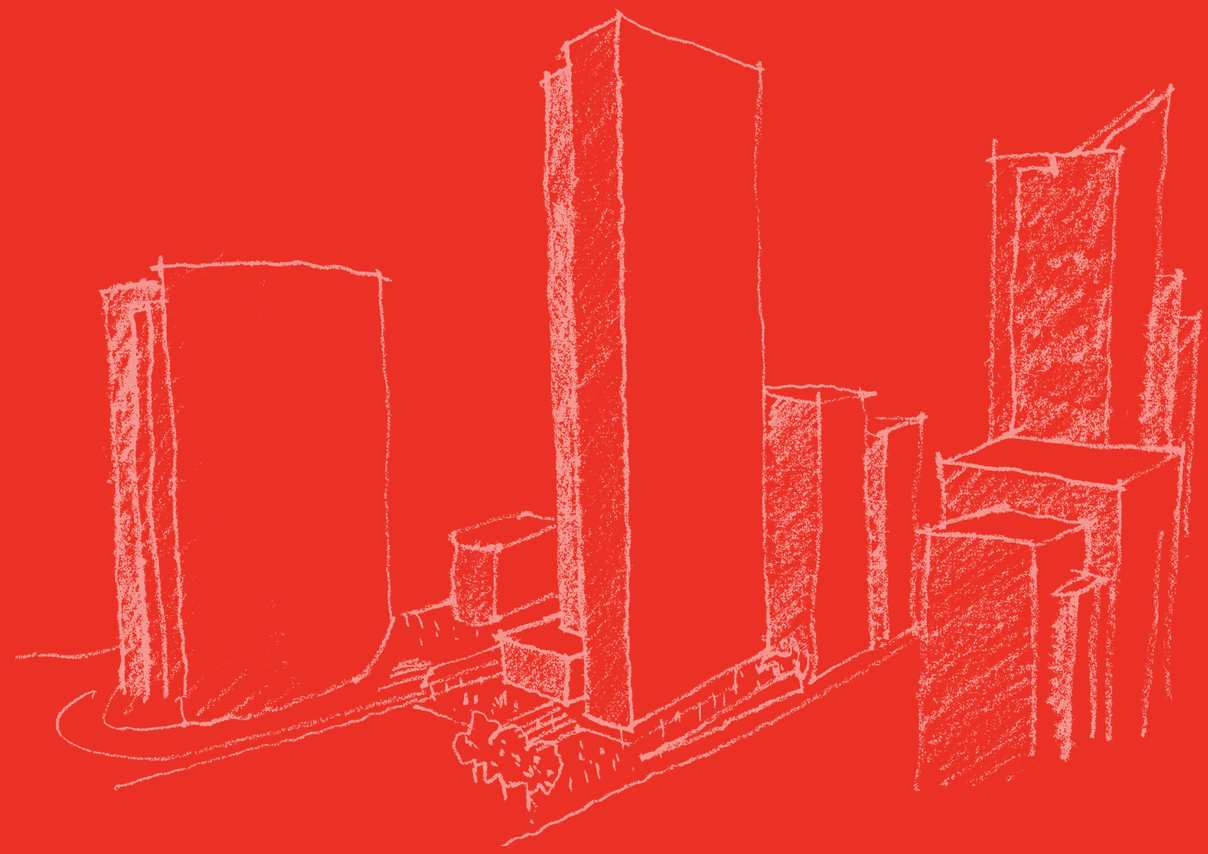
Architectural Design Report and Drawings



Project Application to NSW Department of Planning

Atchison Street Mixed Use Development
6-16 Atchison Street, St Leonards NSW

Bancor Developments

fjmt

April 2011

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01. EXECUTIVE SUMMARY

ARCHITECTURAL DESIGN STATEMENT

The design proposal for this apartment building, hotel and public open space has emerged from a close and detailed analysis of this important St Leonards site, the streetscape, environmental effects and urban form. Our objective has been to create a very high quality five green star building of distinctive architecture together with a landscaped public open space sequence that forms a through block public connection.

A finely detailed podium aligns with the adjacent building scales to create a human scale to both Atchitson Street and Atchison Lane, with the tower above set well back from the street alignment on the lane. The podium is raised up and set back from the north to create generous and inviting public open spaces and a sense of invitation for the through site pedestrian links.

The tower form above the podium has been carefully proportioned into a slim off-set pair to create an elegant contribution to the skyline of St Leonards. The tower position and height is determined to minimise environmental effects such as overshadowing on any nearby residential or public open spaces and sit comfortably below the relative heights of adjacent towers such as “The Forum” development.

An innovative curvilinear custom designed external sunshade system provides shade and privacy while giving the architecture of the new building a distinctive and unique character. Equal care and attention is paid to the detailing of each element of the architecture including elements of the landscaped public open space such as the green wall, amphitheatre and plaza.

DEVELOPMENT STATISTICS

Site Area	1740 m^2
Total Residential Apartments	173
Total Hotel Rooms	76
Parking	146 Cars
	14 Motor Bikes
Tower	29
Basement Levels	5.5
Gross Floor Area	24962m^2
Building Height	94.05m
Building Maximum RL to AHD	181.30 AHD
Floor Space Ratio	14:1

SITE LOCATION AND CONTEXT

The subject site is located in St Leonards within a mixed use zoned precinct. The precinct is characterised by a dense urban environment of commercial, retail and high density residential developments. The precinct is divided into quarters by the Pacific Highway running East/West and the Chatswood rail line running North/South.

The precinct has been identified as a focus for increased density and activity given its close proximity to public transport nodes and employment potential.

TOPOGRAPHY AND ORIENTATION

The site is oriented east west with its long axis running perpendicular to north. The site is double sided with a frontage on Atchison St and the service corrdior of Atchison Lane. The site has significant cross falls on both edges and a cross site fall of some 3m The site offers extensive access to direct northern light and excellent ventilation due to the low level development to the north, site orientation and predominant North East Breezes. Outstanding 360º panoramic district views are also available from almost every level of the development.

EXISTING DEVELOPMENT AND CURRENT SITE USES

The site currently accommodates;

- 6-12 Atchison St - 4 storey commercial/retail building including basement car park with rear access from Atchison Lane
- 14 Atchison St - 3 storey commercial building including basement car park with rear access from Atchison Lane.
- 16 Atchison St - 3 storey commercial building including basement car park with rear access from Atchison Lane

SURROUNDING DEVELOPMENT

All sites surrounding the site are zoned mixed use, with height limits in excess of the current developed envelopes. The site is surrounded by;

- West: - Linea Apartments, a 17 storey mixed use residential development
- East - 3 storey commercial development with basement parking
- North - Commercial and mixed use residential developments of differing scales
- South - Medium scale commercial developments,

BUILT FORM

The proposed development is composed of 2 finely detailed tower forms separated by a recessed circulation spine, giving the effect of 2 thin towers. The elevated podium contains the Hotel component and the shared gym facility and conference/ community meeting room..

The public domain offers an open and protected ground plane featuring

- separate residential and hotel access
- 2 new cross site links between Atchison Street and Atchison Lane
- significant landscaping featuring a “green wall” on the eastern boundary adjacent the cafe.

VISION

As identified in the initial briefing documents for the project, Bancor Developments see the site as an opportunity to deliver significant affordable residential stock on a site which offers minimal environmental impacts to its neighbours and the precinct.

High quality design and a sustainable design philosophy were key design drivers for the development, with a 5 Star GreenStar resdiential design rating being targeted for the development. This would be the first residential development of this scale in NSW to achieve this rating.

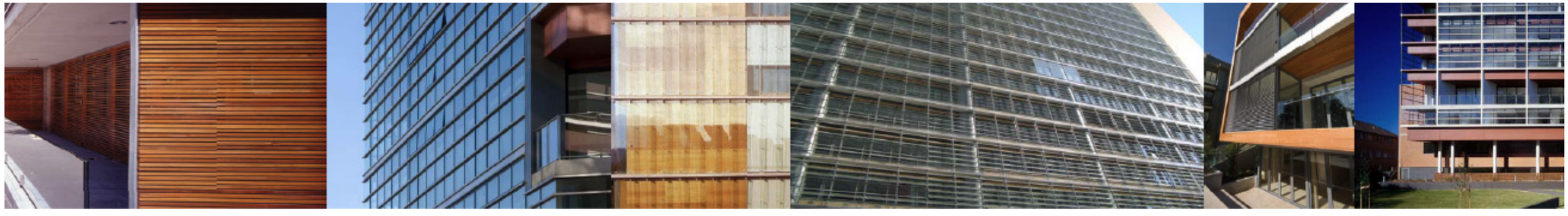
DESIGN DEVELOPMENT

As the Project Team moves into detailed documentation, a number of fundamental design principles have been identified and will be consistently implemented throughout all next phases. These principles include:

- a clear identity and a commonality (language) to the complex. This applies to not only the base building but to adjoing site interfaces.
- to include a clarity to and a comprehension of any new insertions
- a sustainable and hence cost effective environment which can be interpreted by the public and managed by the users
- flexibility for future reconfigurations of the development
- considerations of the ongoing maintenance requirements of building fabric

STAGING

A 3 year construction program is illustrated in the Construction Management Plan.



ACCESS, TRANSPORT AND PARKING

The site is located in close proximity to St Leonards Railway Station and exstensive public transport infrastructure on the Pacific Highway and is within easy walking distance to the Crows Nest village.

The site itself acts as a mid way designation point between Christie and Mitchell St and the rejuvinated commercial/retail precinct along the Pacific Highway.

It is envisaged that a large number of visitors will arrive either by rail or foot.

PEDESTRIAN ENVIRONMENT

The development will have exceptional pedestrian amenity with special regard to accessible access. Given the ageing nature of the Australian population many visitors will require equitable access to the site which is achieved at all levels of the development

The site is located along two major and increasingly well used pedestrian routes - access from St Leonards train station to Crows Nest is generally taken by either Atchison St or Atchison Lane.

The foyers can be easily accessed from both these routes, either directly from Atchison Lane or a via strong visual connections on Atchison Street

It is intended that the development will have an active environment after business hours giving good passive surveillance to the residential occupants and an active public domain. Strong visual links through the cross site links promote this endeavour.

This will enable the public to view into the new public domain spaces to provide a point of interest, along what is currently an inactive boundary edge on Atchison Lane.

The open landscaped courtyard to the East and the open area to the north will activate the edges of the development.

CURRENT LANDSCAPE AND OPEN SPACE

The site is bounded by Atchison Street and Atchison Lane. Sloping from east to west, the public pedestrian footpath on Atchison Street was upgraded recently and is predominately precast unit pavers set in a stretcher bond pattern with street tree planting.

There are a series of stepped terraces to the east and west of the site anticipating future outdoor cafes along the street. Existing tree planting along Atchison Street consists of relatively young native trees at about 14 metre centres along the footpath. There is also some existing street furniture including bench seats, light poles and bicycle racks that are proposed to be retained.

NEW PUBLIC DOMAIN LANDSCAPE

The primary objectives of the new public domain landscape design are one of connection and place. Connections and paths to destinations on the site (ie. hotel, apartments and cafe) as well as connections through the site to destinations beyond support the concept of permeability. The concept of place is supported by creating a design that characterises the site to ensure it is memorable for occupants and visitors alike.

Making new places also requires activity and this reflected by the cafe/restaurant proposal with outdoor seating and the potential to use the flight of stairs as ‘intermittent’ seating for nearby performances. In addition, it is expected that many pedestrians working nearby will use the through-site links as a local shortcut from Atchison Street to Atchison Lane beyond. This will also benefit the general level of activity expected around the Hotel and Residential lobbies and is anticipated to be open 24/7.

There are multiple pedestrian connections to the separate Hotel and Residential lobbies which front a paved forecourt, each with a different character. The backdrop of Hotel forecourt and lobby is a 10 metre high vertical green wall with nearby seating blocks, intersected by planting, to wait for a taxi or colleague undercover. On the western side of the site is the Residential apartment forecourt and lobby which is characterised by a feature stone wall.

An appropriate balance between hard paved surfaces and soft landscape areas is sought in the scheme. Whilst hard paved surfaces are necessary and appropriate for an urban space with dense populations and significant pedestrian traffic, such as St Leonards, the community expectation is often that green open space or planting is maximised. It is with this expectation in mind that the landscape design provides a range of different planting ‘experiences’ including an iconic ‘green wall’ and supplementary mass planting throughout the site.

The main public domain landscape components include:

- Street Interface (with Public Art Sculpture)
- Residential Forecourt
- Hotel Forecourt
- Green Wall
- Site Through-Link
- Cafe Square
- Feature Gravel Roof (at Podium Roof Level)

The Drawings, as well as the following descriptions describe these components.

The proposed public domain landscape design supports and extends the objectives of the Atchison Street West Master Plan by North Sydney Council.

LOADING AND UNLOADING FACILITIES

Access to the site for service vehicles is only from Atchison Lane, to the basement loading dock and site parking. The basement loading dock has been designed to accommodate garbage, general delivery vehicles and large removalist trucks.

Access to the development over is via the basement goods lift which service the entire tower. The loading strategy to the site was developed to minimise disruption to existing planning objectives and pedestrian routes.

WATER CYCLE MANAGEMENT

The Hydraulic and Fire Systems Report provide a number of water management measures for the new development, refer to the specific services reports.

WASTE MANAGEMENT FACILITIES

Waste facilities are to located in the basement with compaction and recycling facilities provided. The waste storage area is of sufficient size to accommodate both general waste and recyclable materials for storage and weekly pickup.

Details are provided in the Waste Management Plan

ESD

ESD initiatives have been addressed in the Steensen Varming ESD Report, BASIX and BCA Section J compliance with the facade.

The development is targeting a 4 Star GreenStar rating has been identified and achieved within the design proposal, presented within this report. The client is working towards achieving “best practice” ESD outcomes over a range of environmental initiatives.

NOISE

An acoustic report has been prepared for the new development which addresses both the potential noise impact of the development on surrounding properties and the control of internal noise levels within the building.

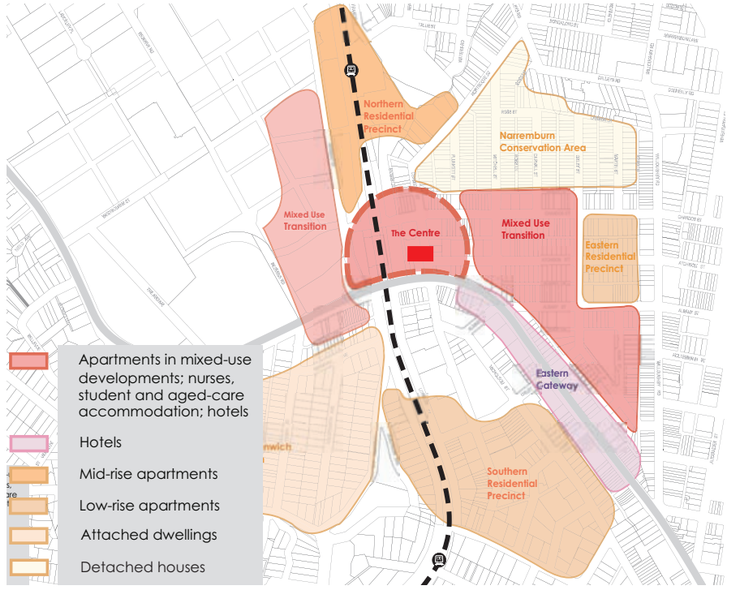
INFRASTRUCTURE AND UTILITIES

All issues associated with storm water management, water supply, sewerage services and gas services have been addressed in the Hydraulic and Fire Systems report Electrical services are addressed in the Steensen Varming project Application Report.

02. URBAN ANALYSIS

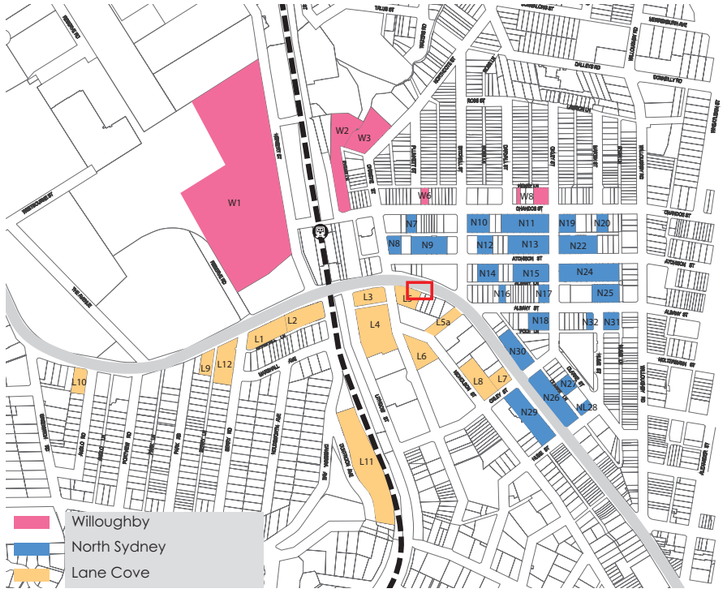
DEVELOPMENT OPPORTUNITIES

The site is located within an identified development zone as outlined in the St Leonards Strategy 2006. The site bridges the boundaries of the Urban centre and the Mixed Use Transition Zone. Both of these zones have undergone recent and significant redevelopment in recent years with mixed use residential developments being the focus.



KEY DEVELOPMENT OPPORTUNITIES

The St Leonards Strategy 2006 identified development sites across all three Local Government Areas (Willoughby, Lane Cove and North Sydney). 6-16 Atchison St has been noted as a key development opportunity within the precinct. The environmental impacts of increased development on the site have been seen as relatively benign and the increased density in keeping with the objectives of the strategy

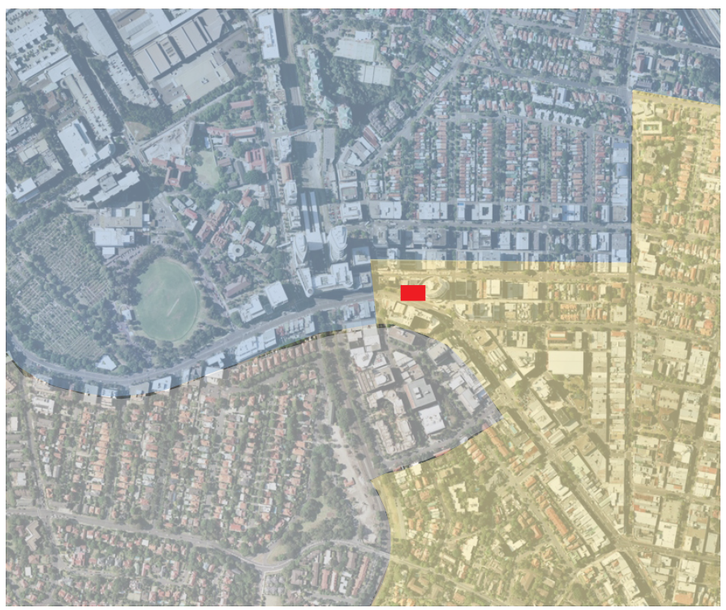


LOCAL GOVERNMENT AREA BOUNDARIES

- **Willoughby Council Local Government Area**
- **Lane Cove Council Local Government Area**
- **North Sydney Council Local Government Area**

The site is centred within the St Leonards precinct and borders all 3 of the Local Government Area boundaries. A detailed consultation process was undertaken with the councils as well as presentations to the North Sydney Council Design Excellence Review Panel and a community consultation presentation to adjoinging land owners and concerned parties.

