P	P	-	A	A	-	-	A	C	C	C	X	C	C	C	C		15 points within the Climate Positive Pathway is achieved.

Total points:	53	This is the total number of points including the leadership points. A limit of 100 is applied even if more than 100 are achieved.
Weighted for risk:	48.8	The risk weighting factors being applied are 0.99 for low, 0.9 for medium and 0.8 for high.
Estimated rating:	5 star	The boundaries for each star rating are 0 for 4 star, 35 for 5 star and 70 for 6 star.

Appendices


ARUP
Energy Efficiency
Appendix A


ARUP
Energy Use
Appendix B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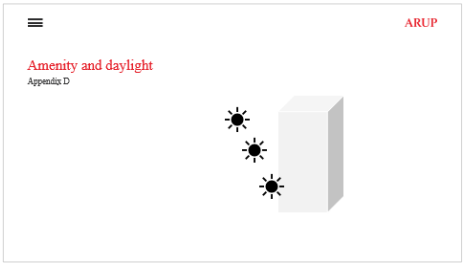
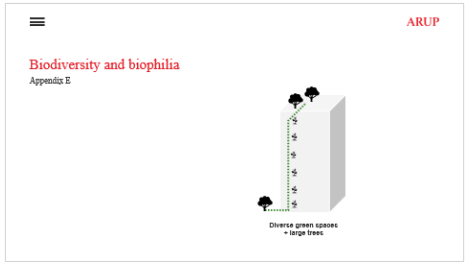
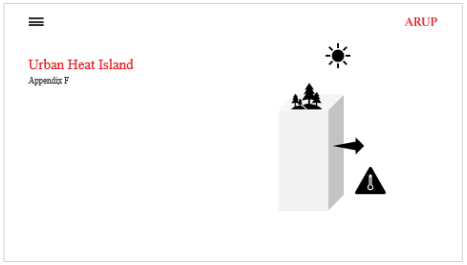
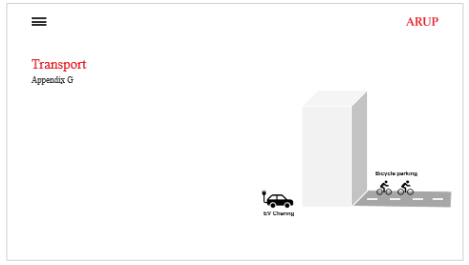
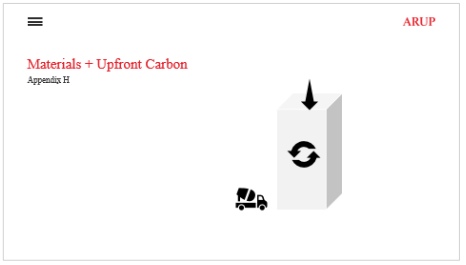
Water Use
Appendix C


ARUP
Amenity and daylight
Appendix D


ARUP
Biodiversity and biophilia
Appendix E
Diverse green spaces
+ large trees


ARUP
Urban Heat Island
Appendix F


ARUP
Transport
Appendix G
Bicycle parking
EV Charging

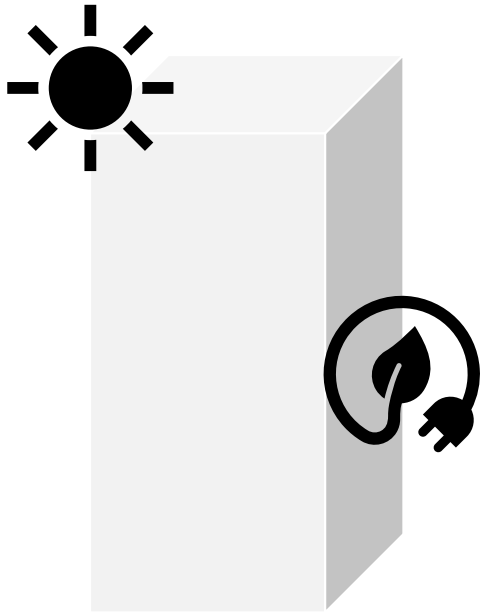

ARUP
Materials + Upfront Carbon
Appendix H

ARUP
Climate Resilience
Appendix J

ARUP

Energy Efficiency

Appendix A



Energy efficiency

Façade thermal performance overview

The Factory is targeting Green Star Credit 22: Energy Use, pursued under the Climate Positive Pathway. The development is primarily a Class 2 residential project with additional mixed-use functions. Preliminary energy modelling has been undertaken using NatHERS and the Hero software on a mix of thermally representative apartments. Green Star requires that a 7 Star average is achieved, which is in line with the latest NCC 2022 minimum update. A minimum of 6 stars must be achieved per apartment to align with both NCC 2022 and Green Star.

Additionally, the development features a variety of community space, categorised as Building Code of Australia (BCA) Class 2, and Class 6 retail. The required façade thermal performance for these areas has been assessed using NCC Section J DtS, targeting a 20% improvement beyond code compliance to align with Green Star credit achievement.

A summary of facade thermal performance requirements is shown inset, with further modelling details and results outlined on the following pages.

The project is committed to achieving 7 stars, however the performance requirement inset are subject to change pending design development. These are minimum requirements.

Fabric	Performance requirement	Residential areas	Non-residential
Glazing	Total system U-value	≤ 2.5 W/m².K *Double glazing with timber or aluminium thermally broken frames*	≤ 4.0 W/m².K *Double glazing*
	SHGC	0.30 ±5%	< 0.70
	Window operability	As drawn in architectural documentation	-
	Skylights	-	≤ 3.9 W/m².K and SHGC ≤ 0.29 *Double glazing with low-e*
Solid areas	Wall R-Value (m²K/W) *includes thermal bridging effects*	≥ 2.7 m².K/W insulation *Steel framing 150mm with thermal breaks*	≥ 1.0 m².K/W *Requiring wall insulation upgrades*
	Ceiling R-Value (m²K/W) *includes thermal bridging effects*	≥ 5.0 m².K/W insulation	≥ 3.2 m².K/W total system R-value *Requiring roof insulation upgrades*
	Exposed floor R-Value (m²K/W) *includes thermal bridging effects*	≥ 2.0 m².K/W total system R-value	≥ 2.0 m².K/W total system R-value *For any exposed floors*
Shading	Extent	Neighbouring buildings and privacy screens as drawn in architectural documentation. Shading equivalent to ≥600mm horizontal shade to west facing windows. Currently assumed as awnings, with details to be resolved in design development.	As drawn in architectural documentation.
Air-tightness	Limit verified with test	< 5 m³/hr/m² (good practice for residential) with 10% of dwellings tested FAQ 397.	*Requirement to be confirmed with the GBCA for existing building.*

ARUP

Residential areas

Modelled apartments

A mix of apartments covering a representative range of layouts and thermal conditions have been modelled at this stage, including:

- Unit S-01 which is representative of ~20% of units
- Unit 1B-01 which is representative of ~30% units.
- Unit 1B-09 which is representative of ~10% of units.
- Unit 2B-04 which is representative of ~5% of units
- Top floor exposed units that are considered to have the most challenging thermal conditions due to high exposure of the roof and south and west-facing facade.

We have modelled the ground floor and top floor units across multiple aspects, ensuring typical and most thermally challenging conditions are represented.

APARTMENT TYPE	NO. OF TYPE IN BUILDING
S-01	28
S-02	9
S-03	2
S-04	3
S-05	1
S-06	5
S-07	1
S-08	1
S-09	3
S-10	1
1BS-01	3
1BS-02	5
1BS-03	1
1B-01	44
1B-02	4
1B-03	1
1B-04	2
1B-05	1
1B-06	1
1B-08	1
1B-09	15
2B-01	3
2B-02	3
2B-04	6
2B-05	1
2B-06	1
2B-07	1
2B-08	1
2B-09	1
2B-10	1
2B-11	1

APARTMENT TYPES	APARTMENT COUNT
31	151

Summary of modelled apartments within the development

- Unit 1B-01 (~30% units)
- Unit 1B-09 (~10% units)
- Unit S-01 (~20% units)
- Unit 2B-04 (~4% units)
- Unit 2B-09, 2B-11, 2B-10, 1B-08 (top floor exposed units)

Ground Level

Level 05

ARUP

Residential areas

Heating and cooling load results

The heating and cooling load results for each of the selected apartments is shown inset. These results represent predominantly edge-condition units covering a range of exposure conditions and orientations.

The total thermal load for all apartments is below the limit of 62 MJ/m^2 for 7 stars. A 7.9 star average across the tested apartments has been calculated, with 7.0 stars the minimum rating achieved by the worst-case unit. The results show that the maximum cooling load across the development is 33.6 MJ/m^2, which is within the ADGV cooling load limit of 41 MJ/m^2.

These results show that there is an appropriate buffer to allow for changes during design development. Given the modelled units represent the most thermally challenging edge conditions, we anticipate that the remaining apartments will perform higher.

Apartment name	Heating Load (MJ/m^2)	Cooling Load (MJ/m^2)	Total thermal load (MJ/m^2)	Meets cooling load limit	Estimated star equivalency
0_1B-01_1	28.2	19.7	48	✓	7.8
0_1B-01_2	32.6	6.5	39	✓	8.2
0_1B-09_1	23.6	30	53.6	✓	7.4
0_1B-09_2	43.5	8.9	52.4	✓	7.4
0_S-01_1	14.5	12.7	27.2	✓	8.9
0_S-01_2	25.2	13.5	38.6	✓	8.3
5_1B-01_1	9.9	13.2	23.1	✓	9.1
5_1B-01_2	12.7	21.9	34.6	✓	8.4
5_1B-08_1	21	31.8	52.7	✓	7.4
5_1B-09_1	20	28	48	✓	7.8
5_2B-04_1	16.9	24.7	41.6	✓	8.1
5_2B-04_2	31.6	14.6	46.2	✓	7.9
5_2B-09_1	19.2	26.8	45.9	✓	7.9
5_2B-10_1	28.3	33.6	62	✓	7.0
5_2B-11_1	39.3	16.7	56	✓	7.3

Heating and cooling results for tested apartments

ARUP

Non-residential areas

J4D6 Walls and glazing

The Method 2 DTS pathway in NCC 2022 sets targets for the total façade performance with regards to thermal and solar requirements.

It effectively requires the following criteria to be met:

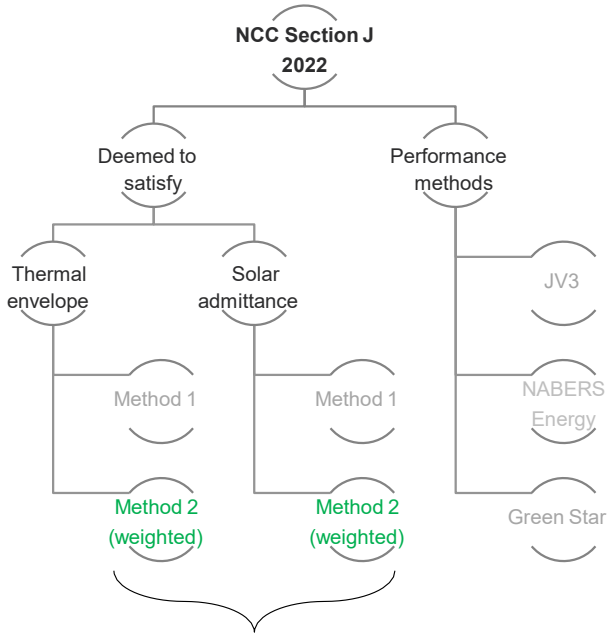
- Total system U-value of 2.0 W/m².K for combined window and wall performance.
- Overall solar effectiveness of 0.13 for combined window and wall performance, with adjustments made for orientation.

Method 1 would require all facades to meet this criteria which would be very onerous but Method 2 enables all facades to be considered in a combined calculation so trade offs can be calculated.

This effectively enables some areas of the building's performance to offset others.

National Construction Code

NCC Section J for 2022 with combined window and wall requirements



Method 2 proposed as enables flexibility across thermal and solar envelopes where facades can offset others.

National Construction Code — Volume One Building Code of Australia

J4D6 Walls and glazing

(1) The *Total System U-Value* of *wall-glazing construction*, including *wall-glazing construction* which wholly or partly forms the *envelope* internally, must not be greater than—
  (a) for a Class 2 common area, a Class 5, 6, 7, 8 or 9b building or a Class 9a building other than a *ward area*, U2.0; and
  (b) for a Class 3 or 9c building or a Class 9a *ward area*—
    (i) in *climate zones* 1, 3, 4, 6 or 7, U1.1; or
    (ii) in *climate zones* 2 or 5, U2.0; or
    (iii) in *climate zone* 8, U0.9.

(2) The *Total System U-Value* of *display glazing* must not be greater than U5.8.

(3) The *Total System U-Value* of *wall-glazing construction* must be calculated in accordance with Specification 37.

(4) Wall components of a *wall-glazing construction* must achieve a minimum *Total R-Value* of—
  (a) where the wall is less than 80% of the area of the *wall-glazing construction*, R1.0; or

Table J4D6a: Minimum wall Total R-Value - Wall area 80% or more of wall-glazing construction area

Climate zone	Class 2 common area, Class 5, 6, 7, 8 or 9b building or a Class 9a building other than a *ward area*	Class 3 or 9c building or Class 9a *ward area*
1	2.4	3.3
2	1.4	1.4
3	1.4	3.3
4	1.4	2.8
5	1.4	1.4
6	1.4	2.8
7	1.4	2.8
8	1.4	3.8

Table J4D6b: Maximum wall-glazing construction solar admittance - Class 2 common area, Class 5, 6, 7, 8 or 9b building or Class 9a building other than a ward area

Climate zone	Eastern aspect *solar admittance*	Northern aspect *solar admittance*	Southern aspect *solar admittance*	Western aspect *solar admittance*
1	0.12	0.12	0.12	0.12
2	0.13	0.13	0.13	0.13
3	0.16	0.16	0.16	0.16
4	0.13	0.13	0.13	0.13
5	0.13	0.13	0.13	0.13
6	0.13	0.13	0.13	0.13
7	0.13	0.13	0.13	0.13
8	0.2	0.2	0.42	0.36

Thermal markup

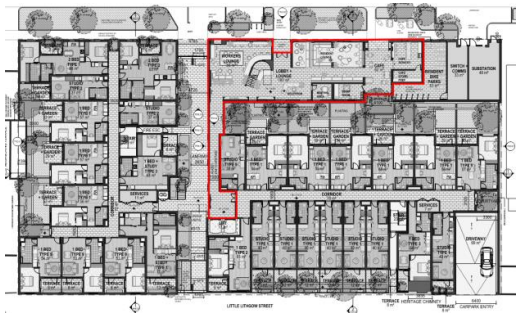
Residential amenities in existing building

The drawings inset highlight the thermal boundary of the residential amenities building. The boundary includes all the following, with the listed assumed NCC Classes:

- Co-working space, workers lounge, and meeting areas assumed for use by residents only and included as Class 2 residential amenities.
- Residents lounge, lobby, gym, stretch zone as well as glazed walkway assumed as Class 2 residential amenities.
- Ground floor café included as Class 6

The envelope areas are summarised below:

Aspect	Wall area	Glazed Area
North	110m^2	105m^2
East	320m^2	70m^2
South	90m^2	35m^2
West	325m^2	45m^2
% of total	**78%**	**22%**

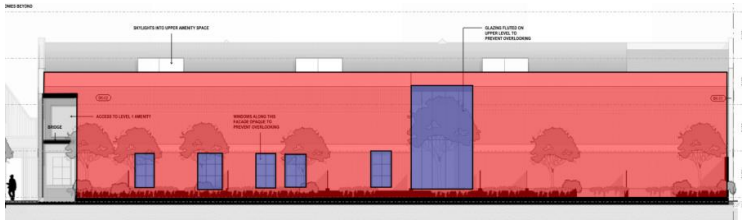


Ground floor

Level 1

Thermal boundary markup residential amenities

East elevation



West elevation

North elevation

South elevation

Non-residential areas

NCC Section J DtS Overview

The communal portion of the development has been reviewed against Section J4D6 of the National Construction Code (NCC). The project is situated in NCC Climate Zone 6.

This building is an existing brick building, therefore will require upgrades to the internal lining to meet the minimum performance requirements.

Section J4 Building fabric of the NCC assesses the thermal and solar performance of building façades using an area weighted calculation with performance values against allowable limits. All residential common areas must have a thermal performance below 2.0 m^2K/W and solar performance with an air-conditioning energy value (Er) below the limit calculated for building. This calculation uses Method 2 of Specification 37 which allows thermal performance to be balanced across multiple aspects.

This assessment is targeting an improvement of 20% over NCC minimum requirements for both thermal and solar performance in line with Green Star Credit achievement. However, an outcome below this is allowable as further energy efficiency improvements can be implemented in other parts of the design, such as efficient HVAC and lighting.

Results

Proposed thermal performance requirements for each common area building façade are summarised in the table to the right.

Due to the relatively low glazing ratio on this building (~22%), a 20% improvement over NCC is achievable with clear double glazing and internal wall lining upgrades of R1.0 $m^2.K/W$.

