Prepared for: Stockland
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(Renders reflect original DA submission tower and podium design)

Urban Design approach

29-33 Oxford Street & 6-14 Cambridge Street, Epping

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This report is considered a draft unless signed by a Director or Principal

*note all updates for November Revised DA submission shown blue

01 Introduction

Having recently celebrated its Centenary, Our Lady Help of Christians (OLHOC) is currently developing a comprehensive proposal for its site, focussing on the next hundred years. This proposal intends to consolidate the Parish's presence in the local community by reinforcing the primacy of the heritage church while incorporating a broad range of parish, education and residential uses on its site. Apart from enhancing both education and parish activities, this strategy will allowing elderly residents to remain engaged with the broader community through their proximity to the Town Centre, the Church, the Parish and the new school. Unlike typical adjacent developments, the proposal will achieve great public benefit to the Epping Town Centre and its broader context by providing:

- a new 200 seat parish hall with scope for community access and use
- new parish administration facilities to enhance the heritage church
- universal access to existing heritage church, frontage, new hall and parish
- new parish accommodation
- a contemporary primary school with capacity for a second stream in the future
- a new after school hours care facility with secure open space
- well conceived basement parking with safe and secure drop off
- a contemporary high quality aged care facility comprising 132 rooms
- a contemporary high quality retirement living tower comprising 172 ILU's
- generous recreational facilities for retirement living residents
- new active retail and street landscape at Cambridge Street
- publicly accessible square and parish green at Oxford Street level
- upgraded street frontages with new paving and street trees.

Additionally, to provide the heritage church with an appropriately low scale context, the Parish intend for buildings adjacent to the church to be low scale and setback within a landscape frontage. This will enhance the open space quality of the rapidly evolving Oxford Street streetscape, by creating a landscaped oasis in a continuous high scaled environment, it will also provide essential places for gathering, ceremonial and cultural activities. To prepare a design brief, the Parish has undertaken extensive consultation so as to incorporate the requirements of each of its stakeholders and extended community. Through this process, a number of key objectives were defined. With the design brief and local planning guidelines, a reference design process was undertaken to establish:

- the capacity of the site to accommodate its brief requirements
- the relationship between allowable density and planning controls
- built form implications, including amenity, compliance and relationships between users within the site
- impacts on adjoining properties, local context and heritage items
- an economic framework to define project feasibility
- a development process to bring the project to realization.

1.1 Purpose of the report

This report describes the urban design strategy for the proposed development of 29-33 Oxford Street & 6-14 Cambridge Street, Epping and is intended to support the Development Application submission for this project.

This report has been updated to include amendments to the tower as follows:

- reduction in tower floor plate
- amended tower modelling
- minor amendments to RAC podium & basement
- relocation of substation from Oxford St to Cambridge St

A selection of three dimensional images created during the design process

Figure 1. Oxford Street frontage (original concept images August 2018)

Figure 2. Educational link (original concept images August 2018)

1.2 Process: Reference design to current proposal

The reference scheme (prepared by Architecture Plus) generally maintains the low scale of the existing heritage church by arranging a school to its south and a new parish hall and administration to it north. With all higher massing relegated to the Cambridge Street half of the site, retirement living is proposed in two towers above a north south aligned stepped podium containing residential aged care above street facing retail. To address the many vehicular requirements of each of its uses, numerous driveways are proposed including a one way open air drop off driveway deep into the site for school and parish uses; a discrete entry ramp for RACF and ILU uses and a “porte cochere” aligned with the RACF entry.

This reference scheme formed the basis for a detailed design by Architectus, which includes a revised context and site appraisal (refer to 02. Context), a return brief addressing opportunities, constraints, improvements to the reference design and an integrated design response. The built form and layout and use diagrams contained in this report illustrate the evolution of built form and spatial structure during the design process, from opportunities and constraints to the current option (refer to 03. Built Form and Scale; and 04. Layout : Use and Amenity).

With markedly improved physical and visual impacts on both street frontages and greatly reduced impacts on adjoining properties and public domain, clearly the currently proposed single tower option is superior to the two tower arrangement proposed in the reference design. While the current proposal’s density for the site complies with LEP requirements, it does however include a number of built form non compliances. These include the height of the single tower proposed, which exceeds the 72m height plane; the size of the tower floor plate, which exceeds the DCP’s 700sqm requirement; and the height of the Cambridge Street podium, which does not comply with the DCP requirement for a two to three storey street wall.

Each of these non-compliances is addressed in this report and are justified in terms of improved urban design outcomes for the whole site, including its heritage church, both its Oxford and Cambridge street frontages, its network of internal spaces, relationship between discrete uses, adjoining properties, streets and broader context. (refer to 06. Conclusion : Urban Design Outcomes).

Figure 3. View into the open space (original concept images August 2018)

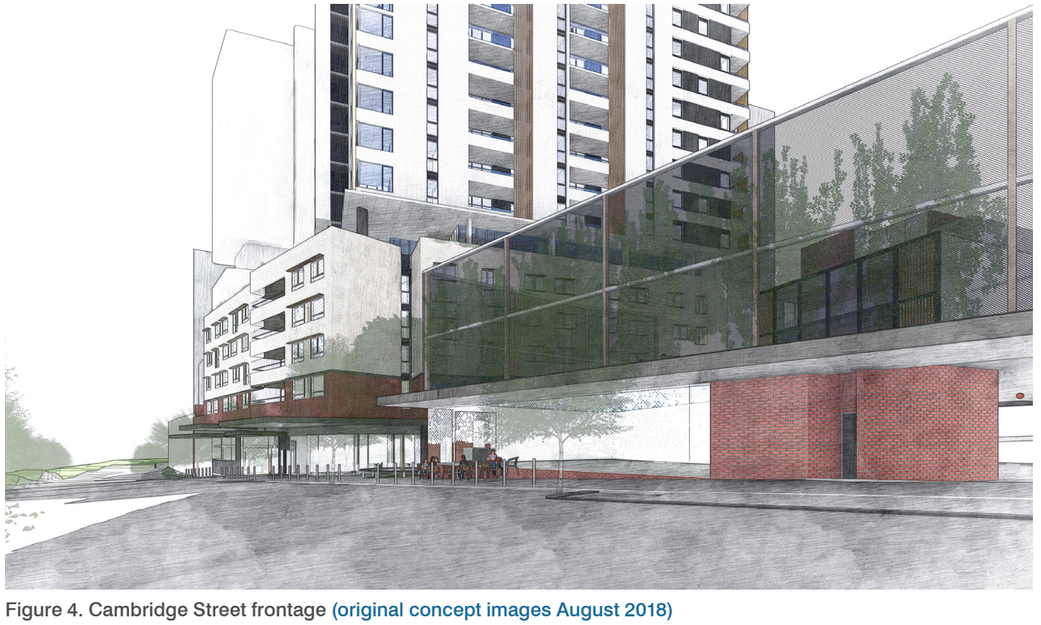


Figure 4. Cambridge Street frontage (original concept images August 2018)

02 Context + site analysis

2.1 Epping context

Epping is a key inter-modal transit centre for both rail and bus transit systems in the Sydney Metropolitan Network and will become increasingly important as its Chatswood to Epping link is converted into a metro line. With its arterial road system, it will become increasingly accessible from Sydney's CBD, Chatswood, North West business park, Macquarie Park, Macquarie University and other key centres of employment, education and culture throughout the region.

The subject site is located within the Epping Town Centre Priority Precinct, falling into the North Sub-region of Sydney's current metropolitan plan: "A Plan for Growing Sydney". According to this document, substantial population growth is forecast and accordingly, height and density requirements have significantly increased. Bisected by the Main Northern Railway Line, the Epping Town Centre has grown as two quite different suburban centres with higher built form to the west of the rail line and a predominance of one to two storey buildings to its east. Now, with much higher and denser mixed use development being proposed on both sides of the rail line, there will be greater consistently with the rail centred intensification envisaged throughout the plan. Located east of the rail line, the subject site is higher in the topography than the western side of the Town Centre and spans between two street frontages : Oxford Street, which defines the ridge; and Cambridge Street which aligns with the rail corridor. Defined as 29 – 33 Oxford Street and 6 – 14 Cambridge Street - it is ideally located for redevelopment and given its proximity to Epping Station, highly accessible and convenient to its local and broader context.

As the Epping Street Town Centre continues to grow, Oxford Street will become increasingly important as a cultural spine. With its many heritage buildings, existing trees, access to the station and privileged position, the street will be upgraded with new paving and street trees as its frontage consolidates.

The frontage of 29 – 33 Oxford Street is dominated by the distinctive brick gabled form of the heritage church, Our Lady Help Of Christians (OLHOC). Complemented by a large plane tree to its south and falling to its west and north, the site has evident access and amenity issues, not only to the church, but also to its rear facing school, open play spaces and administration facilities.

With new multi storey towers and contiguous two to three storey podia (built or proposed) on both sides of the street, open landscaped spaces - such as proposed along the OHLC Church frontage - will emerge as welcome cultural oases in an otherwise continuous high scale streetscape. Located two levels below Oxford Street, Cambridge Street currently appears as a mere parking corridor, with randomly aligned existing and proposed towers, a variety of podia and free standing building types. In time however, it will become a key "village street" (as per the current DCP documentation) with lobbies and active retail activating its upgraded public domain. Although the variety of forms, heights, levels and alignments along Cambridge Street would challenge the DCP's envisaged two to three podium strategy, a compelling picturesque character could emerge to better address the street's slope and irregularity. While requiring a more nuanced coordination between adjacent developments, a high level of urban design quality and pedestrian amenity could yet be achieved along this important frontage.

Within one of Sydney most rapidly evolving high density town centres, the current proposal directly responds to heritage, topography and its unique location. Moreover, in bringing together such a high concentration of user groups, the proposal will activate its context with essential parish, education and cultural facilities, while providing much needed housing for older residents close to the Town Centre.

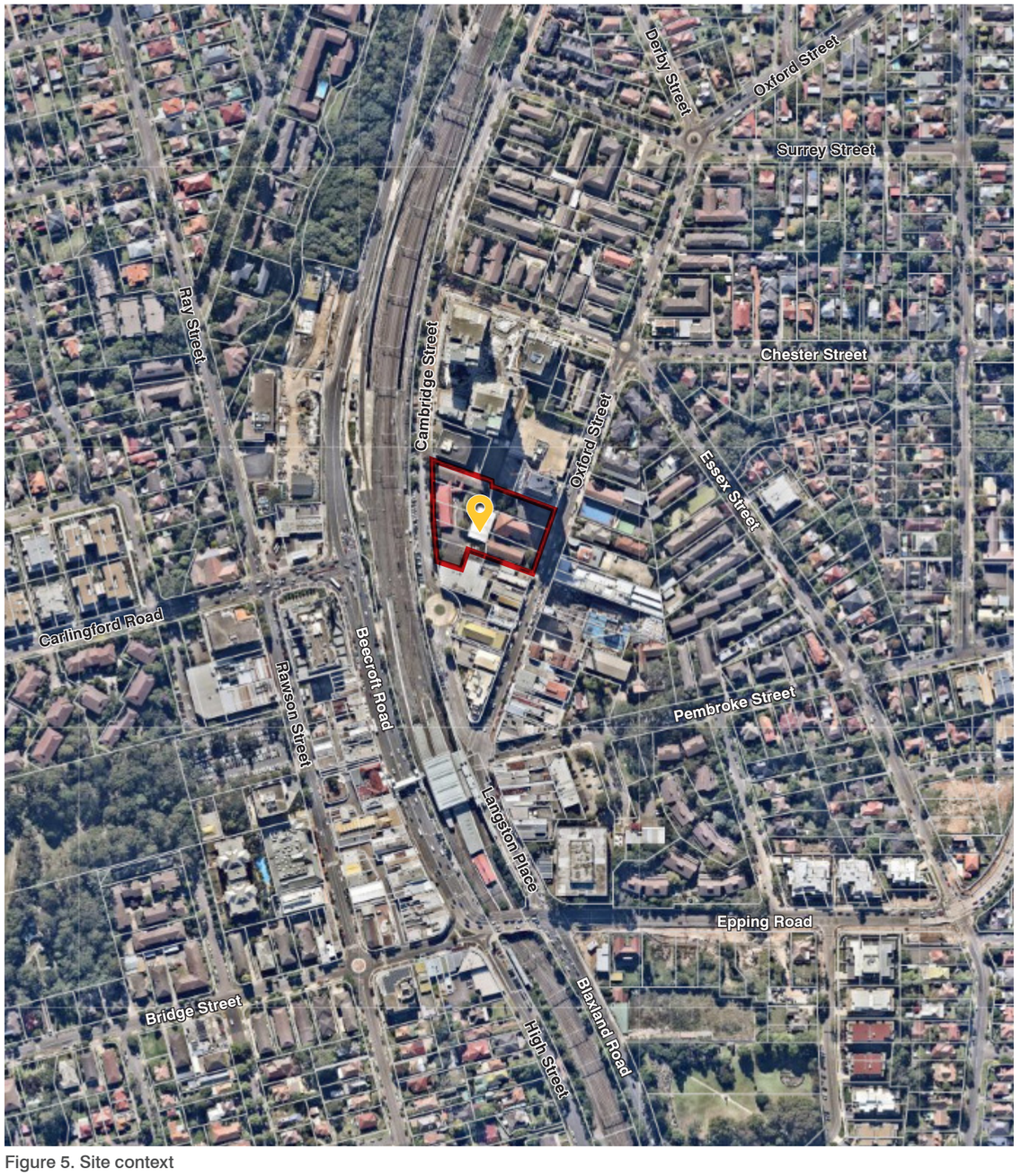


Figure 5. Site context

To maintain Oxford Street's heritage scale, new school and parish hall buildings will be two storeys only. This ensures that the heritage church continues to dominate the street frontage in terms of height, scale and visual presentation. With higher massing confined to the Cambridge Street, the current proposal bisects its frontage with a continuous cross site link, allowing views and movement through the site, connecting Cambridge with Oxford Street and providing the new school with two main frontages. Not only does this significantly reduce the visual and physical impacts on adjoining properties, it maintains an open western aspect from Oxford Street. As illustrated in this report, moving from the reference scheme's two tower option to the currently proposed single tower, improves both the articulation and expression of both Oxford and Cambridge Street elevations, while bringing to their respective frontages a variety of user groups and architectural solutions. Hence in Oxford Street, the church is reflected in its tripartite built arrangement of new buildings, while in Cambridge Street, a dialogue between the tower, its podium, active retail and landscaped play space is created.

With new towers rapidly emerging in the context, minimal site widths on neighbouring properties have created constrained building envelopes with minimal setbacks. The resultant compactness between towers has increased the need for adjacent open space with built form to be coordinated so as to achieve acceptable levels of internal and open space amenity. With its large site size, the subject site is well positioned to provide this form of spatial relief and open space to benefit multiple sites. In response to the now constructed 72m tower at 35 Oxford Street for example – built strikingly close to the northern site boundary – the new Parish Square and two storey hall will maintain its outlook and privacy. So too will the proposed cross site link expand vistas across the site and maintain the open character.

Interestingly, in a similar vein, not only will the approved tower at 2 – 4 Cambridge Street benefit from the vast separation to the subject site's single tower, the entire streetscape will benefit from its visual cross site link. Adjustments to the height of built form, required by Council on adjacent sites, is another example of improved urban design outcomes for multiple sites. As demonstrated at 37 – 41 Oxford Street for example, the relocation of built form from the rear garden to its recently approved thirty storey tower, impacts positively on all adjacent properties. By increasing building separation, this initiative creates an open space corridor that will enhance outlook, landscape and solar access to sites all around it, including the subject site.

Figure 6. Site analysis - open space, town square and tall buildings

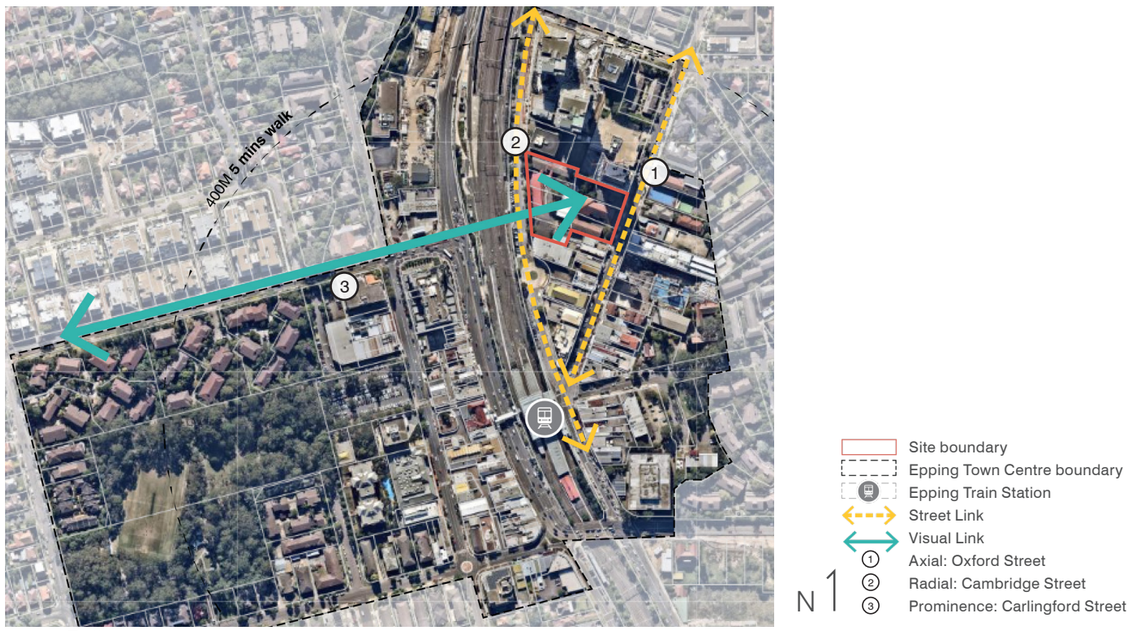


Figure 7. Key links

2.2 Oxford + Cambridge Streets

This selection of images around the site describes the existing and emergent character of adjacent streets, including high scale proposals and the existing heritage church. At right are a series of images describing the “village street” character envisaged for both Oxford and Cambridge Streets.

Oxford Street

Cambridge Street

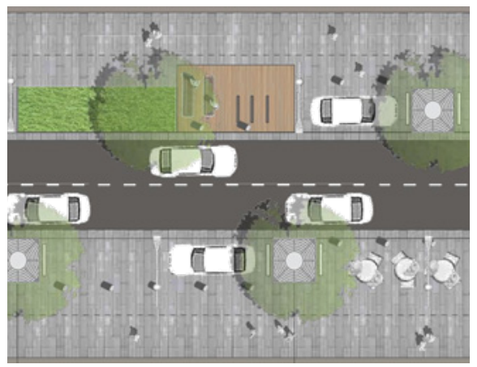
Our Lady Help of Christians Catholic Parish Church

The Church of Our Lady Help Of Christians (OLHOC) is listed as a heritage item of local significance within the Hornsby LEP. It is not listed on the State Heritage Register.

Jardine Residences, Oxford St

Poly Horizon, Cambridge St

High rise developments adjacent to the subject site and indicate the future context of the Epping skyline.



Village Street section

Village Street plan

Section and plan diagrams from the Epping Town Centre Public Domain Guidelines which prescribe recommended footpath and carriageway widths. Indicated on the map are the sites proposed as the two Epping Town Centres.

