Prepared for: Victorian Planning Authority
Date: March 2022

architectus™

Preston Market
Urban Design Report – Addendum

Purpose of this Addendum Report — Design Development

This report builds upon the Framework Concept Design (public consultation May to July 2021). It responds to the request from the minister to address community and council submissions, and integrates the findings of previously conducted studies as advised by the VPA.

This report is divided into five (5) sections:

Part 01.
Overview of Benefits

Part 02.
Open Space Reconfiguration

Part 03.
Framework Assessment

Part 04.
Framework Plans and Sections

Part 05.
Schedule Summaries.

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Part 01.
Overview of Benefits

Part 01 — Overview

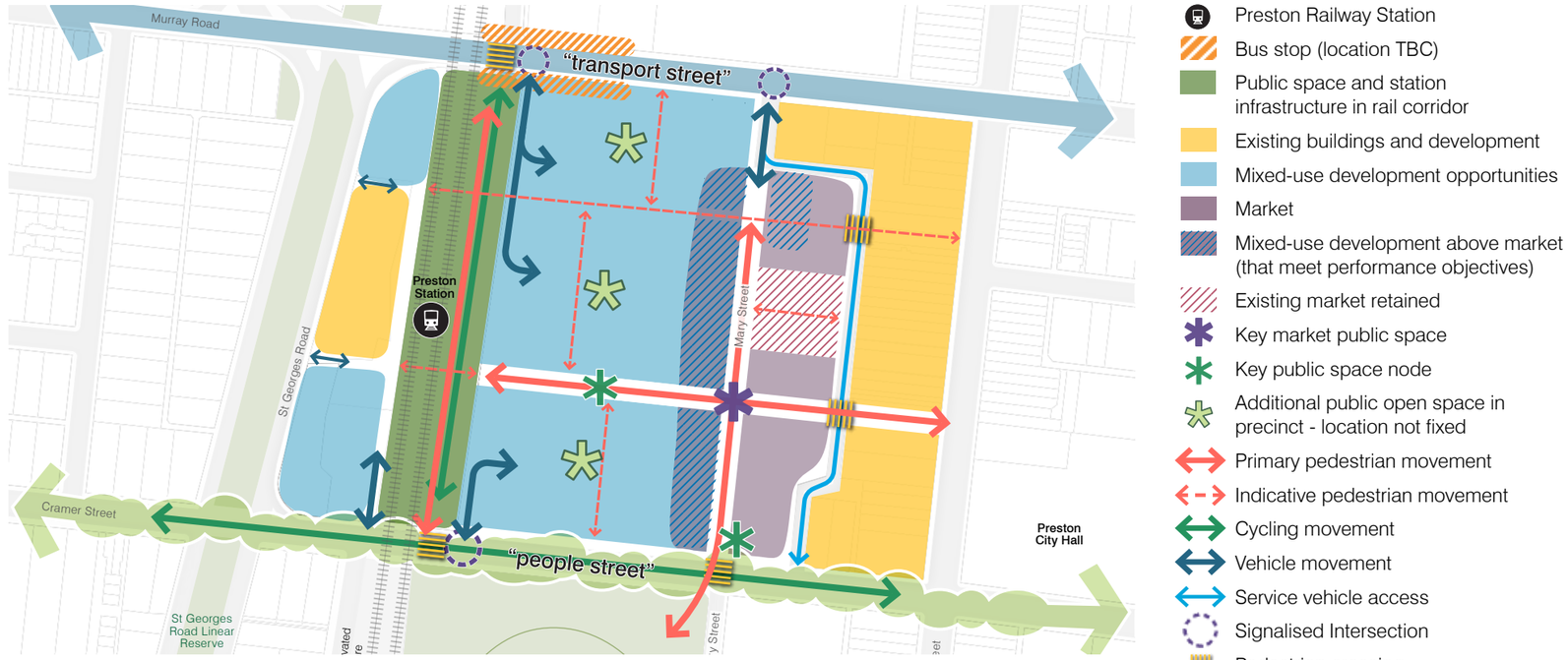
Concept Framework Plan Key Changes

The updated Framework Plan, with revised building heights, will result in a perceptible change in character when compared to the public consultation concept plan.

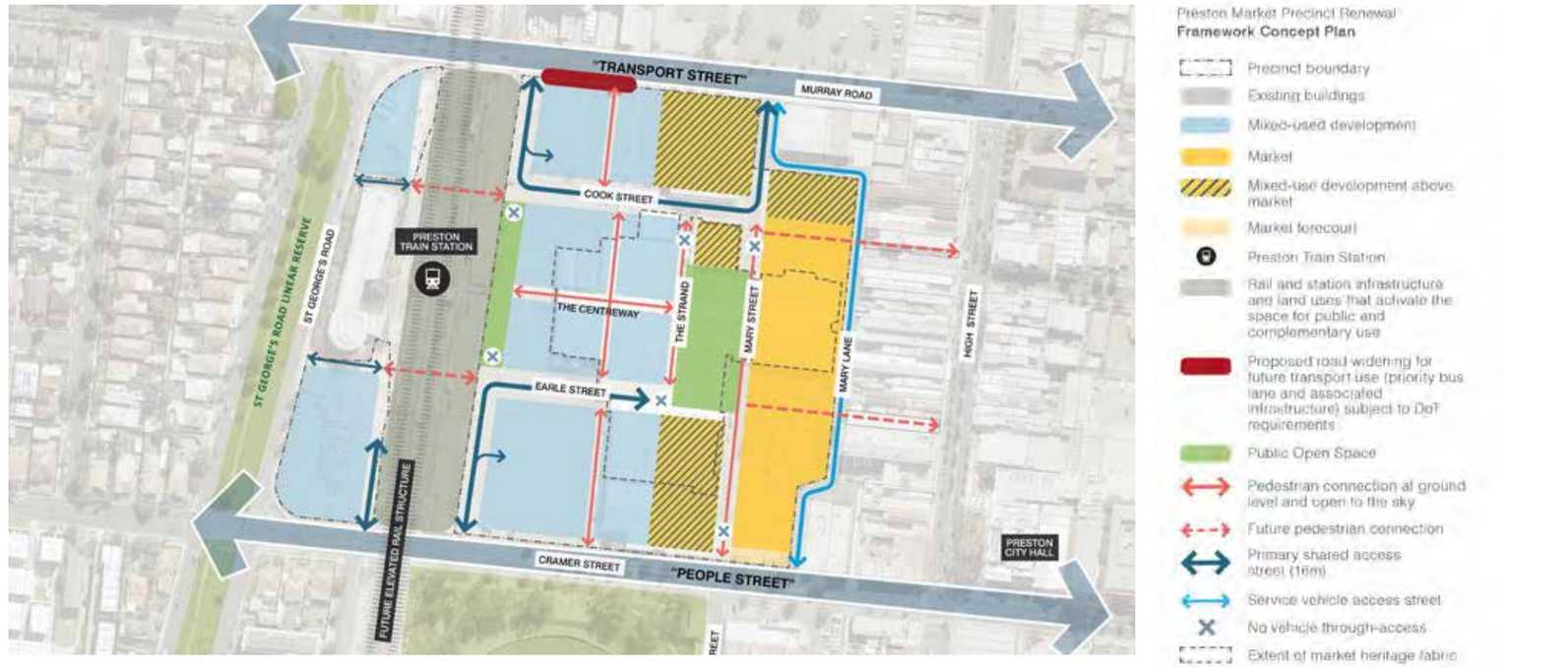
The table below outlines the key changes.

Theme	Key Changes
Market Legacy Connections	The Centreway Link is retained through the site from Mary Street to the Station Forecourt.
Building Heights	Overall significant reduction in heights across the Precinct with a maximum of 14 storeys.
Land Uses and Activation	The location of the Market is located across more ground floor built form elements around the central open space. All ground floor interfaces have been nominated a preferred use to aid holistic precinct activation.
Public Ream	Three distinct public spaces have been identified and defined, each with a specific role and function to support the precinct.
Movement and Access	Movement and access around the precinct has been updated to reflect the updated urban structure and the inclusion of the Centreway.

Concept Framework Plan - Public Consultation May 2021



Concept Framework Plan - Addendum



Part 01 — Overview

Built Form Context & Positioning of the Market

The images below illustrate the existing and emerging development context abutting the Preston Market Precinct site, which reveals a densifying activity centre in a transit-orientated setting. With a strongly defined urban High Street, an upgraded transport corridor and emerging densification of private land holdings in and around the centre, the Market Precinct holds the key to embedding a new urban structure that will strengthen the character of this activity centre for years to come.

Future development within the activity centre will see built form change and densification occur, however the character of the activity centre will continue to be influenced by key features such as civic buildings, High Street, Preston City Oval and the centrality of the Market, with the connections and view lines between them reinforcing the overall urban character and sense of order.

Figure 1 – Planning Scheme Heights

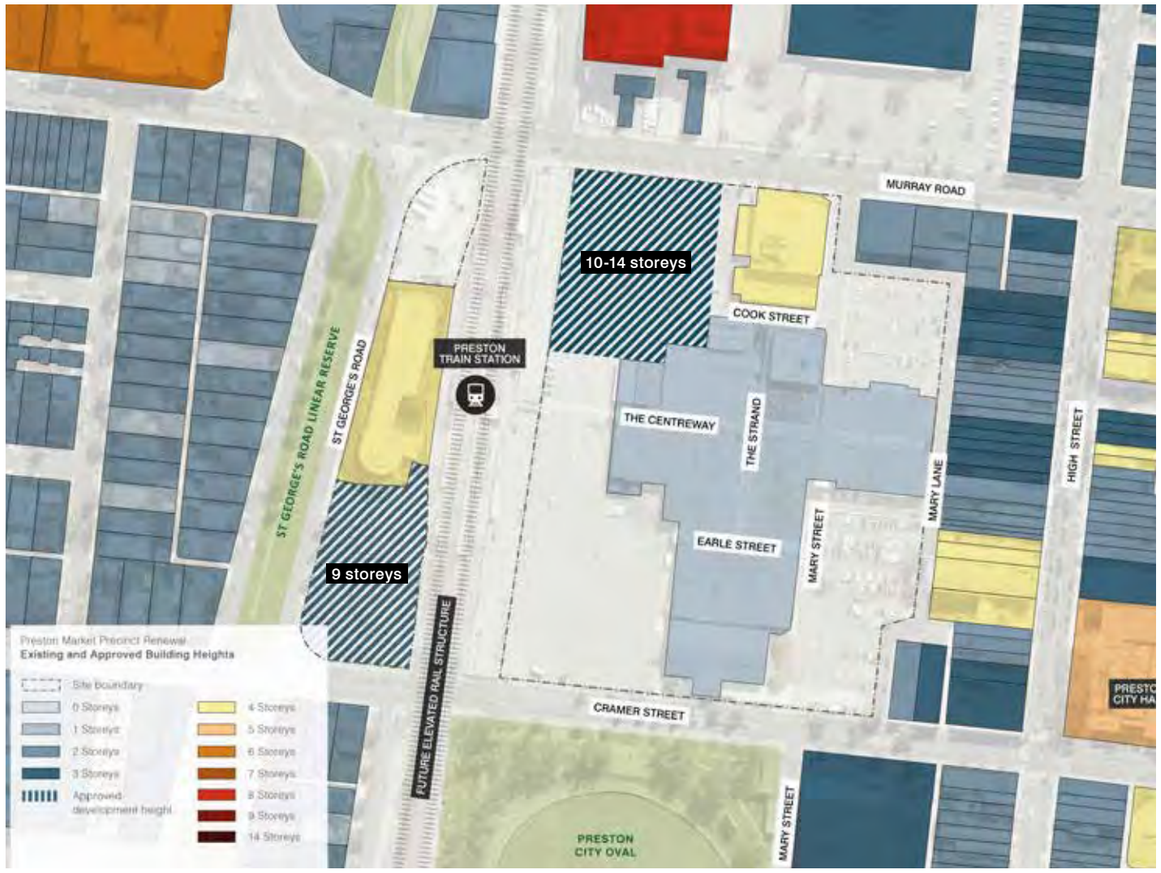


Figure 2 – Existing and approved building heights

Benefits of Proposed Revised Heights

The updated plan with revised building heights will deliver the following:

- density is spread across the site within a clear urban structure reinforcing the centrality and prominence of the Market with the activity centre and maintaining a transition down to the high street's lower scale, compact built form character;
- the taller buildings in the precinct will be limited to small parts of the site in locations, along the northern and western edges of the Precinct along major transit corridors, and away from existing and proposed open spaces;
- the majority of the site will become 4-14 storeys, in context with the emerging character of development applications in Preston's activity centre; and
- A consolidated area of public open space located centrally within the precinct with greater access to sunlight and direct frontage to the market.

