

37-41 OXFORD ST, EPPING

STAGE 1 DA URBAN DESIGN REPORT

PREPARED FOR
GOODMAN
DECEMBER 2017

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INTRODUCTION

This Urban Design Report has been prepared to support a proposed Stage 1 Development Application for 37-41 Oxford Street, Epping and responds to the request for additional information (RFI) issued by the City of Parramatta (CoP) on 29th June 2017.

The RFI provided direction that subject to a detailed review of environmental impacts, additional height may be supported to accommodate the floor space in one consolidated podium and tower built form fronting Oxford Street.

In respect to the clause 4.6 variation request, Council specifically stated:

“Any variation to the height standard must be supported by a Clause 4.6 Variation Request. It is considered that as part of the request the applicant should undertake an urban design study which includes:

- *Provision of 3D views from both Oxford Street and surrounding properties is required to fully appreciate the extent to which the built form can address issues raised above (massing, stepping of heights, vertical articulation tower footprint).*
- *A more detailed context analysis including investigation of the existing and future adjacent built form in Oxford Street. Where possible analysis should include recent development proposals such as 43-53 Oxford Street to ensure the proposed development is suitably integrated, particularly at podium and street level.”*

This Stage 1 DA Urban Design Report (Urban Design Report) has been prepared to support the proposed variation to the building height standard. It provides a detailed context analysis of the existing and future adjacent built form in Oxford Street. The context analysis illustrates the proposal is suitably integrated, particularly at podium and street level, with the objectives and principles contained within the:

- Hornsby LEP + DCP 2013;
- SEPP 65 & the Apartment Design Guide (ADG); and
- Epping Town Centre Priority Precinct.

The Urban Design report is included as part of the of the amended Development Application package and has informed justification of the additional building height within this variation request.

EXECUTIVE SUMMARY

The built form massing proposed at 37-41 Oxford Street makes a positive contribution to the desired future character of Epping Town Centre. Consideration of the proposal in its context demonstrates the proposed massing, including the additional height, is in keeping with the overall built form principles for the location, meets the requirements of the ADG and, additionally, contributes to public benefit outcomes for the overall precinct. The analysis presents the following key findings:

Massing and visual interest:

- The increased height allows for a taller and more slender overall built form than could be expected from a compliant building height.
- The additional height results in greater variation in building massing within the Epping Town Centre. This creates visual interest in the overall skyline silhouette for the centre - an outcome that would not be achievable if all buildings within the centre were built to the maximum LEP height. This outcome is in keeping with the emerging character of the area as demonstrated through recently approved DAs that have approved stepped building heights across a number of buildings within a single development.
- The site marks the transition between the Town Centre Core and the balance of the Town Centre area by way of development standards through:
 - different zones from B2 Local Centre to R4 High Density; and
 - different heights from 72m to 48m to both a change in uses and in heights within the Town Centre.
- This transition is reflected at the street level through:
 - a generous 9m side setback on the northern boundary;
 - a front setback of 7.5m to the ground floor which responds to a site specific opportunity to retain or replace existing street trees and creates additional public domain on the street frontage;
 - a front setback of 6m to the first and second floor podium; and
 - the stepping of the podium heights to the adjoining properties.
- In the tower form this transition is reflected through the building height stepping down along the Oxford Street axis reflecting the topography of the Epping Town Centre.
- Additionally, the massing and design of the podium form:
 - achieves a human scale streetscape; and
 - provides a high quality public domain that is activated by adjoining retail and commercial uses.
- The stepped massing form of the tower along the street facade articulates three vertical elements defined by deep recesses in the facade.

Open space and public benefit:

- The variation to building height allows the GFA to be contained within one slender tower form resulting in a generous open space benefiting both the residents and the community through the following:
- The provision of 170 sqm of new public domain to be dedicated to Council in the form of a 3m wide setback along Oxford Street which will includes a deep soil area of 96 sqm for the retention or replacement of existing street trees;
 - 495 sqm of new publicly accessible private domain in the form of:
 - 230 sqm of new publicly accessible private domain in the form of an additional 4.5m setback on Oxford Street to allow for unobstructed passage of pedestrians and the accommodation of the street tree canopy;
 - 265 sqm of new publicly accessible private domain in the form of a 9m wide undercover outdoor terrace along the northern boundary; and
 - A combined deep soil provision within the communal open space and new publicly accessible private domain areas of 1,140 sqm which is more than three times the DCP requirement;
 - A generous communal open space provision of 2,829 sqm new publicly accessible private domain including:
 - 2,714 sqm located at the rear of the property receiving significant solar access which is to almost double the DCP requirements; and
 - 115 sqm rooftop communal open space.
 - A total open space provision is 3,494 sqm which equates to 70% of the site area;
 - The contribution to creating a contiguous 'green heart' space within the precinct which offers the following wider public benefits:
 - increased residential amenity through generous separation distances between buildings;
 - deep sunlight penetration through the 'green heart' in the middle of the day;
 - the delivery of generous visual amenity through overlooking of green spaces.

Shadows cast on adjoining context:

- The additional height and increased size for the floorplate (from 700 sqm to 800 sqm as per Council guidance), that could be excepted from a compliant built form outcome, does not result in any adjoining properties receiving less than 2 hours of sunlight to habitable rooms.
- There are still a significant number of sites not yet subject to redevelopment proposals within Epping Town Centre. As a result, some areas of new shadow cast by the proposed Stage 1 Development Application will likely be absorbed within shadows cast by future development proposals and/ or will fall on future proposed buildings.
- In general - taller, more slender overall building massing results in longer but faster moving shadow when compared to shorter and wider building massing. The single tower located along the eastern boundary opens up a wide corridor of open space allowing direct sunlight deep into the site and adjacent sites to the south.
- With the demolition of the existing commercial building, areas of new sunlight are gained and its shadow is removed. The proposal's communal open space benefits from this gain.

Non-residential uses and street activation:

- The provision of retail and commercial premises along the street frontage creates an active edge to the streetscape.
- The additional setback at ground floor on Oxford Street accommodates outdoor cafe seating beneath the shade of the street trees to create a unique and distinctive offering along the street.
- The outdoor terrace located along the northern boundary provided additional undercover outdoor seating of break out activity space for the adjacent retail within a more protected location.
- Two storey small office home office (SOHO) apartments designated within the podium encourages office options within the local area, reduces pressure on local infrastructure and maximises the opportunity for a diversity of uses in the precinct.
- Business premises are designated within the podium with varying sizes at 33 sqm - 74 sqm allowing flexible floor space to accommodate businesses of different sizes as they grow and develop.

URBAN CONTEXT

SITE LOCATION & DESCRIPTION

The subject site is located at 37-41 Oxford Street in Epping and has a total site area of 4,970 sqm. It is currently occupied by a four-storey commercial building. The site is situated within the Epping Town Centre and has excellent access to public transport being located only 300m north of Epping Train Station. Oxford Street is the main pedestrian and shopping spine in the town centre connecting directly to the train station.

Existing uses immediately adjoining the site include:

- To the north:
 - Coombah Independent Living Units (Uniting Care) on the corner of Oxford and Chester streets;
 - Residential tower at 2-4 Chester St which is currently under construction;
- To the west:
 - Existing office building at 16 Cambridge St;
 - Two residential towers at 20-28 Cambridge St which are currently under construction;
- To the south:
 - Residential tower at 35 Oxford St which is currently under construction;
 - Our Lady Help of Christians Primary School; and
 - Our Lady Help of Christians Church ancillary buildings.

An area in transition

Epping Town Centre is an area that is currently undergoing transformation as a result of significant infrastructure investment in the form of Sydney Metro Northwest (Metro). The Metro was announced, in its current form, in June 2011. It is the first stage of Sydney Metro and will deliver eight new railway stations with trains running every four minutes in the peak (15 trains per hour). It is due to open in the first half of 2019.

As a result of this committed investment, and the release of the 2011 Epping Town Centre Study, the NSW Government endorsed Epping Town Centre as a Priority Precinct in October 2012. In May 2014 rezoning for the Epping Town Centre Urban Activation Precinct was finalised which identified 54 ha of land for increased dwelling density. At this time, Epping Town Centre was split across two localities being Hornsby Shire

Council and City of Parramatta Council. The Hornsby LEP 2013 reflects the Priority Precinct built form controls.

In May 2016, the NSW Government announced Local Government reforms including the transition of suburbs in Hornsby south of the M2, being Epping, Carlingford and parts of Beecroft, to the City of Parramatta. This amalgamation means that Epping Town Centre is now contained within a single Local Government Area. Existing planning guidance prepared by Hornsby Council is still applicable to the site. In addition to this, the CoP are currently undertaking a review of the planning requirements for Epping Town Centre to ensure they are consistent. Stage 1 of the review is completed and included the consideration of technical studies covering heritage, commercial floorspace, social infrastructure and traffic. A consolidated list of principle were endorsed by Council on the 14th August 2017. Stage 2 of the review is due to commence in 2018.

Planning Guidance

Planning guidance for the site is as follows:

- Hornsby Local Environmental Plan (LEP) 2013 which provides guidance on:
 - Land use zones;
 - Floor space ratio (FSR);
 - Height of buildings; and
 - Heritage sites.
- Hornsby Development Control Plan (HDCP) 2013: Epping Town Centre which provides guidance on:
 - Land use mix within the podium and tower forms;
 - Building setbacks;
 - Size of floorplates; and
 - Building articulation.

Additionally, the Apartment Design Guide - SEPP65 - is also applicable to residential development on the site and provides guidance on:

- Separation;
- Privacy;
- Solar access; and
- Communal open space provision.

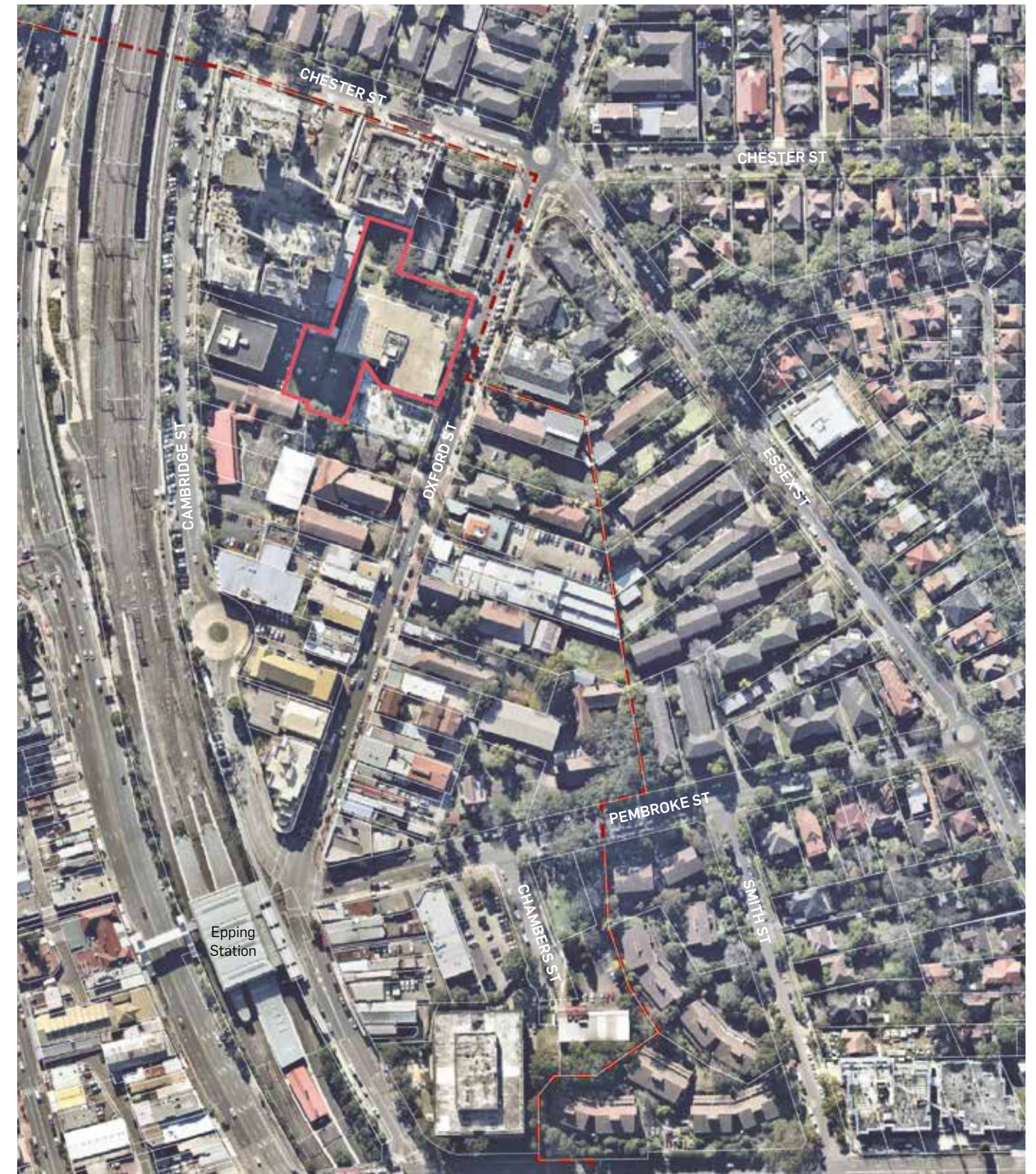


Figure 1 Site Location Plan

DESIRED FUTURE CHARACTER

DESIRED OUTCOMES / FUTURE CHARACTER FOR EPPING TOWN CENTRE CORE - EAST PRECINCT

The following is a summary of the desired outcome and future character as identified in Section 4.6 of the Hornsby DCP (the DCP) for the Epping Town Centre Core -East Precinct.

Use

Epping Town Centre will grow and develop as the retail, commercial, residential and cultural heart of Epping.

Mixed-use development along Oxford Street strengthens the traditional main street activities and contributes to the pedestrian experience by creating a distinctive shopping and dining character for the precinct.

The town centre will:

- Support increased activity in the Town Centre Core;
- Provide a range of housing, retail and commercial offices, food outlets and entertainment and employment opportunities to support the larger centre and service the working and residential populations in the area;
- Include a range of retail, commercial and cultural activities at the lower levels that can meet the needs of the local population;
- Incorporate active uses such as cafes, outdoor dining and other retail activities at the lower levels of development along Oxford Street; and
- Accommodate the majority of new residential dwellings in the Town Centre Core;
- Achieve higher density commercial, retail and residential development in the form of high quality towers located in the Town Centre Core.

Responsive scale and built form

New buildings:

- Build upon the Town Centre Core's compact character;
- Responds to the existing fine grain character of the street; and
- Use modulation to reduce the overall massing of a development.

Podium levels:

- Well-scaled podium forms;
- Pedestrian scale at the base;
- Consistent street wall height;

Upper levels and tower elements are:

- Elegant with slim and slender proportions;

- Setback from the podium to allow view and light corridors;
- Setback from the podium to maximise solar access to the public domain and reduce the impact of the building bulk on the streetscape; and
- Be located at prominent locations to provide focal points and enclosure to the public realm.