2.3 Church: Hertiage item

The Church of Our Lady Help Of Christians (OLHOC) is listed as a heritage item of local significance within the Hornsby LEP. It is not listed on the State Heritage Register. The church land first came into the posession of the parish in 1907 and a original church was built the following year, 1908. The current church was designed by Architect Mr G. Clancey and constructed in 1938.

Figure 8. Photograph of Our Lady Help Of Christians pre-extensions, 1908

2.4 Plan analysis

This plan diagram locates the site on the east side of Epping Town Centre. It is close to Epping Station and the link to the eastern part of the Epping Town Centre, providing the site with great access and convenience to local facilities. With prevailing winter winds from the west and north east summer winds, the site is subject to cooling breezes during Summer and chilly conditions in the colder months. With its eastern frontage along Oxford Street, the site falls approximately eight meters to its Cambridge Street frontage below. The Our Lady Help Of Christians Church is centred on the Oxford Street frontage and there is a large tree to the south of its main portal. School buildings currently located to the west of the site are poor in amenity, subject to train noise and difficult to access. The brief requires that the school is relocated to the Oxford Street frontage so as to improve its amenity, increase its visibility and allow it to contribute to the Oxford Street frontage. Due to its site orientation, the Oxford Street frontage receives morning sun, the Cambridge Street frontage receives westerly sun and northern sun perpendicular to the northern boundary penetrates the site in the middle of the day.

With new towers rapidly emerging on neighbouring properties, the prevalence of minimal site widths have created constrained building envelopes with minimal setbacks. The resultant compactness between towers has increased the need for adjacent open space and built form to be coordinated to achieve acceptable levels of internal and open space amenity. With its large site size, the subject site is well positioned to provide open space and view corridors to benefit multiple properties, as has been proposed on adjacent sites. In response to the now constructed 72m tower at 35 Oxford Street for example – built strikingly close to the northern site boundary – a new open space and low building will maintain outlook and privacy. So too would a proposed cross site link expand vistas across the site and maintain the site's openness.

Interestingly, adjustments to the height of built form, required by Council on adjacent sites, will significantly improve the urban design outcomes on multiple sites. As demonstrated at 37 – 41 Oxford Street for example - the relocation of built form from the rear garden to its recently approved thirty storey tower, impacts positively on all adjacent properties. By increasing building separation, this initiative creates an open space corridor that will enhance outlook, landscape and solar access to sites all around it. The subject site too can benefit from this open space as this will enhance northerly sun into the centre of the site.

Figure 9. Constraints and opportunities

2.5 Sectional analysis

This sketch section illustrates the privileged position of Oxford Street, which is aligned with the ridge. At the highest level in the precinct, the site was a clear early choice for the church location, with its main entry portal facing east. While the dramatic fall across the site to Cambridge Street creates accessibility issues, it also affords great western outlook over the railway to the western portion of the Epping Town Centre. Adjacent built form reveal significantly scaled towers to all boundaries and indicates the new scale and character of Oxford and Cambridge Streets.

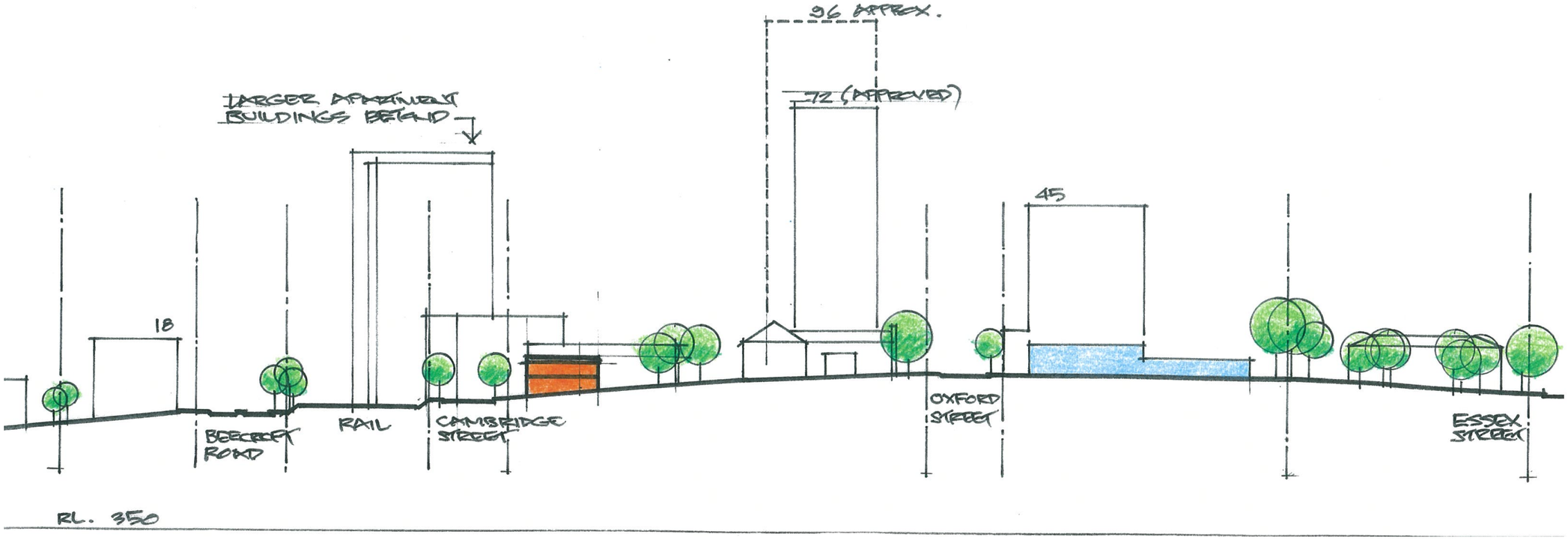


Figure 10. Existing section through site

03 Built form + scale

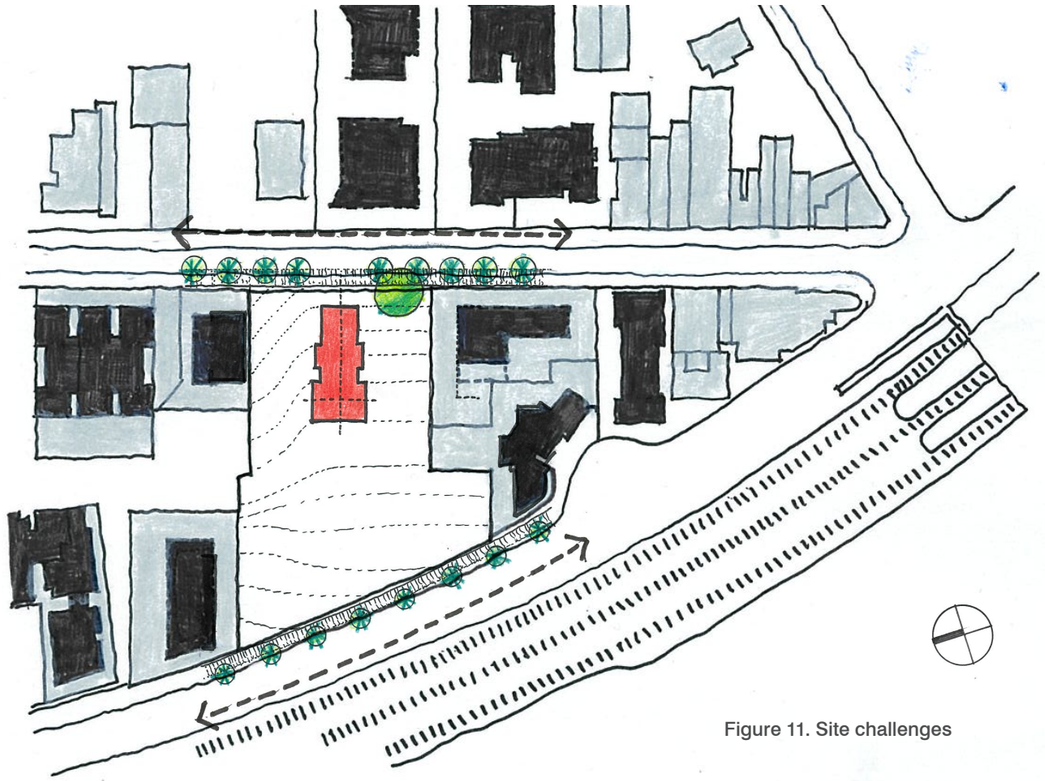


Figure 11. Site challenges

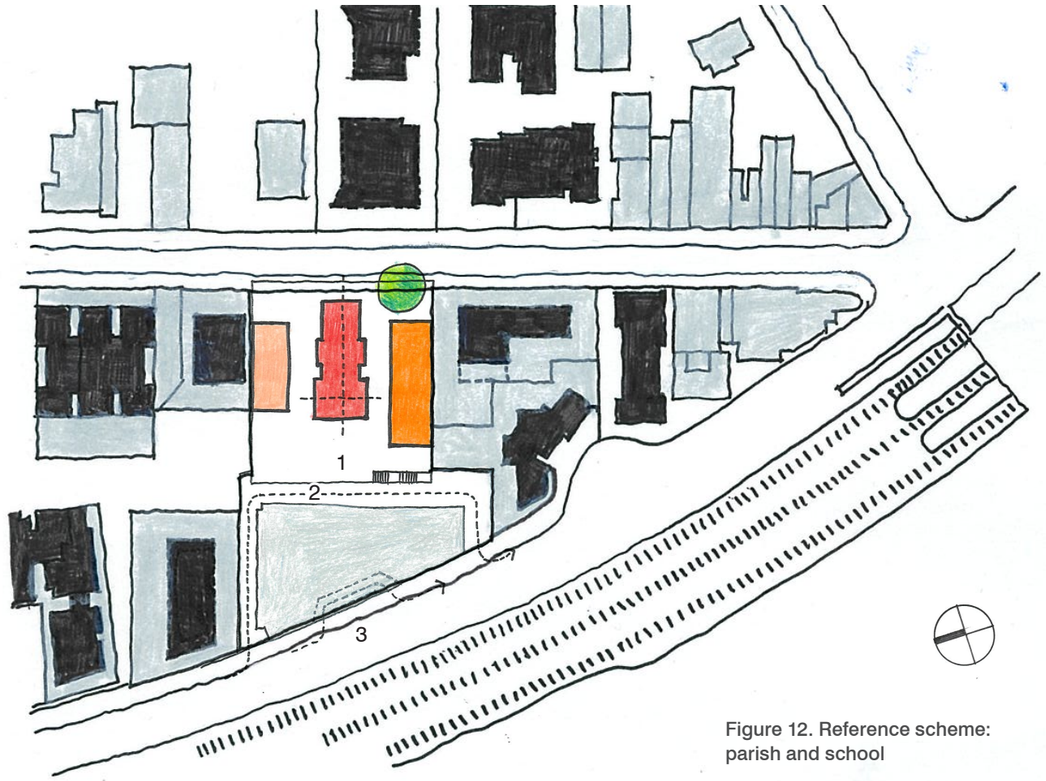


Figure 12. Reference scheme: parish and school

Site challenges

With its complex brief and physical constraints, the site presents a number of complex challenges. Centrally located at the highest side of the site, the heritage church invites lower buildings to each of its sides. Not only will this tripartite arrangement strengthen the church's centrality, it allows for a landscaped Oxford Street frontage that is truly public in character. With increased densities along both street frontages, the site's openness is vitally important to relieve the additive impacts of closely packed development. The significant fall to Cambridge Street and across both frontages requires great attention. Not only to provide secure and universal access across the site, but to minimize impacts on adjoining sites. With its orientation and adjacent high buildings, great care is needed to optimize solar access to residential, educational and cultural facilities throughout the day. Given site size, all facilities proposed must be compact, efficient, function as an ensemble, and relate across well considered landscaped spaces. Some facilities such as the school, must be planned to allow future expansion and be sufficiently flexible to adapt to future requirements. Such a high concentration of user groups presents a unique opportunity to create an extended community - to delight the aged with the sounds of children, to allow the young to learn from experienced elders and to establish a vibrancy that is truly diverse and life affirming. Great care must be taken however to ensure that different groups maintain visual and acoustic privacy. The intensity of users proposed also requires a well defined circulation regime, with articulated street entries, discrete lobbies, clear sight lines, defined private areas and secure access at all times. Both street frontages must be activated, upgraded and provided with an expression and character that truly represents Epping's rich cultural heritage and urbane future.

Reference scheme: parish and school

The reference scheme clearly separates low scale school and parish uses which face Oxford Street, from high scale residential uses, located on the Cambridge Street side of the site. With the church's centrality reinforced by a new school to the south and parish hall to the north, the school's open play space is located in a north south courtyard in the middle of the site (1). The school's future second stream will be located in additional levels above the proposed school; apart from causing disruption during construction, this added scale may diminish the visual primacy of the church and the heritage character of its setting.

Accessed from Cambridge Street, a secure school drop off is located below the school play space (2). Apart from separating the adjacent residential uses from the school grounds, this open break detaches the residential podium from both its southern and northern boundaries. A proposed "porte cochere" is also proposed (3); although it is a typical requirement for residential aged care, this arrangement can reduce streetscape quality and activation.

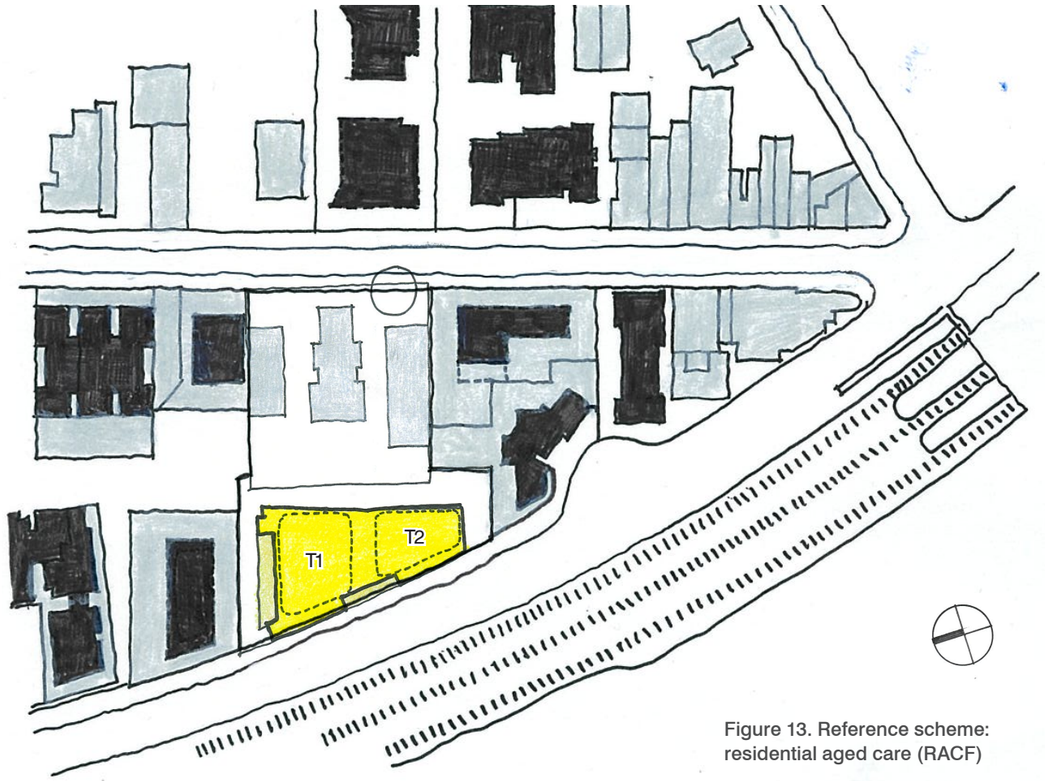


Figure 13. Reference scheme: residential aged care (RACF)

Reference scheme: residential aged care (RACF)

The reference scheme optimizes east and west outlook and solar access through the north south orientation of a long stepped envelope. The RACF podium is separated from adjacent school play space by the secure open air drop off below and is detached from both north and south boundaries. Discrete entries to both the RACF and ILU tower are located in Cambridge Street below. Indicative retirement living (ILU) towers 1 and 2 above are shown dotted. While tower 1 is provided with a 12m setback from the northern boundary, minimal separation between the towers and to the southern boundary has been indicated. This is due to the obvious difficulties in creating a feasible envelope within the site's restrictive geometry.

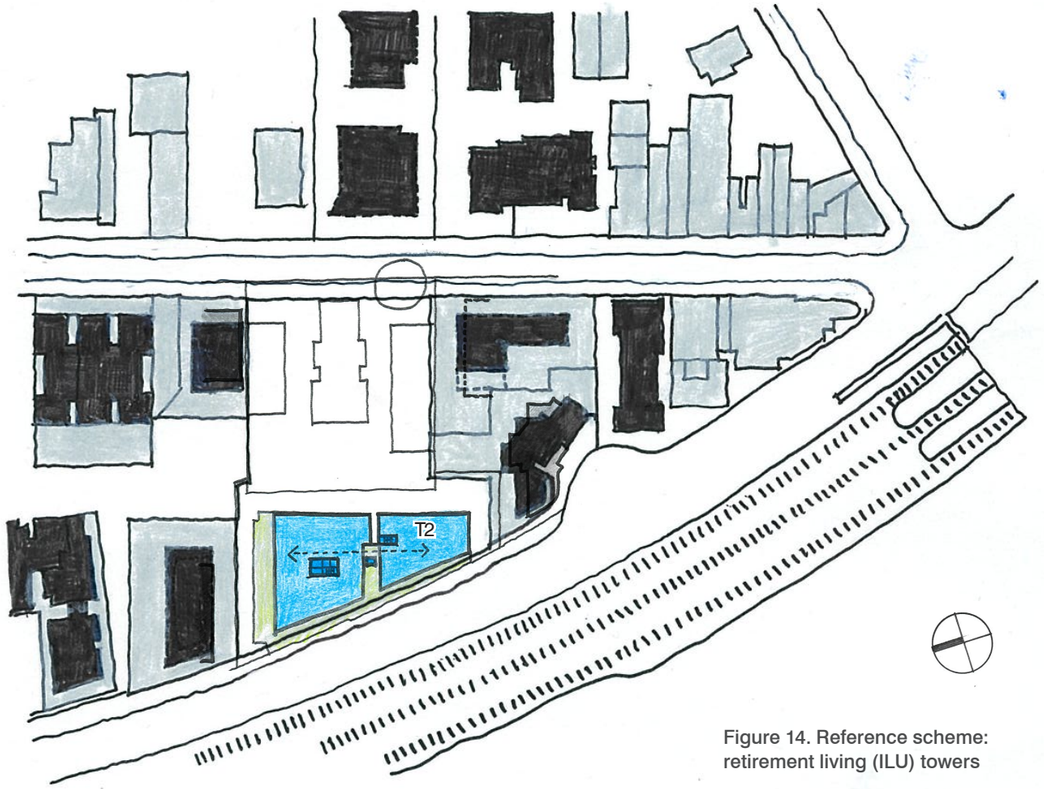


Figure 14. Reference scheme: retirement living (ILU) towers

Reference scheme: retirement living (ILU) towers

Apart from required setbacks and site geometry, the reference scheme illustrates that a two tower option is very hard to achieve on this site. Given their specific accessibility and servicing requirements, ILU buildings create larger floorplates generally, which on this constrained site, present major challenges. With its constrained size, a discrete core in tower 2 is neither feasible nor practical. As building floor plates increase to accommodate GFA, building separation is diminished. With reduced proximity, the two towers are inevitably linked at each level to provide access and servicing from a single core. Although the towers proposed in the reference scheme could be made to comply - through careful screening and orientation of openings - the resultant massing will be read from many view points as a very large single building. Not only will this strategy impact visually and physically on the southern site, it will read as continuous street wall from both street frontages; with approved and constructed adjacent towers, this would significantly reduce the open character of the site - which is valuable to adjoining context.