In addition to the performance requirements highlighted inset, the following will also be met to comply with NCC Section J:

- **Skylights** will have an SHGC ≤ 0.29 and a total system U-value of ≤ 3.9 W/m^2K
- **Roof** will be upgraded to achieve a total system R-value of ≥R3.2 m^2K/W.
- **Exposed floors** will achieve a total system R-value of ≥ R2.0 m^2K/W

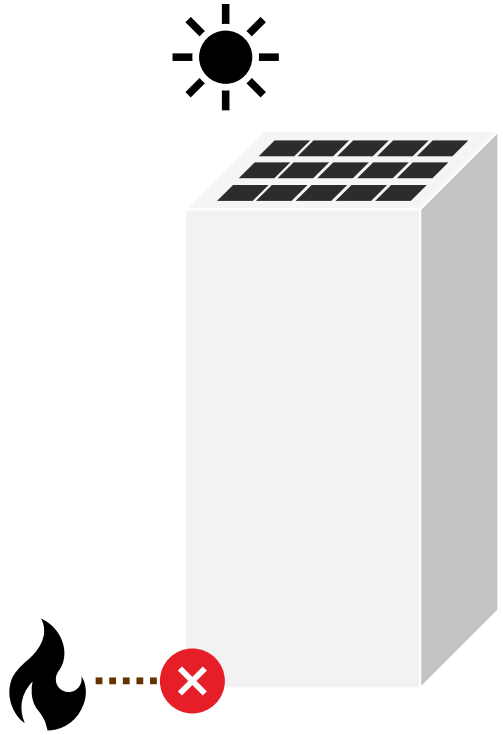
Fabric element	Thermal performance requirements
Window U-value	≤ 4.0 W/m^2K
Window SHGC	0.70 ±5%
Wall R-value	≥ 1.0 m^2K/W

Results	Thermal performance requirements
Wall-glazing U-value	1.53 (23% improvement over NCC)
Energy value (E_R)	177 (29% improvement over NCC)

ARUP

Energy Use

Appendix B



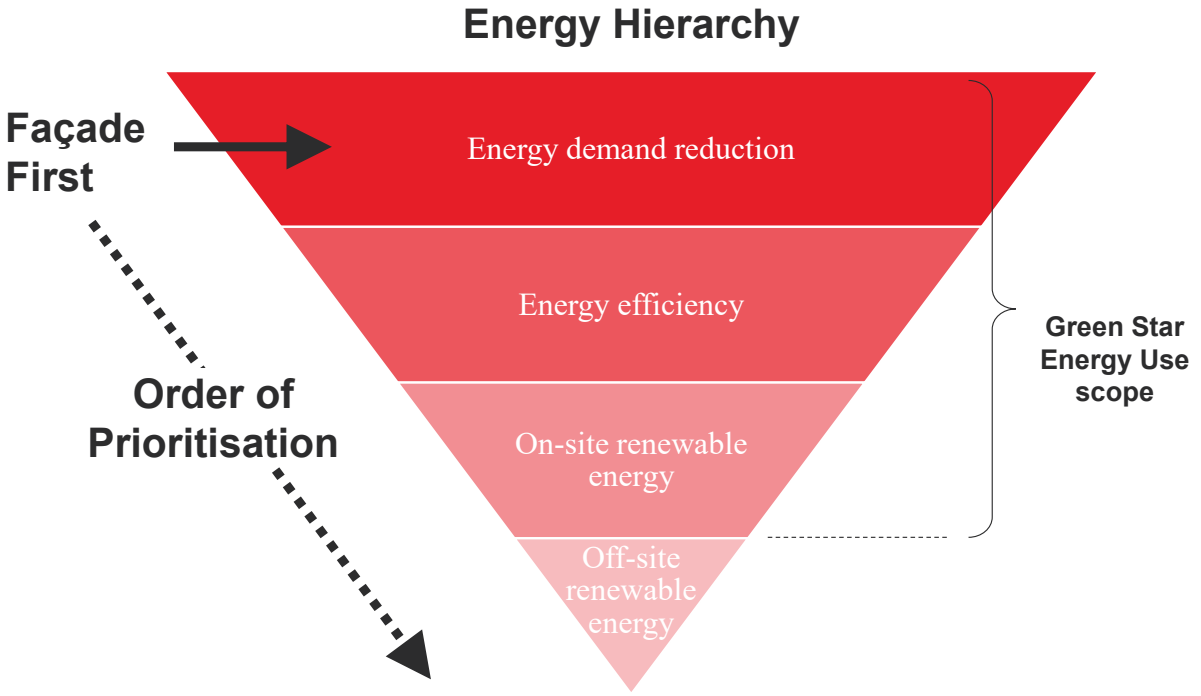
Exceeding Section J Compliance

Fabric First Approach

The façade is the first opportunity for the building to achieve the targeted 20% reduction in energy use overall.

Preliminary design targets to meet brief (for residential areas):

- Window to wall ratio as per design documentation (~30-40%) overall to efficiently manage solar heat gains, while balancing daylight amenity
- Window total system U-value of 2.5 W/m^2.K, requiring timber or aluminium thermally broken double glazed windows.
- SHGC 0.30 ±5% (with VLT >40%) with 200-600mm deep shading devices applied to critical areas on the western aspect, and top floor apartments with high exposure.
- R2.7 m^2.K/W wall insulation (e.g. 90mm rockwool)
- R5.0 m^2.K/W insulation for roofs and R2.0 m^2.K/W floor insulation for exposed floors, including floors above carpark.
- 5m^3/hr/m^2 air tightness for apartments, evidenced by a test.
- Thermal bridges addressed at junctions, such as balconies.



High Performance All Electric Design

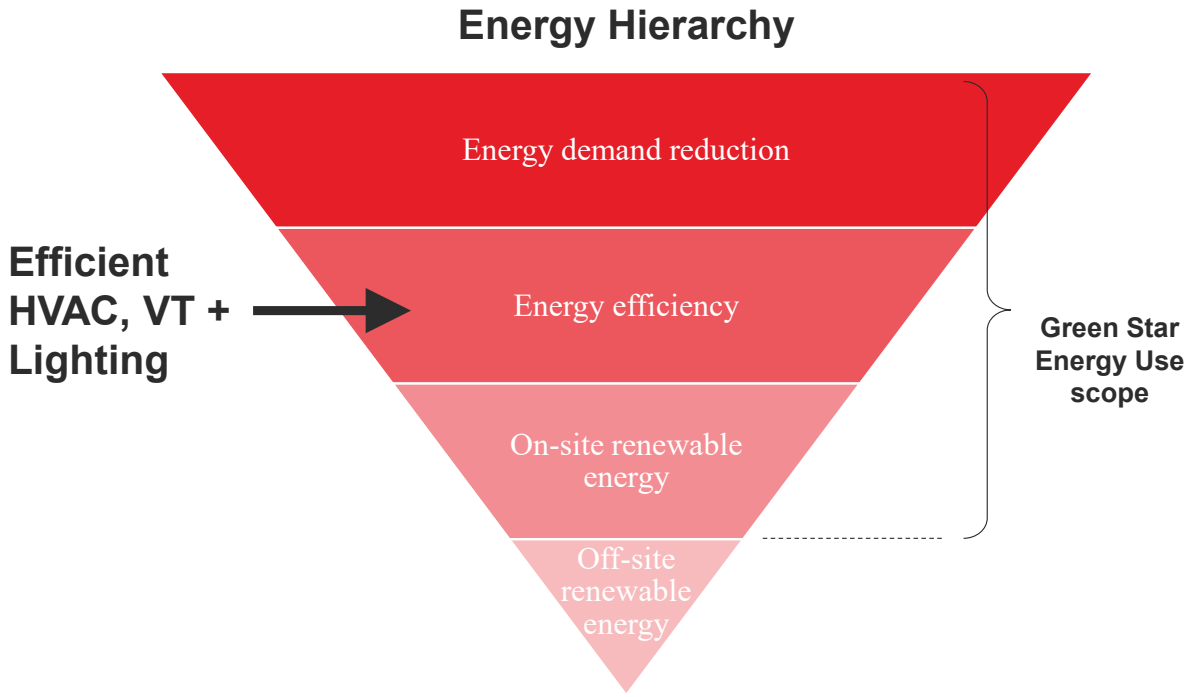
Energy Efficient

The HVAC, vertical transport and lighting systems must be efficient, exceeding the NCC. For compliance with Green Star credit 22 Energy Use, at least four best practice building services requirements must be achieved.

The project intents to target the following to achieve this, however all are subject to further design development:

- Energy efficient air-conditioning systems with low refrigerant global warming potential (R32).
- Ceiling fans to each bedroom and living room
- Centralised electric heat pumps for domestic hot water with a seasonal coefficient of performance of at least 3.
- 70 kW solar PV array across the rooftops, aligned with best practice Green Star requirements to provide 500 kWh of annual electricity per dwelling.
- Lighting with 30% reduction in aggregate using controls, sensors and LED fittings.
- Corridors are provided with supply and exhaust air only with no heating or cooling.

This is aligned to the Green Star good practice measures required for Credit Achievement.



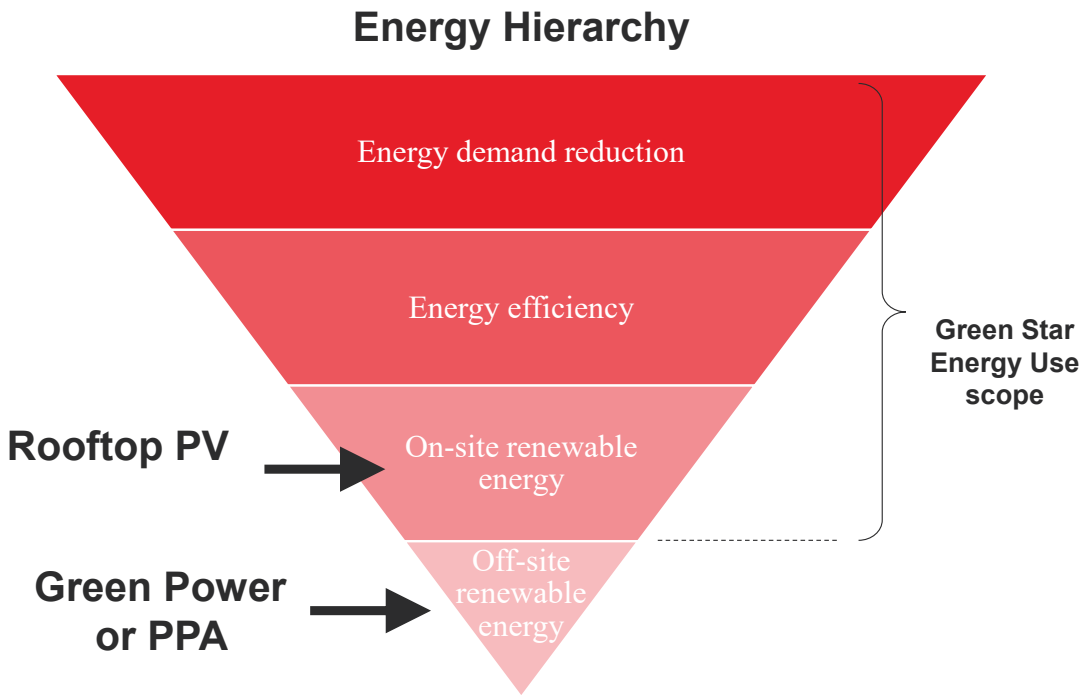
Generating Renewable Energy

100% Renewable in Operation

The building will adopt renewable energy on-site and off-site.

Design targets are:

- 70 kW of PV on the roof (or sufficient to meet Green Star best practice requirements)
- Off-site renewable energy will be procured for the whole development as an embedded network offered to all residents.



Rooftop Solar

Marked up plans

The town planning documentation developed by Warren and Mahoney and the project team shows that a 70kW solar PV array will be installed across ~210m^2 of available roof area.

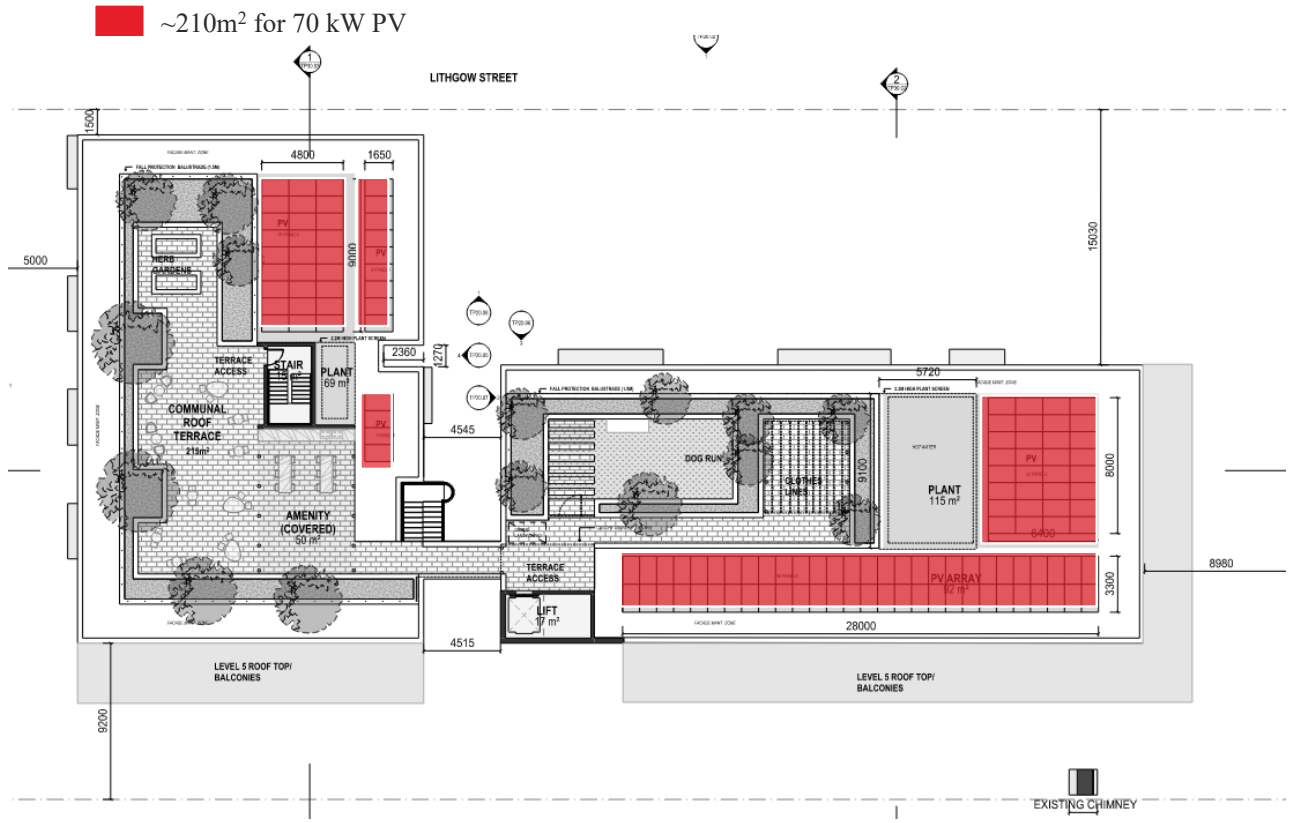
The Victorian Government embedded energy conditions mandate minimum 5% of residential energy use to be met with on-site renewable energy generation.

The proposed solar PV array will be connected to the building and contribute to the reduction in energy use and is estimated to contribute to ~15% of the residential annual energy demand, exceeding Victorian Government requirements and aligning with Green Star best practice.

The latest PV panel technology commercially available will be implemented at the time of tender with high performance PV panels currently assumed.

The building is all electric and will source 100% renewable energy for all residential common area energy uses.

The proposed locations of solar PV panels on each building is shown in the figure inset and will be further developed in design development including impacts of overshadowing considered.



Roof plan showing proposed solar PV array

Whole of Home Energy

Demonstrating compliance with NCC

Under NCC 2022, all new Class 2 apartments must comply with updated Whole-of-Home (WoH) energy performance requirements. Each dwelling must achieve at least 50 WoH points, based on the building fabric performance, efficiency of fixed appliances (heating, cooling, and hot water), lighting, and provision of on-site renewable energy generation.

The proposed strategy includes:

- Central heat pump hot water systems meet WoH criteria
- PV system sizing and locations will be refined during Design Development

The project is committed to achieving WoH compliance and the preliminary desktop assessment has confirmed a suitable pathway to achieving this. Key assumptions are outlined in the adjacent table and will be reviewed and confirmed during detailed design.