Work to Date

Built Form and Design Plan (May 2021 Public Consultation version)

Focus of this Addendum

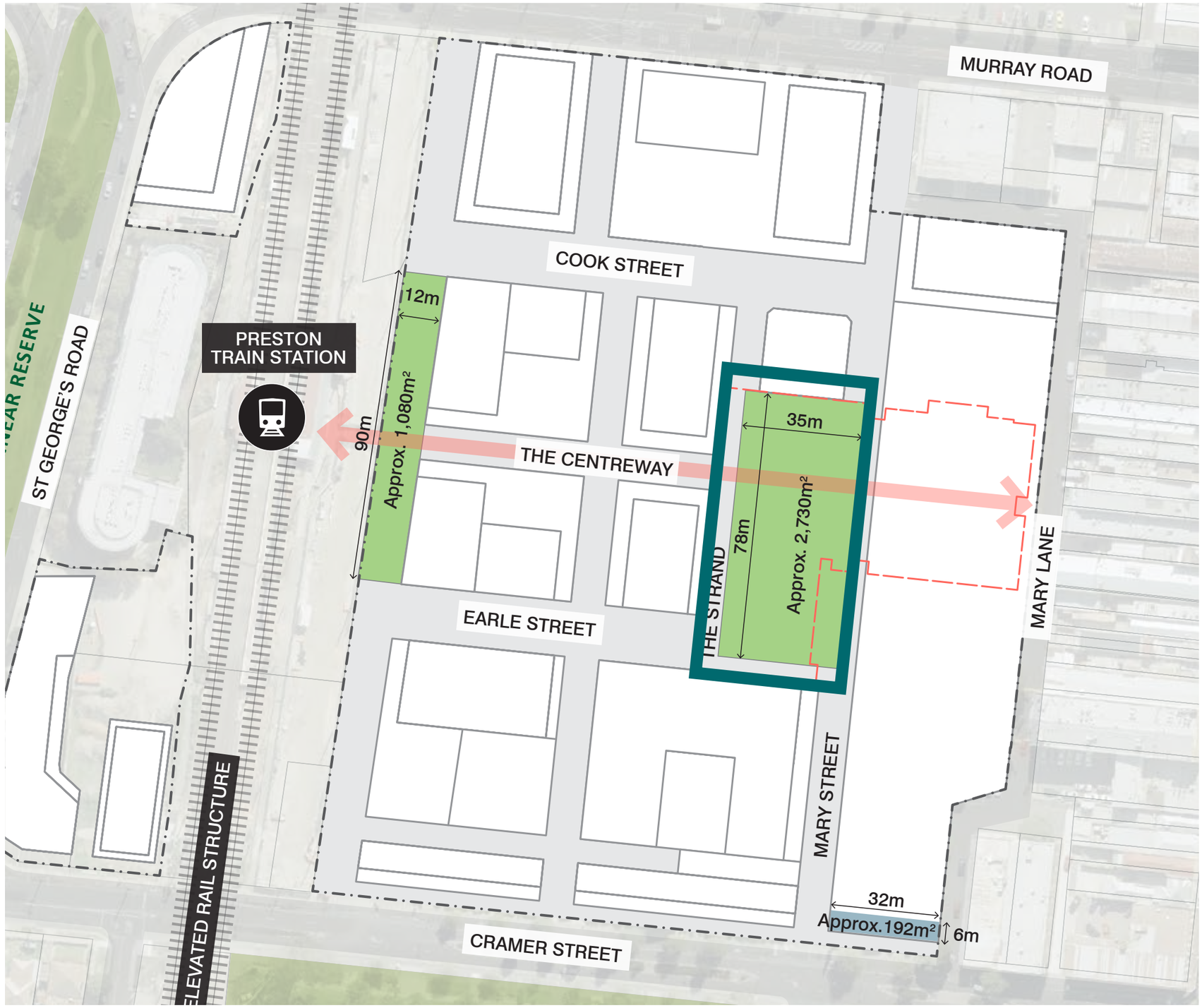
Part 02.
Open Space Reconfiguration

Part 02 — Open Space Reconfiguration

Central Open Space: Overview

As part of the Precinct's framework design process, a new rectangular central open space is proposed to deliver better urban design outcomes, which include:

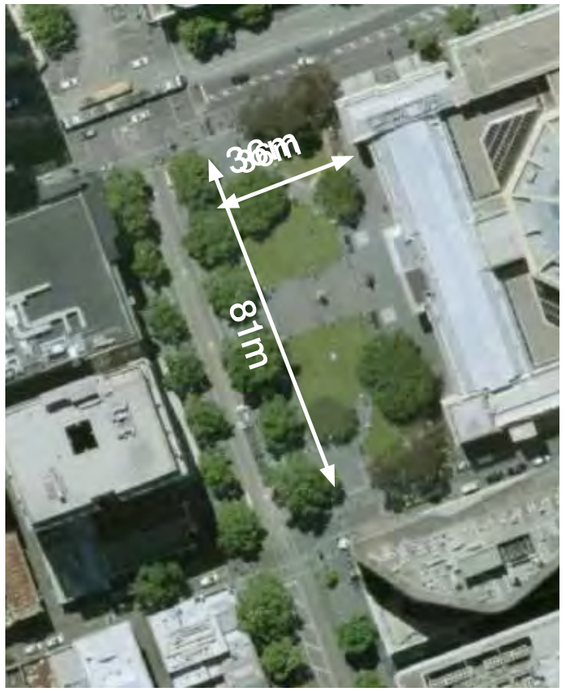
- Defining its purpose to provide for social gathering whilst supporting the retail and social functions of the new Market – this shape and orientation more suitably supports and achieves this by framing the open space to the Market's building form, providing more prominence to the main market building.
- The opportunity for future preservation of legacy features of the existing market site (as appropriate at detailed design), which could use existing market building / memory to define new spaces and potentially frame part of the open space and provide connection to the new market building form, old to new. The Preston Market Heritage Interpretation Strategy (Lookear, 2020) can further substantiate this commentary.
- The rectangular shape of the open space has greater potential to support retail activity along the edges, not being too distant from each other, i.e. they can face each other across the park and still feel like they support one another.
- This layout supports additional retention of the historic linkages of the market using pathways / aisles to define the edges of the space. The existing market connections can be retained in their current form as other legacy elements, with the preservation of The Centreway (east-west connection), the existing central north-south aisle defines the western boundary of the park, whilst Mary Lane continues to define the east boundary, and the southern boundary is also aligned along an existing aisle.
- The opportunity to better promote and support the use and function of Mary Street along more of its length as an 'eat street'.
- Finally this structure supports the desire lines through the open space to key connections through to High Street.



Central Open Space: Precedents

State Library of Victoria
Melbourne, VIC

Approx. Area 2,916m^2



Harmony Square
Dandenong, VIC

Approx. Area 3,340m^2

Darling Square
Sydney, NSW

Approx. Area 2,475m^2

Yagan Square
Perth, WA

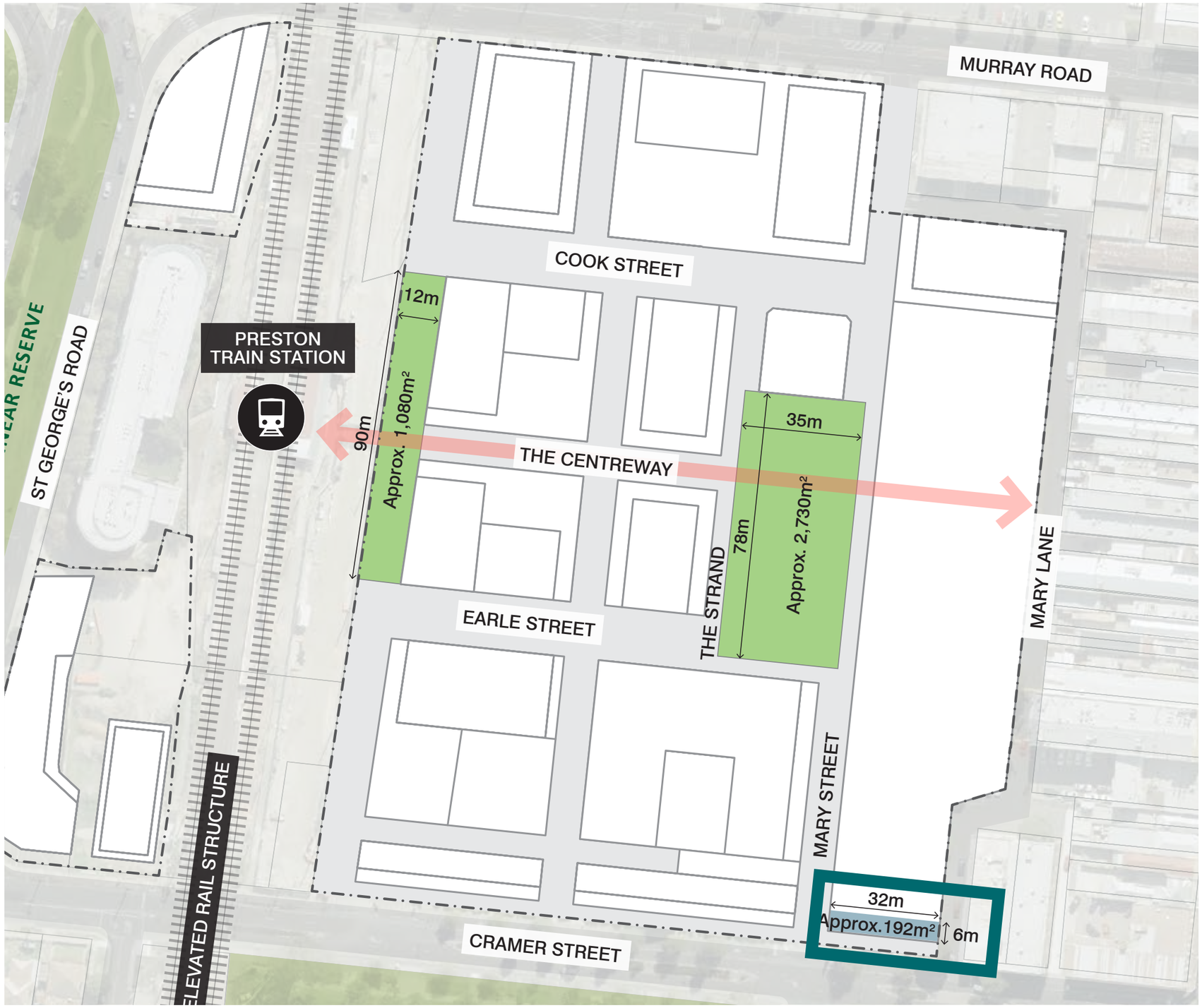
Approx. Area 2,108m^2

Part 02 — Open Space Reconfiguration

Market Forecourt Space: Overview

The configuration of the market forecourt space in a rectangular form fronting Cramer Street can provide positive urban design outcomes, which include:

- A primary spatial component of an overall wayfinding and movement system through the whole precinct.
- It marks a key threshold and point of arrival to the Market from the south on the 'people' focussed Cramer Street.
- Provides a visible 'front door' and additional public realm space on the street for patrons to meet, gather and linger upon entering or exiting the Market.
- Forecourt space can be adapted to provide hard-scaped landscaping to frame its entry.
- This forecourt space also marks the start of Mary Street (pedestrian only street), to the south of the precinct.
- The location of this space on Cramer Street will also improve visibility and accessibility to and from the Preston City Oval.



Market Forecourt Space: Precedents

Queen Victoria Market
Melbourne, VIC

Approx. Area 300m²

The Rocks Markets
Sydney, NSW

Approx. Area 208m²

Brisbane City Market
Brisbane, QLD

Approx. Area 1,050m²

Malmo Market Hall
Sweden

Approx. Area 72m²

Adelaide Central Market
Adelaide, SA

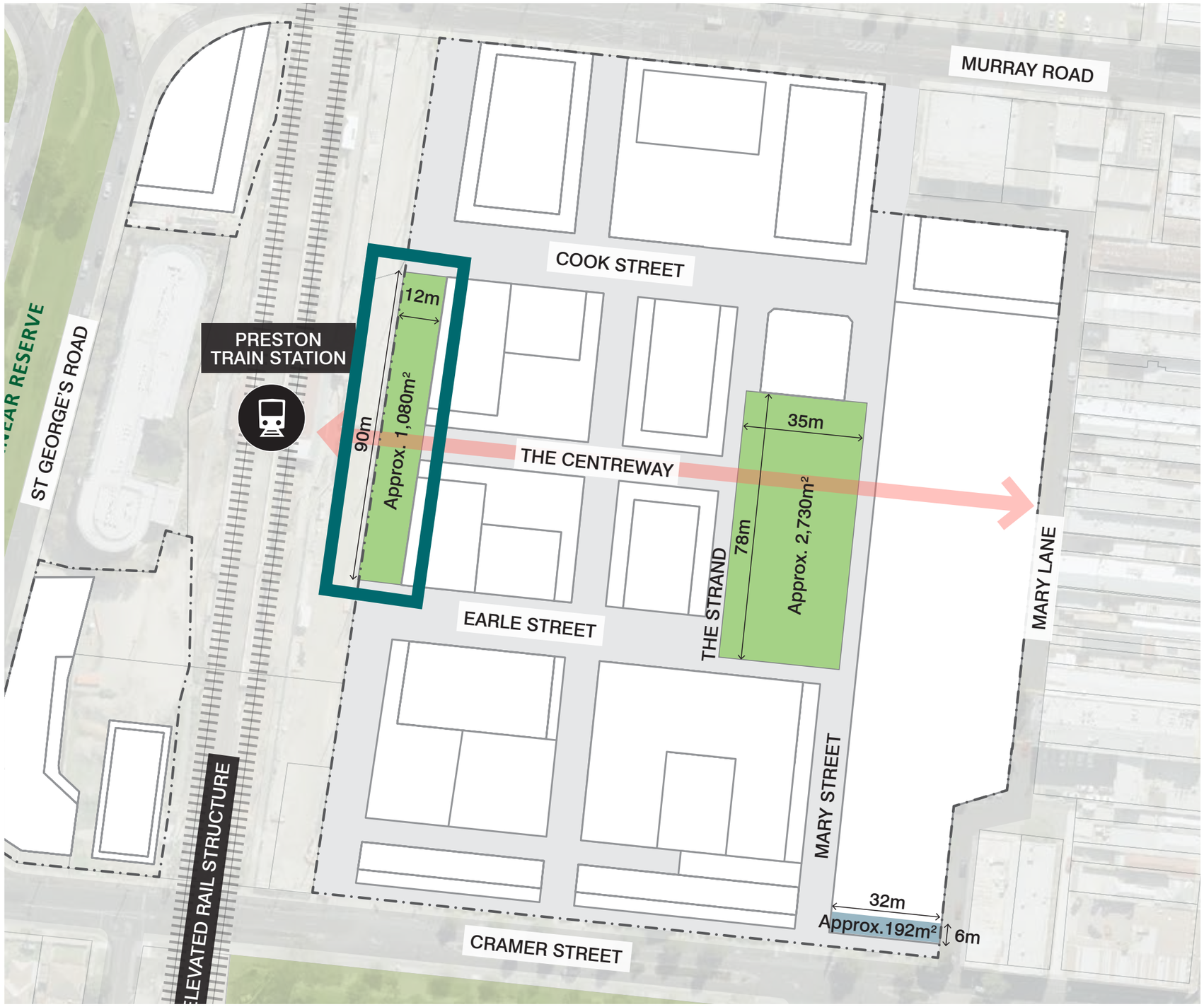
Approx. Area 100m²

Part 02 — Open Space Reconfiguration

Station Interface Space: Overview

The configuration of the Station forecourt space next to the Station environs in the east, can provide positive urban design outcomes, which include:

- A primary threshold / arrival space from the Station environs, it will provide a ‘front door’ into the precinct from the west, onto the people focussed Centreway, or to move north to Murray Road and buses, or south to Cramer Street and the Preston City Oval.
- An important spatial component of the overall public realm, which transitions from the Station environs into the Precinct, providing public realm for patrons to meet, gather and linger upon entering or exiting.
- This public realm space could be configured to be hard or soft-scaped and integrated with the Station environs landscape design, which may include kiosks and ticketing spaces under the railway corridor.
- The interface of this space with the future elevated rail environment will change the way the community uses and moves around the rail corridor, for greater permeability and public realm outcomes such as a passive open spaces which can contribute to the local environment.