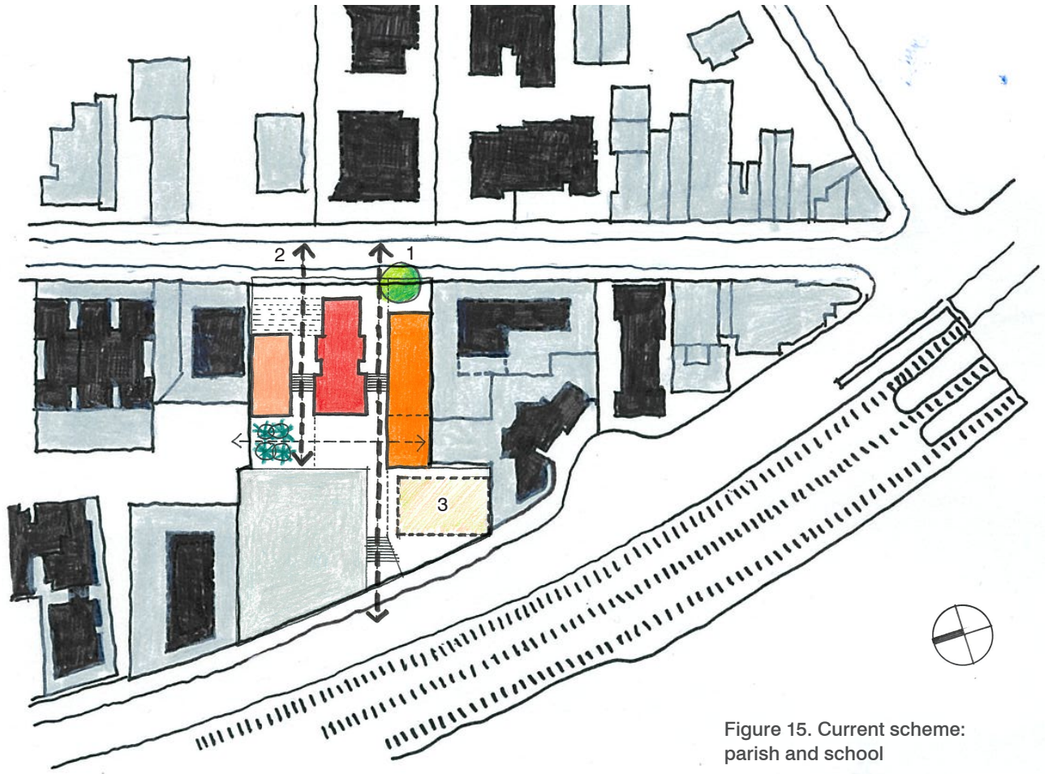


Figure 15. Current scheme:
parish and school

Current scheme: parish and school

The current layout relegates residential components of the scheme to the north west corner of the site. This not only contains the impacts of higher massing on adjacent context, it maintains the site's sense of openness and visual continuity between the ridge and its western aspect. By aligning the south face of the RACF podium with the church, clear cross site links are created, enhancing legibility, way faring and security. While the southern "education link" (1) provides secure access from Oxford Street past the proposed school to Cambridge Street below, the northern "parish link" (2) provides secure access from Oxford Street, past the Parish Hall to residential facilities beyond.

With frontages to both Oxford and Cambridge Streets, the school can extend west to define and activate the southern end of the courtyard. The large open space above street level west of the school increases available play space while providing a location for the second stream (3), which can now be built without interrupting the school year. The current layout comprises a network of well defined open spaces, including a new Parish Square and Green along the Oxford Street frontage, a north facing courtyard with secure reflective landscaped space at its northern end and extended open play space. In this option, the "porte cochere" has been removed and vehicular access reduced to one access driveway at each end of the Cambridge Street frontage.

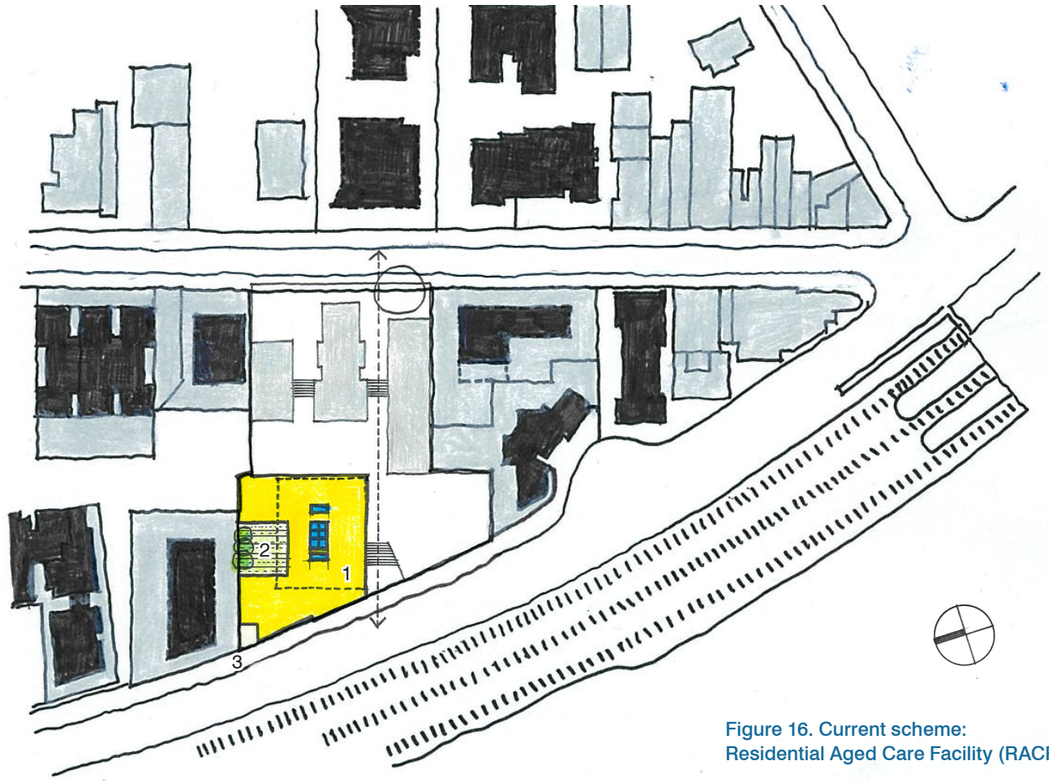


Figure 16. Current scheme:
Residential Aged Care Facility (RACF)

Current scheme: residential aged care facility (RACF)

The revised layout is dependent on a compact replanning of the RACF with an integrated single ILU tower above shown dotted (1). This has been achieved through the introduction of a north facing courtyard (2) and a proposed street aligned form comprising four RACF levels above the Cambridge Street retail and entry level. To achieve a feasible functional layout, the RACF has been rigorously planned to optimize efficiency, outlook and internal amenity. Notably, the built form requires the integration of a single RACF and ILU core extending the full height of the building, which substantially increases its footprint.

While the proposed built form does not comply with the DCP's three storey podium requirements for Cambridge Street, it achieves better urban design outcomes, with increased openess through the site and less impacts on adjoining properties. Moreover, the proposal directly responds to the alignment and height of podia to the north and south, creates a better proportioned podium/ tower relationship, and enhances the irregular "picturesque" street emerging along Cambridge Street. Although the podium presents a zero setback to the north, an 18m wide courtyard will significantly reduce impacts to its adjoining property. With street aligned massing setback from its north west corner (3), the first level terrace of the RACF massing will align directly to its adjoining landscaped podium.

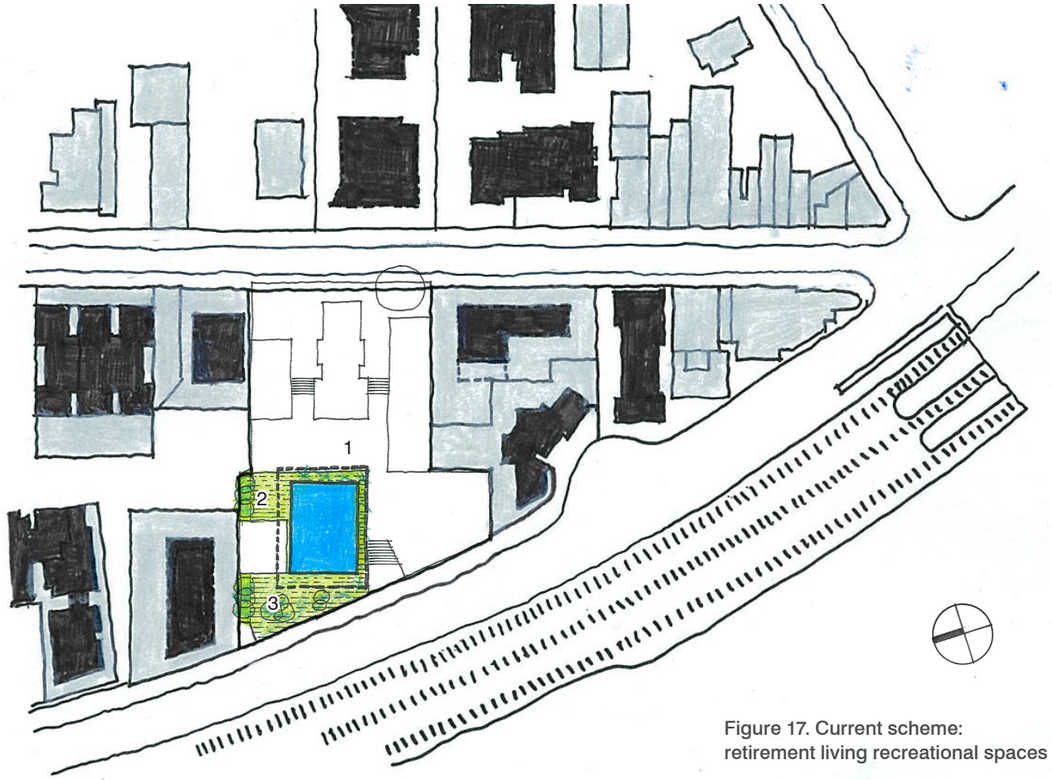


Figure 17. Current scheme: retirement living recreational spaces

Current scheme: retirement living recreational spaces

The provision of recreational spaces at levels 5 and 6 creates an articulated gap between the tower and the RACF podium below. Setback within the footprint of the tower above, shown dotted (1), this break in the massing increases the legibility of the building's discrete functions and reduces its apparent scale.

High above school and parish facilities, this location is ideal for residents' dining, gathering, fitness and activity spaces with direct access to passive and active landscaped open terraces (2). Landscaped buffers to all edges of the podium prevent overlooking and acoustic impacts on levels above while ensuring that acoustic and visual privacy is maintained (3). In close proximity to the church, yet removed from public access, apartments required for parish accommodation have also been provided on level 6.

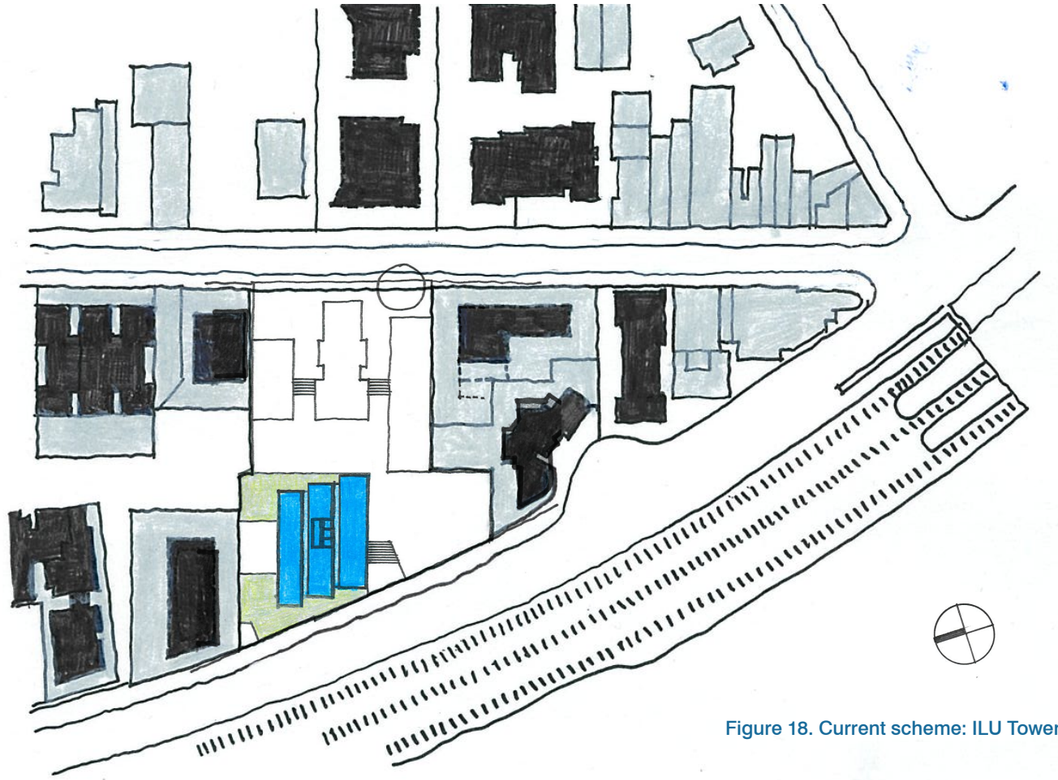


Figure 18. Current scheme: ILU Tower

Current scheme: ILU Tower

Providing a single tower in the north west portion of the site - rather than a centralised dual tower as per the reference design - substantially improves the urban design quality of internal and open spaces, surrounding sites, adjacent public domain, streetscape and local character. Physical and visual impacts on adjoining properties are reduced, the proportional relationship of podium to tower visually resolved, and the open landscape character of the site enhanced and consolidated. To achieve this outcome, the tower built form is rotated and the floor plate reduced from 12 units/ floor to 8 units/ floor. This reduction in floor plate size leads to an increase of height to 28 stories. While exceeding the 72m height plane, the proposal does not exceed the density or the requirements for the site or the height of the recently approved tower at 37 - 41 Oxford Street. In addition, the proposal will provide a great number of publicly accessible facilities and spaces to the broader context.

Given their specific accessibility and servicing requirements, ILU buildings generally create larger floorplates than typical residential buildings. Exacerbated in this case by the need to incorporate structural, servicing and access requirements of the RACF and basements below, the proposed tower floorplate is approximately 18% larger than the DCP's 700sqm maximum floor plate requirement. To address apparent bulk, the tower has been composed as three volumes, discretely stepped in plan and elevation, and separated by articulated slots. With its narrower ends facing Oxford and Cambridge Streets, the apparent building width is reduced, allowing it to assume clear expression in both its urban and heritage contexts. The evolution of the tower form has been illustrated in elevation studies attached (see Figure 23 on page 18).

3.1 Comparative sketch elevation (Cambridge Street)

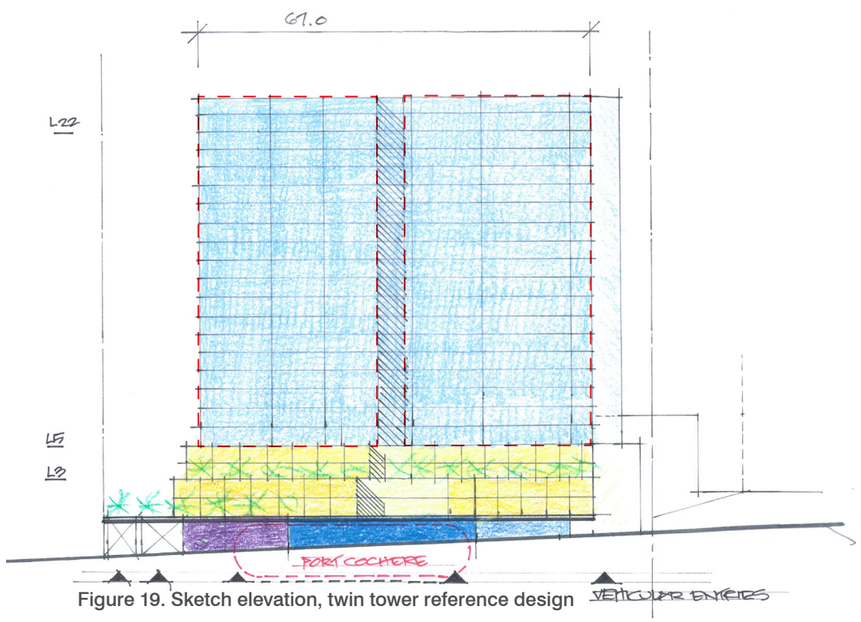


Figure 19. Sketch elevation, twin tower reference design

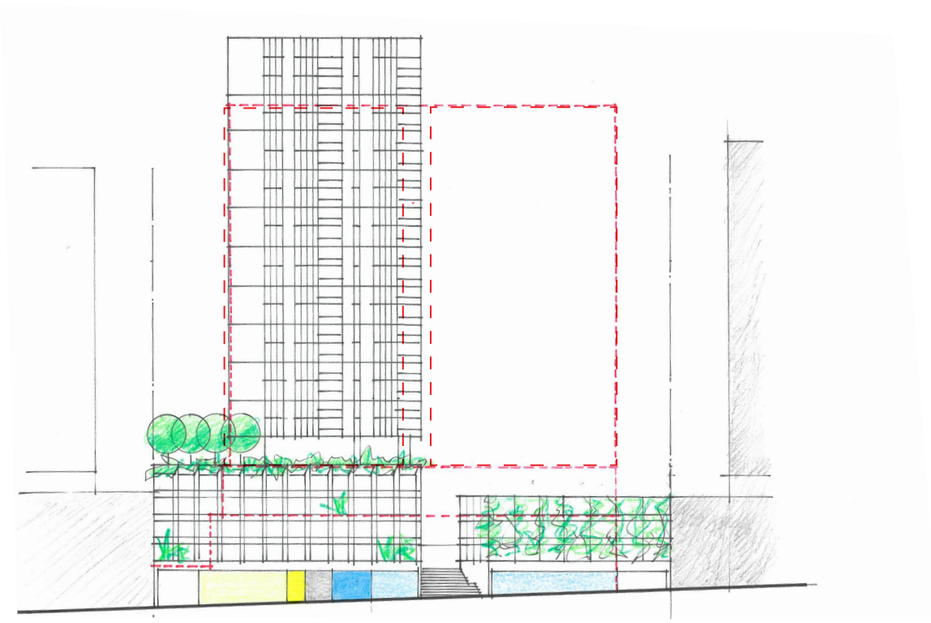


Figure 20. Sketch elevation, single tower option

Reference design: Sketch elevation - Cambridge Street

In order to maintain a low scale to Oxford Street, the reference design and the current proposal both relegate all higher massing to Cambridge Street. The intention of the reference scheme is to reduce apparent bulk by proposing two smaller towers (eight apartments to the north and four apartments to the south), a strategy consistent with the compact tower forms recently proposed along the Cambridge Street frontage. However, with apartments increased in size by accessibility and servicing requirements, the footprint of both towers substantially increases. With the southern tower increasingly constrained by site shape, the proximity between the towers decreases until the feasibility and the necessity of the second core is lost. Inevitably, the towers are serviced by a single core with circulation bridges provided at each level. While this solution resolves non-compliant separation between the two towers, and results in a more rational entry and access regime, the resultant built form appears as a single built form rather than two discrete volumes. As such, it is well over the DCP's 700sqm tower footprint requirements and creates a high scale street wall of nearly 70m long.