Criteria	Residential strategy
Apartment heating and cooling demand	7 star average or equivalent minimum
Heating and cooling system efficiency	EER/COP of 3.5 or equivalent
Hot water system	Centralised hot water heat pumps
Lighting	20% better than NCC (~3.2 W/m² average)
Solar PV	~500 kWh/yr per apartment
Compliance with WoH	✓

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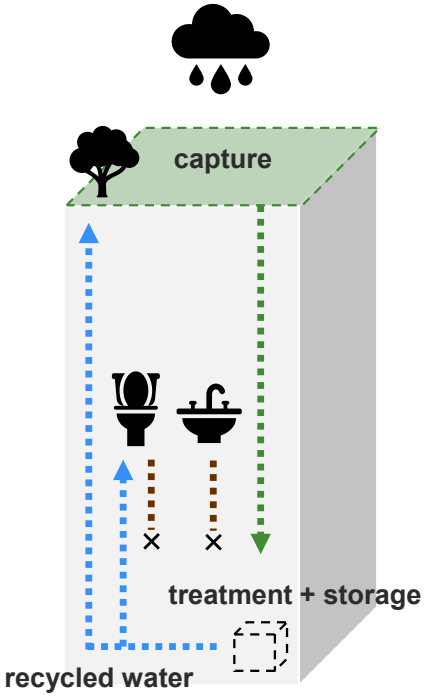
Water Use

Appendix C



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Criteria

Green Star Water Use Credit

The aim of credit 25 Water Use is to ensure that the building has low water use. There are three criteria for this credit for residential projects, which are shown inset:

Minimum Expectation

- **10%** reduction in potable water compared to a reference building

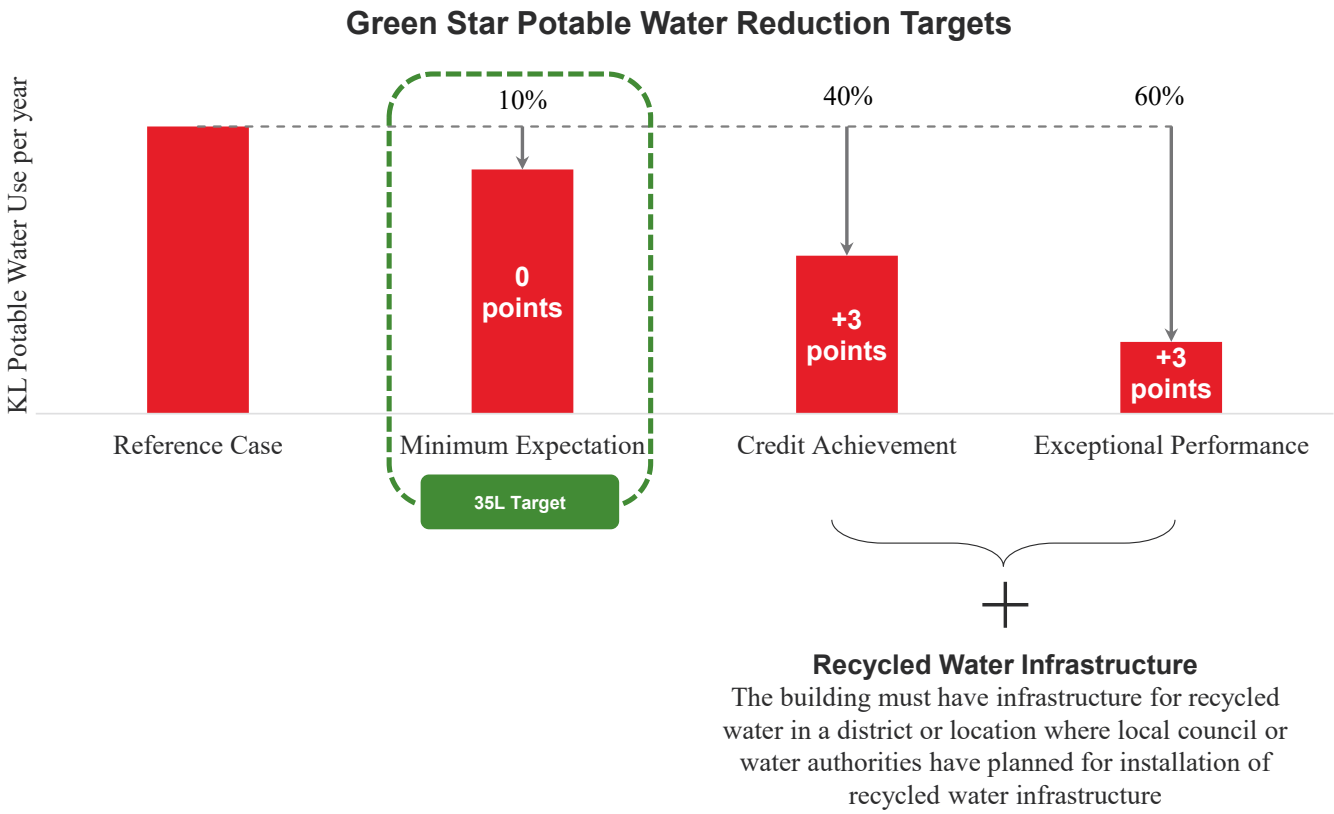
Credit Achievement (3 points)

- **40%** reduction in potable water compared to a reference building
- Recycled water infrastructure – see inset for details

Exceptional Performance (+3 points)

- **60%** reduction in potable water compared to a reference building

The current design is targeting minimum expectation (10% reduction) for this credit. This is due to the limited availability of rainwater compared to the demand for the site, and low feasibility of greywater treatment.



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Assumptions

Calculations

At this stage the calculations are preliminary and are based on a series of assumptions to inform the analysis and determine a suitable combination of water efficiency and water reuse to meet the target.

The building type is defined as residential, and these assumptions are expected to be refined as the design develops.

This assessment has been undertaken with the Green Star Design and As-built Potable Water calculator with the understanding that this same method will be adopted for the Green Star Buildings rating. At this stage, there is no Green Star Buildings Water calculator that is available from the Green Building Council of Australia.

We have assumed that washing machines and dishwashers are provided to tenants.

The following assumptions are preliminary and high level and will be refined as the design progresses:

- Washdown water use for cleaning paved areas.
- Water used for fire system testing is a high-level assumption at this stage and will be confirmed with the fire engineer as the project progresses.
- We have assumed ~50 occupants use the showers within the exercise and spa facility per day.

Occupancy

Residents	221
Apartment Net Area	9,379 m^2
Amenity Area	3,000 m^2

Washdown

Hose flowrate	20 L/min
Number of hoses	2
Average daily use	30 mins

Landscape Irrigation

Landscaped area	~ 700 m^2
% of zone undercover	0%
Crop coefficient	0.5 (low water req.)
Irrigation	Subsurface drip irrigation (90% efficiency)

Fire systems

% of water captured per test	80%
Testing frequency	annually
Volume discharged per test	1,000 L

Fixtures + fittings (WELS ratings)

Taps	6 star (<5.5 L/min)
Toilets	4 star (<3.5 L/flush avg)
Showers	3 star (<7.5 L/min)
Washing Machines	4 star (<10 L/kg)
Dishwashers	6 star (<14 L/cycle)

Rainwater collection

Rainwater collection area (m^2)	1,785 m^2 (new + heritage)
Rainwater tank size	20 kL
Roof	Flat without gravel
End uses connected to	Toilets, irrigation
Point potential evaporation data	Melbourne (BOM)
Connected to	~100% of toilets and irrigation

White goods

Washing machines	1 per apartment installed by Model
Dishwashers	1 per apartment installed by Model

Pools

Hot plunge	~3m^2 × 1m deep
Cold plunge	~4m^2 × 1m deep

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Rainwater collection

Roof area and irrigation area

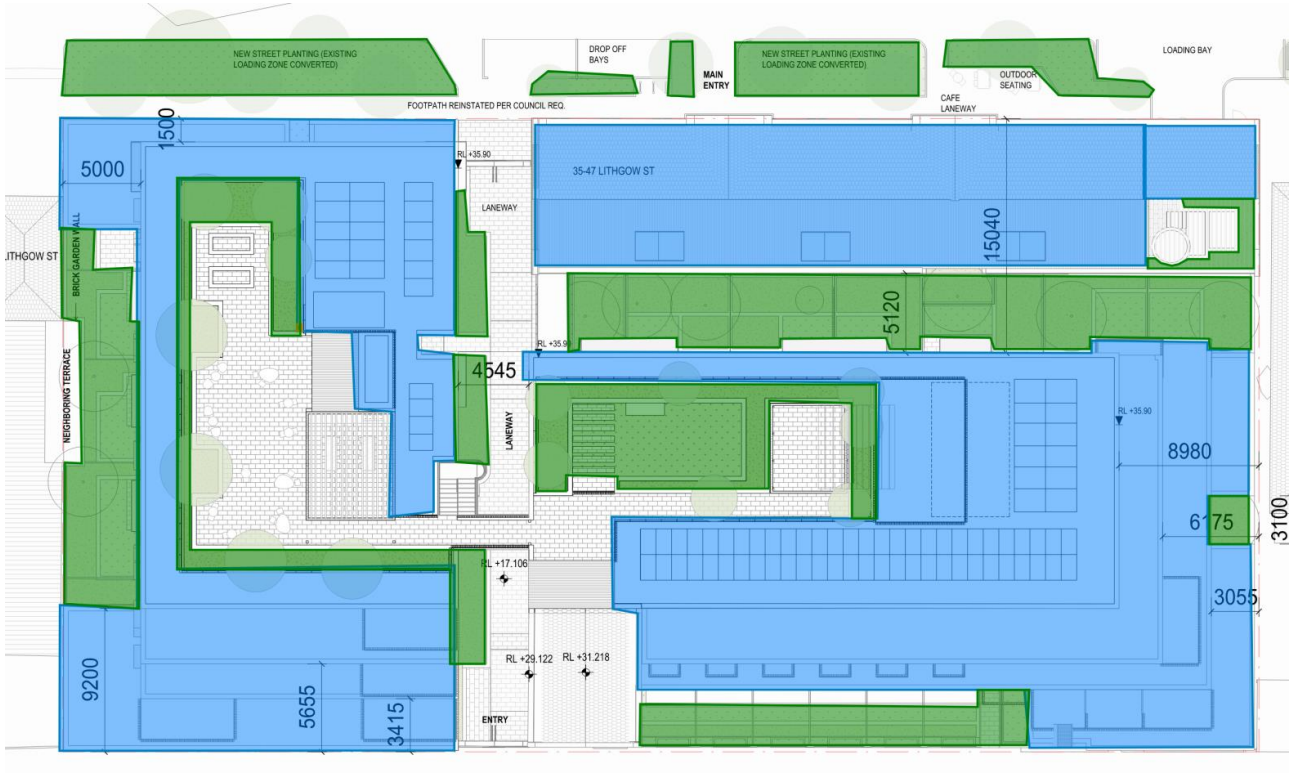
The total roof area for rainwater runoff collection is 1,800m^2.

It excludes areas with pervious surfaces such as the garden beds and the dog's run area as well as trafficable areas.

The total landscaped area assumed to have irrigation requirements is ~700m^2, as shown inset.

Roof area included for rainwater collection ~1,800m^2

Landscaped areas for irrigation ~700m^2



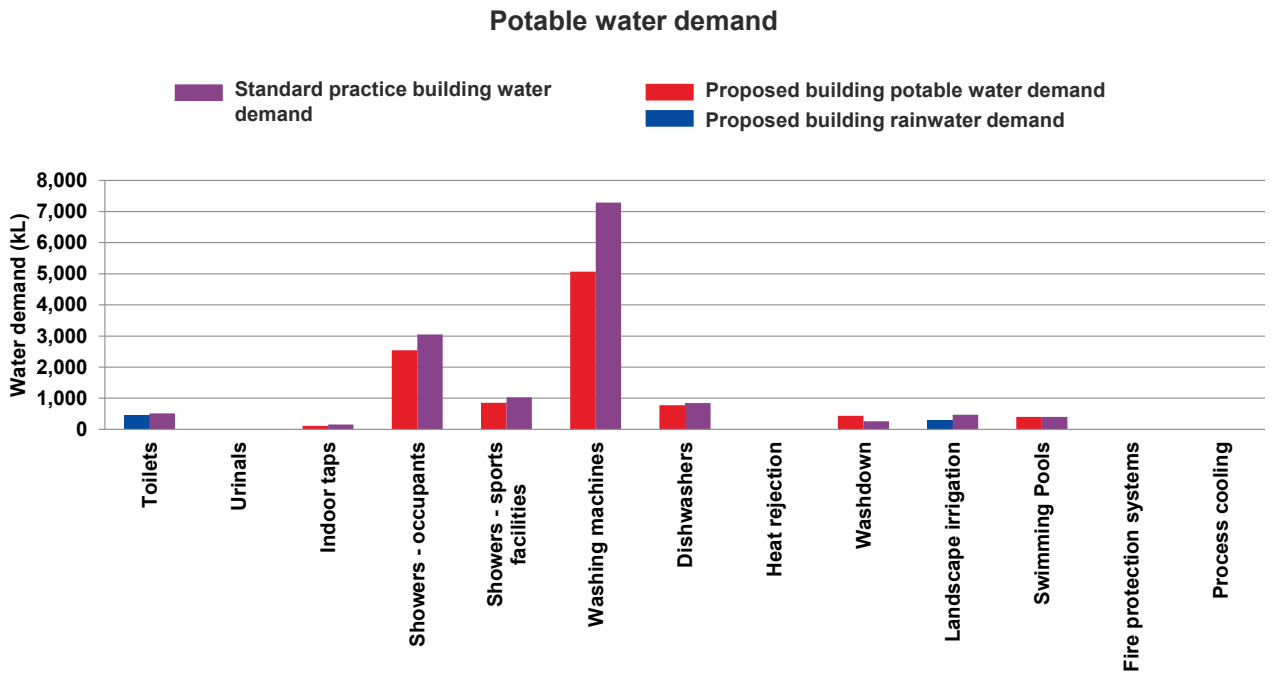
Results

Potable water reduction of 25% achieved

The water consumption for the whole development has been estimated on the basis of the assumptions and operation anticipated for the building, based on estimated occupancy.

The washing machines represent the largest water demand, followed by showers, dishwashers and toilets.

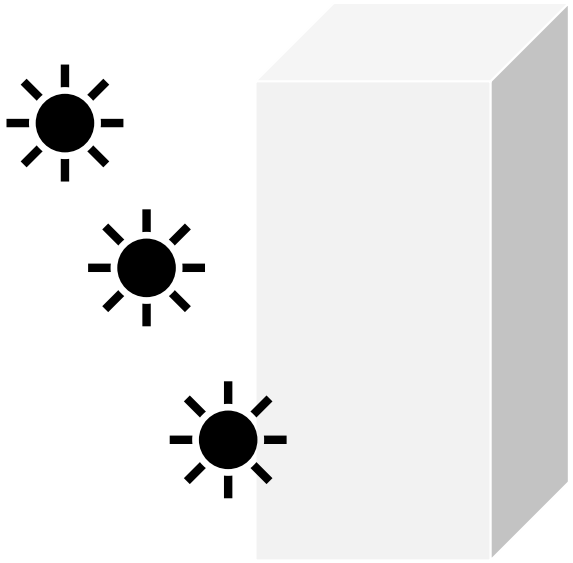
The rainwater system capacity has been optimised to size a 20 kL tank, achieving a 25% reduction in potable water use compared to business as usual. This exceeds the 10% reduction requirement for achieving Green Star Minimum Expectation.



ARUP

Amenity and daylight

Appendix D



Amenities markup

~150 m^2 amenities spaces including a resident lounge, stretch room and wellness terrace with a spa and sauna.

These spaces are for the primary purpose of promoting mindfulness, light exercise and inclusivity for residents.

Ground floor = ~45m^2 resident lounge

Level 1 = 126m^2 stretch zone and wellness terrace

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Daylight Criteria

Driven by Green Star

The project is located within the Yarra City Council and is therefore required to meet the council's minimum building requirements.

In addition to the Victorian Apartment Design Guidelines requirement of a room depth <9m to allow for adequate daylight, the project must also meet the objectives outlined in the City of Yarra's ESD Policy, which includes an assessment using either BESS or Green Star.

The project is targeting a 5 star Green Star rating, and so this approach will be taken.

Within Green Star, there are two levels of compliance for daylight;

- **Minimum expectation (mandatory):** 95% of all apartments, the living rooms and all bedrooms have access to a view and daylight. The project cannot be overshadowed, and glazing must have a VLT of >40%.
- **Credit achievement (optional 2 points):** 60% of combined living and bedroom area of each unit and minimum 20% of each separate area must have at least 160 lux daylight during 80% of nominated hours.

The project is targeting the Green Star Minimum Expectation and has undertaken a preliminary daylight review to inform design outcomes.

ADGV

+

Green Star

Daylight | Green Star Minimum Expectation

Green Star Minimum Expectation

The 35-45 Lithgow Street development places the quality of living and indoor environment of high importance for residents. As such, the project has prioritised striking a balance between thermal comfort with daylight and views, with carefully placed and sized windows that maximise daylight whilst reducing glare and undesirable excess summer sun.

The narrative inset details how the project meets and exceeds the minimum expectation criteria for daylight, ensuring that residents not only have access to daylight amenity within their apartments but in communal spaces also.

Minimum expectation criteria	35-45 Lithgow Street project narrative
Maximises the number of occupants that are in or near daylit areas during their daily activities for all building types	All apartments have access to daylight with windows to all living areas and bedrooms, ensuring most occupants spend their daily activities in daylit areas. Studio apartments locate the living space adjacent to the façade, which is where occupants are anticipated to spend most of their daytime hours.
Ensures regularly occupied areas are in reasonable proximity to glazed façades, windows, or skylights	All regularly occupied areas are adjacent to a window, with all living rooms provided with a double sliding glazed door to a balcony, and all bedrooms include an operable window. The bedroom sections of studio apartments are located no more than 5m away from the window.
Controls or mitigates external glare in the daylit spaces	External glare will be mitigated through the provision of blinds and external shading along exposed facades. Additionally, the design seeks to frame views to reduce exposure to direct sunlight.
Maximises daylight to spaces that prioritise learning, healing, and living, including how in 95% of apartments, the living rooms and bedrooms have access to a view and daylight	The project has been designed to promote views towards the landscaped terrace areas, for all apartments. Lower-level units that experience lower levels of daylight have prioritised access to nature views with dappled light. They will also include larger windows and have close access to the project's daylit amenities spaces.
Provides building occupants with unrestricted access to daylit indoor public common spaces	The ground floor and upper-level communal areas (lobbies, lounges, corridors, amenity spaces) are adjacent to large glazed façades and/or open to outdoor terraces. These spaces are accessible to all building occupants and receive direct daylight, as confirmed by the shadow diagrams on the following page.