HERITAGE ITEMS AND CONSERVATION AREAS



LOCALITY AND CONTEXT ANALYSIS

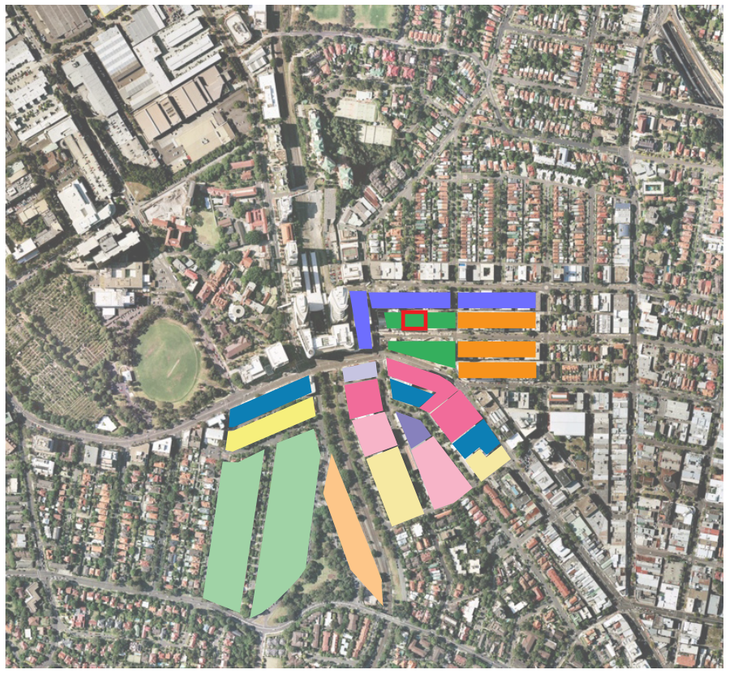
- Site
- Royal North Shore Hospital
- North Shore TAFE
- Gore Hill Cemetry
- Green space
- The Forum
- St Leonards Railway Station
- Crows Nest Village
- Commercial Mixed Use

ARTERIAL NETWORK ANALYSIS

- Atchison Street
- Chatswood Rail Line
- Pacific Highway
- Willoughby Road
- River Road
- Northcote Street
- Albany Street

PRECINCT HEIGHT LIMIT ANALYSIS

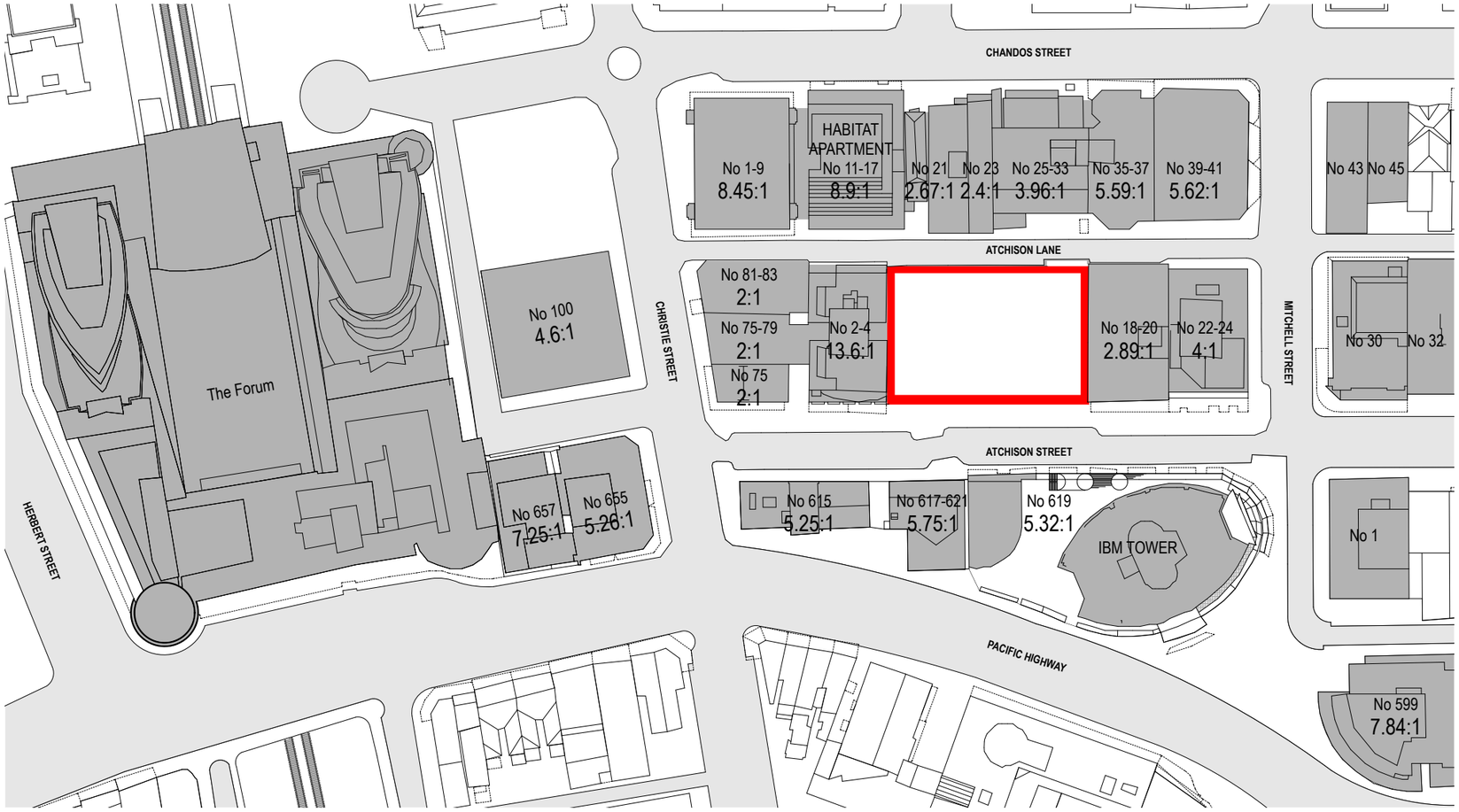
- Site
- 72m (Lane Cove LEP 2009)
- 65m (Lane Cove LEP 2009)
- 50m (Lane Cove LEP 2009)
- 49m (North Sydney LEP)
- 45m (Lane Cove LEP 2009)
- 40m (North Sydney LEP)
- 36m (Lane Cove LEP 2009)
- 33m (North Sydney LEP)
- 25m (Lane Cove LEP 2009)
- 21m (Lane Cove LEP 2009)
- 18m (Lane Cove LEP 2009)
- 15m (Lane Cove LEP 2009)
- 9.5m (Lane Cove LEP 2009)



PRECINCT FSR ANALYSIS

The current Floor Space Ratio of the site is in the order of 3:1. As identified in the St Leonards Strategy the site is seen as a key development opportunity with the potential to carry greater density.

The FSR analysis below notes the site address, use, height and current/proposed FSR



Street Address	Site Area (sqm)	As Built: Existing/ Approved height (storeys)	As Built: Existing / approved GFA (Source NS Council records	As Built: Existing / Approved FSR (Source NS Council records)	Permissible under NS LEP 2001: Zoning	Height (metres)	FSR	Permissible under Draft NSLEP: Zoning	Height (metres)	FSR (min non res for mixed use)	Max GFA
2-4 Atchison	720	17	9792	13.6	Mixed Use	49	3:1 - 4:1	B4 Mixed use	49	3:01	2160
18-20 Atchison	720	4	2088	2.89	Mixed Use	49	3:1 - 4:1	B4 Mixed use	49	3:01	2160
22-24 Atchison	720	6	2798	4	Mixed Use	49	3:1 - 4:1	B4 Mixed use	49	3:01	2160
1-9 Chandos	116	13	9810	8.45	Mixed Use	33	3:1 - 4:1	B3 Commercial	33	12-14:1	1392
11-17 Chandos	862.4	12	6724.8	8	9Mixed Use	33	3:1 - 4:1	B4 Mixed use	33	3:01	2578.2
19 Chandos	223	1	178.4	0.8	Mixed Use	33	3:1 - 4:1	B4 Mixed use	33	3:01	669
21 Chandos	354.2	4	947	2.67	Mixed Use	33	3:1 - 4:1	B4 Mixed use	33	3:01	1062.6
23 Chandos	197	3	472.8	2.4	Mixed Use	33	3:1 - 4:1	B4 Mixed use	33	3:01	591
25-33 chandos	874	7	3454	3.96	Mixed Use	33	3:1 - 4:1	B4 Mixed use	33	3:01	2622
35-37 Chandos	479.4	8	2678	5.59	Mixed Use	33	3:1 - 4:1	B4 Mixed use	33	3:01	1438.2
39-41 chandos	958.9	8	5369	5.62	Mixed Use	33	3:1 - 4:1	B4 Mixed use	33	3:01	2876.7
75 Christie	216	2	432	2	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	2592
77-79 Christie	748	2	1496	2	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	8976
81-83 Christie	355	2	710	2	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	4260
100 Christie	2476.5	12	11384.5	4.6	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	29718
599 Pacific Hwy (incl. 10-20 Albany st)	2583	17	20250	7.84	Mixed Use	40	3:1 - 4:1	B4 Mixed use	40	0.75-2:1	1937-5166
601 Pacific Hwy	2843	15	15119	5.32	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	34116
617-619 Pacific Hwy	480	part 2 part 8	2641	5.5	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	5760
621 Pacific Hwy	594	10	3562	6	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	7128
655 Pacific Hwy	731	7	3845	5.26	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	8772
657 Pacific Hwy	674	8	4896	7.25	Mixed Use	49	3:1 - 4:1	B3 Commercial	49	12-14:1	8088

Assumptions:

Mixed use 80% efficiency
Commercial 90% efficiency

03. PRECINCT ANALYSIS

"St Leonards will continue to develop as one of the major employment centres for knowledge-based industries within the Sydney metropolitan region, by capitalising on its location within Sydney's 'global arc' and building on opportunities arising from its excellent accessibility and co-location with regional scaled health and educational facilities.

New and diverse housing opportunities will also continue to emerge and be supported by convenience shopping, cafes, bars, entertainment venues, community facilities, a high quality environment and excellent public transport, walking and cycling accessibility, creating a desirable place for cosmopolitan urban living.

New development and public domain improvements will create a more consistent and high quality image throughout the centre, leading to an identifiable 'sense of place'. 1

The St Leonards centre has a number of issues which detract from the quality of the urban amenity and impact upon the ability of the public domain to attract and maintain users who both live and work in the area. The key elements with the greatest impact are the:

- different planning controls,
- public infrastructure and management of the centre by the three councils.
- The division of the precinct into 4 zones by the Pacific Highway and Chatswood Rail corridor
- The lack of clear pedestrian connections to Royal North Shore Hospital and North Sydney TAFE to the heart of the centre
- The ageing commercial building stock as a result of limited redevelopment opporunities

The St Leonards precinct urban quality is characterised by ;

- arbitrarily developed building scales which has led to a fractured skyline profile
- shaded public spaces due to the east west development grid
- intense traffic conditions at the peaks
- significant wind effects due to the east west orinetation of the street grid and togoraphy
- limited interblock cross site connectivity

01. VIEW FROM IBM TOWER COURTYARD

02. VIEW FROM IBM TOWER COURTYARD

03. VIEW FROM ALBANY STREET

04. VIEW FROM MITCHELL STREET

05. VIEW FROM CHRISTIE ST PARK

06. VIEW FROM CHRISTIE STREET

07. VIEW FROM PACIFIC HIGHWAY

08. VIEW OF IBM TOWER

09. VIEW OF ATCHISON STREET

10. VIEW ALONG ATCHISON STREET

1 P6 St Leonards Strategy | November 2006, Prepared by: David Lock Associates National Economics City scape Planning & Projects PBAI Australia

SKYLINE ANALYSIS AND MASSING STUDY

The Metropolitan Strategy seeks to concentrate new jobs in areas that are easily accessible by public transport, and that can capitalise on existing health and education facilities. It nominates 27 centres for particular employment growth and sets targets for additional jobs in each of these centres by 2031. St Leonards is one of these.

The St Leonards Strategy 2006 outlined opportunities and objectives which underline the potential development of the precinct. With the stated objectives of increased density and diversification of the uses to establish an urban mixed use centre.

The strategies objectives will increase development of the precinct skyline, with increased capacity and height being gazetted within the Willoughby and Lane Cove LEPS.

The scale of city skylines have been defined using a variety of generating influences. Many skylines initially develop around arbitrary factors and opportunities with little or no structure to the outcome.

The St Leonards skyline is characterised by the predominance in the skyline of;

- "The Forum" development over the rail corridor
- "The Abode" apartments, and;
- "The IBM Tower"

The 6-16 Atchison St site has been identified as a key development opportunity within the precinct it is important to define the appropriate envelope for any such development.

In defining an appropriate development height for the site Diagrams 01 and 06 illustrate the current skyline, which shows no definitive form from either the east/west axis or the North/ South.

Diagrams 02 and 07 illustrate a linear approach to developing the skyline. This approach suggests a development height in the order 90-100m would be appropriate.

Diagrams 03 and 08 illustrate a topographical response to developing the envelope. This approach suggests a height in the order of 110-120m would be appropriate.

Diagrams 04 and 09 illustrate a typical "dome" response to developing the envelope. This approach suggests height in the order of 110-115m would be appropriate.

Diagrams 05 and 10 illustrate a hybrid overlay of each approach, which suggests an envelope in the order of 110m would be appropriate compromise.

Any envelope of this magnitude would need to mitigate its environmental impacts on adjoining and adjacent precinct development.