To minimize impacts on adjoining properties, the proposal also sets back from north and south boundaries, creating an object building detached from adjoining podia by a school drop off driveway. This is not consistent with tower podium typologies, which typically span the width of the site. In addition, the RACF podium is stepped with discrete RACF and ILU functions distributed between the podium and the tower above. While this strategy may be argued as consistent with DCP guidelines, the net effect is to reduce the articulation of different uses, thereby losing the opportunity to clearly define discrete communities as discrete volumes. Without this articulation, building expression is constrained and modulation of built form limited, thereby increasing apparent scale.

Sketch Proposal: Elevation - Cambridge Street

Instead of proposing a continuous street wall, the current proposal bisects the Cambridge Street frontage with a continuous cross site link. This strategy allows secure movement and visual access right through the site, connects Cambridge with Oxford Street, provides the school with two main frontages and significantly reduces apparent bulk along the street frontage. To achieve these aims, the required residential aged care facility (RACF) is proposed within a compact U shaped form with retirement living units (ILU) housed within a single tower above. Instead of two towers as proposed in the reference design (shown dotted in red), the proposed single tower is rotated to achieve the narrowest elevation possible to the street and confined to the northern portion of the frontage. This arrangement of built form creates a large setback to the south, which significantly reduces the impact on the proposed tower at 2 – 4 Cambridge Street. In addition, this strategy allows the souther portion of the site to be dedicated to school open space above. With active retail, at street level, a steel landscaped frame contains wayward balls as well as defines the Cambridge Street frontage. Unlike the reference scheme, the current proposal allows for construction of future stage 2 school building without interrupting and retains the Church's dominant height and profile to its east.
While the density of the proposal complies with the LEP, the height of the resultant tower exceeds the required height plane by several levels. However, its compacted form significantly increases urban design quality by creating substantial air space to its south, improving the modulation of built form scale along Cambridge Street frontage and reducing physical and visual impacts on adjacent sites. Although the podium does not comply with the DCP's requirement of a two to three level podium, it creates a clearly articulated street wall, well-proportioned to the tower above. This is clearly a better solution for the site and better aligned with the picturesque uneven massing that is emerging along this street frontage.

3.2 Oxford Street + sections sketch

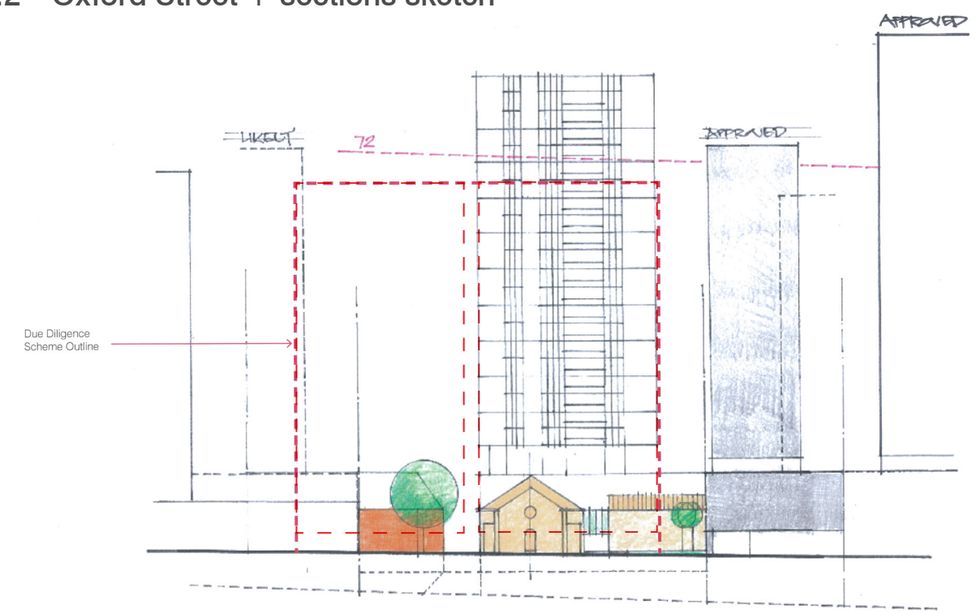


Figure 21. Sketch Oxford Street section

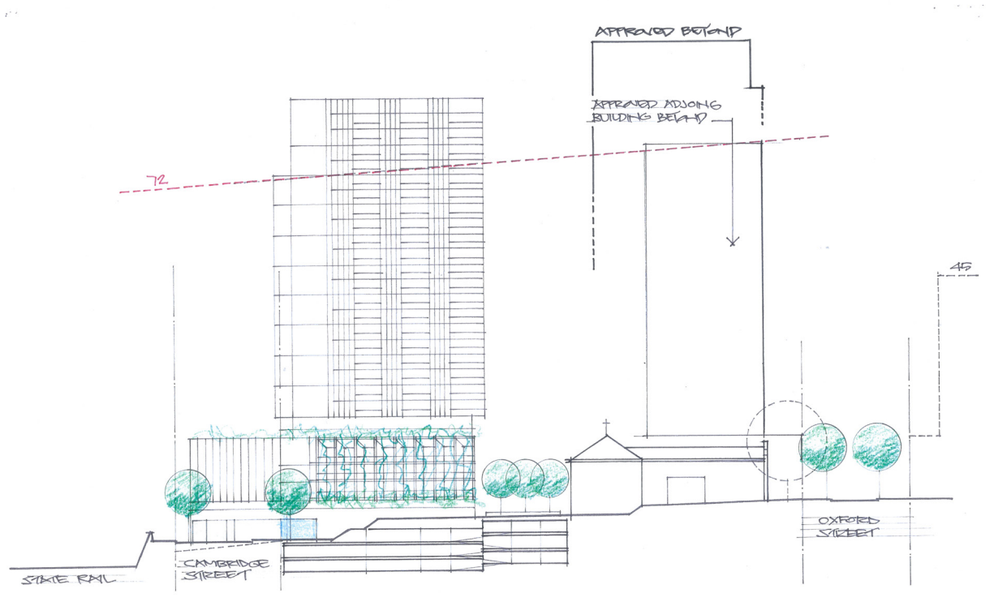


Figure 22. Sketch East-West section

Sketch Proposal: Elevation - Oxford Street

From Oxford Street, the new tower will read as a well-integrated backdrop to the heritage church and its low scale adjoining spaces. Aligned with the church, substantially setback from the southern boundary and presenting its narrowest elevation to the east, the tower allows for a large portion of sky to dominate the outlook to the west. As towers close to the southern and northern boundaries emerge, the sense of visual openness currently evident on the site will become more crucial. Without this space, continuous bulk will eventuate along the Cambridge Street frontage, blocking views through and requiring the school's second stream to significantly it's height. This would be of detriment to the heritage church, the Oxford Street frontage, the site's internal spaces and broader context. Set back 62-68m from Oxford Street and separated by a landscaped courtyard, the single tower proposed is a significant improvement on a dual tower proposed in the reference design (shown dotted in red), and discussed with Council late last year.

Sketch Proposal: East-West section

Arranging the ILU tower above the masonry RACF base clearly defines its discrete functions, enhancing both streetscape and expression, and articulating the various communities within the site. This built form increases legibility, wayfaring and spatial coherency while creating clear setbacks to the heritage church. As the EW section demonstrates, the ordered stepping of the site between Oxford and Cambridge Streets enhances the security and privacy of external spaces while efficiently housing required vehicular parking within the podium. The clear spatial structure evident in the section allows each of the discrete user groups to contribute physically and visually to this community of spaces without loss of security or safety.

3.3 Evolution of tower built form

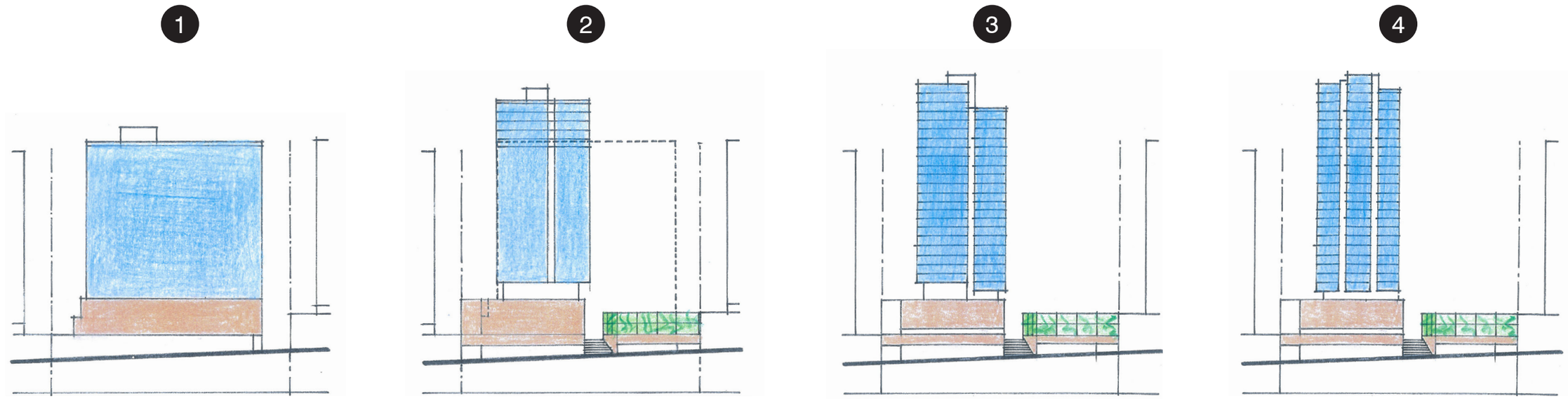


Figure 23. Tower evolution diagrams

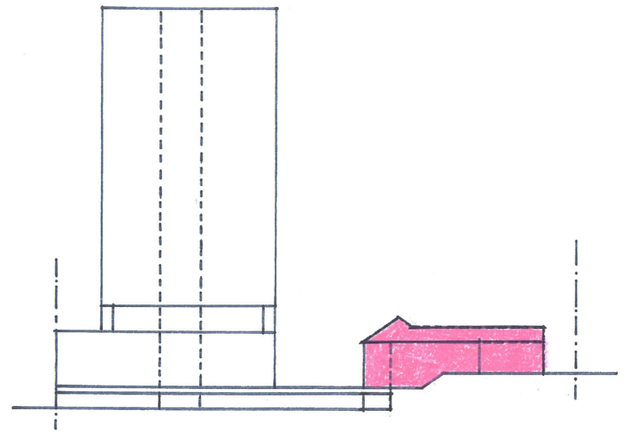
Though substantially reduced in size from the reference design's twin tower scheme, the ILU floor plate exceeds the DCP's requirements of 700 sqm GFA by about 18%. Mainly due to the extra servicing and access requirements for all apartments, this is exacerbated by the fact that the tower is located above the RACF. With two intensive residential facilities, a larger core and ventilation is required for the full height of the building. Although the proposed tower exceeds the DCP floorplate size, it does not exceed the density requirements of the site and creates a significantly improved urban design result. In addition, all apartments are SEPP compliant, 100% LHA Silver compliant and universal access is provided to all recreational and open spaces.

To address the potential impacts of visual bulk, the tower has been strategically modelled, as illustrated in the diagrams above. Hence, the reference design has been rotated and compacted to reduce its west elevation with GFA reallocated to additional levels. It has then been provided with an articulated break between podium and tower, which defines the retirement living recreational spaces. The tower has been provided with slots to appear as three volumes and stepped in section; not only does this clearly define the lobby and provide it with air, light and outlook, it creates a spacious communal roof terrace for all residents with stunning views to CBD. The tower is now enhanced as three slender volumes with material, language and expression. (Figure 23. Tower evolution diagrams).

While the DCP requires that a contiguous two to three storey podium be established along Cambridge Street, this appears not to align with the emerging streetscape, which features discrete existing and proposed building frontages of a variety of heights, setbacks and building types. Nor does this requirement address the street's significant slope which falls from south to north, thereby requiring negotiated and coordinated alignments at each boundary. Hence, the Cambridge Street frontage has been designed to directly address each of its neighbouring properties with similarly scaled built elements. To the north, a terrace wall has been aligned with its northern podium and upper levels setback to form the northern boundary. To the south, a steel landscaped frame aligns with the proposed podium of an approved proposal. As advised by the Parramatta Design Excellence panel, architects for each of these sites have been approached in order to align and coordinate adjacent proposals to optimise streetscape quality.

Figure 24. Indicative illustration of the proposed ground plane

04 Layout: use + amenity



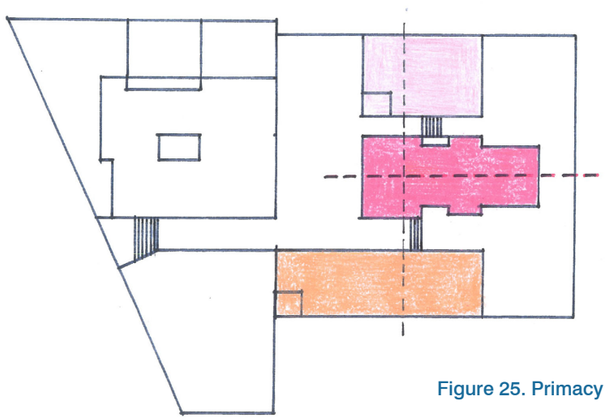
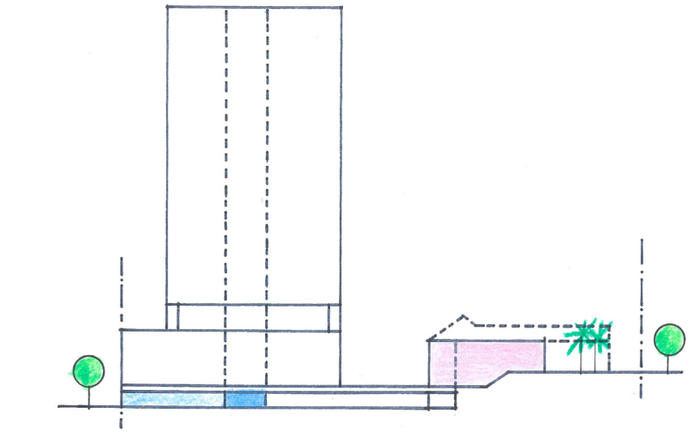


Figure 25. Primacy of Church



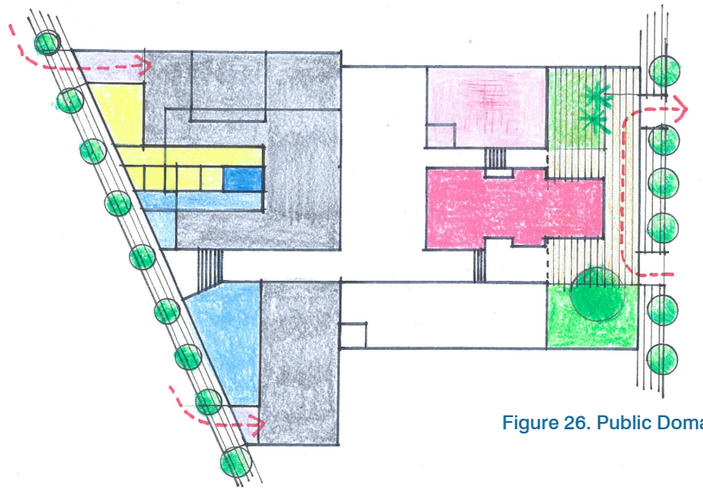
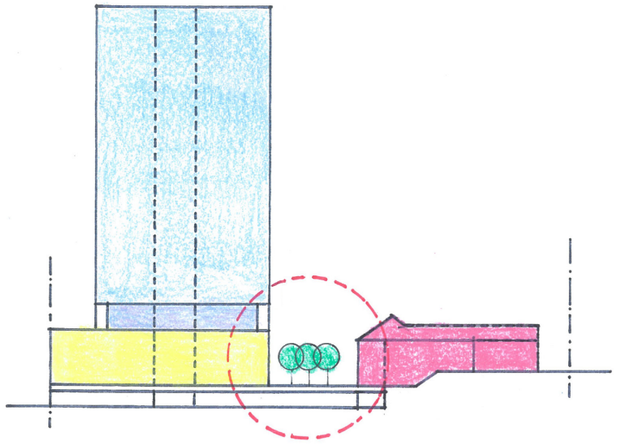


Figure 26. Public Domain: Parish + Church

The position of the existing heritage church, setback and concisely centred along its Oxford Street frontage, has prompted an appropriately symmetrical response, with a new school to its south and a parish hall to its north (Figure 25 - Primacy of Church). This arrangement not only reinforces the centrality of the church in the local context, it also consolidates and strengthens the essential bond of education and ceremonial gathering to its broader pastoral role.

To enhance its permeability and welcome to the locality, each of the site's street frontages has been carefully designed to provide amenity, engagement and activation (Figure 26 - Public Domain: Parish + Church). Hence, the Church's ceremonial frontage is complemented by a Parish lawn to its south and a publicly accessible Parish Square to its north; aligned respectively with the new school and Parish Hall, these open spaces extend repose, physical and visual amenity and celebration to the new Oxford Street frontage. On Cambridge Street, new lobbies for retirement living and residential aged care are complemented by new retail space, street trees, seating and paving as well as active street facing activities above.