Station Interface Space: Precedents

Carnegie Station
Melbourne, VIC

Approx. Area 1,260m²


Clayton Urban Park
Melbourne, VIC

Approx. Area 2,665m²


Coburg Station
Melbourne, VIC

Approx. Area 4,180m²


Moreland Station
Melbourne, VIC

Approx. Area 11,510m²


Carrum Station
Melbourne, VIC

Approx. Area 1,008m²


Part 03.
Framework Assessment

Part 03 — Framework Assessment

Sunlight Access Overview

Throughout the stakeholder and community engagement processes, overshadowing has been consistently identified as a key concern. This was particularly evident with the proposal of a central green public open space and its location next to the realignment of the Market to the east of the site. In response to this concern, further design development has been undertaken with additional shadow analysis, to illustrate the appropriate location for taller built form across the precinct and where buildings should transition down to key streets and interfaces, to result in improved access to sunlight.

The impacts are discussed below in two separate parts: the central public space; and the Precinct's internal streets.

It should be noted that the Winter Solstice is the measure that is used in this Addendum to determine overshadowing impacts, to gain an understanding of the potential impact when shadows are at their longest and most impactful.

The diagrams on the following page illustrate the design update with shadows cast each hour, from 10am through to 3pm, against the following overshadowing parameters to ensure:

- a minimum of 50% sunlight access to the central public open space between 11am and 2pm at the Winter Solstice (21st June); and
- that Preston City Oval public open space is fully protected from overshadowing from 11am to 2pm.

This shadow model used illustrates:

- *heights modelled to illustrate the precinct heights plan;*
- *maximum capacity built form envelopes;*
- *varied street wall heights of 3 or 4 storeys (9-12 metres);*
- *heights modelled based on 3m per upper level;*
- *does not depict 'real buildings' and does not account for other design requirements;*
- *is created on a 'flat land base' (considered sufficient for strategic planning purposes given that topography across the Precinct has minimal variance).*

Central Public Space

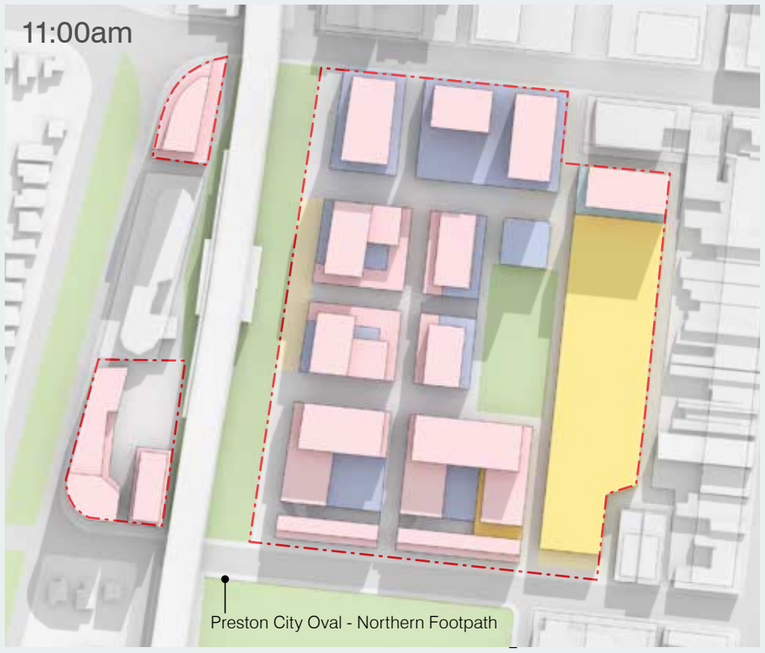
The overshadowing analysis plan illustrates the impact of shadows cast from built form within the site from 10am, each hour to 3pm, over the central open space:

- At 10am the south-west corner of the open space is accessible to sunlight.
- 11am to 2pm the impacts of shade from buildings are reasonable, with partial shading and meet the requirement of a minimum of 50% sunlight access.
- From 2pm onward the shadow impacts become more prolonged with the entirety of the open space in shade by 3pm.

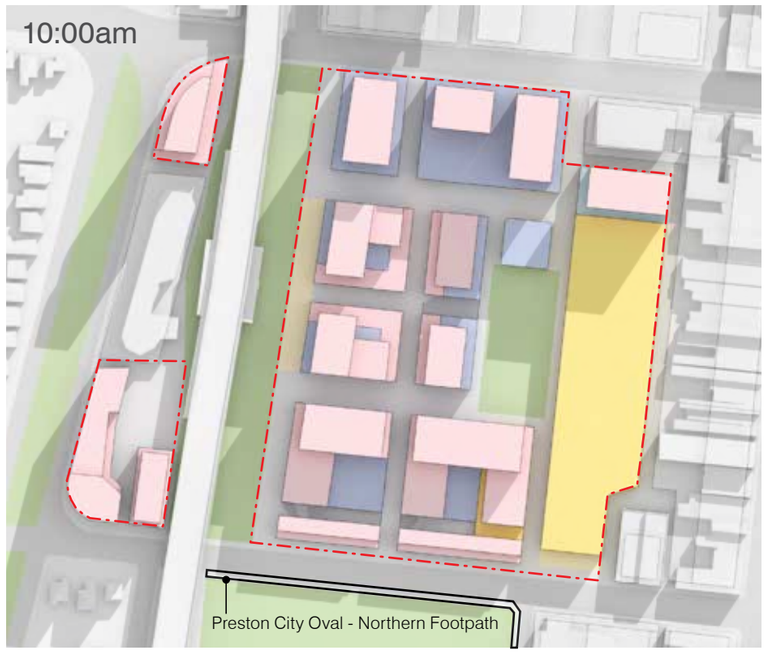
Preston City Oval

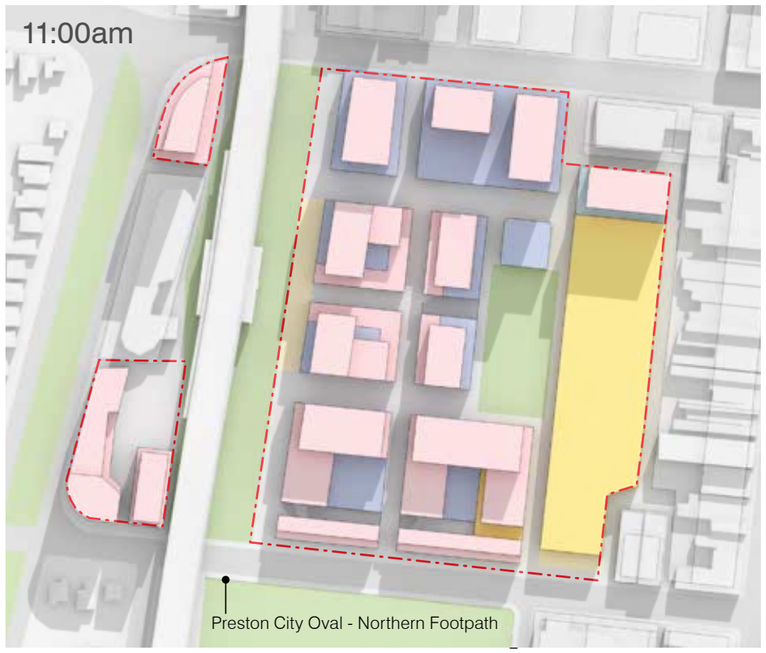
The overshadowing analysis plan illustrates the impact of shadows cast from built form within the site from 10am, each hour to 3pm, over Cramer Street and the Preston City Oval.

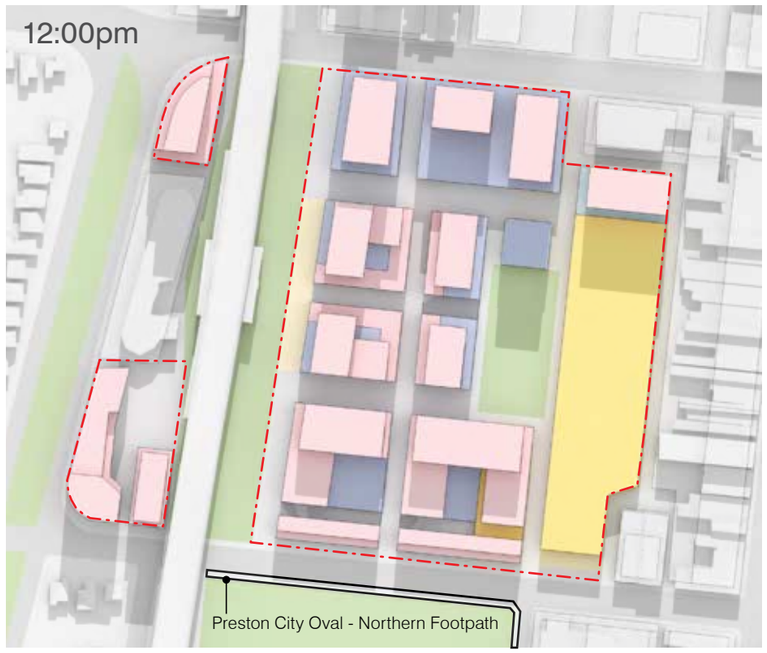
- The capping of built form along Cramer Street at a maximum of 4 storeys, with a 3-storey street wall means that no overshadowing from built form within the Precinct will impact the Preston City Oval public open space between 11am and 2pm.



Solar Analysis: Winter Solstice - June 21st







Solar Analysis: Winter Solstice - June 21st

Proposed Solar Access Outcomes

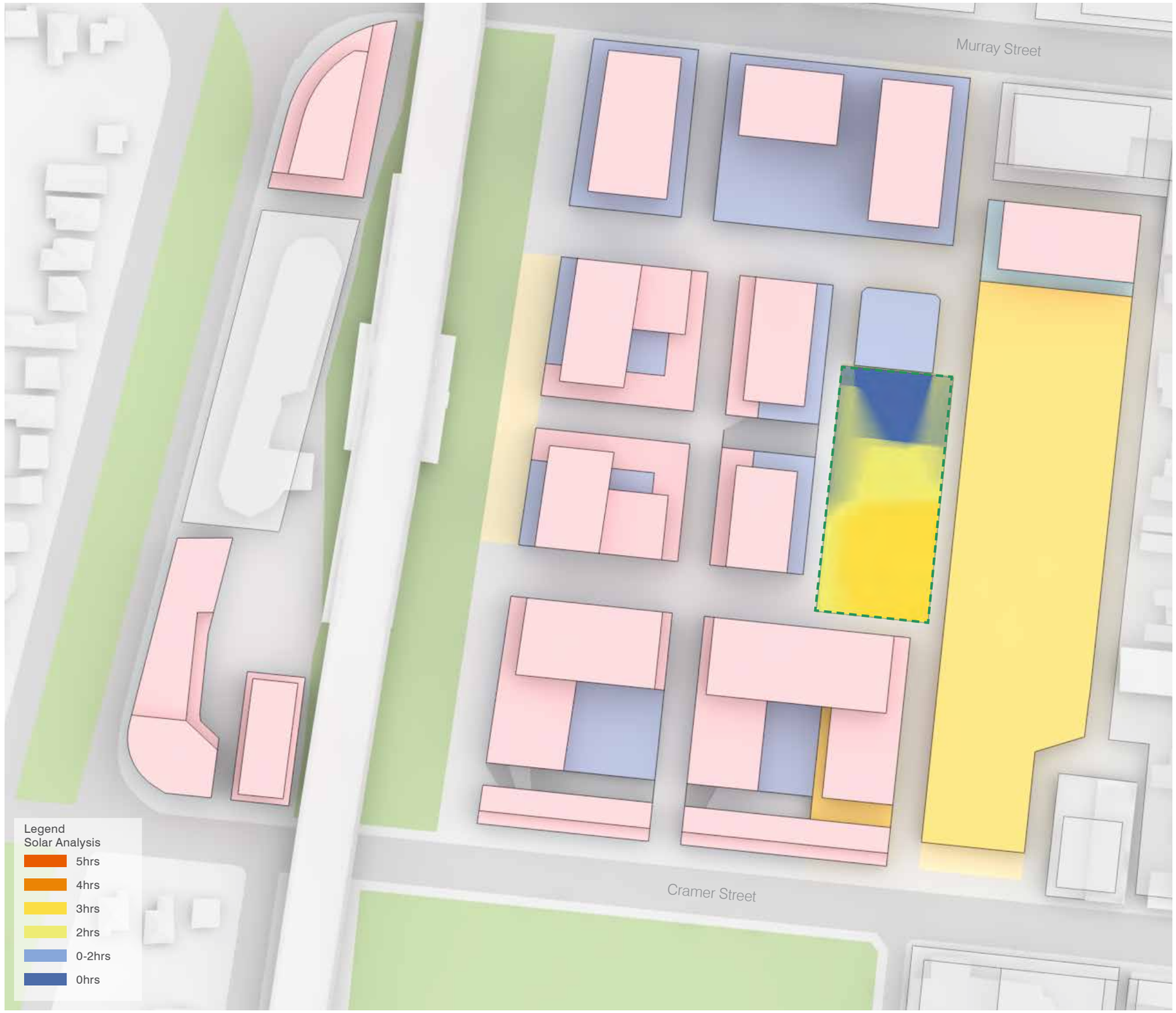
- Minimum of 50% of the main open space area is protected from overshadowing at the winter solstice between the hours of 11am and 2pm.
- 100% protection of the Preston City Oval public open space from overshadowing at the winter solstice between the hours of 11am and 2pm.

Solar Analysis Performance Summary

The area in sunlight does not dip below 50% between the hours of 11am and 2pm.