Better streets and local connections

New development contributes to creating a revitalised public domain through better quality streets, local parks, plazas, spaces and places and including:

- Streets defined and characterised by podium development at the edge of the street;
- Active, easily accessible and continuous ground level uses reinforce the role of the main streets as the core retail/commercial area;
- Avenues of street trees along the main vehicular and pedestrian links to enhance the visual quality of the area; and
- Continuous awnings provide good pedestrian amenity and assist pedestrian safety.

ADG REQUIREMENTS

The following is a summary of the Design Quality Principles of the ADG (SEPP 65) for consideration of the overall massing of the building.

Principle 1: Context and neighbourhood character:

- Well designed buildings respond to and enhance the desirable qualities and identity of the area including key natural and built features.

Principle 2: Built form and scale

- Good design achieves a scale, bulk and height appropriate to both the site and the existing or desired future character of the street and surrounding buildings.

Principle 3: Density

- Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context and which can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.

Principle 5: Landscape

- Good landscape design retains positive natural features which contribute to the character of the local streetscape and result in good micro-climatic conditions.

- Good communal amenity optimises usability, privacy and opportunities for social interaction, equitable access.

Principle 6: Amenity

- Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being.

Principle 7: Safety

- Good design clearly defines public and private spaces that are high quality, fit for purpose and maximise passive surveillance.

Principle 9: Aesthetics

- Good design achieves a built form that has good proportions, a balanced composition of elements, and responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.

KEY COMPONENTS OF PROPOSED BUILT FORM MASSING

The following summarises the key components of the proposed built form massing for the site as proposed by the City of Parramatta.

Through Site Link

Council may be amenable to supporting a DA without the through site link identified in the DCP, if an acceptable justification can be provided. Inclusion of a through site link would result in a convoluted pathway with poor sightlines and significant level changes in order to connect with public access on the site to the west.

Built Form

It is considered that decanting the floor space from two buildings to one, would result in a better urban design outcome due to the difficulty achieving building separation, amenity impacts on surrounding properties and the viability of retail uses off the Oxford Street frontage.

Additional height may be supported within one building to achieve the allowable FSR subject to review of the extent of environmental impacts. The following should be considered in any such proposal:

Podium

- 3 storey high podium, wholly comprised of commercial or community uses such as adaptable meeting and office facilities as potential 'co-working' office spaces.

Tower

- Varying the height to break down its massing by either stepping down to the north or to the south;
- Incorporate strong vertical articulation in the facade with deep recesses and/or staggered facades; and
- The gross floor area of the tower footprint should be no more than 800sqm (i.e. not including vertical access, services, balconies, etc).

Setbacks / Separation

The setbacks should be in keeping with the following:

- Front Setback
 - a. Podium – 3m from front boundary (this can include a transition from the adjoining podium to the south which is to be built to the boundary)
 - b. Tower – minimum 9m from front boundary (variation behind 9m allowable to provide articulation).
- Side Setbacks
 - a. Podium –
 - i. North: minimum 9m from side boundary; and
 - ii. South (specific area identified): concern is raised that this would be an awkward enclosed space due to the single storey splayed rear corner approved on the adjoining site. It is considered that a single storey element in keeping with that approved on the adjoining property may be appropriate in this space, on a zero side setback. It is recommended that the applicant consider appropriate design solutions.
 - b. Tower – north & South:
 - i. 6.75m from side boundary up to eight storeys; and
 - ii. 9m from side boundary at nine storeys and above. These figures are based on half the difference between ADG compliance and the setbacks provided at No. 35 Oxford Street. It is not considered appropriate to apply the same setbacks approved at No. 35 Oxford Street because that was a significantly smaller and isolated site.
- Rear Setback: 30 metre separation at the rear to the approved building (No. 20-28 Cambridge Street), or 22m to the boundary, is considered acceptable.

Context Analysis

- Provision of 3D views from both Oxford Street and surrounding properties demonstrating stepping of massing and articulation of facades.
- Detailed context analysis including investigation of the existing and future adjacent built form in Oxford Street to demonstrate the proposed development is suitably integrated, particularly at podium and street level.

EPPING TOWN CENTRE EMERGING CONTEXT

As a result of the rapid and significant transformation of Epping Town Centre, it is important to understand both the existing and proposed future context of the site and its immediate surrounds. The plan (opposite) and 3D massing diagrams (following) illustrate the future development potential of Epping Town Centre. This has been informed through identification and analysis of key constraints and opportunities for individual sites including:

- Heritage:** There are five existing heritage sites within Epping Town Centre including one located adjoining the subject site to the south. It is assumed that redevelopment will not occur for all of these heritage sites.
- Community Uses:** In addition to heritage buildings, community and infrastructure related uses are long term occupants of sites and while minor improvements may occur on site these often do not result in significant redevelopment.
- Strata Title Ownership:** Strata title ownership of existing buildings often makes redevelopment of these sites costly and difficult. In this context, we have assumed redevelopment of strata title properties will not occur (in alignment with assumptions made in the Urban Activation Precinct Structure Planning study).
- Existing and Approved Development Applications:** Already there have been a number of proposal for redevelopment of sites in the Epping Town Centre. Of these eight other proposals (not including 37-41 Oxford Street), four have been approved and four are pending.
- Potential Redevelopment Sites:** All remaining sites were identified as potential development sites with indicative massing shown in accordance with existing built form guidance as contained within the DCP. This built form considers the amalgamation of lots, for those below 2,000 sqm and with a frontage of less than 40m, as encouraged in the Epping Town Centre DCP.

Proposed Building Envelope

The proposed building envelope has been prepared in the context of this future massing for the Town Centre. This envelope considers both recent Development Approvals, Development Applications under assessment, as well as the site specific opportunities and constraints of the site. The proposed massing for the site is as follows:

- A three (3) storey podium set back from the street 6m;
- A consistent minimum 9m setback for the podium and the tower on the northern boundary to 48-53 Oxford Street;
- A two (2) and three (3) storey built to boundary form for the podium on the southern boundary to 35 Oxford Street;
- A minimum 9m setback to the tower on the southern boundary (excluding rear irregular corner to 35 Oxford Street);
- A varied street setback for the tower of between 9m and 10.6m with additional recesses up to 18m;
- A proposed tower height ranging from 24-27 levels (above podium);
- An overall maximum height for the development of 30 storeys;
- A proposed GFA of 22,365 sqm that aligns with the current maximum FSR allowable on the site being 4.5:1.

The outcome is a built form in which the overall massing of the building is located towards the Oxford Street frontage and along the southern boundary. This approach results in the rear area of the block unencumbered as private open space and ensuring abundant amenity for both the proposed and adjoining residential buildings and an extensive open space amenity to the north.

Table 1 GFA Calculations for proposed building

LOCATION	# LEVELS	GFA PER LEVEL (SQM)	TOTAL GFA (SQM)
Tower			
- Level 29	1	311	311
- Level 28	1	377	377
- Level 27	1	629	629
- Levels 13-26	14	767	10,738
- Levels 7-12	6	785	4,710
- Levels 3-6	4	806	3,224
Podium			
- Level 2	1	965	965
- Level 1	1	780	780
- GND floor	1	613	613
TOTAL	30		22,360