Figure 8. Primacy of Church



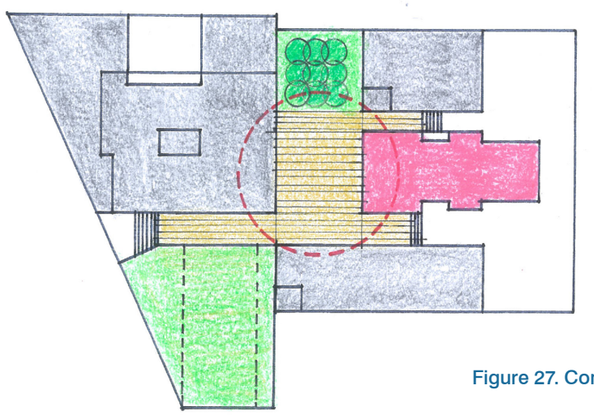
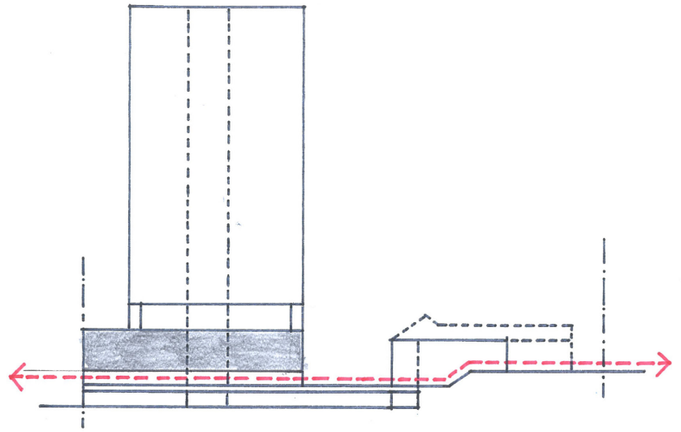


Figure 27. Community: Parish + Neighbours



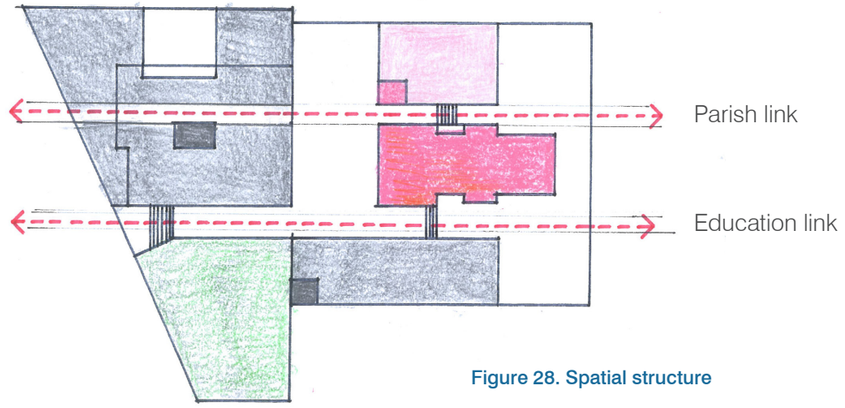
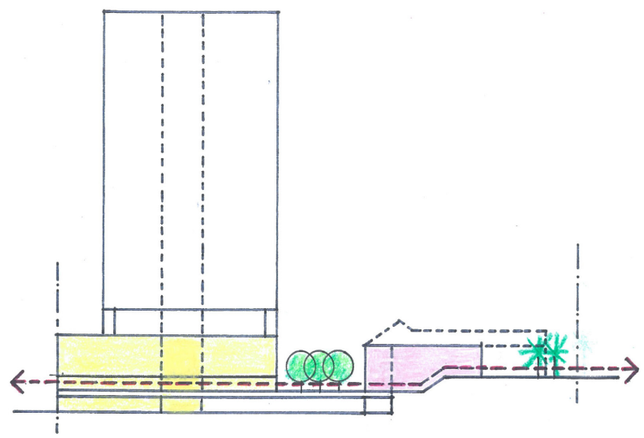


Figure 28. Spatial structure

Within the site, a new open space network resolves topography, access and proximity issues between the parish, school, aged care and retirement living communities (Figure 27 - Community: Parish + Neighbours). The new courtyard at mid level provides a secure place of arrival for the new school and after care play space, and establishes an ordered and legible means to define physical separation between the site's many user groups without losing visual continuity. Through the use of landscape and careful planning, active and passive areas are created, enhancing interaction and retreat, while optimising flexibility for specific events such as open assemblies, shared learning and weekend markets. The central courtyard and reflective garden extend the open spaces to the north end of the site, and additional open space is provided to the south west, enabling for the future stage 2 learning spaces.

New east west axes through the site not only provide secure physical and visual links, they clearly define ceremonial and functional connections, connect Oxford to Cambridge Streets, increase legibility and wayfaring and extend the spatial order established by the heritage church across the site (Figure 28 - Spatial Structure). Hence, the 'education link' to the south of the church aligns the three school entries with its the main courtyard and establishes a clear rapport with the residential aged care facility to its north. The 'parish link" connects the church, Parish Hall and Oxford Street frontage with elderly residences and Cambridge Street uses. Much more than a mere movement diagram, the new spatial structure creates spatial coherency within the site, informing building scale and alignment, resultant character and enhancing potential for different users to feel part of a community.

Layout + Use



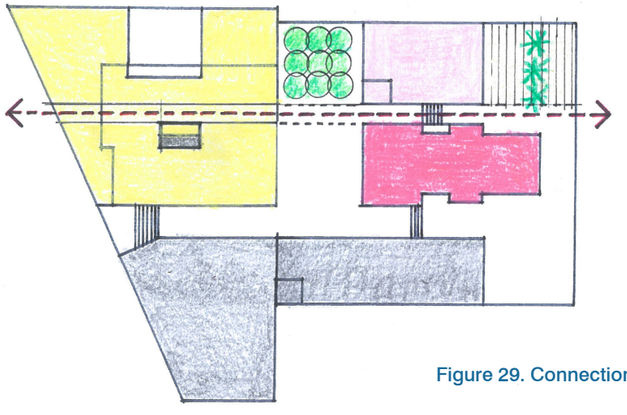
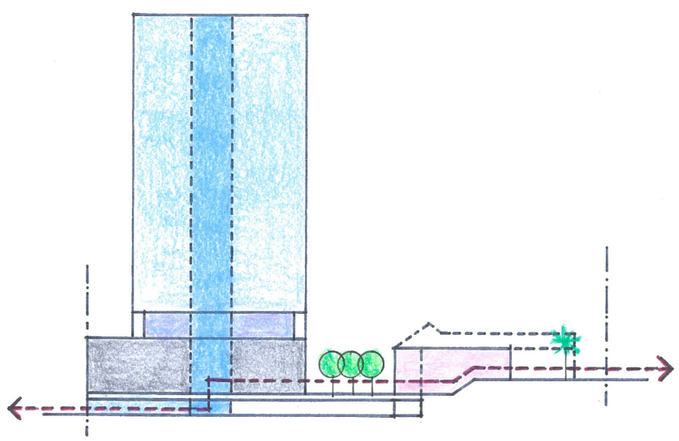


Figure 29. Connections: Parish to Residential Aged Care Facility



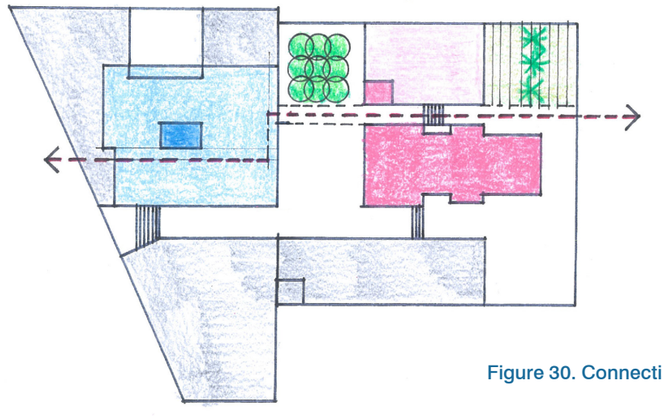
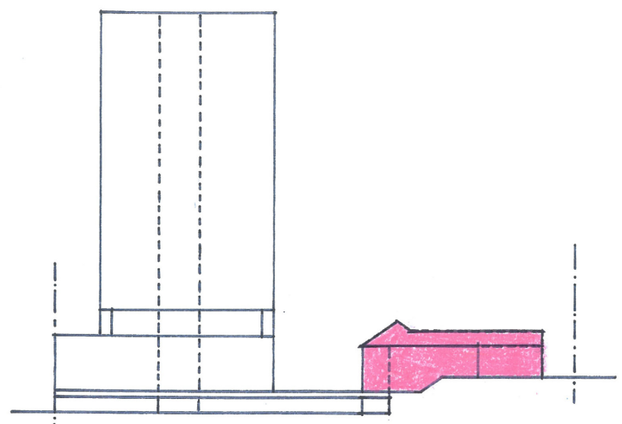


Figure 30. Connections: Parish to Retirement Living

In its provision of clear links to the residential aged care, interaction between the priest and older members of the community is enhanced through mass and other ceremonial services, performances within the hall or conversely, through the Priest's timely visits to the RACF's communal spaces and individual rooms. In recognition of slope and access issues, each of the proposed links (as well as movement between the church and the hall) is completely accessible through the strategic location of elevators, accessible ramps and carefully aligned paths. (Figure 29 – Connections: Parish to Residential Aged Care Facility) Notably, the alignment of the parish hall not only links courtyard and parish square landscapes but also provides visual potential between the hall and aged care spaces.

The Parish link provides great opportunities for residents of the retirement living tower to move between their individual dwellings to Cambridge or Oxford Streets, to Church, to lectures or performances in the hall or to engage with the school either as a tutor or assistant in specific activities (Figure 30: Connections - Parish to Retirement Living). Movement throughout the site and beyond has been designed to be secure, accessible and convenient.

Layout + Use



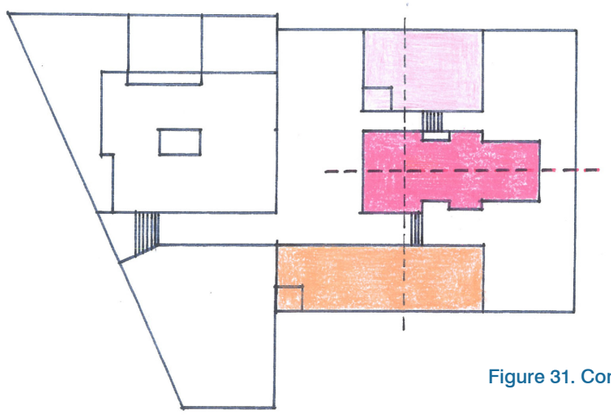
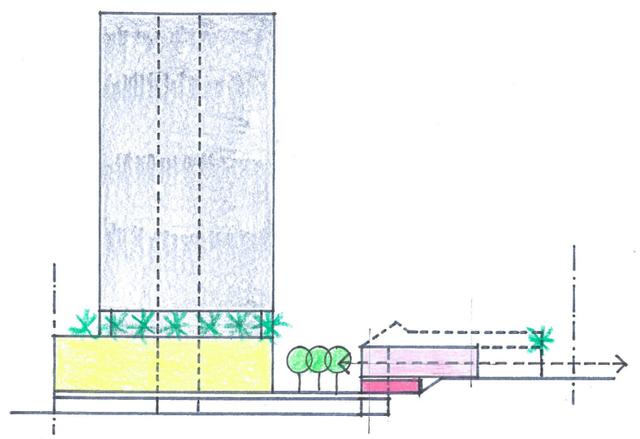


Figure 31. Connections: Parish assess



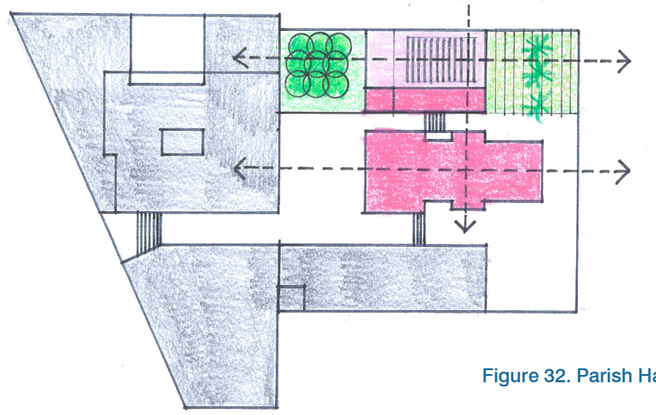


Figure 32. Parish Hall: public + private links

The Parish has been carefully integrated into the site to ensure that public access from Oxford Street to its administration from Oxford Street is clear and welcoming. Parish accommodation is appropriately yet discretely located, with the priest having easy access to the church, the hall and administration. Vehicular access for parishioners, staff and student drop off is direct and conveniently connected to pedestrian networks. Interaction between all adjacent groups is decorous yet sufficiently separated for privacy and repose (Figure 31 - Connections: Parish Access). As illustrated in section and plan, the safe and secure movement of parish members, staff, and students to mass, performances, administration and parking levels, allows for a variety of circumstances, key times and group sizes.

The interaction of different users on the site, facilitated by a clear spatial structure and legible paths and open spaces, allows the public uses to coherenty interact with more private and secure uses (Figure 32 - Parish Hall: public and private links). Following the easily identified axial layout of the church, the new hall is aligned to open onto to the new Parish Square, with its most public face accessible and legible from Oxford Street. This is complemented by a north south alignment of side facing entries which will allow the church and hall to interact functionally and ceremonially as required.

Layout + Use

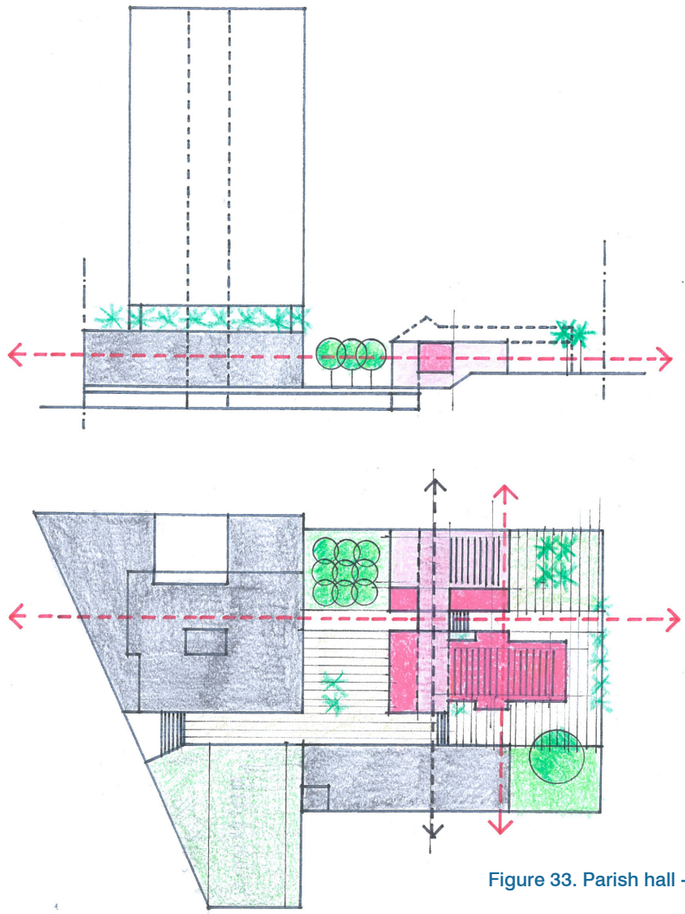


Figure 33. Parish hall - flexibility

Through the alignment of levels and new linking structures, both the interaction of church and hall congregations are significantly enhanced, allowing greater use of space on specific occasions (Figure 33 - Parish Hall : Flexibility).

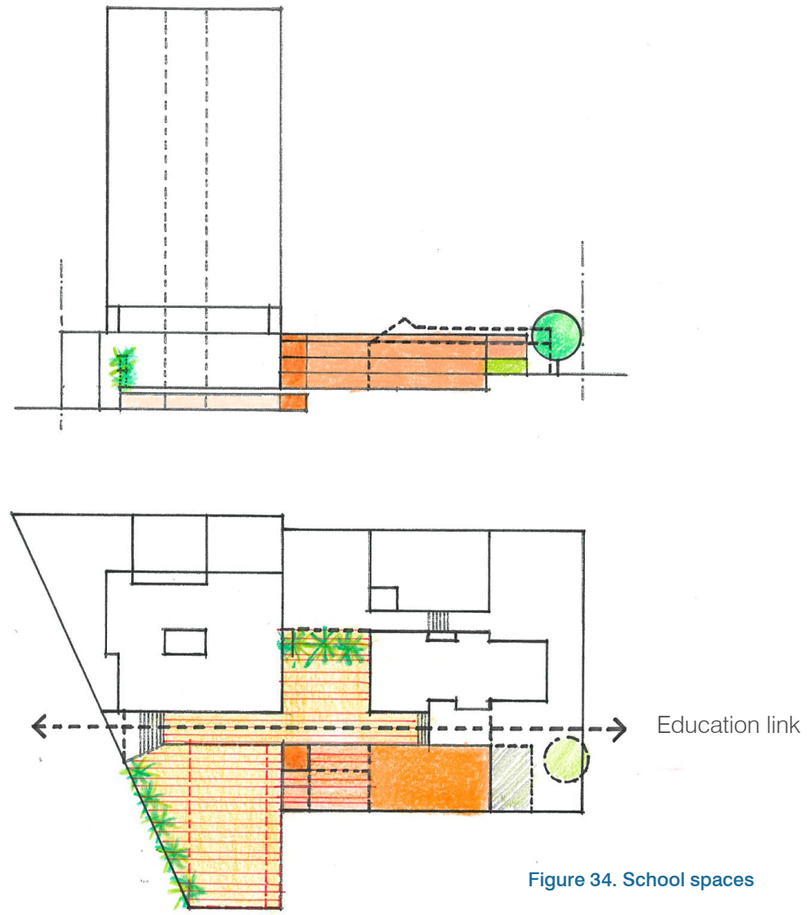


Figure 34. School spaces

Aligned with the “education link” the school has been designed to meet current pedagogical standards and flexibility, while optimising solar access, spatial diversity, access and security. With its main frontage to Oxford Street, the school enhances its adjacent public domain and increases its legibility within the community. The school’s main gathering space is the courtyard, where a secure lift and stair from basement drop off is complemented by the Oxford and Cambridge Street entries (Figure 34 - School Spaces). The school brings to this unique community a vital link to the local and broader context. Through the careful alignment of spaces, levels and facilities, the school allows for craft activities with the aged, tutoring from seniors, concerts, ceremonial events and celebratory practices. On a daily basis, the school creates a beautiful rhythm of learning and play, with the sounds of children and activities marking each passing day.

As a result of the carefully considered spatial structure proposed, a clear grouping of buildings and open spaces has been created, each housing different functions serving people of all ages. With clear links and access throughout the site, movement across levels and between functions has been proposed which is accessible, amenable, spatially rich and secure. While defined by secure boundaries, each use has been able to benefit from its proximity to the other while maintaining the potential for direct interaction in specific circumstances. In this manner, each discrete function on the site will contribute to - rather than impose on - a uniquely rich urban community. (Figure 35 - Sketch perspective).