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Preliminary Daylight Review

~92% apartments have access to good levels of daylight as per the Green Star criteria, however the remaining 8% are designed to maximise daylight with larger windows, access to outdoor daylit areas and nearby access to the well-lit amenities building.

This is considered compliant with the Green Star Minimum Expectation criteria, with the barriers being the heritage building and the depth of the site, whilst measures such as larger external terrace areas and balconies as well as shared rooftop amenity areas can help mitigate the loss of daylight quality for these occupants.

Good daylight anticipated Moderate daylight anticipated Lower levels of daylight anticipated

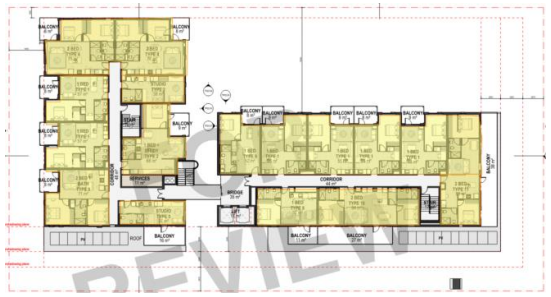
Ground floor

Level 1

Level 2

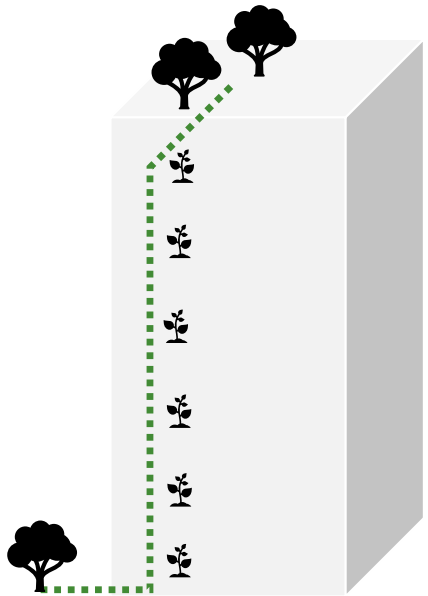
Level 3

Level 4


Level 5

Biodiversity and biophilia

Appendix E



Diverse green spaces
+ large trees

Nature and biophilia

Five nature related Green Star credits

There are three Green Star credits that are currently being achieved by the The Factory development and require nature impacts to be addressed and nature to be incorporated within the project boundary.

These include:

- Connection to nature – potential to achieve exceptional performance (2 points)
- Biodiversity enhancement – potential to achieve credit achievement (2 points)
- Impacts to nature – targeting minimum expectation

The requirements for these credits are summarised inset and a preliminary review of the design is shown on the following pages

Credit	Target	Requirements	The Factory Design
Connection to nature	Exceptional performance (+2 points)	• Provide views to at least 60% of regularly occupied areas (all areas within 8m of a high quality indoor or outdoor view) • Provide at least 0.05m^2 of indoor plants for every 15m^2 of regularly occupied floor area • Provide at least 5 nature inspired design interventions that are aligned to biophilic principles. • At least 5% of building's floor area or site area must be allocated to nature (whichever is greater)	✓ More than 60% of regularly occupied areas have access to outdoor views of landscaped terraces or balconies ✓ 30m^2 of indoor plants in residential amenities in addition to green roof ✓ Nature inspired design elements include green roof, landscaped terraces, natural building elements, timber
Biodiversity Enhancement	Credit achievement (+2 points)	• At least 15% of the site area or 1:500 GFA for credit achievement • 60% Indigenous plants and no more than 10% from one species, 20% from one genus, 30% from one family • Significant (nesting) tree or equivalent habitat provision per 500m^2 landscaped area • Biodiversity management plan + no invasive species	✓ >700m^2 green space across ground and roof levels, including on new streetscape ✓ 60% indigenous plants with diversity commitments ✓ Strategy for significant nesting tree (or equivalent) to be refined in DD. ✓ Landscape architect will develop biodiversity management plan
Impacts to Nature	Minimum expectation (0 points)	• The building is not built on, or significantly impacts, a site with a high ecological value. • Light pollution must be minimised to neighbouring bodies and to night sky.	✓ Brownfield site ✓ Lighting design will minimise light pollution and comply with AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting

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Biophilia

Green Star | Connection Nature Credit 15

New to the latest version of Green Star is a Connection to Nature credit which is optional but achievable with nature provided indoors and outdoors and natural building elements and motifs.

In simple terms the requirement is to provide at least 5 nature inspired design interventions that are aligned to several principles.

To demonstrate the criteria is met, it must be evidenced with a narrative of the five nature-inspired design features including design principles setting the project's ambition for connection to nature, along with evidence to support these claims.

Biophilic design principles were explored with the 35-45 Lithgow Street design team, with 6 nature inspired design interventions chosen to be adopted in the design. These interventions are summarised in the following pages.

The implementation of these biophilic principles will be further developed during further design stages.

Green Star Buildings v1

Extract from Green Star Submission Guidelines

Connection to Nature

Healthy

Credit: 15

Points: 2

Outcome

The building fosters connection to nature for building occupants.

Criteria

Credit Achievement	**1 point**	• The building provides views. • The building includes indoor plants and incorporates nature-inspired design. or • 5% of the building's floor area or site area (whichever is greater) is allocated to nature in which occupants can directly engage with.

Nature-inspired design

Five additional nature-inspired design interventions must be provided in alignment with the following principles:

- Elements that provide multiple natural sensory experiences
- Elements that reflect natural and cultural patterns and forms
- Using natural materials
- Large scale and holistically incorporated natural motifs and art

Project teams must provide a narrative against a set of design principles to show how the project's ambition for nature inspired design has been embedded from design concept stage.

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Nature inspired design + indoor plants

Nature Inspired Design

The Green Star credit Connection to Nature requires projects to provide at least 5 nature inspired design interventions that are aligned to biophilic principles. To demonstrate the criteria is met, it must be evidenced with a narrative of the features including design principles setting the project's ambition for connection to nature, along with supporting evidence.

The credit refers to the Living Building Challenge's Design Guidebook which can be referred to here and seeks to:

- Include elements that nurture the innate human to nature connection
- Transform projects through deliberate incorporation of nature through *Environmental Features*, *Light and Space*, *Natural Shapes and Forms*, *Natural Patterns and Processes*, and *Evolved Human-Nature Relationships*
- Create a unique connection to place, climate and culture through *Place-Based Relationships*
- Incorporate meaningful integration of public art and design features for human delight celebrating culture, spirit and place
- Have no limitations

The current design's biophilic elements that are aligned with this intent already are:

1. High extent of landscaping across ground floor to the roof
2. Existing building weathered materials
3. Timber elements within material palette
4. Dappled light achieved through varying tree heights and types
5. Indoor/outdoor spa with landscaping creates rainforest feel

The implementation of these biophilic principles will be further developed during further design stages.

Indoor Plants

Provide at least 500cm^2 of indoor plants for every 15m^2 of regularly occupied floor area.

Based on the current design this requirement is therefore >35m^2 by soil area. This is based on a current assumption that the regularly occupied areas amount to ~10,085m^2.

Where this assumption changes the extent of plants required will also change.

Consideration of maintenance and survivability should be given in accommodating this provision.

Natural Features

Place-Based Relationships

Evolving human and nature relationships

Light and Space

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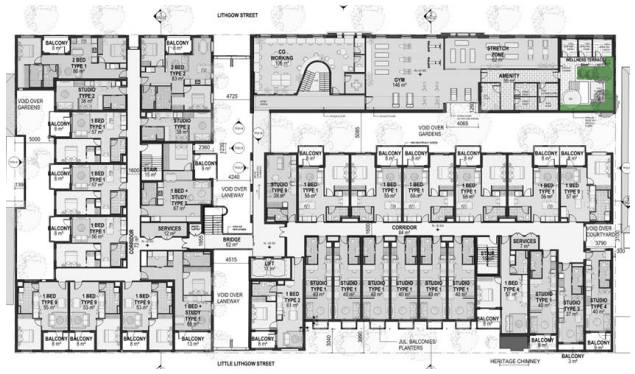
Biodiversity review

~760m^2 landscaping included in the proposed design including on the ground floor, wellness terrace, streetscape and rooftop.
~10m^2 of indoor plants are included in the design at this stage in the amenities building.
>30 trees are included in the design at this stage of varying heights and types. This is assumed to be considered equivalent to large nesting trees.

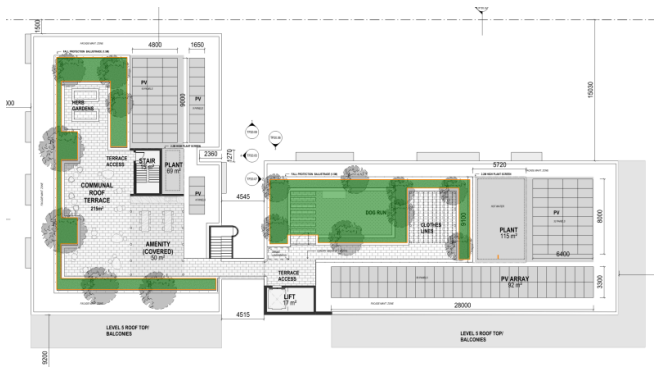
Ground floor

~580m^2 landscaping



Level 1

~16m^2 landscaping



Roof

~180m^2 landscaping

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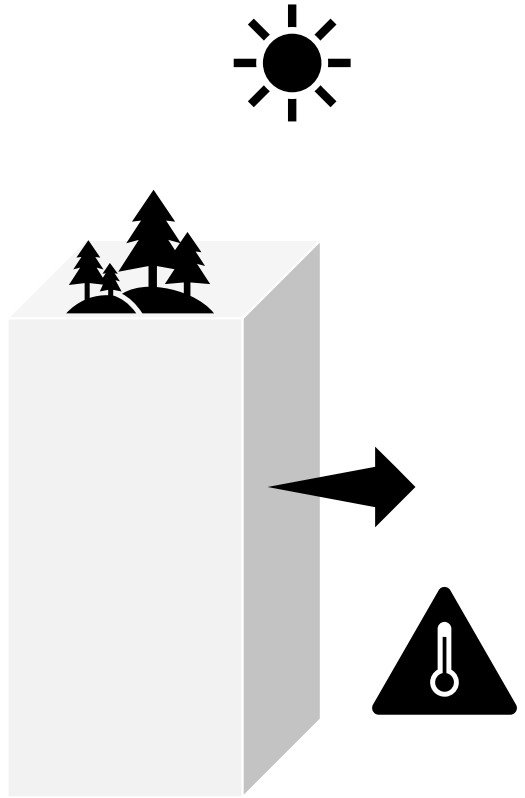
Urban Heat Island

Appendix F



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Heat Resilience

Heat island effect reduction

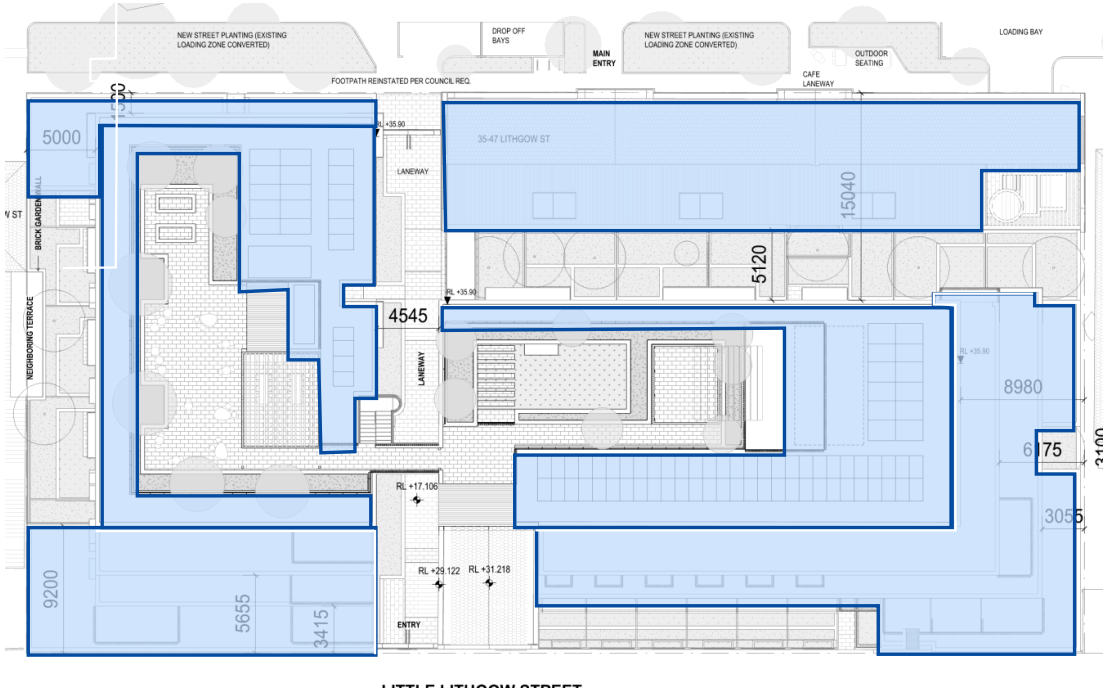
The Green Star Buildings certification rewards projects for reducing the building's impact on the heat island effect. To attain Credit Achievement (1 point), at least 75% of the whole site area comprises of one or a combination of strategies that reduce the heat island effect.

Based on the architectural design, there is approximately 2,115m^2 green space and roof area or >75% of site area that can achieve the credit, if minimum roof SRI values are met. This exceeds the requirement by ~70 m^2. Note that all roof areas must achieve the SRI stated in the figure inset – to be developed as the design progresses. Paved areas (hardscaping) is recommended to also meet the minimum SRI criteria to further improve compliant area.

- Site area: 3,096 m^2
- Roof area (pitched < 15°): 1,785 m^2
- Solar panel area: ~370 m^2
- Landscape area: ~700 m^2
- Paved area: approximately 610 m^2

Assessable area	2,726 m^2 (site area – solar PV area)
Compliant area required	2,045 m^2
Proposed area	2,115 m^2 ✓ Exceeds the requirement by 70 m^2

Roof surface materials will be specified to exceed the minimum Green Star 3-Year SRI requirement of 64 using products such as Bluescope Surfmist. (Other areas deemed compliant or shaded or n/a)



Site Plan

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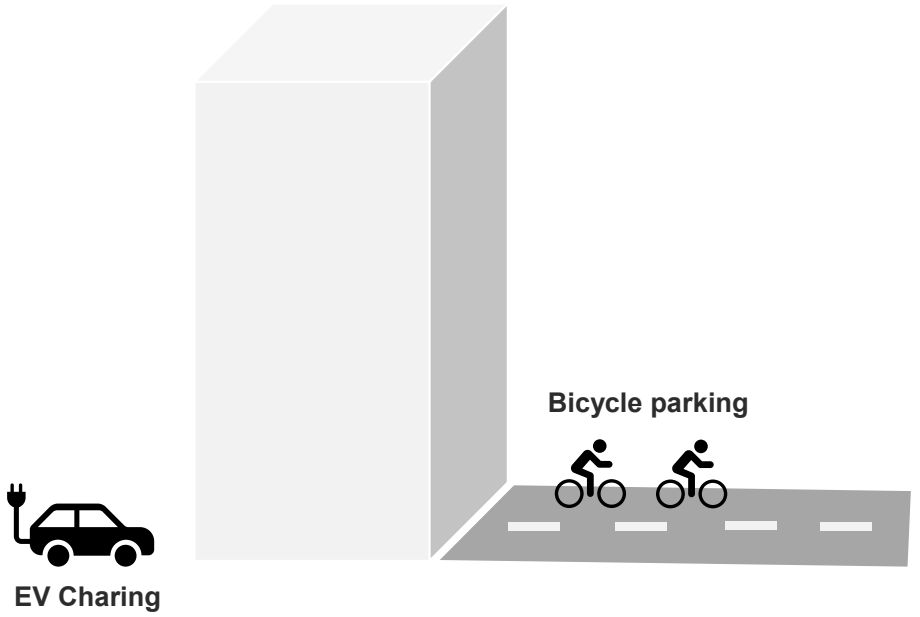
Transport

Appendix G



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Facilitating sustainable transport

Current data

The 35-45 Lithgow Street development is in the inner Melbourne suburb of Abbotsford and is already well served by public transport. It has the opportunity to further promote active transport modes to all residents by implementing safe and accessible bike parking within the development. As such it is targeting the Green Star credit 27 Movement and Place.