EAST WEST PRECINCT SECTIONS

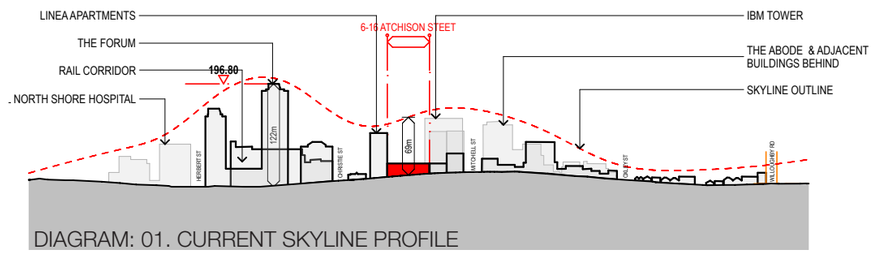


DIAGRAM: 01. CURRENT SKYLINE PROFILE

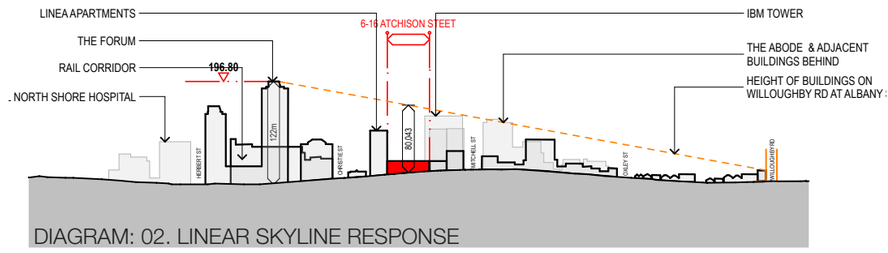


DIAGRAM: 02. LINEAR SKYLINE RESPONSE

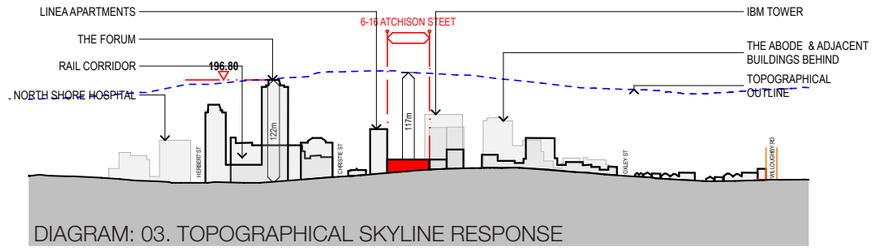


DIAGRAM: 03. TOPOGRAPHICAL SKYLINE RESPONSE

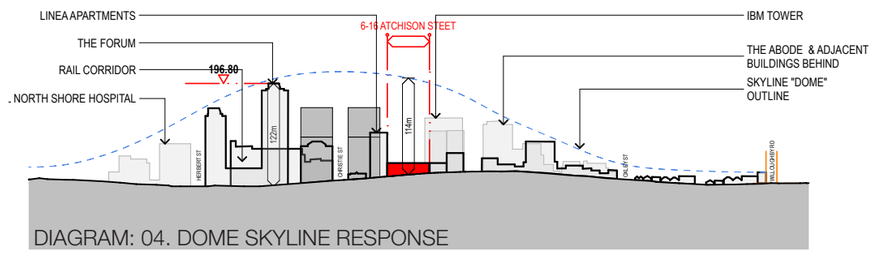


DIAGRAM: 04. DOME SKYLINE RESPONSE

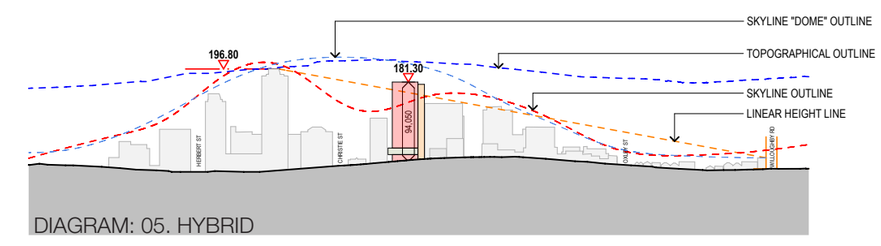


DIAGRAM: 05. HYBRID

NORTH SOUTH PRECINCT SECTIONS

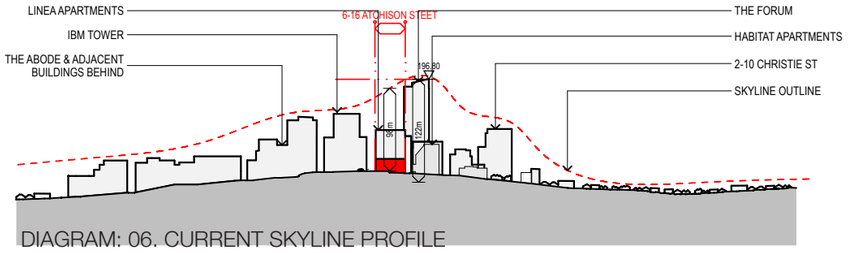


DIAGRAM: 06. CURRENT SKYLINE PROFILE

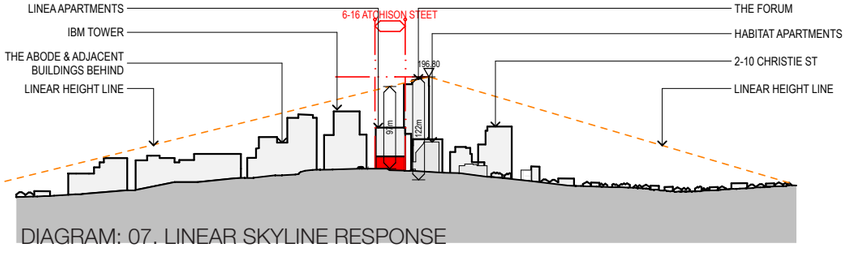


DIAGRAM: 07. LINEAR SKYLINE RESPONSE

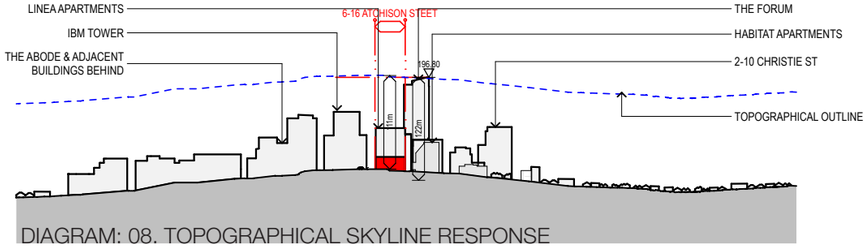


DIAGRAM: 08. TOPOGRAPHICAL SKYLINE RESPONSE

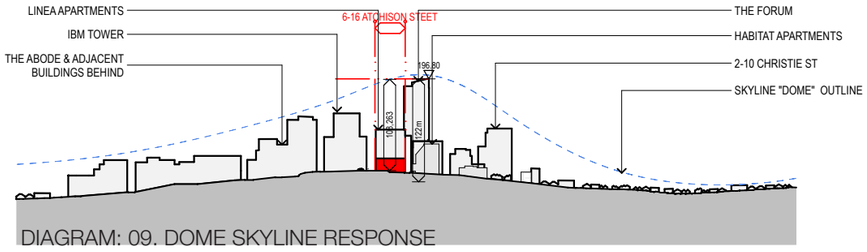


DIAGRAM: 09. DOME SKYLINE RESPONSE

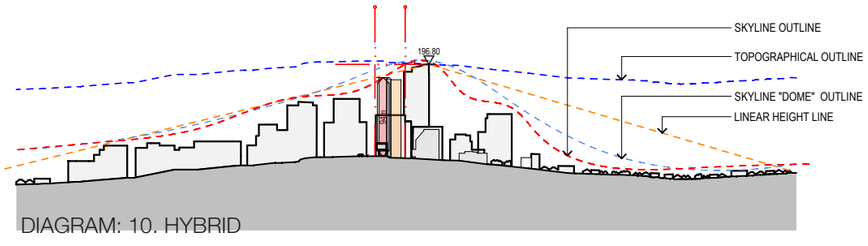
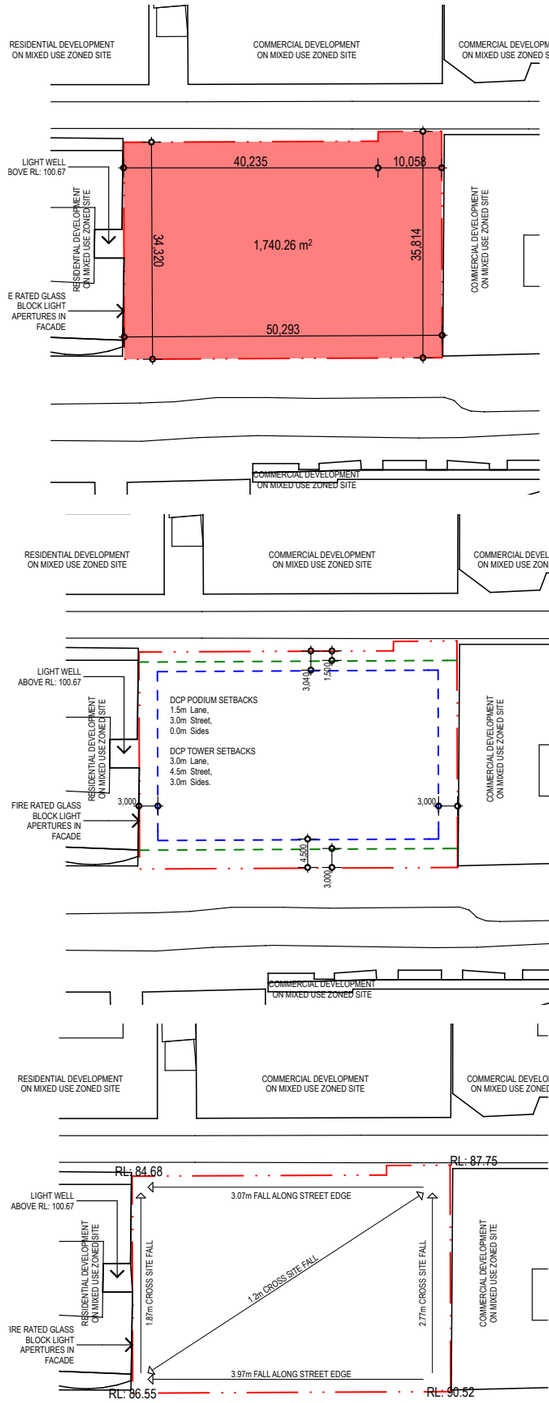


DIAGRAM: 10. HYBRID

04. SITE AND OPTION ANALYSIS

SITE PLAN

Notes the site dimensions and area



NORTH SYDNEY COUNCIL DCP SETBACKS

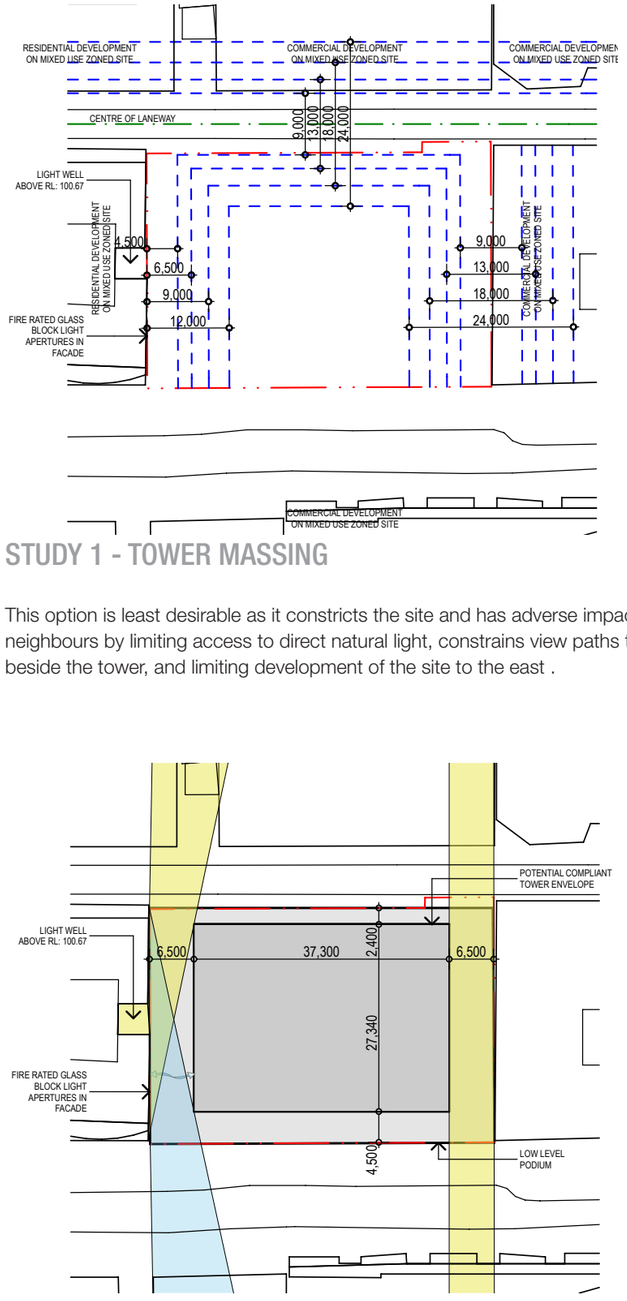
illustrates the generic setbacks as defined by the North Sydney Council DCP.

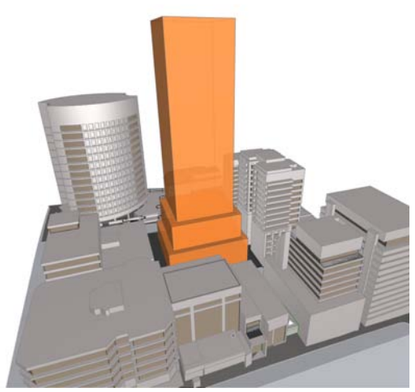
EXISTING SITE LEVELS AND FALLS

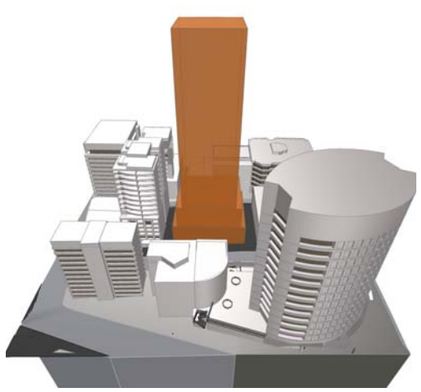
Notes the site levels and cross falls. this illustrates that there are significant falls along and across the site boundaries. The North Sydney Design Exscellence Panel noted a preference to develop cross site links. Given the grades of the site and endeavouring to maintain equitable agress across the site, it was decided to optimise equitable egress by establishing a diagonal cross site circulation path to take advantage of the minimum fall/level difference in this direction.

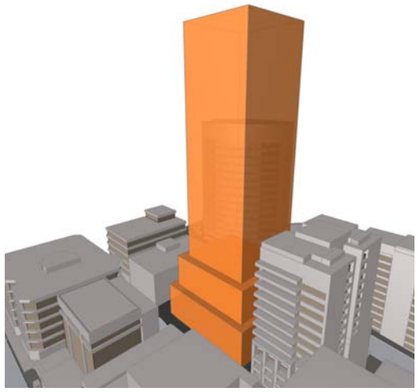
SEPP 65 SETBACK ANALYSIS

- Building height up to 12m; 12 m between habitable rooms/balconies, 9m between habitable/balconies and non-habitable rooms, 6m between non-habitable rooms
- Building height up to 25m; 18m between habitable rooms/balconies, 13m between habitable rooms/balconies and non-habitable rooms, 9m between non-habitable rooms
- Building height over 25m; 24m between habitable rooms/balconies, 18m between habitable rooms/balconies and non-habitable rooms, 12m between non-habitable rooms



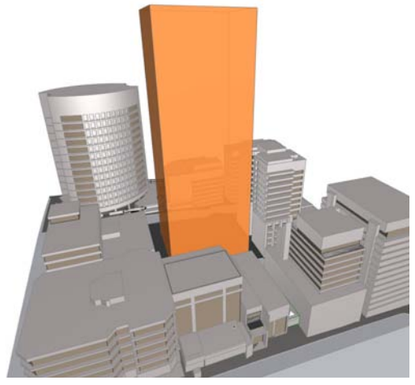


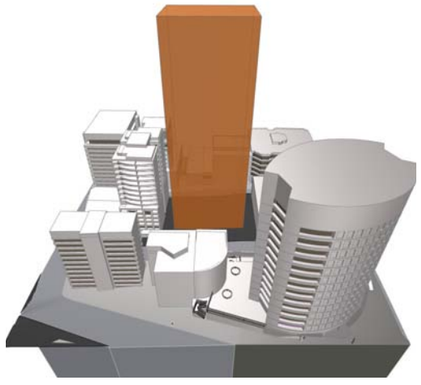


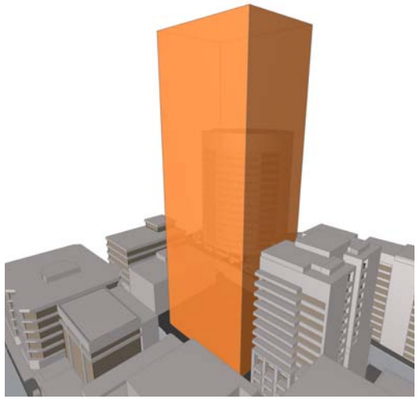


STUDY 1 - TOWER MASSING

This option is least desirable as it constricts the site and has adverse impacts on its adjoining neighbours by limiting access to direct natural light, constrains view paths through the site beside the tower, and limiting development of the site to the east .

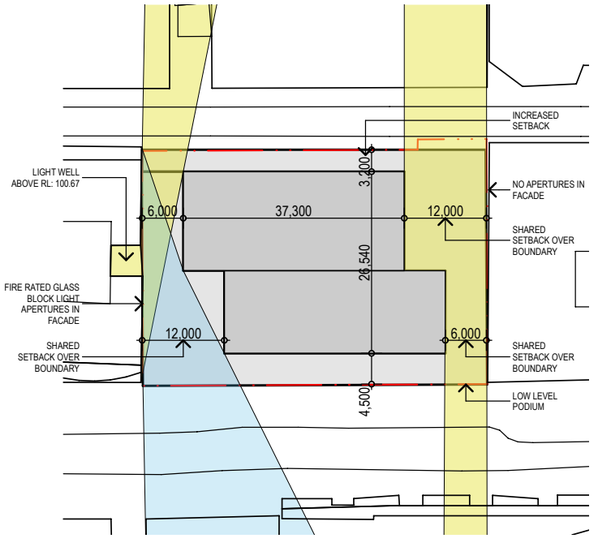


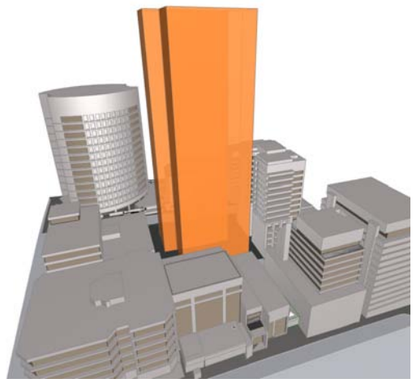


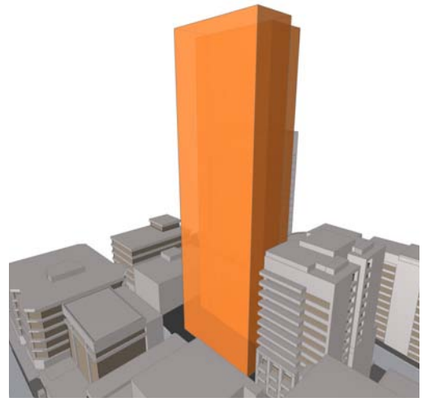


STUDY 2 - TOWER MASSING

Splits the tower into 2 masses to decrease the percieved mass. This strategy optimises access to Southern light for the site to the east, whilst maximising access to natural light within the proposed tower envelope itself. The extent of low level podium constricts access to natural on the ground plane and minimises the sites visual transparency.

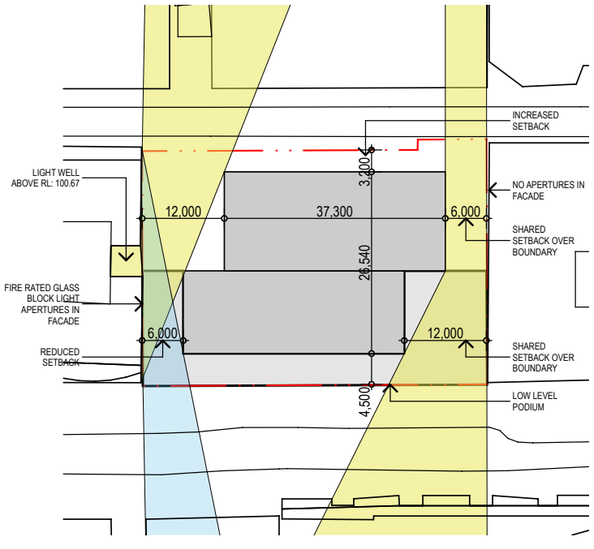


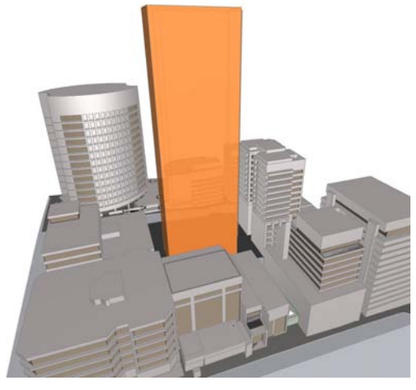


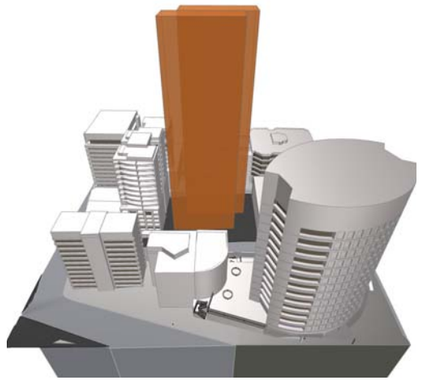


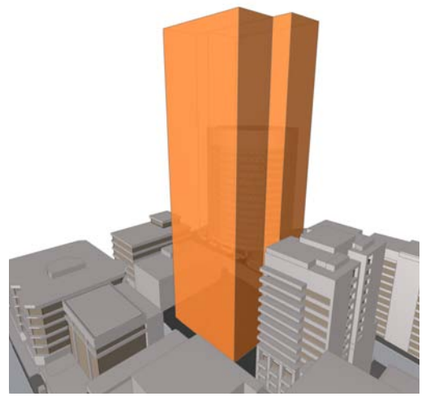
STUDY 3 - TOWER MASSING

This option splits the tower into 2 masses to decrease the percieved mass. This strategy optimises access to Northern light for the site to the east, whilst maximising access to natural light within the proposed tower envelope itself. Reversing the offset from option 2 maximises light access to the public domain areas to the south of the site. The extent of low level podium is reduced to optimise northern light access to the rear of the site.



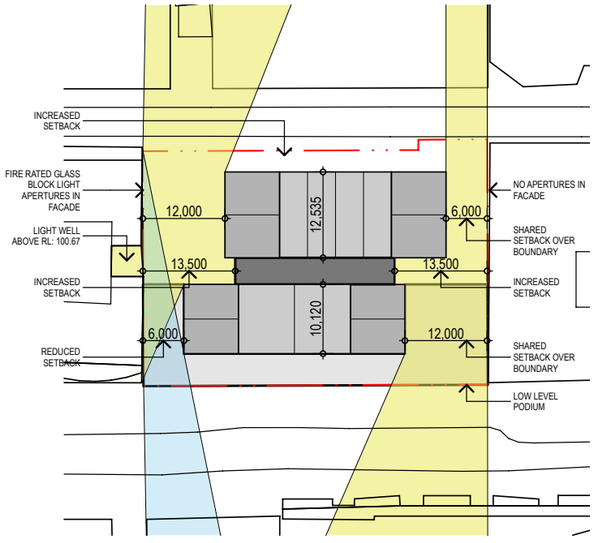


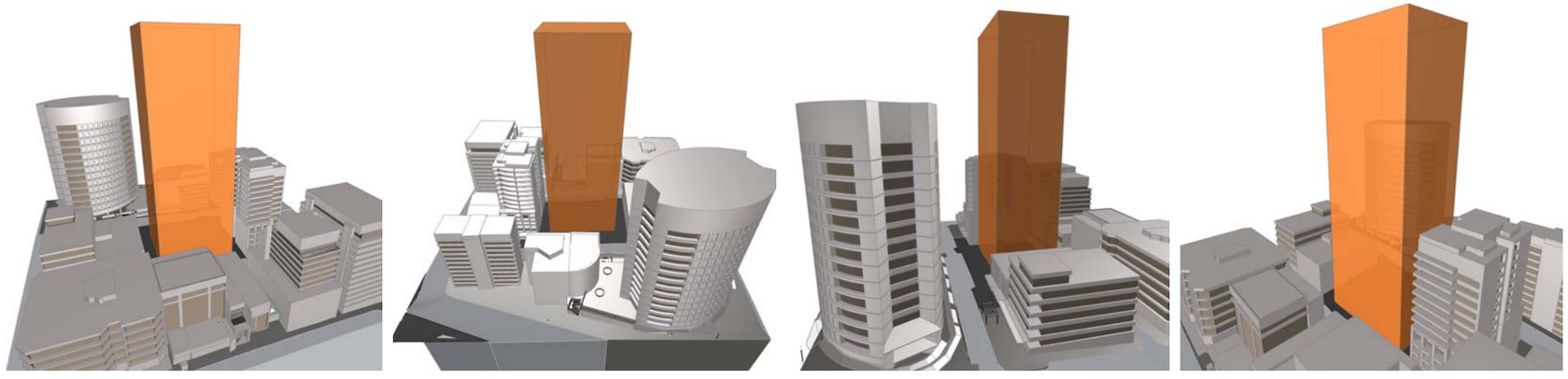




STUDY 4 - TOWER MASSING

Further artciulation of the tower mass by separating the forms with a smaller slot element allows the 2 forms to read as separate buildings. This strategy also optimises the number of corner apartments which is desirable under the SEPP65 design guidelines. The extent of low level podium is further reduced to optimise northern light access to the rear of the site.