Figure 35. Sketch perspective

4.1 Landscape structure

- Landscape types respond to specific requirements
- Clear civic diagram improves relationship between functions
- Landscapes enhance and give character to key spaces

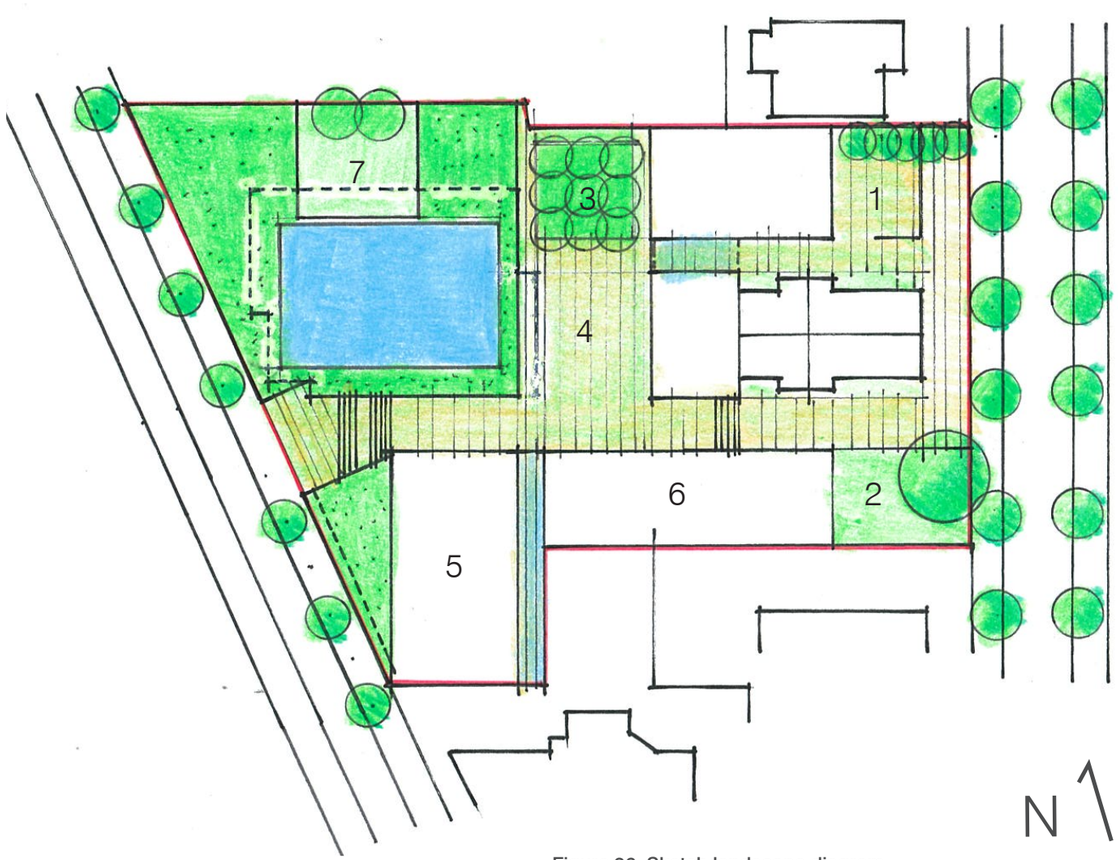
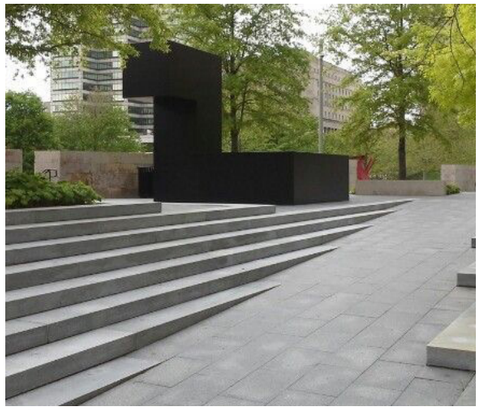
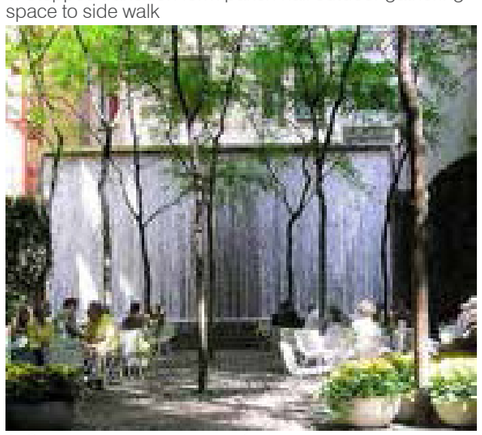


Figure 36. Sketch landscape diagram



1. Stepped transition form parish hall outdoor gathering space to side walk

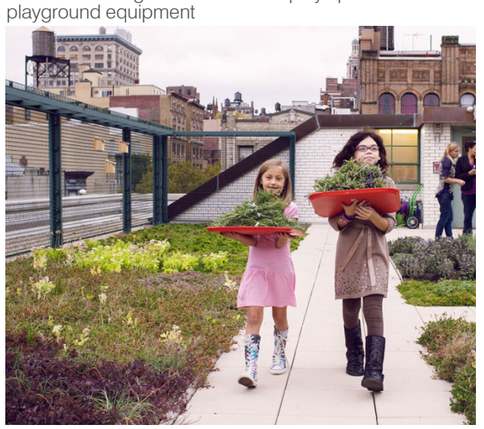
2. Parish garden with public seating



3. Secure garden with water feature

4. Tiered seating with surrounded play space with loose playground equipment

5. Sports court and play equipment



6. Rooftop passive play and learning area

Figure 37. Cambridge Street frontage

4.2 Views

– Openness of site
– Landscape Engagement
– South facing apartments highly desirable

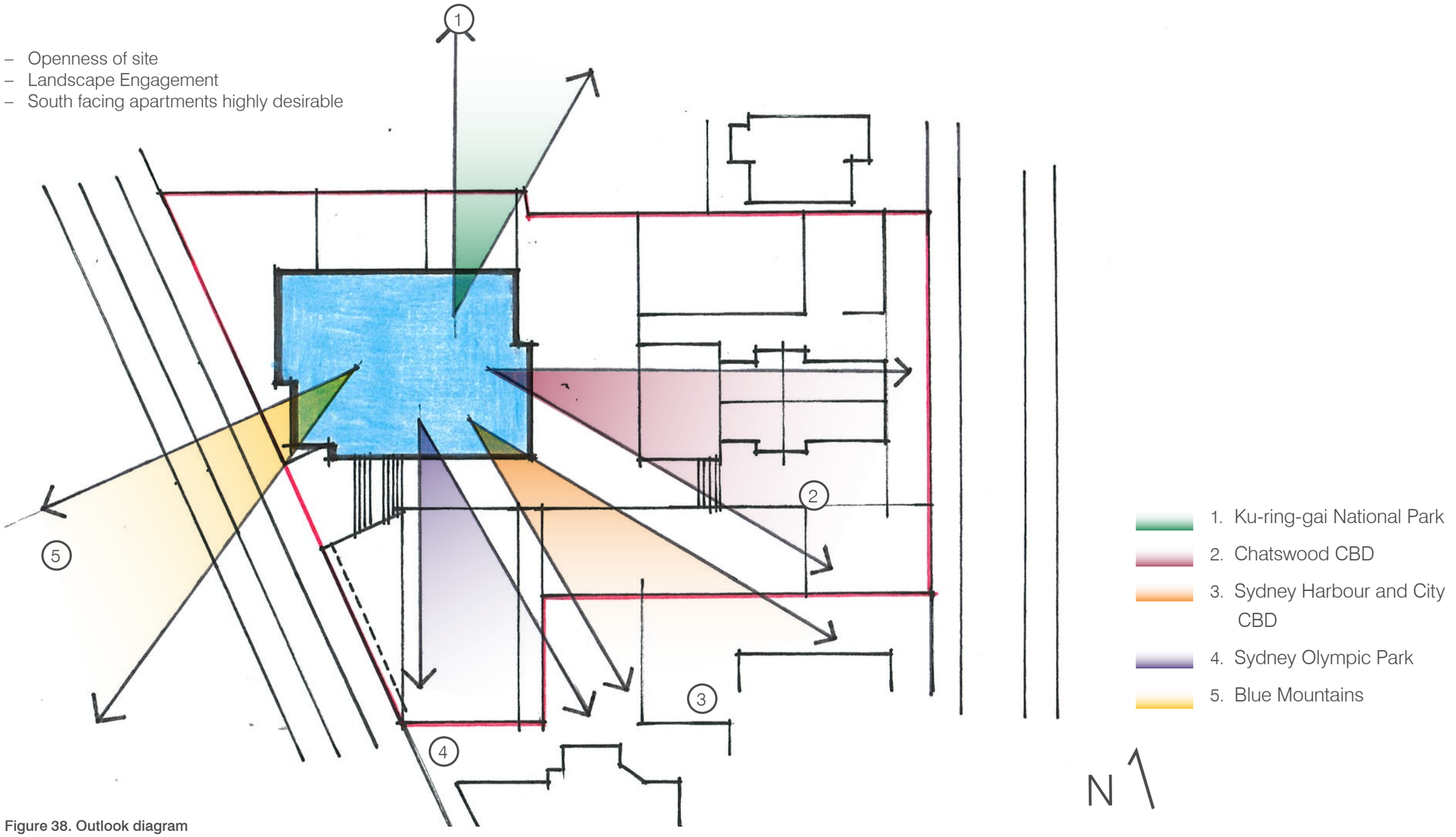
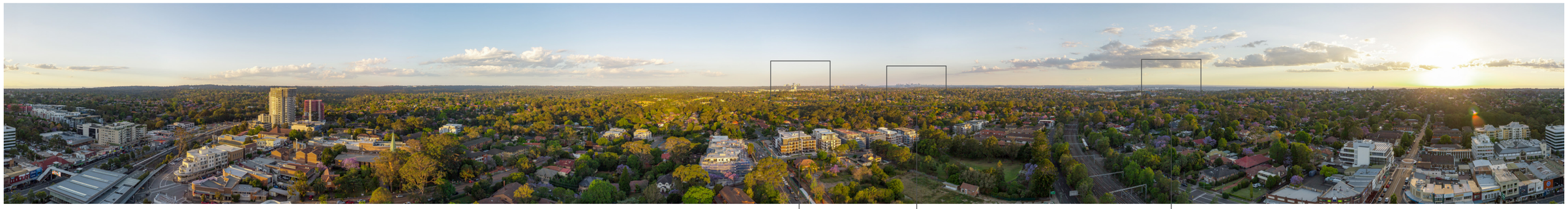


Figure 38. Outlook diagram



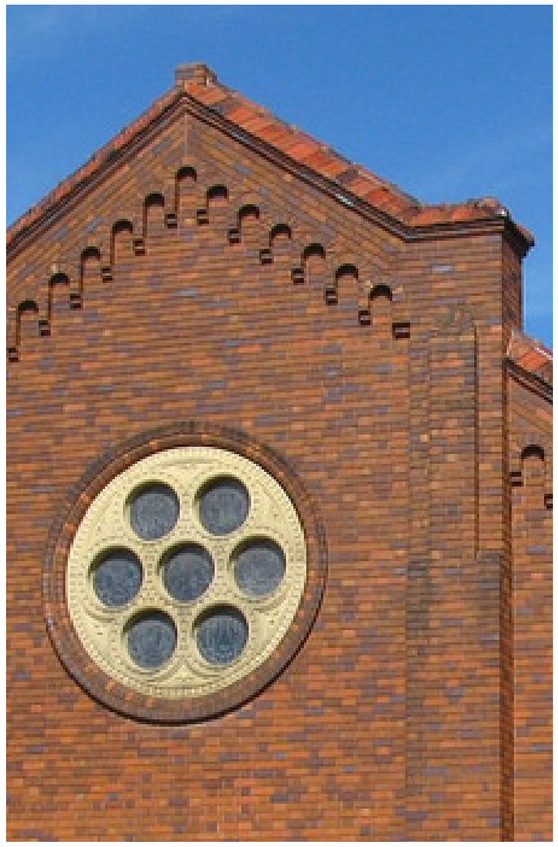
2. Chatswood CBD

3.Sydney CBD

4. Sydney Olympic Park

Figure 39. Tower views

4.3 Materiality



Our Lady Help of Christians - subject site

St Michael's Grammar School - Architectus

Our Lady of Mercy College - Tzannes

In response to the heritage church, face brick has been selectively used in the school and hall buildings, the paving along the education and parish "links", the parish courtyard and the residential aged care facility (RACF). Brickwork extends the character of the church throughout the site in a manner that is highly textured and responsive to the specific functional requirements of each building and space. Rather than create a consistent use of masonry, the application of brick is nuanced and subtle, inviting a visual dialogue between adjacent buildings, inside and outside and collective spaces. Hence, each side boundary wall and a low brick wall to the parish garden is expressed in brick, clearly defining the Oxford Street frontage and creating dialogue with adjacent trees, plantings and steel signage. While the main façades of the school are steel framed, its base, lift, main stairs and southern boundary wall are clad in brick. Not only does this provide continuity between interiors and its adjacent church, visual continuity with courtyard paving invites access through the building to administration facilities and adjacent play spaces beyond.

To the north of the church, the new parish hall presents a rhythm of masonry brick panels and steel framed openings to its new square and Oxford Street frontage. Suspended above expansive glazing, this contemporary brick language references the Church's tripartite openings while complementing the solidity of its gabled brick facade. The RACF's use of brick recalls the traditional cloister, with defined openings punctuating continuous face brick surfaces. With standard head and sill heights, openings are slightly offset to create a relaxed character, with metal blades, hoods and screens providing privacy, solar control and visual interest.

To articulate its "base" and strengthen its visual continuity with the church, a red brick matching existing heritage masonry has been selected. To lighten its upper storeys, a lighter brick is used which reflects light into its landscaped courtyard. The articulation of lower and upper levels continues around the Cambridge Street elevation. Thereby reducing apparent scale. To the south of the education link, a landscaped steel frame above street facing retail defines the school's main play space, contains wayward balls and maintains street frontage scale.

St Michael's Grammar School

Portobello Square - PRP Architects

The Capitol - Architectus - RAC Lobby Reference

Located above the RACF, the retirement living tower (ILU) reads as an expressed rendered frame, with solid panels arranged in double height units to reduce apparent scale. To modulate the expression of its large floorplate, the tower has been designed as two stepped elements separated by a clearly defined slot (see Figure 23). With solid spandrels complementing glazed balconies, the framed language of the tower is softened with continuous fixed metal battens and screens, which provide solar protection, privacy and visual articulation. To articulate the relationship of the ILU tower to its RACF base, level 5 has been partially setback at podium level. Level 6 Presbytery accommodation has been provided with specific design measures to ensure privacy. Each street frontage has been given particular attention in terms of material and landscape. To enhance the civic character of the heritage church, the Oxford Street frontage has been provided with a publicly accessible square to the north. Accessed by wide civic steps, the selected stone paving complements the adjacent brickwork and creates an open inviting edge to the Hall to its west. In contrast to the Parish Square, the Parish lawn, dominated by a large existing tree comprises a new lawn and minimal brick edge seating.

Cambridge Street meanwhile presents a glazed active street frontage, with different awning types indicating discrete ILU and RACF lobbies and retail enhancing community engagement. Both streets will have new street trees, and paving to reinforce their respective public qualities and character.

05 The proposal

5.1 Current plan in context

The masterplan is well structured and achieves a high level of clarity, legibility and spatial coherence. The proposal comprises well designed buildings, each contributing to a series of high quality landscaped spaces specifically designed for their discrete uses. Secure east west links provide physical and visual access across the site, reduce apparent scale and introduce an open character to the site. While Oxford Street facing buildings are low scale, the single tower proposal (in the site's north west) creates a low scale landscaped frontage along the rapidly developing high density Cambridge Street frontage.

This is an extraordinary proposal for an extraordinary site. Unlike adjacent developments, the proposal will provide great public benefit to the locality, including parish, education, cultural, residential and retail facilities. The proposal has been designed for the long term and intends to consolidate the Parish's contribution to the community for the next 100 years. The proposed housing in the vicinity of the Town Centre and Epping Station, will keep elderly residents engaged and connected to the community for a longer period of time. Similarly, the proximity of the elderly to young children creates the potential for mutual benefit, while prolonging the health and happiness of our oldest citizens. The masterplan's many integrated facilities include:

- Residential Aged Care (RAC): 132 Single Beds
- Independent Living Units (ILU): 172 Units
- Presbytery Apartment: 3 apartments
- Existing Heritage Church
- Parish Hall – seats 200
- Parish Retail
- Out of School Hours Care (OOSHC)
- Single Stream School – 210 students, 15 teachers
- Allowance for future second stream school (total 420 students, 30 teachers); and,
- 317 car spaces.

Figure 40. Current plan in context

5.2 Elevation in context

These elevations describe the proposal in its urban context. While the western elevation shows the proposal within its emerging Cambridge Street context, the eastern elevation shows the proposed tower setback well behind the heritage church and its low scaled flanking school and parish buildings. On both elevations, the previously proposed reference design is shown dotted in red, which shows the indicative impacts of a closely coupled twin tower option. The elevations reveal that the proposal does not exceed the height of the recently approved tower at 37 – 41 Oxford Street. However, the single tower proposed does exceed the LEP's height plane. This proposed height exceedance is addressed in the CL.146 variation request. attached to this submission.

While the reference design initially proposed (shown dotted in red) is arguably more compliant in terms of height - and could be made to comply with further expansion of its floor plate size – it would not align with the intention of the DCP's 750sqm floor plate requirements and would create a high scale wall of almost 70m long. Apart from blocking visual and physical links through the site, it would take away the open spatial character required for such a hybrid collection of uses. Within this rapidly developing high density precinct, it is demonstrable that a twin tower scheme would increase physical and visual impacts on adjoining properties, create an over scaled Cambridge Street frontage and impact negatively on the Oxford Street heritage frontage.

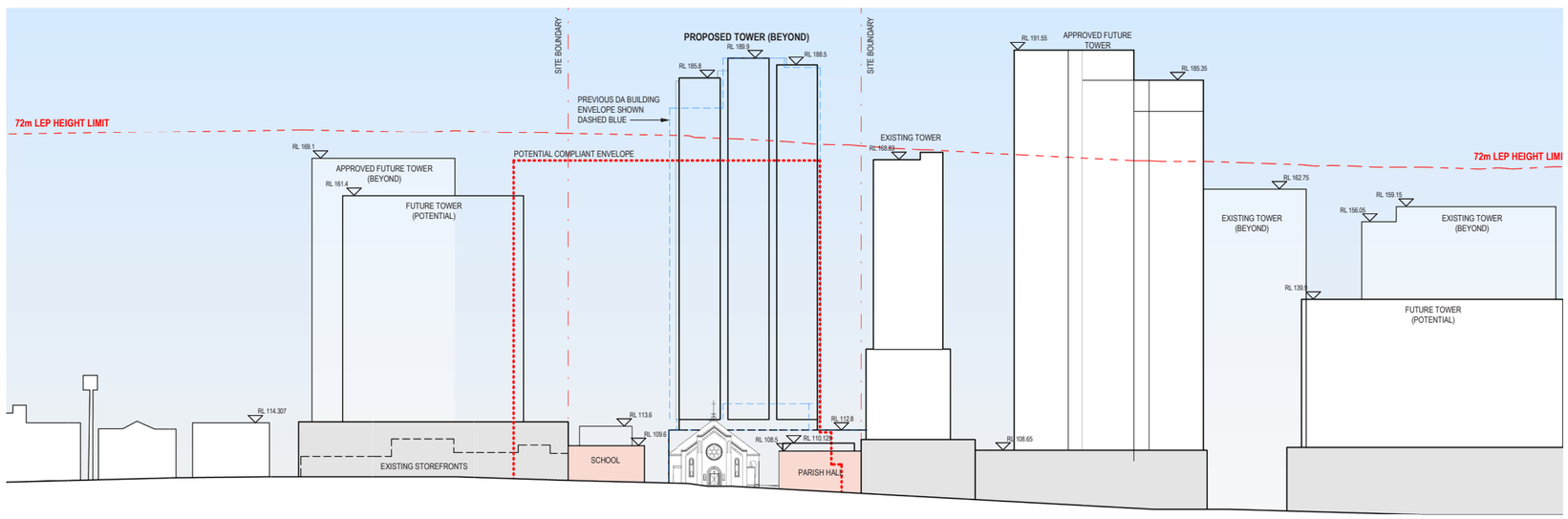


Figure 41. East elevation

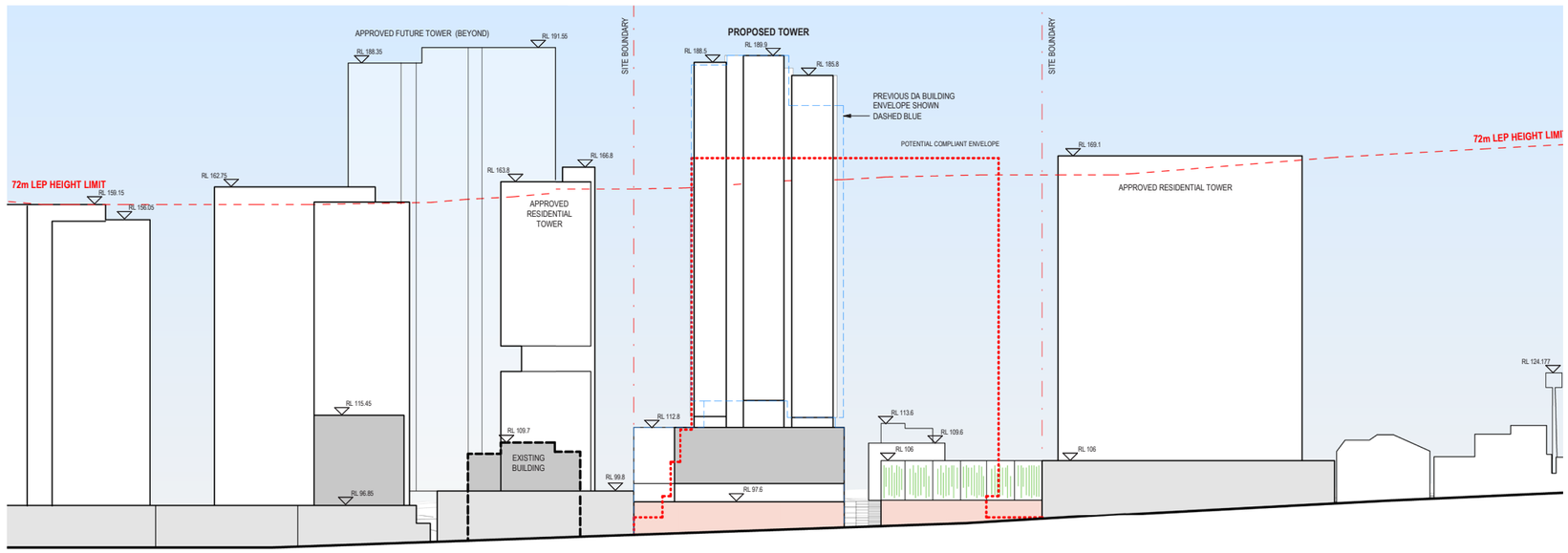


Figure 42. West elevation

5.3 North-south section in context

This section illustrates that the single tower proposed exceeds the LEP's height plane. This proposed height exceedance is addressed in the CL.146 variation request. Alternative arrangements have been studied during the design process and found to be inferior in spatial quality, require large buildings to be located closer to the heritage church and increase impacts on adjoining properties. We believe that this departure from the height standards is justified, as the proposal:

