

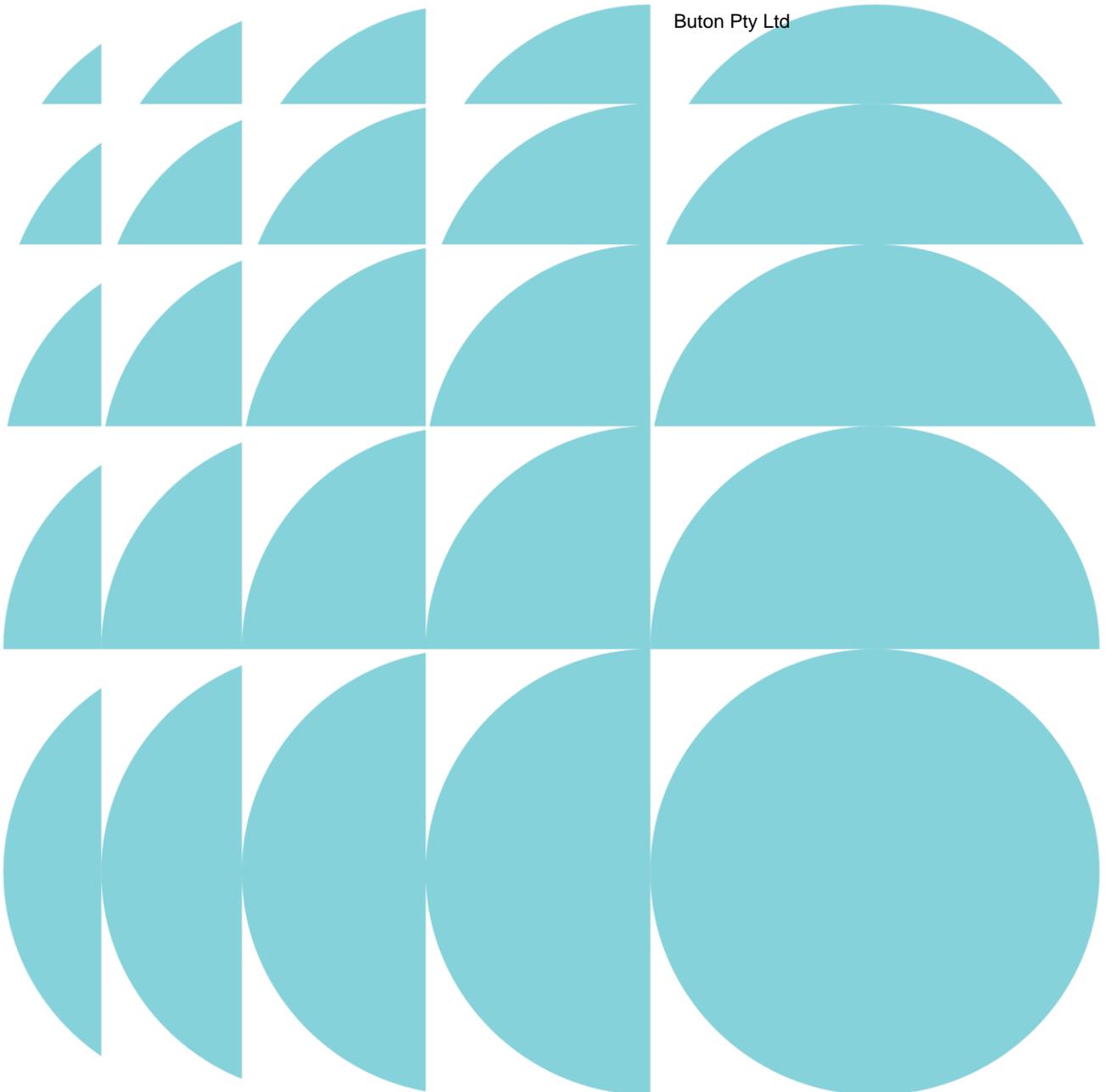
Expert Evidence

14 February 2022

VPA Projects Standing Advisory Committee
Referral No.6 Arden Structure Plan, Development
Contributions Plan and draft Melbourne Planning
Scheme Amendment C407melb

Panel Hearing

Cars by Nicole Pty Ltd;
Theodossi Family Pty Ltd;
N&C Theodossi Investments Pty Ltd;
N&C Theodossi Investments No 2 Pty Ltd;
N&C Theodossi Investments No.4 Pty Ltd;
199 Arden Street Pty Ltd;
Nithe Pty Ltd; and
Buton Pty Ltd



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Director

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This document has been prepared by:



Laura Murray

14 February 2022

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1.0 Introduction

1.1 Name and address

1. My name is Laura Murray and I am a Planning Director at Ethos Urban, a development consultancy located at Level 8, 30 Collins Street, Melbourne.

1.2 Qualifications and experience

2. My qualifications are as follows, attained at the University of Strathclyde, Glasgow, Scotland:
 - Bachelor of Environmental Planning
3. I am a qualified town planner with 18 years' experience in a variety of planning and management roles, including:
 - Three and a half years' experience in local government as a statutory planner at north Lanarkshire Council, UK.
 - Five years' experience as a senior planning consultant undertaking both statutory and strategic planning projects and national retail roll outs at Meinhardt.
 - Five years' experience as a principal planner in senior management positions, which included strategic and statutory planning portfolios; at Select Architects and APP Corporation.
 - Four and a half years' experience as an Associate Director then Director of Planisphere Pty Ltd, now Ethos Urban Pty Ltd.
4. I am a Graduate of the Australian Institute of Company Directors (AICD).
5. I am a Registered Planner of the Planning Institute of Australia (PIA), former President of the Victorian Committee and former Victorian Committee member.
6. I am a Member of the Victorian Planning and Environmental Law Association (VPELA).

1.3 Area of expertise

7. I have substantial experience in strategic and statutory planning, including the preparation and implementation of strategic plans, policy and planning scheme amendments, and the preparation and assessment of planning permit applications.
8. A copy of my curriculum vitae is provided at **Attachment A**.

1.4 Instructions

9. On 16 December 2021 I received instructions from BSP Lawyers to provide expert opinion on the *Arden Structure Plan, Development Contributions Plan and Draft Amendment C407melb* and to attend the Advisory Committee to give expert evidence.
10. Specifically, I was asked to provide my opinion on the following:
 - The impacts of Amendment C407 on the potential use and development of the subject site;

- Assessment of any impact following the non-overshadowing requirement over the Arden Station forecourt contained in the Design and Development Overlay Schedule 80.
- To give evidence at the Advisory Committee considering submissions to the Planning Scheme Amendment.

11. The subject site includes the following properties: -

- 93-97 Munster Terrace, North Melbourne;
- 203 Arden Street and 175-179 Arden Street, North Melbourne;
- 103-105 Munster Terrace, North Melbourne;
- 99-101 Munster Terrace, North Melbourne;
- 201 Arden Street, North Melbourne;
- 199 Arden Street and 171 Arden Street, North Melbourne;
- 189-197 Arden Street, 181-185 Arden Street and 107-109 Munster Terrace, North Melbourne; and
- 173 Arden Street, North Melbourne.

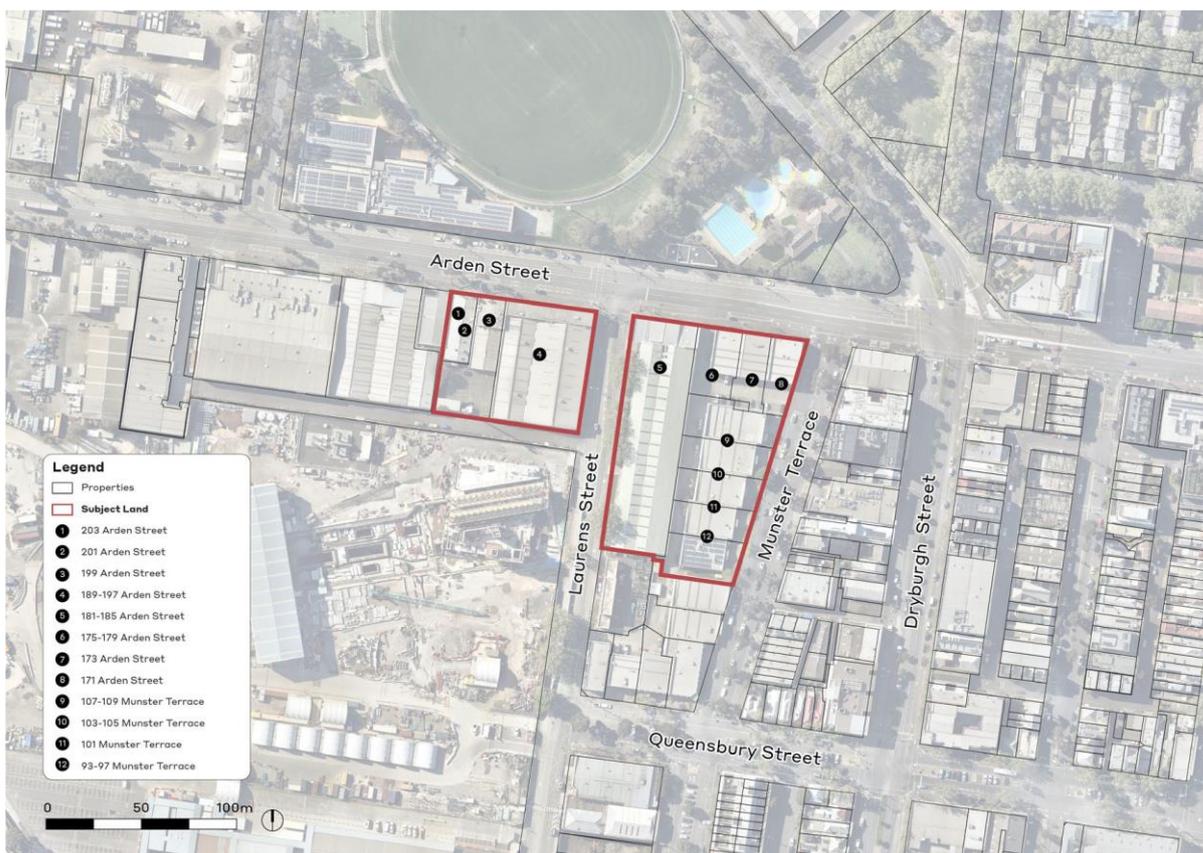


Figure 1: Subject Site

1.5 Facts, matters and assumptions

12. In preparing this statement I made reference to and relied upon:

- *Arden-Macaulay Structure Plan 2012;*
- *Arden Vision - July 2018;*

- *Draft Arden Structure Plan – June 2020;*
- *Final Draft Arden Structure Plan – August 2021 and associated background reports;*
- *Amendment C407melb;*
- *Arden Precinct Arden Built Form Testing, Hayball Architects, April 2021;*
- *Overshadowing Analysis, Ethos Urban, February 2022;*
- *Development Opinion Report, Robert Bird Group, February 2022*
- *Planning schemes and associated maps for relevant municipalities - <https://www.planning.vic.gov.au/schemes-and-amendments/browse-planning-schemes>*
- *Part A Submissions filed on behalf of the VPA on 17 January 2022, and the proposed tracked changes to: -*
 - Clause 21.01 – Settlement;
 - Clause 21.13 – Urban Renewal Areas
 - Clause 21.14 – Proposed Urban Renewal Areas
 - Clause 22.28 – Arden Renewal Area Policy
 - DDO80 – Arden Innovation;
 - DDO83 – Lauren Street;
 - Development Contributions Plan Overlay 3; and
 - Parking Overlay – schedule 14.

1.6 Preparation

13. I have reviewed the material associated with Amendment C407 to the Melbourne Planning Scheme and reviewed policies and other documents where relevant to the Amendment (as referenced in my report).
14. I have also reviewed the VPA and Council's expert evidence in relation to the Amendment.
15. I have undertaken a field visit to view the subject site and environs.
16. I have been assisted in the preparation of this report by Josh Maitland, an Associate Director at Ethos Urban Pty Ltd. All of the professional views expressed in this Witness Statement are my own.

1.7 Previous involvement in related projects

17. I have had no involvement in the sites in question up to this point.
18. Ethos Urban are currently engaged by the Electronic Trades Union (ETU), located at 200 Arden Street, North Melbourne, I am the project director overseeing this project. Although the ETU site sits outside of the Arden Structure Plan boundary, given the close proximity, I am fully aware of the Arden Structure Plan and background strategic planning work that underpins this Plan. This work poses no conflict to the matter at hand.

2.0 Summary of opinion

19. It is without question that regeneration of the Arden Precinct unlocks a variety of transformative development opportunities to create a healthy, liveable and sustainable, mixed-use inner-city community that will in turn drive economic opportunities and innovative change.
20. With a new train station currently under construction to be located in the heart of the precinct, connecting to the Metro Tunnel project, Arden will deliver on the objectives of both the Metropolitan Planning Strategy, Plan Melbourne 2017 – 2050 and State Planning Policy which collectively aim to create 20 minute neighbourhoods within proximity to services, jobs and public transport.
21. Future residents and workers to the precinct will be able to take full advantage of being within walking distance to open space areas, neighbourhood parks and recreational reserves and amenities.
22. My opinion in this report focusses on matters relating to specific properties however, such recommendations will provide further clarity and certainty to realising the Arden Vision and will assist developers in its implementation.
23. In summary, I make the following recommendations: -

Recommendation 1: Delete reference to the credited open space west of Laurens Street within Plan 6 of the Arden Structure Plan (August 2021) and delete preferred minimum setback of 10 metres at 189 – 197 Arden Street within DDO80 Table 2: Built Form Requirements.

Recommendation 2: Remove reference to Arden Station Forecourt within Table 5 and Map 2 of DDO80 and DDO83.

Recommendation 3: Delete Indicative through block link from Arden Street to Barwise Street referred to on DDO80 Map 3.

Recommendation 4: I recommend the figures in the DDO83 be amended to delete the two indicative through block links for Block D and for the pedestrian laneway to be realigned so the eastern entrance is located closer to the intersection of Munster Terrace with De Feu Street or alternatively;

Recommendation 5: I recommend inserting decision guidelines into the DDO83 to guide decision makers when considering laneway and through block link locations and confirm that pedestrian connectivity objectives should be considered alongside built form and urban design objectives.

Recommendation 6: I recommend the Arden Built Form Testing prepared by Hayball, April 2021 be amended to clearly state that this analysis is based on assumptions that no over rail development can occur.

Recommendation 7: Correct the boundary of DDO80 of Mr Sheppard's recommended changes to include 189 to 215 Arden Street as per the exhibited DDO.

Recommendation 8: Include the following within the decision guidelines of each DDO: - Whether the site has frontage to a road that is not identified as a Traffic Conflict Frontage.

3.0 Structure of this statement

24. This evidence comprises:

- **Part 4** – Summary of the existing and proposed planning controls affecting the subject site;
- **Part 5** - The impacts of Amendment C407 on the potential use and development of the subject site and Assessment of any impact following the non-overshadowing requirement over the Arden Station forecourt contained in the Design and Development Overlay Schedule 80 and Schedule 83;
- **Part 6** – Summary of Expert Witness Reports
- **Part 7** - Conclusions

4.0 Summary of the existing and proposed planning controls affecting the subject site

25. State Planning Policy

26. Metropolitan Planning Strategy, Plan Melbourne 2017 – 2050, provides principles, outcomes, directions and policies to guide the future shape of the city over the next 35 years. Arden is identified as major urban renewal precinct in this plan with Policy 1.1.2 requiring *“the redevelopment of major urban renewal precincts in and around the central city to deliver high-quality, distinct and diverse neighbourhoods offering a mix of uses”* with Policy 1.3.1 endeavouring to *“Plan for and facilitate the development of urban renewal precincts.”*

27. Clause 11.01-1S (Settlement) seeks to promote sustainable growth and development by promoting and capitalising on urban renewal opportunities among other strategies.

28. Clause 11.01-1R (Settlement – Metropolitan Melbourne) seeks to focus investment and growth in places of state significance, including major urban renewal precincts.

29. Clause 11.02-2S (Structure planning) seeks to facilitate the orderly development of urban areas.

30. Clause 11.03-2S (Growth areas) seeks to direct growth near transport and services, with efficient and effective infrastructure.

31. Clause 13.04-1S (Contaminated and potentially contaminated land) seeks to ensure contaminated land is used and developed safely.

32. Clause 13.07-1S (Land use compatibility) seeks to protect amenity, health and safety while facilitating appropriate uses with off-site impacts.

33. Clause 13.07-2S (Major hazard facilities) seeks to minimise exposure to risk and ensure ongoing operation of major hazard facilities.

34. Clause 15.01-1S (Urban design) seeks to create urban environments that are functional and enjoyable that contribute to a sense of place.

35. Clause 15.01-1R (Urban design – Metropolitan Melbourne) seeks to create a distinctive and liveable city with quality design and amenity.

36. Clause 15.01-2S (Building design) seeks building design that contributes to and enhances the local context.

37. Clause 15.02-1S (Energy and resource efficiency) seeks development that is energy efficient, supports a cooler environment and minimised greenhouse gas emissions.