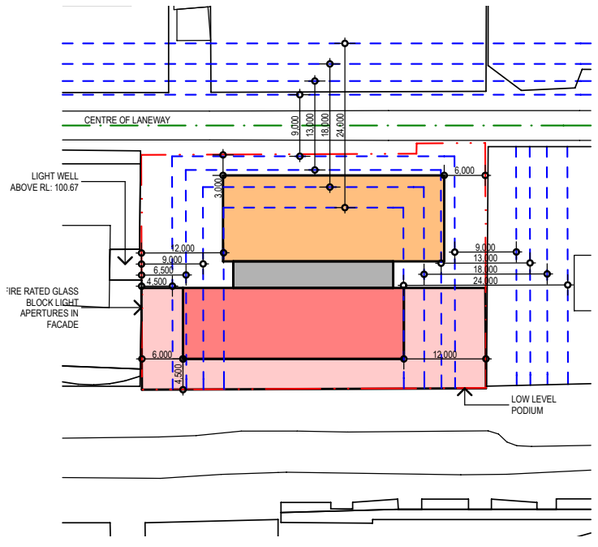


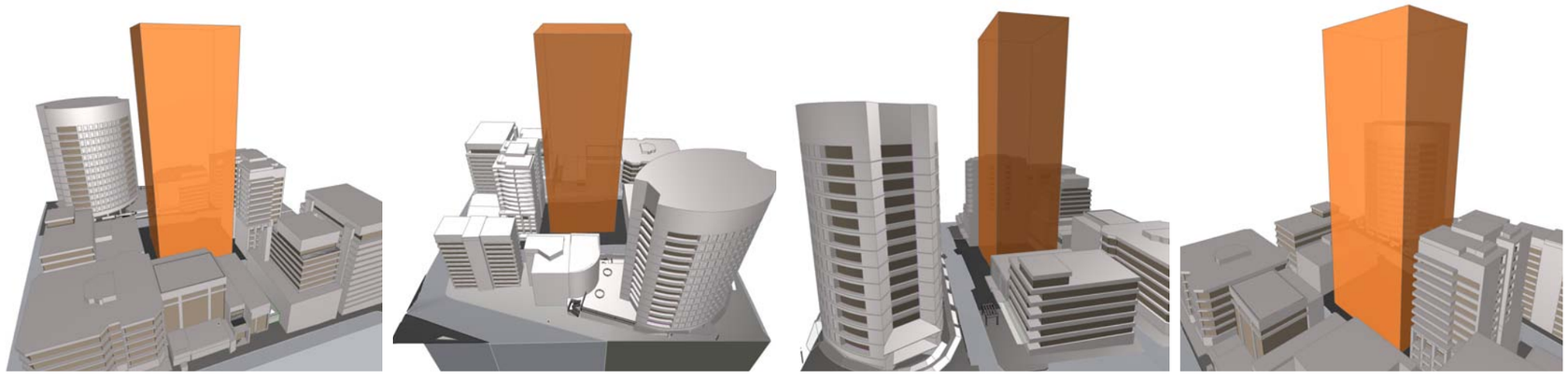


EA SUBMISSION TOWER MASSING

The proposed envelope mitigates the environmental impacts of the tower envelope by;

- optimising articulation of the tower form
- minimises mass of the tower envelope
- maximises access to natural light and ventilation for the tower and adjoining sites
- mitigates off-site environmental impacts

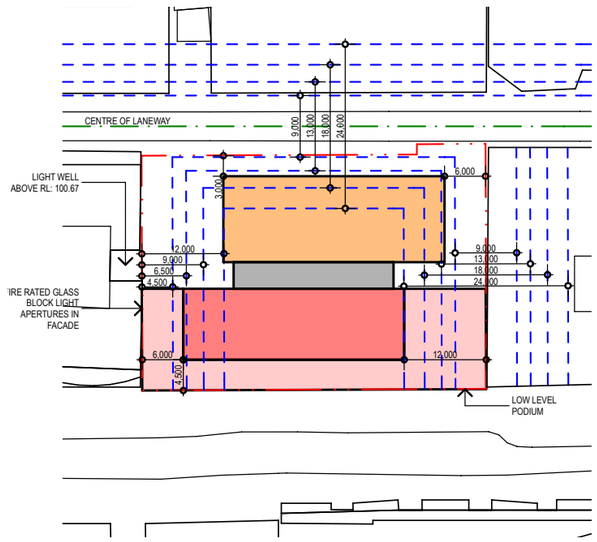


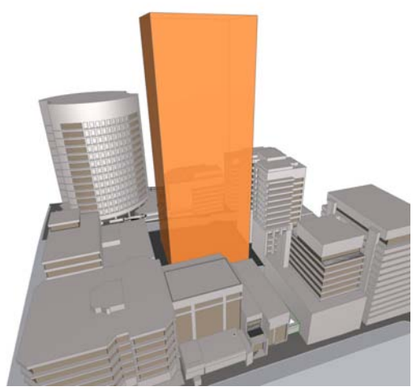


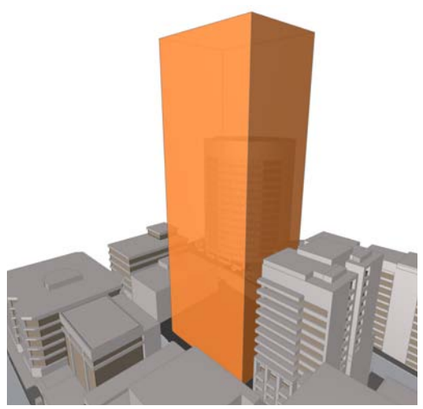
PREFERRED PROJECT REPORT TOWER MASSING

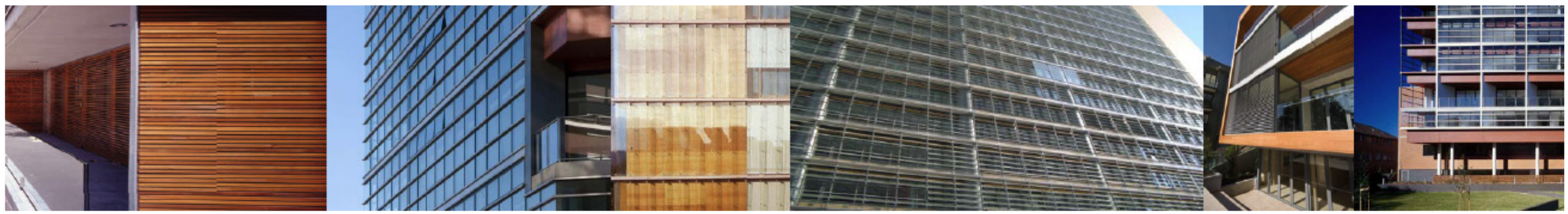
The proposed envelope has reduced in height by some 12.5m which further mitigates the environmental impacts of the tower envelope by;

- optimising articulation of the tower form
- minimises the mass of the tower envelope
- maximises access to natural light and ventilation for the tower and adjoining sites
- mitigates off-site environmental impacts









05. SHADOW ANALYSIS

MARCH 21 SHADOWS

- **EXISTING SHADOW IMPACTS**

The existing March 21 shadow conditions are relatively benign with negligible impacts from the existing taller development envelopes, on key residential zones to the East, West and South/West.

Morning and afternoon shadow impacts from the “Forum”, “IBM Tower” and “The Abode” developments are generally limited to their immediate neighbours.

- **PROPOSED SHADOW IMPACTS**

The March 21 shadows of the proposed development track the line of the Pacific Highway and sit generally within existing shadow envelopes. In the afternoon the IBM Tower mitigates shadow impacts to the South East across the Abode residential development.

- **ADDITIONAL SHADOW IMPACTS**

STUDY 01: 9am

STUDY 02: 10am

STUDY 03: 11am

STUDY 04: Midday

STUDY 05: 1pm

STUDY 06: 2pm

STUDY 07: 3pm

MARCH 21 SHADOWS continued

- **EXISTING SHADOW IMPACTS WITH GAZETTED LANE COVE LEP DEVELOPMENT ENVELOPES**

The gazetted Lane Cove LEP development envelopes on the south side of the Pacific Highway (Noted in Blue) impose significant morning and afternoon shadows upon their immediate neighbours whilst introducing new shadows on the residential zone to the south west (Noted in the red circle in Study 01).

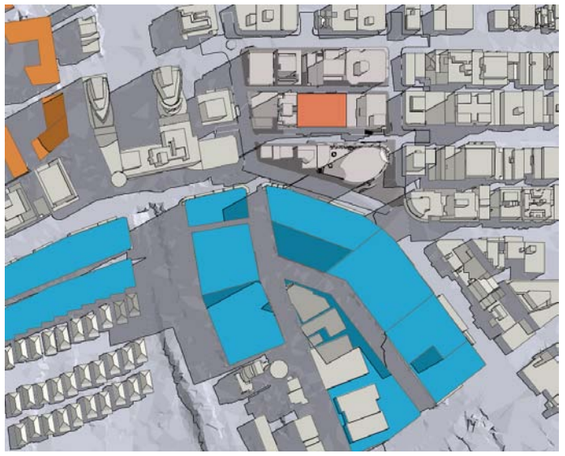
Morning and afternoon shadow impacts from the “Forum”, “IBM Tower” and “The Abode” developments remain generally limited to their immediate neighbours.

- **PROPOSED DEVELOPMENT SHADOW IMPACTS WITH GAZETTED LANE COVE LEP DEVELOPMENT ENVELOPES**

Impacts from the proposed developement sit generally within existing shadow envelopes, with negligible new impacts being noted. The Lane Cove LEP development envelopes noted in Blue

- **ADDITIONAL SHADOW IMPACTS**

STUDY 01: 9am



STUDY 02: 10am

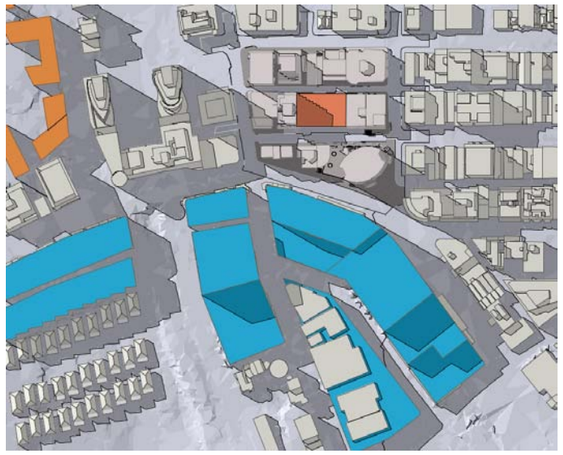
STUDY 03: 11am

STUDY 04: Midday

STUDY 05: 1pm

STUDY 06: 2pm

STUDY 07: 3pm

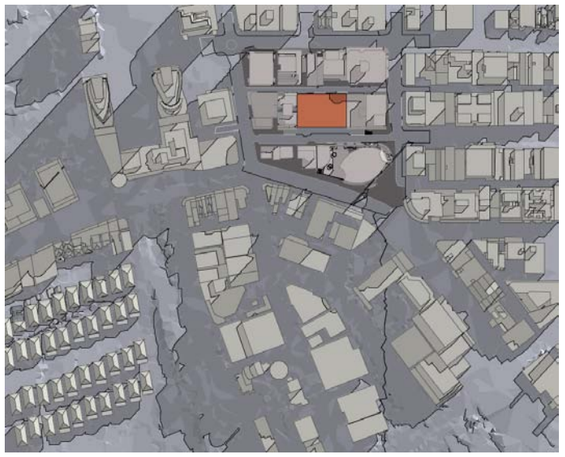


JUNE 21 SHADOWS

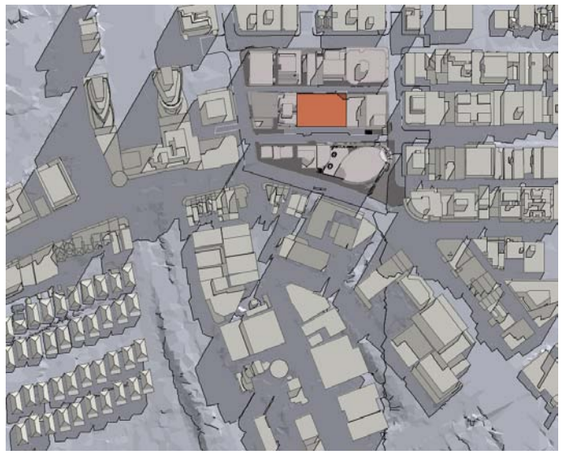
- **EXISTING SHADOW IMPACTS**

The existing June 21 shadow conditions are relatively poor with extensive shadow impacts into and across the precinct from virtually every building. These impacts are exaggerated in the early morning as a result of the topography of the preinct which falls away to the South West (as shown by the red arrow).

STUDY 01: 9am



STUDY 02: 10am



STUDY 03: 11am

- **PROPOSED SHADOW IMPACTS**

Impacts from the proposed development sit generally within existing shadow envelopes, with negligible new impacts being noted.

- **ADDITIONAL SHADOW IMPACTS**

STUDY 04: Midday

STUDY 05: 1pm

STUDY 06: 2pm

STUDY 07: 3pm

- **EXISTING SHADOW IMPACTS WITH GAZETTED LANE COVE LEP DEVELOPMENT ENVELOPES**

The gazetted Lane Cove LEP development envelopes on the south side of the Pacific Highway (Noted in Blue) potentially impose significant morning and afternoon shadows upon their immediate neighbours whilst introducing new shadows on the residential zone to the south west.

The redevelopment of the the Royal North Shore Hospital site is noted in Yellow, with impacts being negligible.

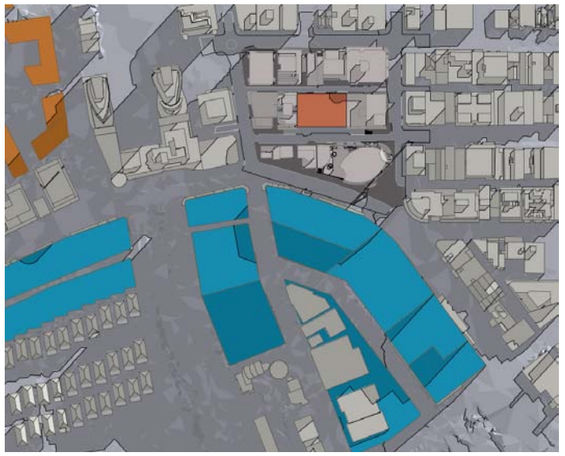
Morning and afternoon shadow impacts from the “Forum”, “IBM Tower” and “The Abode” developments remain generally limited to their immediate neighbours.

- **PROPOSED DEVELOPMENT SHADOW IMPACTS WITH GAZETTED LANE COVE LEP DEVELOPMENT ENVELOPES**

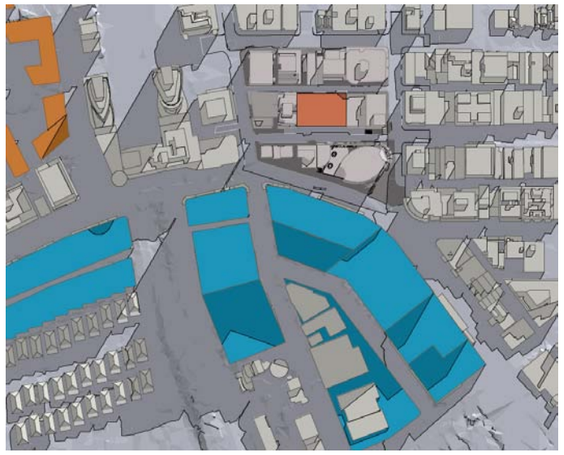
Impacts from the proposed developement sit generally within existing shadow envelopes, with negligible new impacts being noted.