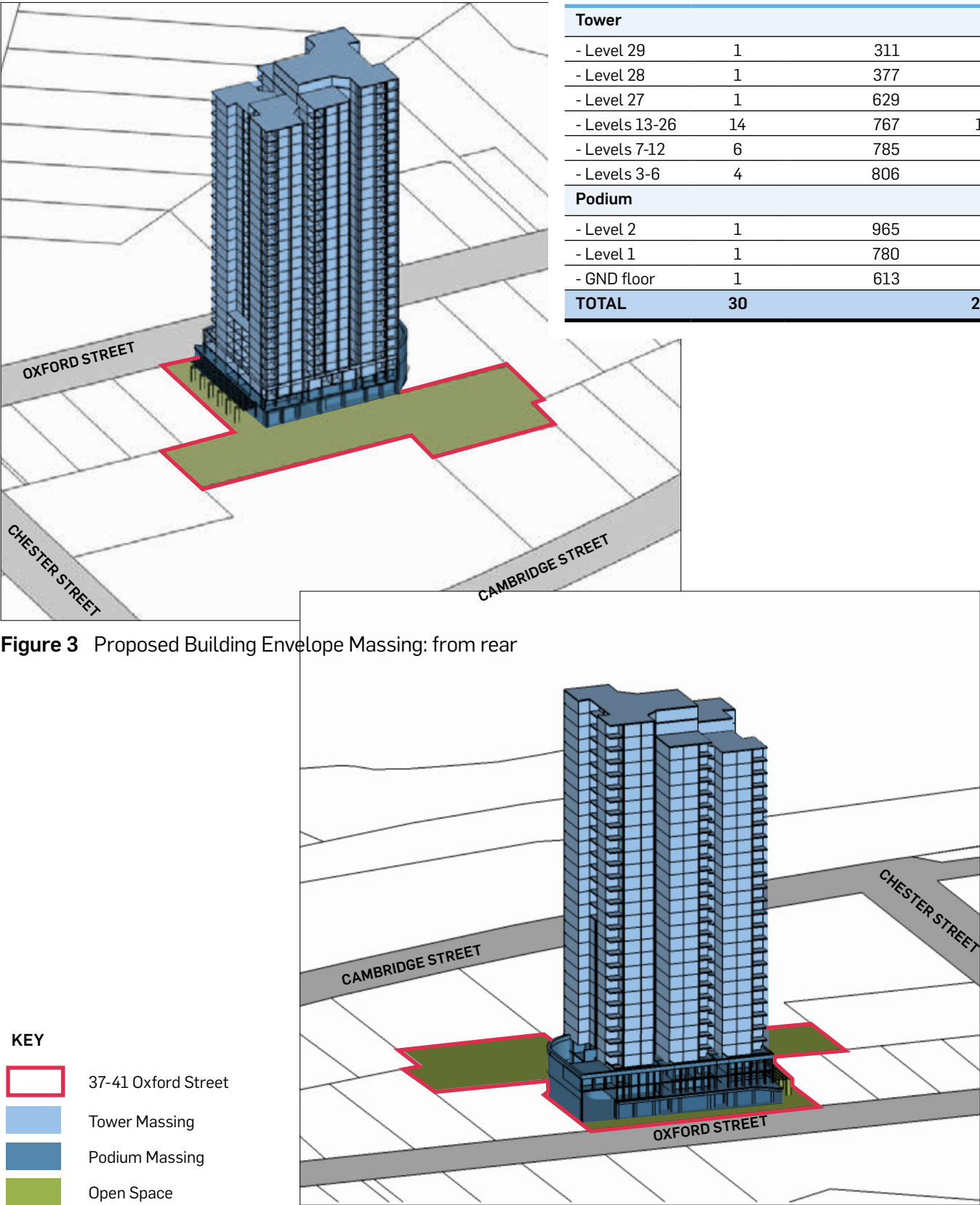


Figure 3 Proposed Building Envelope Massing: from rear

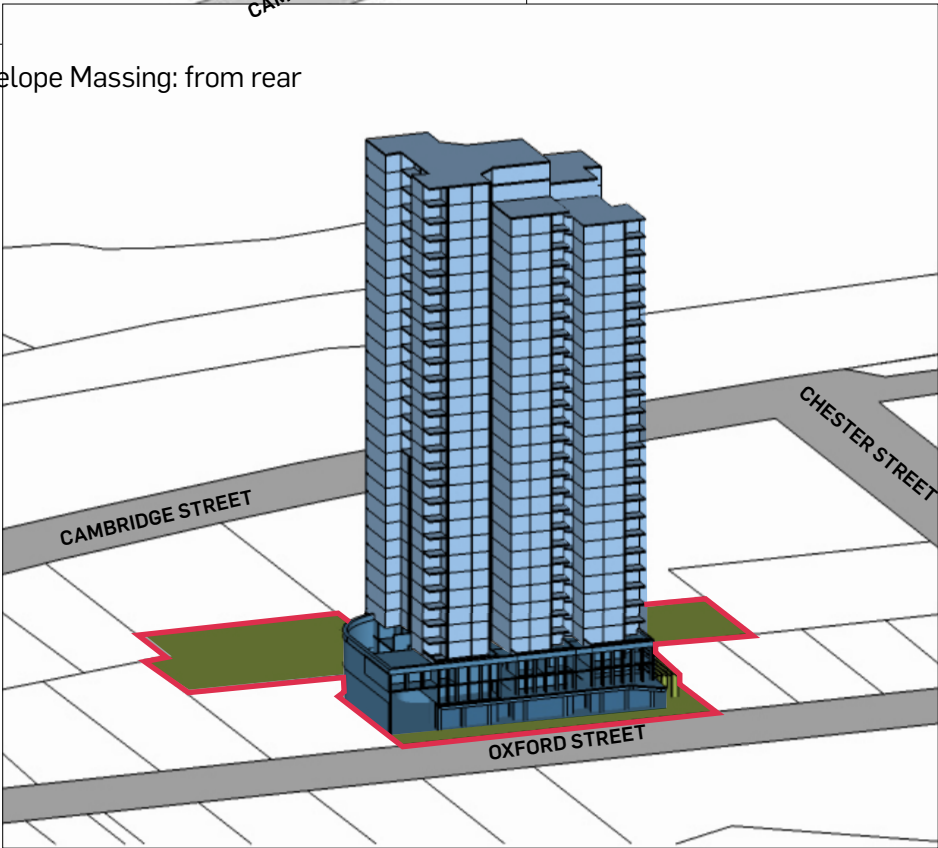


Figure 2 Proposed Building Envelope Massing: from Oxford Street

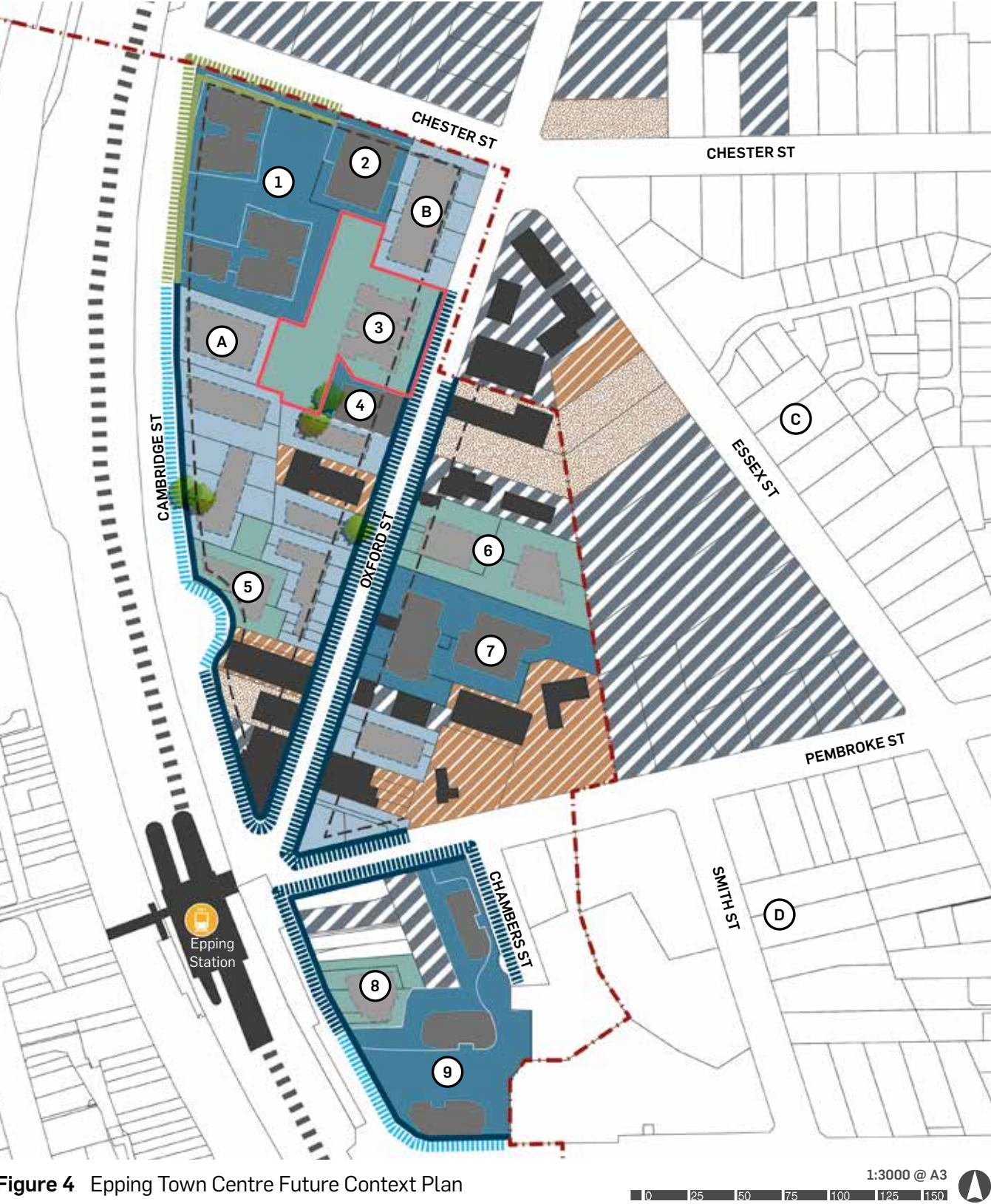


Figure 4 Epping Town Centre Future Context Plan

DA 44-48 Oxford St:
Change all 16-18 storeys to 15 to 19 storeys

Table 2 Existing and future DA summary - Epping Town Centre

	DEVELOPMENT SITE	STATUS	FSR	HOB (STOREYS)
1	20-28 Cambridge St	Under Construction	4.5	7-22
2	2-4 Chester St	Under Construction	4.5	17
3	37-41 Oxford St	DA Submitted	4.5	30
4	35 Oxford St	Under Construction	6	26
5	2-4 Cambridge St	DA Submitted	4.5	22
6	44-48 Oxford St	DA Submitted	4.5	15-19
7	30-42 Oxford St	Under Construction	4.5	17
8	24-36 Langston Pl	DA Submitted	6	27
9	12-22 Langston Pl	Approved	6	17-27
A	16 Cambridge Street	DA being prepared		
B	53 Oxford Street	DA being prepared		
Adjacent to Town Centre				
C	11 Essex Street	DA Submitted		
D	5 Smith Street	DA Submitted	(70 units)	

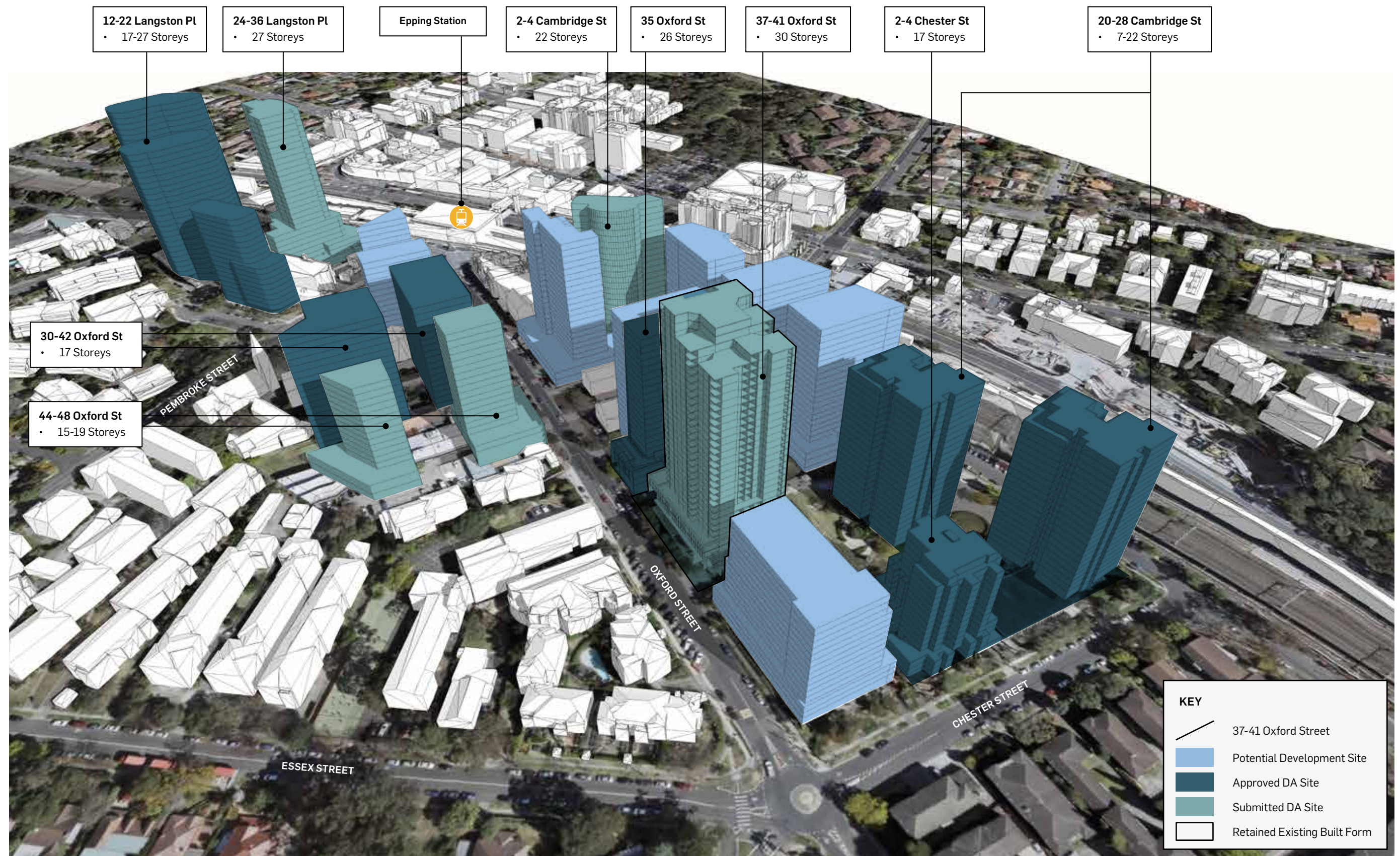


Figure 5 Epping Town Centre Indicative Massing Model - Future Context (Aerial view from north-east)

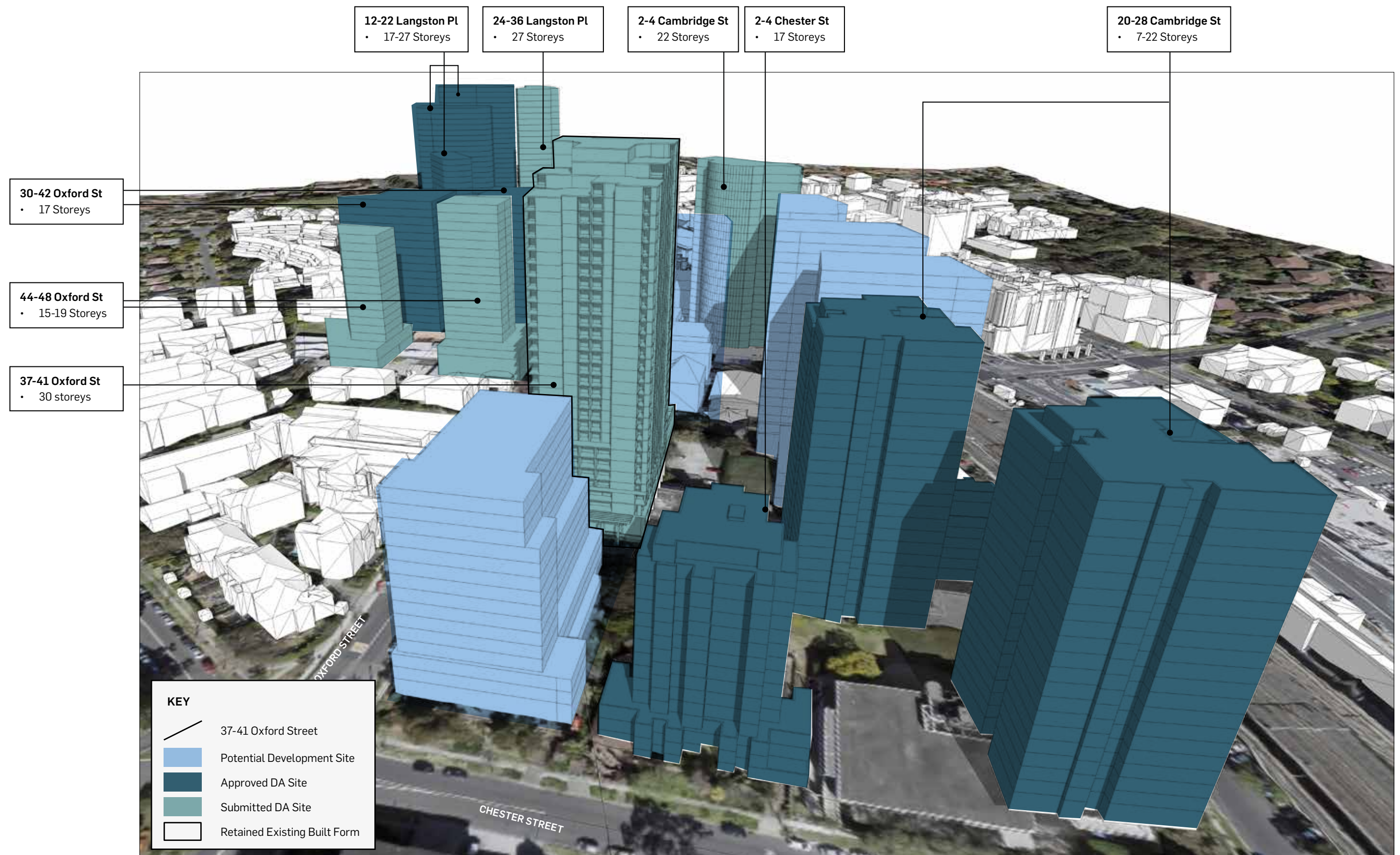


Figure 6 Epping Town Centre Indicative Massing Model - Future Context (Aerial view from north)

KEY URBAN CONTEXT OPPORTUNITIES

The proposed built form presents the following urban design opportunities at a precinct level that will offer significant public benefits to Epping Town Centre:

1. **A generous Green Heart:** The opportunity to deliver a contiguous private/communal open space provision at the rear of most properties within the development block bound by Chester, Cambridge and Oxford Street while focusing built form towards the street frontage.
2. **A varied and interesting built form:** The opportunity to deliver stepped building forms and a variety of building heights (as opposed to a monotonous building height) across the precinct within the current density provisions and without compromising design outcomes as identified in the Apartment Design Guide (ADG).

These opportunities are discussed in more detail below.

A Generous Green Heart

The development block bound by Chester, Oxford and Cambridge streets is triangular in shape with significant distance between the street frontages at the northern end of the block. There are a number of development parcels which are irregular in shape have only one street frontage. These irregular shapes and enclosed land areas present challenges for redevelopment and the realisation of development potential in an orderly and economic way.

Analysis of the location of buildings and communal open space areas for approved and submitted DAs reveals an opportunity for the delivery of an area of contiguous private open space located at the centre of the development block - a 'green heart'. This could be achieved through the placement of buildings towards the street frontages and communal open space towards the rear of properties. The potential benefits of this contiguous open space include:

- increased residential amenity through generous separation distances between buildings;
- deep sunlight penetration through the 'green heart' in the middle of the day;
- the delivery of generous visual amenity through overlooking of green spaces; and
- generous physical provision of communal open space.

The proposal for 37-41 Oxford Street in which there is a single building located along the street frontage and a generous communal open space located at the rear.

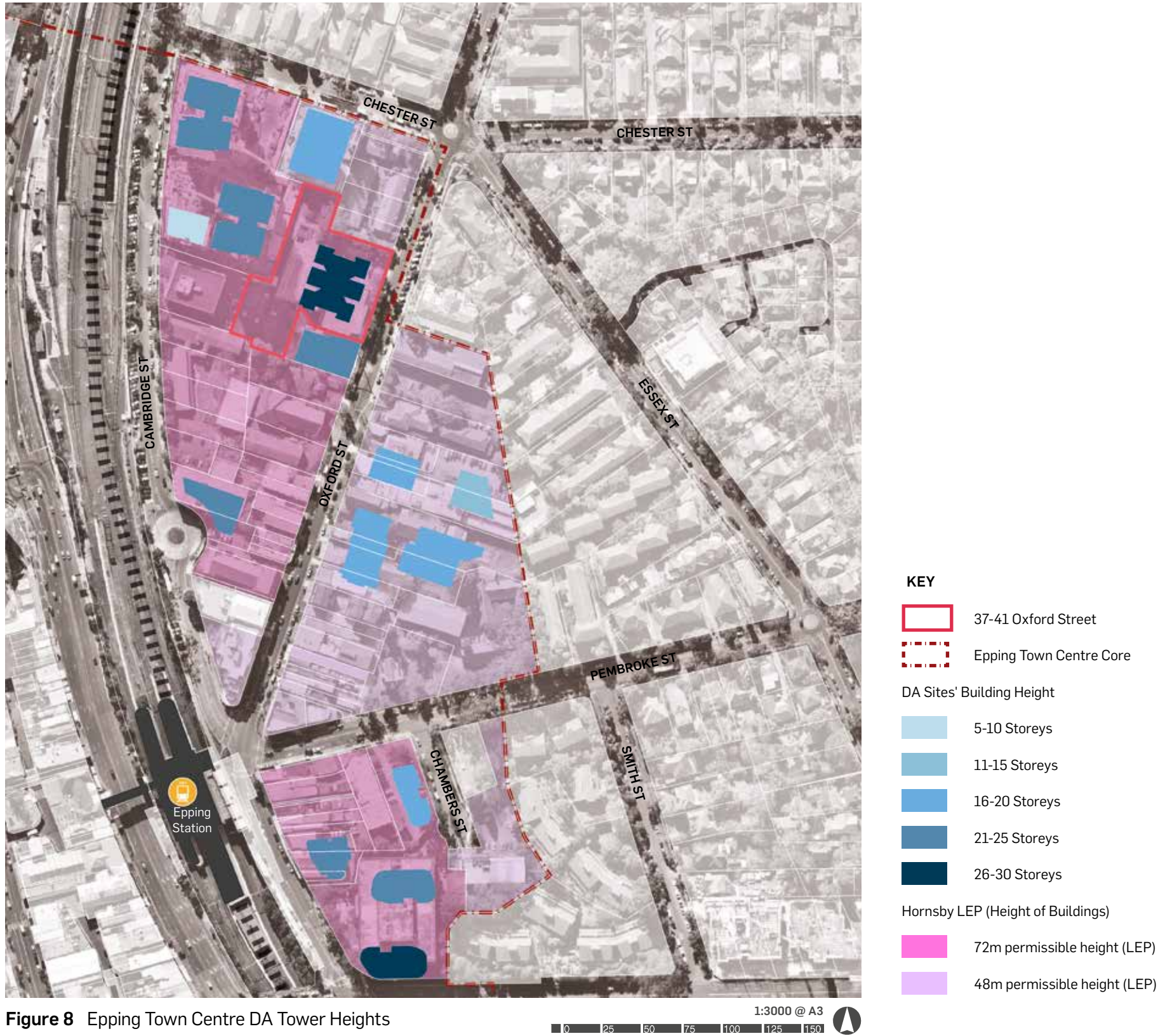


A Varied and Interesting Built Form

Built form analysis of approved and submitted DAs within the Town Centre Core - East Precinct also reveals a variety of building heights are being delivered across the precinct. This creates visual interest in terms of overall building massing.