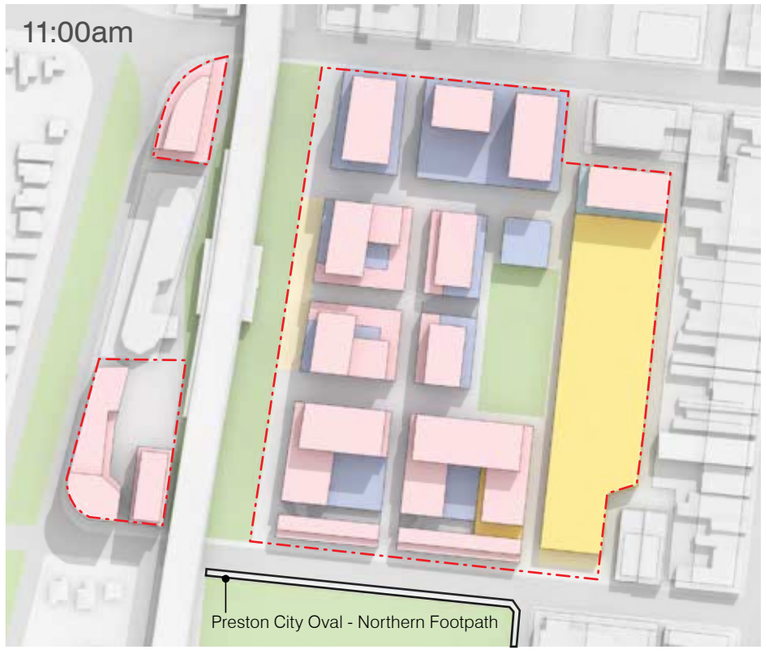
Testing period	Proposed Open Space, Area in sunlight for testing period (%)
10:00 am	28.4 (not part of proposed outcomes)
11:00 am	62.2
12:00 pm	63.4
1:00 pm	67.7
2:00 pm	50.2

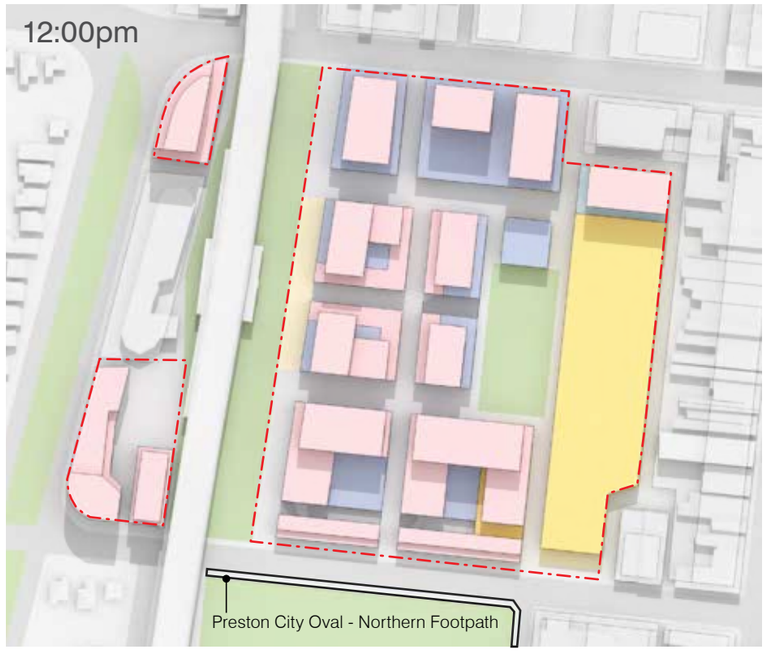
Note: 10:00am is included for information only and does not form a part of the proposed outcomes or graphic to the right.



Plan View of Solar Analysis (11:00am - 2:00pm) of Central Open Space (NTS)

Solar Analysis: Equinox - September 21st





Solar Analysis: Equinox - September 21st

Proposed Solar Access Outcomes

- The minimum percentage of protected open space area at the winter solstice remains as the baseline outcome for the proposed open space.
- Minimum of 50% of the main open space area is protected from overshadowing at the winter solstice between the hours of 11am and 2pm.
- 100% protection of the Preston City Oval public open space from overshadowing at the winter solstice between the hours of 11am and 2pm.

The diagram on this page demonstrates how much better the open space performs at the spring equinox.

Solar Analysis Performance Summary

The area in sunlight does not dip below 75% between the hours of 11am and 2pm.

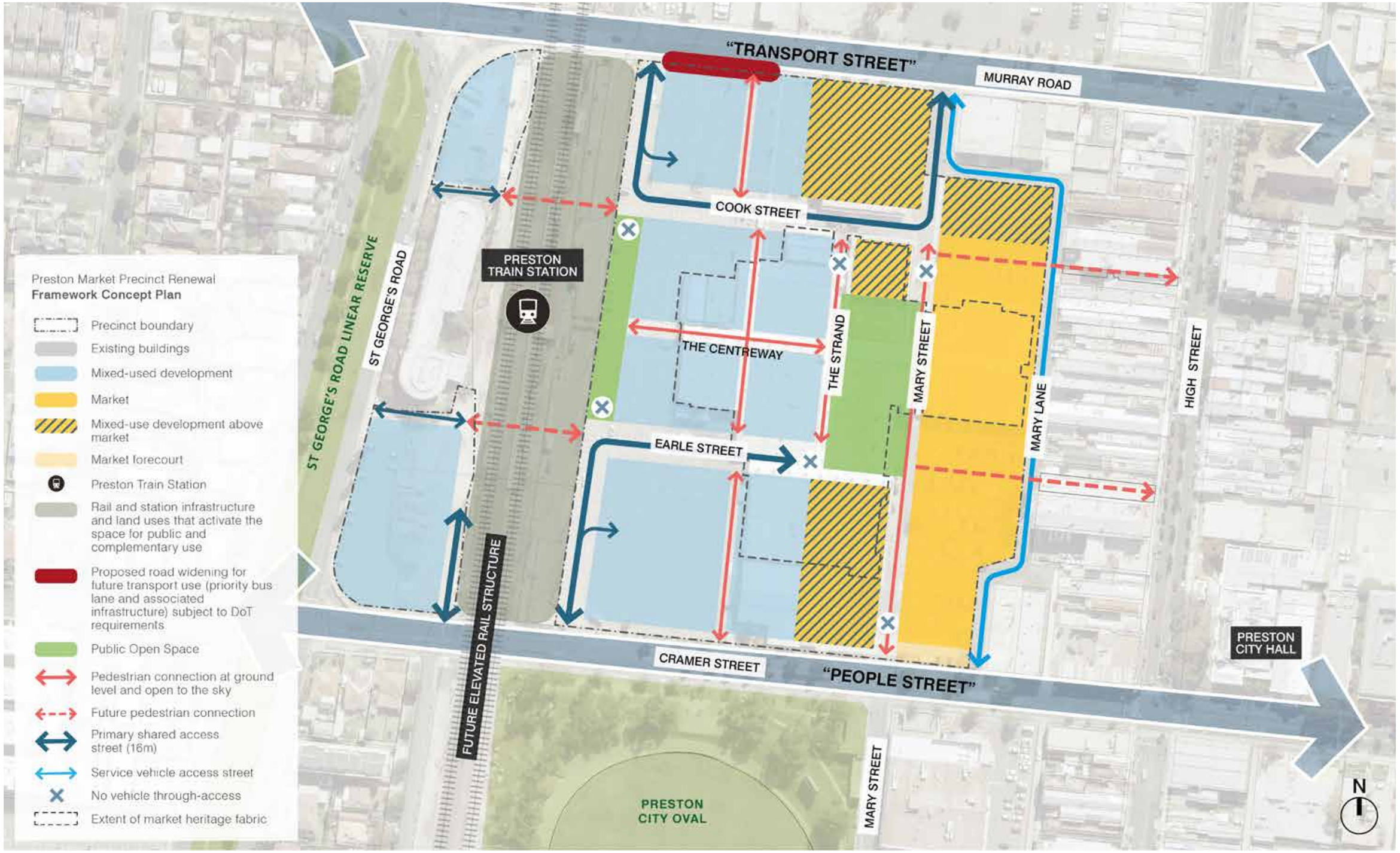
Testing period	Proposed Open Space, Area in sunlight for testing period (%)
10:00 am	80.6 (not part of proposed outcomes)
11:00 am	90.2
12:00 pm	91.4
1:00 pm	91.3
2:00 pm	75.5

Note: 10:00am is included for information only and does not form a part of the proposed outcomes or graphic to the right.

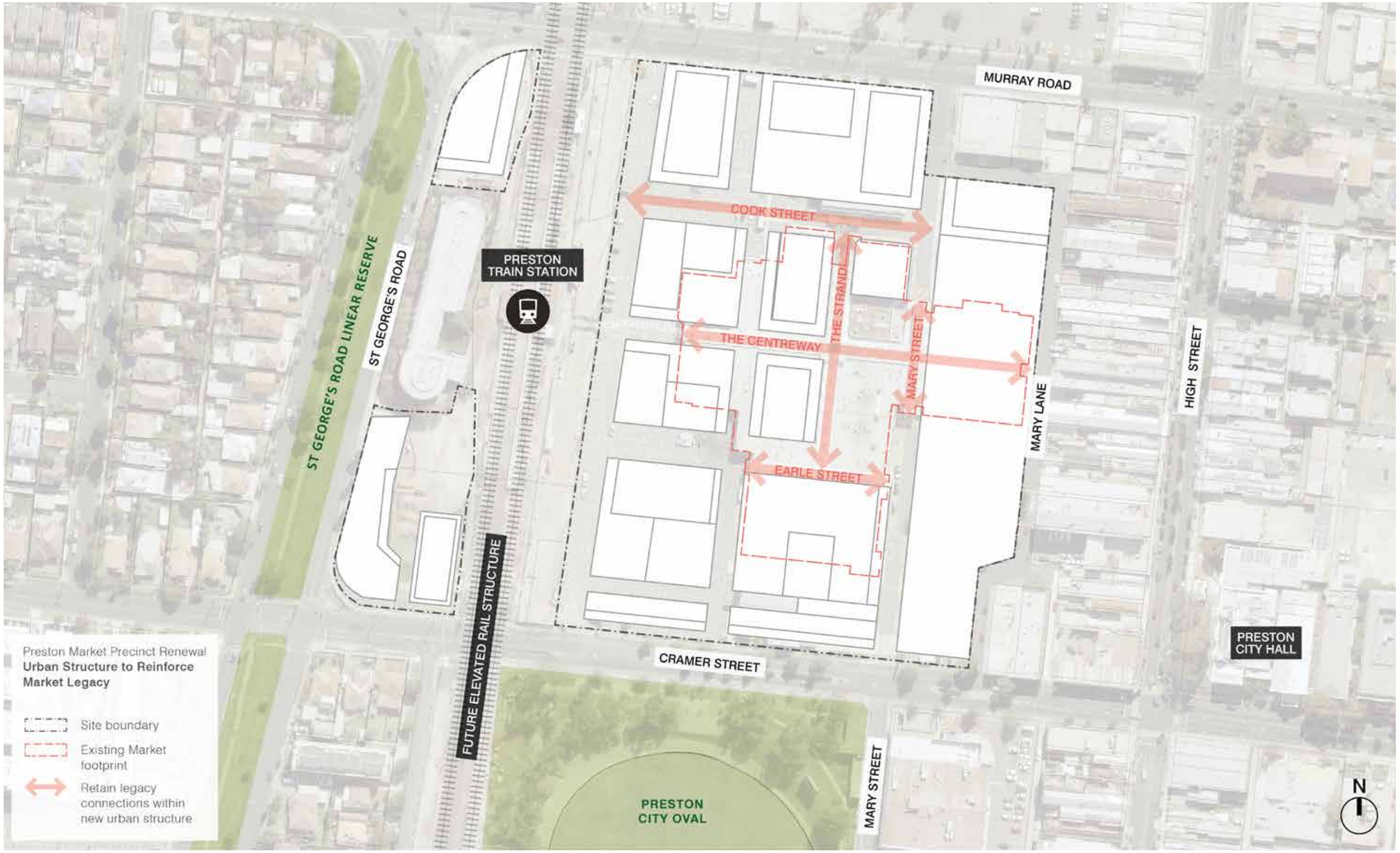
Plan View of Solar Analysis (11:00am - 2:00pm) of Central Open Space (NTS)