38. Clause 16.01-1S (Housing supply) seeks well-located, integrated and diverse housing that meets local need.
39. Clause 16.01-1R (Housing – Metropolitan Melbourne) seeks housing and mixed use development in suitable locations, including urban renewal precincts.
40. Clause 16.01-2S (Housing affordability) seeks to deliver affordable housing proximate to employment, transport and services.
41. Clause 17.01-1S (Diversified economy) seeks to strengthen and diversity the economy.
42. Clause 17.01-1R (Diversified economy – Metropolitan Melbourne) seeks for major urban renewal precincts to deliver high-quality, distinct and diverse neighbourhoods.
43. Clause 17.01-2S (Innovation and research) seeks opportunities for innovation and the knowledge economy within existing and emerging industries, research and education.
44. Clause 18.01-1S (Land use and transport integration) seeks the integration of land use and transport.
45. Clause 18.01-3S (Sustainable and safe transport) seeks to facilitate an environmentally sustainable transport system.
46. Clause 18.01-3R (Sustainable and safe transport – Metropolitan Melbourne) seeks to improve local travel options to support 20 minute neighbourhoods.
47. Clause 18.02-3S (Public transport) seeks a safe and efficient public transport network that increases the proportion of trips made by public transport.
48. Clause 18.02-1S (Walking) seeks a safe and efficient walking network that increases the proportion of trips made by walking.
49. Clause 18.02-2S (cycling) seeks a safe and efficient cycling network that increases the proportion of trips made by cycling.
50. Clause 19.01-3S (Pipeline infrastructure) seeks to ensure gas, oil and other substances are delivered at minimal risk to people, critical infrastructure and the environment.
51. Clause 19.02-6S (Open space) seeks to establish, manage and improve and integrated network of open space that meets community needs.
52. Clause 19.02-6R (Open space – Metropolitan Melbourne) seeks to strengthen the metropolitan open space network.
53. **Local Planning Policy**
54. Clause 21.04 (Settlement) articulates a settlement strategy that promotes growth into a number of areas include the central city and urban renewal areas. Arden-Maccauley is one of the identified urban renewal areas. The clause includes strategies to plan identified urban renewal areas through structure planning to provide optimal living and working environments that are efficient and respond to climate change.
55. Clause 21.06 (Built Environment and Heritage) seeks urban design that reinforces the cities urban structure, ensures built form is appropriate for the preferred character of an area, increases vitality, amenity and a distinctive city experience, and improves the public realm. The clause also seeks an efficient, sustainable and resilient urban environment.

56. Clause 21.07 (Housing) seeks to ensure residential amenity is protected, reverse sensitivity impacts are avoided, a range of housing tenures and types are available to meet community housing need and to ensure new residential development contributes to the infrastructure of the city.
57. Clause 21.09 (Transport) seeks to integrate transport and urban growth, develop a comprehensive and convenient walking and cycling network, maximise the use of public transport and encourage more efficient use of private vehicles. Specifically, the clause seeks to ensure development in urban renewal areas provides a permeable and fine-grained urban form with a legible pattern of access and movement. In addition, the clause seeks to consolidate development and a mix of uses around railway stations in urban renewal areas.
58. Clause 21.11 (Local Areas) and Clause 21.14 (Proposed Urban Renewal Areas) identify the Arden-Macaulay precinct as a proposed urban renewal area and reference the Arden-Macaulay Structure Plan 2012.
59. Clause 22.02 (Sunlight to Public Spaces) seeks appropriate sunlight access to public spaces across the municipality. It is understood Amendment C278melb seeks to amend this clause and to apply mandatory controls that prohibited overshadowing of a number of parks surrounding the Arden precinct between 10am and 3pm on the winter solstice. While this amendment does not form part of the Melbourne Planning Scheme, it is understood a favourable panel report has been released and the amendment can now be considered seriously entertained.
60. Clause 22.17 (Urban Design Outside the Capital City Zone) articulates a framework of urban design objectives and policies that apply across the municipality with the exception of the Central City and Docklands. The policy broadly seeks high-quality built form and a positive public realm.
61. Clause 22.26 (Public Open Space Contributions) provides guidance on when Council will seek land to satisfy a public open space contribution rather than a cash payment. Arden falls within a precinct where a land contribution is preferred. The clause also specifies criteria for when land is deemed suitable for a public open space contribution.
62. It is proposed under Amendment C407 that the Arden Structure Plan, (VPA, August 2021) will be included as a reference policy document within a newly introduced Clause 22.28 Arden Urban Renewal Area Policy. This policy will apply to the use and development of all land within Arden affected by the Special Use Zone Schedule 7 and will prevail over any inconsistencies with any other local policies.
63. The Arden Vision (VPA, 2018) sets the shared vision for Arden to create a new destination in a central, well-connected location, setting the standard for urban renewal. The vision aims to accommodate 34,000 jobs and 15,000 residents by 2051.

5.0 The impacts of Amendment C407 on the potential use and development of the subject site and Assessment of any impact following the non-overshadowing requirement over the Arden Station forecourt contained in the Design and Development Overlay Schedule 80 and Schedule 83

64. As confirmed, Amendment C407 proposes to introduce changes / new controls to the following clauses in the Melbourne Planning Scheme: -
- Clause 21.01 – Settlement;
 - Clause 21.13 – Urban Renewal Areas
 - Clause 21.14 – Proposed Urban Renewal Areas
 - Clause 22.28 – Arden Renewal Area Policy
 - DDO80 – Arden Innovation;
 - DDO83 – Lauren Street;
 - Development Contributions Plan Overlay 3; and
 - Parking Overlay – schedule 14.
65. The Amendment C407 proposes to implement the Arden Structure Plan (VPA, August 2021) (ASP).
66. Proposed Design and Development Overlay Schedule 80 (DDO80) – Arden Precinct – Arden Central Innovation will affect the following properties within the subject site: - 203 Arden Street; 201 Arden Street; 199 Arden Street; and 189-197 Arden Street.
67. Proposed Design and Development Overlay Schedule 83 (DDO83) – Arden Precinct – Laurens Street will affect the following properties within the subject site: - 181-185 Arden Street; 175-179 Arden Street; 173 Arden Street, North Melbourne; 171 Arden Street; 107-109 Munster Terrace; 103-105 Munster Terrace; 99-101 Munster Terrace; and 93-97 Munster Terrace.
68. DDO80 and DDO83 propose built form controls affecting the subject site which is where I focus my assessment. It is noted that other Planning Controls including Parking Overlay Schedule 14 (PO14), Development Contributions Plan Overlay Schedule 3 (DCPO3), Buffer Area Overlay Schedule 2 (BAO2), and Environmental Audit Overlay (EAO) may also have implications on the developability of the subject site.
69. In the interests of clarity, I will provide my opinion of DDO80 and DDO83 separately.

DDO80

70. The following Design Objectives are proposed to be introduced through DDO80: -
- *To create an innovative urban renewal area that is an exemplar for design excellence, environmental sustainability, and connectivity.*
 - *To promote an innovation precinct with floorplates that support digital technology, life sciences, health and education uses.*

- *To support a mixture of low to mid-rise development within the core surrounding the new open spaces with denser and taller buildings to the north and south with a range of typologies to respond to specific land use needs.*
- *To ensure development achieves a high quality pedestrian environment in relation to human scale and microclimate conditions such as acceptable levels of sunlight access and wind.*
- *To ensure that buildings provide visual interest, fine grain and articulation that reduces the impact of mass and bulk.*

71. I support the above design objectives in what they set out to achieve within the precinct. However, it is my opinion that the mechanisms proposed to implement these objectives require further refinement as detailed below.

Built Form Requirements

72. Table 2 of DDO80 includes the following built form requirements: -

Part of building	Building height	Preferred minimum setback
Below preferred street wall height	None specified	189-197 Arden Street: <ul style="list-style-type: none"> • 10 metres from Laurens Street Pedestrian only laneway: <ul style="list-style-type: none"> • 9 metres (or if applicable 4.5 metres to the common title boundary)
Above the street wall height	Any height in excess of 33 metres	5 metres
Above preferred street wall height to side and rear boundaries	Above the street wall height and up to 64 metres	7.5 metres
	Above the street wall height and greater than 64 metres up to 81 metres	10 metres
	Above the street wall height and greater than 81 metres	12.5 metres
Building(s) separation on the same site	Up to and equal to 64 metres	12 metres
	Greater than 64 metres and up to and equal to 81 metres	14 – 16 metres
	Greater than 81 metres	18 metres

Table 1: DDO80 Table 2: Built Form Requirements

73. Table 1 (DDO80 Table 2) includes a preferred minimum setback of 10 metres from Laurens Street at the property 189 – 197 Arden Street. It is assumed that this 10 metre setback is required to implement a “new linear open space” as identified within the Arden Structure Plan, August 2021. This area is defined as a “credited open space” within Plan 6 (Figure 2) below. However, there is no discussion within the ASP as to how this setback dimension was calculated, how this land will provide a meaningful open space area or a formal mechanism through Amendment C407 for reimbursement of the value of this public open space proposed.

74. This proposed open space area is also not incorporated in the Arden Public Realm and Open Space Strategy (Aecom, July 2020).
75. This proposed setback appears to be an unnecessary duplication of space when Laurens Street is also defined as a “green link” within Plan 6 of the ASP.
76. Allocating a preferred minimum setback of 10 metres along the length of the property at 189 – 197 Arden Street (approximately 50 metres) is a significant area of land that would otherwise be developable.
77. Given the close proximity of this section of the Precinct to the existing North Melbourne Recreation Reserve (directly to the north), the proposed Capital City Open Space and neighbourhood park to the south, and the role that the new station forecourt will provide with potential cafes and seating areas particularly to the south, I would also question the need and purpose for this additional pocket of open space.
78. Further, Clause 56 (Residential Subdivision) of the Melbourne Planning Scheme generally applies to new residential development within particular zones. Such Planning Permit applications are required to satisfy Standard C13 (Public Open Space Provision) of Clause 56 which requires “*Local parks within 400 metres safe walking distance of at least 95 percent of all dwellings. Where not designed to include active open space, local parks should be generally 1 hectare in area.*”
79. On review of both existing and proposed open space within the Precinct in the context of the above, I do not believe the proposed pocket open space area west of Laurens Street is necessary and will not serve any specific open space hierarchical purpose.



Figure 2: ASP Plan 6: Arden's Public Realm and Open Space

80. **Recommendation 1:** Delete reference to the credited open space west of Laurens Street within Plan 6 of the Arden Structure Plan (August 2021) and delete preferred minimum setback of 10 metres at 189 – 197 Arden Street within DDO80 Table 2: Built Form Requirements.

Building Heights and Floor Area Ratio (FAR)

81. In accordance with Map 1: Building Height and Floor Area Ratio of DDO80 below, the subject site will be located within Lot D which will be subject to the following built form requirements: - a preferred maximum building height of 49 – 81 metres and preferred Floor Area Ratio of 12:1.

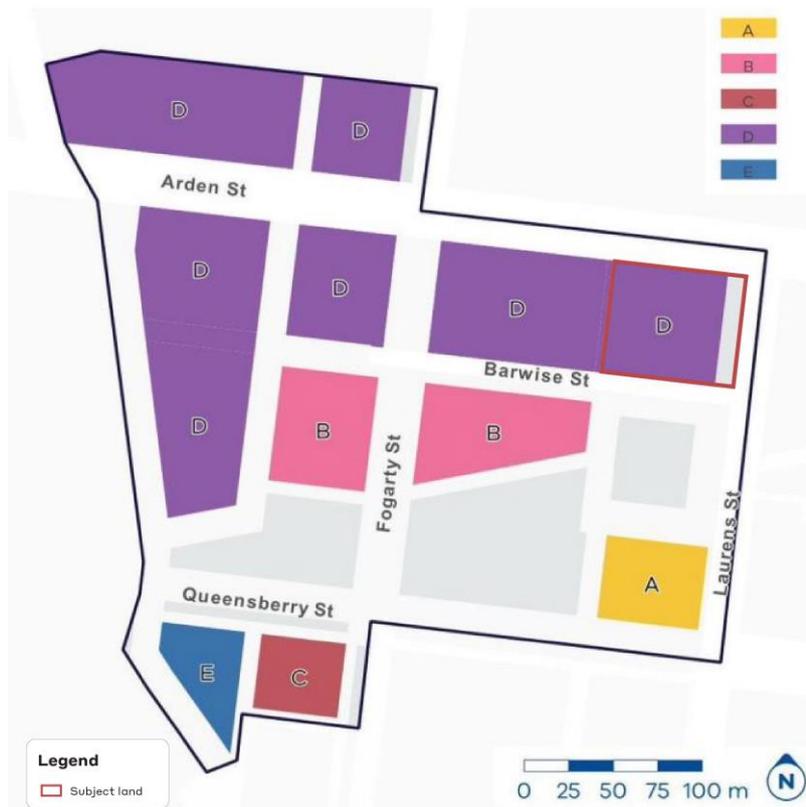


Figure 3: DDO80 Map 1

82. There is no mandatory height or Floor Area Ratio (FAR) for properties located within this lot, which I support in order to provide flexibility, allow for innovative design options and can respond to the requirements of each individual site, for example, by ensuring no adverse amenity impacts and no impacts on the public realm. However, the combination of all other built form elements detailed above and below all contribute to determining the overall developability of the subject site.

83. Page 8 of the Ethos Urban Planning and Capacity Study Report (February 2022) included in Attachment C provides 3D massing diagrams to give a visual representation of both the raw building envelope where the DDO80 built form controls are applied but FAR is exceeded, as well as where DDO80 built form controls are applied but the preferred maximum FAR (12:1) is applied. Where the preferred maximum FAR is applied, a total Gross Floor Area of 56,906sqm can be achieved at this section of the subject site.

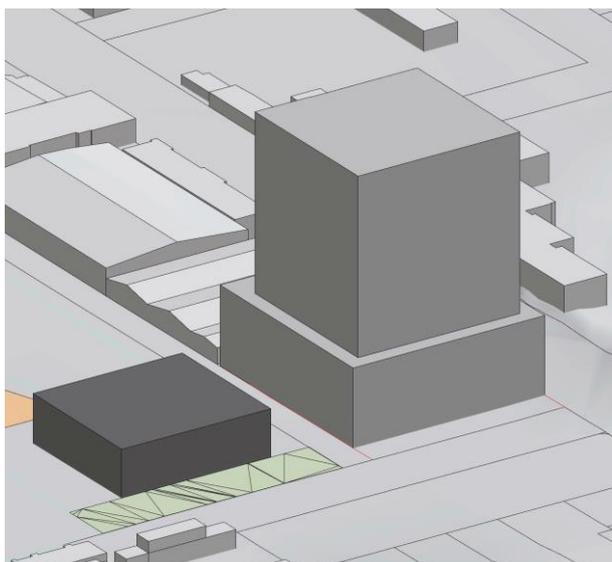


Figure 4: DDO80 Raw Building Envelope

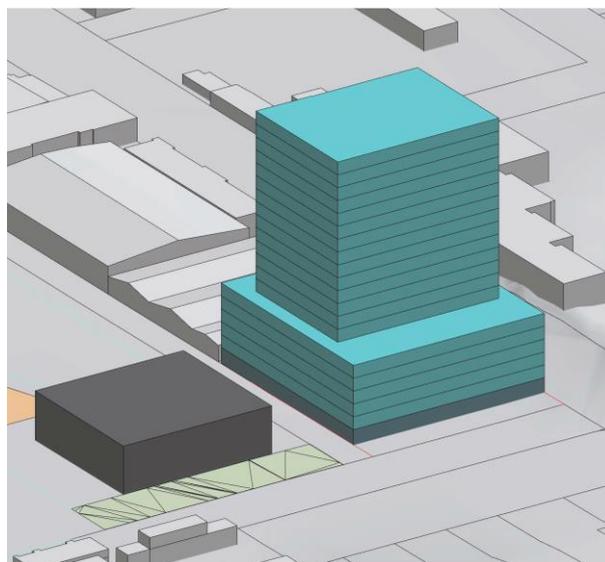


Figure 5: DDO80 FAR Building Envelope

Solar Protection

- 84. Table 5 and Map 2 of DDO80 requires discretionary solar protection of the Arden Station Forecourt between the hours of 11am – 2pm at 22nd September. As can be seen from Figure 7 below, part of the subject site is situated directly to the north of the area requiring solar protection.
- 85. Page 14 of the Ethos Urban Planning and Capacity Study Report (February 2022) includes shadow diagrams of a building envelope within the subject site which complies with DDO80 built form controls and maximum preferred FAR (12:1). This shows that more than 50% of the Arden Station Forecourt will be overshadowed from 1pm – 2pm at 22nd September. The solar protection requirements imposed under DDO80 are therefore at odds with the built form requirements included within the DDO.
- 86. An alternate design option has been modelled within the Ethos Urban Planning and Capacity Study Report, page 10, to reflect a development that would comply with the solar protection requirements of DDO80. In order to achieve this requirement, the FAR is reduced to 8.6:1 with a total GFA of 40,734sqm, a reduction in GFA from the scheme in Figure 5 above of 16,172sqm.
- 87. This requirement will significantly impact the developability of these lots within the subject site, as Figure 6 indicates, it will be extremely difficult to achieve a feasible design option with viable commercial floor plates in accordance with the solar protection requirements of DDO80. Constraints of this nature on the achievable floor plates are at odds with the objectives seeking innovative uses in this precinct.

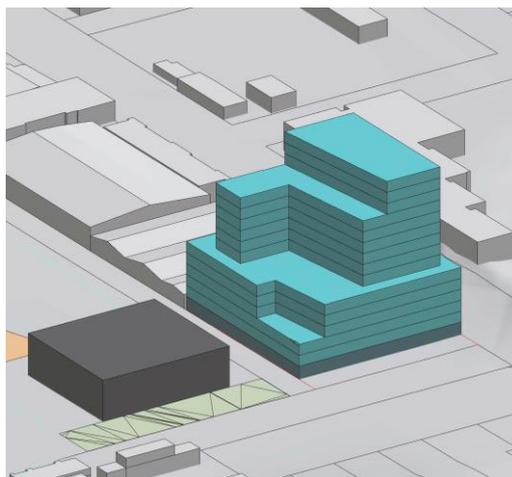


Figure 6: No Additional Overshadowing Building Envelope

88. Furthermore, it should be noted that the proposed Arden Station building itself will also overshadow the forecourt area by between 20% and over 40% during the hours of 1pm – 2pm on 22 September. Please refer to Shadow Analysis on page 6 of Planning and Capacity Study Report (Ethos Urban, February 2022).
89. I am aware that similar solar protection requirements have been applied to protect other landmarks/ plazas across Melbourne including: -
- Flinders Street Railway Station Steps (Melbourne DDO2): 11am to 3pm,
 - Lorimer Central Park (Melbourne DDO67): 11am to 2pm.
90. However, it is my opinion that it is unreasonable to compare the future Arden Station forecourt to one of the most important, iconic landmarks in Melbourne CBD.
91. Such similar restrictive controls that apply to Flinders Street Railway Station Steps should not be used within the same context to Arden.