For large redevelopment sites with multiple towers, building height transitions occur across a range of towers or building forms rather than within a singular tower. For individual development sites, consideration of a single building within the context of the whole precinct will allow for the delivery of building height transitions and overall building height variety.

In this context, it may be appropriate to consider building heights greater than the maximum allowable height to achieve a varied and interesting built form, provided they result in outcomes in which the ADG requirements can be met.



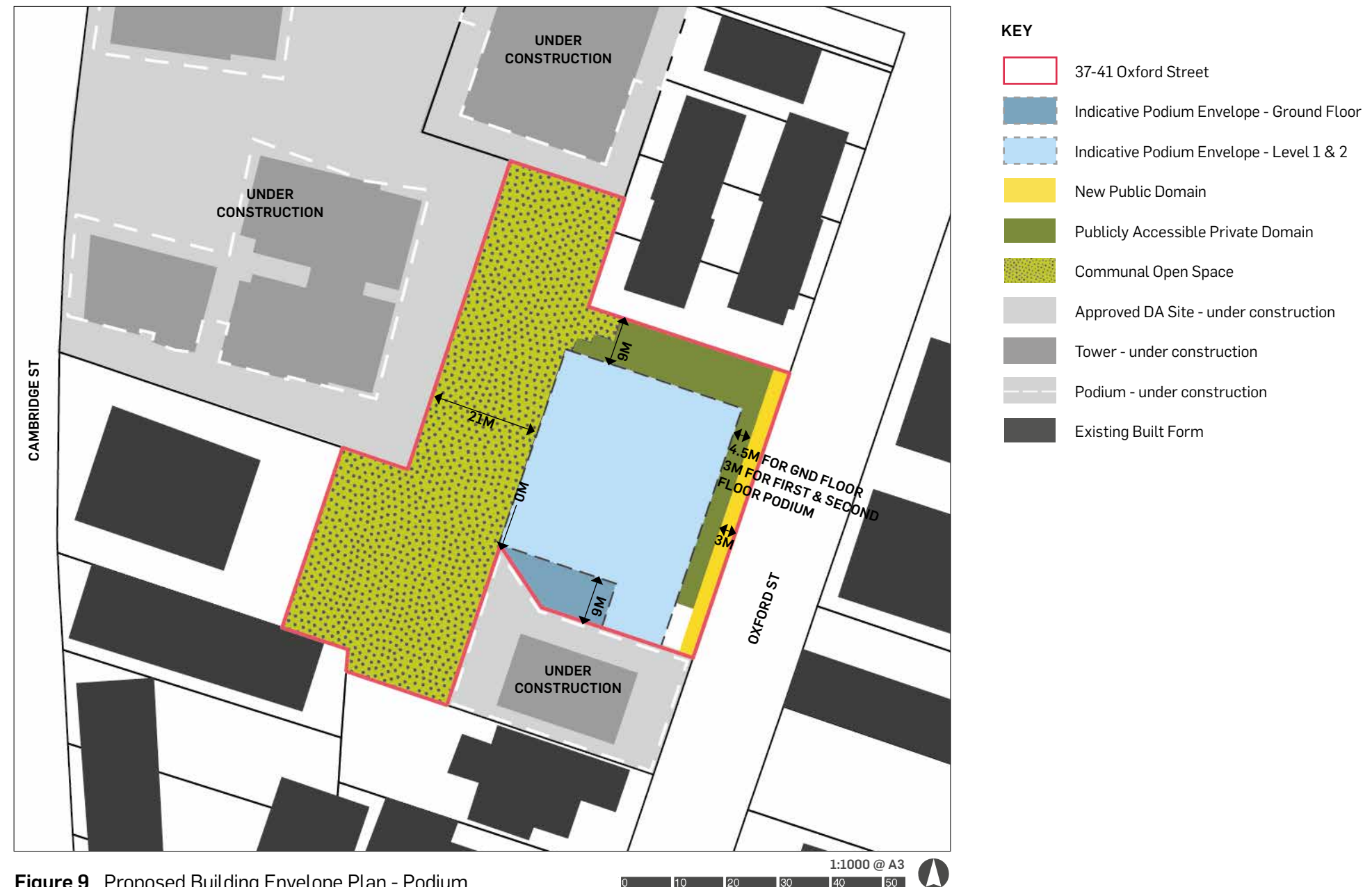
EVOLUTION OF PROPOSED BUILT FORM - BASED ON COUNCIL GUIDANCE

PROPOSED BUILDING ENVELOPE - PODIUM

Figure 9 illustrates the proposed building envelope for the podium, consistent with the Council guidance issued on the 29th June 2017 and subsequent correspondence on the proposed scheme. This includes:

- No through site link provided within the site due to significant level changes between Oxford and Cambridge streets and the approved, and under construction, developments to the south and the west which have not made provision for a connection.
- Driveway crossover and basement parking access alongside the southern boundary from the street frontage as directed by Council.
- A three (3) storey high podium to the street frontage with a two storey element behind the street frontage on the southern boundary adjoining 35 Oxford Street.
- Front Setback:
 - 7.5m ground floor;
 - 6m first - second floor of the podium;
- Side Setbacks:
 - 9m northern boundary;
 - 0m southern boundary ground floor;
 - 0m southern boundary first - second floors (for 16.4m from front building line);
 - 9m southern boundary first - second floors for remainder.
- Rear Setback: No built form located in the western part of the property, (where there is no street frontage) and at its minimum within 21m of the closer western boundary.
- Proposed Uses:
 - Ground: Retail / business uses, residential foyer, servicing and plant areas;
 - Level 1: Business premises on the street frontage;
 - Level 2: Apartments on the street frontage of the; and
 - Level 1/2: SOHO apartments for the remainder spanning across the first and second floor with business space on the first floor and residential accommodation on the second floor.

Figure 10, illustrates the evolution of the podium building envelope considering the guidance within the DCP, the consideration of CoP directions and the response to the site specific context. This provides a step-by-step rationale for the final building envelope with an explanation for any refinements.



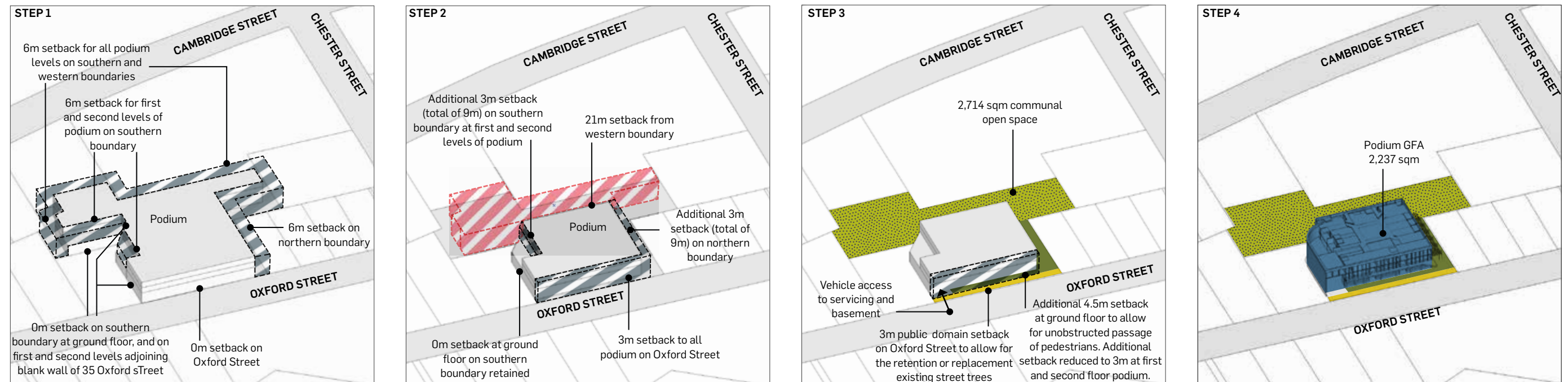


Figure 10 Proposed Building Envelope - Podium Evolution Diagram

Step 1: Minimum podium setbacks and maximum podium height - DCP

The DCP nominates a maximum podium height of 3 storeys. Minimum podium and basement setbacks in accordance with the DCP are as follows:

- Front: 0m
- Side and rear:
 - 0m where non-residential adjoins another non-residential or mixed-use development; or
 - 6m in other instances.

Existing and new development to the north and west contain residential uses at the ground floor and therefore a 6m setback is required in these locations.

At 35 Oxford Street, to the south, existing uses are as follows:

- Ground Floor: non-residential uses; and
- First and second floor: residential uses with a blank wall 14m deep.

A 0m setback is permissible at the ground floor and alongside the blank wall. A 6m setback is provided in other locations.

Along the southern boundary, the site also adjoins an existing school and church. There is currently no development proposal for these sites. A 6m setback to this boundary is provided.

Step 2: CoP Guidance for Podium

The CoP guidance suggested the consideration of the allowable GFA to be contained in a single building maximising communal open space and amenity for surrounding properties.

The proposed built form complies, with a setback of 21m from the western boundary. This setback exceeds the ADG's minimum separation distance of 24 m to the buildings at 20-28 Cambridge Street.

A single building form built to Oxford Street results in the creation of a generous area of communal open space, extending along the whole of the western boundary of the site. This equates to the provision of 2,714 sqm area of communal open space with dimensions of 103.5m long and 21m to 32m wide. This area significantly exceeds the provision required in the DCP of 50 sqm.

The 3m podium setback is in keeping with the 'landscape setback' identified in the DCP along other streets. This is to allow for deep soil areas along the frontage for the retention or replacement of existing street trees. It is proposed that this 3m setback is dedicated to Council as new public domain - a total area of 170 sqm.

Side setbacks, to the north and the south, have been increased to 9m in locations where there are existing residential uses and no adjoining blank walls.

The CoP suggested that the podium comprise of employment and community uses. The through site link has not been provided as adjoining developments have not provide connections and significant level changes.

Step 3: Further Site Specific Refinement

An additional 4.5m setback is provided at ground floor along the Oxford Street frontage for the full height of the podium to allow for unobstructed passage of pedestrians. This also allows for the retention or replacement of existing street trees in the new public domain and provision of cafe seating. This is an overall setback of 7.5m for the ground floor to Oxford Street.

This additional setback is reduced to 3m for the first and second floor podium with an overall setback of 6m to Oxford Street.

The area of the additional 4.5m setback will remain in private ownership but will be publicly accessible and will facilitate occupation of the streetscape with temporary active uses such as cafe seating. A covered terrace area is proposed along the northern boundary. The total area of publicly accessible private domain equates to 495 sqm.

Vehicle access to the site is proposed to be located adjacent to the southern boundary.

Active uses, including retail and business premises, are proposed within the ground floor alongside the street frontage and covered terrace area adjacent to the northern boundary. The residential lobby as well as servicing and plant rooms are also located on the ground floor.

The first level of the podium is proposed to contain a mix of commercial office spaces as well as the home-office. components of SOHO apartments. The second level of the podium contains residential uses which include the residential component of the SOHO apartments.

Step 4: Podium building envelope floorplate

The resulting podium building envelope creates a building floorplate with a GFA as follows:

- Second floor: 954 sqm
- First floor: 663 sqm
- Ground floor: 620 sqm
- **TOTAL PODIUM GFA: 2,237 sqm**

PROPOSED TOWER BUILDING ENVELOPE

The proposed tower form and building envelope (Figure 11) illustrates the design response to Council's guidance dated 29 June 2017.

- Incorporate the allowable GFA to a single form.
- Maximise the open space, by locating the building on the Oxford Street frontage.
- A maximum height of 30 levels (RL 191.55m).
- A varied building height stepping down toward 43-53 Oxford Street.
- Heights consist of 27 (RL 182.25m) to 30 (RL 191.55m) levels including the roof.
- Vertical articulation of the tower is achieved through materiality and architectural elements such as deep recesses in the facade including:
 - Front setback: A staggered facade between 9m and 10.6m from the front boundary.
 - Side setbacks:
 - North: 9m;
 - South: 9m; and
 - Habitable windows and balconies above 8 storeys: 12m;
 - Rear setback: 21m to the western boundary
- Proposed uses: Residential apartments;

The built form massing series depicted in ""Figure 12 Proposed Building Envelope - Tower Evolution Diagram" on page 15", demonstrates:

1. CoP's alignment with the minimum requirements of the DCP;
2. A rationale for the built form; and
3. A justification of any diversion from the CoP guidance.