- **ADDITIONAL SHADOW IMPACTS**

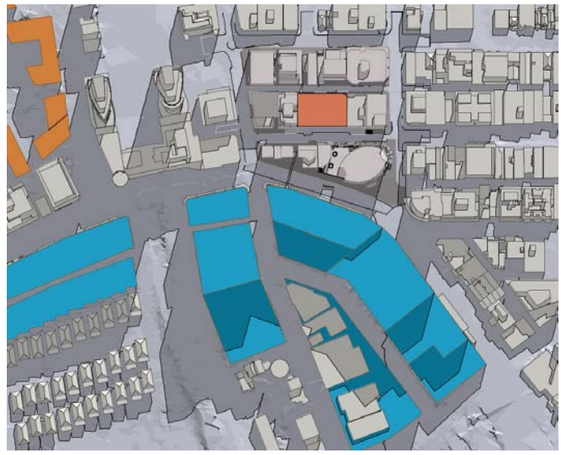
STUDY 01: 9am

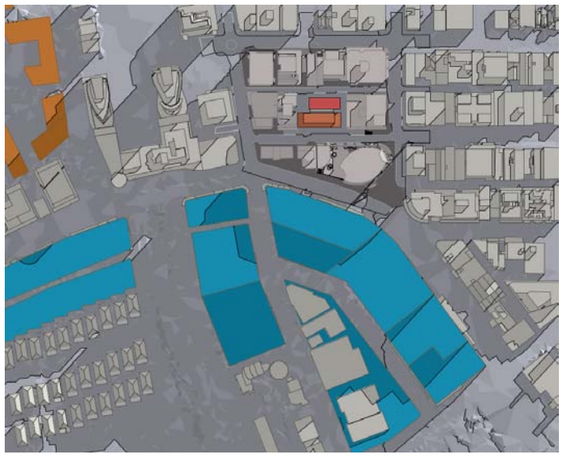


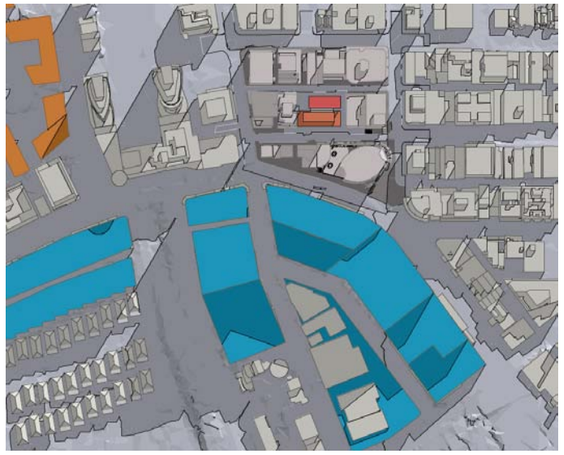
STUDY 02: 10am

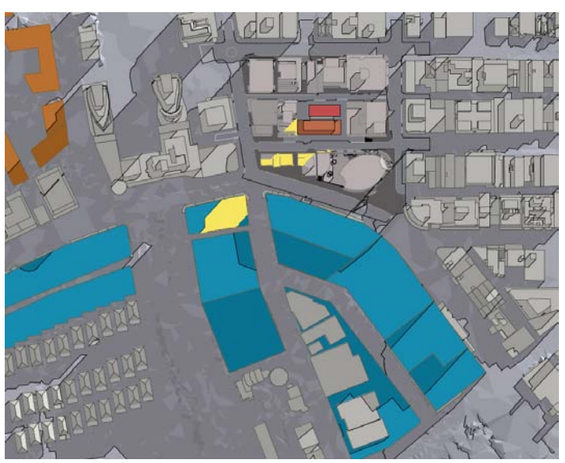


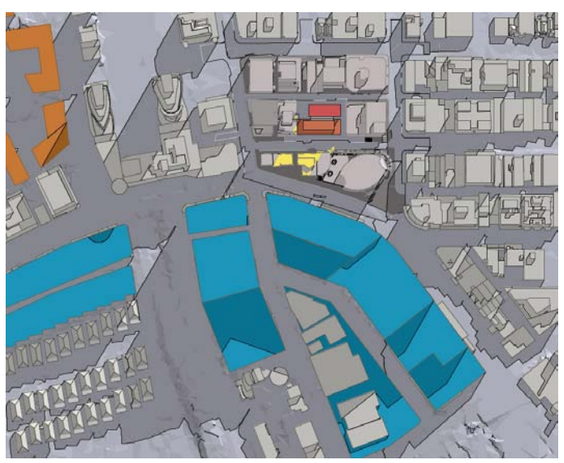
STUDY 03: 11am



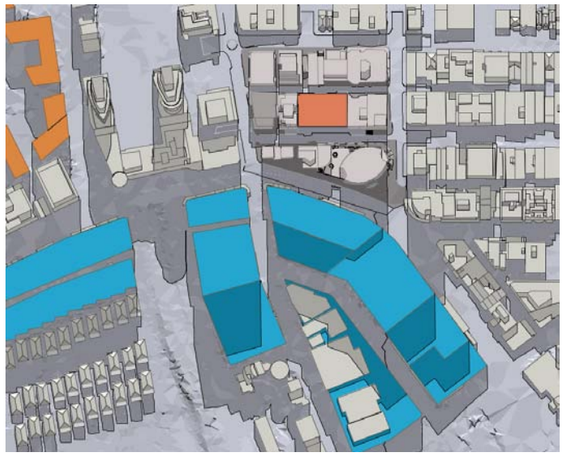








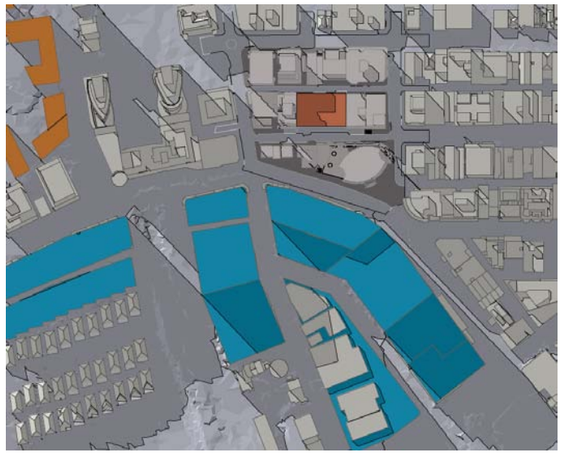
STUDY 04: Midday

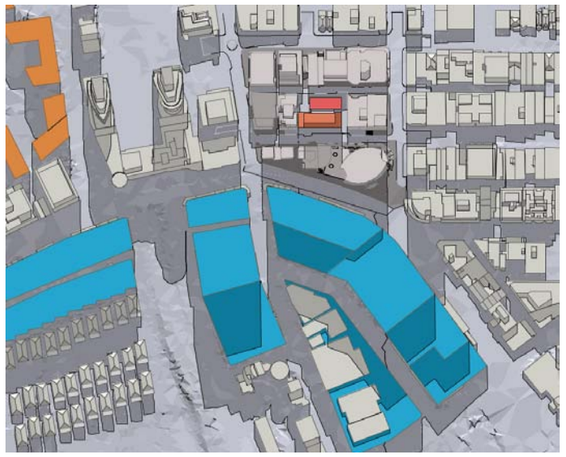


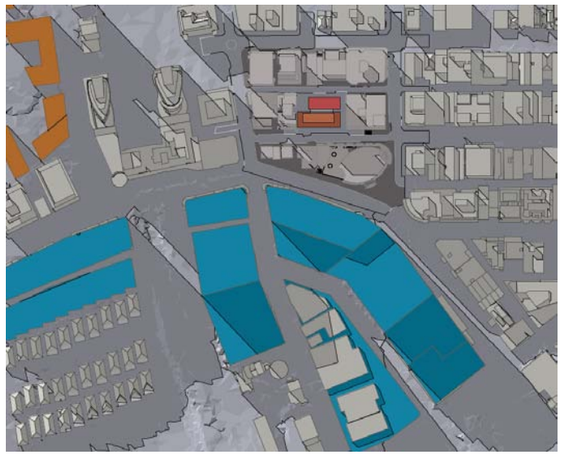
STUDY 05: 1pm

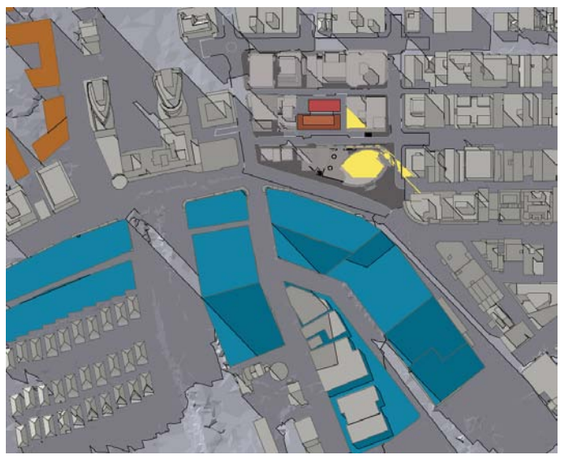
STUDY 06: 2pm

STUDY 07: 3pm









SEPTEMBER 21 SHADOWS

- **EXISTING SHADOW IMPACTS**

The existing September 21 shadow conditions are relatively benign with negligible impacts from the existing taller development envelopes, on key residential zones to the East, West and South/West.

Morning and afternoon shadow impacts from the “Forum”, “IBM Tower” and “The Abode” developments are generally limited to their immediate neighbours.

STUDY 01: 9am

STUDY 02: 10am

STUDY 03: 11am

- **PROPOSED SHADOW IMPACTS**

The shadow of the proposed development tracks the line of the Pacific Highway and sits generally within existing shadow envelopes in the morning. In the afternoon the IBM Tower mitigates shadow impacts to the South East.

- **ADDITIONAL SHADOW IMPACTS**

STUDY 04: Midday

STUDY 05: 1pm

STUDY 06: 2pm

STUDY 07: 3pm

- **EXISTING SHADOW IMPACTS WITH GAZETTED LANE COVE LEP DEVELOPMENT ENVELOPES**

The gazetted Lane Cove LEP development envelopes on the south side of the Pacific Highway (Noted in Blue) impose significant morning and afternoon shadows upon their immediate neighbours whilst introducing new shadows on the residential zone to the south west (Noted in the red circle in Study 01).

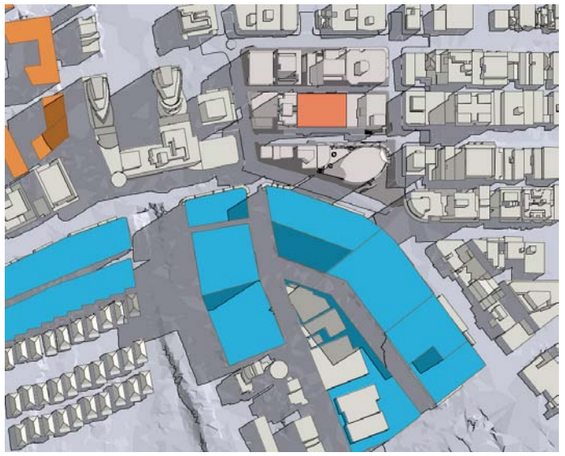
Morning and afternoon shadow impacts from the “Forum”, “IBM Tower” and “The Abode” developments remain generally limited to their immediate neighbours.

- **PROPOSED DEVELOPMENT SHADOW IMPACTS WITH GAZETTED LANE COVE LEP DEVELOPMENT ENVELOPES**

Impacts from the proposed development sit generally within existing shadow envelopes, with negligible new impacts being noted. The Lane Cove LEP development envelopes are noted in blue.

- **ADDITIONAL SHADOW IMPACTS**

STUDY 01: 9am



STUDY 02: 10am

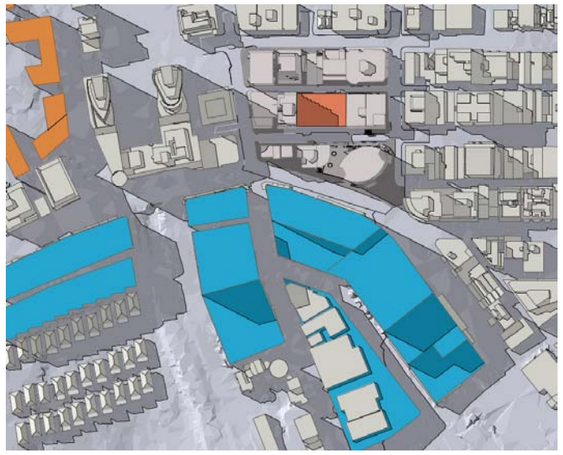
STUDY 03: 11am

STUDY 04: Midday

STUDY 05: 1pm

STUDY 06: 2pm

STUDY 07: 3pm



DECEMBER 21 SHADOWS

- **EXISTING SHADOW IMPACTS**

The existing December 21 shadow conditions are relatively benign with negligible impacts from the existing development envelope.

- **PROPOSED SHADOW IMPACTS**

Impacts from the proposed development sit generally within existing shadow envelopes, with negligible new impacts being noted.

- **ADDITIONAL SHADOW IMPACTS**

STUDY 01: 9am

STUDY 02: 10am

STUDY 03: 11am

STUDY 04: Midday

STUDY 05: 1pm

STUDY 06: 2pm

STUDY 07: 3pm

- **EXISTING SHADOW IMPACTS WITH GAZETTED LANE COVE LEP DEVELOPMENT ENVELOPES**

The gazetted Lane Cove LEP development envelopes on the south side of the Pacific Highway (Noted in blue) impose significant morning and afternoon shadows upon their immediate neighbours.

Morning and afternoon shadow impacts from the “Forum”, “IBM Tower” and “The Abode” developments remain generally limited to their immediate neighbours.

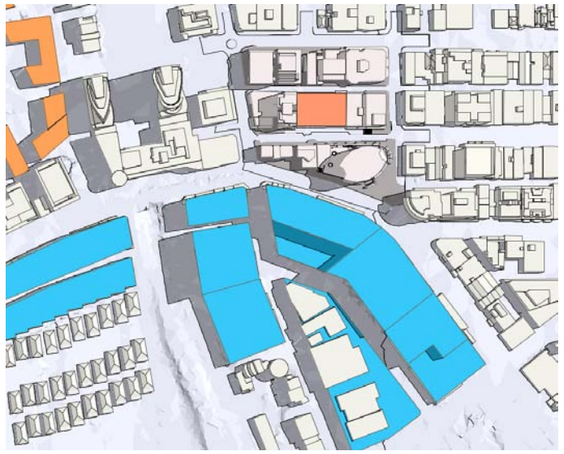
- **PROPOSED DEVELOPMENT SHADOW IMPACTS WITH GAZETTED LANE COVE LEP DEVELOPMENT ENVELOPES**

Impacts from the proposed development sit generally within existing shadow envelopes, with negligible new impacts being noted. The Lane Cove LEP development envelopes are noted in blue.

- **ADDITIONAL SHADOW IMPACTS**

STUDY 01: 9am

STUDY 02: 10am



STUDY 03: 11am

STUDY 04: Midday

STUDY 05: 1pm

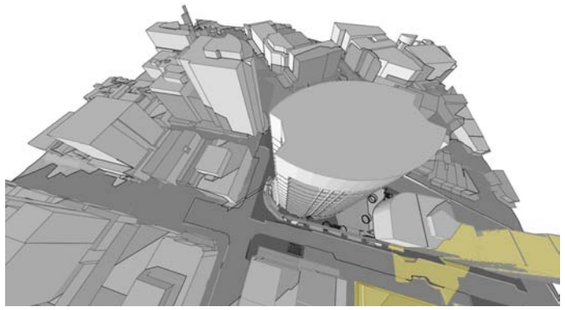
STUDY 06: 2pm

STUDY 07: 3pm

SOLAR IMPACT ANALYSIS FOR THE ABODE APARTMENTS

- **JUNE 21, HOURLY 9AM-3PM**

09:00 am



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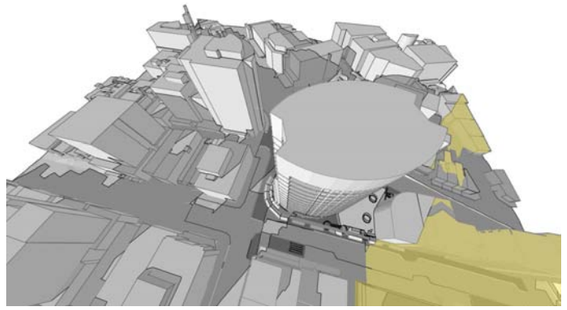

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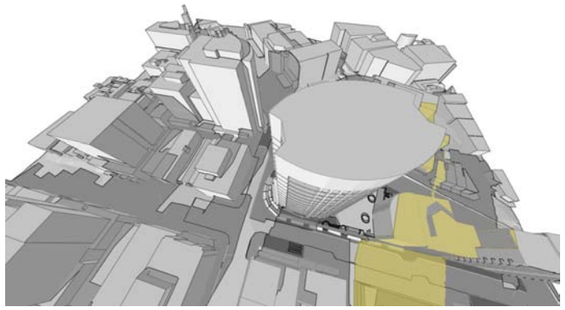
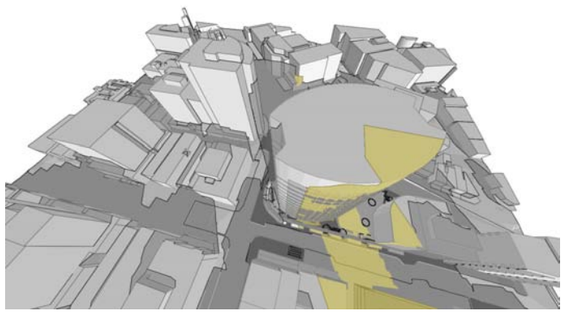


- **JUNE 21, 5 MINUTE INTERVALS 2PM-3PM**

02:00 pm



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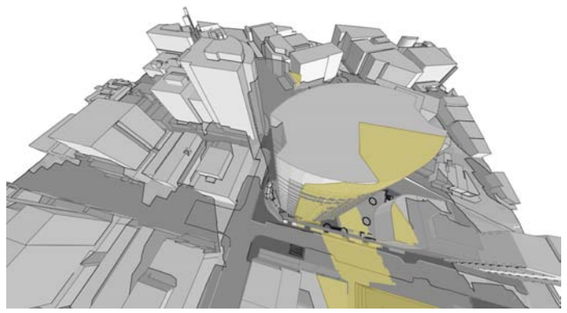

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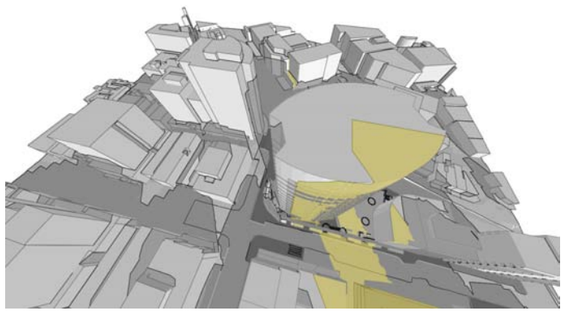

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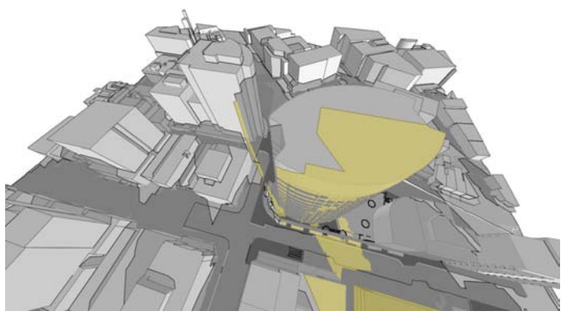

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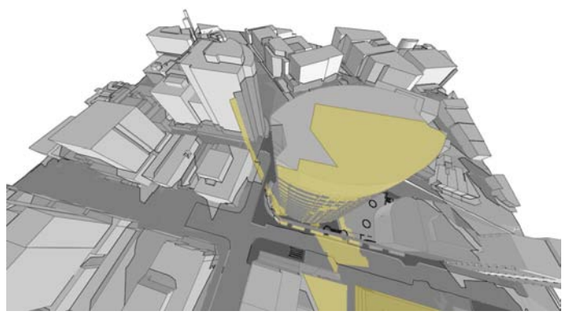

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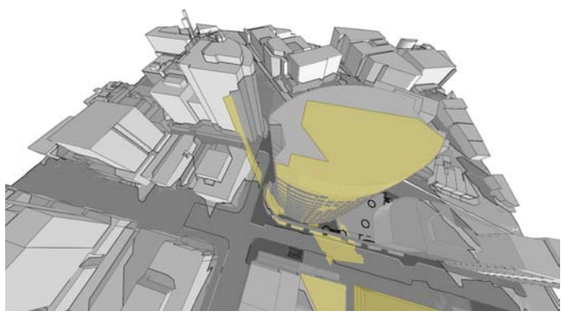

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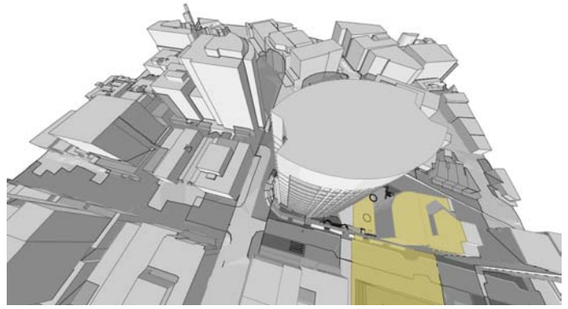

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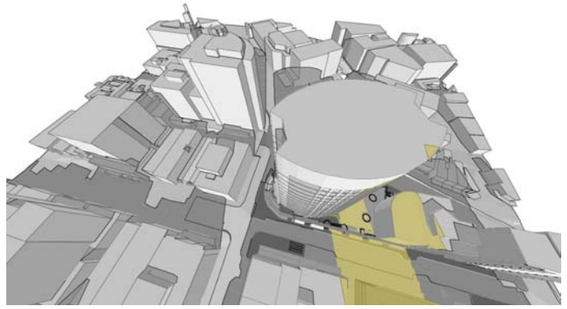

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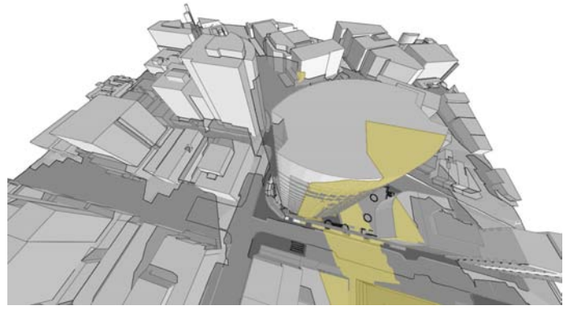