Figure 7: DDO80, Map 2, Solar Protection

92. As can be seen from the proposed render of Arden Station and plan below, the green box depicting the area identified for solar protection within the station forecourt area of both DDO80 and DDO83 relates to the roof and forecourt area projecting as far as Laurens Street. However, it is important to identify what areas reasonably need protection, in this circumstance this would include seating areas and cafes, unlike Flinders Street station steps, where one would see commuters and the general public congregate and linger.
93. Given the significant constraint the solar protection of Arden Station Forecourt imposes on the floorplates of surrounding properties and as the Arden Station building will overshadow the forecourt in any case, I recommend deleting the solar protection control in the DDO80 and DDO83.



Figure 8: Arden Station Render (Source: Victorian Government)

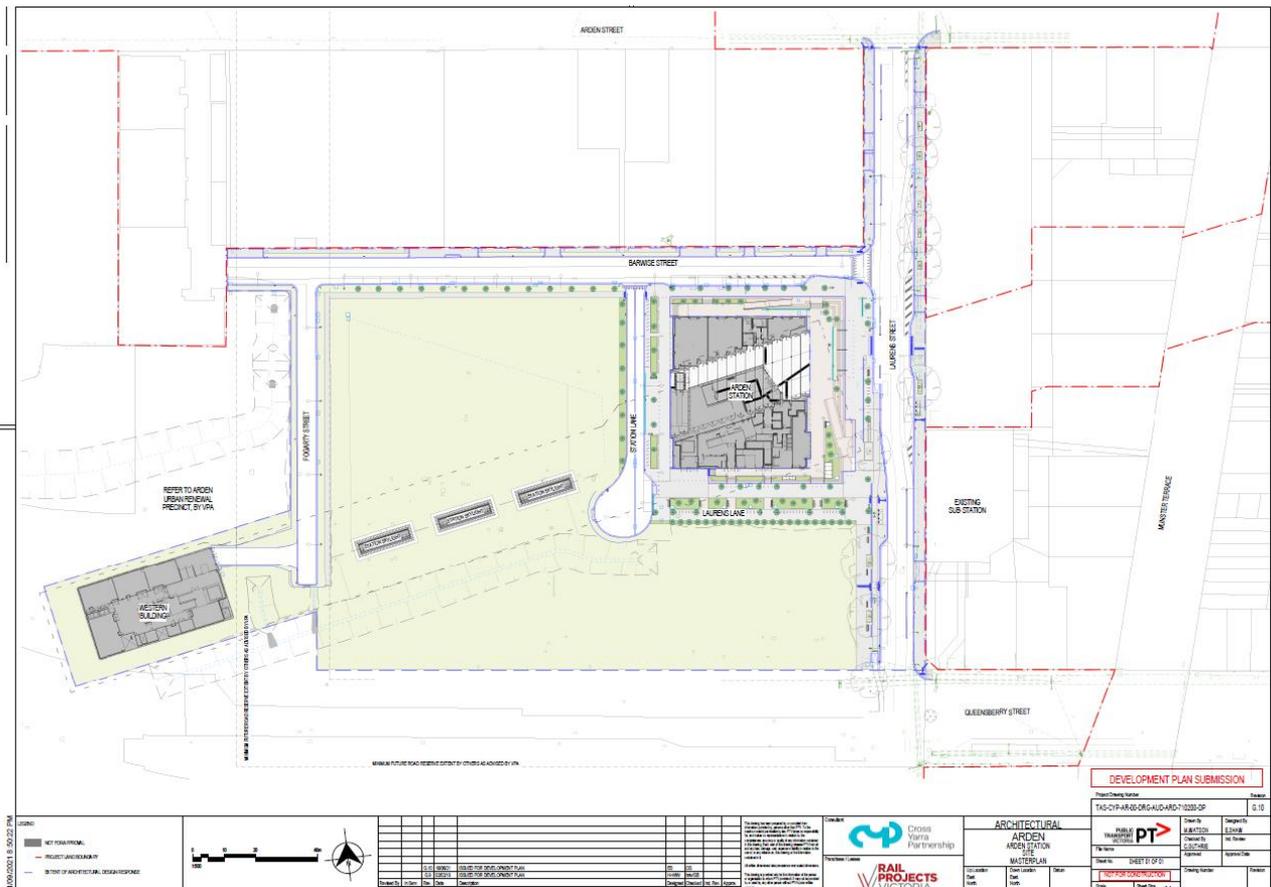


Figure 9: Arden Development Plan Site Layout Plan, Source: RPV

94. **Recommendation 2:** Remove reference to Arden Station Forecourt within Table 5 and Map 2 of DDO80 and DDO83.

Laneways, through-links, pedestrian and cycling connections

95. Both the Arden Structure Plan, August 2021 and consequent DDO80 includes an indicative location within the subject site for a proposed through block link which could be either covered or open to the sky running north – south from Arden Street to Barwise Street, approximately 50metres west of Laurens Street.

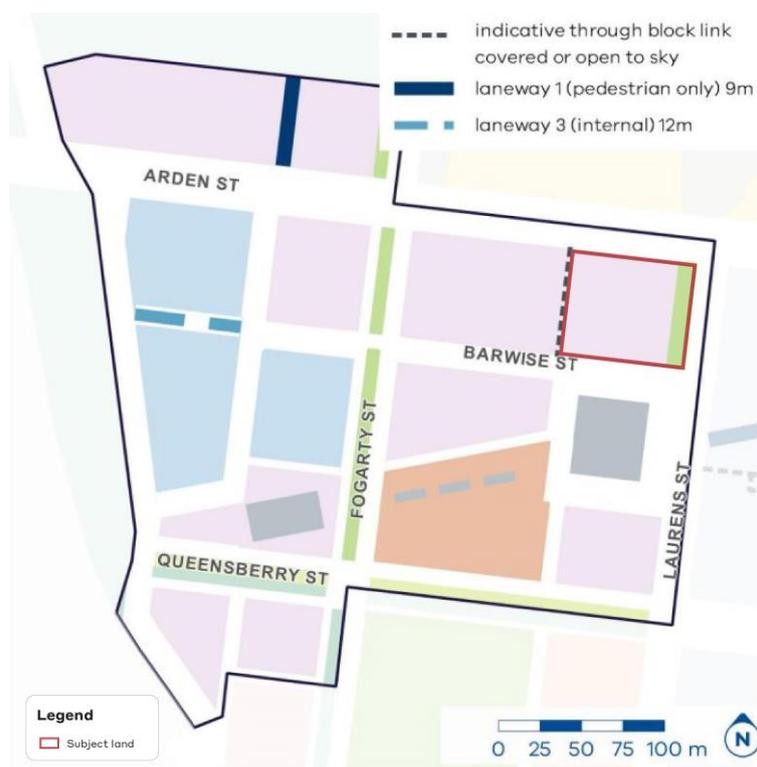


Figure 10: DDO80, Map 3, Laneways, Through-links, Pedestrian and Cycling Connections

96. The Arden Urban Design and Built Form Analysis (VPA, September 2021) states that new pedestrian connections are to be included where the average length of a street block exceeds 100m (except within 200m of the Station where more frequent connections are desired to manage high pedestrian volumes), and at least two connections through blocks exceeding 200m.
97. It is noted that more frequent connections are desirable, not a mandatory requirement.
98. In addition, the Central Melbourne Design Guide was included in the Melbourne Planning Scheme as a background document by Amendment C308melb in September 2021. The design guide supports the interpretation of the Design and Development Overlay Schedule 1 in the Melbourne Planning Scheme. The DDO1 applies to the Central City and Southbank.
99. The design guide provides similar guidance in that it seeks through-block pedestrian links be incorporated into new development where the average urban block length is greater than 100 metres; however, within 200 metres of rail stations, more frequent links are encouraged to manage higher pedestrian volumes. Where possible these links should be located less than 70 metres from the next intersection or pedestrian connection.
100. Given the proposed “green link” that is sought for Laurens Street, it is my opinion that this would be a more desirable pedestrian connection drawing people through the precinct and to a variety of destinations beyond than a through-block link, which would lead out to the enclosed north Melbourne Recreation Reserve on the opposite side of Arden Street only.
101. The Arden Precinct Cross Sections Incorporated Document (VPA August 2021) also creates ambiguity for the developability of the subject site. Cross Sections 5, 7, 14 and 16 affect the subject site. Both 7 and 14 state existing and proposed street widths, implying that road widening will be required to achieve the desired design included in this document, with cross section 7 to be widened by an additional 1.4 metres and cross section 14 by an additional 3 metres. All other plans do not include existing versus proposed

street widths, so it is assumed these are existing. It is unclear who's land will be affected by this widening and this document notes that costs associated by this will not be funded by the Arden Development Contributions Plan, nor is there any Public Acquisition Overlay (PAO) proposed so there is no mechanism to have such costs reimbursed.

102. **Recommendation 3:** Delete Indicative through block link from Arden Street to Barwise Street referred to on DDO80 Map 3.

DDO83

103. The objectives of DDO83 include: -

- *To create a walkable precinct with low rise built form along Dryburgh and Stawell Streets to high rise built form along Laurens Street that transitions at its interface with the established neighbourhoods to the east and the centre of the precinct to the west.*
- *To support development which responds sensitively to heritage fabric either on site or adjacent and provides tailored setbacks that respond to adjoining development and low scale forms.*
- *To ensure development achieves a high quality of pedestrian amenity in the public realm in relation to human scale and microclimate conditions such as acceptable levels of sunlight access and wind.*
- *To ensure that built form elements above the street wall are visually recessive and do not contribute to visual bulk.*
- *To ensure that development provides a high level of internal amenity for building occupants.*

104. I support the objectives above in creating a liveable, sustainable community through the use of varying built form and typologies that respects pedestrian amenity and the public realm. However, specifically in relation to the subject site I suggest the following changes are required.

Building Heights and Floor Area Ratio (FAR)

105. In accordance with Map 1: Building Height and Floor Area Ratio of DDO83 below, the subject site will be located within Lot D which will be subject to the following built form requirements: - a preferred maximum building height of 49 – 64 metres and preferred Floor Area Ratio of 10:1.



Figure 11: DDO83, Map 1, Building Height and Floor Area Ratio

106. Test Site 4 of the Arden Built Form Testing document (Hayball, April 2021), indicates only one development option along the section of the subject site which is affected by the proposed rail alignment. This would result in two separate irregular shaped floor plates with the rail alignment and pedestrian link open to the sky dissecting between.
107. In my opinion, I agree with the Ethos Urban submission dated 22nd November 2021 that such a built form outcome limits the ability to maximise the full potential of this site, as well as ultimately limiting the yield and the possibility of more creative and innovative design options from being developed as building floor plates are overall reduced due to the requirement to be split the buildings in two, as opposed to consideration of an internal walkway with development above.
108. Of course, further structural engineering testing of over rail development options will need to be undertaken and considered in due course, however such alternate design options should not be ruled out.

Solar Protection

109. Similar restrictive controls as described in DDO80 apply to the subject site under DDO83 due to the subject site’s proximity to the Arden Station Forecourt.



Figure 12: DDO83, Map 2, Solar Protection

- 110. The Planning and Capacity Study Report (Ethos Urban, February 2022) (Site B Appendix) shows that by applying the DDO83 built form controls including maximum FAR, there will be no overshadowing impact on the Arden Station forecourt.
- 111. This modelling is based on the assumption that development will not occur over the train tunnel.

Laneways, through-links, pedestrian and cycling connections

- 112. DDO83 Map 3 suggests two (2) Indicative through block links covered or open to the sky be provided within the subject site land indicatively shown to be approximately 50m north of Queensberry Street and 25-30m east of Laurens Street, plus another link via laneway 1 (pedestrian only) to be 9metres wide traversing south-west to north-east through the centre of the site



Figure 13: DDO83, Map 3, Through-links, laneways, pedestrian and cycling connections

113. As indicated under my assessment of DDO80 above, the Urban Design and Built Form Analysis (VPA, September 2021) states that new pedestrian connections are to be included where the average length of a street block exceeds 100m (except within 200m of the Station where more frequent connections are desired to manage high pedestrian volumes), and at least two connections through blocks exceeding 200m.
114. It is noted that more frequent connections are desirable, not a mandatory requirement.
115. Both the Arden Structure Plan (August 2021) (Plan 4 Arden's Transport Network 2051) and DDO83 (Map 3 Through-links, laneways, pedestrian and cycling connections) identifies these linkages to and through the subject site, with the Arden Structure Plan identifying these links as pedestrian priority zones.
116. In addition, Munster Terrace is identified as a "green link" and ancillary (uncredited) open space within the Arden Structure Plan (Refer to Figure 2).
117. Strategy 21.4 of the ASP states "Deliver a linear park along Munster Terrace and a shared path along its western edge to create green links and walking tracks." Although there is already an existing treed boulevard with mature trees equally spaced approximately 15 metres apart along Munster Terrace, it is unclear if the proposed green link shared path, walking track is to be provided via a portion of land within the subject site.
118. There also appears to be a discrepancy between Plan 2 and Plan 6 of the ASP in that Plan 6 identifies both Laurens Street and Munster Terrace as green links through the precinct. However, Plan 2 does not include Laurens Street within this same category.
119. Both the Structure Plan and DDO83 provide little guidance as to whether the south-west to north-east link that aligns with the Metro Tunnel Rail alignment is to be provided at-grade or whether an alternate design

would be acceptable if this can be provided within any potential development or below ground along the rail corridor.

120. I have had regard to the Development Opinion Report prepared by Robert Bird Group which indicates that from an engineering and load bearing perspective it would be possible to construct above the rail tunnel.
121. Although the Arden Built Form Testing prepared by Hayball, April 2021 indicates that this pedestrian link will be at-grade, in order to avoid confusion and create potential limitations in the marketability and developability of the subject site, it should be clear that this document should be read as a background document only, provided for the purposes of visualising development options within the precinct and should not be read as having any weight in decision making. Alternatively, this document should be amended to clearly state that this analysis is based on assumptions that no over rail development can occur.
122. In addition, the Central Melbourne Design Guide was included in the Melbourne Planning Scheme as a background document by Amendment C308melb in September 2021. The design guide supports the interpretation of the Design and Development Overlay Schedule 1 in the Melbourne Planning Scheme. The DDO1 applies to the Central City and Southbank.
123. The design guide provides similar guidance in that it seeks through-block pedestrian links be incorporated into new development where the average urban block length is greater than 100 metres; however, within 200 metres of rail stations, more frequent links are encouraged to manage higher pedestrian volumes. Where possible these links should be located less than 70 metres from the next intersection or pedestrian connection.
124. I support improved pedestrian connectivity through Block D, particularly given the blocks proximity to the future Arden station; however, the locations of the laneway and through block link locations are cumbersome and would conflict with the built form anticipated for Block D.
125. In my view, the North/South link through Block D does not add much connectivity to the area in a practical sense. The width of the north end of Block D is less than 100 metres. In addition, the location of this link is at odds with the general built form requirements seeking parking structures above ground to be sleeved and 80% active frontages at ground floor level, the specific built form sought for Block D and the challenges with basements in the Arden Precinct.
126. The East/West indicative link through Block D is also a concern. While the location of the link aligns with De Feu Street on the eastern side of the block, the western entrance to the link is within approximately 20 metres of the laneway above the rail line.
127. The result of the convergence of these two indicative through block links and the laneway, seems to be at odds with the scale of built form sought for Block D as well as the built form requirements seeking parking to be sleeved and active frontages at ground floor level, the built form sought for Block D and the challenges with basements in the Arden Precinct.
128. In my view, an alternative alignment of the laneway through this block could achieve excellent pedestrian connectivity without the need for the East/West through block link.
129. While the laneway and through block links are discretionary requirements in the DDO83, the identification of the laneway and two through block links through Block D sets an unrealistic expectation for decision makers that this number of links through be provided through the block.

130. **Recommendation 4:** I recommend the figures in the DDO83 be amended to delete the two indicative through block links for Block D and for the pedestrian laneway to be realigned so the eastern entrance is located closer to the intersection of Munster Terrace with De Feu Street or alternatively;
131. **Recommendation 5:** I recommend inserting decision guidelines into the DDO83 to guide decision makers when considering laneway and through block link locations and confirm that pedestrian connectivity objectives should be considered alongside built form and urban design objectives.
132. **Recommendation 6:** I recommend the Arden Built Form Testing prepared by Hayball, April 2021 be amended to clearly state that this analysis is based on assumptions that no over rail development can occur.