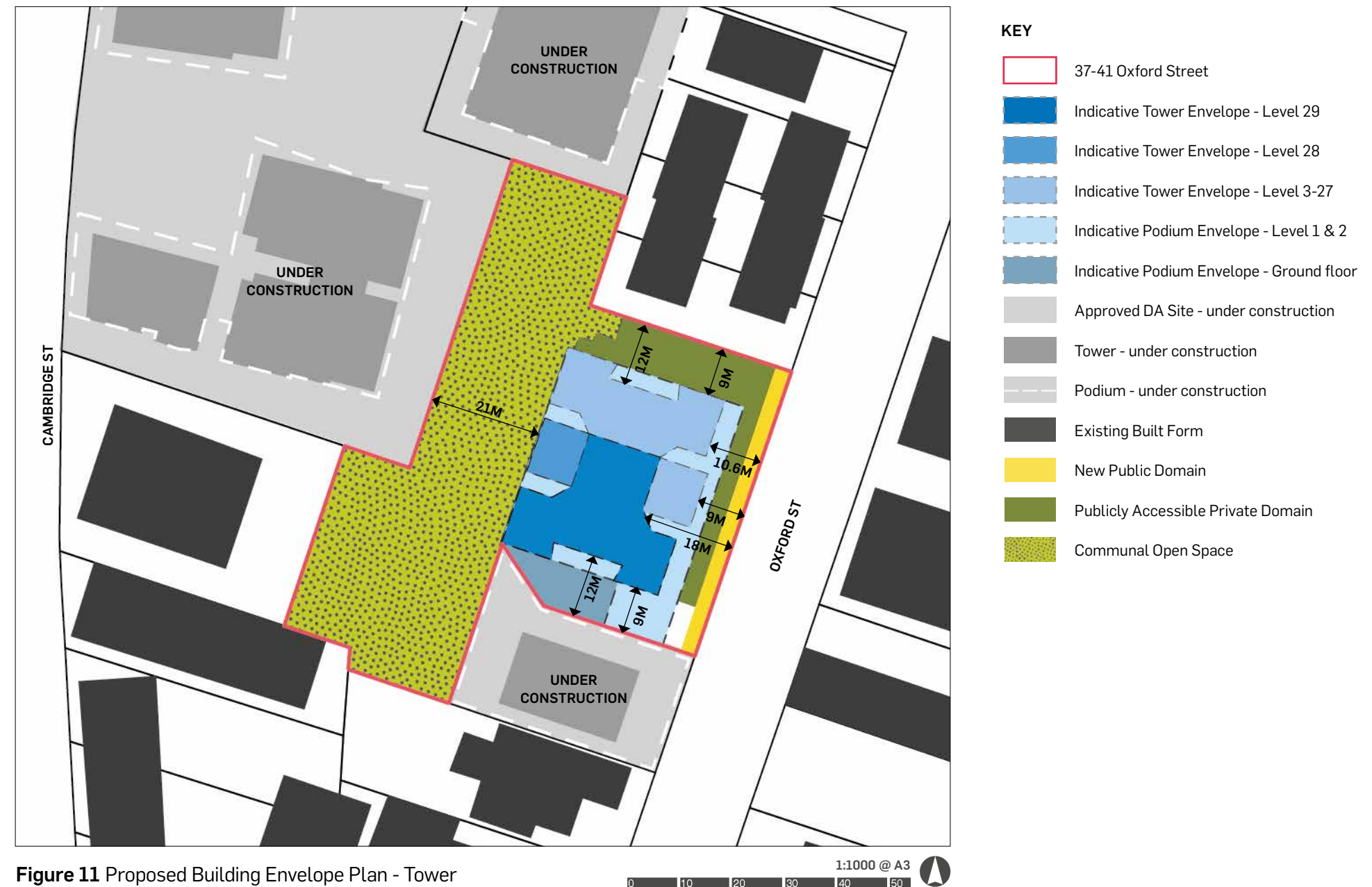


Figure 11 Proposed Building Envelope Plan - Tower

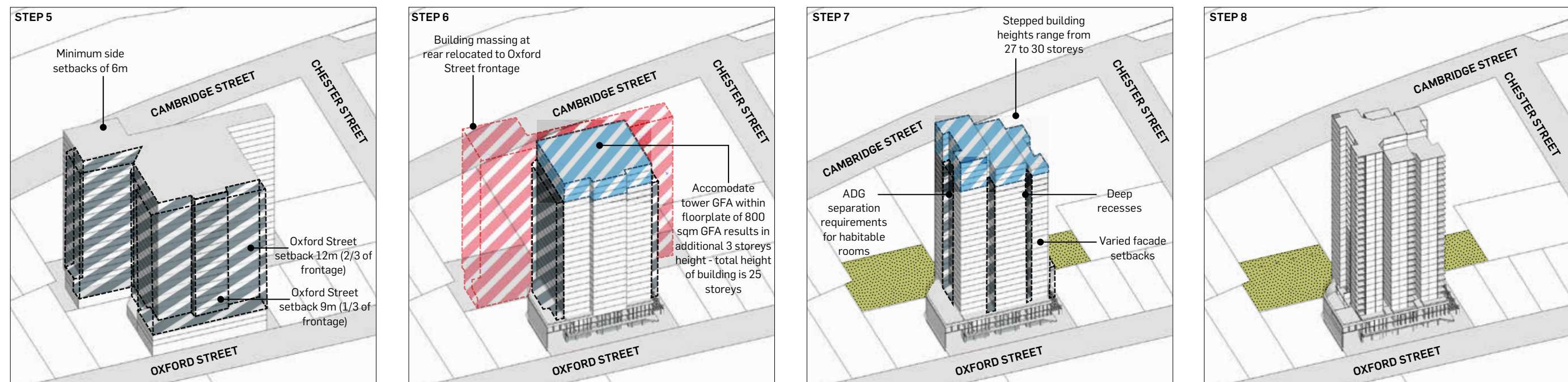


Figure 12 Proposed Building Envelope - Tower Evolution Diagram

Step 5: Minimum tower setbacks and maximum building height - DCP

The maximum height for the site permissible in the LEP is 72m (22 storeys).

Minimum setbacks for the tower elements in accordance with the DCP are as follows:

- Oxford Street: 12m (and 9 metres for up to 1/3 of the tower width).
- Side and rear:
 - A minimum of 6m; and
 - ADG's separation controls:
 - Up to 8 storeys: 9m from boundary for habitable rooms (above podium); and
 - Above 8 storeys: 12m from boundary for habitable rooms.

The DCP identifies a maximum residential floorplate (above the podium) of 700 sqm GFA, resulting in a maximum GBE floorplate of approximately 1,000 sqm.

Step 6: CoP Guidance

Subject to the review of environmental impacts, CoP identified the opportunity for a single taller slender building form to Oxford Street, to accommodate the allowable GFA for the site. And create greater amenity for the adjoining sites and residents.

Further, it also recognised that a floor plate of 800 sqm (i.e. not including vertical access, services, balconies, etc) would be appropriate freeing up the western part of the site to maximise the provision of communal open space.

Council endorsed a setback to the western boundary of 22m. The proposal demonstrates 21m.

To both the north and south boundary, Council has suggested a minimum 9m setback. This is generally in accordance with the ADG for habitable rooms and balconies above podium and up to 8 storeys. An additional 3m setback is required to habitable rooms and balconies above level 8 (for detailed ADG considerations refer to step 7).

Council's recommended floor plate of 800 sqm GFA results in a basic massing floorplate of approximately 1,143 sqm. Based on the maximum allowable total GFA of 22,361 sqm and a podium GFA of 2,358 sqm, resultant the total tower GFA is 20,003 sqm.

At 800 sqm GFA per level, this equates to approximately 3 additional storeys above the allowable height, up to a total height of 25 storeys.

(NOTE: Contextual analysis of the environmental impacts of the building height is provided in the following sections of this report.)

Step 7: Further Site Specific Refinement

In refining the overall massing of the building the following guidance as provided by the CoP was considered:

- Varying the height by stepping down to the north towards 43-53 Oxford Street where a lower height limit applies; and
- Incorporate strong vertical articulation with deep recesses and/or staggered form in the Oxford Street façade of the building.

The proposed building envelope generates a triptych staggered tower form with strong vertical articulation expressed by:

- Two deep recesses in the front and rear facade of the building - up to a maximum of 9m deep (i.e. 18m from the street frontage boundary); and
- A stepped building facade on Oxford Street varying from 9m to 10.6m in three overall massing forms.

Side setbacks of 12m to habitable rooms and balconies on the northern and southern façades above 8 levels in accordance with the ADG.

Horizontal articulation is achieved by expressing the horizontal floor slabs.

As illustrated in Figure 12, the permissible GFA could potentially be achieved with a lower overall building height (approximately 25 storeys). However, the stepped tower approach provides greater variation to the overall building height and demonstrates an obvious visual transition to the adjacent 48m height zone.

Step 8: Tower Envelope Outcome

The single building envelope provides both vertical articulation of the tower form and horizontal stepping of the tower height. The total GFA calculations are as follows:

- Permissible GFA: 22,361 sqm (FSR of 4.5:1)
- TOWER:
 - 298 sqm ea for levels 29 (residential);
 - 381 sqm ea for levels 28 (residential);
 - 625 sqm ea for levels 27 (residential);
 - 776 sqm ea for levels 13-26 (residential);
 - 788 sqm ea for levels 7-12 (residential);
 - 807 sqm ea for levels 3-6 (residential);
 - **TOTAL TOWER: 20,124 sqm**
- PODIUM:
 - 954 sqm for levels 2 podium (residential);
 - 663 sqm for level 1 podium (commercial);
 - 620 sqm for ground floor (retail);
 - **TOTAL PODIUM: 2,237 sqm**
- **TOTAL GFA: 22,361 sqm (FSR of 4.5:1)**

The building height ranges from 27 to 30 storeys including the roof. This is a height of RL 182.25m to RL 192.75m including plant.

ANALYSIS

Analysis of any environmental impacts of the proposed CoP built form guidance has been undertaken. The ADG considerations include:

- Shadow analysis
- Overall massing of the town centre;
- Podium massing as experienced from the streetscape; and
- Solar access to open space areas.

SHADOW ANALYSIS

The following shadow analysis has been undertaken:

1. Shadows cast by existing buildings and approved but not yet constructed DAs (inclusive of the existing building on the subject site);
2. Shadow cast by the proposed building envelope for 37-41 Oxford Street; and
3. Areas of new solar access as a result of demolition of the existing building.

The shadow analysis considers shadow cast in hourly intervals between 9am and 3pm at winter solstice (21 June).

NOTE: For detailed solar analysis on the facades 35 Oxford Street please refer to the architectural design statement.

KEY

37-41 Oxford Street

Existing shadows (including approved & submitted DAs)

Additional shadow cast by proposed building

New solar access compared with existing building footprint and shadow cast

9 AM



10 AM



11 AM



Figure 13 Shadow Analysis Winter Solstice - 9am -3pm

Observation

Early morning shadows are cast across adjacent properties to the south-west, and stretch across the train line to Beecroft Road. Overall, the scale of the shadows are generally in keeping with the scale of shadows cast by the towers at the corner of Cambridge Street and Chester Street.

The majority of the shadow is cast across infrastructure such as the railway line and Beecroft Road. The shadows reach across the facade of the building on the corner of Beecroft and Carlingford Road.

Redevelopment of Our lady Help of Christians Catholic Primary School would also cast shadows in this location.

35 Oxford Street (south boundary): There is some shadow cast on the adjoining building by the proposed scheme. This extends across approximately half of the northern facade. The eastern facade does not receive any shadow from the proposed building. The building shadows itself on the western facade.

Observation

At 10am, the area of new shadow outside of the subject site is limited to falling on parts of the northern facades of 35 Oxford Street and 2-4 Cambridge Street, as well as the rear of lots occupied by Our Lady Help of Christians Catholic Primary School and Church.

35 Oxford Street (south boundary): There is some shadow cast on the adjoining building by the proposed scheme. This extends across approximately three quarters of the northern facade. The eastern facade does not receive any shadow from the proposed building. The building shadows itself on the western facade.

Additionally, the shadow analysis identifies part of the subject site, which is currently either occupied by the existing building or is in shadow, that will now receive solar access at this time of the day.

Observation

At 11am, the areas of new shadow is limited to the rear of some Oxford Street properties and some of the podium area of 2-4 Cambridge Street.

35 Oxford Street (south boundary): There is some shadow cast on the adjoining building by the proposed scheme. This extends across the northern facade. The building shadows itself on the western and eastern facades.

Part of the subject site, occupied by the existing building or is in shadow, will now receive solar access at this time of the day.

12 PM



Observation

Shadow cast at 12pm spans Oxford Street and finishes on the podium of 48 Oxford Street.

35 Oxford Street (south boundary): There is some shadow cast on the adjoining building by the proposed scheme. This extends across the northern facade and on parts of the western facade. The building shadows itself on the eastern facade.

Part of the subject site, occupied by the existing building or is in shadow, will now receive solar access at this time of the day.

1 PM



Observation

At 1pm the shadows stretch across Oxford Street and into the front of the properties at 48 – 50 Oxford Street.

48 Oxford Street (approved DA): The majority of the shadow falls on the podium, with some extending to the northern facade of the front tower.

48A Oxford Street (existing units): The majority of the shadow falls on the front part of the site.

50 Oxford Street (Arden Anglican School): Shadow is cast on some carparking area and some open space at the front of the property.

35 Oxford Street (south boundary): There is some shadow cast on the adjoining building by the proposed scheme. This extends across the northern facade. The building shadows itself on the eastern facade. There is no additional shadow cast on the western facade.

Part of the subject site, occupied by the existing building or is in shadow, will now receive solar access at this time of the day.

2 PM



Observation

At 2pm the shadows stretch across Oxford Street and into the properties at 48 – 50 Oxford Street.

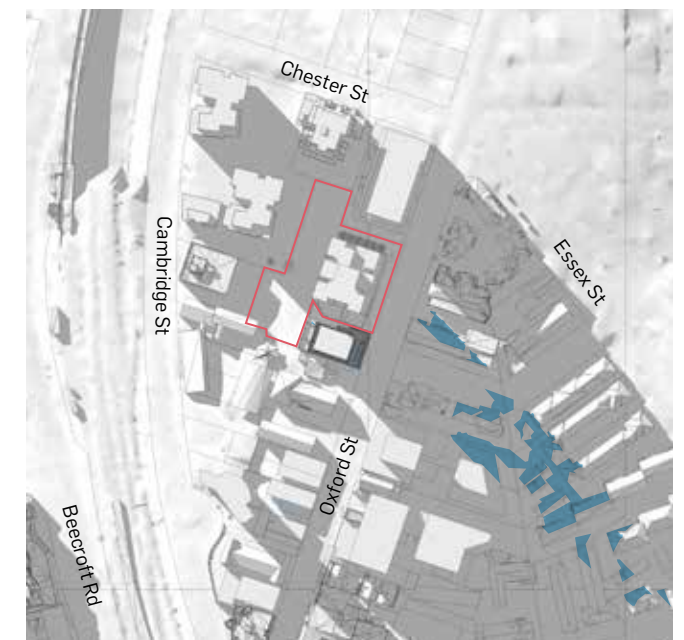
48 Oxford Street (approved DA): The majority of the shadow falls on the podium, with some extending to the northern and western facade of the rear tower.

48A Oxford Street (existing units): The shadow falls across the middle of the site.

50 Oxford Street (Arden Anglican School): Shadow is cast on parts of the carparking area, open space and building at the front of the property.

35 Oxford Street (south boundary): There is some shadow cast on the adjoining building by the proposed scheme. This extends across two-thirds of the northern facade. The building shadows itself on the eastern facade. There is no additional shadow cast on the western facade.

3 PM



Observation

At 3pm, extensive shadow is cast across the precinct by existing and approved buildings. Minor additional shadow is cast by the proposed building on:

- The rear areas and roofs of properties fronting Essex Street,
- The podium at the rear of 48 Oxford Street;
- The roof and of 48A Oxford Street; and
- The roof of 50 Oxford Street; and
- Part of the northern facade of 35 Oxford Street.

Overall observations:

- The proposed building envelope casts a longer but thinner than if the built form was shorter and wider. Tall and thin shadows are faster moving across adjoining buildings and sites.
- Demolition of the existing building on the site results in new areas of solar access on the western side of the property benefiting the proposed communal open space.
- The shadow analysis does not result in any adverse environmental impacts such that existing properties or areas of communal open space would not receive required solar access.