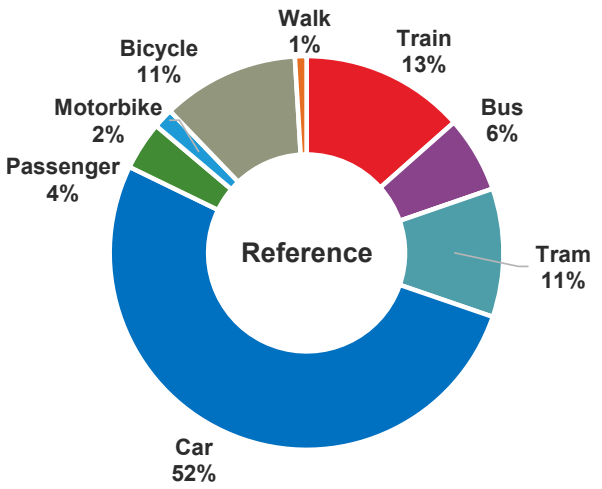
We have used the current Green Star Transport Calculator which may be subject to future updates as the underlying assumptions are out of date and as we haven't registered yet, any changes could affect the calculation process.

The inset data represents the reference transport mix currently assumed for the site which forms the basis for the sustainable transport calculations.

Key details:

- Car use makes the majority of the transport at 52% whilst a further 4% car-share.
- Public transport use is ~30% including trains and buses
- Active transport is ~12% across walking cycling.

Transport mix (assumed as per Green Star)



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Facilitating sustainable transport

Proposed interventions

Based on the following design assumptions, the design requirements are as shown inset:

- 43 carparks are included in the rating boundary (therefore ~20% have the ability to park a car onsite)
- The number of total building occupants is estimated to be 219 on the basis of the number and type of apartments and aligns with other Green Star credits.

The resulting transport mix meets the 3 Green Star criteria for Movement and Place as shown inset.

Design requirements and credit results

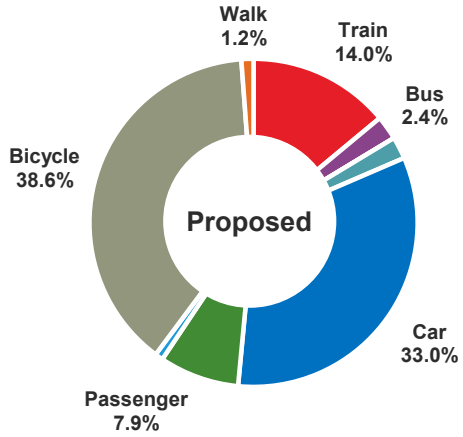
90 bike parks (~40% of residents)

3 EV charging spaces (5% of carparks)

40 future EV charging spaces to all remaining carparks (subject to fire risk)

1 car-share space

Resulting transport mix



Green Star criteria	Result	Met
Vehicle emissions reduction (>40%)	41%	✓
Active transport mode encouragement (>90%)	227%	✓
Reduction in vehicle kilometres travelled (>20%)	36%	✓

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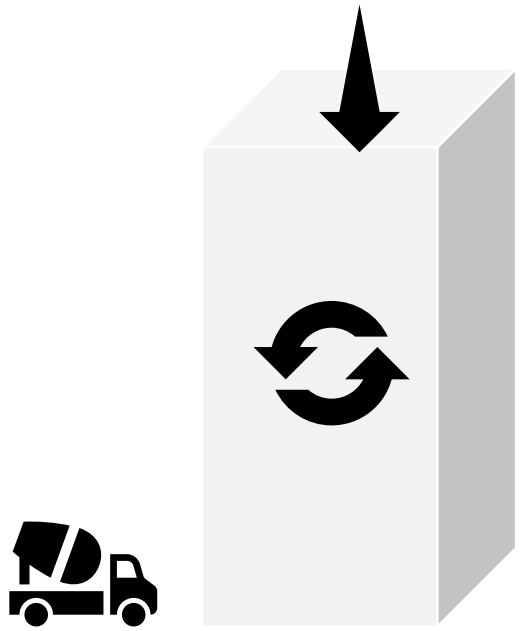
Materials + Upfront Carbon

Appendix H



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Reduction in Upfront Carbon

Responsibly Sourced + Low Carbon

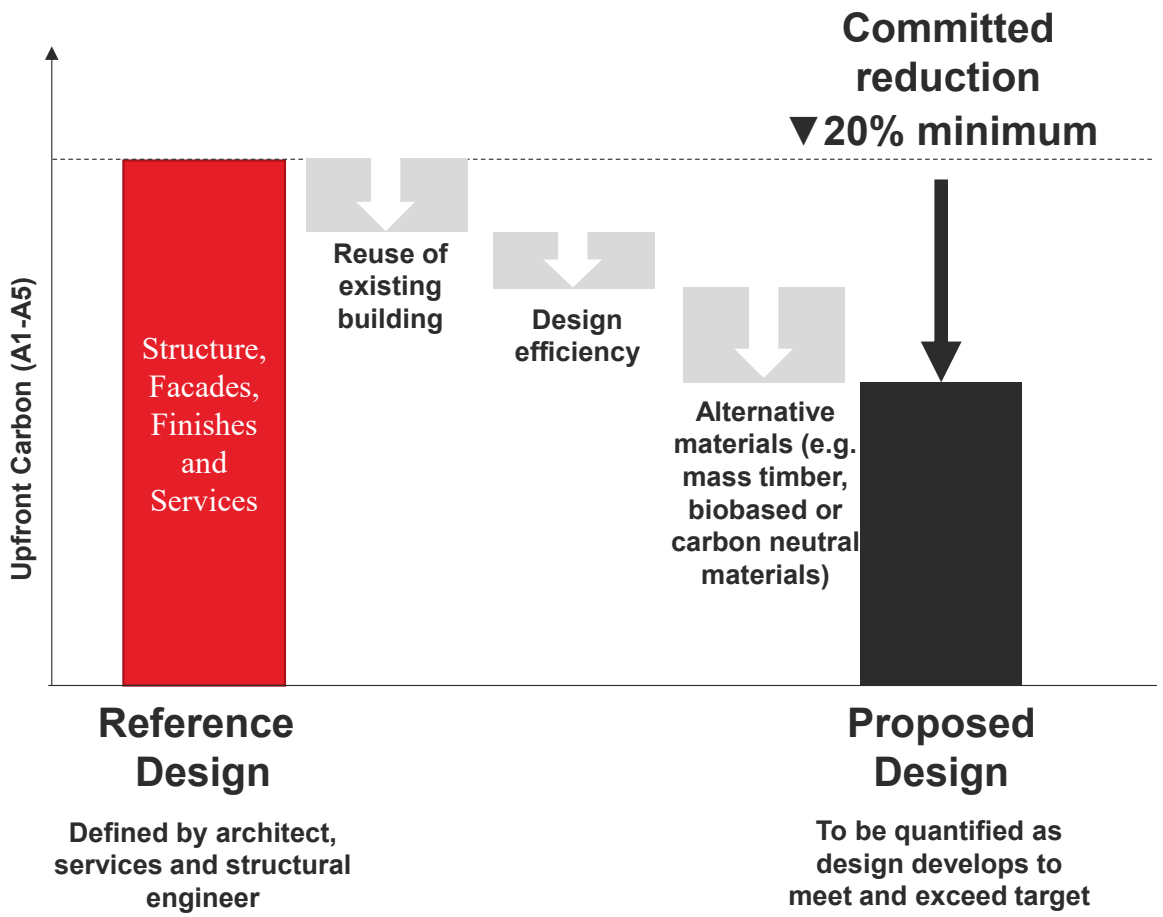
35-45 Lithgow Street must achieve a minimum 20% reduction in upfront carbon, required under the Climate Positive Pathway for any 5 star Green Star projects registered from 2023 (credit 21).

As a stretch target the project is considering a higher target of 50%, to reflect its ambition of regenerative decarbonisation but this is not a planning commitment at this stage.

A reference design will be established that is a hypothetical building of same size, shape, location, floor area + glazing areas as the proposed (per EN 15978:2011). This design is then optimised and improved upon to demonstrate an overall carbon reduction, summarised in the figure inset.

The resulting materials must be specified and procured with emerging best practice 3rd party certifications in line with the requirements of the responsible materials credits (credit 6).

Several strategies have been discussed to achieve this reduction in upfront carbon, summarised inset and on the subsequent pages. This is a preliminary carbon reduction strategy, which will be further refined during design development with the project team.



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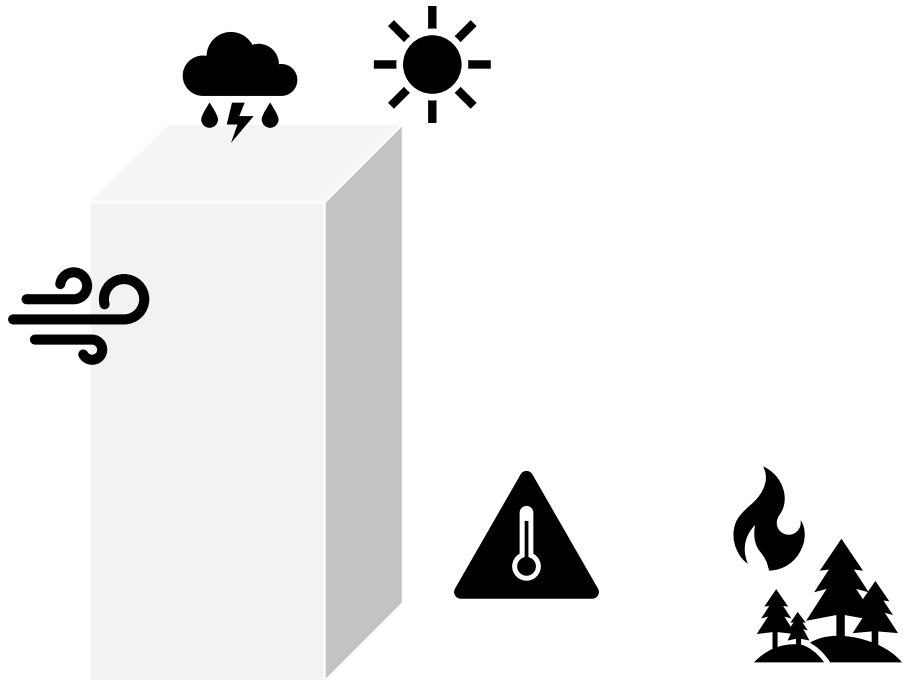
Climate Resilience

Appendix J



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Climate Change Screening

Climate Resilience

Introduction

What is climate resilience?

Climate change is a global economic, social, environmental, and public health issue that poses significant consequence for our health and wellbeing. In Victoria, we are already experiencing the cascading effects of climate change including increasing drought, bushfires, floods, and higher average temperatures. While reducing our emissions will lessen the magnitude of future climate change, it is vital that our buildings and communities are designed to be resilient to the climate change already locked in.

This document highlights potential climate-related impacts to Model's The Factory project that have been identified through a preliminary climate risk screening process. It explores current and future climate projections for the Abbotsford site, identifying direct and indirect risks that may impact the development over its lifetime. These will be assessed in the next stage as part of the climate change risk and adaptation assessment.

Adaptation measures to reduce and mitigate priority risks will also be developed in a comprehensive resilience workshop with the project team in the project's next stage.

Following the workshop, a Climate Change Adaptation Plan will be developed to inform the design team of risks and mitigation strategies to future proof the buildings, infrastructure, and landscapes.

Credit: Mika Baumeister

Unsplash

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Why design for the future?

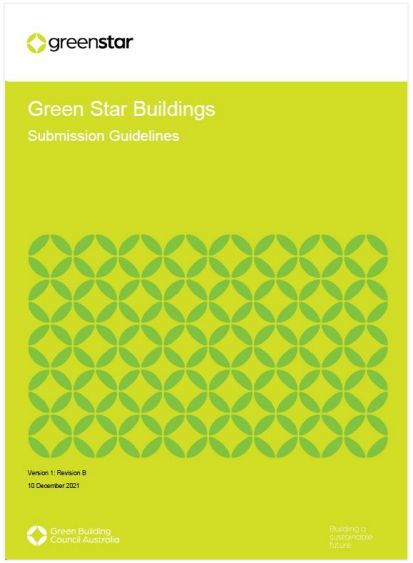
Climate Change Adaptation Plans

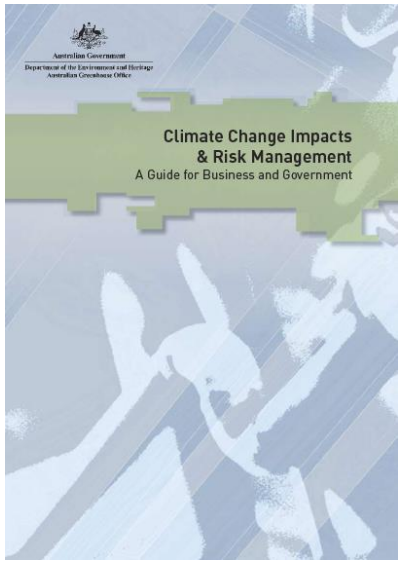
Climate change adaptation plans are a tool for understanding:

- Current and future climate conditions
- Any associated direct and indirect impacts
- Impacts that pose a high risk to the structure or operation of the building (including users)
- Adaptation measures to reduce priority risks

Benefits include:

- Ensuring the building performs well under future climate
- Reducing cost of damage from climate-related events
- Maintaining tenant satisfaction
- Reducing operating expenditure, including potential insurance costs
- Minimising retrofit costs





Recognised Standards Referenced in the Study

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Why Assess Climate Risk?

Drivers of climate change adaptation

The drivers for undertaking a climate change risk assessment and adaptation plan include:

- Developments built to withstand historical climate are increasingly unlikely to be resilient to future climate.
- Property sector is increasingly appreciating the risk that climate change presents to businesses now and in the future
- Supports corporate reporting disclosures related to climate risk
- Financial exposure
- Financial risk of climate change – APRA
- Stakeholder and shareholder expectations
- Market drivers e.g. insurance premiums, tenant comfort, operational expenditure

Green Star buildings requires a climate change pre-screening checklist as a minimum expectation and offers +1 point for developing a Climate Change Adaptation Plan.

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Green Star Buildings | Resilience

Green Star – Resilient

Green Star is Australia's trusted mark of quality for the design, construction and operations of healthy, resilient, and positive buildings, fitouts, communities, and homes.

Green Star's mission is to "lead the sustainable transformation of the built environment". Green Star aims to achieve this by encouraging practices that:

• Reduce the impact of climate change

• Enhance health & quality of life

• Restore and protect our planet's biodiversity and ecosystems

• Drive resilient outcomes for buildings, fitouts, communities, and homes

• Contribute to market transformation and a sustainable economy

Climate Change Resilience (Credit 16)

The *Resilient* category allows building owners to demonstrate to investors and the community that risks that threaten the short- and long-term performance of the building have been considered. The intended outcome of this credit is that the building has been built to respond to the direct and indirect impacts of climate change.

Climate Change Pre-screening Checklist (ME)

For minimum expectation, the project team completes the climate change pre-screening checklist. The project team communicates the building's exposure to climate change risks to the applicant. Project team members must consider potential impacts from climate change when completing the checklist in the submission form including, but not limited to:

- Direct damage or failure of project components
- Accelerated deterioration of project components or reduced design life
- Reduced operating capacity
- Climate hazard impacts to surrounding areas (e.g., impacting access and egress)
- Impacts to the health and wellbeing of building occupants and other relevant stakeholders
- Indirect risks from impacts to other interdependent systems and services (e.g., transport networks, power, water, telecommunications)

Both historic and future data must be used when completing the checklist. All sections must be completed. The Minimum Expectation is achieved on completion of the checklist and doesn't require identified risks to be treated.

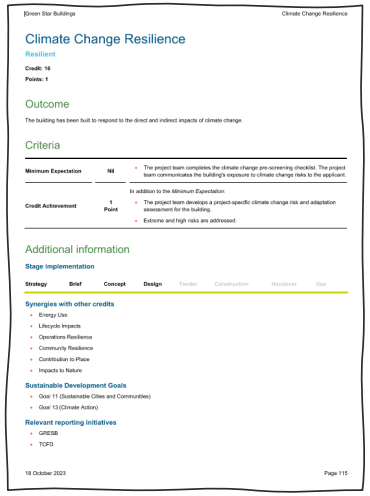
This study is the focus of this report.

Address Climate Change Risk and Adaptation (Credit)

For Credit Achievement, the project team develops a project-specific climate change risk and adaptation assessment for the building. Extreme and high risks are addressed.

A suitably qualified professional must undertake a climate change risk and adaptation assessment and author a report.

This will be undertaken as a follow up study and is not the focus of this report.



Climate Change Resilience

Resilient

Credit: 16

Points: 1

Outcome

The building has been built to respond to the direct and indirect impacts of climate change.

Criteria

Minimum Expectation	Nil	• The project team completes the climate change pre-screening checklist. The project team communicates the building's exposure to climate change risks to the applicant.
Credit Achievement	1 Point	In addition to the *Minimum Expectation*: • The project team develops a project-specific climate change risk and adaptation assessment for the building. • Extreme and high risks are addressed.

Additional information

Stage implementation

Strategy Brief Concept Design Tender Construction Handover Use

Synergies with other credits

- Energy Use
- Lifecycle Impacts
- Operations Resilience
- Community Resilience
- Contribution to Place
- Impacts to Nature

Sustainable Development Goals

- Goal 11 (Sustainable Cities and Communities)
- Goal 13 (Climate Action)

Relevant reporting initiatives

- GRESB
- TCFD

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Data and Methodology

To understand the future effects of climate change, specific emissions scenarios and assessment time horizons need to be selected that are appropriate for the asset design, construction, and operational timescales of the development and represent best available climate data.