6.0 Summary of Expert Witness Reports

Mark Sheppard - Urban Design

133. Mark Sheppard Urban Design Submission, Paragraph 52, suggests wording of DDO to provide laneways, through-links and connections generally as identified in the map.
134. In my opinion I do not believe this goes far enough to provide developer certainty and creates ambiguity for the decision-maker. The DDO requirements should be easily and clearly translatable on the associated maps to avoid this uncertainty.
135. Mr Sheppard recommends in Laurens Street (DDO083, Map 3) deleting the indicative through-block link between Arden Street and Laurens Street. As confirmed in my report above, I agree and support this recommendation.
136. DDO80 preferred maximum height of 49m-81m and a preferred maximum FAR of 12:1 for Lot D Mr Sheppard believes that these settings would result in too tight a fit, forcing development to fill out the allowable floorplates, resulting in visually bulky upper forms and alternatively recommends reducing the FAR to 10:1 while maintaining the maximum height of 81m (20 commercial storeys). It is intended that this FAR will be incorporated into the 10m setback requirement from Laurens Street at 189-197 Arden Street and is supported by Mr Sheppard to ensure visibility of the station is maintained. 10m setback, no further analysis is provided.
137. DDO83 considers the built form controls to apply to Lot D will result in too much visual bulk above the street wall and will be too tight a fit between the FAR and building envelope provisions resulting in limiting massing flexibility. He recommends reducing the FAR to 9:1, introducing a discretionary maximum tower floorplate size of 900m² for accommodation uses and 1350m² for other uses above a height of 41m².
138. Mr Sheppard also includes a comparison of other solar protection measures utilised across Melbourne Planning Scheme and Port Phillip. A comparison between Arden Station Forecourt and Flinders Street Station steps is made. As discussed in my report, I do not believe comparison can be made between the two given the different contexts of each and Arden Station not yet being completed.
139. In addition, no further analysis is provided of active frontage requirements included within the DDO's.
140. Figure 6 in Mr Sheppard's evidence appears to realign the boundary of DDO80 to exclude 189 to 215 Arden Street. I believe this may be in error as the evidence statement does not reference a change in the DDO boundaries for these properties.
141. **Recommendation 7:** Correct the boundary of DDO80 to include 189 to 215 Arden Street as per the exhibited DDO.

Charmaine Dunstan - Traffic

142. I understand that Ms Dunstan's advice has been reflected in the updated Parking Overlay released as VPA's Part A submission. The Part A Parking Overlay clarifies when a permit is required under the overlay and that the maximum parking rate for all uses is zero. I support this simplification to the permit mechanism in the overlay and believe it better reflects the vision of the Arden PSP and the sustainable transport mode share target.

143. Ms Dunstan indicates the Part A Parking Overlay controls provide decision guidelines that will allow vehicle access where the only frontage to a site is identified in a Traffic Conflict Frontage in the Design and Development Overlays.
144. I do not believe this is adequate and a situation where one must refer to the decision guidelines in the Parking Overlay to interpret permit requirements in a Design and Development Overlay will create uncertainty for the decision maker and community. I recommend including explicit mention of whether a site has frontage to a road that is not identified as a Traffic Conflict Frontage in the decision guidelines of each DDO as outlined below.
145. **Recommendation 8:** Include the following within the decision guidelines of each DDO: - **Whether the site has frontage to a road that is not identified as a Traffic Conflict Frontage.**

Colleen Peterson – Strategic Planning

146. Ms Peterson recommends the design review process required for applications that exceed the preferred Floor Area Ratio in the DDO80, DDO81 and DDO83 be confirmed to be to the satisfaction of the responsible authority. I support this recommendation given the Melbourne Design Review Panel is operating on a pilot program basis and there is no established body in Victoria to facilitate design review competitions.
147. Ms Peterson supports the use of Clause 53.01 and the equalisation payment mechanism under the SUZ7 to acquire and compensate landowners for the credited open space areas identified in the Arden PSP. Ms Peterson also noted these open space areas could be included within the PAO to provide a clear intent to acquire the land. I support this position and believe the PAO is the appropriate mechanism to identify the land for public purposes. Relying on Clause 53.01 and the equalisation payment mechanism under SUZ7 is problematic as it requires the land to be subdivided before the landowner can be compensated for the land.
148. In a precinct where commercial, research and development, education centre and tertiary institution uses are encouraged, there is no certainty that land will be subdivided through the development process. This would effectively act as a disincentive for large institutional uses to occupy entire sites where land will be acquired for open space but not compensated without subdivision.
149. The use of the PAO also provides a level of certainty for the timing of the acquisition of the public open space which Clause 53.01 cannot.

David Barnes - Planning

150. Mr Barnes recommends inserting a section 1 condition limiting Retail premises to a maximum of 250m² per premises in the Arden North precinct, and Arden Central and Laurens sub-precincts. A recommendation is also made to include a decision guideline in the SUZ7 relating to Retail Premises uses requiring consideration of whether they will adversely impact on a retail focal point in the Arden Central Innovation sub-precinct. I do not support this recommendation and believe it would undermine the policy intent for active frontages and a mix of uses through the wider precinct.
151. Mr Barnes also recommends greater detail from the Arden Structure Plan should be translated through to the Clause 21.13-4 and 22.28, the SUZ7 and the four DDOs. This includes detailed statements of purpose of each precinct and specific reference in decision guidelines to the Arden PSP. I do not support this recommendation. The amendment would include the Arden Structure Plan as an incorporated document in

the Melbourne Planning Scheme and therefore decision makers can refer to the this when considering applications.

Leanne Hodyl – Urban Design

152. Ms Hodyl recommends reducing the FAR for Block D in the Laurens Sub-Precinct to deliver the 'north-south laneway' and to support upper level side and rear setbacks that will be needed to provide sufficient internal amenity. The north-south separation through Block D is proposed as a through-block-link that is covered or open to the sky. Notwithstanding I believe this north-south link should be omitted from the DDO83, I do not support the recommendation to reduce FAR to provide a through-block-link that is envisaged to be potentially an internal arcade that is not open to the sky.

7.0 Conclusion

153. The Arden Structure Plan, August 2021 and Amendment C407melb is an important step forward in realising and implementing the vision for the Arden Renewal Precinct. That said, there are areas of refinement requirement to ensure both documents align and provide a clear consistent and unambiguous pathway for developers that will support implementation.
154. I have made several recommendations for improvement informed by my reading of the *Arden Structure Plan, August 2021, Amendment C407melb and supporting documentation*, in addition to my knowledge of the Victorian planning system.
155. Subject to these refinements it is my view that Amendment C407melb is worthy of support.
156. I have made all the inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Panel.



Laura Murray, BA(Hons) Environmental Planning, RPIA, GAICD, MVPELA
Director, Planning
Ethos Urban

Attachment A - Curriculum vitae

Laura Murray

Director, Planning – BA(Hons)(Environmental Planning), RPIA, MVPELA



Laura Murray is the immediate past Victorian President of the Planning Institute of Australia. She has more than 16 years' experience in statutory and strategic planning for public and private clients, including several years in local government in the UK. Having worked on major development projects all over Australia, she has detailed knowledge of planning systems and legislation in all states and territories.

Laura excels at building strong, trust-based relationships with clients and delivering successful planning and design advice. She credits her exceptional track record of achieving positive planning outcomes and high quality urban design to her strong negotiation skills, and the thorough research and due diligence she conducts into the planning issues impacting each development. She also adds substantial value in her role as liaison between developers and Government, helping to overcome potential issues and objections through transparency and clear communication. She is accustomed in working to tight timeframes and within allocated budgets.

Laura's main areas of expertise include extensive local government and consultancy planning experience, detailed knowledge of all Australian planning systems & legislation, expertise in large-scale, complex developments, excellence in planning design, feasibility, due diligence and highest and best use (including for several former landfill sites), strong negotiation and communication skills, urban and regional, strategic and statutory planning, Planning Scheme Amendments, stakeholder liaison and consultation, project management, and VCAT and Planning Panel advocacy and submissions.

Laura has successfully secured Development Plans and Planning Permits for numerous inner city, high density, mixed use developments, in addition to various infill townhouse developments, including the award winning former quarry, Valley Lake. She has also led multiple national retail, fast-food and petroleum roll out programs.

Laura has worked with a variety of clients including:

- **Community and Education:** Frankston Private Hospital; Healthscope; Catholic Health; The Haven Foundation; Karingal; Retire Australia; La Trobe University; Fucheng; MFB; various Golf Course Associations.
- **Residential:** Development Victoria; MAB; Country Garden/Risland; Frasers; RedC; Ernst and Young; Intrapac; Wincity.
- **Retail:** ALDI; McDonalds; Coles; Harvey Norman; IKEA; Shell; Puma Energy; BMW; Hungry Jacks; Super Retail Group; Sentinel Property Group; Westpac.
- **Government:** Department of Environment Land Water and Planning (DELWP); Victorian Planning Authority (VPA); Department of Justice; Department of Treasury and Finance; various Councils across Victoria.
- **Infrastructure:** Port of Melbourne; Cleanaway; Argus Recycling; Metro Trains; Yarra Trams.

Attachment B – Site Photos

Site Visit Photos taken on 26th January 2022



View South – 181 – 185 Arden Street



View Southeast to 171 – 179 Arden Street



View Southwest – Laurens Street



View Southeast – Laurens Street



View West – Barwise Street



View Southwest – Munster Terrace



View North – Munster Terrace



View West – 107 – 109 Munster Terrace



View Northwest – Munster Terrace

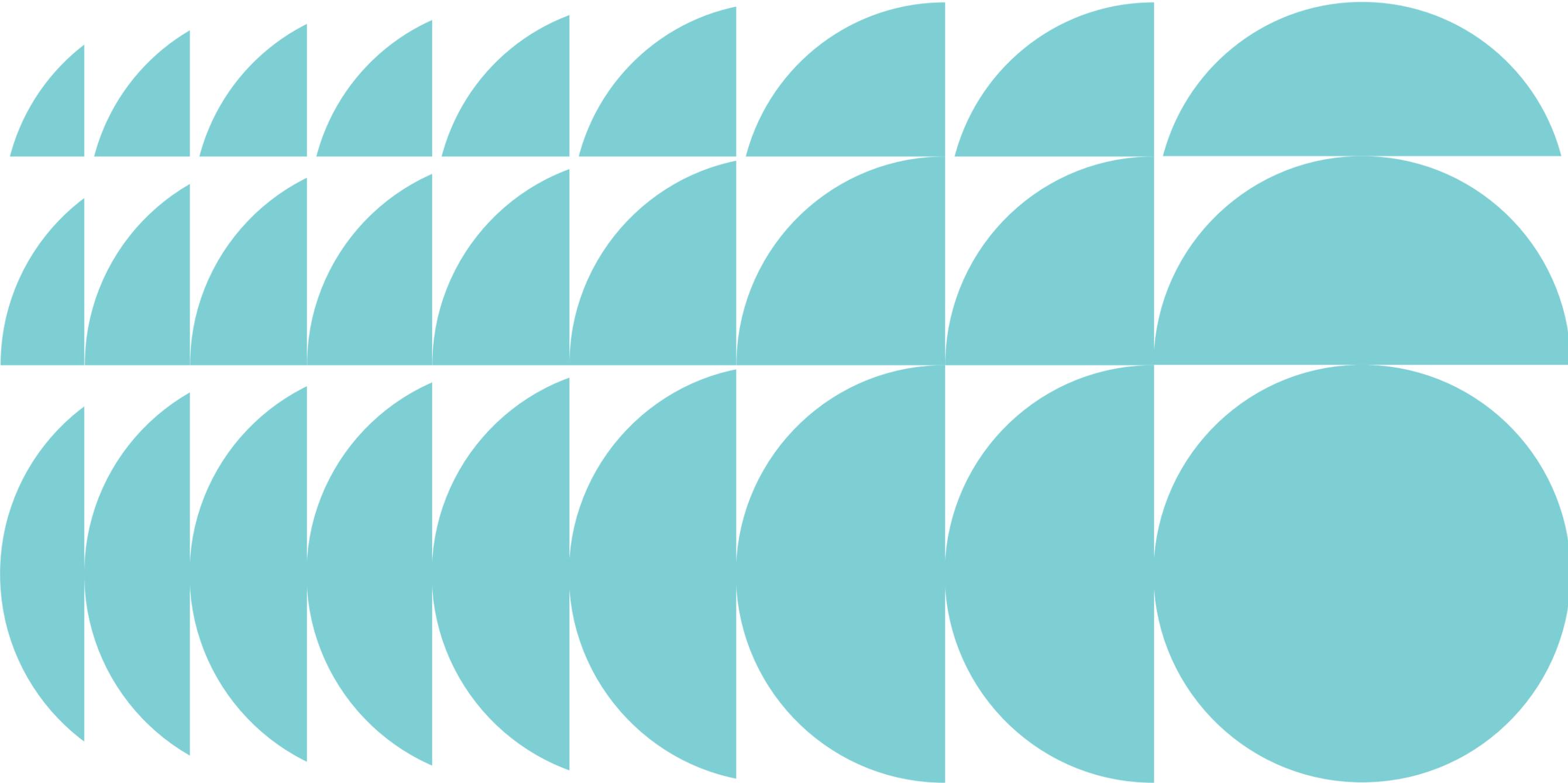
Attachment C – Planning and Capacity Study Report (Ethos Urban, February 2022)

ETHOS URBAN

171-185, 189-201 Arden Street, 91-109 Munster Terrace
North Melbourne

Planning and Capacity Study Report
February 2022

Issue A - 3200126



1.0 Introduction - Site Condition

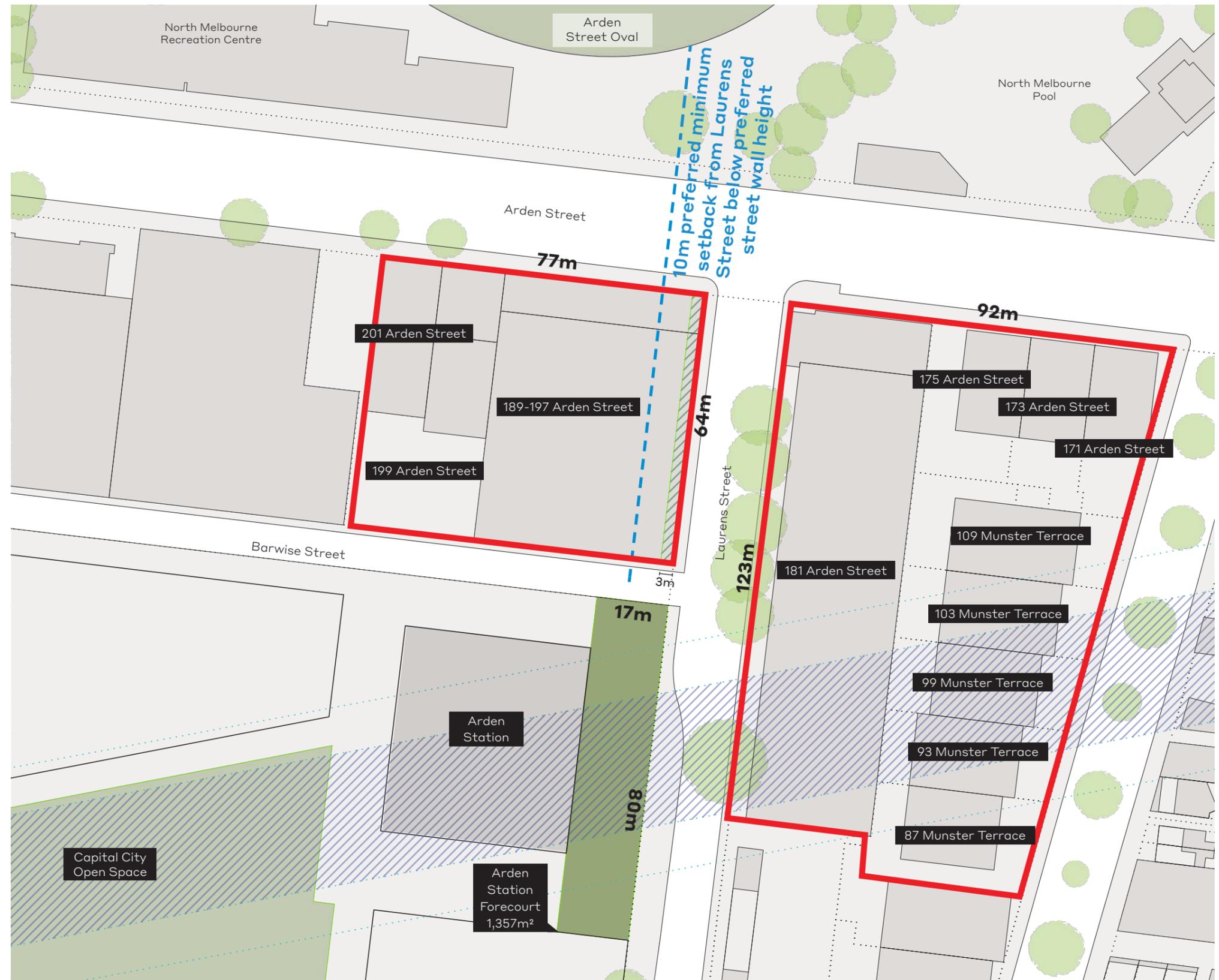
- The Subject Site is located directly north and east of the new Arden Station
- The station forecourt protection area is approximately 80m x 17m or 1,357m². The size and location of this area has been modelled based on tracing the identification map provided in Schedule 80 of the Design and Development Overlay, as well as the forecourt area shown in station precinct development plans discussed in the following page of this report.
- The Subject Site consists of twelve lots with the following details:

Site A Site Address	Standard Parcel Identifier (SPI)
189-197 Arden Street	2 ^N 103\PP2796F
199 Arden Street	3 ^N 103\PP2796F
201 Arden Street	4 ^N 103\PP2796F

Site B Site Address	Lot and Plan Number
181 Arden Street	Lot 5 PS409809
175 Arden Street	Lot 1 PS411106
173 Arden Street	Lot 2 PS411106
171 Arden Street	Lot 3 PS411106
109 Munster Terrace	Lot 4 PS411106
103 Munster Terrace	Lot 5 PS411106
99 Munster Terrace	Lot 6 PS411093
93 Munster Terrace	Lot 7 PS411093
87 Munster Terrace	Lot 8 PS411093

LEGEND

- Subject site
- Setback line
- Proposed road widening
- Train corridor
- Arden Station Forecourt Protection Area
- Public open space
- Existing vegetation



01 Site Plan

1:1000@A3

1.0 Introduction - Solar Protection

- Solar Protection - Schedule 80 of Design and Development Overlay Clause 2.7 (Melbourne Planning Scheme)
- Buildings should not cast any additional shadow over:
 - The proposed public open spaces or streets shown in Map 2 of this schedule for the hours date and hours specified in Table 5 to this schedule.
- These requirements do not apply to buildings and works constructed within the open space.