OVERALL MASSING VISUAL CONTEXT

Analysis of the proposed building envelope considers its contribution to the overall objectives for the Town Centre through the following views:

Aerial views (this page):

- Chester Street: north looking south;
- Railway Line: west looking east; and
- Epping Road: south looking north.

Pedestrian level street views (following page):

- Oxford, Cambridge and Pembroke street intersection: looking north-east;
- Epping Station platform: looking north-east;
- Oxford and Chester street intersection: looking south; and
- High Street and Epping Road intersection: looking north.

Section (following page):

- 37-41 Oxford Street through 20-28 Cambridge Street: east-west section

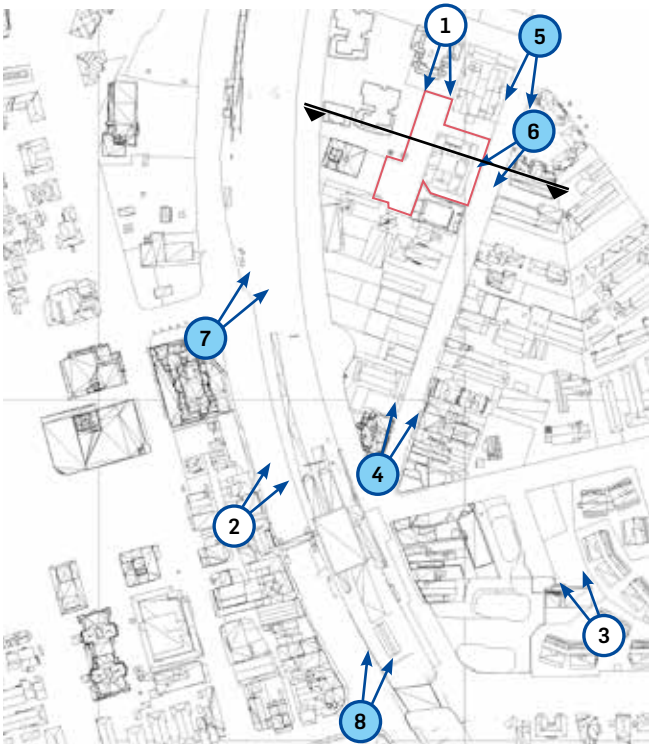


Figure 15 Key Plan

AERIAL VIEWS

In accordance with the HLEP Height Map for the Epping Town Centre, building heights exhibited are generally as follows:

1. Land west of Oxford Street: 72m (22 storeys), with the exception of a transitional heights of 48m and 17.5m to single storey beyond the precinct; and
2. Land east of Oxford Street: 48m (15 storeys), transitioning to 17.5m to single storey beyond the precinct. Increased height, 72m (22 storeys), is designated at the Railway station extending to Pembroke Street and Langston Place, transitioning to 17.5m to single storey beyond the precinct.

Rigid application of blanket heights may result in monotonous and repetitive building heights within the Town Centre as evidenced by:

- Buildings in the 72m height limit precinct include the following 22 storey towers:
 - Twin towers at 20-28 Cambridge St;
 - Single tower at 2-4 Cambridge St; and
 - Single tower at 24-36 Langston Place.
- 3. Buildings in the 48m height limit precinct include adjacent developments at 16-18 storeys:
 - 30-42 Oxford St; and
 -

In contrast, more recent approved developments deliver stepped building heights including:

- At 12-22 Langston Place delivers a stepped building form with three towers delivering building heights of 17, 23 and 27 storeys.
- 44-48 Oxford Street delivers two buildings at 15 and 19 storeys and with a break in the podium form in the central part of the site.

It is sometimes difficult to deliver a variety of building heights on small, individual sites with single tower forms. However, a varied and interesting overall building massing can be achieved by varying buildings heights across individual development sites. This must be done with due regard to the unique characteristics of each site and with proper consideration of potentially adverse environmental impacts in the context of the applicable development controls.

KEY

37-41 Oxford Street

Aerial View

Human Eye Level View

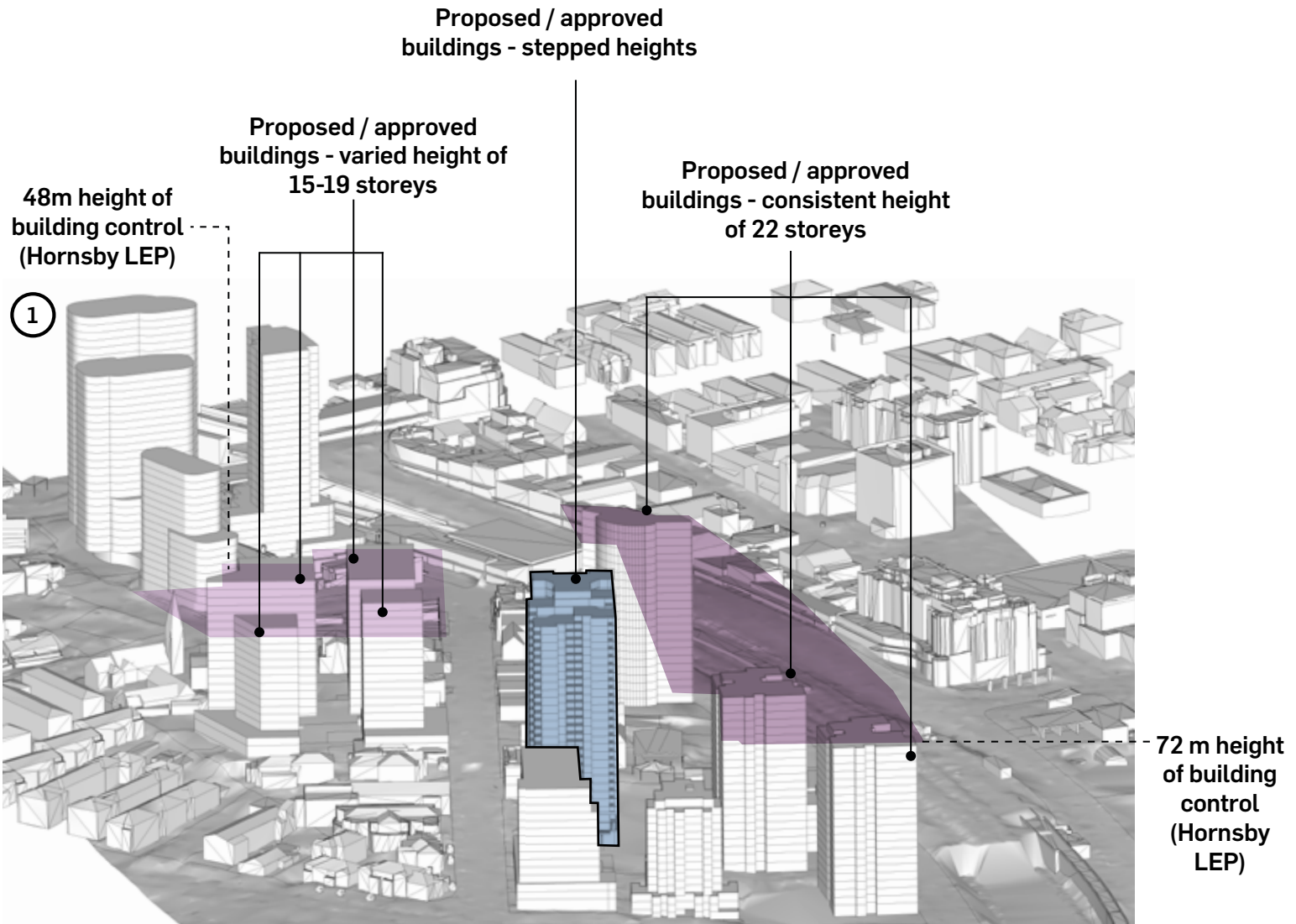


Figure 14 Current massing of Epping Town Centre including approved DAs: Aerial view from north

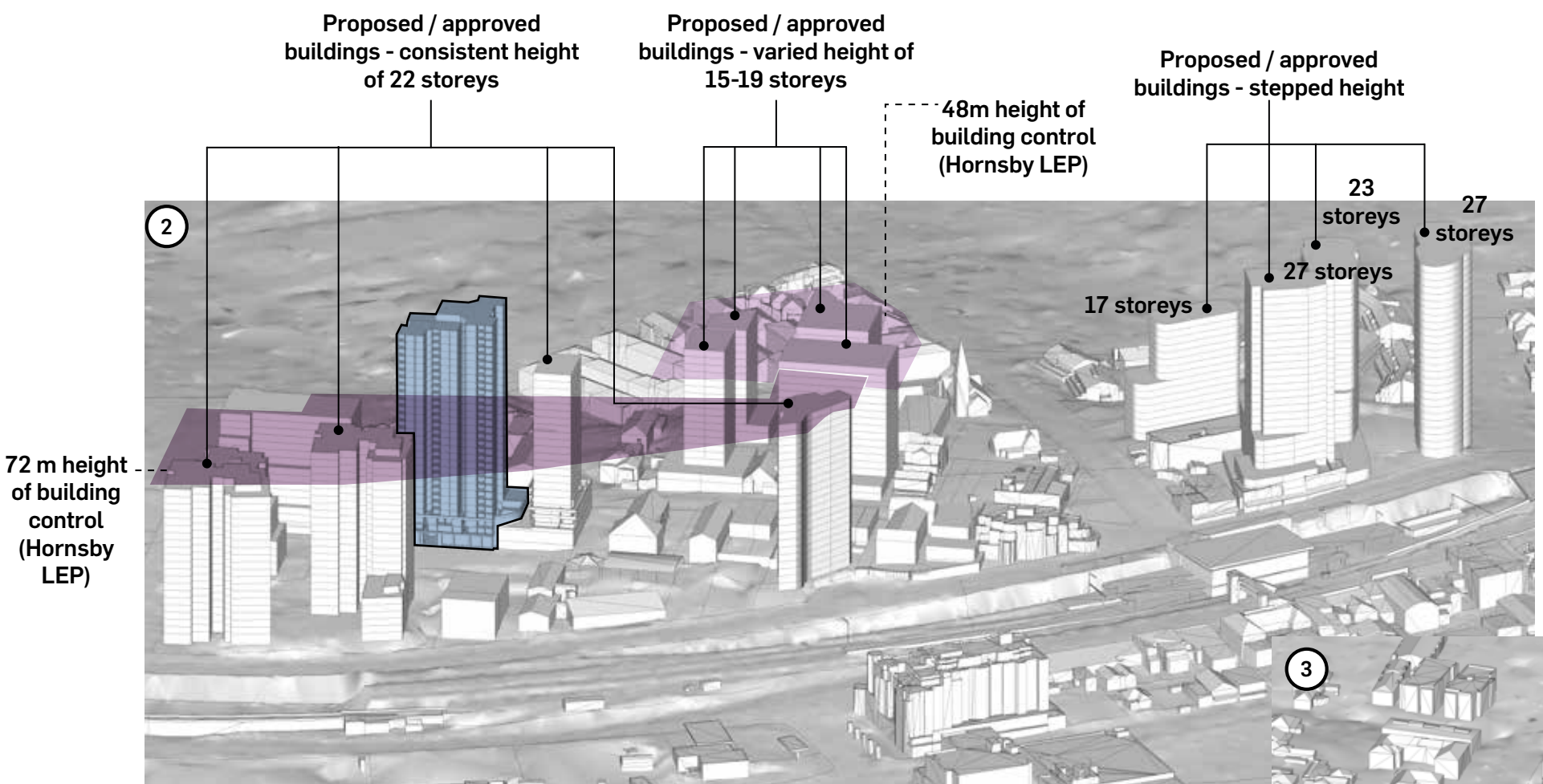


Figure 16 Current massing of Epping Town Centre including approved DAs: Aerial view from west



Figure 17 Current massing of Epping Town Centre including approved DAs: Aerial view from south-west

PEDESTRIAN LEVEL STREET VIEWS

The following massing series depicts street level views towards the site from surrounding streets and public locations, including Epping Train Station.