Part 04.
Framework Plans and Sections

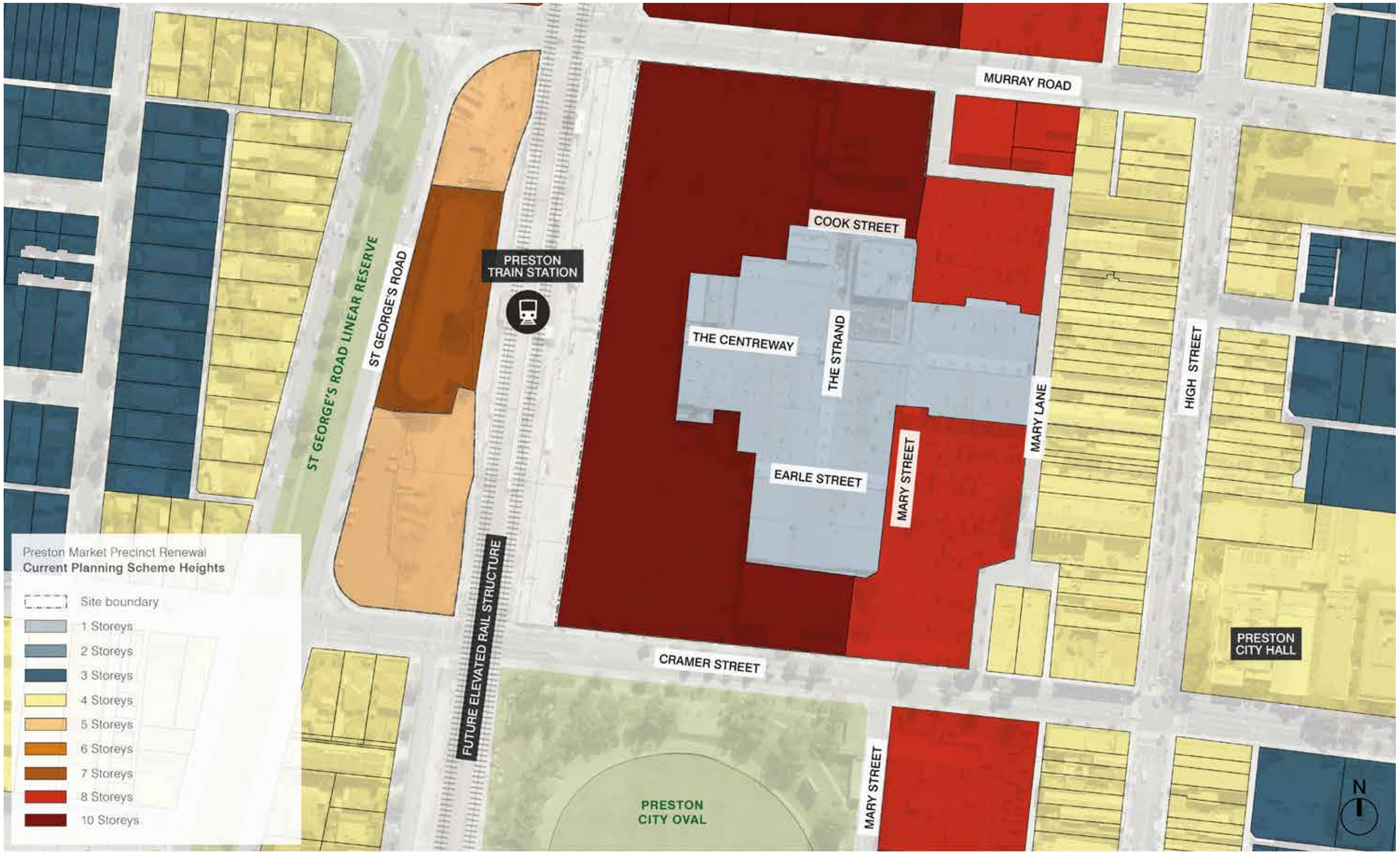
Concept Framework Plan



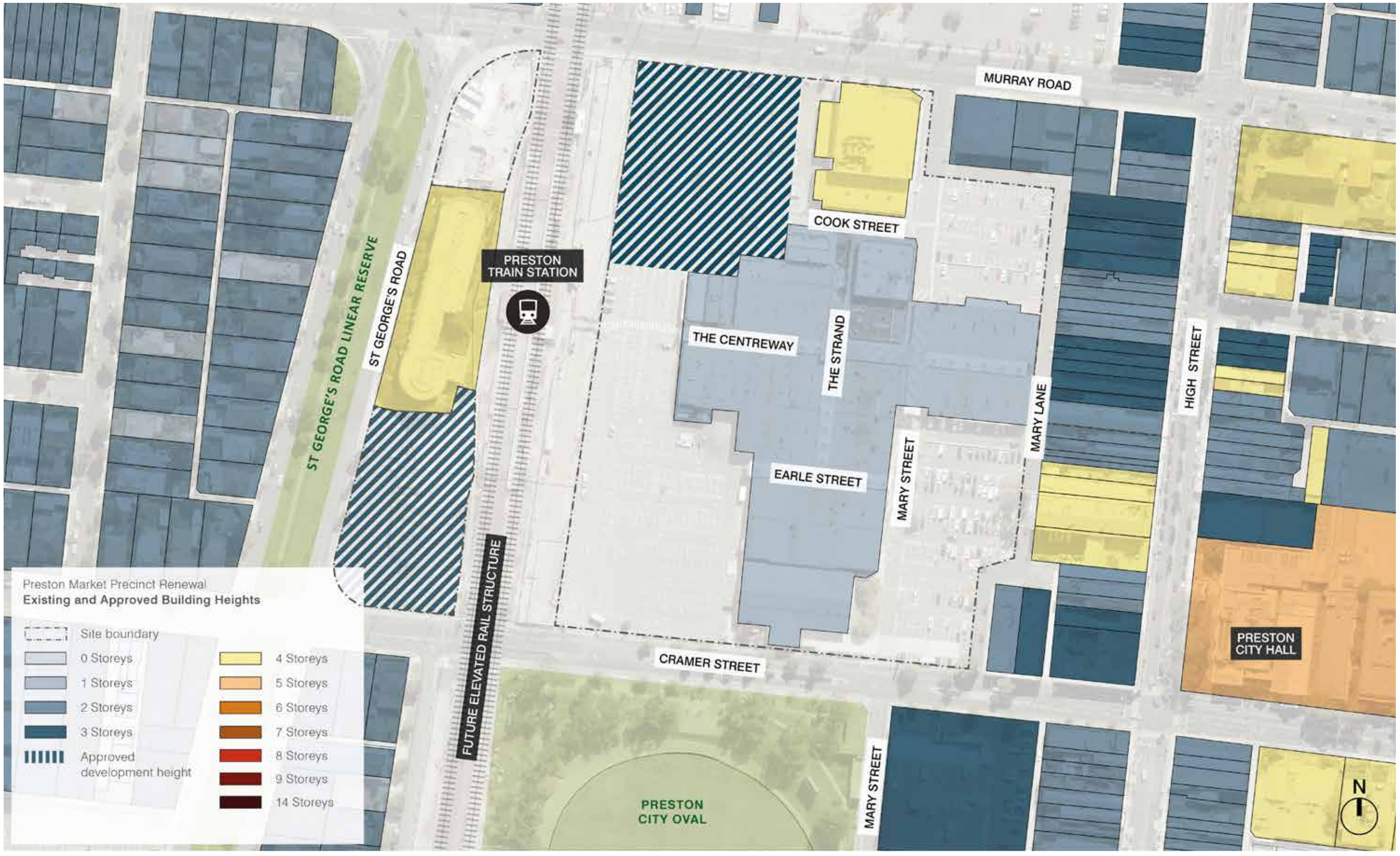
Market Legacy Connections



Building Heights: Current Planning Scheme Heights

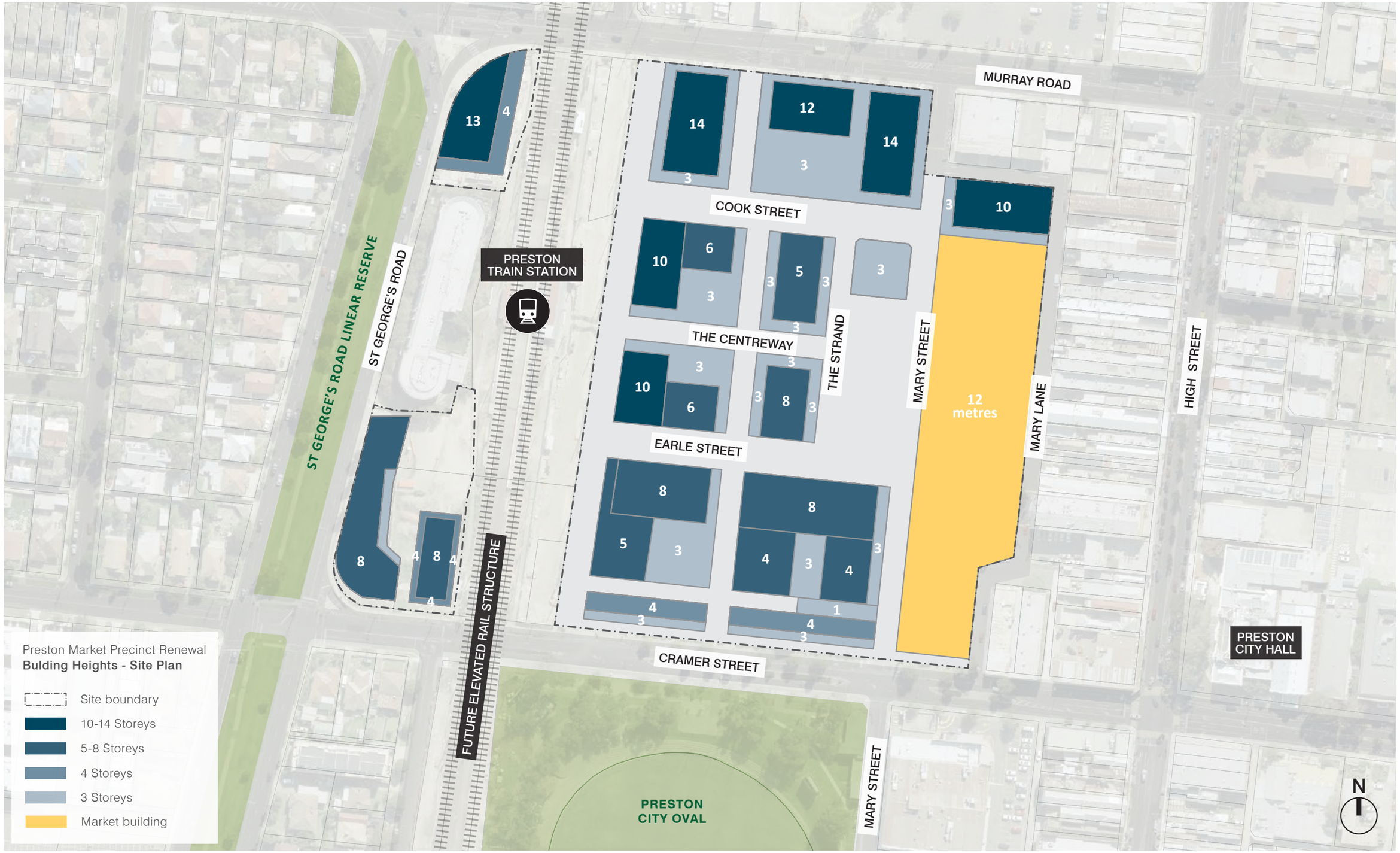


Building Heights: Existing and Approved Building Heights

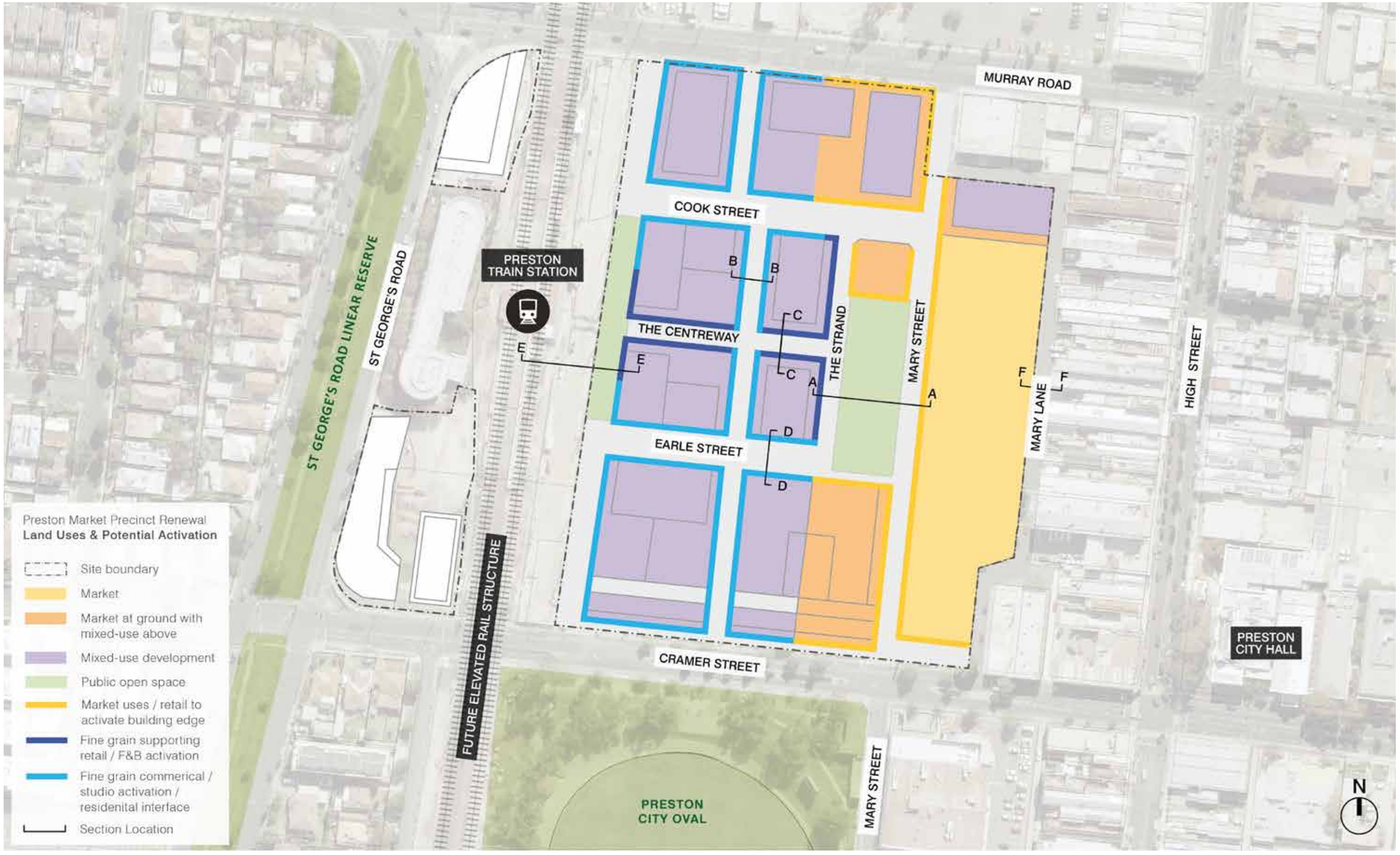


Building Heights: Proposed Framework Plan

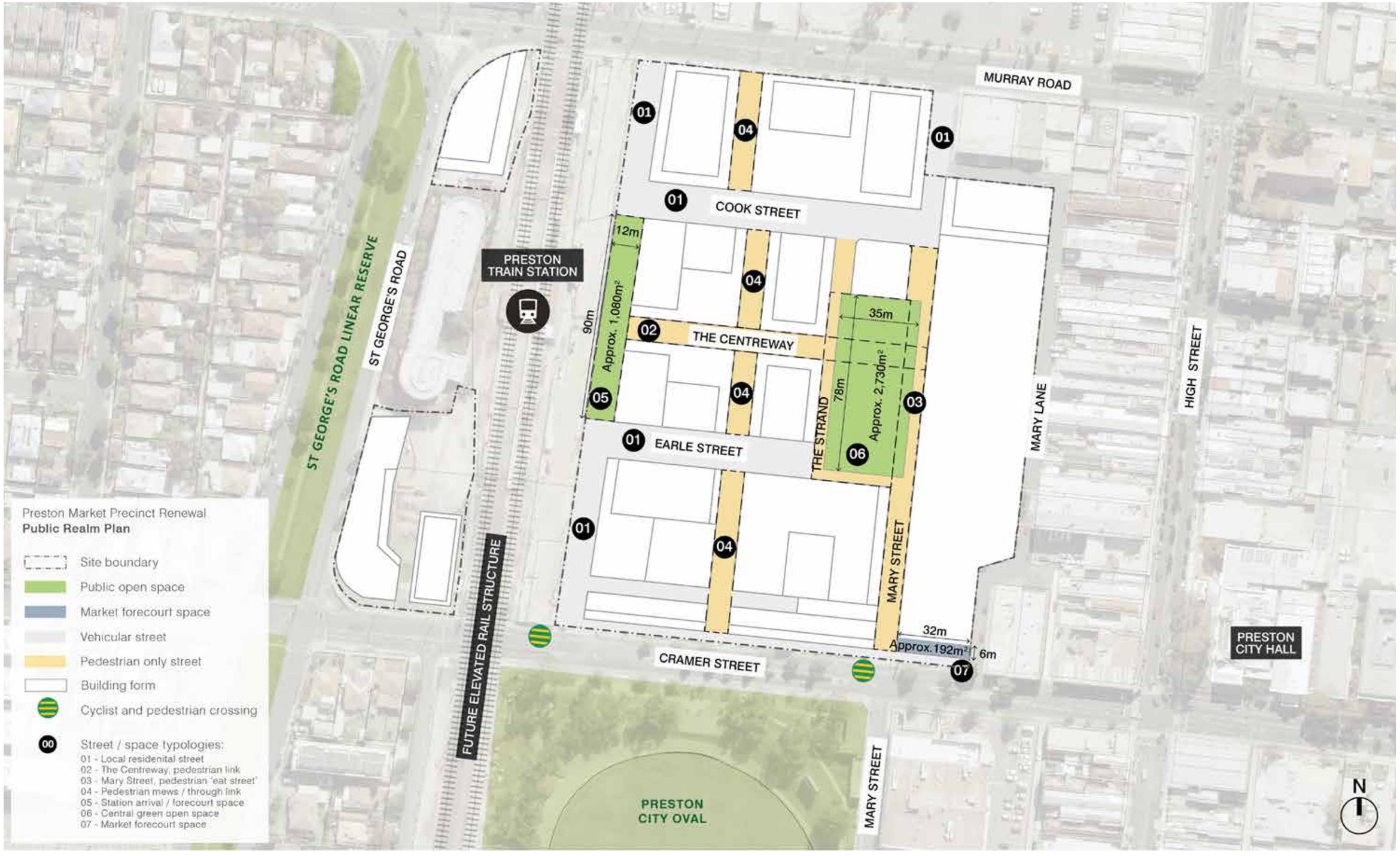
Building Heights: Potential Built Form Outcome