Table 5

Area on Map 2	Date and hours
Queensberry Street linear park	22 September, 11am-2pm
Arden Station Forecourt	22 September, 11am-2pm

For the purpose of the solar modelling exercise, the station entry building has been modelled as a solid box as the design and material does not allow for sunlight to pass through.

The station precinct development plans were obtained from bigbuild.vic.gov.au Arden Station (updated November 2021) Appendix A: Site Plan - Rev. G.10 Issued for development plan dated 16/06/2021.

Section A & B and East Elevation drawings in the next two pages were part of Station precinct development plans - Arden Station (updated November 2021) Appendix B: Architectural Plans (bigbuild.vic.gov.au)

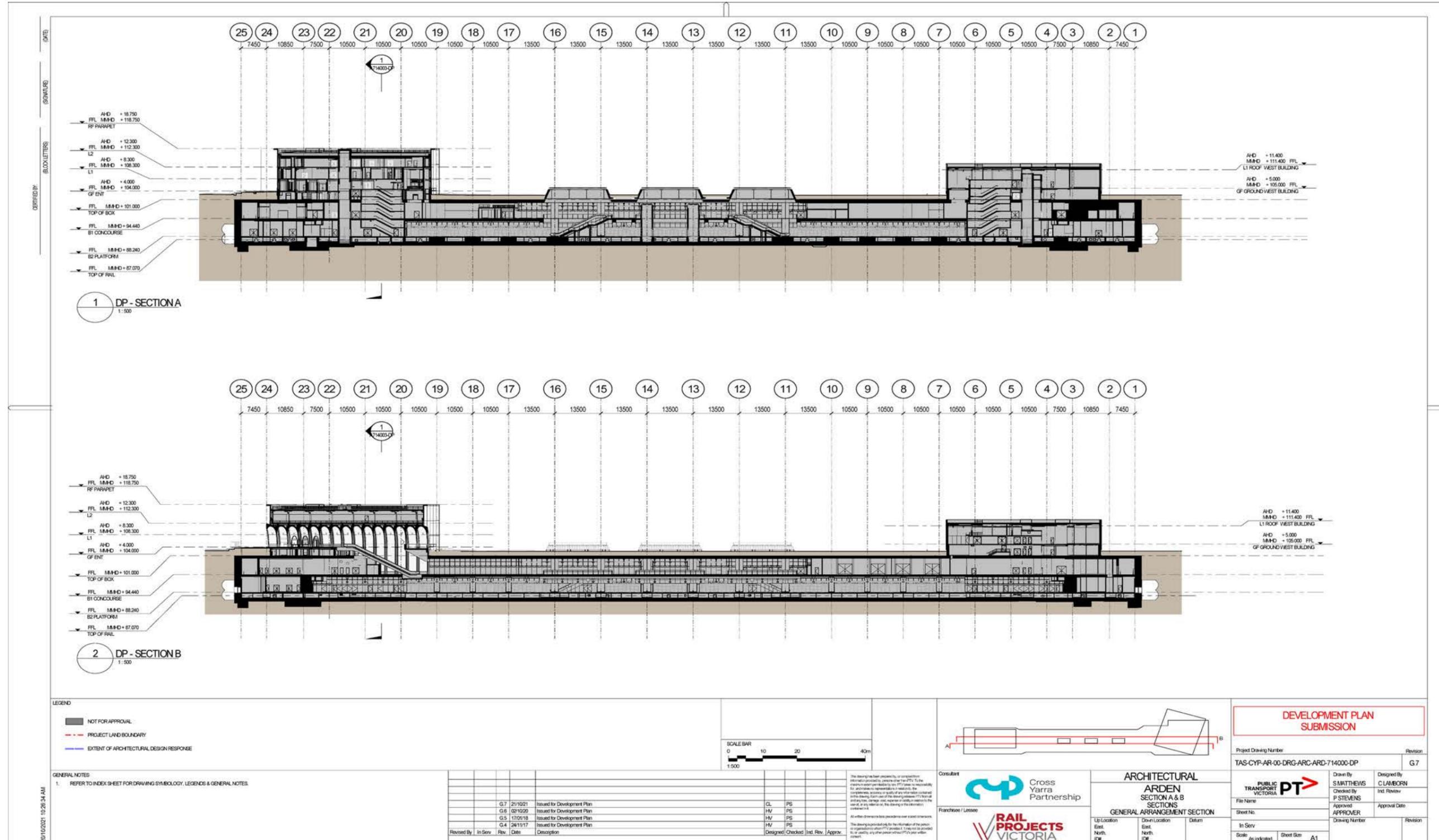


Proposed Arden Station

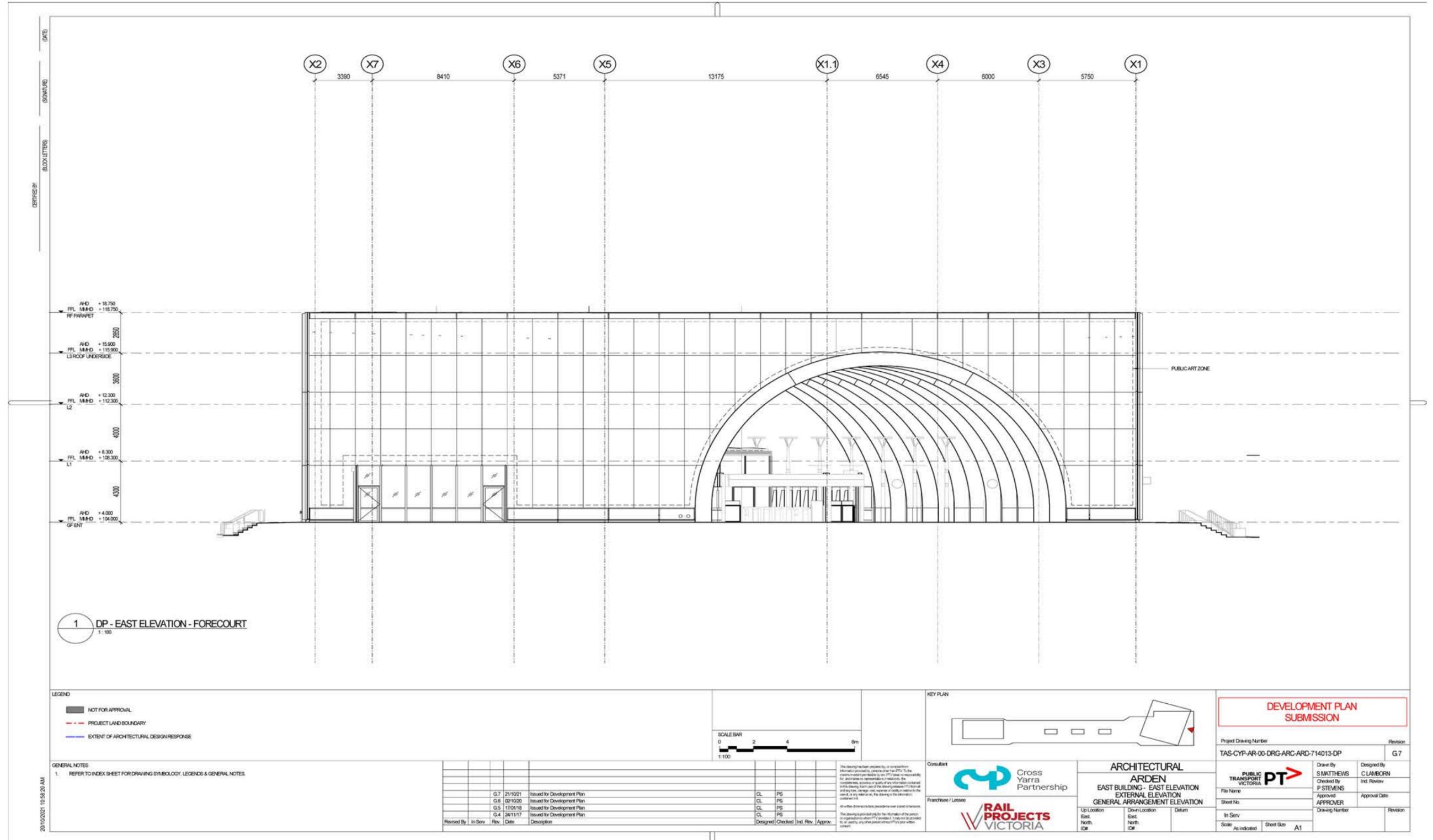


02 Arden Station site masterplan
Source: <https://bigbuild.vic.gov.au/projects/metro-tunnel/about/planning/development-plans/station-development-plans>

1.0 Introduction - Arden Street Station Section A & B

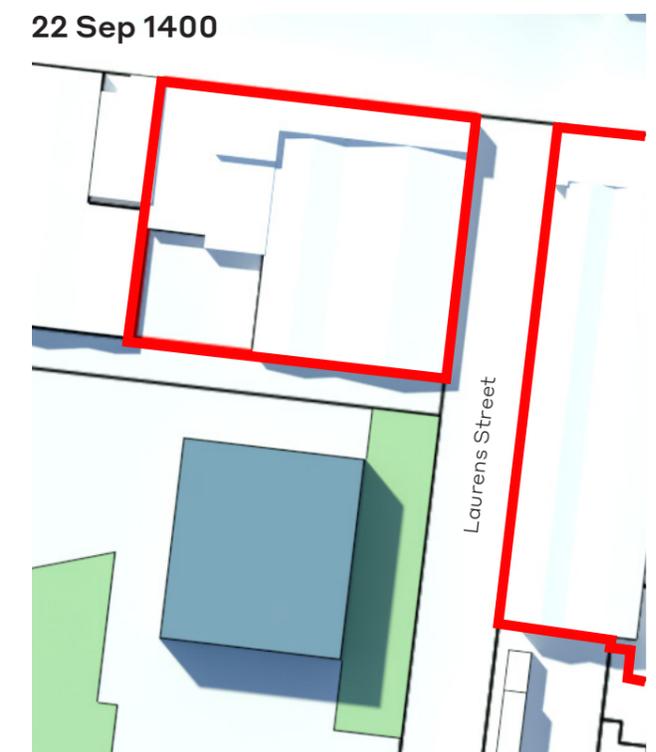


1.0 Introduction - Arden Street Station East Building East Elevation

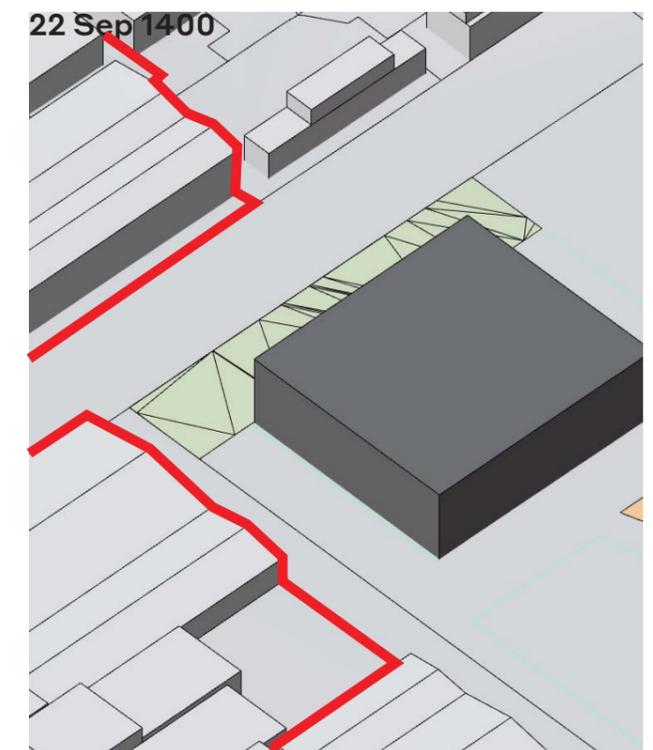
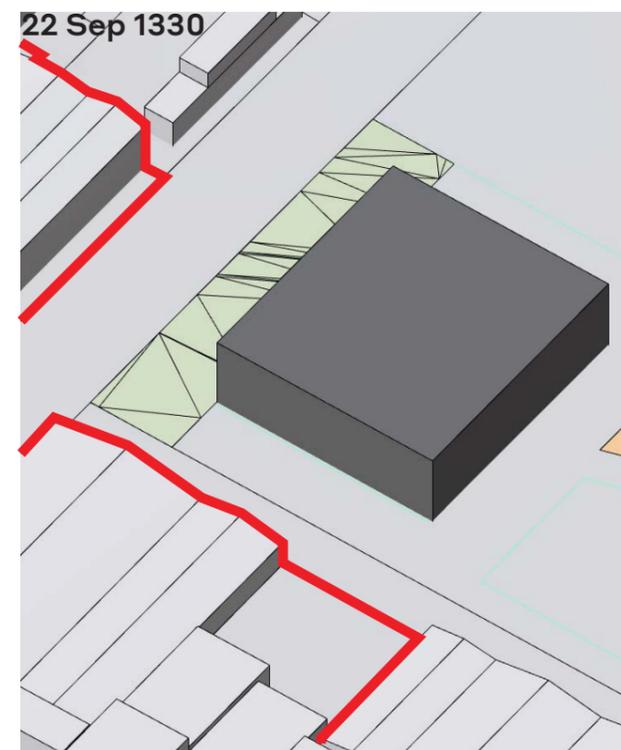
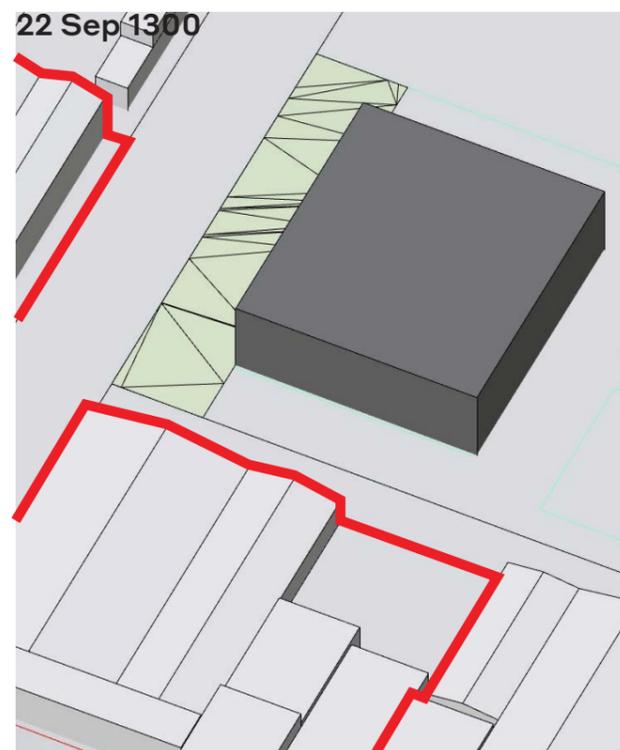
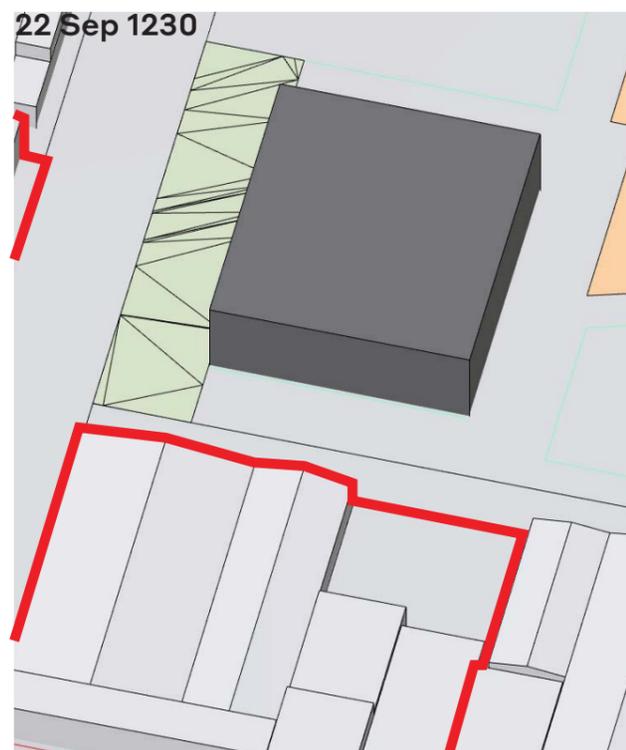
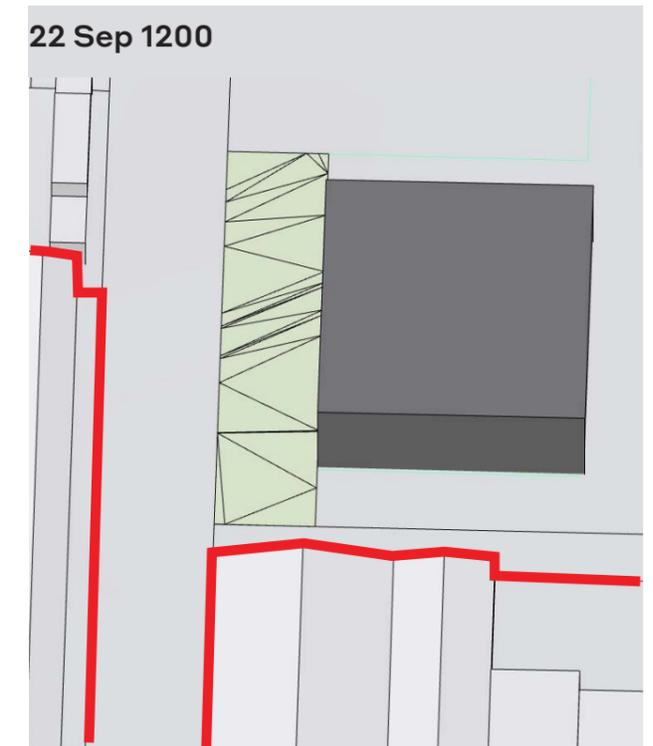
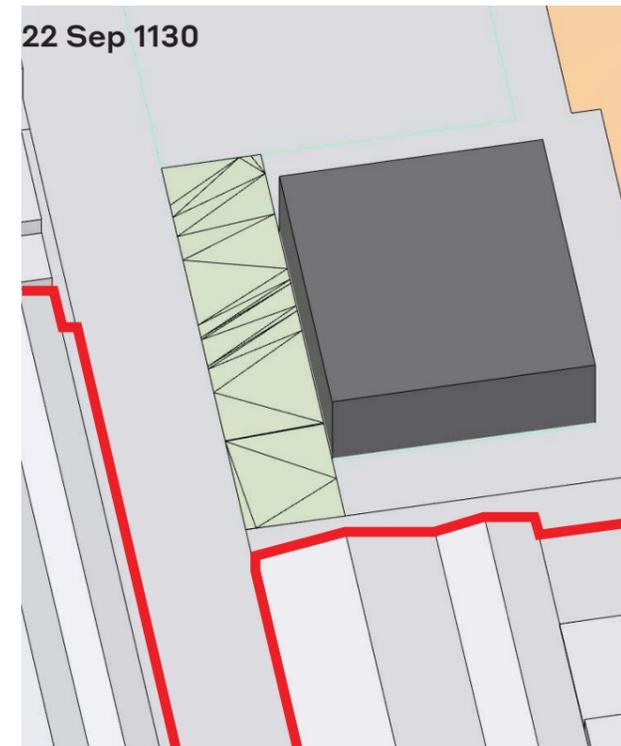
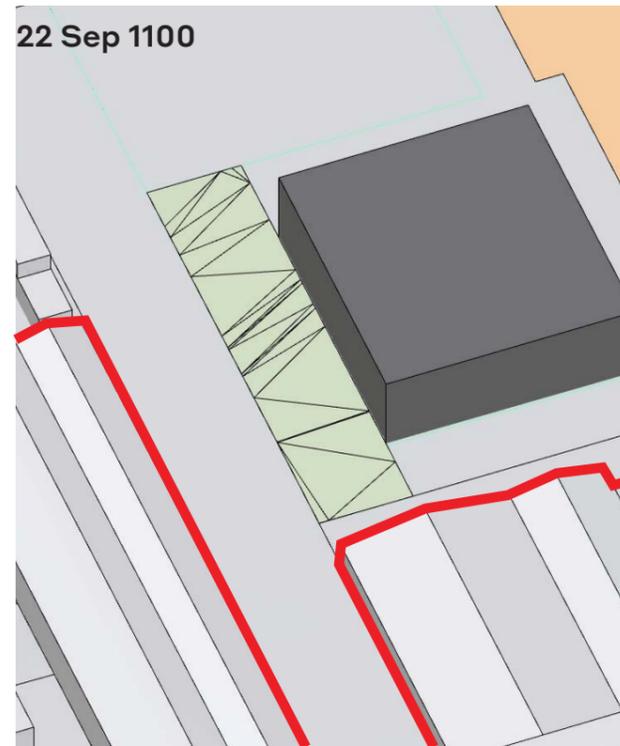