- does not exceed the maximum density for the site
- achieves a far superior urban design outcome for the entire site and adjoining context
- minimizes impacts on adjoining properties, especially to the south west
- allows for a high quality frontage to Cambridge Street with clearly articulated built form reflecting discrete functions
- allows for a low scale civic frontage to Oxford Street with new publicly accessible spaces
- enhances the primacy of the heritage church with buildings of only two stories
- creates a clear spatial structure with high quality landscaped spaces
- successfully accommodates a range of essential parish, education, residential, cultural and commercial facilities
- demonstrates amenity and urban design compliance with the ADG, LEP and DCP in all other areas
- meets Council's parking requirements for all uses and provides publicly accessible spaces (such as the parish square) and facilities (such as the parish hall)
- is appropriately located (in reference to Carlingford Road) as a landmark tower.

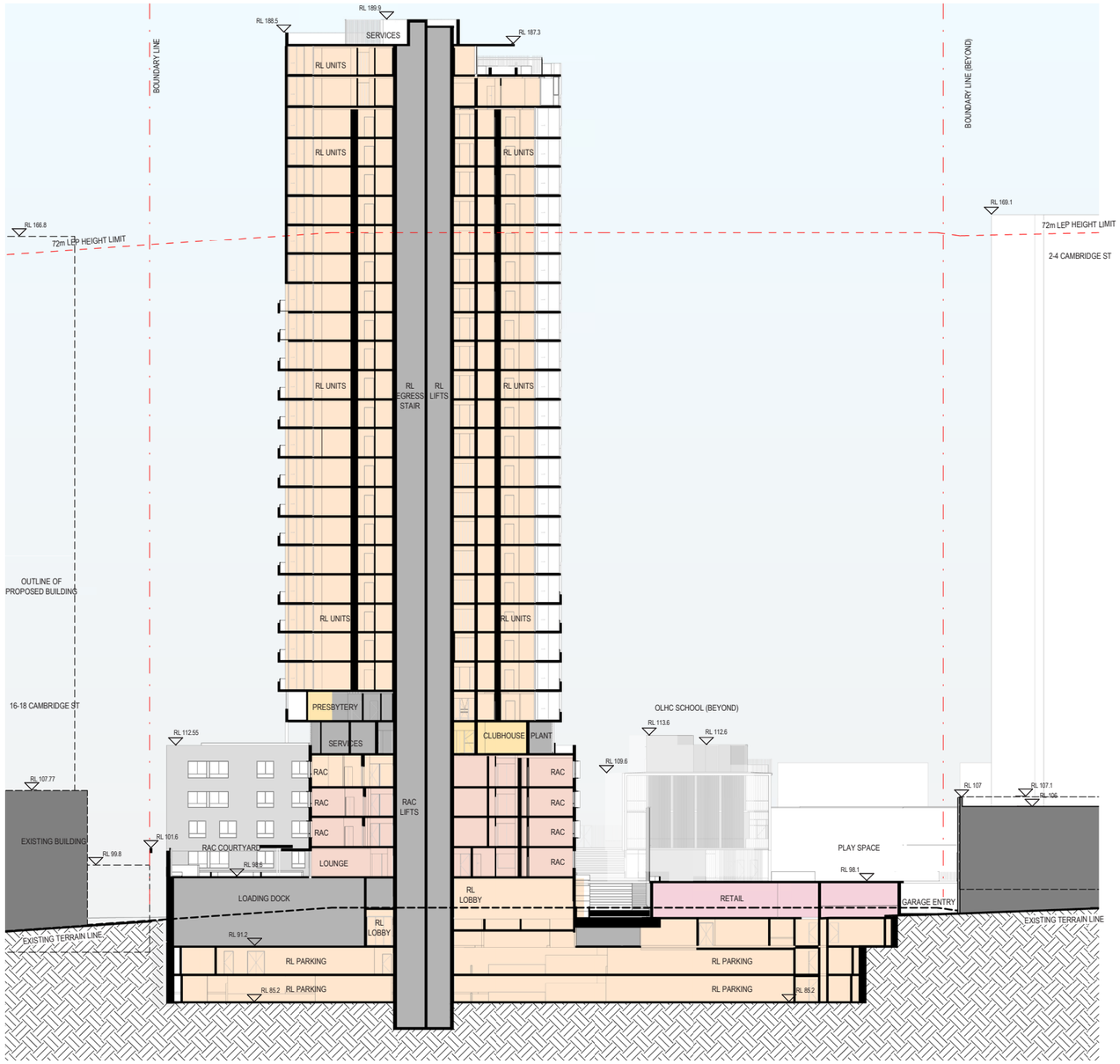
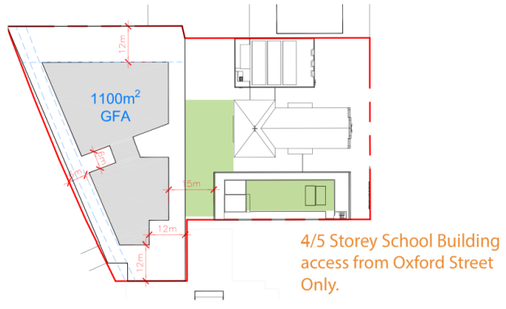


Figure 43. north-south context in section

5.4 Height and massing comparison - Options Tested

Compliant Height - Commercial

15 Storey Tower
3 Storey Podium



Potential Floor Space & FSR	
Total Area	25775
Site Area	7288
FSR	3.54 :1

Pros

- Height Compliant (2 storey podium, 16 storey tower, 72m overall height)
- GFA Compliant 25775sqm
- FSR 3.54:1
- Setback Compliant

Cons

Impacts to subject Site

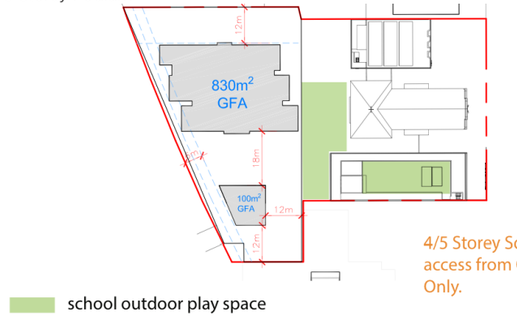
- Loss of School open space
- Disruption to School program with future addition of second stream above first stream.
- Increased overlooking of School open space from tower
- Heritage Impact - Loss of Parish Green on Oxford St
- Heritage Impact - Diminished visual primacy of the church and heritage character of its setting due to increased height in School (2nd Stream) and reduced Oxford St Setback
- Inefficient Commercial floor plate due to long and narrow geometry, and expected articulation zone.
- Visual disconnect between School Drop off zone (Cambridge Street carpark) and the School building on Oxford Street.

Impacts to neighbouring sites

- Reduction in ADG Solar performance of apartments and communal open space in proposed 2-4 Cambridge St development.
- Potential for increased school traffic (pedestrian and vehicular) due to loss of school access via Cambridge Street .
- Inadequate gap between the commercial envelope and the proposed development at 2-4 Cambridge due to the proposed setbacks at the adjacent site (less than ADG recommendations).
- Urban Design Outcomes
- Loss of access to sky from Oxford Street, and from central courtyard / school open space).
- Wall effect along Cambridge Street does not enhance the town centre's appearance from Carlingford Road approach, as well as, from Oxford Street.
- Loss of Visibility of Church from Carlingford Road
- Loss of School Through site link and the visual connection it provides to the public on both Oxford and Cambridge Streets.
- Significant loss in GFA which would preclude the new school and parish buildings and heritage restoration works.

Compliant Height - Residnetial

18 Storey Tower
3 Storey Podium



Potential Floor Space & FSR	
Total Area	24715
Site Area	7288
FSR	3.39 :1

Pros

- Height Compliant(72m overall height)
- GFA Compliant 24715sqm
- FSR 3.39:1
- Setback Compliant (limited to one apartment per level for 8 storeys. Above 8 Storeys the floor plate will be too small for anything viable).

Cons

Impacts to subject Site

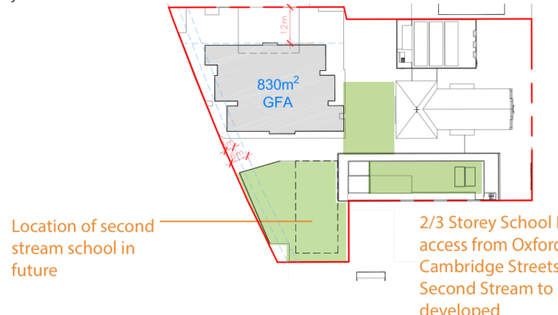
- Loss of School open space
- Disruption to School program with future addition of second stream above first stream.
- Heritage Impact - Loss of Parish Green on Oxford St
- Heritage Impact - Diminished visual primacy of the church and heritage character of its setting due to increased height in School (2nd Stream) and reduced Oxford St Setback
- Inefficient Floor plate in second resi building. The first 8 storeys can accommodate one unit per level (approx 100sqm GFA) with compliant setbacks. Above 8 storeys the floor plate will be too small to achieve any apartments. Therefore a second building will be restricted in height to 8 storeys, albeit with small and inefficient floor plates.
- The second building will adversely impact the amenity of the south facing units in the Larger tower in the first 8 storeys.
- The second building at 8 storeys could only accommodate a single lift and fire stair.
- The core for the second building will have an adverse impact on carpark pick up and drop off for the school in the basement.
- All units in second building will be noise affected from the railway and require enclosure of balconies, thereby reducing amenity.
- Visual disconnect between School Drop off zone (Cambridge Street carpark) and the School building on Oxford Street.

Impacts to neighbouring sites

- Reduction in ADG Solar performance of apartments and communal open space in proposed 2-4 Cambridge St development.
- Potential for increased school traffic (pedestrian and vehicular) due to loss of school access via Cambridge Street .
- Inadequate gap between the commercial envelope and the proposed development at 2-4 Cambridge due to the proposed setbacks at the adjacent site (less than ADG recommendations).
- Urban Design Outcomes
- Crowding of buildings with varying heights along Cambridge street.
- Loss of Visibility of Church from Carlingford Road
- Loss of School Through site link and the visual connection it provides to the public on both Oxford and Cambridge Streets.
- Significant loss in GFA which would preclude the new school and parish buildings and heritage restoration works.

Revised Developement Application

24 Storey Tower
5 Storey Podium



Potential Floor Space & FSR	
Total Area	29838
Site Area	7288
FSR	4.09 :1

Pros

- Height Compliant (2 storey podium, 16 storey tower, 72m overall height)
- GFA Compliant 29,838 sqm
- FSR 4.09:1
- ADG Compliant (Solar, Natural Cross Ventilation, Setbacks, Building Separation)
- Maximises School Open space area
- No disruption to School program with future addition of second stream proposed adjacent to the first stream
- Minimal overlooking of school open space compared to other options
- Provides ample space on the ground plane for school, allowing the school to be set back from line of Church frontage on Oxford St (as recommended by Heritage report).
- Maintains visual primacy of the church and heritage character of its setting by limiting
- the school building height to 2 storeys (on oxford Street) and maintaining a Parish Green to the East of the School.
- School through site link allows visual connection from both Oxford and Cambridge streets, creating a mid-block break that adjacent proposed developments haven't been able to provide.
- The single tower core minimises impact on basement layout and allows for secure off-road school pick up and drop off.
- Less units fronting Cambridge street which is compromised by the Western sun and Railway noise. Locating more units at height, above the threshold of Railway noise impact, provides improved amenity for residents.
- Visual connection between School Drop off zone (Cambridge Street carpark) and the School building on Oxford Street.

Urban Design Outcomes

- Access to sky from Oxford Street, and from central courtyard / school open space
- Provides relief from crowding of buildings when compared with compliant options tested.
- Visibility of Church from Carlingford Road, main approach into Epping from the west.
- A GFA outcome that maintains commercial viability whilst still falling short 18% short of the maximum allowable GFA, thus enabling the new school and parish buildings and heritage restoration works.

Cons

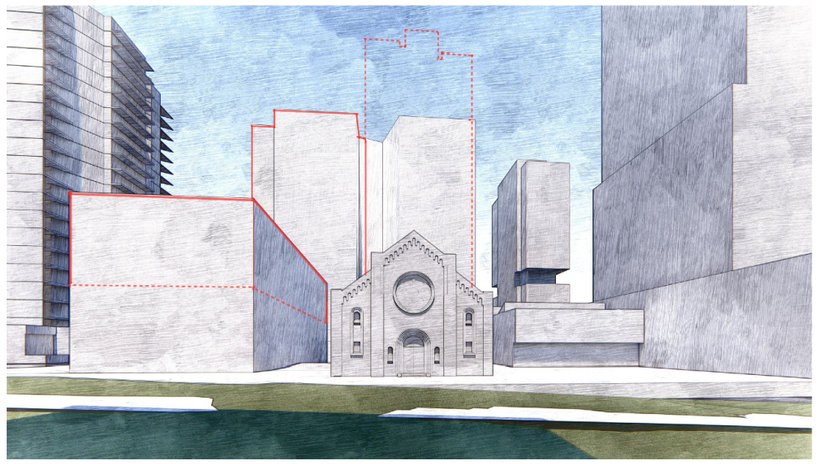
Impacts to subject Site

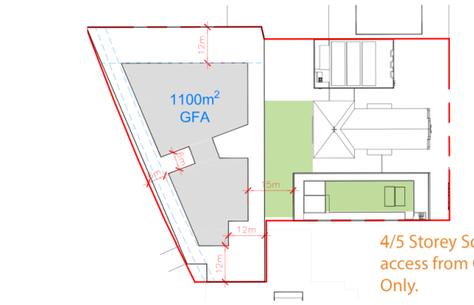
- Height Non-compliant
  (5 storey podium, 24 storey tower)

5.5 Height and massing comparison - Oxford Street View

Compliant Height - Commercial

15 Storey Tower
3 Storey Podium



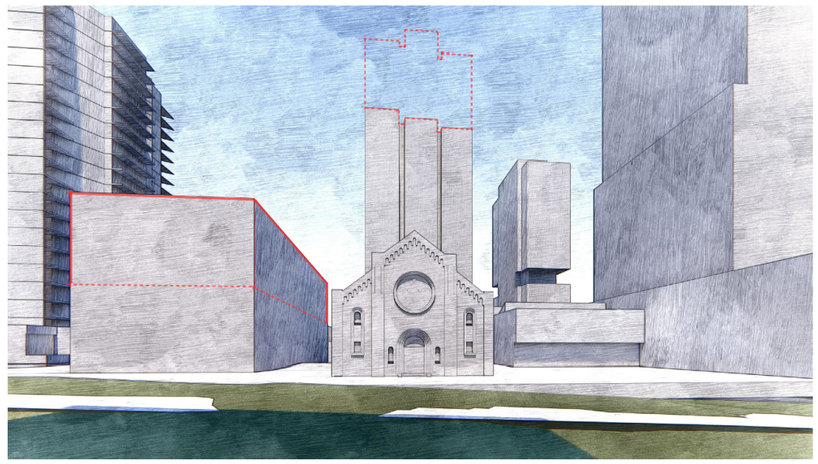


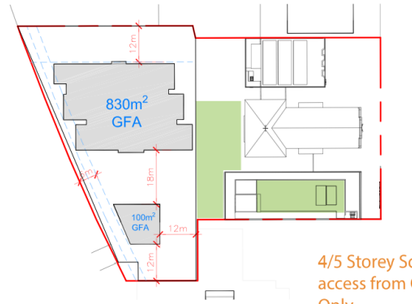
4/5 Storey School Building
access from Oxford Street
Only.

school outdoor play space

Compliant Height - Residnetial

18 Storey Tower
3 Storey Podium



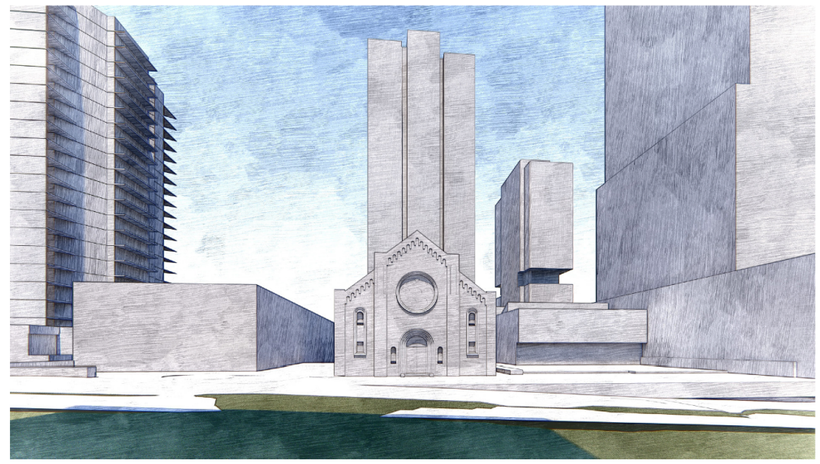


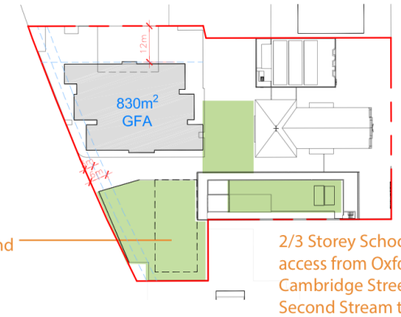
4/5 Storey School Building
access from Oxford Street
Only.