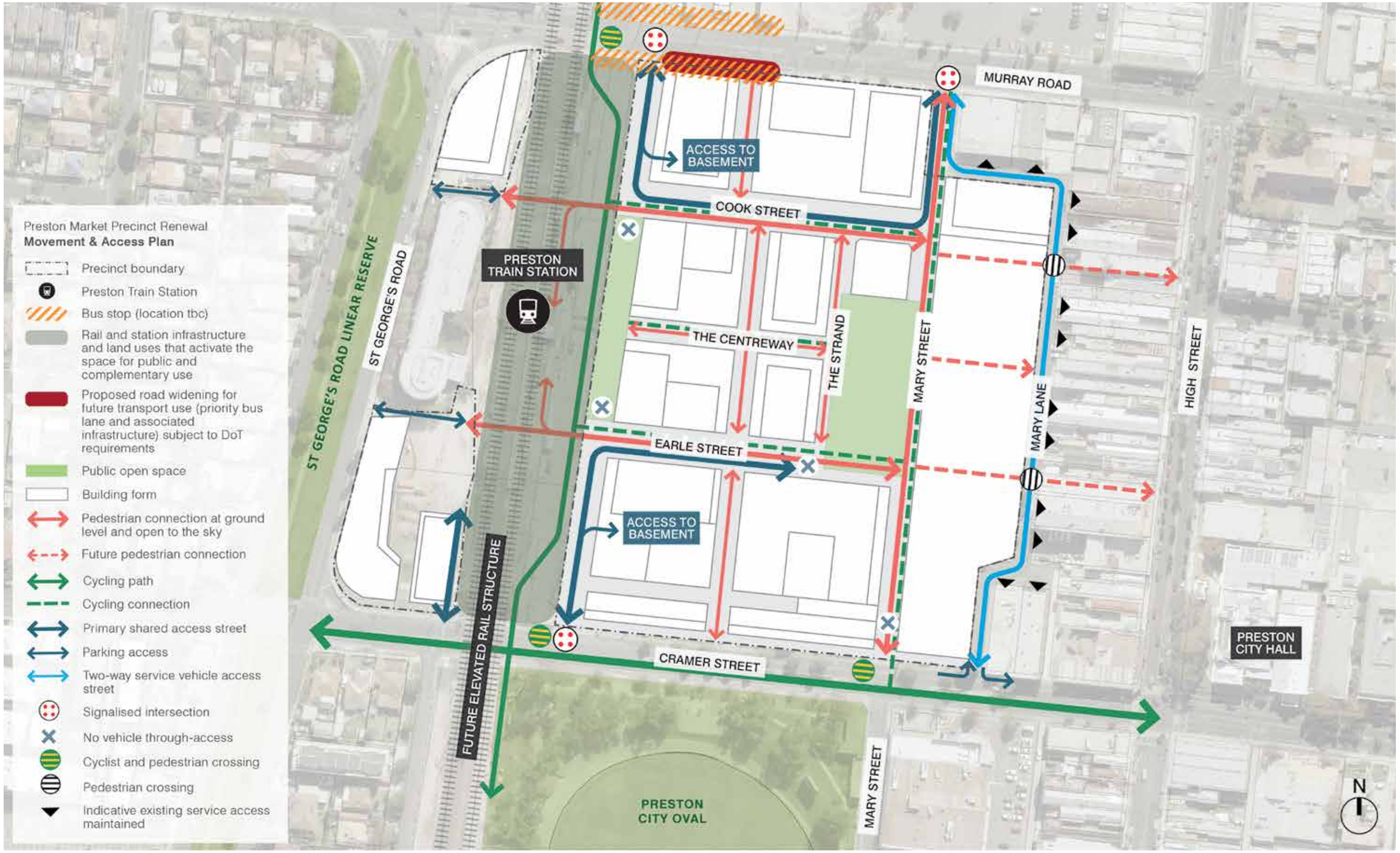
Land Uses and Activation Plan



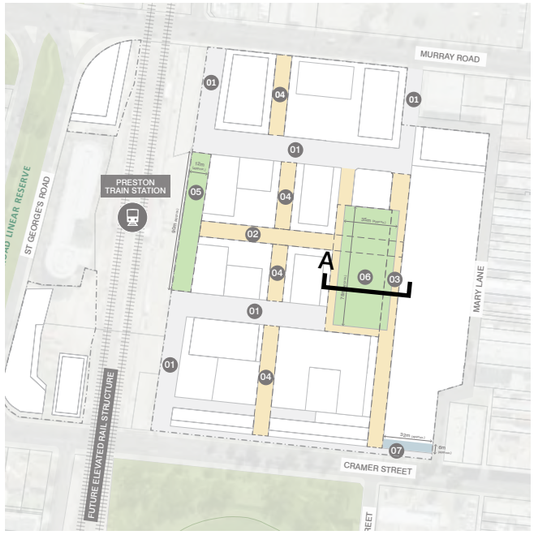
Public Realm Plan



Movement and Access Plan

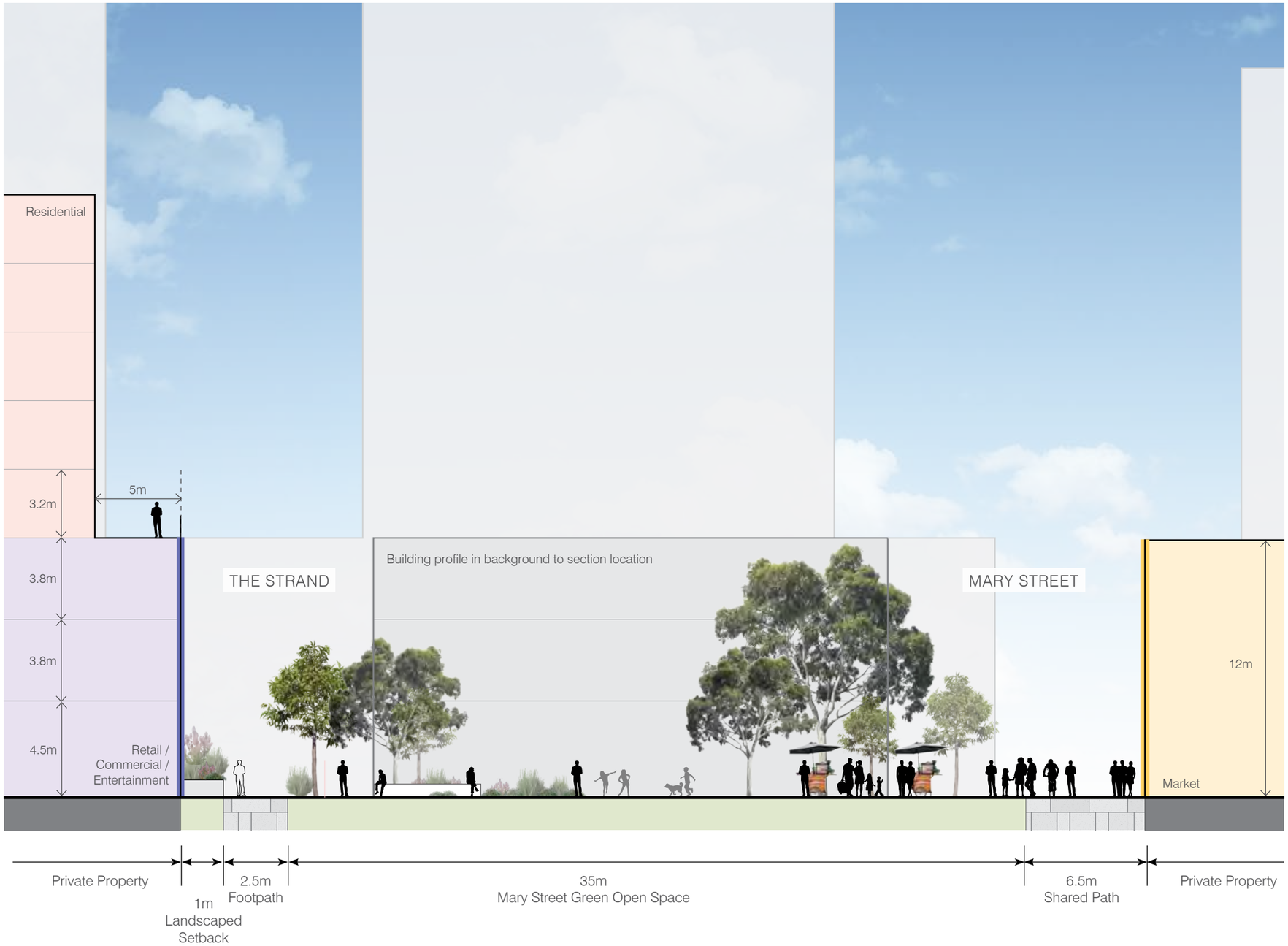


Section A: Mary Street Open Space

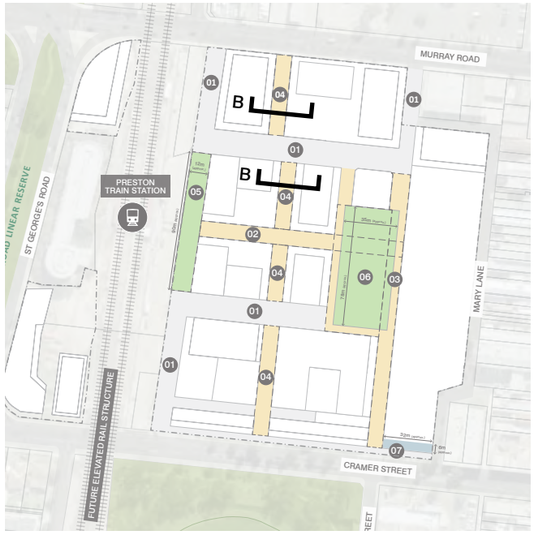


Market uses / retail to activate building edge

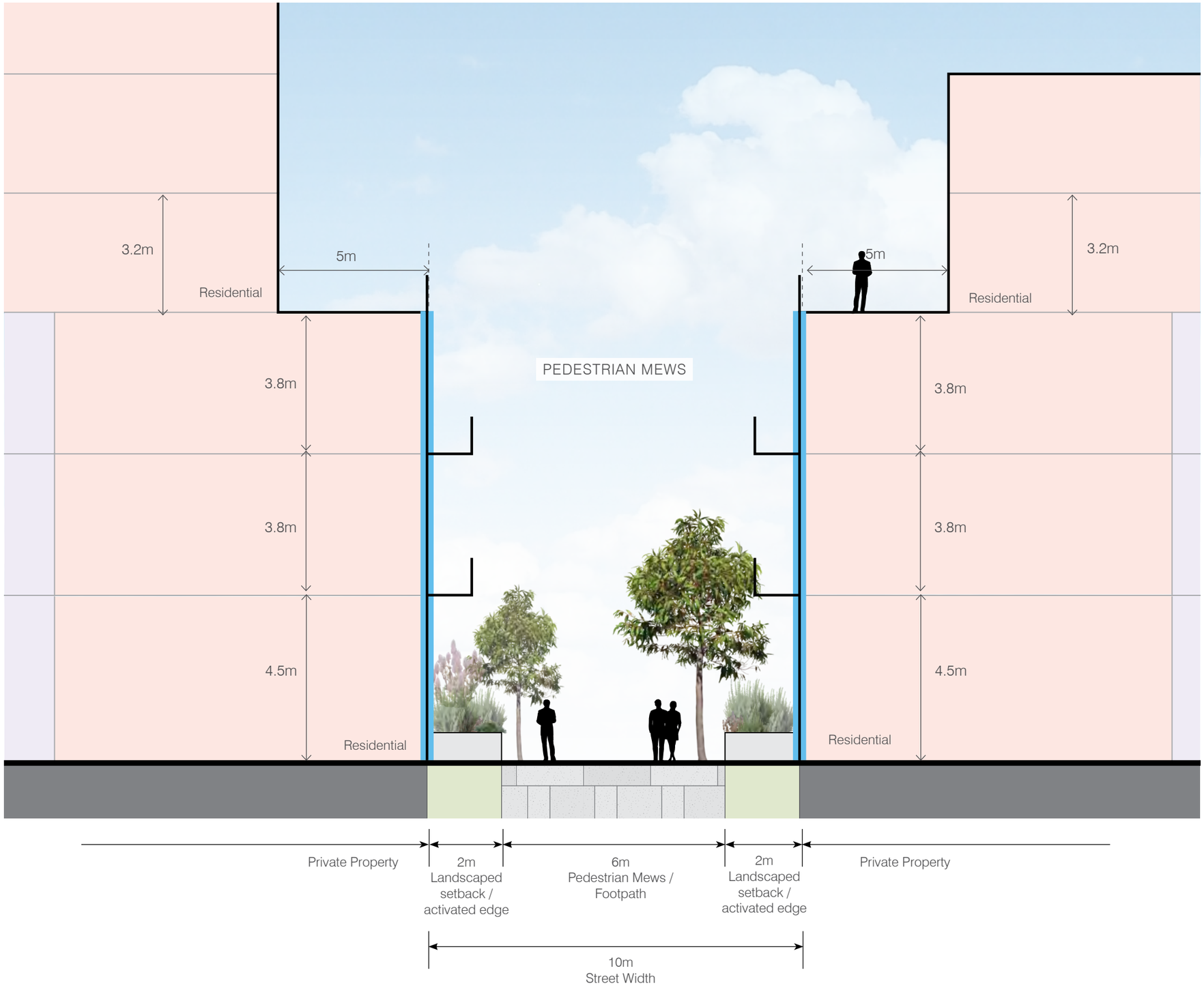
Fine grain supporting retail / F&B activation