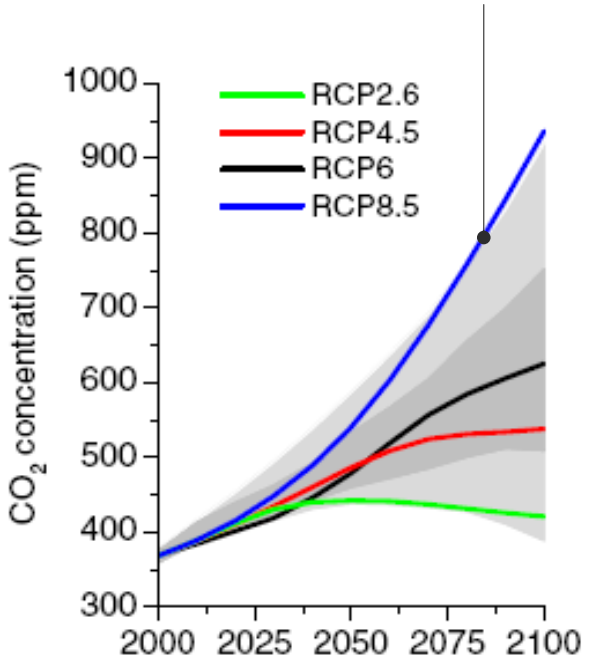
According to the Australian Building Codes Board (ABCB), the design life for a normal building is 50 years. Depending on the accessibility and cost to replace or repair different sub-systems of a building, the design life ranges from 5 to 25 years. As such, the following emissions scenarios and time horizons have been used for this assessment:

- 2030 under RCP8.5
- 2070 under RCP8.5 (assuming a minimum design life of 50 years)

Representative Concentration Pathway (RCP) 8.5 is a scenario used in climate modeling and projections and represents the most conservative approach. It assumes a high level of greenhouse gas emissions throughout the 21st century, leading to a radiative forcing of 8.5 watts per square meter by the year 2100. RCP8.5 corresponds to the pathway with modest rates of technological change and energy intensity improvements, leading in the long term to high energy demand and greenhouse gas emissions with weak climate policy commitments in Australia (business as usual).

Additional details supporting these assumptions have been provided on the following page.

RCP 8.5 used to derive climate projections for this project.



Trends in concentrations of carbon dioxide (right). Grey area indicates the 98th and 90th percentiles (light/dark grey) of the values from the literature. SOURCE: van vuuren et. Al. (2011))

Climate Change Projections

Selected emissions scenario

Climate change scenarios refer to a coherent, plausible and simple description of possible future state of the climate, which forms the basis of climate change projections.

Four representative concentration pathways (RCPs) were published in the Intergovernmental Panel on Climate Change's (IPCC's) Fifth Assessment Report (AR5). These scenarios are defined by their total radiative forcing (cumulative measure of human greenhouse gas emissions, expressed in Watts per square metre (W/m^2)) by 2100. These scenarios are: RCP2.6, RCP4.5, RCP6, and RCP8.5 corresponding to +2.6, +4.5, +6.0, and +8.5 W/m^2, respectively.

Climate models suggest that global surface temperature change for the end of the 21st century is likely to exceed 1.5°C relative to 1850 to 1900 for all RCP scenarios except RCP2.6.

For this project, RCP8.5 has been used to derive climate projections.

Source data

Climate change projections for this report have been consolidated from the Victorian Climate Projections 2019 (VCP19) Technical Report and VCP19 datasets for urban centre: Melbourne, published by CSIRO and the State of Victoria. These datasets are also captured in the Victoria's Future Climate Tool.

The datasets feature a dynamically downscaled set of simulations based on the Conformal Cubic Atmospheric Model (CCAM), as well as drawing on the full range of outputs from Climate Change in Australia (CCIA) using global climate models and other climate modelling data sets.

AR5 was released in 2012/13 and this draws on the latest round of coordinated global climate models known as CMIP5 released in 2011/12, among many other lines of evidence. The CCIA climate projections draw on the science and model simulations from this period, as well as drawing on high-resolution climate modelling based on the CMIP5 outputs. VCP19 uses the same CMIP5 outputs, as well as new high-resolution climate modelling, combined with subsequent research and observations.

During the next stage of the project, this assessment will be updated to reflect CMIP6 which has recently been downscaled for Victoria and represents the latest climate projections.

Selected climate models

For this project, temperature and rainfall projections are based on HadGEM2-CC. This represents the comparatively hottest and driest climate future (least cool and wet) for Victoria for downscaling regional climate.

Climate projections for solar radiation and wind are based on CESM1-CAM5. This represents the worst-case scenario in terms of increasing solar radiation for Melbourne. Projections have been provided as the median values.

The selected calculation method for heatwaves is Excess Heat Factor (EHF). EHF is an objective definition for heatwaves and heatwave severity that may be applied to any location. Using this definition, it is possible to compare severe and extreme heat events across time and space. It combines measures of excess heat, the long-term temperature anomaly characterised by each location's unique climatology of heat, and heat stress, the short-term temperature anomaly measuring recent thermal acclimatisation. These two measures are then factored together to create the excess heat factor (EHF).

ARUP

Climate Change Projections for Melbourne

Projected changes in climate variables

Hazard	Indicator	Baseline 1986-2005	Projections RCP8.5 2030	Projections RCP8.5 2070
Extreme heat	*Annual mean temperature (°C)*	14.16	15.44	17.41
	Annual mean max. temperature (°C)	19.23	20.97	23.48
	Annual mean min. temperature (°C)	8.85	9.79	11.54
	Maximum temperature - 20-year return period (°C)	41.66	45.00	47.96
	Number of hot days (>35 °C)	5.75	13.8	29.1
	Number of cold nights (<0 °C)	1.23	0.64	0.05
	Number of heatwaves	1.52	3.94	8.1
	Sum of heatwave days	10.52	20.78	49.43
Solar Radiation	*Change in Solar Radiation (% change in w/m^2)*	-	+3.90	+3.90

ARUP

Climate Change Projections for Melbourne

Projected changes in climate variables

Hazard	Indicator	Baseline 1986-2005	Projections RCP8.5 2030	Projections RCP8.5 2070
Flood	*Precipitation - 5% AEP (mm)*	91.86	93.76	111.9
	Rainfall intensity	Given the uncertainty in rainfall projections and their considerable regional variability, an increase in rainfall (intensity or depth) of 5% per °C of local warming is recommended.[1] Rainfall intensity is therefore projected to increase by 11.9% by 2070 under RCP8.5.[2] Annual frequency of severe thunderstorm days is likely to rise by 22% by 2100.[3]		
Wind	*Annual mean wind speed change*	-	+5.5%	+6.7%
Drought	*Drought factor (scale of 1-10)*	6.2	6.6	7.4* *by 2090
	Annual rainfall (mm)	730.53	617.05	505.27
Humidity	*Relative humidity change (%)*	-	-1.94	-2.69
Bushfire	*Severe fire danger days (FFDI > 50, days per year)*	2.8	3.4	5.3* *by 2090
Sea-level rise	*Sea-level rise (m)*	-	+0.20	+0.82

[1] Ball J, Babister M, Nathan R, Weeks W, Weinmann E, Retallick M, Testoni I, (Editors) Australian Rainfall and Runoff: A Guide to Flood Estimation, © Commonwealth of Australia (Geoscience Australia), 2019.
[2] Interim climate change factors; https://data.arr-software.org/
[3] https://www.climatecouncil.org.au/uploads/3ca765b1c65cb52aa74eec2ce3161618.pdf

ARUP

Localised Climate Context Abbotsford

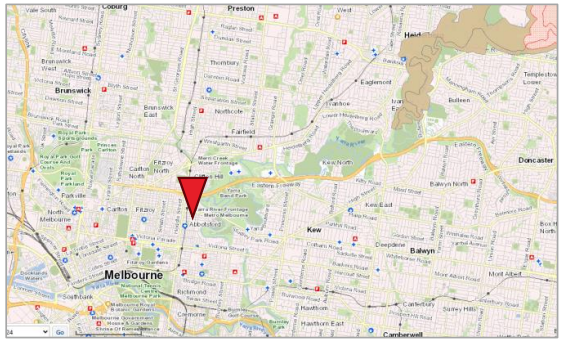
Adjacent to bushfire and flood prone areas

The location of Models' Lithgow St project in Abbotsford has been reviewed against available data for the local climate.

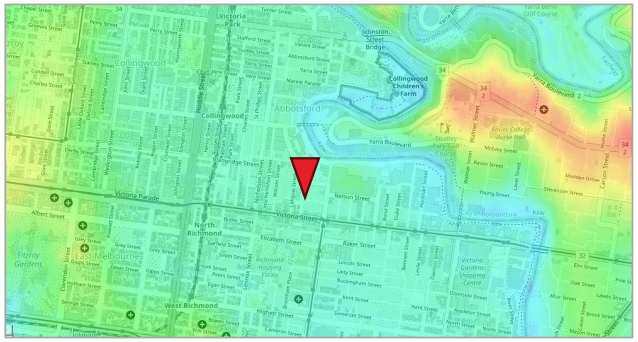
The site is not located in a bushfire prone area, however due to the proximity to bushfire prone areas to the north and east, the impact of smoke and air quality is a consideration.

Additionally, the project is not located in an area that is considered at risk of experiencing a 1% chance of annual flood event, as highlighted by the Land subject to inundation Flood Map (VicPlan). However, the site is subject to localised flooding up to 0.5m or speed up to 2m/s from council drains. Pluvial flooding could be experienced toward the west of the site as well as the basement areas, which should be highlighted as a risk.

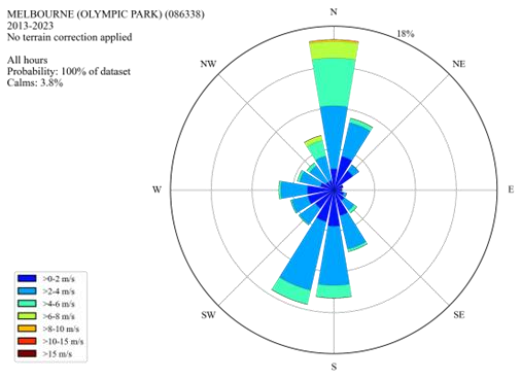
A review of the wind rose for the nearest weather station (Melbourne Olympic Park), which is based on historical data, highlights that the site is not at risk of experiencing damaging winds (>8m/s). Under some climate models, wind speed is projected to increase in Melbourne and therefore due consideration of appropriate wind-loading and avoidance of wind tunnels should be given during design.



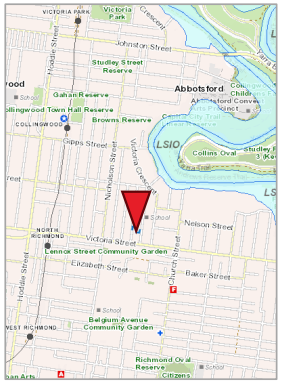
Designated Bushfire Prone Area (BPA), VicPlan[1]



Topography map[2]



Extract from Arup's Wind projection tool



Land subject to inundation overlay (LSIO), VicPlan[1]

Stormwater flooding council drains, Yarra flood mapping[3]

[1] Designated Bushfire Prone Area (BPA) Simplified for Victoria , Department of Transport and Planning, Sep 2023, Vicplan

[2] https://en-au.topographic-map.com

[3] https://experience.arcgis.com/experience/09539148379b45e79ad42747f856668d#data_s=id%3Awidget_10_output_config_widget_1-dataSource_3_0%3A0

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Potential Climate Impacts for The Factory

Non-exhaustive list of potential climate-related impacts for relevant hazards

Hazard		Impact	2030	2070
Extreme heat		Direct	• Rising temperatures impact on thermal performance of buildings and reduce thermal comfort for occupants both in indoor and outdoor spaces. • Increased temperatures leads to increased HVAC system power demand to support enhanced thermal loads, results in more frequent peak load. • Temperature extremes impacting on soil expansion and contraction cycles, causing structural damage to structures and hardscaping. • Increased risk of loss of grid connectivity in extreme weather events • Human health effects including fatigue and heat stress, heightened for elderly, children and those with existing health conditions	
Flooding		Direct	• Increased rainfall intensity leading to localised flooding and capacity issues in existing drainage infrastructure, causing damage to the buildings structure and ground-based services, and causing disruption to building occupants. • Impacts to accessibility of the site and power supply caused by flooding	
Wind/ Storm		Direct	• Extreme weather conditions leading to increased structural load on buildings and damaging buildings and structures • Extreme weather events may lead to trees dying or dropping limbs, causing safety risk for staff, residents, and visitors.	
Solar radiation		Direct	• Minimal increase in solar radiation may lead to materials degrading at an increased rate	
Drought		Indirect	• Decreased rainfall impacting future operational costs and amenity of the site • Reduced rainfall days will reduce removal of atmospheric pollutants leading to poorer health outcomes • Decreased levels of soil moisture, impacting building foundations (such as movement)	
Bushfire		Indirect	• Smoke affecting outdoor air quality and amenity for residents and infiltrating indoor spaces through ventilation and building mechanical systems. • Bushfire events may lead to power restrictions or failures, causing temporary or extended power outages.	
Humidity		Negligible	• The projected decrease for relative humidity is small and is therefore unlikely to have an impact on the development.	
Sea level rise		Negligible	• Sea level rise will not present a direct impact for this development	

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Climate Change Pre-screening Checklist

Risks assessed under past and future climate exposure

The 35-45 Lithgow Street site in Abbotsford has been assessed against potential climate risks. The outcome of this review is shown inset, highlighting where material hazards have been identified.

Risks impacts were not individually assessed during this stage and therefore no risk treatments have been identified as yet. Adaptation opportunities for priority risks will be explored in the Resilience workshop during the next project stage that will be facilitated by Arup.

Some important things to note that this stage:

- While the project area has not previously been impacted by extreme events, a review of future climate data highlights potential future risk, particularly with regards to extreme rainfall and flooding, heatwaves and drought.
- While the project is not located in a designated flood prone area, due to site topography there is a risk of pluvial flooding in the basement areas and along the west border of the site.
- The project is not located within a bushfire prone area, however, is within 10 km of potentially affected areas and as such could be impacted with poor air quality, particularly with winds prominent from the north.
- The development's occupants may include young children who are at high risk of being impacted by extreme weather events.

Pre-screening item	Applies to project	Has data regarding future climate exposure been reviewed?	Has a risk to the project been identified?	Has a risk treatment been identified?
The project area has previously been impacted by extreme climate events (e.g. storms/tropical cyclones, extreme rainfall and flooding, damaging winds, damaging hail, bushfires, heatwaves, drought, or coastal inundation).	No	Yes	Yes	Passive design measures.
The project is located in a cyclone zone.	No	NA	NA	NA
The is project located in or adjacent to a bushfire prone area.	No	Yes	Yes	Filtered fresh air strategies.
The project is located in or adjacent to a flood prone area.	Yes	Yes	Yes	Water retention strategies.
The project is located at or adjacent to the coastline or tidally influenced waterway.	No	NA	NA	NA
The project will accommodate occupants vulnerable to the impacts of climate extremes (e.g. children, elderly, low mobility, seeking medical treatment).	Yes	Yes	Yes	Passive design measures and operational strategies.

Climate Pre-Screening Checklist

Following Green Star Buildings v1 Methodology

Overview + Next Steps

Summary of Identified Risks

This preliminary climate risk screening has highlighted that when considering current and future climate data, there are several climate-related hazards which may pose risks to Model's 35-45 Lithgow Street project, including:

- Potential future risk associated with extreme rainfall that could leading to localised flooding and capacity issues in existing drainage infrastructure, causing damage to the buildings structure and ground-based services, and causing disruption and site access issues for building occupants at the Little 35-45 Lithgow Street entrance. There is potential risk of pluvial flooding toward the west of the site and basement.
- Heatwaves could impact thermal performance of the buildings as well as occupant comfort and health with fatigue and heat stress more likely. Building structure could also be impacted by soil expansion and extraction associated with higher temperatures and drought.
- The project is not located within a bushfire prone area, however, is within 10 km of potentially affected areas and as such could be impacted with smoke and associated poor air quality.
- The development's occupants are expected to be varied with potentially elderly and children, who are at high risk of being impacted by extreme weather events.

Next Steps

Following Model's review of this preliminary climate change screening, Arup will undertake a full climate change risk assessment to identify priority risks for treatment. Priority risks will be validated with the project team in a Resilience Workshop and appropriate design and operational adaptation measures will be determined.

The climate risk and adaptation assessment will be undertaken by Arup's Climate Change Specialists who will author a Climate Change Adaptation Plan as that reflects the assessment and the project's adopted strategies. This may fulfill requirements of Green Star Credit 16 Climate Change Resilience dependent on initiatives implemented by the project team.

Traffix Group

Waste Management Plan

Build to Rent Development

35-45 Lithgow Street, Abbotsford

Prepared for
Model Australia Pty Ltd

October 2025

G35649R-02B (WMP)

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Appendix A Development Plans

Appendix B Swept Path Diagrams

1. Introduction

Traffix Group has been engaged by Model Australia Pty Ltd to prepare a Waste Management Plan for the Build to Rent Development at 35-45 Lithgow Street, Abbotsford.

This Waste Management Plan (WMP) is intended to provide as a guidelines and strategies for the development and may be subject to the ongoing updates, post-development.

2. Development

The development is for a mixed-use development on the site as set out in Table 1.