school outdoor play space

Revised Developement Application

24 Storey Tower
5 Storey Podium





Location of second
stream school in
future

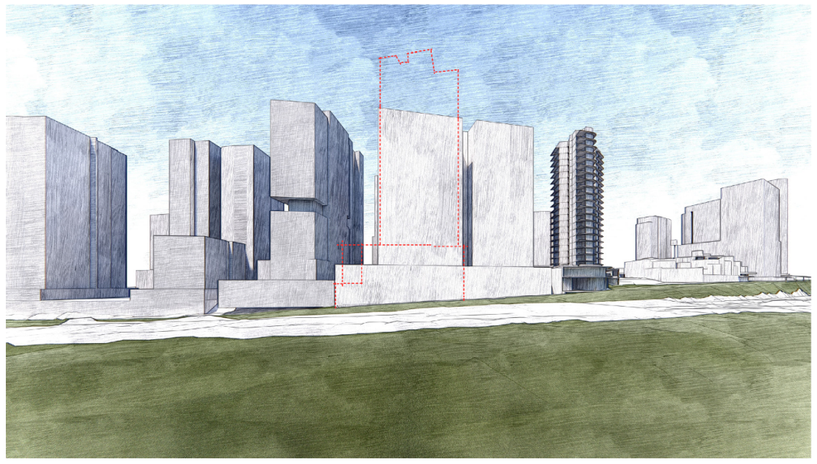
2/3 Storey School Builiding
access from Oxford and
Cambridge Streets
Second Stream to be
developed
above playground on

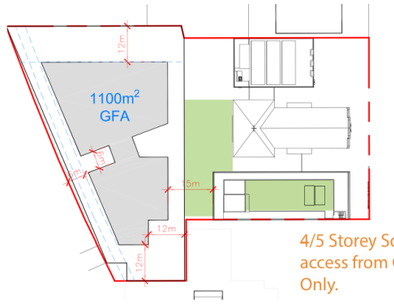
school outdoor play space

5.6 Height and massing comparison - Carlingford Rd View (Eye Level)

Compliant Height - Commercial

15 Storey Tower
3 Storey Podium

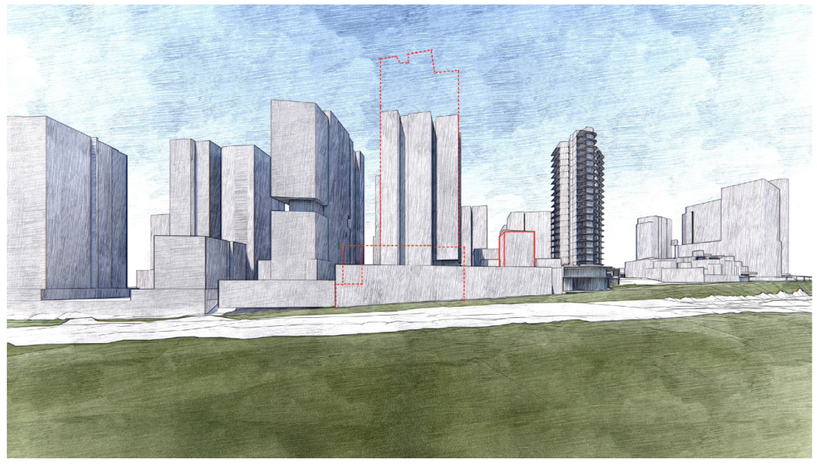


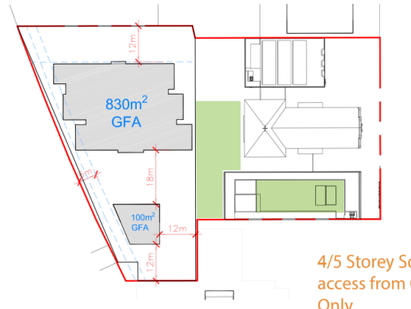


school outdoor play space

Compliant Height - Residnetial

18 Storey Tower
3 Storey Podium

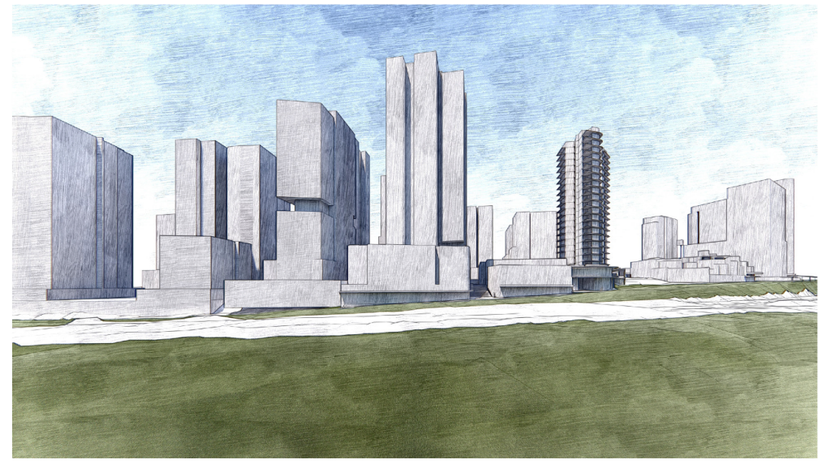


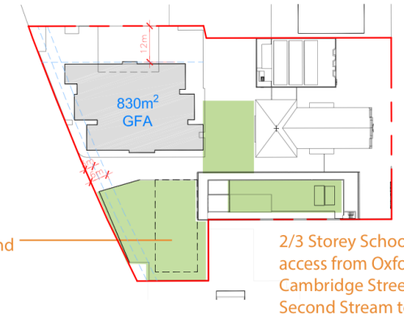


school outdoor play space

Revised Developement Application

24 Storey Tower
5 Storey Podium



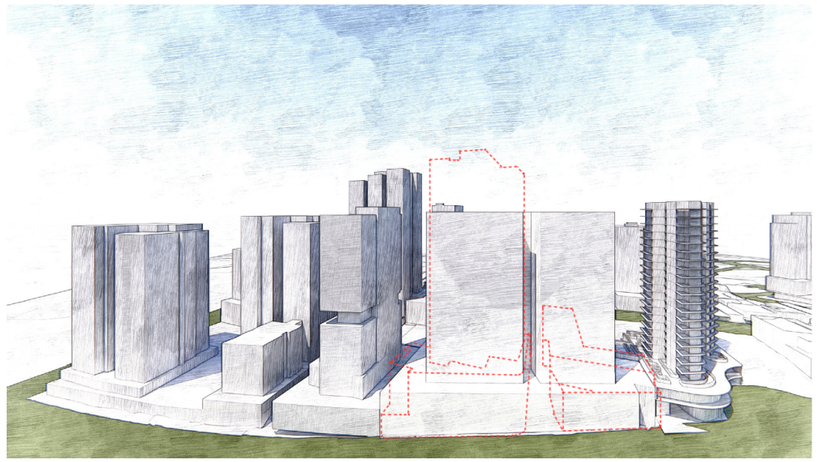


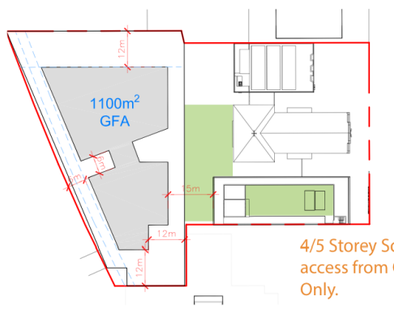
school outdoor play space

5.7 Height and massing comparison - Carlingford Rd View (Aerial)

Compliant Height - Commercial

15 Storey Tower
3 Storey Podium

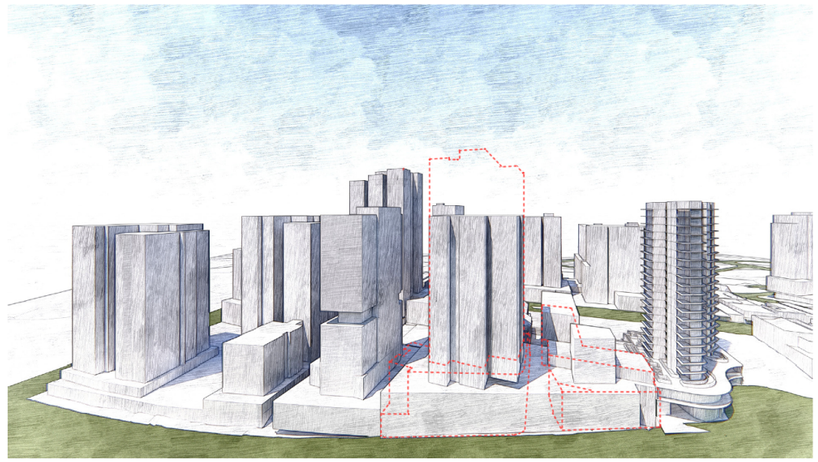


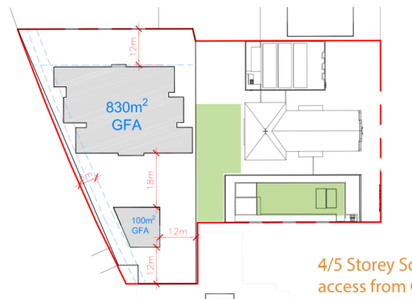


school outdoor play space

Compliant Height - Residnetial

18 Storey Tower
3 Storey Podium

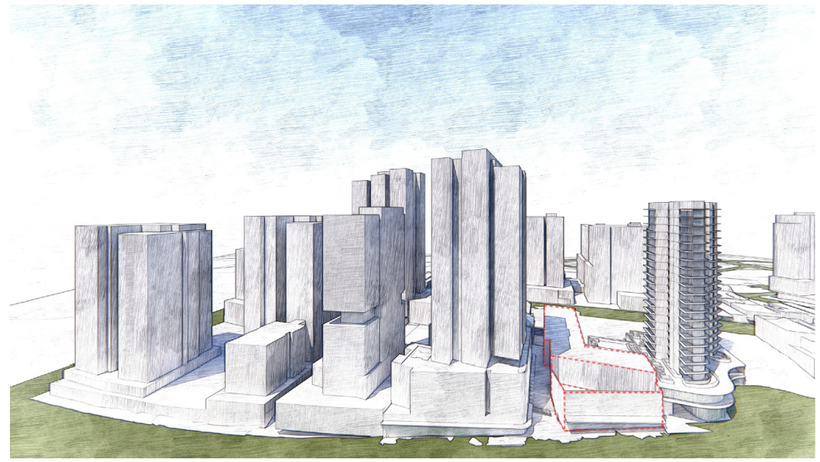


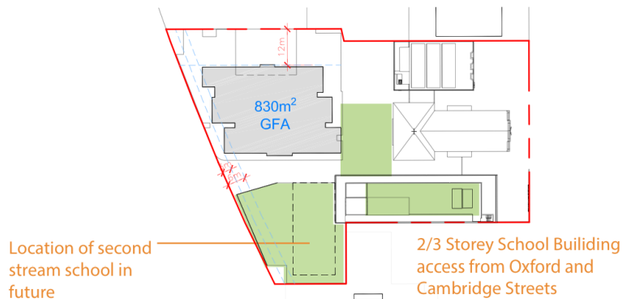


school outdoor play space

Revised Developement Application

24 Storey Tower
5 Storey Podium





school outdoor play space

The alternative arrangements studied during the design process are found to be inferior in spatial quality, require large buildings to be located closer to the heritage church and increase impacts on adjoining properties. Alternative arrangements of built form not only reduce urban design quality, but introduce endemic amenity issues that are resolved in the current proposal. Given its location – on axis with Carlingford Road, signifying an important heritage church and Epping's most hybrid mixed use site - we believe the tower's additional height is appropriate as a landmark and indicator of new essential facilities. We therefore believe that this departure from the height standards is justified.

Figure 44. Proposed Oxford Street frontage: The Oxford Street frontage enhances the scale and character of the heritage church through complementary built form, alignment and the provision of publicly accessible open space.

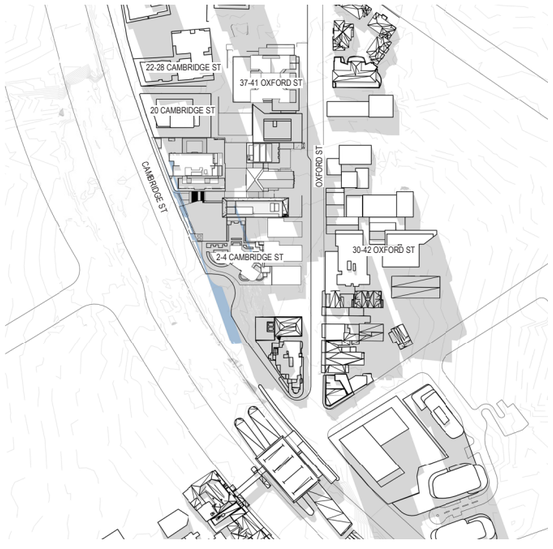
5.8 Impacts on adjacent context - 21st June (winter solstice)

Existing approved context - 9am | Existing approved context - 10am | Existing approved context - 11am | Existing approved context - 12pm

Figure 45. Winter solstice shadow impacts

These diagrams show the additional shadow impacts of the proposed ILU tower on the adjacent context during the morning of June 21st (mid-winter). From 9 - 10am, when the sun is lowest, shadows extend into the Epping Town Centre, which is itself rapidly increasing in scale to a height of 72m as indicated in the Parammatta LEP heights map. Therefore, aside from limited Beecroft Road frontage, the impacts of the proposal will be negated by the impacts of new high scale town centre developments on each other. Notably, these shadows are largely incorporated into the shadow that will be cast by the approved tower directly south of the subject site on Cambridge Street. By 10AM, the shadow impacts of the proposed ILU tower fall mainly on the rail corridor and sun is beginning to be felt along the Cambridge Street frontage. At noon, when the sun is highest, the proposed tower has no impacts on Cambridge Street or adjacent public domain, with all shadows falling within the development site and overlapping the shadows of approved development to the south. With such a large setback maximizing solar access to its southern neighbour, these impacts are considered acceptable.

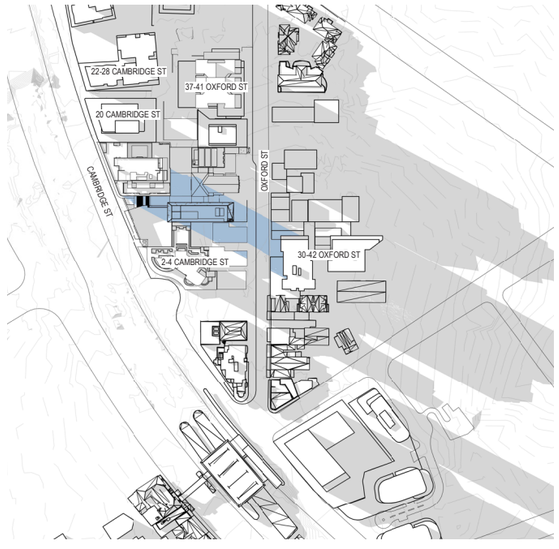
These diagrams also indicate that solar access to proposed open spaces within the site is considerable over the morning in mid winter. Hence from 9 - 10AM, when the sun is lowest, the Oxford Street frontage, comprising the Church entry, the parish garden and the parish square, all receive sun. The school open learning space on the roof terrace receives sun from 9AM until the afternoon. From 9AM, the ILU communal terrace and the RACF courtyard gain solar access. In addition, the courtyard gets sun from 10AM until Noon,



Existing approved context - 12pm

Existing approved context - 1pm

Existing approved context - 2pm



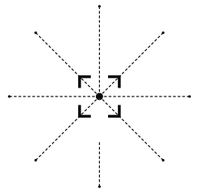
Existing approved context - 3pm

These diagrams show the additional shadow impacts of the proposed ILU tower on the adjacent context during the afternoon of June 21st (mid-winter). At noon, when the sun is highest, the proposed tower makes no impact on Cambridge Street or the adjacent public domain, with overshadowing only on the approved development to the south. With such a large setback maximizing solar access to its southern neighbour, this impact is acceptable. Impacts of the proposed tower on Oxford Street only occur after about 1.30PM, with overshadowing largely absorbed into the impacts of towers behind, street scaled buildings and likely development south of the site not shown on this diagram. It is clearly demonstrated that there are no additional impacts to public domain or development sites south east of the site (such as Pembroke Street and Epping Library Park) during the afternoon in mid-winter.

These diagrams also indicate that solar access to the main school play space facing Cambridge Street commences at about 12.30PM with solar access increasing as the sun moves to the west during the afternoon. The proposed school roof terrace remains sunny until about 2PM and the ILU communal terraces gain solar access right throughout the afternoon. In addition, the RACF courtyard gets sun from noon until 3PM and its west facing communal terraces on all levels get sun all afternoon.

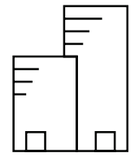
06 Conclusion

Through our rigorous detailed analysis, urban design and built form resolution, the following key principles have been achieved:



Context

- Centrality and primacy of heritage church retained
- East west links allows secure physical and visual links through the site
- Reduction of apparent tower form retains open character of site
- Coordinated education link and interface with school
- School presence and access on both Oxford and Cambridge Streets
- Ground plane activation of Cambridge Street
- Clearly defined Oxford Street frontage incorporating publicly accessible open spaces
- Compatibility with adjacent built form
- Provision of open space to complement built form within close proximity of boundaries.



Built form and scale

- Generous street setbacks to school and parish hall reinforce primacy of heritage church
- Alignment of built form creates clear spatial structure within site
- Two storey school and parish hall buildings reinforce primacy of heritage church
- Dual frontage to school allows second stream to be constructed with minimal interruption of the school year
- Reduced width of ILU tower and RACF facility enhances openness of site
- Reduced width of ILU tower reduces impacts on adjacent properties and public domain
- ILU tower well-articulated and proportionally aligned with RACF base
- Accessibility achieved throughout the site
- High levels of ADG amenity and urban design compliance.

Layout and amenity

- Integrated secure paths connect the public domain with the church, school and aged care
- High quality landscaped spaces enhance discrete uses throughout the site
- The heritage church is able to interact with the hall in an amenable and decorous manner
- The hall is flexible and able to be accessed for specific private or public events
- Street frontages promote specific cultural, commercial and/or ceremonial activities
- New clearly defined links enhance safety, security and way faring
- Discrete pedestrian and vehicular access for RACF and retirement living
- Separate parking for parish and school (including secure drop off)
- Minimisation of driveways to Cambridge Street
- Well considered techniques provide privacy without losing spatial continuity
- Opportunities for the young to interact with the old.

Figure 46. Indicative illustration of the proposed master plan

Figure 47. Indicative illustration of the street view of the proposed master plan along Cambridge Street

architectus™