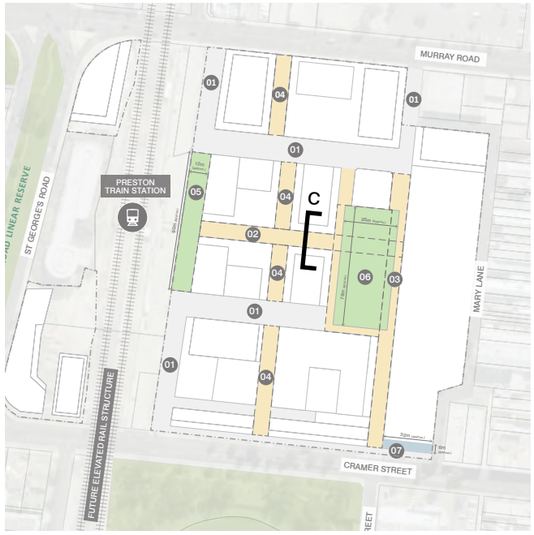
Section B: Pedestrian Mews



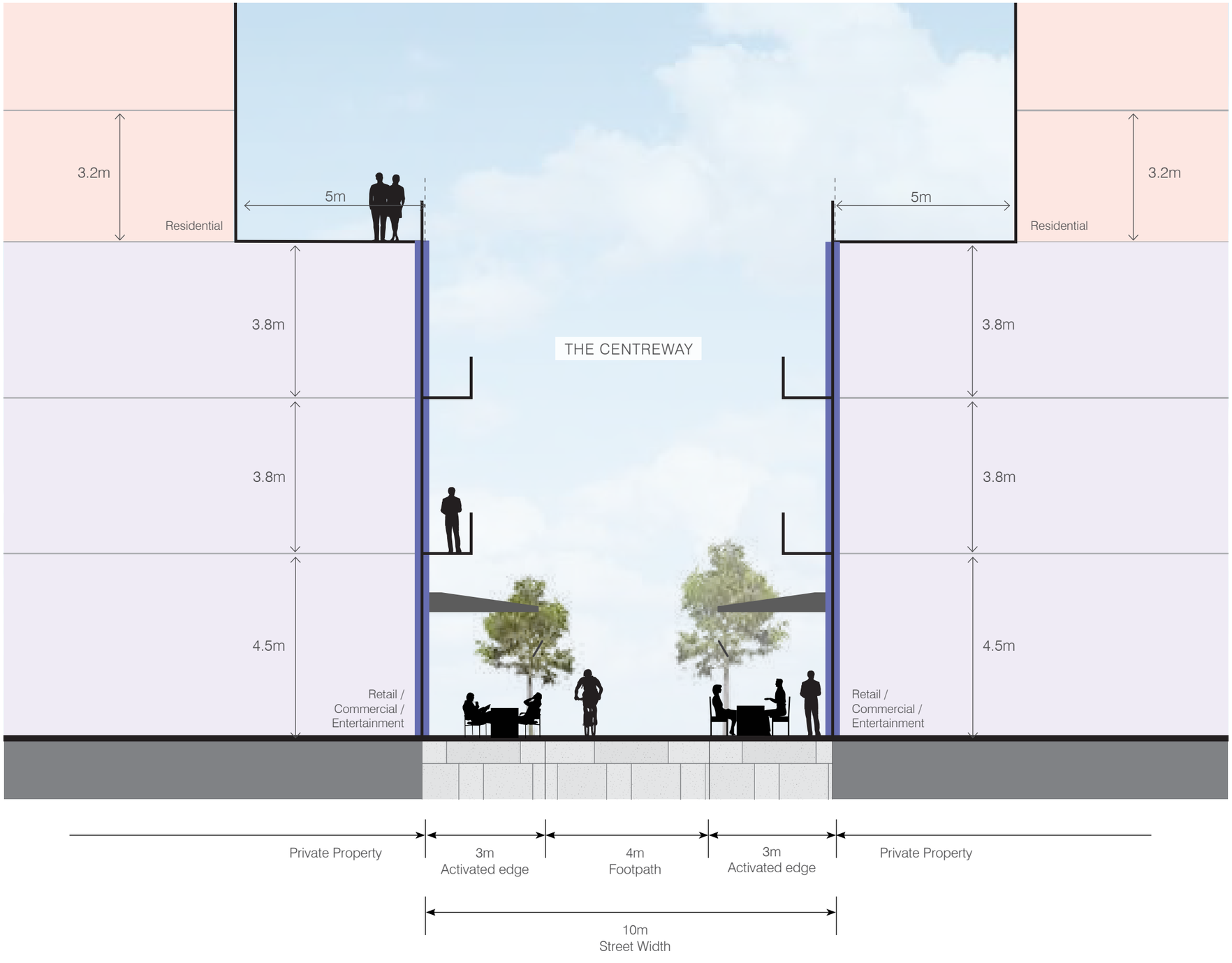
Fine grain commerical / studio activation / residental interface



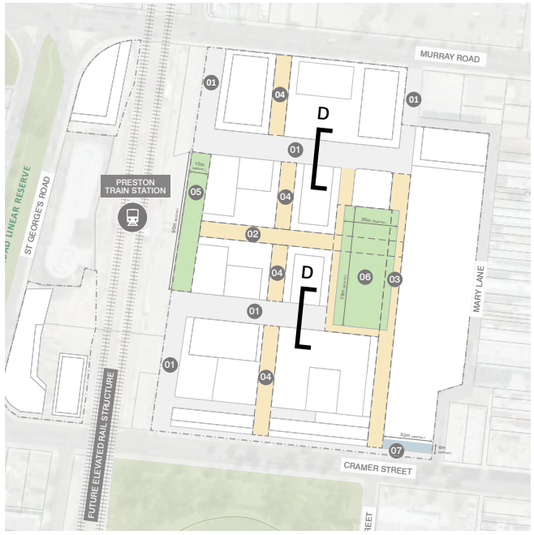
Section C: The Centreway



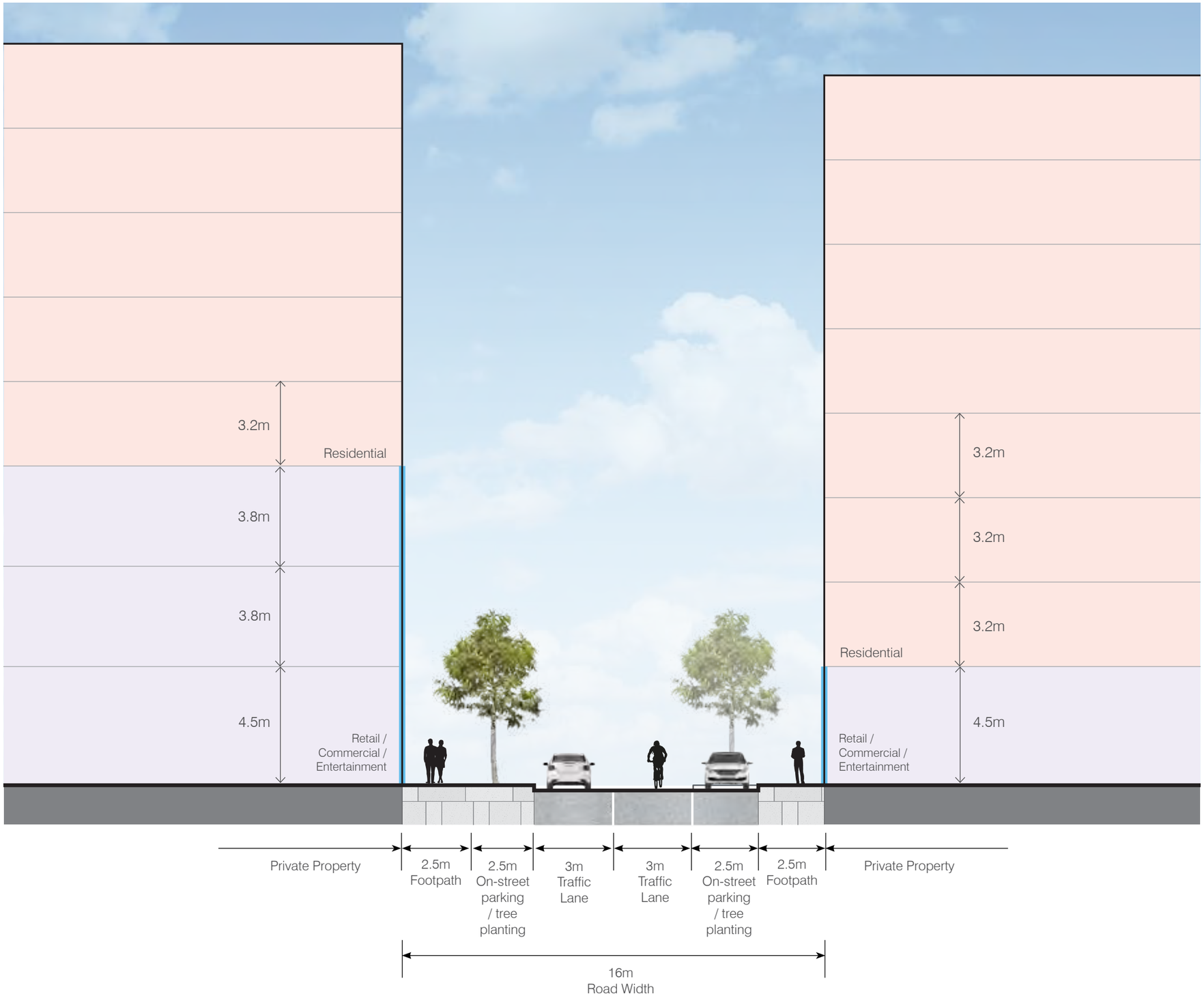
Fine grain supporting retail / F&B activation



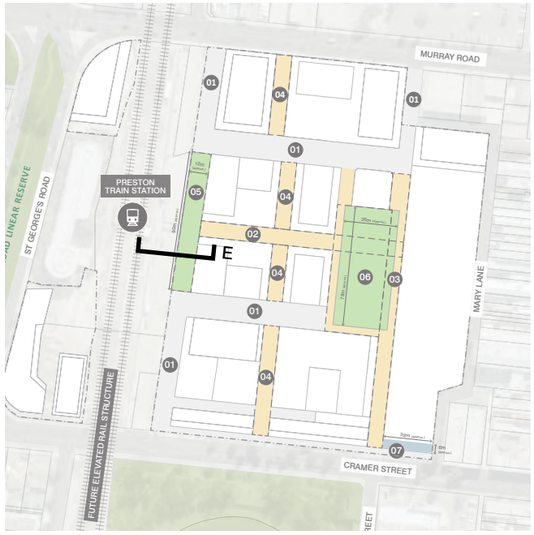
Section D: Local Street



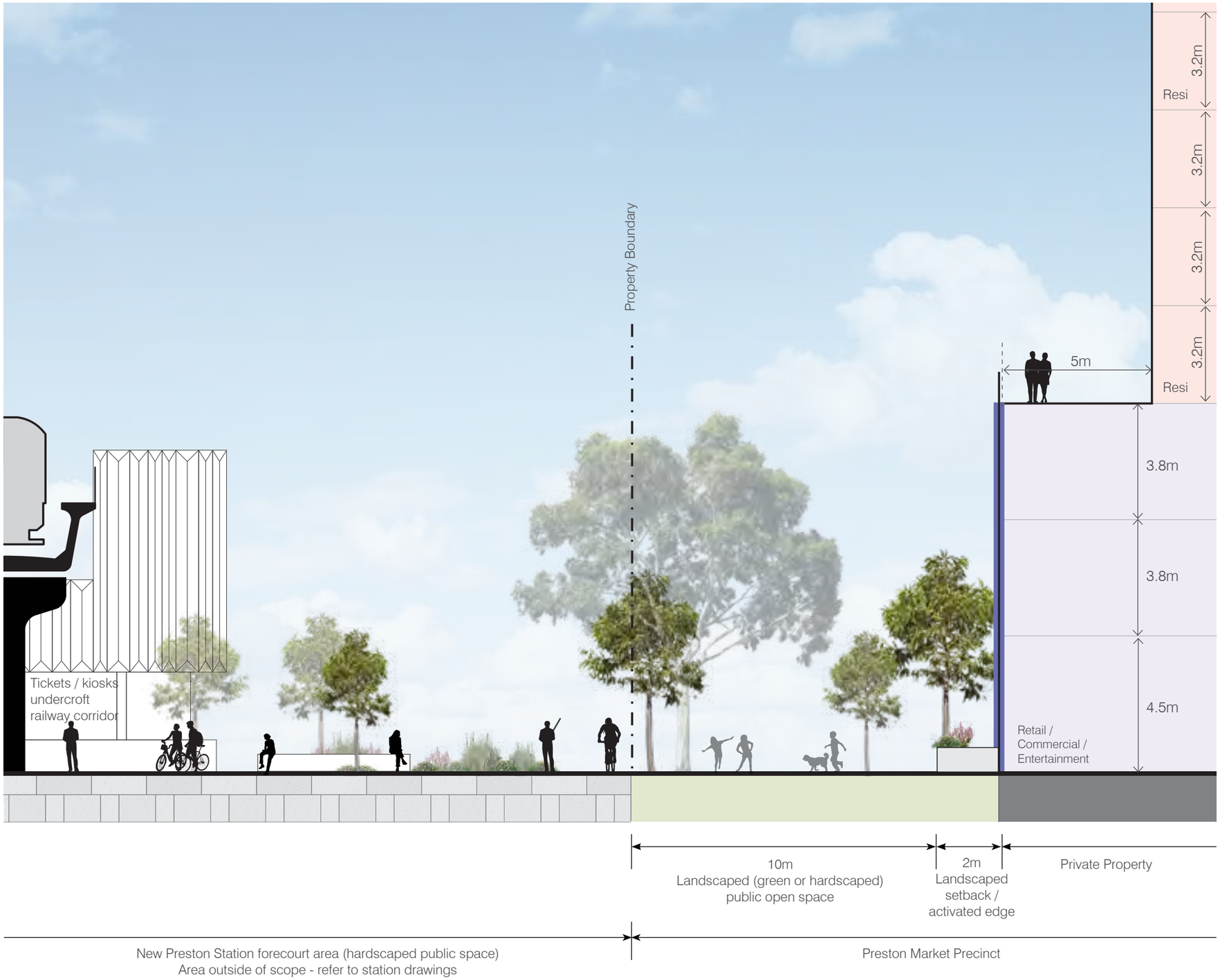
Fine grain commerical / studio activation / residental interface