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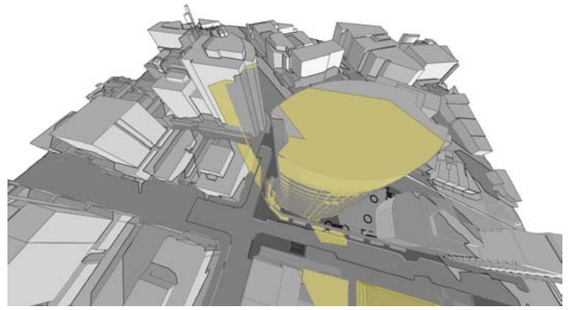

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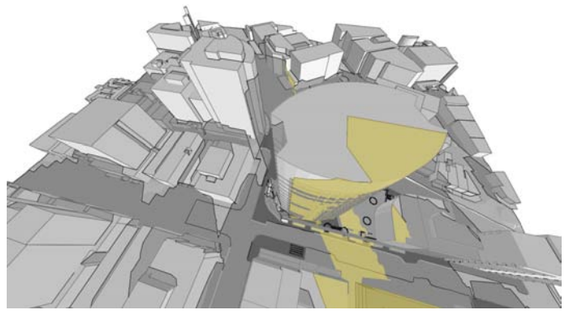

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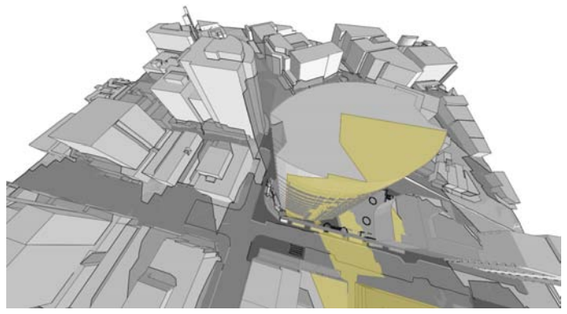

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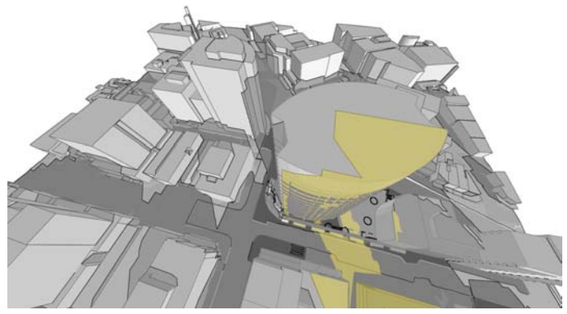

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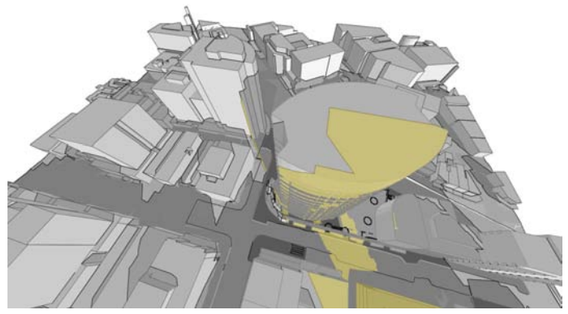

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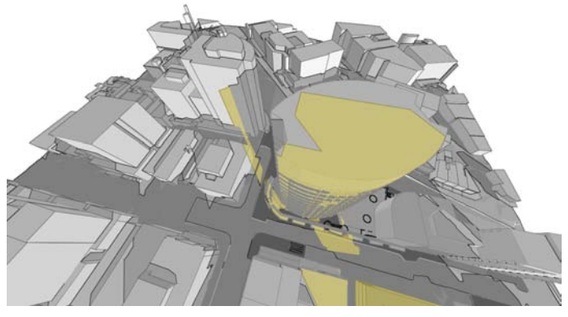

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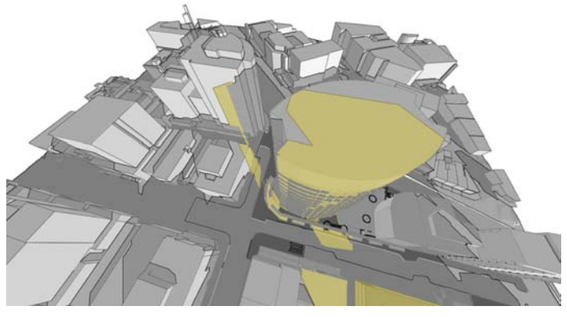

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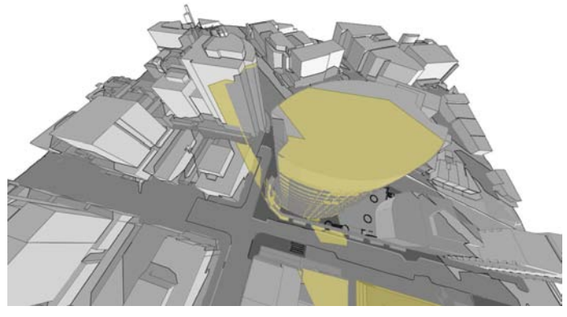
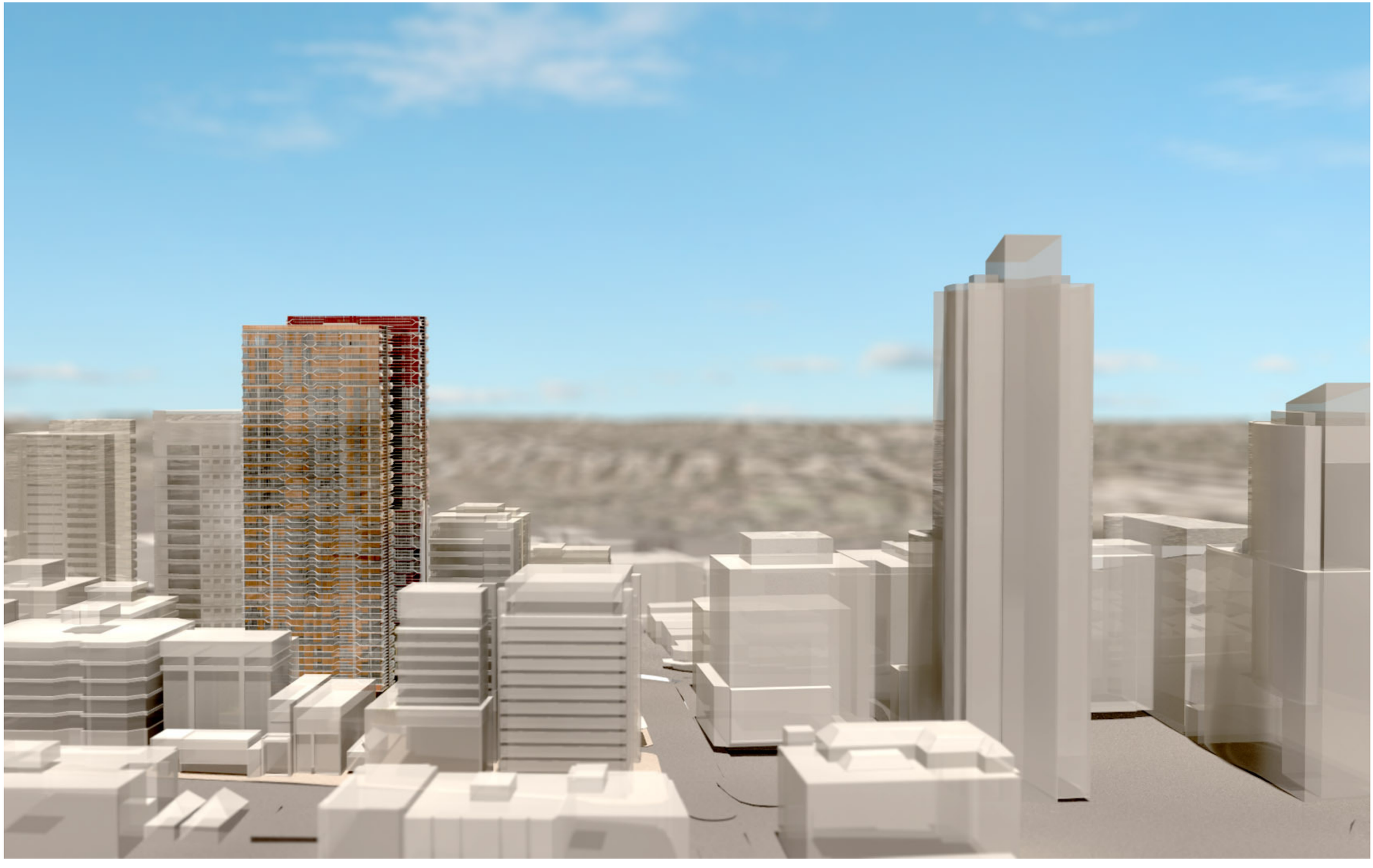


06. PROPOSED TOWER MASSING PHOTOMONTAGES

VIEW FROM THE SOUTH WEST

VIEW FROM THE NORTH WEST

VIEW FROM THE NORTH



VIEW FROM THE SOUTH WEST

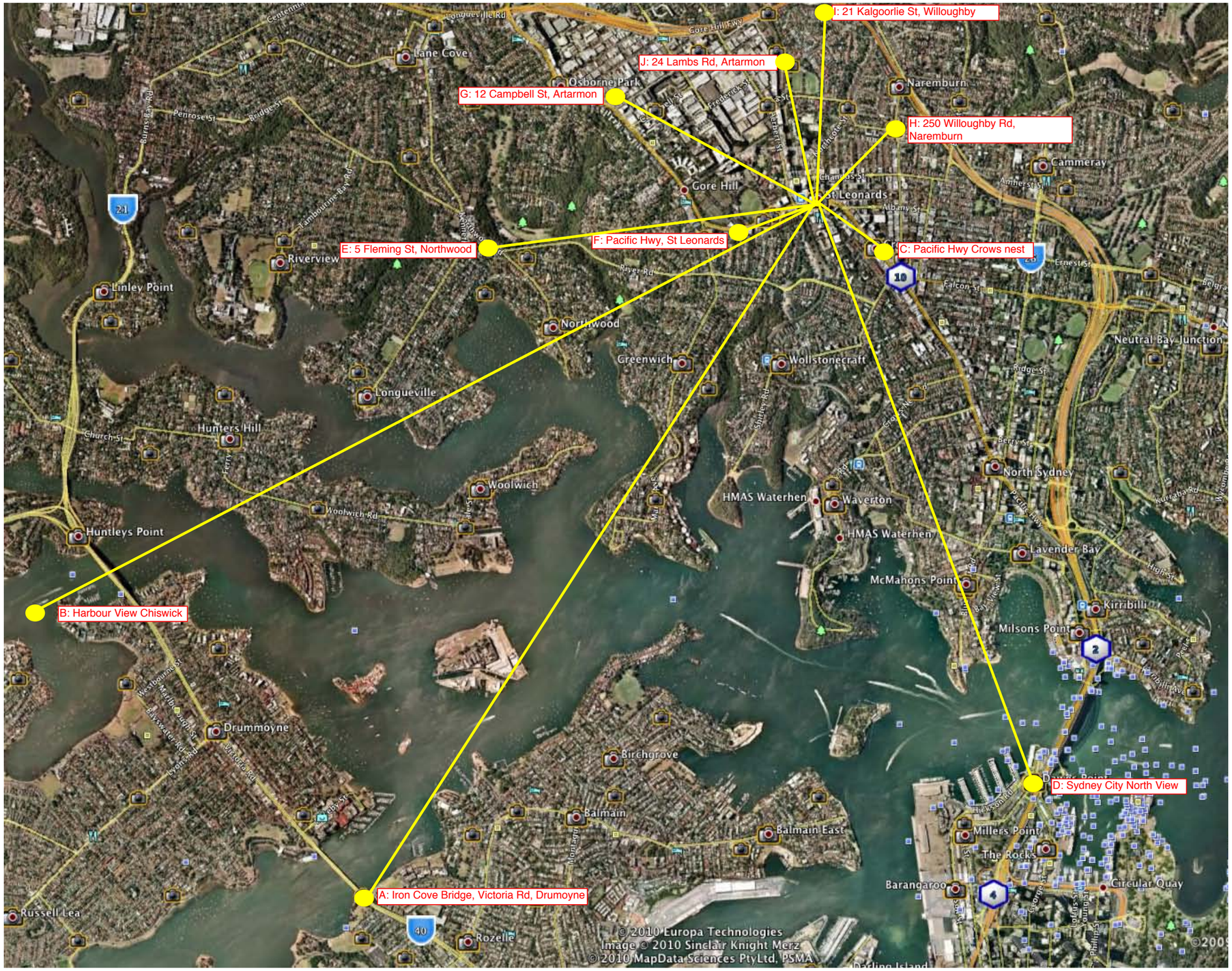
PODIUM VIEWED FROM THE SOUTH EAST

PRIVACY SCREENING VIEWED FROM HIGH LEVEL SOUTH WEST

PRIVACY SCREENING VIEWED FROM HIUGH LEVEL EAST

TOWER VIEW ATCHISON STREET EAST

07. PHOTO-MONTAGES



HIGH COVE BRIDGE VIEW “A”

DIAGRAM: 03

EXISTING

PROPOSED

DIAGRAM: 04

HARBOUR VIEW FROM CHISWICK VIEW “B”

EXISTING

PROPOSED

PACIFIC HIGHWAY, CROWS NEST VIEW “C”

DIAGRAM: 01

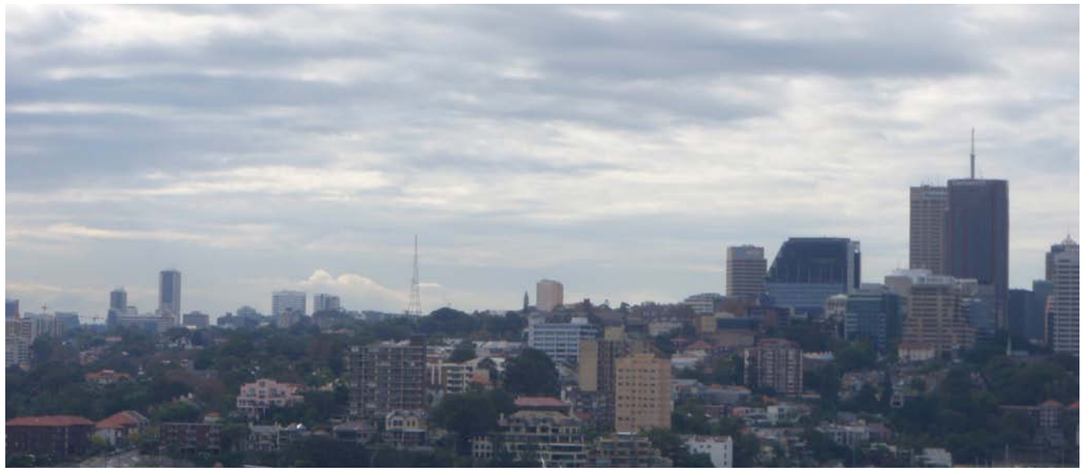
EXISTING

PROPOSED

DIAGRAM: 02

SYDNEY HARBOUR BRIDGE ADJACENT LOWER FORT STREET, DAWES POINT. VIEW “D”

EXISTING



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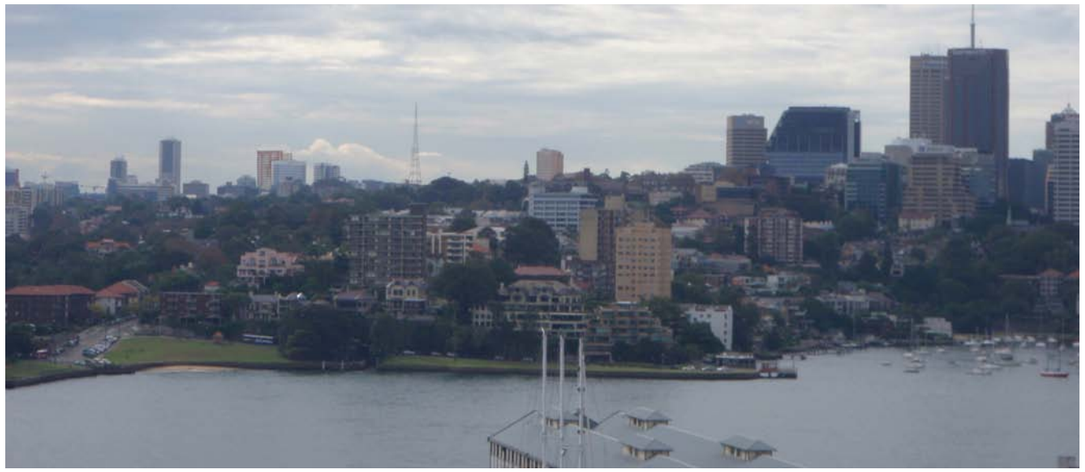


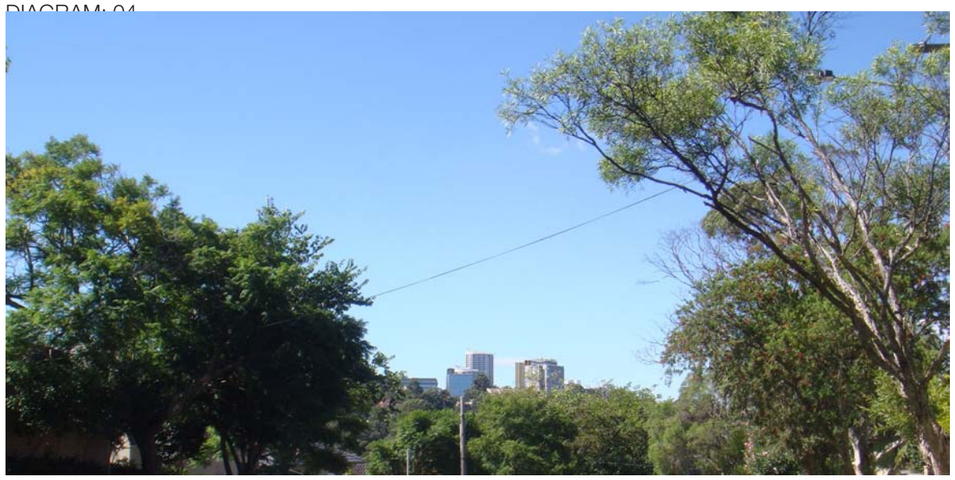
3 FLEMING ST, NORTHWOOD VIEW “E”