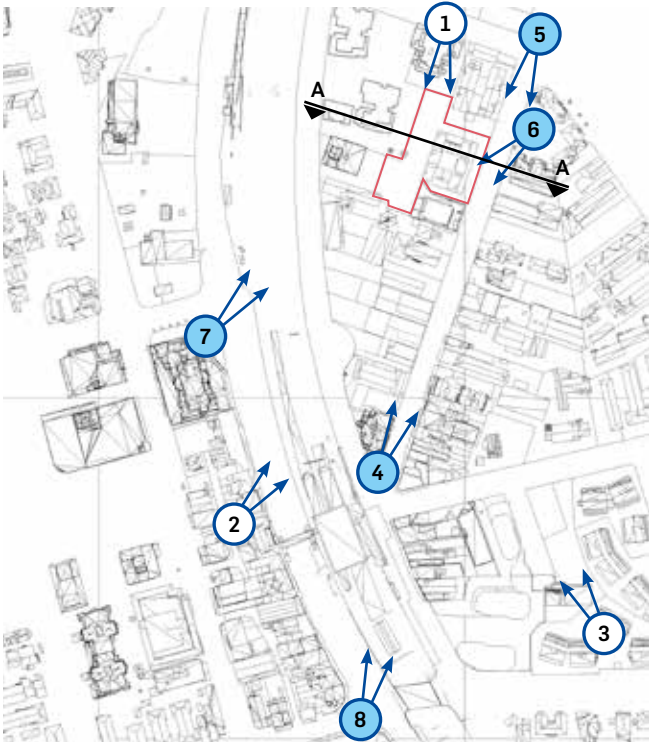


Figure 20 Key Plan

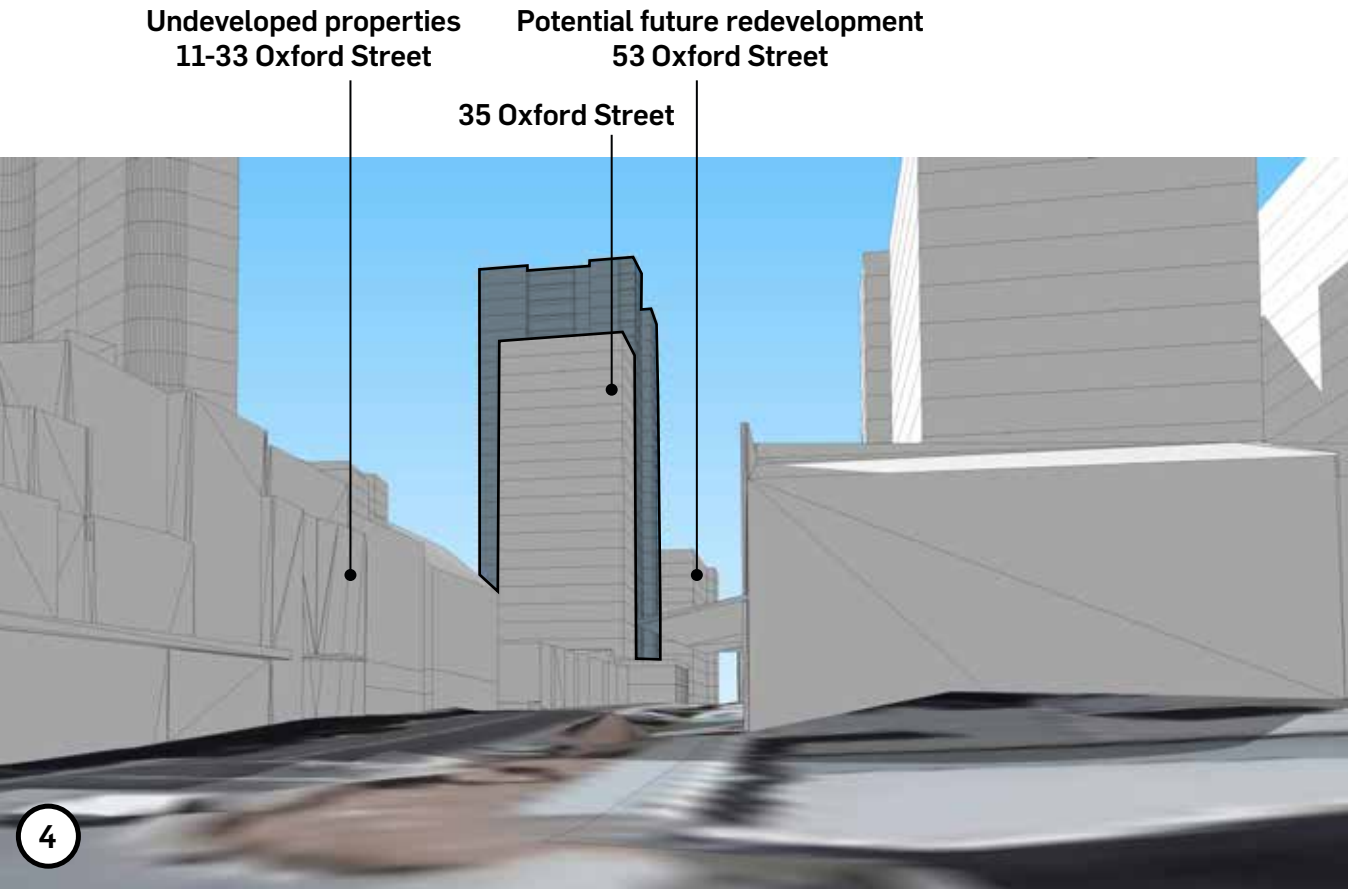


Figure 18 Pedestrian view from south on Oxford Street looking north

Observation

The subject building is generally in keeping with the future massing of the area as, depicted in Figure 17, appearing only slightly taller and wider than 35 Oxford Street.

The podium form is not visible beyond the podium form at 35 Oxford Street.

KEY

- 37-41 Oxford Street
- Aerial View
- Human Eye Level View

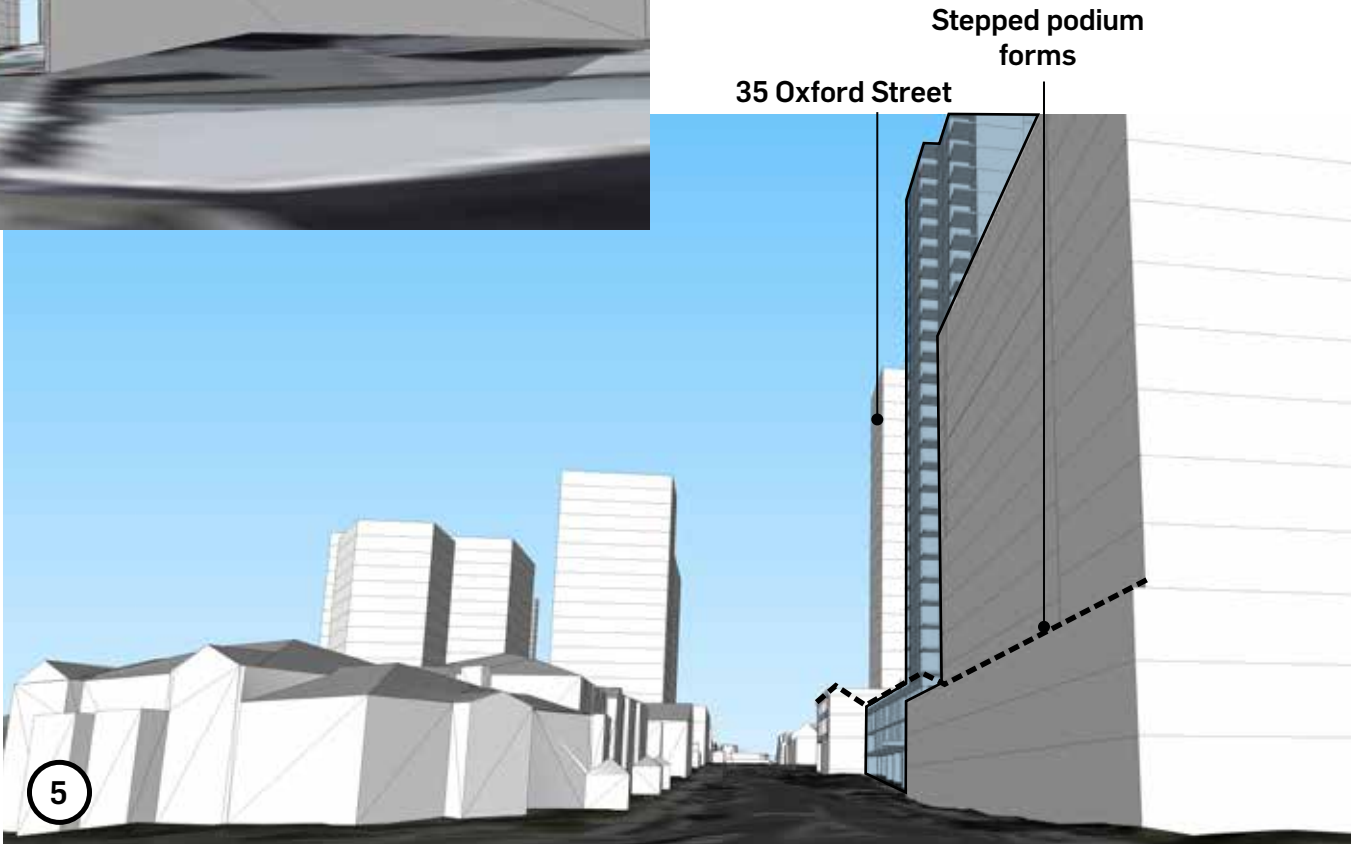


Figure 19 Pedestrian view from intersection of Oxford and Chester streets looking south

Observation

Driving in a car south along Oxford Street,the streetscape podium form massing steps up from 47-53 Oxford Street to 35 Oxford Street.

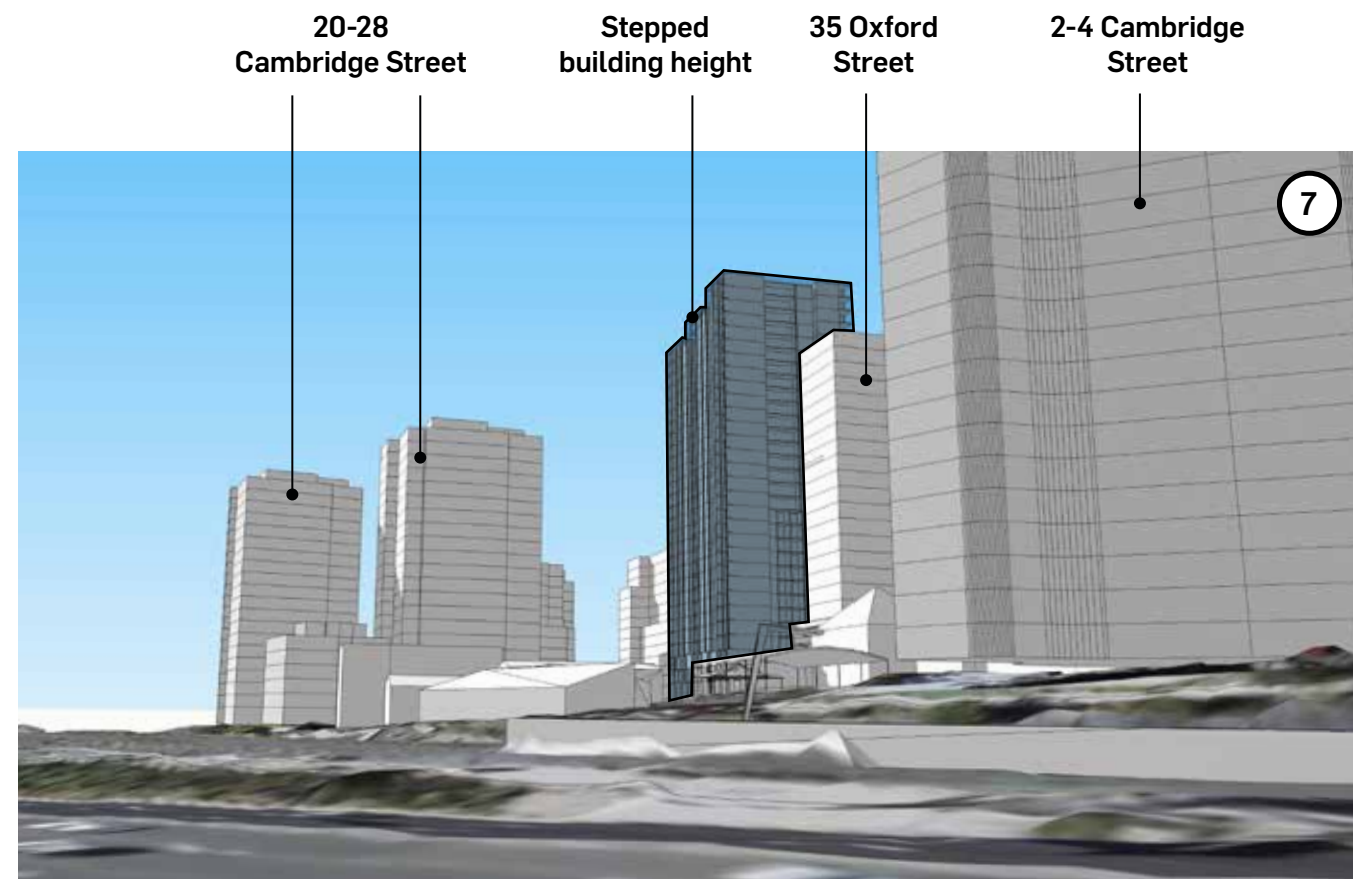
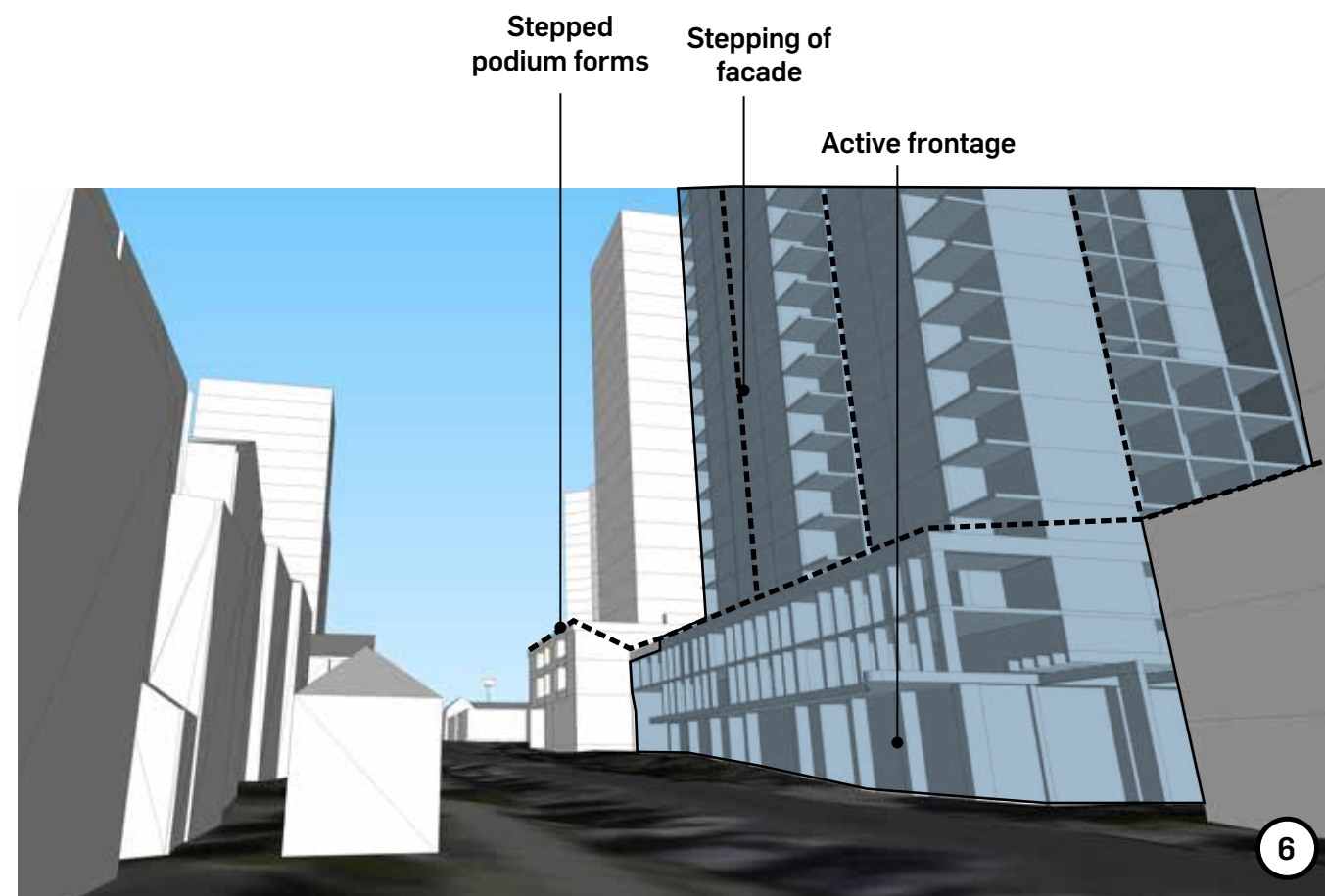


Figure 21 Pedestrian view at Epping Station looking beyond 2-4 Cambridge Street towards site

Observation

The overall massing of the proposal is in context with its surrounds, appearing taller and slimmer than 20-28 Cambridge Street. The height stepping down from 27 to 25 storeys to the north is consistent with the intention of the HELP. The expression of the horizontal slabs visually reduces the perceived height.