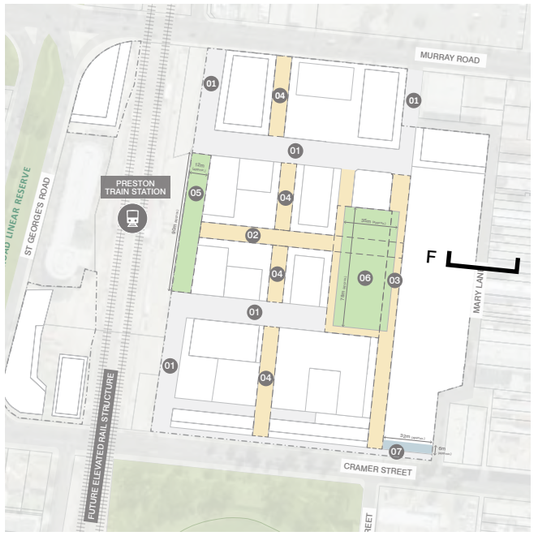
Section E: Station Interface

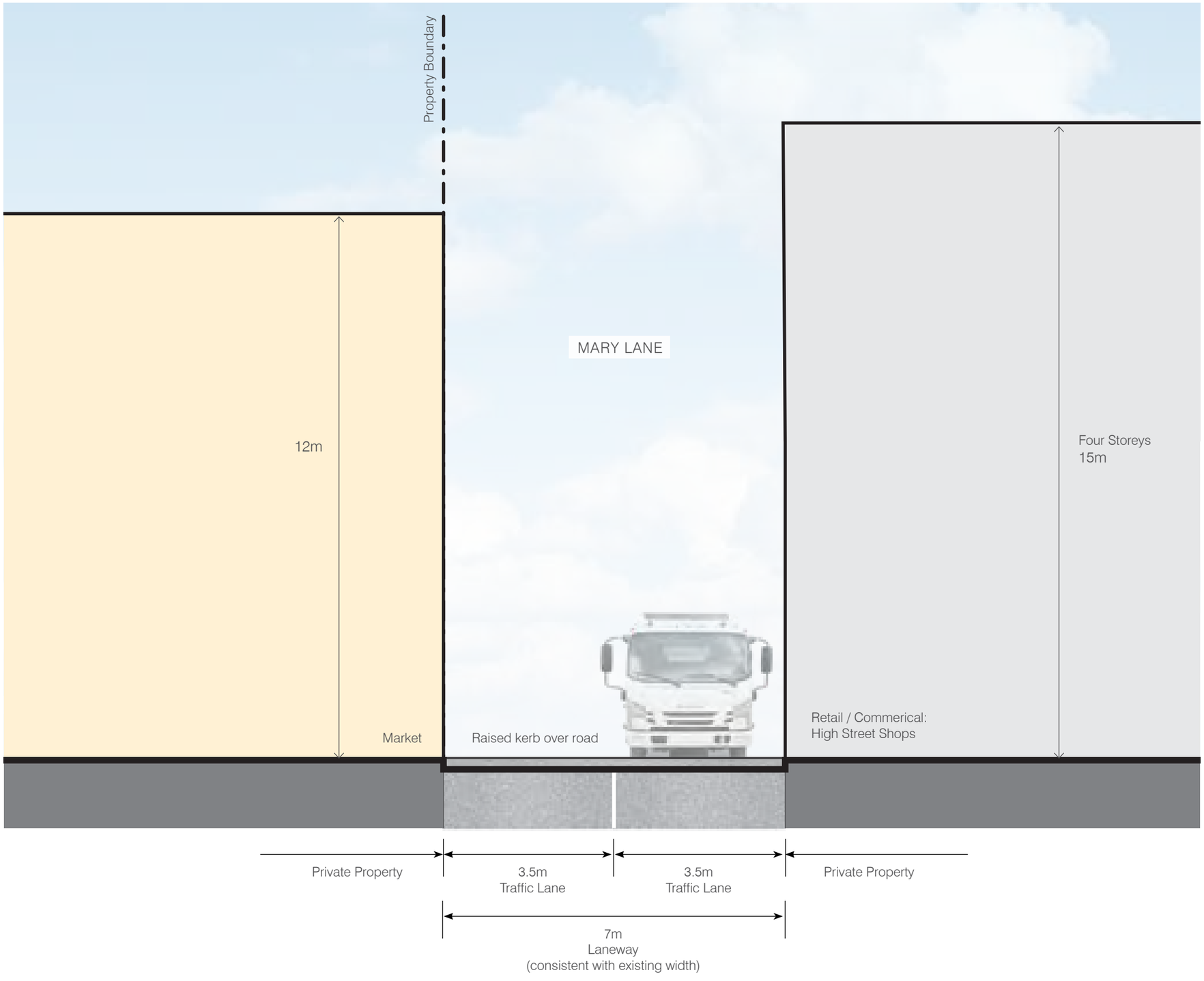


Fine grain supporting retail / F&B activation



Section F: Mary Lane





Part 05.
Schedule Summaries

Schedule Overview

Solar Access Outcomes

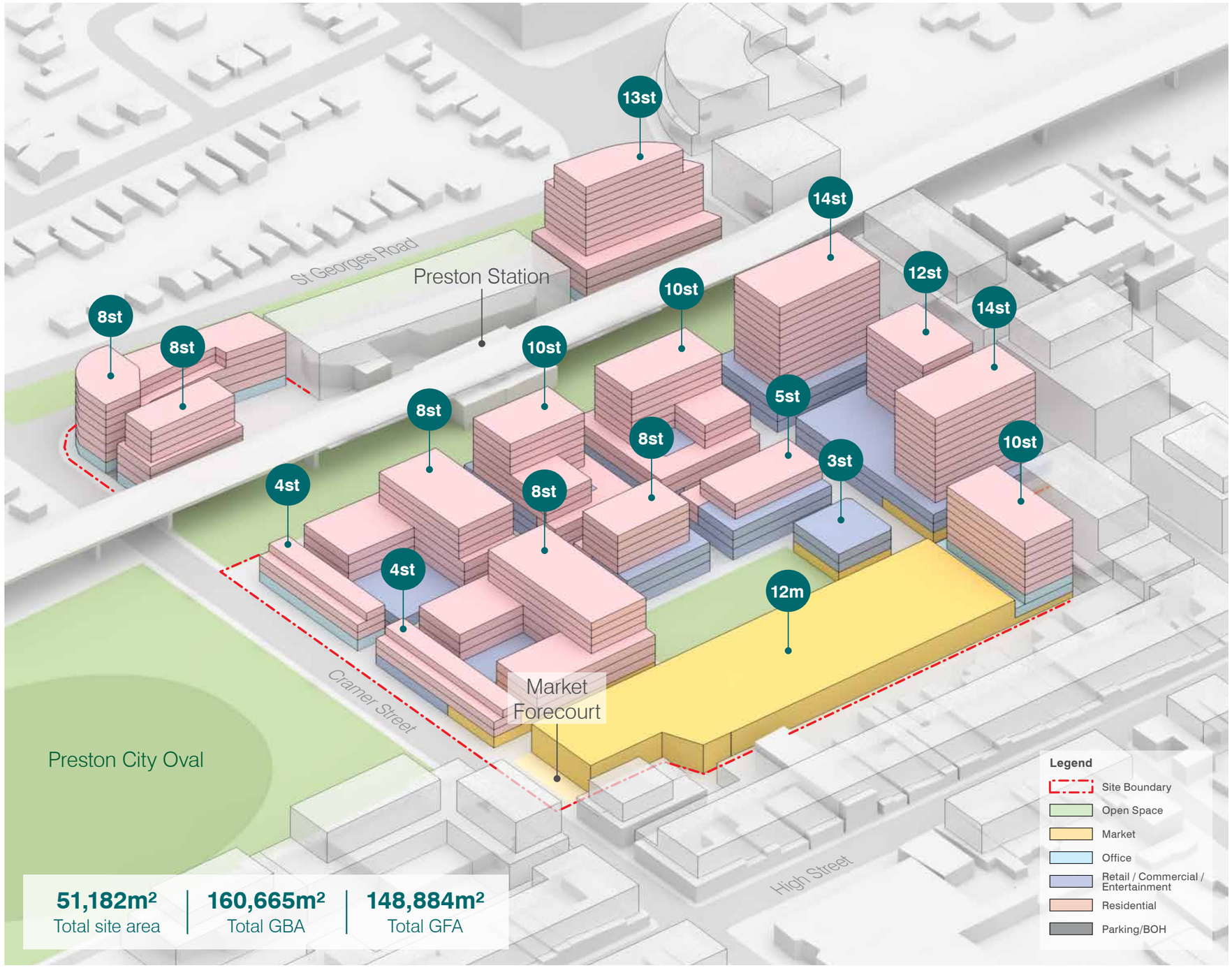
- Minimum of 50% of the main open space area is protected from overshadowing at the winter solstice between the hours of 11am and 2pm.
- 100% protection of the Preston City Oval public open space from overshadowing at the winter solstice between the hours of 11am and 2pm.

Yield Outcomes

This framework concept revision has been produced at the request of the Minister for Planning in response to community and council submissions regarding building heights, urban design, overshadowing and visual bulk.

The changes are aimed at reinforcing the existing street network and character of the precinct, and providing greater access to sunlight, and reduced building bulk. In addition, the framework concept revision achieves the following yield outcomes.

Type of use	GFA (m^2)	GLA (m^2)
Retail/ Commercial/ Entertainment	-	27,500
Office	-	5,000
Market	12,700	-



Aerial view of proposal looking North West

Schedule Summaries

Comparison to Preston Market, Final Urban Design Report (Architectus 17/05/2021)

The Final Urban Design Report stated that for that concept, the site could accommodate "approximately 2,200 dwellings". The revised framework plan as shown in this document has a total of 1,172 apartments. **A reduction of ~1,028 apartments.**

Car Parking

Due to the forecast yields for retail/commercial/ entertainment uses, all car parking has been removed from the podiums and the site relies on 100% basement car parking.

Car parking rates are shown in the car parking summary adjacent. The basement area required for these car parks are calculated on a rate of 25m² per carpark.

Efficiencies

Type of use	GBA to GFA	GFA to GLA
Residential	89%	85%
Retail/ Commercial/ Entertainment	100%	80%
Office	100%	80%
Market	100%	80%

Summary by Use

Type of use	GBA (m²)	GFA (m²)	NSA/ GLA(m²)
BOH / Parking	50,360	(excluded from totals)	
Central Open Space	2,695	(excluded from totals)	
Residential	107,096	95,315	81,018
Market	12,704	12,704	10,163
Office	6,360	6,360	5,088
Retail/Commercial/ Entertainment	34,505	34,505	27,604
Total	**160,665**	**148,884**	**123,873**
Total FAR	**3.14:1**	**2.91:1**	

Residential Summary

Residential Yield	(m²)	Apartments
Residential NSA	81,018	
Apartments - Studio		0
Apartments - 1 bedroom		410
Apartments - 2 bedroom		645
Apartments - 3 bedroom		117
Apartments - Total		**1,172**
Dwellings per hectare		**229**

Car Parking Summary

Land Use	Area sqm / No.	Column B Rate	Requirement as per Planning Scheme
Apartments - 1 bedroom	410	1 car space per dwelling	410
Apartments - 2 bedroom	645	1 car space per dwelling	645
Apartments - 3 bedroom	117	2 car spaces per dwelling	234
Market		Per Section 173 Agreement	518
Commercial / Office		Per Section 173 Agreement	245
Car Parking Spaces Total			**2,053**

	Rate calculation	Area sqm
Car parking GFA required	35sqm per car parking space	**71,845**
Above ground / sleeved		-
Basement		50,360

Part 05 — Schedule Summaries

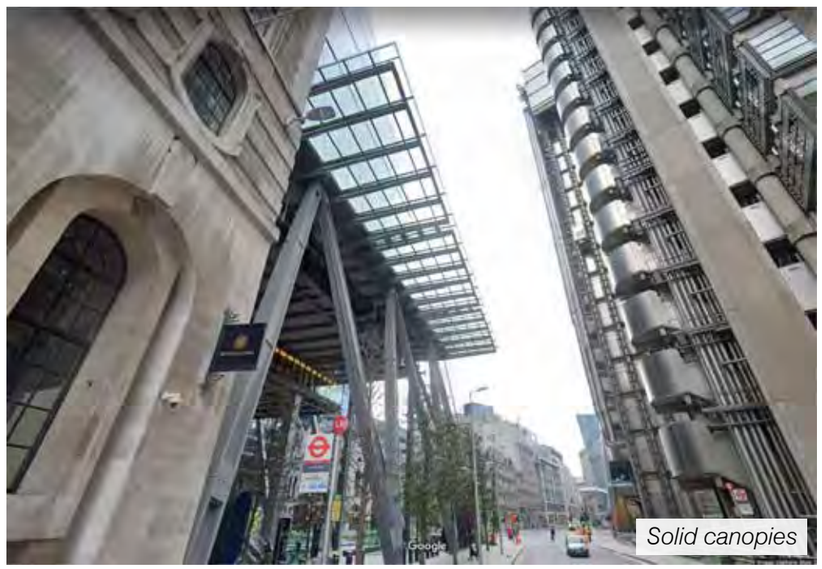
Opportunities to Mitigate Wind

With the densification of the Precinct comes the requirement to mitigate environmental factors such as wind tunnelling. There are many strategies that can reduce the impact of wind effects that should be considered within the design development of the Precinct include:

- Landscaping with rows of hedges or trees: can mitigate horizontal wind acceleration at ground and elevated levels. It is also possible to mitigate downdraught from facades as well as wind acceleration around building corners.
- Artwork/structure: where screening might be unsightly and natural landscaping impossible due to other restraints, a piece of artwork or sculpture could be considered – something that has a porosity appropriate for wind mitigation, could provide a beautiful addition to public space that is also functional to reduce wind funnelling between buildings.
- Solid Canopies: may be required when flat facades create downdraughts that impact at ground level.
- Building massing: clusters of buildings can offer shelter to one another, whilst orienting the narrower side of a tall building to the prevailing wind direction helps to reduce downdraught forming.
- Recessed Corners: by recessing the corner of a building, it is possible to reduce the wind acceleration around the corner.

Landscaping with trees and hedging

Artwork / structure



Solid canopies

Recessed building corner

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