DIAGRAM: 03

EXISTING

PROPOSED

DIAGRAM: 04



699 PACIFIC HIGHWAY, ST LEONARDS VIEW “F”

EXISTING

PROPOSED

42 CAMPBELL ST, ARTARMON VIEW “G”

DIAGRAM: 01

EXISTING

PROPOSED

DIAGRAM: 02

250 WILLOUGHBY RD, NAREMBURN VIEW “H”

EXISTING

PROPOSED

DIAGRAM: 03

21 KALGOORLIE ST, WILLOUGHBY VIEW “I”

EXISTING

PROPOSED

DIAGRAM: 04

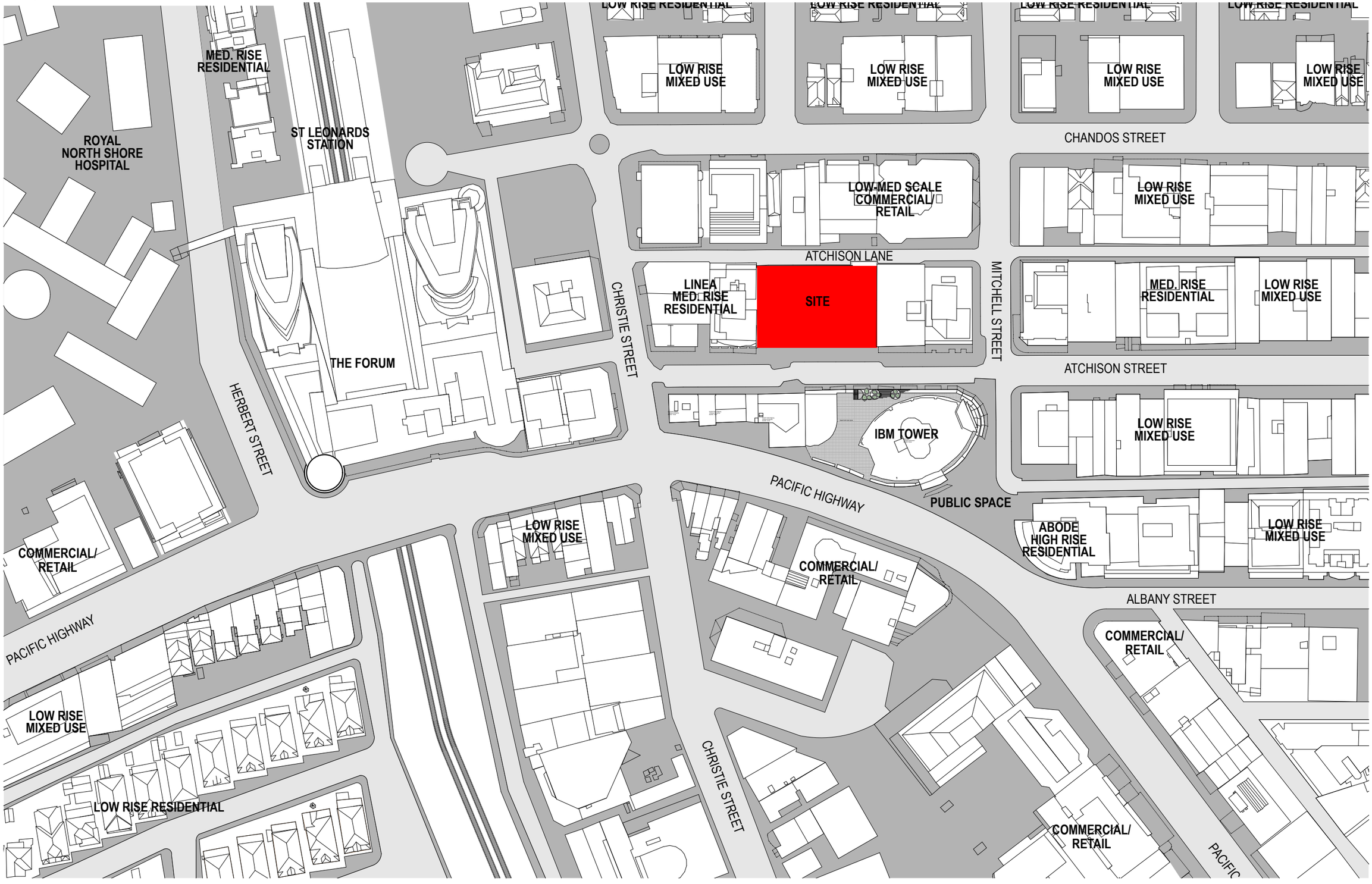
24 LAMBS RD, ARTARMON VIEW “J”

EXISTING

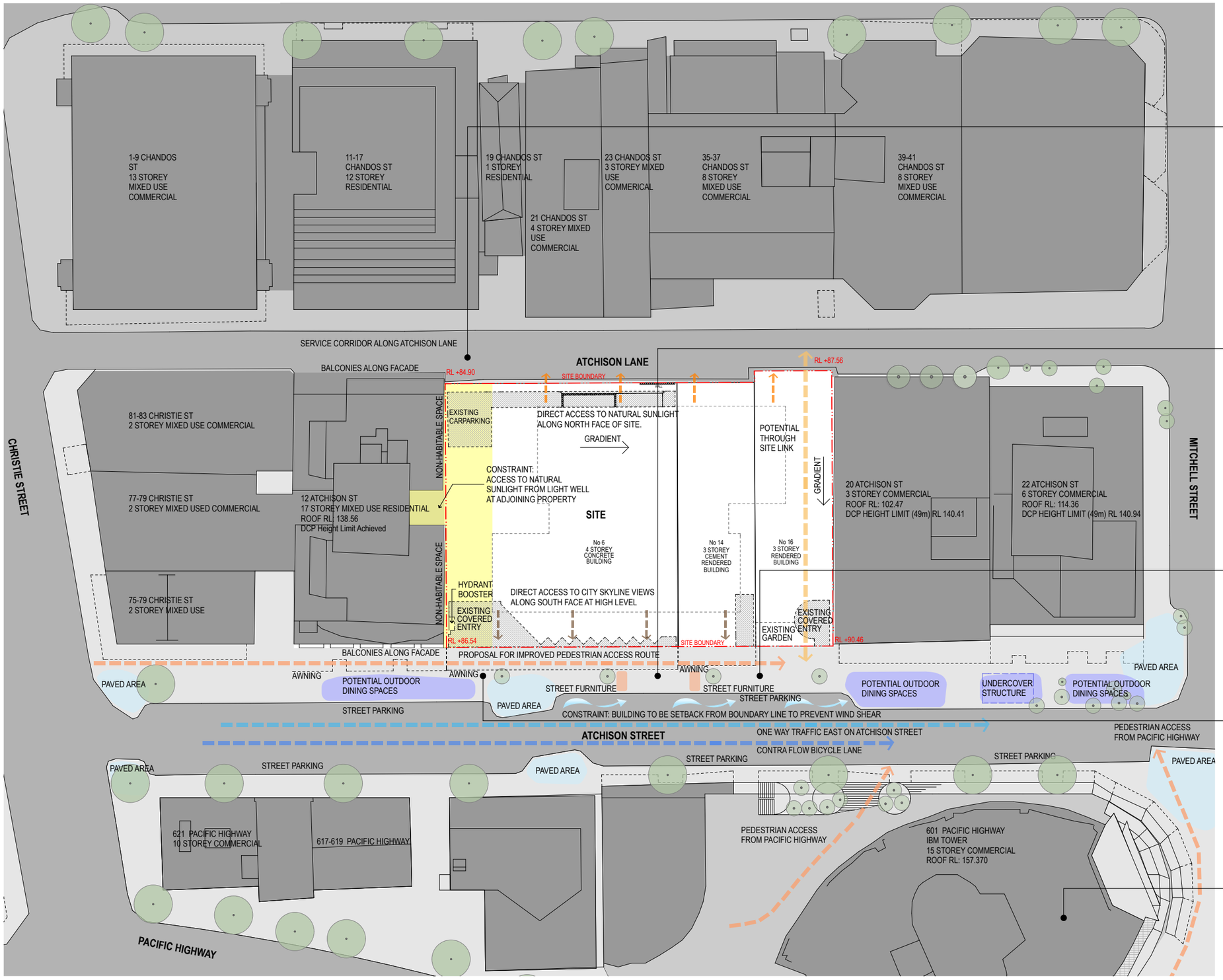
PROPOSED

08. PUBLIC DOMAIN ANALYSIS

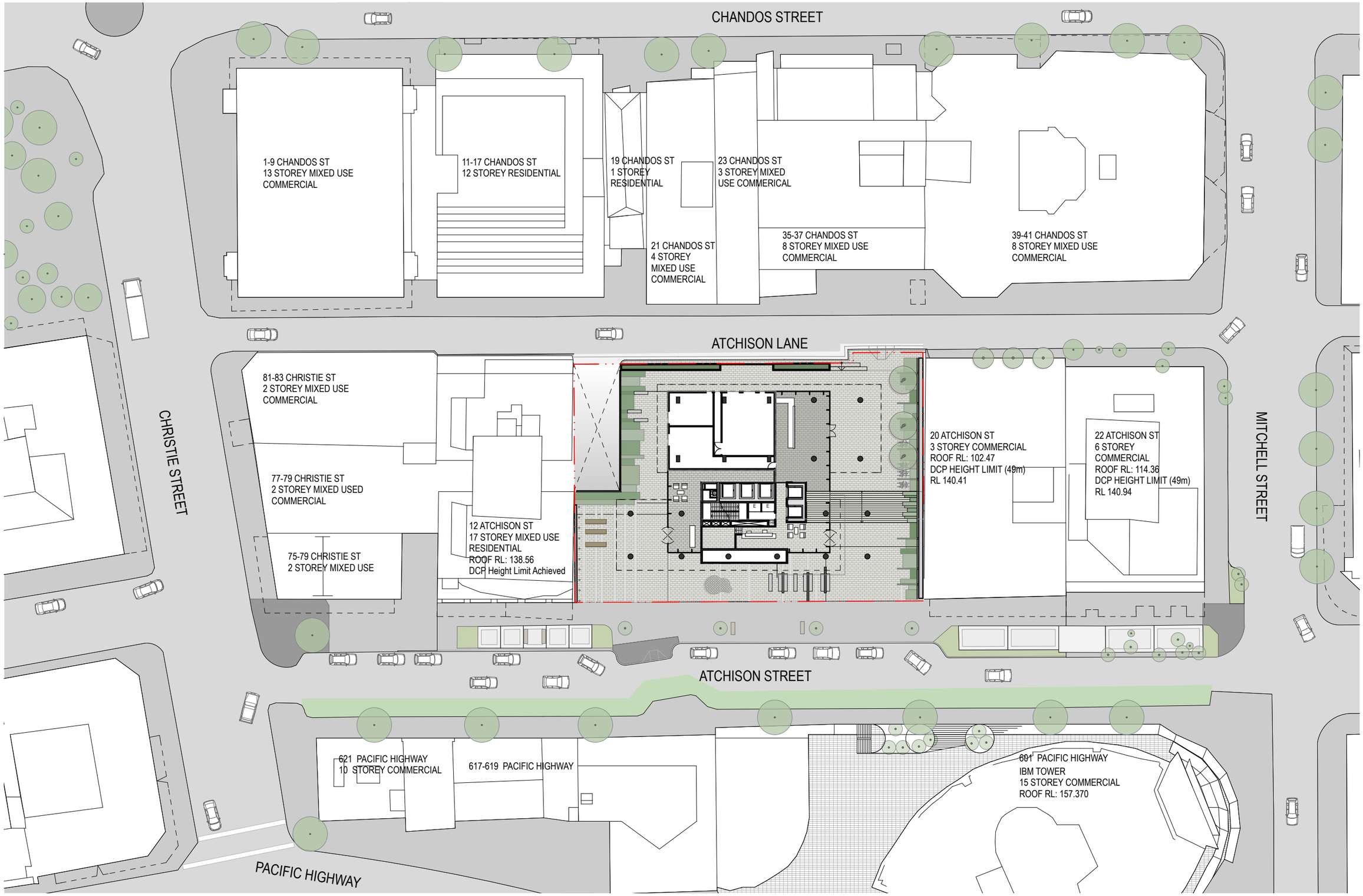
PRECINCT PLAN



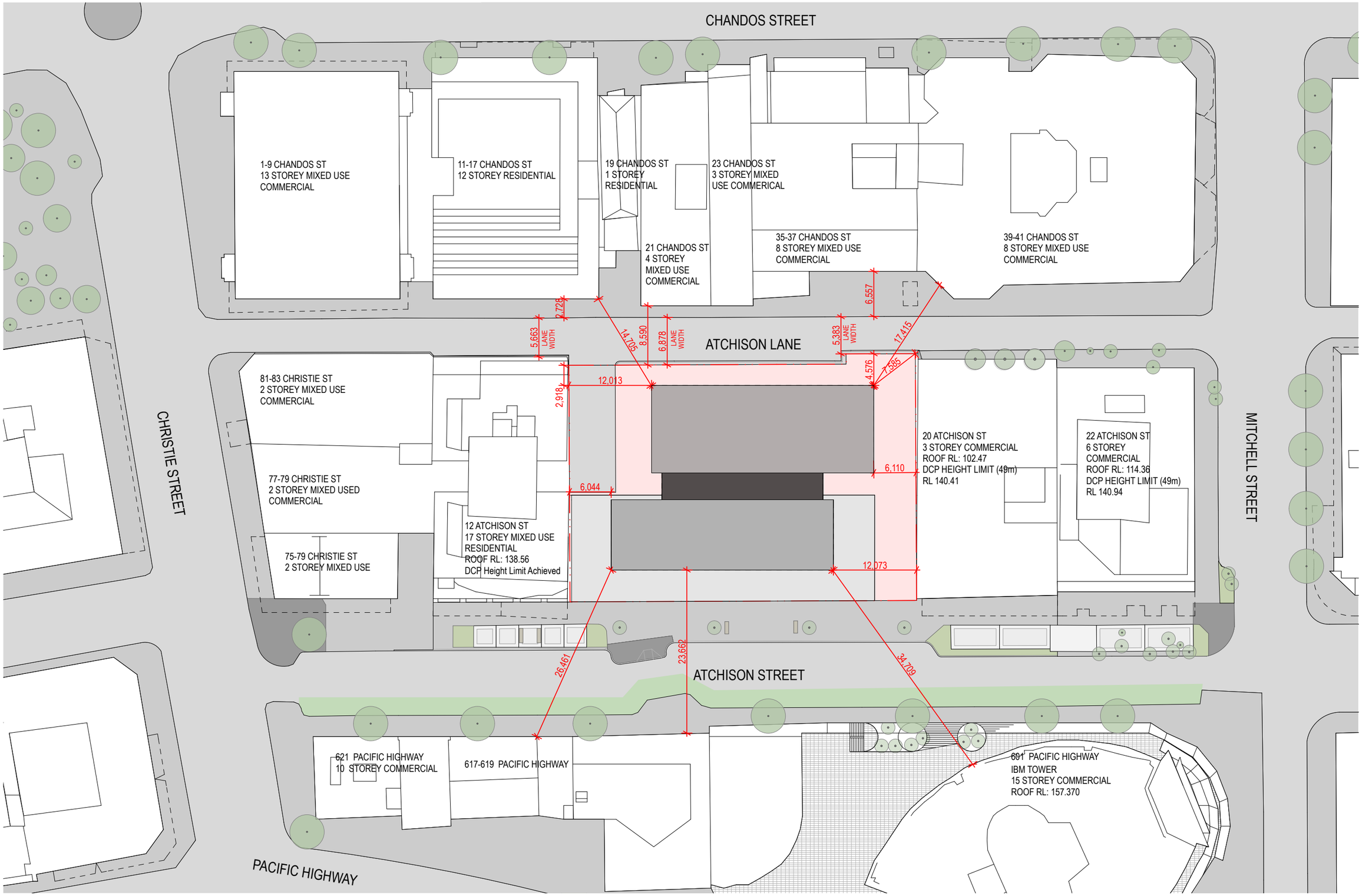
EXISTING SITE ANALYSIS PLAN



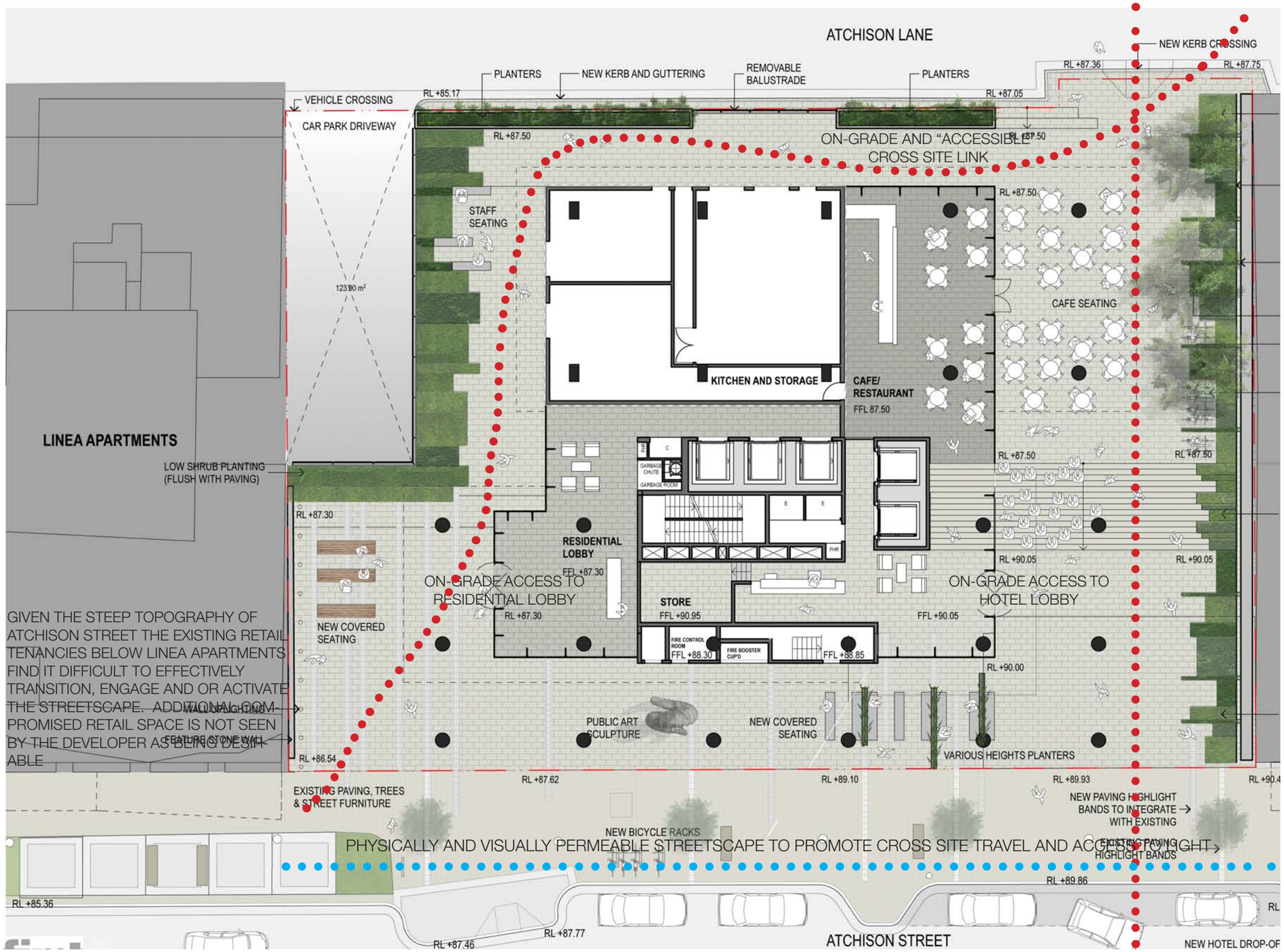
PROPOSED SITE PLAN



CONTEXT PLAN INCLUDING BUILDING SEPARATION ANALYSIS



PUBLIC DOMAIN PLAN



GIVEN THE STEEP TOPOGRAPHY OF ATCHISON STREET THE EXISTING RETAIL TENANCIES BELOW LINEA APARTMENTS FIND IT DIFFICULT TO EFFECTIVELY TRANSITION, ENGAGE AND OR ACTIVATE THE STREETSCAPE. ADDITIONAL COMPROMISED RETAIL SPACE IS NOT SEEN BY THE DEVELOPER AS BEING DESIRABLE

ACTIVATION OF ATCHISON LANE WAS SEEN AS BEING VERY DESIRABLE BY THE NORTH SYDNEY DESIGN EXCELLENCE PANEL (NSCDERP).