Table 1: Development Schedule

Description/Use		Area/Size/No.
Residential (Build to Rent)	Studio dwellings	54 no.
	One-bedroom dwellings	78 no.
	Two-bedroom dwellings	19 no.
	Total	**151 no.**
Residential Amenity		766 m^2
Commercial	Café	62 m^2

Waste collection will occur on-site within the basement level carpark, via a private contractor using a 6.4m long low-profile rear loading waste collection vehicle.

Café Tenancy

A bin storage room is to provide for a café tenancy within the basement level.

Residential

A dual chute system for residents is provided at each residential level and will terminate into the chute discharge area provided at the basement level. Garbage and recycling waste will be accommodated within the chutes (separate chute for each waste stream).

A shared residential waste storage area is provided for glass and FOGO waste at basement level. This waste will be manually transferred to the waste room which is directly accessible to the residents through the lifts.

Hard waste storage space, e-waste and charity waste bins are also provided within the waste loading area at basement level. This waste will be collected via a private contractor on-site within the basement level as required.

A copy of the development plans prepared by Warren and Mahoney Architects is attached at Appendix A.

3. Waste Management Plan

3.1. Waste Systems

The waste management systems of the development are comprised of the following components:

- Immediate smaller bins within individual dwellings and café tenancy for temporary storage of garbage and recyclable waste prior to transferring to the Mobile Garbage Bins (MGB's) via chutes,
- A dual chute system for garbage and recyclable waste (excluding glass) at each residential level,
- Mobile Garbage Bins (MGB's) within the respective waste storage area at basement level, and
- Manual transfer of FOGO, glass, hard waste, e-waste and charity waste within the shared residential waste storage area will occur via residents as required.

3.2. Management of Waste Streams

In accordance with the Victorian Government's *Circular Economy Policy*: *Recycling Victoria*, food organics green organics (FOGO), glass and paper & cardboard waste have been considered separately to reduce landfill at the source.

The waste generated by the development shall be separated and managed into the following waste streams:

Residential Component

- General Garbage Waste,
- Food and Organics/Green Waste,
- Glass Recycling, and
- Other Commingled Recycling (inc. Paper & Cardboard).

Commercial Component

- General Garbage Waste,
- Food and Organics/Green Waste,
- Other Commingled Recycling (including glass), and
- Paper and Cardboard Waste.

The management of each of the streams/systems is detailed below.

Table 2: Waste Streams

Waste Type	Waste Management	
	Residential Waste	**Commercial Waste**
Garbage	Residents will place general landfill waste in tied plastic bags and dispose of the bagged garbage directly into the appropriate chute provided at each residential level.	Staff will place general landfill waste in tied plastic bags and dispose of the bagged garbage directly into the garbage bin within the respective commercial waste storage area at basement level.
Recycling	Residents will dispose of loose recyclable items directly into the appropriate chute provided at each level. Cardboard items shall be folded where appropriate.	Staff will dispose of loose recyclable items directly into the recycling bin within the respective commercial waste storage area at basement level.
FOGO	Small kitchen caddy bins shall be provided within the kitchen in each dwelling for residents. Residents will be responsible to dispose of organic waste directly into the organic bins within the shared residential waste area at basement level as required.	Café staff will dispose of organic waste directly into the organic bins within the commercial waste storage area at basement level.
Glass	Glass waste will be stored separately within the kitchen area in each dwelling where relevant. Residents will dispose of this glass waste directly into the glass bins within the shared residential waste area at basement level as required.	Glass waste generation by the commercial tenancy is anticipated to be very low and therefore, it can be accommodated within the commingled recycling bin provided.
Paper & cardboard	Paper and cardboard waste generated by residents are anticipated to be low and can be accommodated within the commingled recycling bin. Transfer to occur via the commingled recycling chute (except for large cardboards which should be taken manually).	Café staff will dispose of loose cardboard directly into the paper & cardboard bin within the commercial waste storage area at basement level. Cardboard shall be folded appropriately.
Hard Waste	Residents will dispose of hard waste including used furniture and white goods with the assistance of the property manager. A hard waste storage is provided within the basement level, and it will be collected via a private contractor on-site.	The commercial tenancy will dispose of any hard waste via a private contractor on a required basis.

Waste Type	Waste Management	
	Residential Waste	Commercial Waste
Other	Residents will dispose of charity waste and electric waste within onsite bins including batteries, phones, computers etc. with the assistance of the property manager or drop it off at Recycling drop-off centre (168 Roseneath Street, Clifton Hill). E-waste must not be disposed in landfill. Collection will occur via private contractor on-site.	Staff will dispose of any electric waste including batteries, phones, computers etc. with the assistance of the property manager via the private contractor as required.

3.3. Waste Generation

3.3.1. Overall Generation Rates

The different land uses have been assessed against the waste generation rates specified under the *Better Practice Guide for Waste Management and Recycling in Multi-unit Developments* by Sustainability Victoria.

Waste generation from residential amenity area is included in the below figures.

Table 3 sets out the expected waste generation for the Build to Rent Development.

Table 3: Waste Generation Rates

Waste Source	Garbage	Recycling
Residential		
One-bedroom dwellings	80L per apartment/week	80L per apartment/week
Two-bedroom dwellings	100L per apartment/week	100L per apartment/week
Residential amenity	10L/100m^2 floor area/day	10L/100m^2 floor area/day
Commercial		
Café	300L/100m² floor area/day	200L/100m² floor area/day

An estimate of the total waste generated by the development is detailed in Table 4.

Table 4: Expected Waste Generation for the Use

Waste Source	Size/No.	Garbage	Recycling
Residential			
One-bedroom dwellings (inc. studio)	132 no.	10,560 L per week	10,560 L per week
Two-bedroom dwellings	19 no.	1,900 L per week	1,900 L per week
Residential amenity	766 m^2	537 L per week	537 L per week
TOTAL WASTE GENERATED		**12,997 L per week**	**12,997 L per week**
Commercial			
Café	62 m^2	1,303 L per week	869 L per week

3.3.2. Considering Alternative Waste Streams

As previously detailed, *the Victorian Government's Circular Economy Policy*: *Recycling Victoria,* requires food organics (FOGO), glass and paper & cardboard waste to be considered separately to reduce landfill.

Consideration of separate waste streams from the development is summarised in Table 5. The separated waste ratios are based on the values provided within *the City of Melbourne Guidelines* and having experience with similar developments.

Table 5: Alternative Waste Streams

Land Use	Garbage		Recycling		
	General	FOGO	Commingled	Glass	Paper & Cardboard
Residential dwelling	65%	35%	80%	20%	-
Café	70%	30%	60%	-	40%

Based on the preceding, the development is expected to generate the following waste volumes.

Table 6: Expected Waste Generation – Splits per Stream (inc. residential amenity)

Waste Source	Size/No.	Garbage		Recycling		
		General	FOGO	Commingled	Glass	Paper & Cardboard
Residential						
Dwellings	151 no.	8,636L	4,361L	10,505L	2,492L	-
TOTAL WASTE GENERATED		**12,997L / week**		**12,997L / week**		
Commercial						
Café	62 m^2	912L	391L	521L	-	348L
TOTAL WASTE GENERATED		**1,303L / week**		**869L / week**		

3.4. Waste Equipment (MGBs)

Based on the determined waste generation, Table 7 and Table 8 provide a summary of the nominated waste storage area provisions and the frequency of collection.

Table 7: Waste Bins and Collection Frequencies – Residential

Waste Stream	Waste Volume (L/week)	Bin Capacity	No. of Bins Required	Collection Frequency (per week)
Garbage	8,636L	1,100L	4 no.	2
FOGO	4,361L	240L	10 no.	2
Recycling	10,505L	1,100L	5 no.	2
Glass	2,492L	660L	2 no.	2

Table 8: Waste Bins and Collection Frequencies – Cafe

Waste Stream	Waste Volume (L/week)	Bin Capacity	No. of Bins Required	Collection Frequency (per week)
Garbage	912L	660L 1,100L	1 no. 1 no.	1
Recycling	521L	1,100L	1 no.	1
FOGO	391L	240L	3 no.	1
Paper & Cardboard	348L	660L	1 no.	1

Further details regarding the waste equipment required for the development are detailed in Table 9.

Table 9: Bin Details and Colours

Waste Stream	Bin Capacity	Dimensions (H x W x D) Note 1	Bin Lid Colour Note 2	Bin Body Colour Note 2
Garbage	660L 1,100L	1,200 x 1,260 x 780mm 1,330 x 1,240 x 1,070mm	Red	Dark Green
Recycling	1,100L	1,330 x 1,240 x 1,070mm	Yellow	
FOGO	240L	1,060 x 585 x 730mm	Light Green	
Glass	660L	1,200 x 1,260 x 780mm	Purple	
Paper & cardboard	660L	1,200 x 1,260 x 780mm	Blue	

Note 1. Bin capacity and dimensions are provided as an indicative dimension, sourced from Bin Supplier, 'Sulo'.
Note 2. Bin lid and body colours are based on the bin colour scheme set out by Sustainability Victoria.

3.5. Dual Chute System

Chute termination areas will be enclosed and secure for safety reasons. Access to these areas will be available by trained personal only. Building management staff will be responsible for the rotation and emptying of bins as required.

Doors to the secure chute room shall be provided at a minimum width of 1.5m in order to facilitate the transfer of 660L & 1100L bins as required.

A dual chute system for garbage and recycling will be provided for residents on each building level, which will terminate into the appropriate bins located in the waste area at basement level. Skirting/equivalent system should be provided at the termination of the chutes to reduce the impact of materials falling into the bins. Residential garbage and recycling bins shall have reinforced bases to increase the durability of the bins.

The chutes shall be designed to the manufacturer's specifications and appropriate signage, and instructions will be provided to residents to ensure correct and safe use of the chute system. Bins would be rotated as required by trained personnel.

The chutes will have acoustic treatment including vinyl loaded flexible barrier and 25mm acoustic foam to minimise noise impacts to the residents. Plastic chutes can be used if desired to further reduce the noise impacts to a minimal level.

3.5.1. Waste Area and Access

The development provides a chute discharge area at basement level which will be secured and accessed via trained personnel only.

Access door to all the waste storage areas is at least 1.5m wide to allow adequate transfer of the 660L and 1,100L bins.

Separate waste storage areas for residential and café tenancy are provided at basement level which can be accessed internally via the lifts.

The waste storage areas and access route are illustrated at Figure 1.

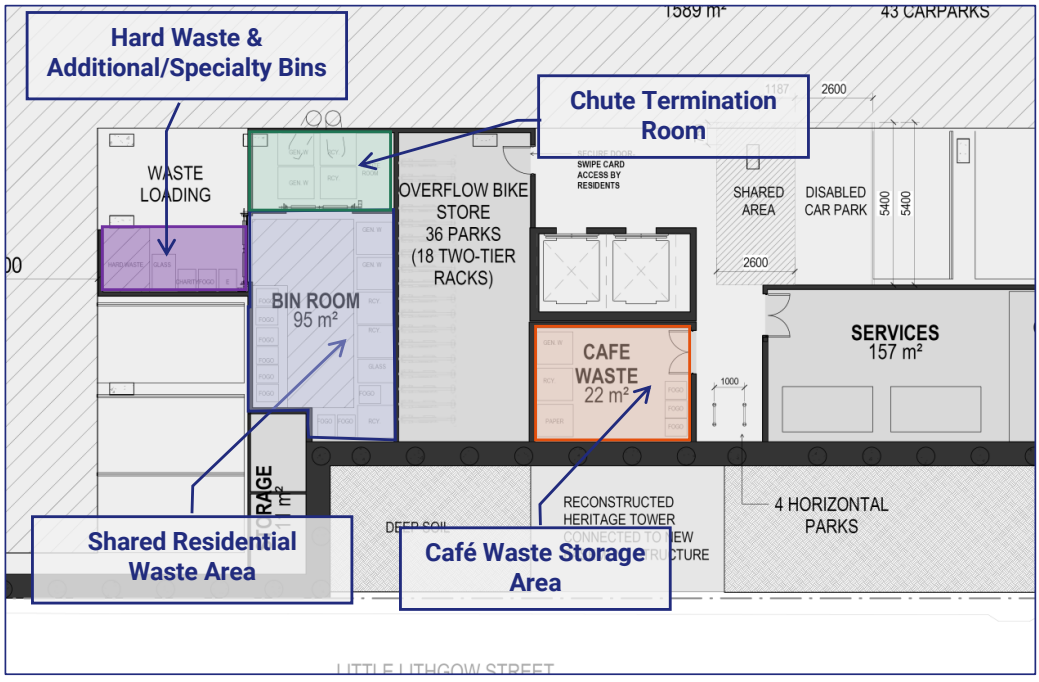


Figure 1: Waste Storage Areas – Residential and Cafe

Table 10 and Table 11 details the waste area requirements based on the waste equipment proposed.

Table 10: Waste Area Requirements

Use	Waste Equipment	Net Area[1]	Quantity	Net Waste Storage Area Required	Waste Area Provided
Residential	240L	0.43m^2	10	8.17m^2	95m^2
	660L	0.99m^2	2	1.98m^2	
	1,100L	1.33m^2	9	11.97m^2	
Charity waste	240L	0.43m^2	1	0.43m^2	
E-waste	240L	0.43m^2	1	0.43m^2	
Hard waste		~3 m^2			
Note 1: Net area required is calculated from the dimensions of the bins.					

Table 11: Waste Area Requirements

Use	Waste Equipment	Net Area[1]	Quantity	Net Waste Storage Area Required	Waste Area Provided
Café Tenancy	240L	0.43m^2	3	1.29m^2	22m^2
	660L	0.99m^2	2	1.98m^2	
	1,100L	1.33m^2	2	2.66m^2	
Note 1: Net area required is calculated from the dimensions of the bins.					

Based on the above, sufficient space is provided for on-site waste storage within the development.

3.6. Signage

The signage will help guide and encourage staff and residents of the development to dispose of waste correctly into the appropriate waste streams.

An education plan for the development detailing how the following information will be communicated to future residents/tenants is required:

- all available waste and resource recovery services
- how to access and use the waste and resource recovery services.
- location of the bin room, waste and recycling chutes (if applicable), and how to use them.
- Signs on the bins, bin rooms and the drop-off points will be required to encourage correct recycling and minimise contamination.

Signage will be provided in bin rooms and on chutes to clearly denote each of the available services, and to encourage correct use of systems.

Appropriate signage in accordance with Sustainability Victoria will be displayed on the bins and within the waste area, as illustrated in Figure 2.

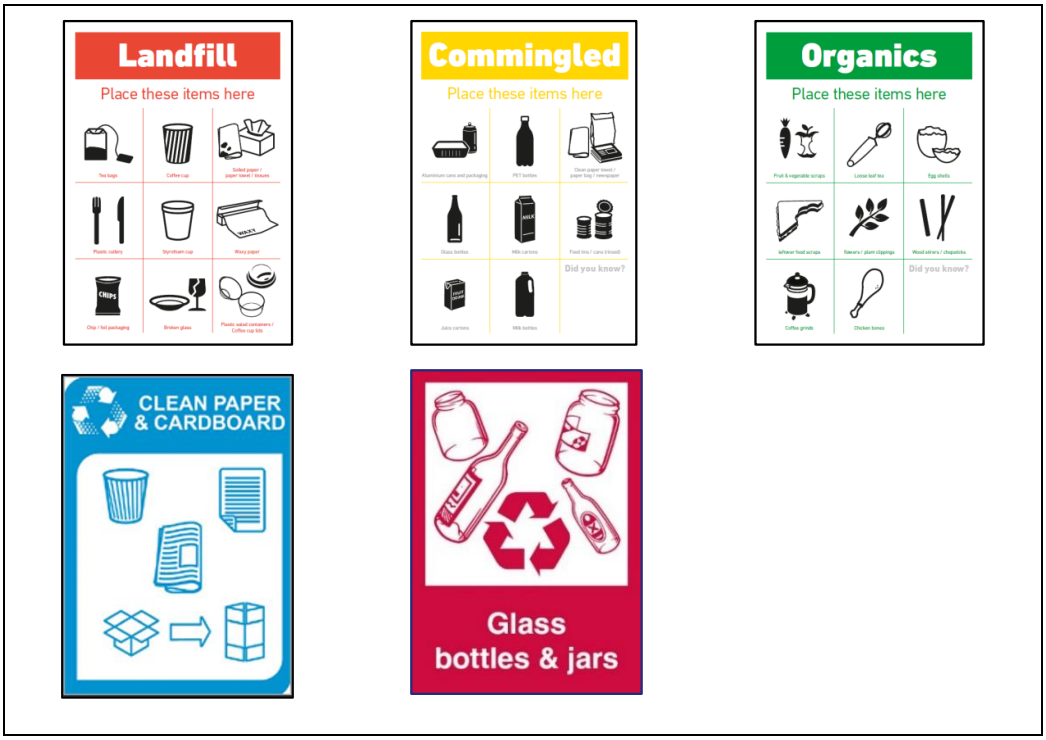


Figure 2: Waste Signage Examples

3.7. Waste Collection Arrangements and Vehicle Access

Waste collection for residential dwellings and the café tenancy will occur on-site within the basement level carpark.

A private contractor will be engaged to collect the waste via a Mini-Hino rear loading waste vehicle (typically 6.4m long and 2.1m high).