1.0 Introduction - Shadow Analysis (Existing)

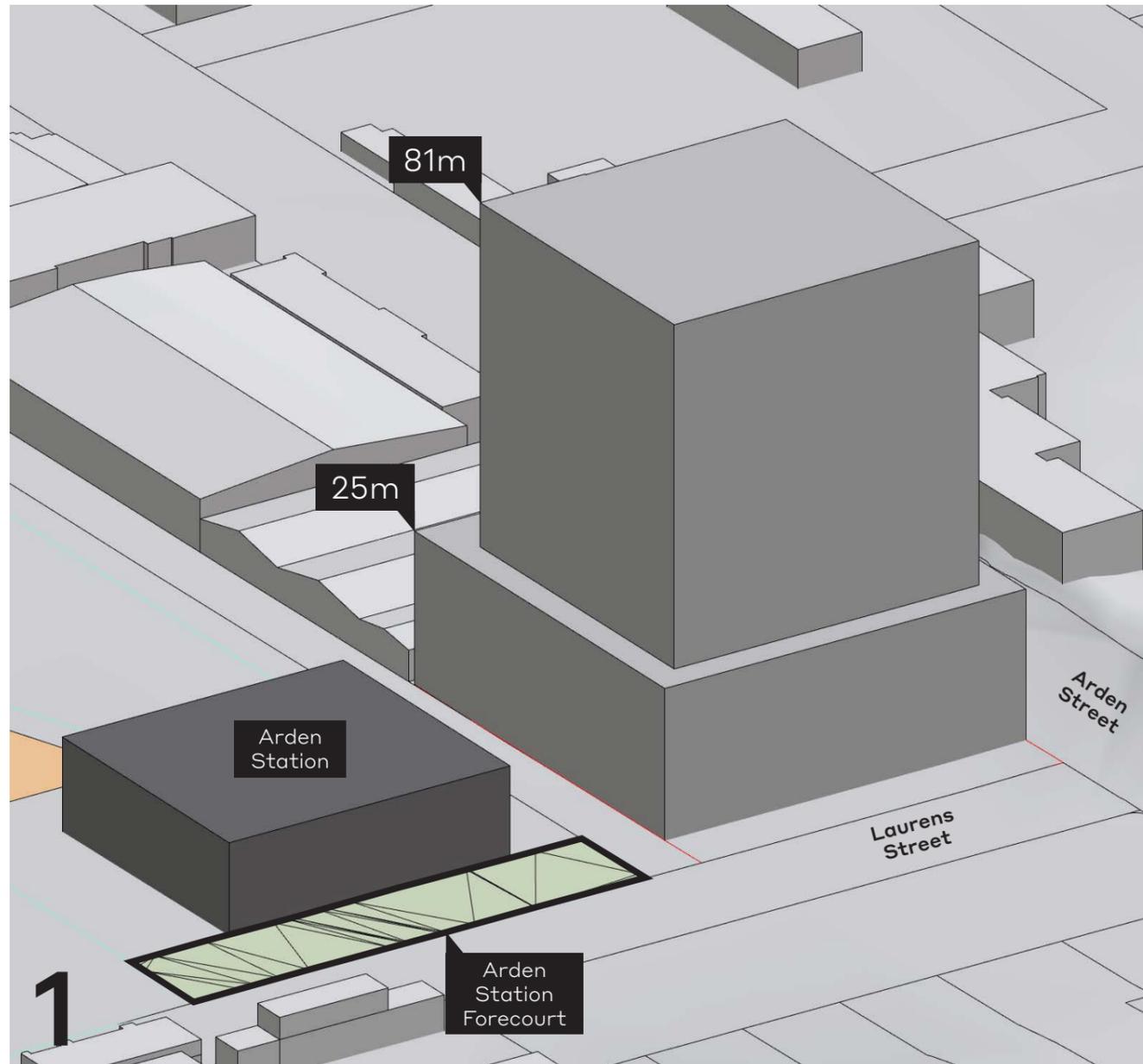
Time	Total overshadowing (m ²)	% of open space overshadowed
1100	-	-
1130	-	-
1200	-	-
1230	157	11.6%
1300	283.1	20.8%
1330	423.1	31.2%
1400	579	42.7%



1.0 Introduction - Sun Eye Diagram

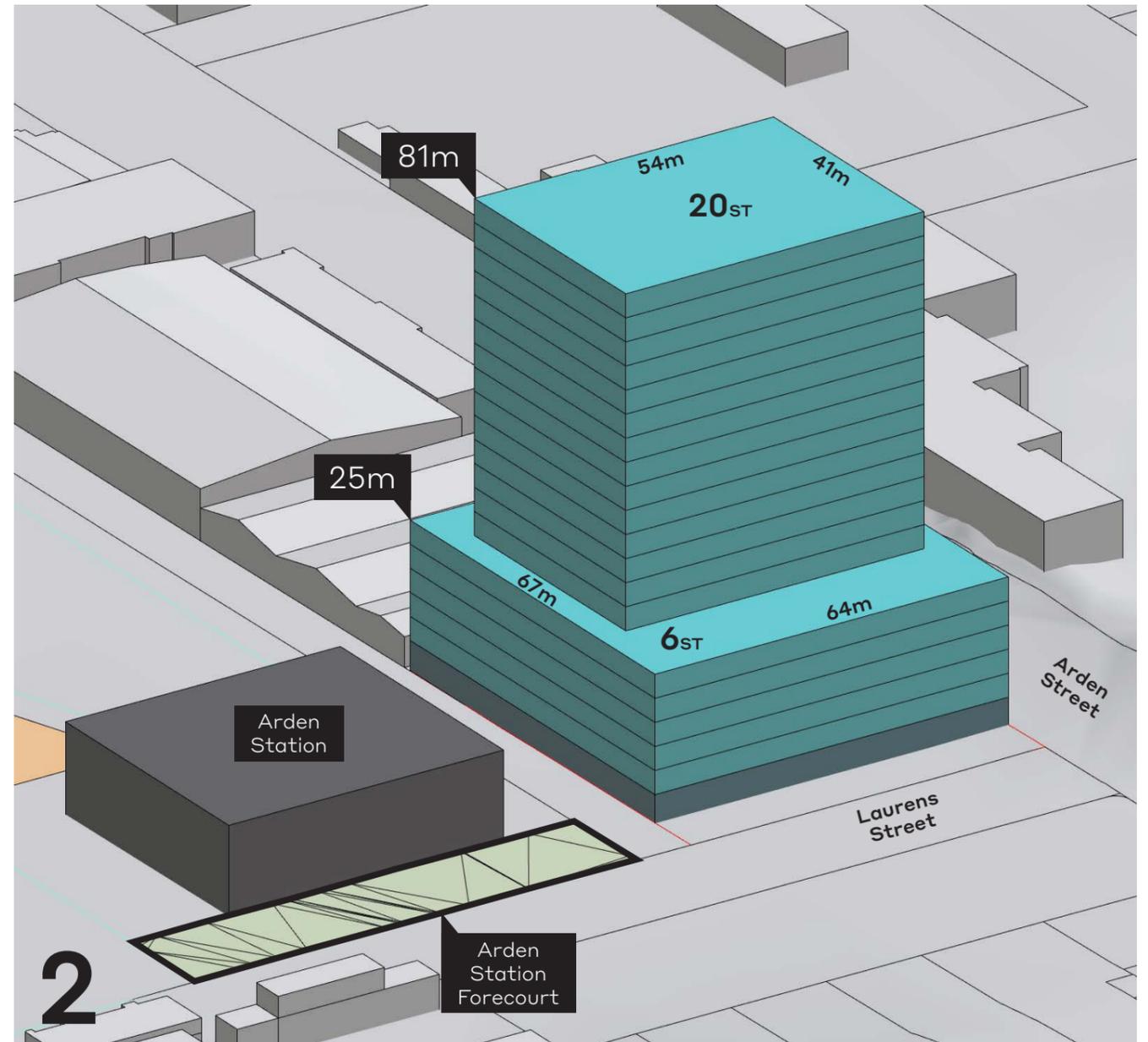


2.0 Site A - West of Laurens Street



1. Victorian Planning Authority (VPA) Planning Control Raw Envelope

- Site A falls within the Arden Central Innovation Sub-precinct
- The following DDO controls apply:
 - Street wall height immediately adjacent to a proposed open space for building height in excess of 41m - **between 17m - 25m**
 - Preferred maximum building height of **49-81m** for Lot D (Subject Site)
 - Preferred maximum FAR of **12:1** for Lot D (Subject Site). Raw envelope shown exceed maximum FAR
- **5m** preferred minimum setback above the street wall height for building height in excess of 33m
- **10m** preferred minimum setback above preferred street wall height to side and rear boundaries for building height greater than 64m up to 81m
- 5m floor to floor height for ground level
- 4m floor to floor height for podium commercial levels
- 4m floor to floor height for typical commercial levels above street wall height



2. VPA Maximum FAR Envelope

- 25m street wall height to maximise FAR achievable on site
- 81m building height to maximise FAR achievable on site
- 5m floor to floor height for ground level
- 4m floor to floor height for podium and typical commercial levels above street wall
- Typical commercial floor plate measuring 41m x 54m at 2,230m²
- Total of 20 storey achieving FAR of 12:1
- Yield breakdown is shown in the following page

2.0 Site A - West of Laurens Street

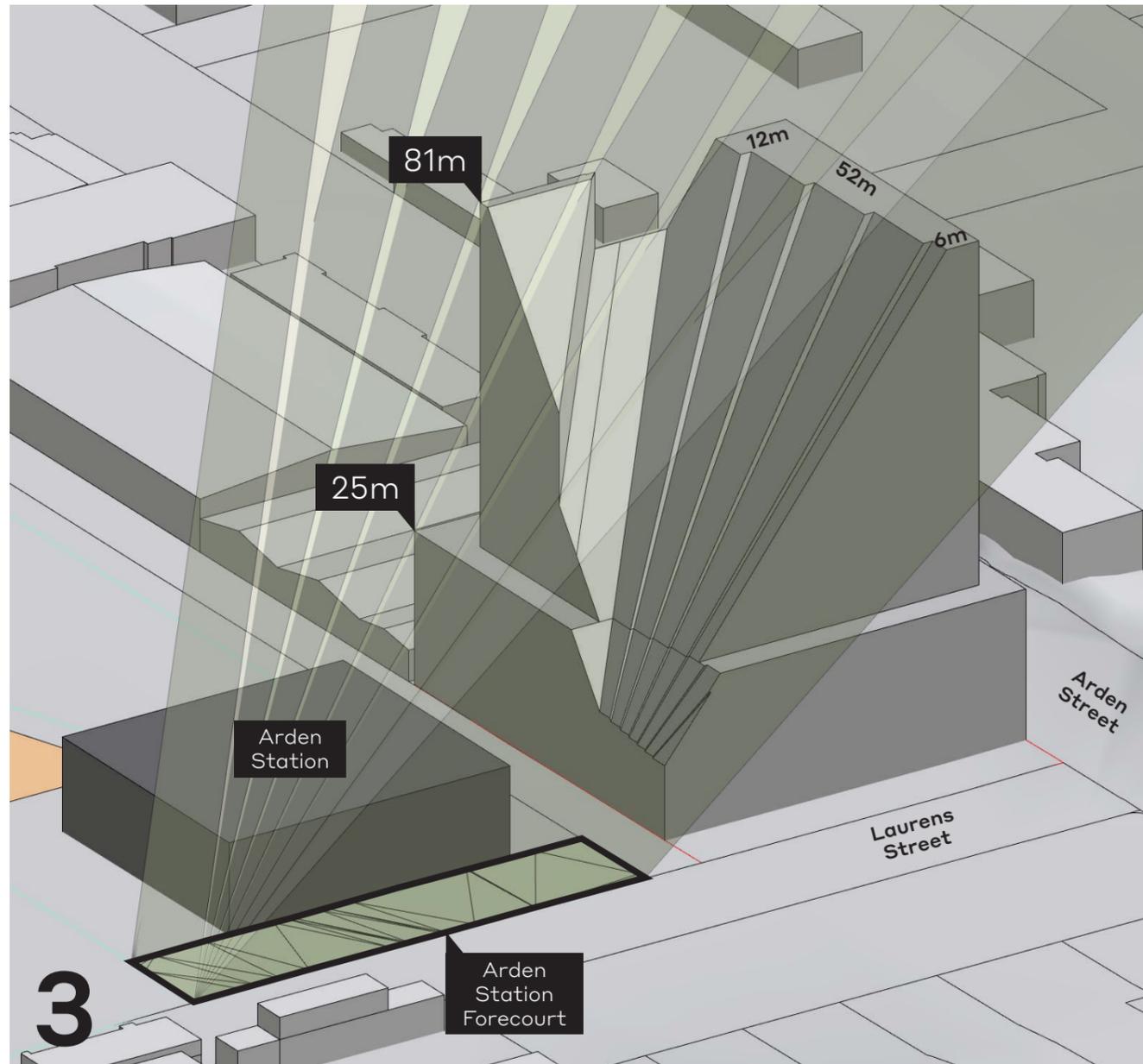
	m ²
Site Area	4,729
Total GFA	56,906
FAR	12.03 :1

VPA Planning Control Maximum FAR						
Level	Gross Floor Area (m ²)	Use	% of GFA as NLA	NLA	Floor Height (m)	RL Height (AHD)
Ground	4,281	Retail / Commercial	85%	3,639	5.0	3.39
1	4,281	Commercial	85%	3,639	4.0	8.39
2	4,281	Commercial	85%	3,639	4.0	12.39
3	4,281	Commercial	85%	3,639	4.0	16.39
4	4,281	Commercial	85%	3,639	4.0	20.39
5	4,281	Commercial	85%	3,639	4.0	24.39
6	2,230	Commercial	85%	1,896	4.0	28.39
7	2,230	Commercial	85%	1,896	4.0	32.39
8	2,230	Commercial	85%	1,896	4.0	36.39
9	2,230	Commercial	85%	1,896	4.0	40.39
10	2,230	Commercial	85%	1,896	4.0	44.39
11	2,230	Commercial	85%	1,896	4.0	48.39
12	2,230	Commercial	85%	1,896	4.0	52.39
13	2,230	Commercial	85%	1,896	4.0	56.39
14	2,230	Commercial	85%	1,896	4.0	60.39
15	2,230	Commercial	85%	1,896	4.0	64.39
16	2,230	Commercial	85%	1,896	4.0	68.39
17	2,230	Commercial	85%	1,896	4.0	72.39
18	2,230	Commercial	85%	1,896	4.0	76.39
19	2,230	Commercial	85%	1,896	4.0	80.39
Total	56,906		NLA	48,370	81.0	84.39