2-4 Cambridge Street

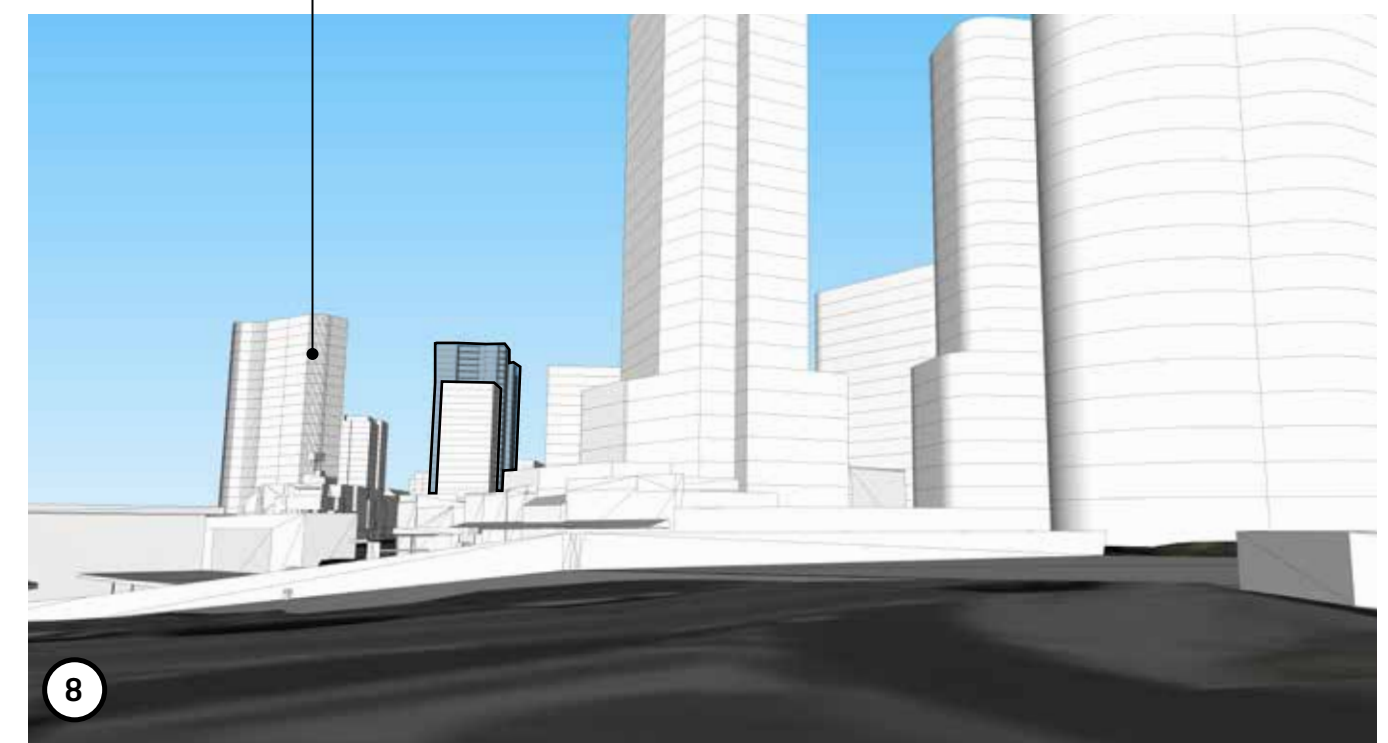


Figure 22 Pedestrian view from intersection of High Street and Epping Road looking north

Observation

Variety in overall building heights is evident in this view, resulting in an overall more interesting and varied composition of the town centre.

Figure 23 Pedestrian view from north at 52 Oxford St looking south

Observation

This view depicts the view of the site as would be experienced from the footpath on the opposite site of Oxford Street looking south toward the Train Station. The existing street character and public domain is respected by the continuation of a three-storey podium. The podium street wall provides an appropriate mix of solid and void elements to allow an active frontage whilst maintaining a strong definition of the urban domain.

SECTION

The following massing series depicts street-level views looking towards the site from surrounding streets and public locations, including Epping Train Station.

Figure 24 Section A-A - Indicative Built Form Section for Epping Town Centre

Observation

The following section is taken through Epping Town Centre and the site looking south. Oxford Street is right and Cambridge Street is left. The section depicts the emerging variety of building heights being delivered in the Town Centre and demonstrates the location of height on the subject site. The section also reflects the change in topography.

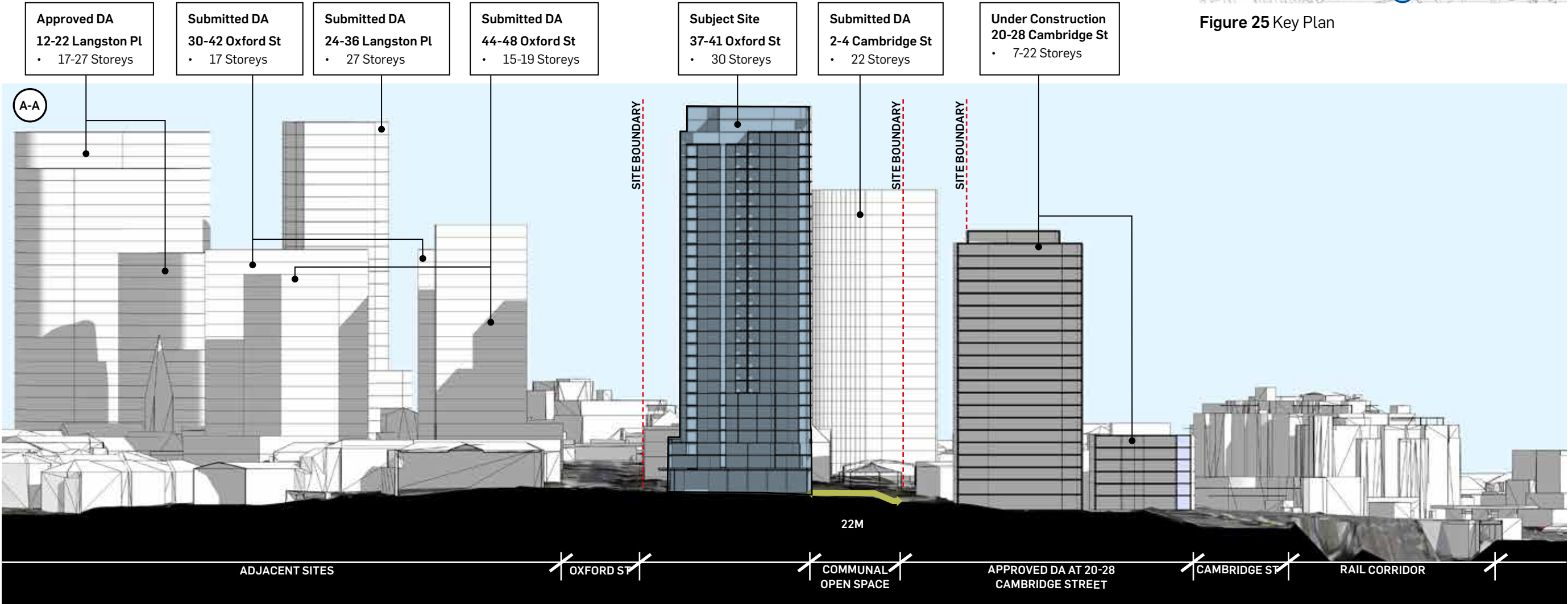


Figure 26 Indicative Built Form Section for Epping Town Centre

OPEN SPACE ANALYSIS

Understanding the quantum, usability and solar accessibility of proposed open spaces within the site is key to understanding the quality of amenity provision.

New Public Domain

170m² of new public domain is provided, as set out below:

The CoP Epping Town Centre Planning Review identified a setback of 3m along Oxford Street which is to be dedicated to the Council. The setback has been provided along the 56.6m Oxford Street frontage. This new public domain equates to 170 sqm created for the benefit of the community. Deep soil planting will be provided to 96 sqm of the new public domain to ensure the longevity of future street trees.

Publicly Accessible Open Space

A total of 495 sqm of land will be publicly accessible open space, as set out below:

- 230 sqm: In addition to the above, an additional 4.5m setback along Oxford Street has been provided to allow for free movement of pedestrians along the frontage whilst accommodating the retention or replacement of existing street trees within the public domain.
- 265 sqm: A 9m wide terrace is provided to the north of the building. It is possible this area will be activated by the adjoining retail business premises.

Communal Open Space

2,829 sqm of communal space area will be available to the residents as landscaped area or rooftop terrace.

The western portion of the land is designated as communal open space. With an area of 2,714 sqm (or 54.6% of the site) the space will significantly enhance the amenity for the residents and visitors to the site. It is 103.5m in length, has a minimum width of 21m and maximum of 34m.

At 54.6% of the site area, the communal open space is in excess of the minimum requirements:

- 50 sqm required by the DCP and
- 25% recommended by the ADG.

The ADG also requires that developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for minimum of 2 hours between 9am and 3pm on 21 June (mid winter).

Significantly, the analysis (see following page) identifies that approximately 95% of the communal open space would receive a minimum of 2 hours sunlight in mid-winter.

The 115 sqm roof top terrace provides the opportunity for diversity of communal space to the residents.

Deep Soil

1,140 sqm or 23%, of the combined communal open space and publicly accessible open space area will constitute the deep planting zones. This will enable planting of significant vegetation, which has the ability to grow to a mature size and provide a permeable ground surface alternative to paving.

Conclusion

A significant proportion of site, 3,494 sqm, will be designated as open space, public domain, or communal open space. This equates 70% of the total site area (including the rooftop provision).



Figure 27 Public domain / open space calculations

Table 3 Open space provision - Proposed DA

	FINAL SCHEME	% OF SITE AREA
Site Area	4,969 sqm	
New public domain	170 sqm	3.4%
- Of which is deep soil	96 sqm	1.9%
Publicly accessible private domain	495 sqm	10%
Communal open space (landscaped area)	2,714 sqm	54.6%
- Deep soil (within communal open space)	1,140 sqm	23%
Communal rooftop	115 sqm	0.23%
Total	3,494 sqm	70%
- Total Deep Soil	1,236 sqm	25%

KEY

37-41 Oxford Street

New Public Domain

Publicly Accessible Private Domain

Communal Open Space

Deep Soil Area

COMMUNAL OPEN SPACE SHADOW ANALYSIS

The provision of solar access to communal open spaces areas is essential in ensuring it is usable, inviting and attractive. The ADG requires at least 2 hours of sunlight to all communal open space areas (residential) on winter solstice between 9am and 3pm. The following analysis identifies the areas of solar access to the communal open space (COS) for the proposal.

95% of the COS will receive 2 hours of sunlight in mid-winter.

Table 4 ADG solar access communal open space

Total area (% of site)	54.6%
Hour	% in sunlight
@ 9am	5%
@ 10am	65%
@ 11am	70%
@ 12pm	50%
@ 1pm	30%
@ 2pm	30%
@ 3pm	25%
% min 2 hrs solar access	95%

KEY

37-41 Oxford Street

Communal Open Space - in Shadow

Communal Open Space - Solar Access



Observation
There is 5% of COS in sunlight at 9am



Observation
There is 65% of COS in sunlight at 10am



Observation
There is 70% of COS in sunlight at 11am



Observation
There is at least 50% of COS in sunlight at 12pm



Observation
There is 30% of COS in sunlight at 1pm.



Observation
There is 30% of COS in sunlight at 2pm.



Observation
There is 25% of COS in sunlight at 3pm

Figure 28 Communal Open Space Shadow Analysis

As identified in the plan opposite, 95% of the communal open space receives 2 hours of solar access in winter solstice.

- KEY**
-  37-41 Oxford Street
 -  Communal open space with more than 2 hours of sunlight in mid-winter
 -  Communal open space with less than 2 hours of sunlight in mid-winter

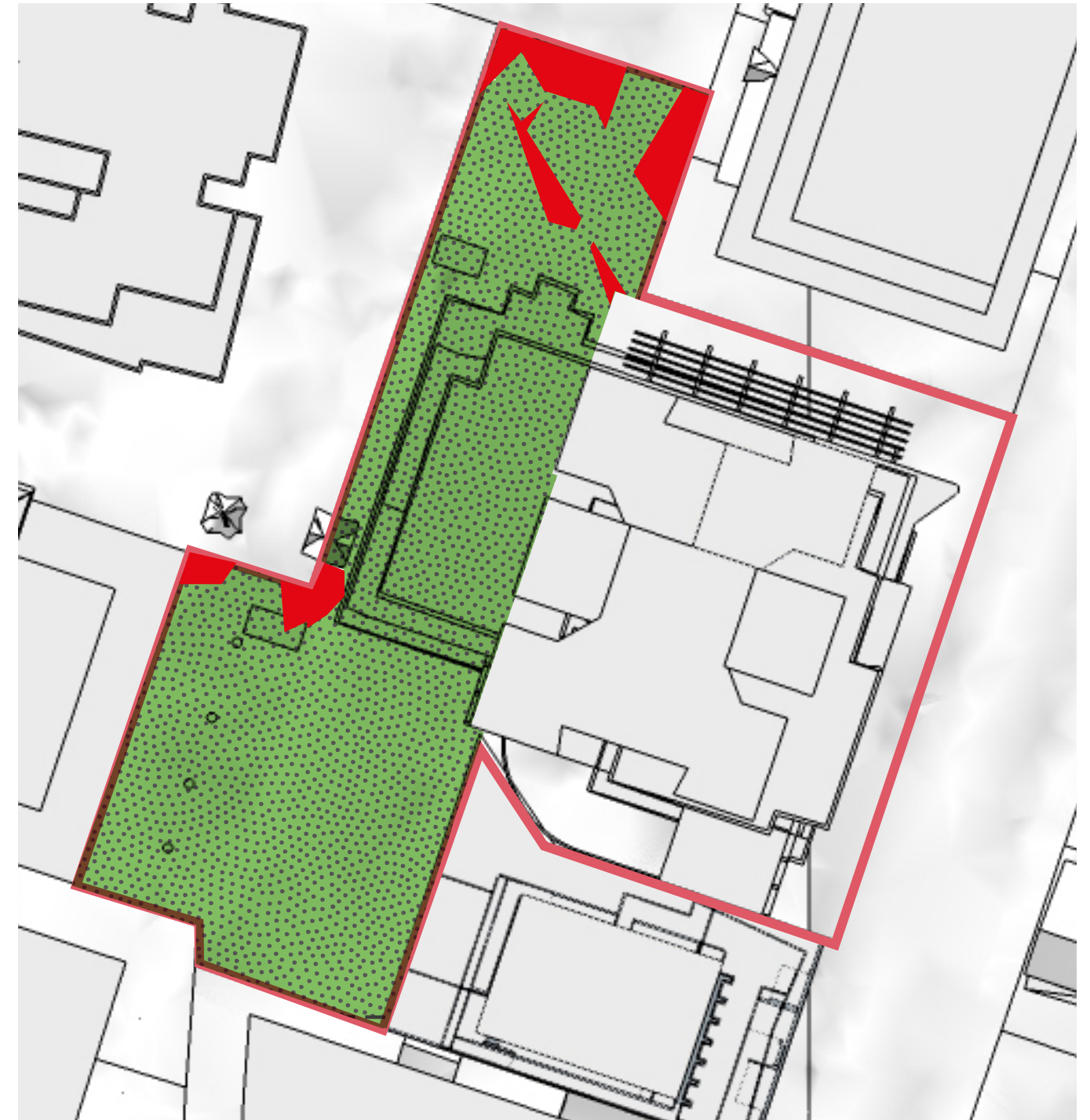
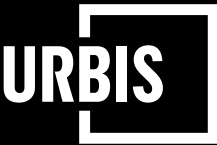


Figure 29 Communal Open Space Shadow Analysis



BRISBANE
GOLD COAST
MELBOURNE
PERTH
SYDNEY
CISTRI — SINGAPORE
An Urbis Australia company
cistri.com

URBIS.COM.AU