A 6.4m long waste collection vehicle requires a 2.1m travel height along the path with 2.5m collection height at the collection point.

Traffix Group has provided advice to the project architect in order to accommodate vehicle access of the 6.4m long mini rear loading waste vehicle within the site.

Swept path diagrams demonstrating vehicle access of the 6.4m long mini rear loading waste vehicle entering and exiting the site in a forward direction is attached at Appendix B.

4. Amenity Impacts

It is the responsibility of the building management to carry out the ongoing maintenance of all waste areas to minimise the following amenity impacts.

4.1. Ventilation/Odour Prevention

For developments using forced ventilation or air-conditioning system, adequate ventilation will be provided within the bin store areas in accordance with AS1668.2 to ensure waste-related odours are minimised.

Waste areas will be frequently cleaned to prevent the retainment of odours.

4.2. Noise Reduction

The waste facilities will comply with BCA and AS2107 acoustic requirements. Private waste collection will follow Council's and EPA guidelines to ensure acoustic impact is minimised.

Collection days and times will be determined following the confirmation of a specific private waste collection contractor by the building manager. Waste collection times should comply with the EPA Noise Control Guidelines (Publication 1254):

Domestic Waste Collection

- *Collections occurring once a week should be restricted to the hours 6am — 6pm Monday to Saturday,*
- *Collections occurring more than once a week should be restricted to the hours 7 am —6 pm Monday to Saturday*

Commercial Waste Collection

- *Collections occurring once a week should be restricted to the hours 6:30am — 8pm Monday to Saturday, 9am – 8pm Sunday and public holidays*
- *Collections occurring more than once a week should be restricted to the hours 7 am —8pm Monday to Saturday, 9am – 8pm Sunday and public holidays*

4.3. Vermin Prevention & Litter Management

Waste areas will be secured to prevent any unauthorised use. Waste areas will be monitored by the property manager to ensure that bins are not overfilled and any spillage resulting from waste collection is appropriately addressed. All access doors and bin lids will be kept closed at all times to prevent vermin access to the waste areas.

4.4. Washing Facilities and Stormwater Pollution

Third party contractors can be engaged for proper washing and cleaning of bins. Alternatively, appropriate washing facilities including water supply and hose shall be provided for the regular washing of the bins and waste area by the property manager. Washing facility provided will be connected to the sewerage for drainage to prevent any stormwater pollution.

5. Ongoing Maintenance & Sustainability Initiatives

5.1. Maintenance Management

Further to the occupation of the development, it is the responsibility of the building manager for the ongoing operation and maintenance of the Waste Management Plan.

The building manager will ensure that maintenance work and upgrades are carried out on the waste areas and components of the waste system. When required, the building manager will engage an appropriate contractor to conduct maintenance services, replacements, or upgrades.

All ongoing costs are to be fully met by the building manager.

5.2. Waste Reduction Strategies

The building manager will be responsible to encourage staff and residents of the development to reduce waste disposal and recycle materials based on the waste management hierarchy set out by Sustainability Victoria.

The hierarchy is detailed at Figure 3 below.

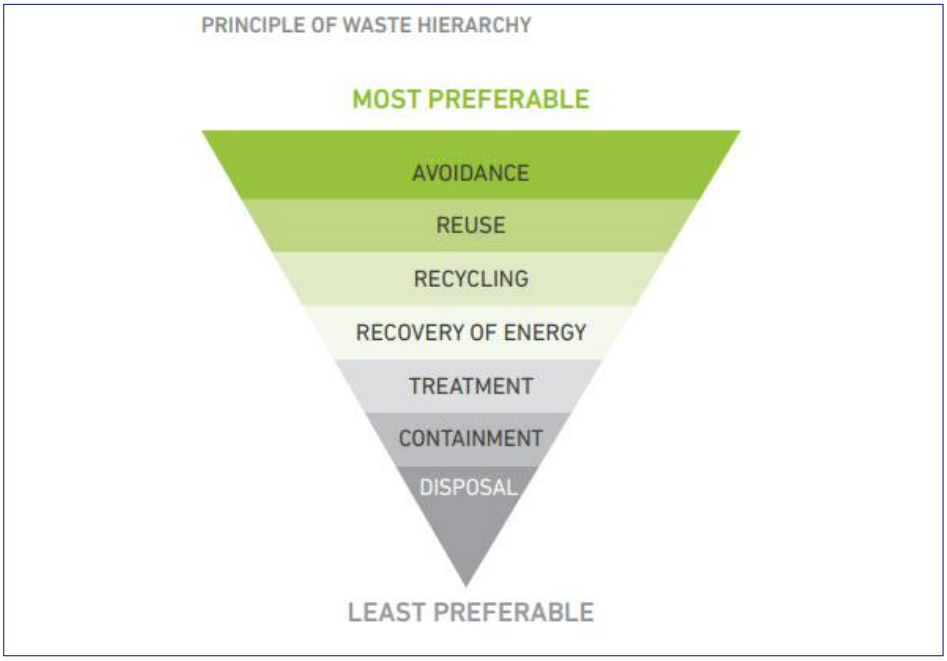


Figure 3: Sustainability Victoria's Waste Management Hierarchy

Additionally, the building manager can set targets and measures to reduce garbage going to landfill and increase recycling and choose to participate in Council's waste programs to promote sustainability initiatives.

5.3. Waste Management Rules

It will be the responsibility of the building manager to ensure all staff and residents are provided with the relevant information and materials regarding the waste management system and sustainability strategies of the development.

Relevant information will be provided at the waste areas to ensure that all users will operate and maintain safe practice when utilising the waste facilities.

5.4. Monitoring and Review

This Waste Management Plan should be monitored and reviewed on a regular basis to ensure that it meets the regulatory requirements and the expected waste generation rates outlined in Section 3.3. The building manager will be responsible for monitoring the Waste Management Plan. Where required, the building manager should undertake a waste audit to identify any modifications and/or improvements to the waste management system.

6. Contact Information

Table 12 provides a list of common waste collection service contractors and waste equipment suppliers. The building manager is not obligated to procure goods/services from the following suppliers and reserves the right to choose their own preferred suppliers.

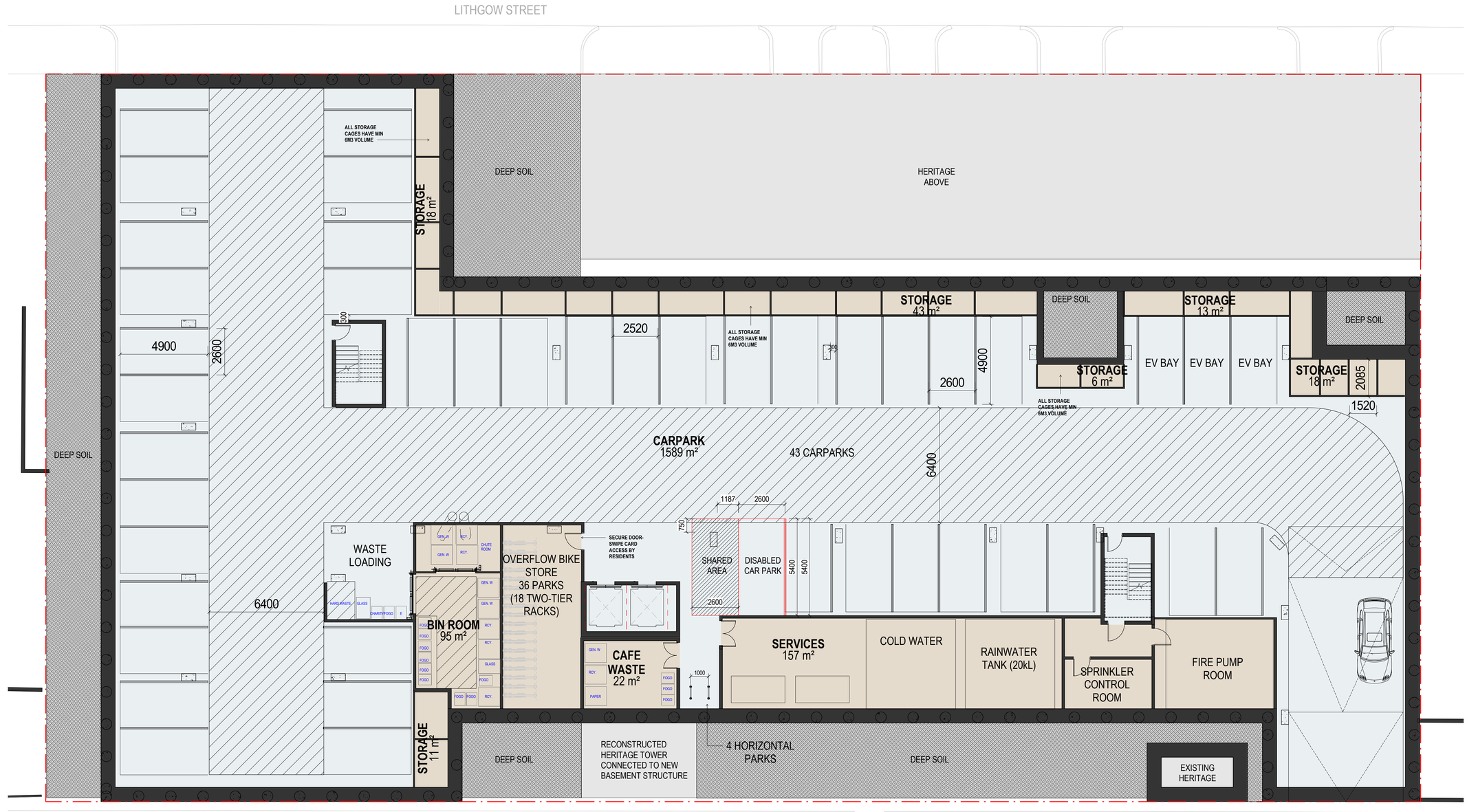
Traffix Group does not make representations for the goods/services provided by the suppliers listed below.

Table 12: Supplier Contact Information

Service Type	Business Name	Phone	Website
Private Waste Collectors	Citywide Waste	03 9261 5000	www.citywide.com.au
	Cleanaway	13 13 39	www.cleanaway.com.au
	Veolia	13 29 55	www.veolia.com/anz
	JJ Richards	03 9794 5722	www.jjrichards.com.au
	Waste Wise Environmental	1300 550 408	www.wastewise.com.au
	Kartaway	1300 362 362	www.kartaway.com.au
	iDump	1300 443 867	www.idump.com.au
	Waste Ninja	1300 648 088	www.wasteninja.com.au
E-Waste Collection	TechCollect	1300 229 837	www.techcollect.com.au
Equipment Supplier	Sulo Australian (bin supplier)	03 9357 7320	www.sulo.com.au
	Mr Wheelie Bin (bin supplier)	03 9912 2850	www.mrwheeliebin.com.au
	Wastech Engineering (compactors & chutes)	1800 465 465	www.wastech.com.au
	Elephants Foot (compactors & chutes)	1300 435 374	www.elephantsfoot.com.au
	ASI JD MacDonald (chutes)	1800 023 441	www.jdmacdonald.com.au
	Eco-safe Technologies (odour control system)	1300 135 039	www.eco-safe.com.au
Bin Washing Services	The Bin Butlers	1300 788 123	www.thebinbutlers.com.au
	WBCM Environmental Australia	1300 800 621	www.wbcm-aust.com.au
	Kerbside Clean-A-Bin	03 9588 1944	www.kerbsidecleanabin.com.au

Appendix A

Development Plans



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WARREN AND MAHONEY

Revisions
—

A 25/09/25	FOR REVIEW
B 02/10/25	FOR REVIEW
C 20/10/25	TOWN PLANNING

Notes
—

N
TRUE NORTH

Consultants
—
FATHOM
Project Manager
TTW
Structural Engineer
Neuron
Services Engineer

Client
—
MODEL

Project Title
—
THE FACTORY

35 - 45 LITHGOW STREET,
ABBOTSFORD

All dimension to be verified on site before producing shop drawings or commencing any work.
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Drawing Title
—
BASEMENT FLOOR PLAN

Drawing Status
—
WORK IN PROGRESS

Drawing Details
—

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Job No	10463
Drawn	BS, PG, VC
Checked	ST

Drawing No — TP10.00

Revision C

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Drawing Title
—
GROUND FLOOR PLAN

Drawing Status
—
WORK IN PROGRESS

Drawing Details
—

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Job No	10463
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Checked	ST

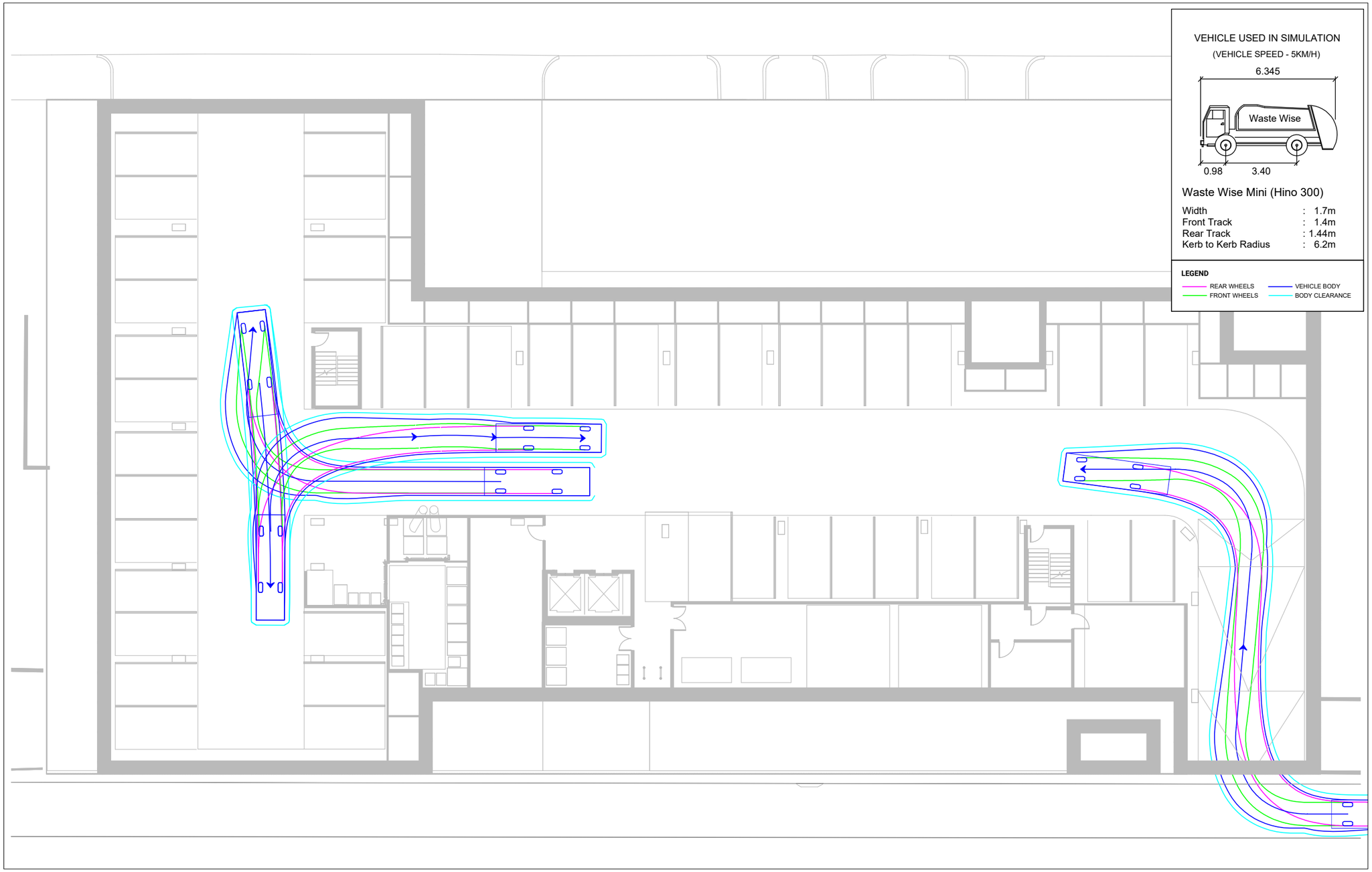
Drawing No — TP10.01

Revision — C

Appendix B

Swept Path Diagrams

SITE ACCESS - WASTE TRUCK INGRESS / EGRESS



VEHICLE USED IN SIMULATION

(VEHICLE SPEED - 5KM/H)

Waste Wise Mini (Hino 300)

Width	:	1.7m
Front Track	:	1.4m
Rear Track	:	1.44m
Kerb to Kerb Radius	:	6.2m

LEGEND

REAR WHEELS — VEHICLE BODY
FRONT WHEELS — BODY CLEARANCE

REV	DATE	NOTES	DESIGNED BY	CHECKED BY
A	09/10/2025	ORIGINAL ISSUE	P. NGUYEN	D. TROTTER (RPE6797)
B	30/10/2025	UPDATED ISSUE	P. NGUYEN	D. TROTTER (RPE6797)

35-45 LITHGOW STREET, ABBOTSFORD
PROPOSED BUILD TO RENT DEVELOPMENT

GENERAL NOTES:
ARCHITECTURAL PLANS, RECEIVED 30-10-2025

FILE NAME: G35649-01
SHEET NO.: 01

N

SCALE: 1:200 (A3) 0 2 4

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7. Confidential Planning Decisions Committee Reports

Nil.