2. VPA Maximum FAR Envelope Yield Table

- Gross Floor Area (GFA) - The total floor area of a building, measured from the outside of external walls or the centre of party walls, and includes all roofed areas
- Floor Area Ratio means the gross floor area above Ground level, of all buildings on a site, including the ground Storey and all enclosed areas, services, lifts, car stackers and covered balconies but not including any Basement, divided by the area of the site. Voids associated with lifts, car stackers and similar service elements should be considered as multiple floors of the same height as adjacent floors or 3.0 metres if there is no adjacent floor
- Building efficiency - NLA estimated at 85% of GFA for Office (Industry standard, best practice)
- Site area is extracted from Spatial Datamart Victoria
- 3m road widening along Laurens Street has not been included in the site area (EU assumption)

2.0 Site A - West of Laurens Street



3. VPA Planning Control Envelope with No Additional Overshadowing

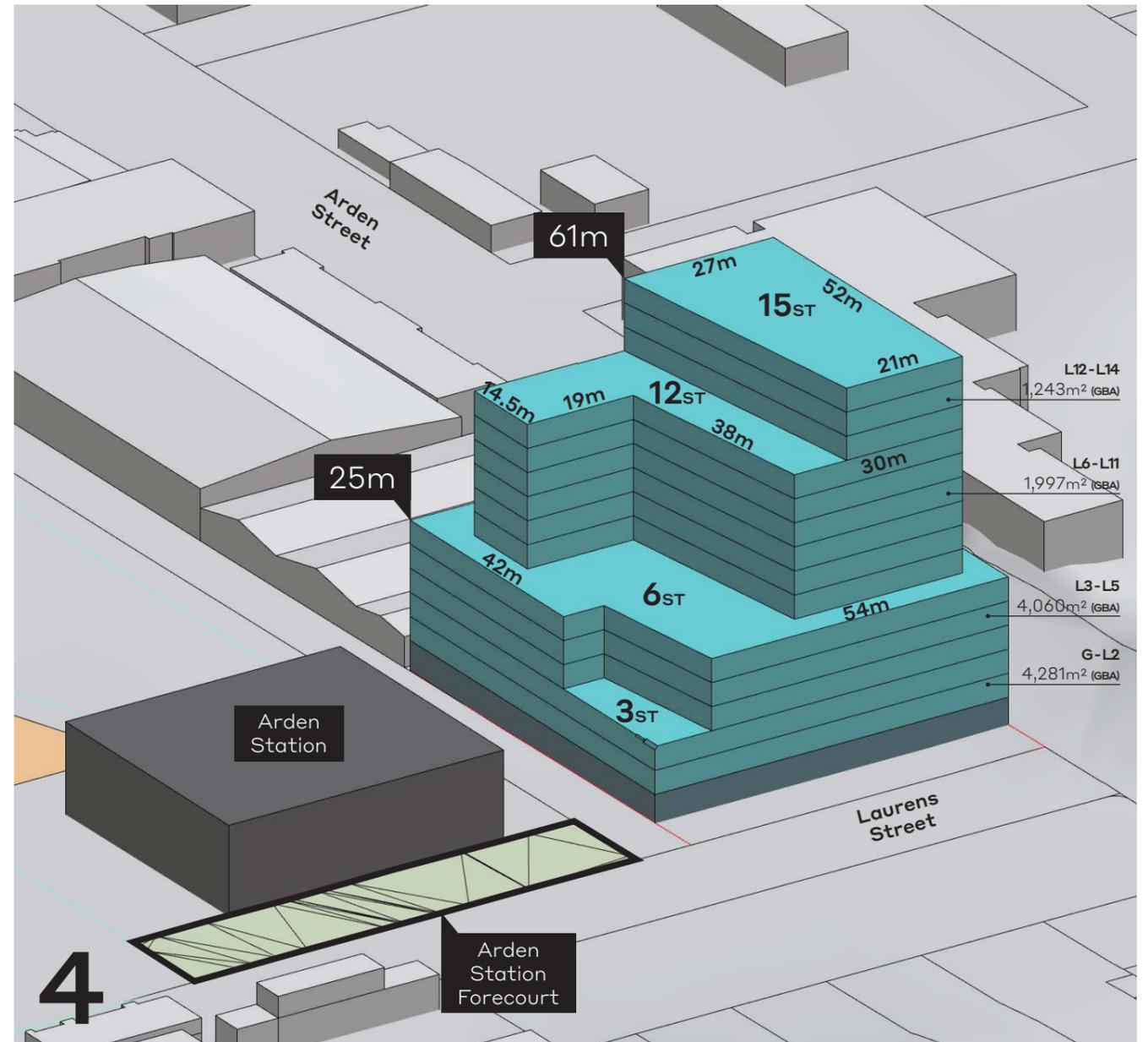
DDO Solar Protection Controls

- Buildings should not cast any additional shadow over:
 - The proposed public open spaces or streets shown in Map 2 of this schedule for the date and hours specified in Table 5 to this schedule.
- These requirements do not apply to buildings and works constructed within the open space.

Table 5: Solar Protection

Area on Map 2	Date and hours
Queensberry Street linear park	22 September, 11am-2pm
Arden Station Forecourt	22 September, 11am-2pm

- For the purpose of the solar modelling exercise, the station entry building has been modelled as a solid box as the design and material does not allow for sunlight to pass through.



3. EU Rationalised No Additional Overshadowing (NAO) Envelope

- Maximum no additional overshadowing envelope is rationalised based on best practice commercial tower floor plate size and depth
- Level 14 has last viable commercial floor plate at approximately 1,200m² floor plate size
- Typical commercial tower level has approximately 2,000m² floor plate size
- South west corner of commercial tower envelope has 14.5m depth
- Subject to further detail architectural design
- Total of 15 storey achieving FAR of 8.6:1
- Total reduction in GFA - 16,172m²

2.0 Site A - West of Laurens Street

	m ²
Site Area	4,729
Total GFA	40,734
FAR	8.61 :1

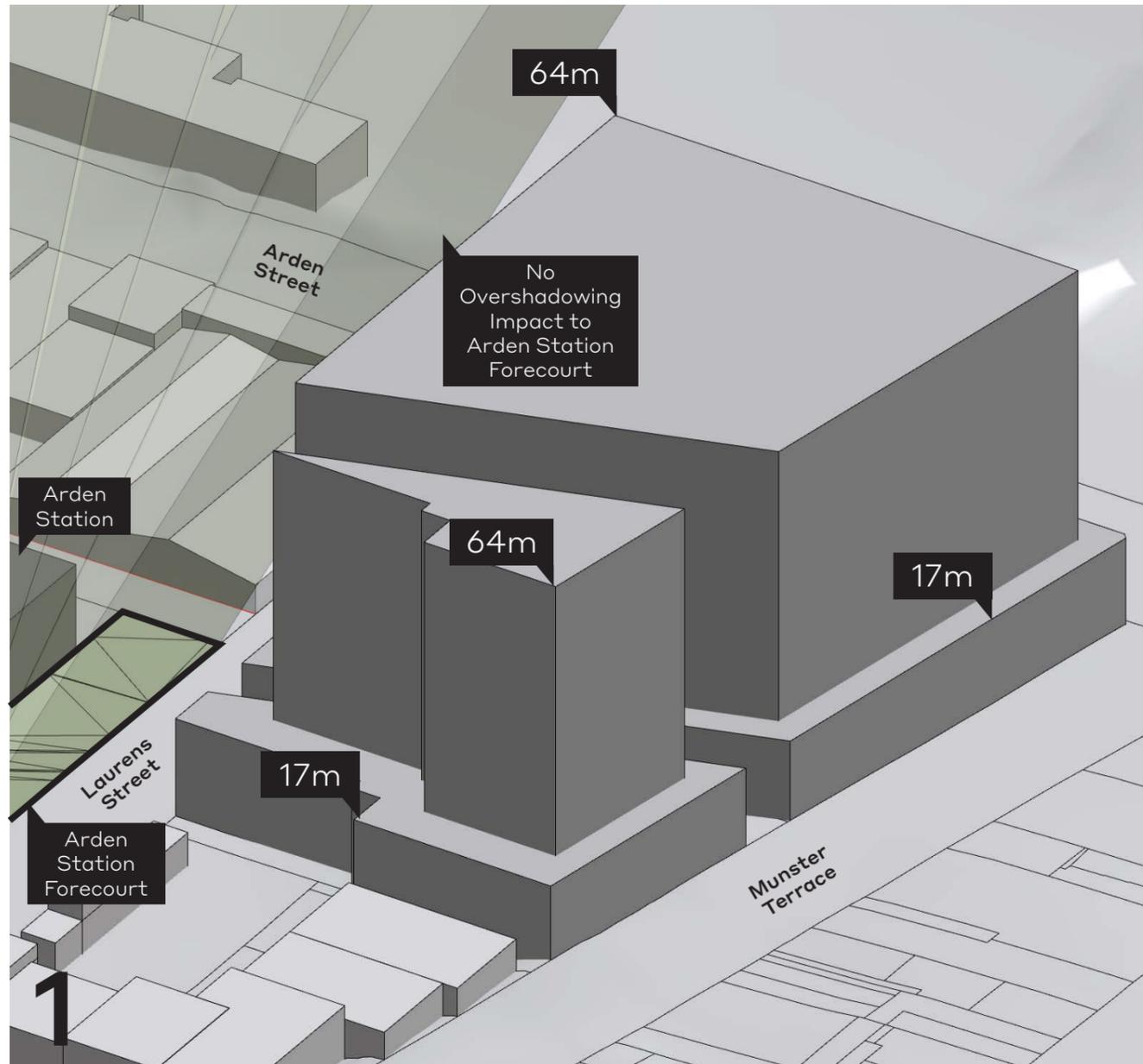
EU Rationalised No Additional Overshadowing Envelope						
Level	Gross Floor Area (m ²)	Use	% of GFA as NLA	NLA	Floor Height (m)	RL Height (AHD)
Ground	4,281	Retail / Commercial	85%	3,639	5.0	3.39
1	4,281	Commercial	85%	3,639	4.0	8.39
2	4,281	Commercial	85%	3,639	4.0	12.39
3	4,060	Commercial	85%	3,451	4.0	16.39
4	4,060	Commercial	85%	3,451	4.0	20.39
5	4,060	Commercial	85%	3,451	4.0	24.39
6	1,997	Commercial	85%	1,697	4.0	28.39
7	1,997	Commercial	85%	1,697	4.0	32.39
8	1,997	Commercial	85%	1,697	4.0	36.39
9	1,997	Commercial	85%	1,697	4.0	40.39
10	1,997	Commercial	85%	1,697	4.0	44.39
11	1,997	Commercial	85%	1,697	4.0	48.39
12	1,243	Commercial	85%	1,057	4.0	52.39
13	1,243	Commercial	85%	1,057	4.0	56.39
14	1,243	Commercial	85%	1,057	4.0	60.39
Total	40,734		NLA	34,624	61.0	64.39

4

2. EU Rationalised NAO Envelope Yield Table

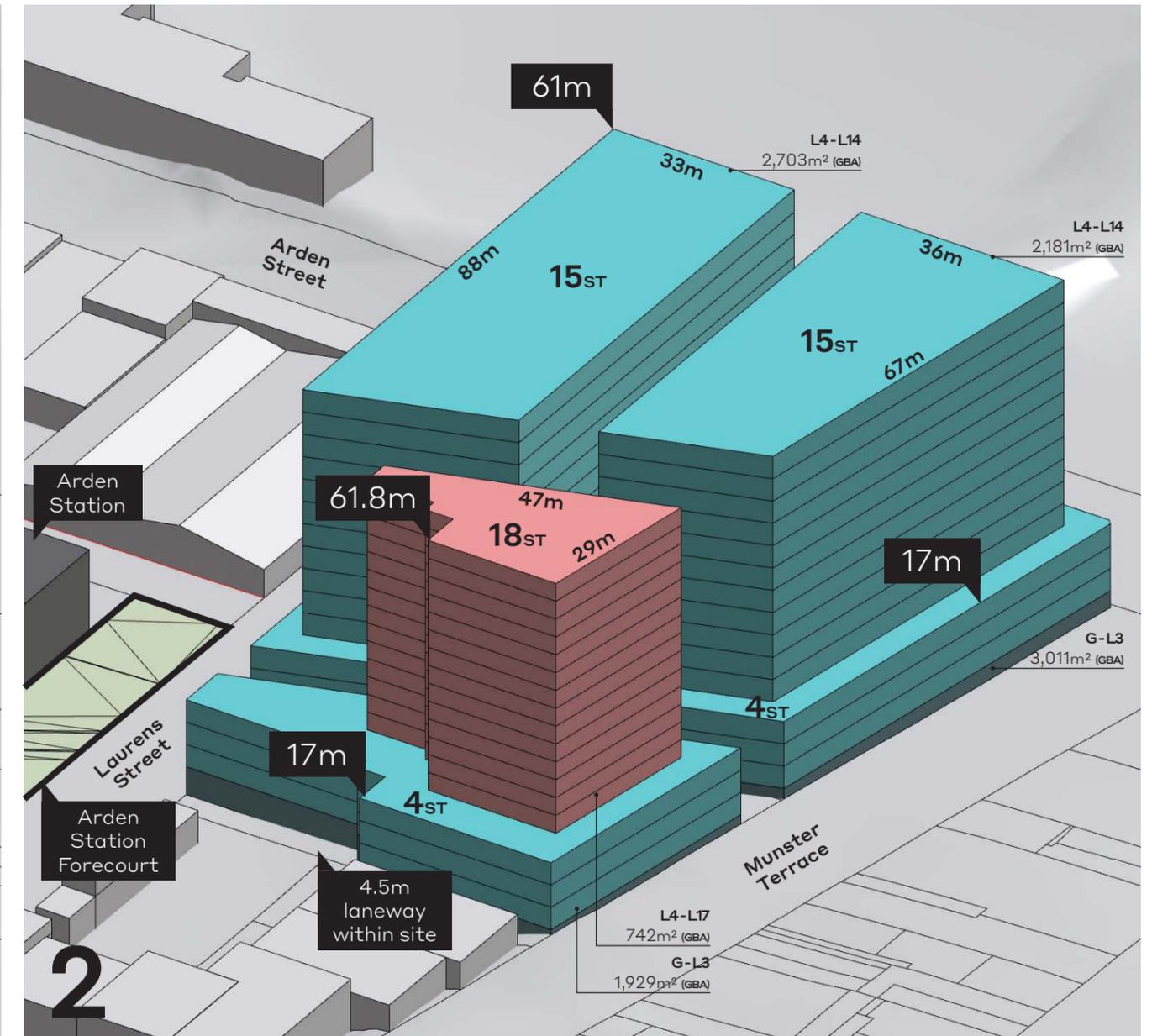
- Gross Floor Area (GFA) - The total floor area of a building, measured from the outside of external walls or the centre of party walls, and includes all roofed areas
- Floor Area Ratio means the gross floor area above Ground level, of all buildings on a site, including the ground Storey and all enclosed areas, services, lifts, car stackers and covered balconies but not including any Basement, divided by the area of the site. Voids associated with lifts, car stackers and similar service elements should be considered as multiple floors of the same height as adjacent floors or 3.0 metres if there is no adjacent floor
- Building efficiency - NLA estimated at 85% of GFA for Office (Industry standard, best practice)
- Site area is extracted from Spatial Datamart Victoria
- 3m road widening along Laurens Street has not been included in the site area (EU assumption)

3.0 Site B - East of Laurens Street



1. Victorian Planning Authority (VPA) Planning Control Raw Envelope

- Site B falls within the Laurens Street Sub-precinct
- The following DDO controls apply:
 - Preferred street wall height along laneway or street width or street (0 - 9m) - **between 12m - 17m**
 - Preferred street wall height along laneway or street width or street (greater than 9m) for building height in excess of 41m - **between 17m - 25m**
 - Preferred maximum building height of **49-64m**
 - Preferred maximum FAR of **10:1**
 - A compliant height on Site B has no impact on Arden Station Forecourt on 22 Sep between 11am - 2pm
- **9m** preferred minimum setback for pedestrian only laneway below preferred street wall height
- **5m** preferred minimum setback above the street wall height for building height in excess of 33m
- **7.5m** preferred minimum setback above preferred street wall height to side and rear boundaries for building height up to 64m
- 5m floor to floor height for ground level
- 4m floor to floor height for podium and typical commercial levels above street wall height
- 3.2m floor to floor height for typical residential levels



2. VPA Maximum FAR Envelope

- 17m street wall height
- 64m building height to maximise FAR achievable
- 5m floor to floor height for ground level
- 4m floor to floor height for podium and typical commercial levels above street wall
- 3.2m floor to floor height for typical residential
- 12m building separation on the same site for building height up to and equal to 64m
- 9m laneway south of site is assumed to be shared between Subject Site and neighbour to the south
- Terrain falls from Munster Terrace towards Laurens Street
- Building envelope is assumed to locate over train tunnel and needs to be tested further with advice from structural engineer
- Typical commercial floor plate measuring 88mx33m and 67mx36m at 2,700m² and 2,180m²
- Typical residential floor plate measuring 47mx29m at 742m²
- Total of 15 storey commercial and 18 storey residential achieving FAR of 9.39:1
- Yield breakdown is shown in the following page

3.0 Site B - East of Laurens Street

	m ²
Site Area	10,495
Total GFA	98,524
FAR	9.39 :1

VPA Planning Control Maximum FAR - Northern Commercial Use						
Level	Gross Floor Area (m ²)	Use	% of GFA as NLA	NLA	Floor Height (m)	RL Height (AHD)
Ground	6,674	Retail / Commercial	85%	5,673	5.0	3.97
1	6,674	Commercial	85%	5,673	4.0	8.97
2	6,674	Commercial	85%	5,673	4.0	12.97
3	6,674	Commercial	85%	5,673	4.0	16.97
4	4,884	Commercial	85%	4,151	4.0	20.97
5	4,884	Commercial	85%	4,151	4.0	24.97
6	4,884	Commercial	85%	4,151	4.0	28.97
7	4,884	Commercial	85%	4,151	4.0	32.97
8	4,884	Commercial	85%	4,151	4.0	36.97
9	4,884	Commercial	85%	4,151	4.0	40.97
10	4,884	Commercial	85%	4,151	4.0	44.97
11	4,884	Commercial	85%	4,151	4.0	48.97
12	4,884	Commercial	85%	4,151	4.0	52.97
13	4,884	Commercial	85%	4,151	4.0	56.97
14	4,884	Commercial	85%	4,151	4.0	60.97
Total	80,420		NLA	68,357	61.0	64.97

VPA Planning Control Maximum FAR - Southern Residential Use						
Level	Gross Floor Area (m ²)	Use	% of GFA as NLA	NLA	Floor Height (m)	RL Height (AHD)
Ground	1,929	Retail / Commercial	85%	1,640	5.0	3.97
1	1,929	Commercial	85%	1,640	4.0	8.97
2	1,929	Commercial	85%	1,640	4.0	12.97
3	1,929	Commercial	85%	1,640	4.0	16.97
4	742	Residential	85%	631	3.2	20.97
5	742	Residential	85%	631	3.2	24.17
6	742	Residential	85%	631	3.2	27.37
7	742	Residential	85%	631	3.2	30.57
8	742	Residential	85%	631	3.2	33.77
9	742	Residential	85%	631	3.2	36.97
10	742	Residential	85%	631	3.2	40.17
11	742	Residential	85%	631	3.2	43.37
12	742	Residential	85%	631	3.2	46.57
13	742	Residential	85%	631	3.2	49.77
14	742	Residential	85%	631	3.2	52.97
15	742	Residential	85%	631	3.2	56.17
16	742	Residential	85%	631	3.2	59.37
17	742	Residential	85%	631	3.2	62.57
Total	18,104		NLA	15,388	61.8	65.77

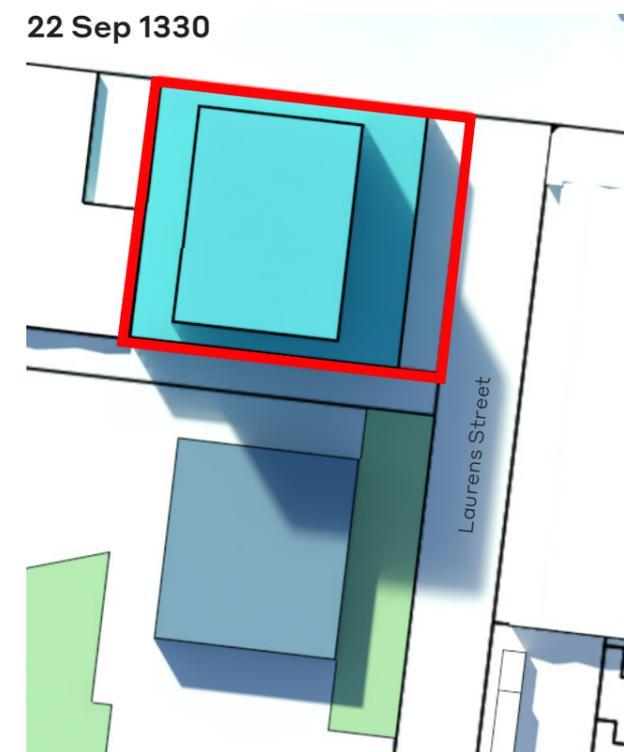
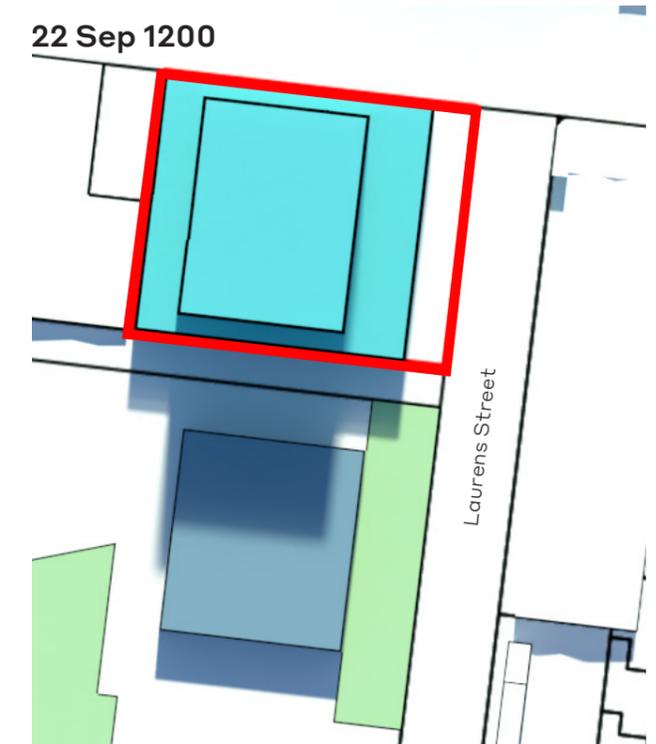
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2. VPA Maximum FAR Envelope Yield Table

- Gross Floor Area (GFA) - The total floor area of a building, measured from the outside of external walls or the centre of party walls, and includes all roofed areas
- Floor Area Ratio means the gross floor area above Ground level, of all buildings on a site, including the ground Storey and all enclosed areas, services, lifts, car stackers and covered balconies but not including any Basement, divided by the area of the site. Voids associated with lifts, car stackers and similar service elements should be considered as multiple floors of the same height as adjacent floors or 3.0 metres if there is no adjacent floor
- Building efficiency - NLA estimated at 85% of GFA for Office (Industry standard, best practice)
- Site area is extracted from Spatial Datamart Victoria

4.0 Appendix - Site A Shadow Diagram (VPA Max FAR Envelope)

Time	Total Overshadowing	% of open space overshadowed	Total additional overshadowing
1100	13.56	1%	13.56
1130	40.6	3%	40.6
1200	65.9	4.9%	65.9
1230	381	28%	224
1300	894.4	65.9%	611.3
1330	959.2	70.7%	536.1
1400	1028.4	75.8%	449.4



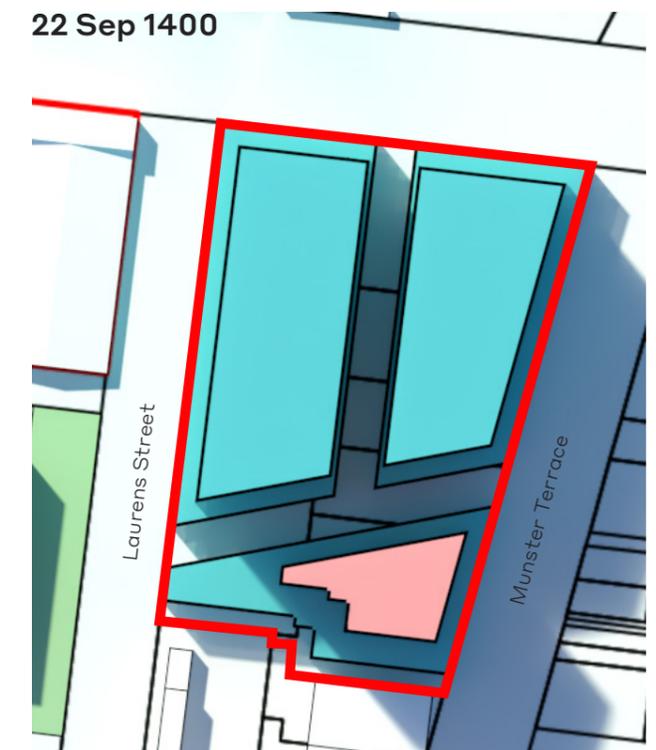
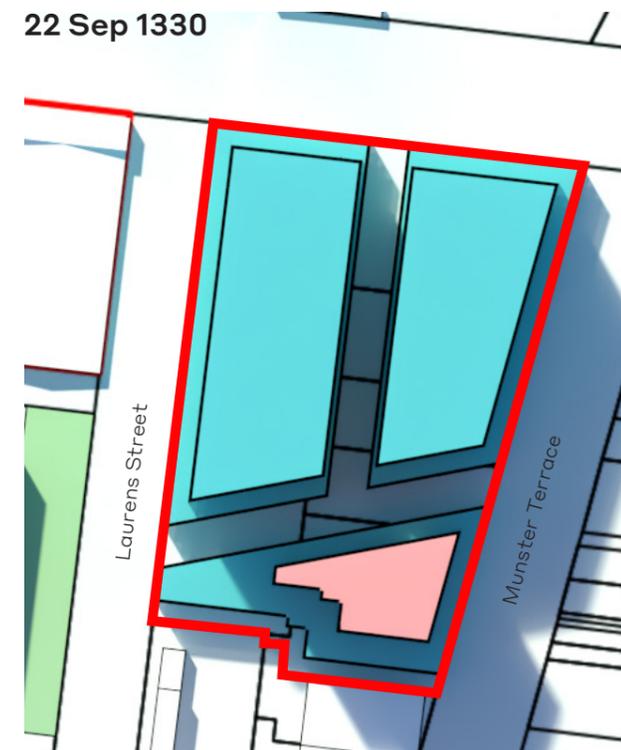
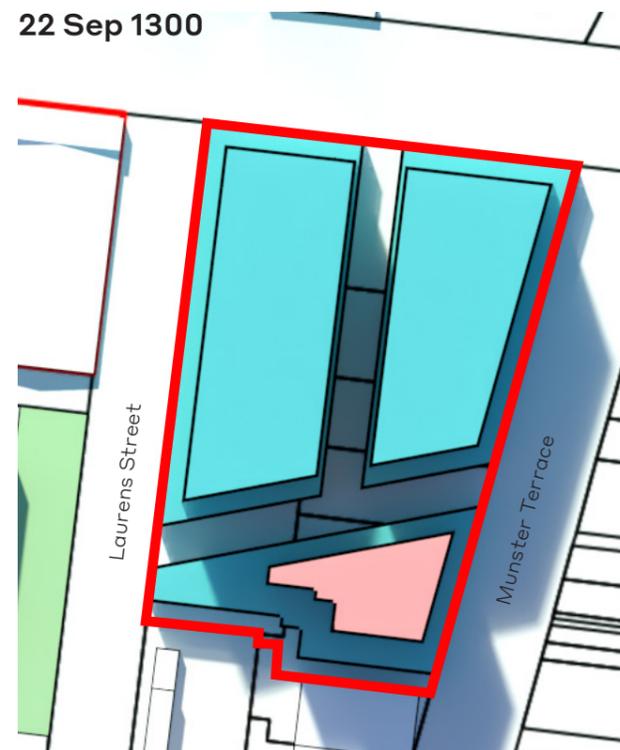
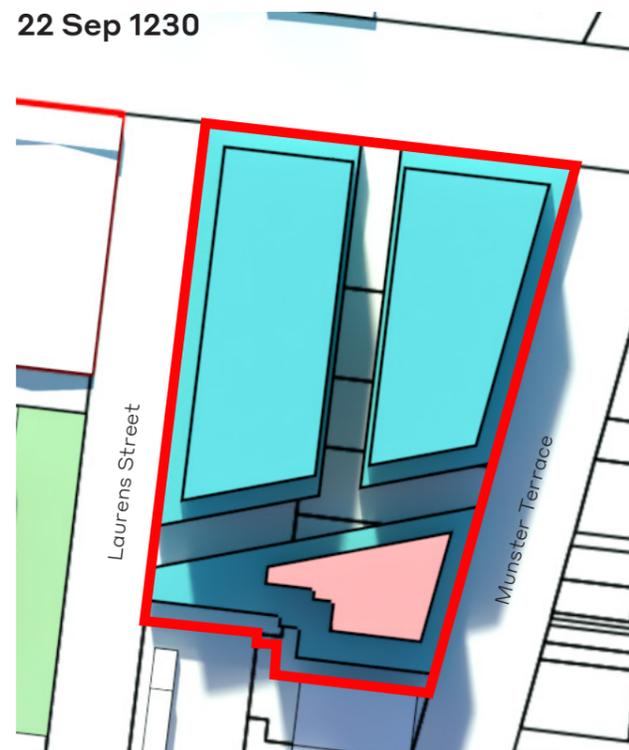
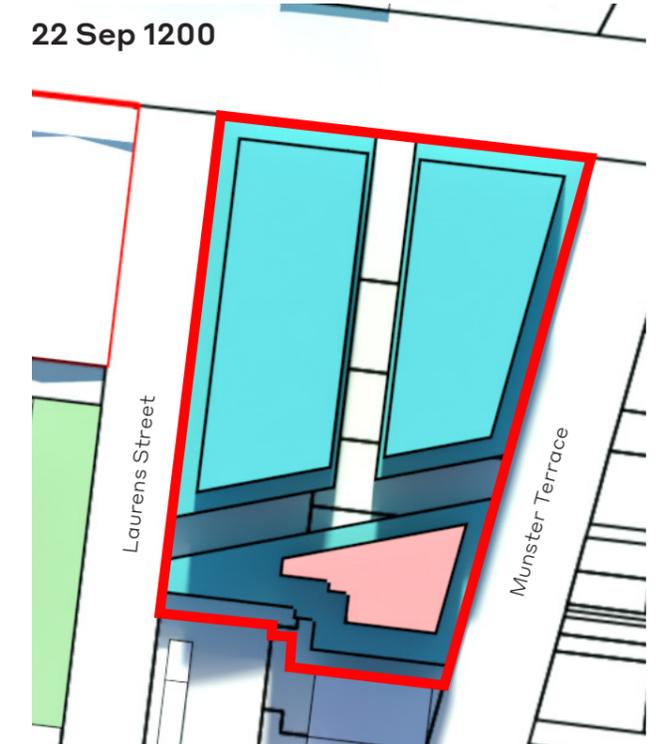
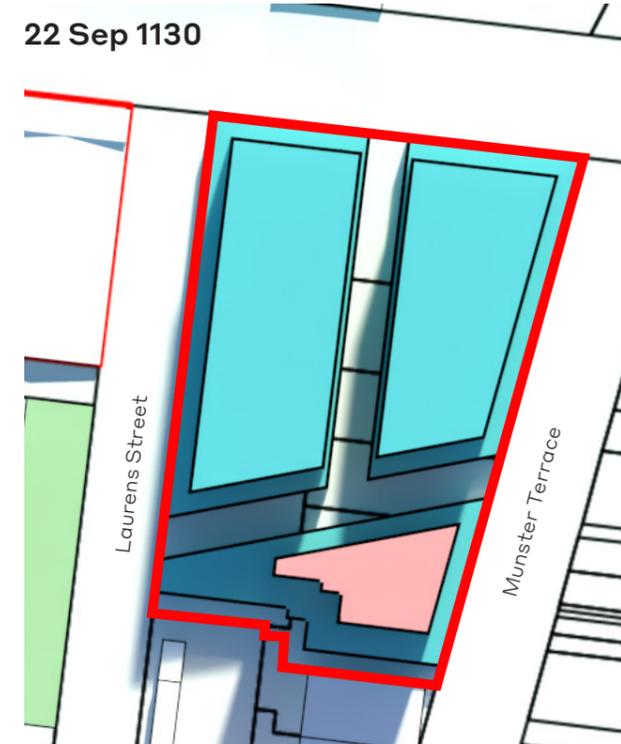
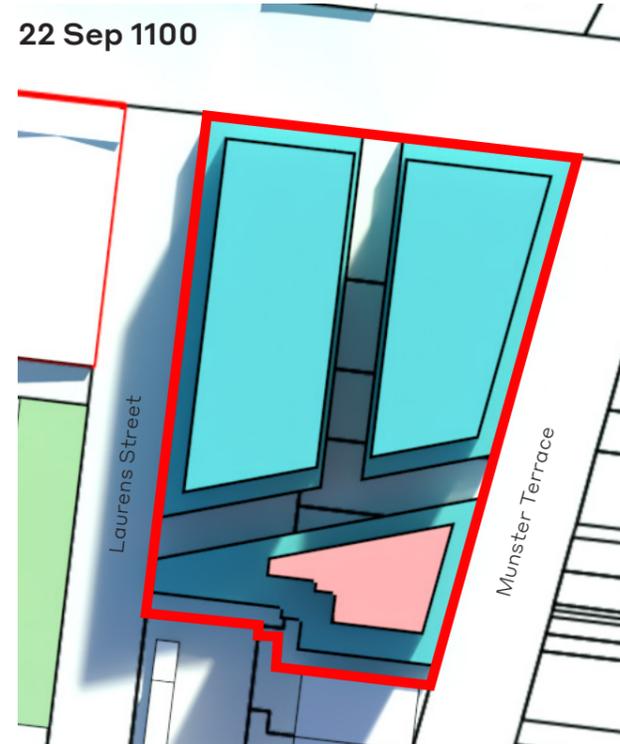
4.0 Appendix - Site A Shadow Diagram (EU Rationalised NAO Envelope)

Time	Total Overshadowing	% of open space overshadowed	Total additional overshadowing
1100	-	-	-
1130	-	-	-
1200	-	-	-
1230	157	11.6%	0
1300	283.1	20.8%	0
1330	423.1	31.2%	0
1400	579	42.7%	0



4.0 Appendix - Site B Shadow Diagram (VPA Max FAR Envelope)

Time	Total Overshadowing	% of open space overshadowed	Total additional overshadowing
1100	-	-	-
1130	-	-	-
1200	-	-	-
1230	157	11.6%	0
1300	283.1	20.8%	0
1330	423.1	31.2%	0
1400	579	42.7%	0



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