SETTING THE NORTH FACADE BACK, LOCATING THE CAFE TO THE NORTHERN EDGE OF THE SITE AND DELIVERING THE ON-GRADE PEDESTRIAN CROSS SITE LINK HAVE ALL BEEN INTRODUCED TO ACHIEVE THE COUNCILS OBJECTIVES

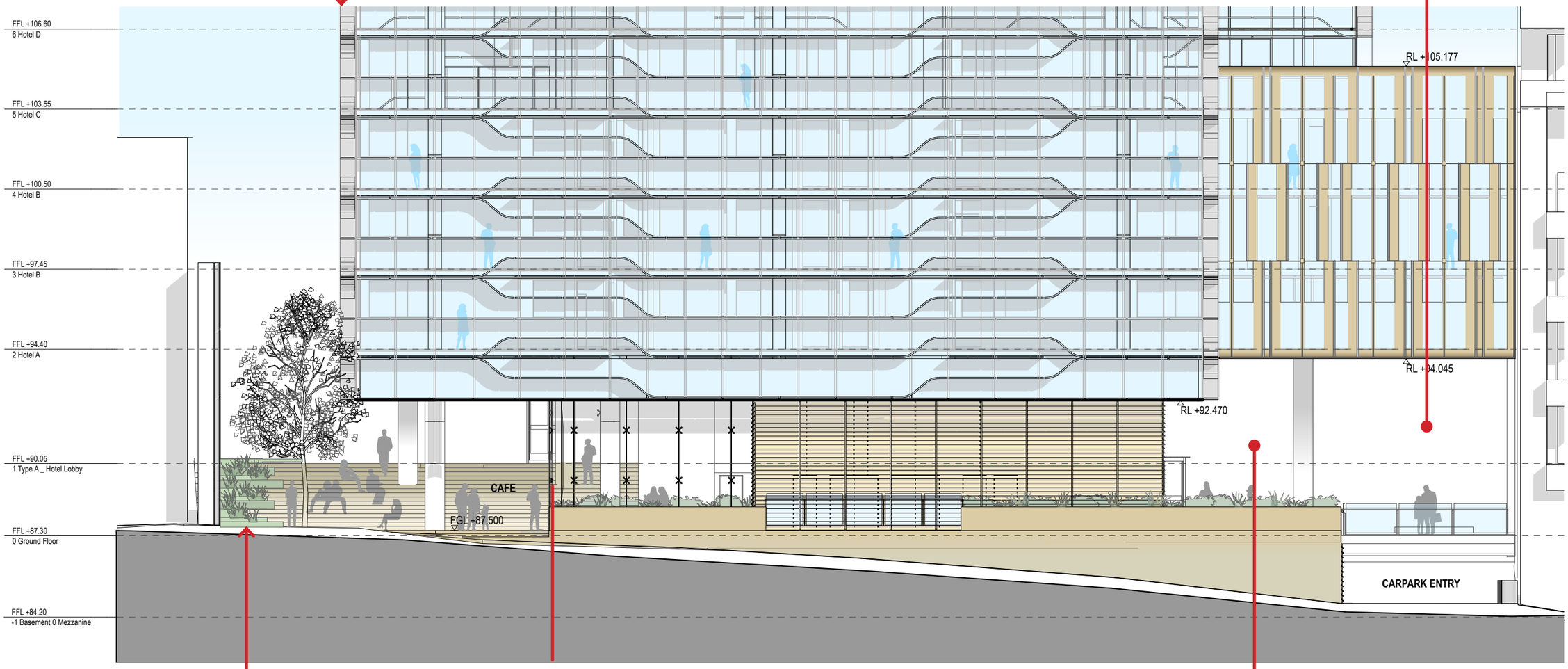
CROSS SITE LINK AND CAFE PLAZA WITH INTEGRATED GREEN WALL AND FEATURE TREES WAS SEEN BY THE NSCDREP AS BEING POSITIVE ELEMENTS OF THE SCHEMES RESPONSE TO THE GROUND PLANE

EXPANDED FOOTPATH ZONE WITH INTEGRATED PUBLIC ARTWORK, STREET FURNITURE AND APPROPRIATELY PROPORTIONED LOBBY ACCESS FOR BOTH RESIDENTIAL AND HOTEL ACCESS WAS CONSIDERED POSITIVE ATTRIBUTES OF THE SCHEME BY THE NSCDREP. THIS WAS PREFACED ON THE PRINCIPAL OF CREATING SITE PERMEABILITY BOTH VISUALLY AND PHYSICALLY.

ATCHISON LANE ELEVATION

THE CANTILEVERED PODIUM IN CONCERT WITH THE CANTILEVERED SUNSHADE FENESTRATION OF THE TOWER MITIGATE DOWNDRAFT IMPACTS IN THE PUBLIC DOMAIN

STRONG VISUAL PERMEABILITY AND ACCESS TO LIGHT THROUGH THE CROSS SITE LINK



ACCESS TO ON GRADE CROSS SITE LINK

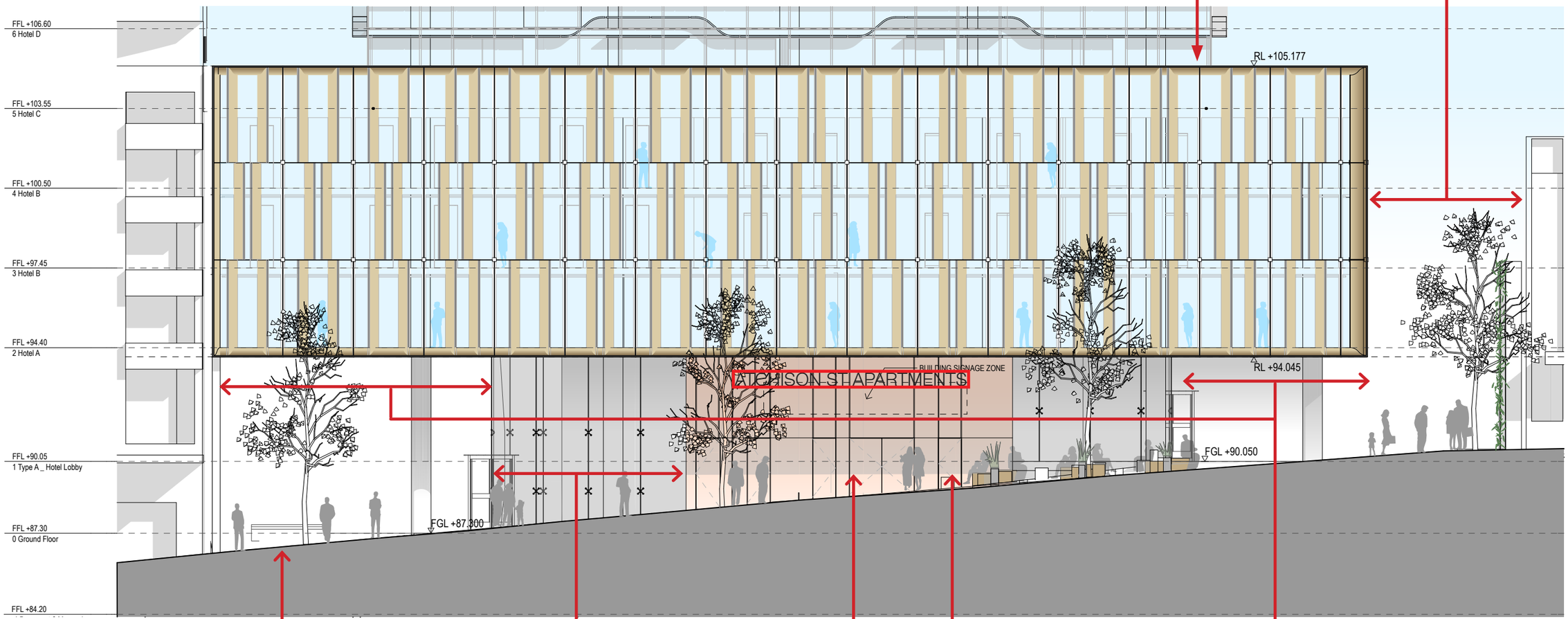
ACTIVATED NORTHEN BOUNDRY ARRANGEMENT REFLECTS THE OBJECTIVES AND COMMENTS OF THE NORTH SYDNEY DESIGN EXCELLENCE REVIEW PANEL

THE RAISED PODIUM CANTILEVERS ACROSS LOBBY ENTRY TO PROVIDE WEATHER PROTECTION FOR PEOPLE ENTERING THE LOBBY AND TRAVERSING THE CROSS

ATCHISON STREET ELEVATION

THE CANTILEVERED PODIUM IN CONCERT WITH THE CANTILEVERED SUNSHADE FENESTRATION OF THE TOWER MITIGATE DOWNDRAFT IMPACTS IN THE PUBLIC DOMAIN

STRONG VISUAL PERMEABILITY AND ACCESS TO LIGHT THROUGH THE CROSS SITE LINK



ACCESS TO ON GRADE CROSS SITE LINK

EXPANDED LOBBY ZONE TO REFLECT THE QUALITY OF THE RESIDENTIAL DEVELOPMENT. THIS IN COMBINATION WITH THE OUTDOOR WAITING AREA AND LANDSCAPE WERE SEEN AS POSITIVE ATTRIBUTES OF THE SCHME BY THE NSCDERP

INTEGRATED SERVICE DOORS INTO MARBLE STONE CLAD FACADE. SEAMLESS INTEGRATION OF DOORS TO FACILITATE USE OF THE FACADE BUILDING NAMING AND SERVICE SIGNAGE REQUIREMENTS

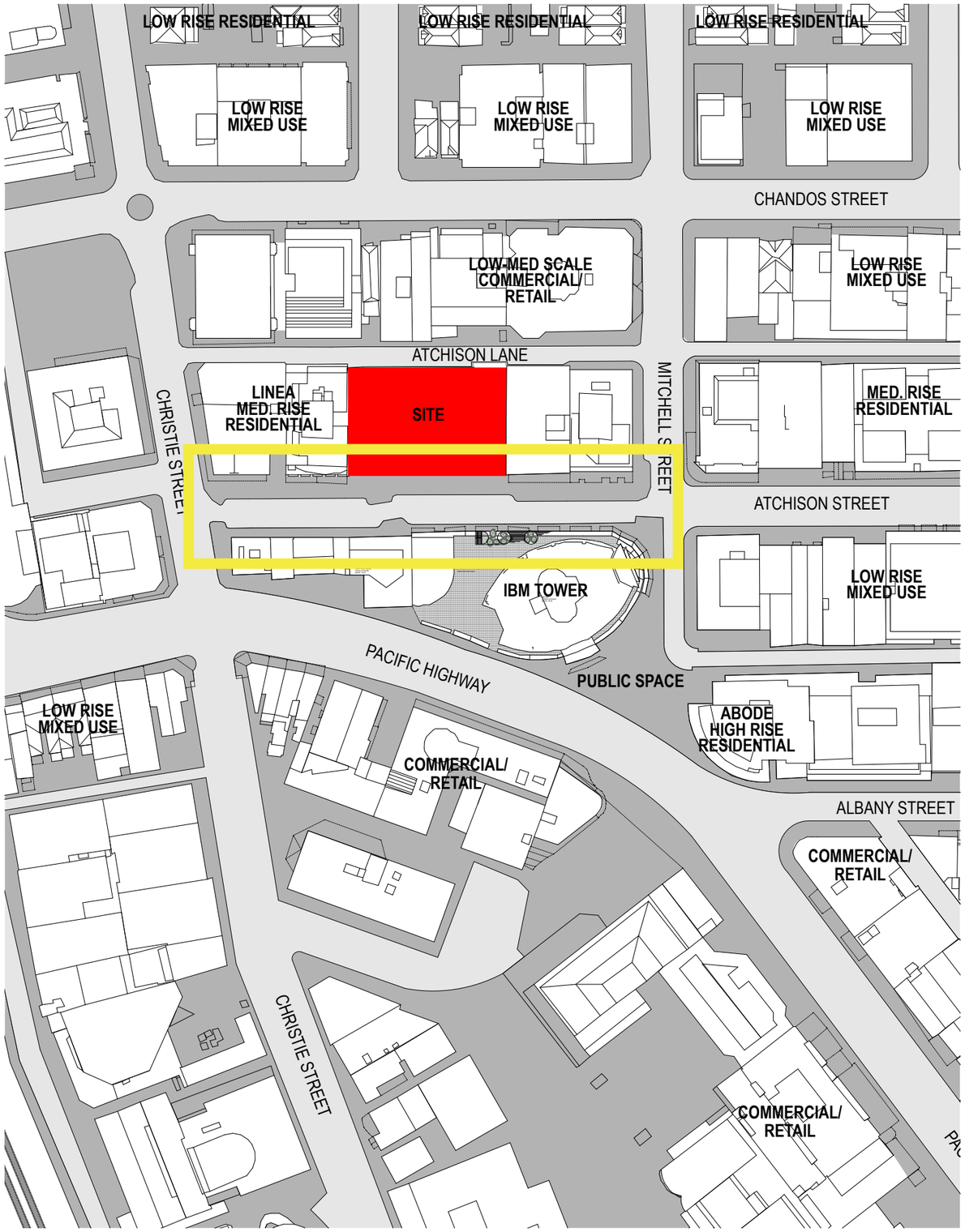
THE RAISED PODIUM CANTILEVERS ACROSS LOBBY ENTRY TO PROVIDE WEATHER PROTECTION FOR PEOPLE ENTERING THE LOBBY AND TRAVERSING THE CROSS SITE LINK

ATCHISON STREET WEST MASTERPLAN DESIGN PRINCIPLES

The proposed development has adopted the masterplan design principles in the treatment of the public open space and precinct upgarde. The mixed use function of the proposal revises the use of the site from that of a typical mid block walled low rise commercial development, to a residential and retail use which will be a recreation and entertainment destination. This proposal is in keeping with the objectives of the masterplan.

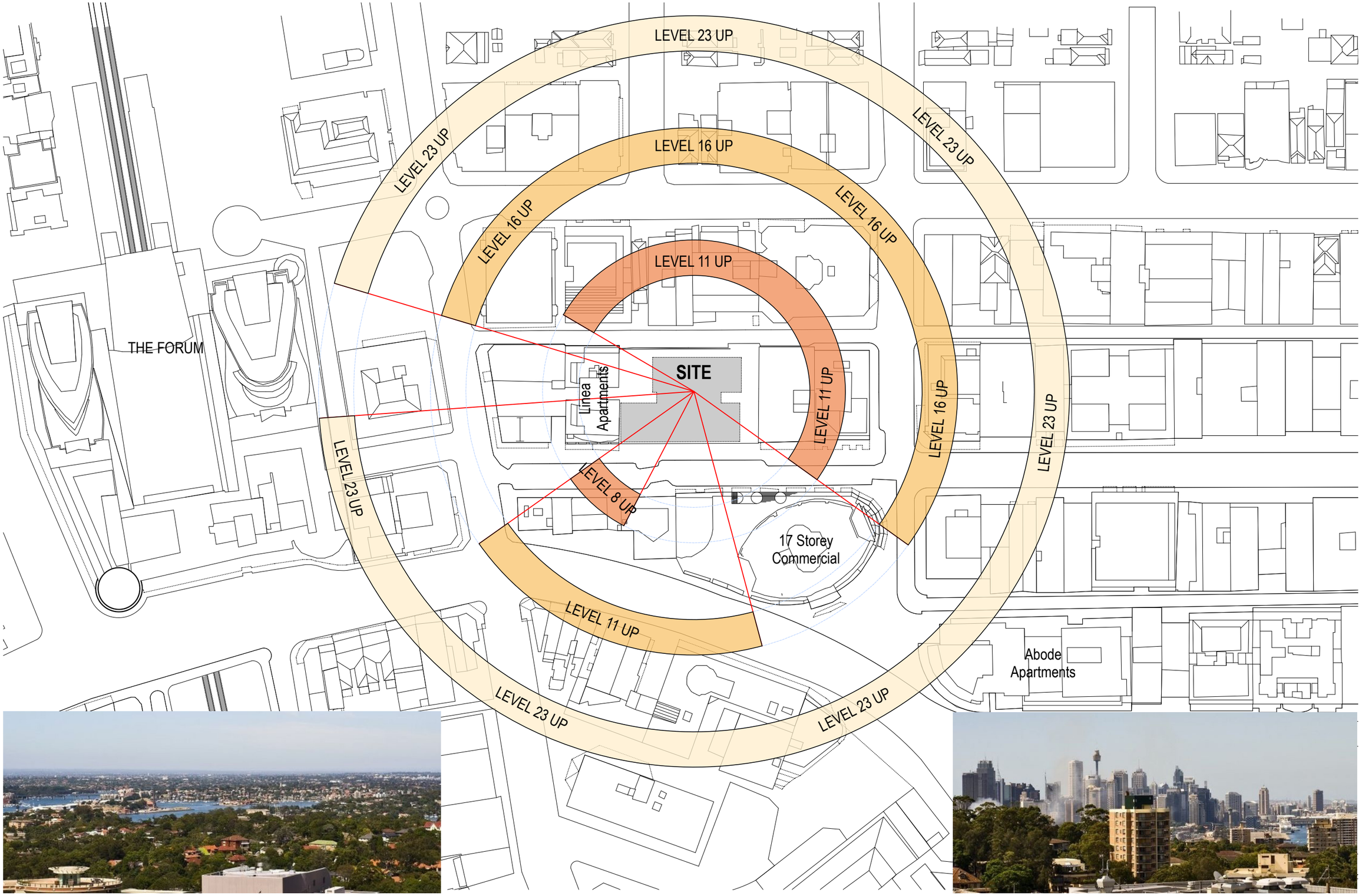
The following extract from the masterplan articulates the characteristics, objectives and aspirations for the precinct:

> *"Sense of Place - The treatment of Atchison Street West will provide and enhance a sense of place. In its current form Atchison Street West is wide, open and lacking intimacy or enclosure of any sort. It is primarily a street for vehicles and a thoroughfare for pedestrians*
>
> *Gateway - Gateways are boundary markers that help identify this distinct neighbourhood. They are the point where people first observe and experience the "sense of arrival" in St Leonards. The locations of the gateways into Atchison Street were based on where the largest traffic volumes pass by and access into the area. The gateways will reinforce the existing distinct identity with strong visual elements in an attractive setting*
>
> *Visual Amenity - Improve the visual amenity in Atchison Street though the replacement of pavement, service rationalisation, new furniture and planting of street trees.*
>
> *Footpath extension - Widened footpaths along the entire length of Atchison Street West will improve the pedestrian movement; provide outdoor dining and increased tree planting.*
>
> *Outdoor Dining - Activities that encourage people to socialise and spend time in the public domain are encouraged. Allowances for outdoor dining has been catered for in dining bays in the form of platforms. The dining bays create separate spaces away from the ordinary pedestrian flow. This will provide cultural 'heart' or focal point for Atchison Street and engender a sense of community ownership*
>
> *Connectivity - Atchison Street West will provide visual connectivity and a continuous pedestrian circulation network through St Leonards. The design principle will ensure that all areas have open surveillance and be accessible to pedestrians of all abilities.*
>
> *Passive Recreation - Spaces within Atchison Street West will be designed to attract users for gathering and general passive recreational activities. Two mini-plaza areas will be designed to maximizes solar aspect, whilst also providing shade, shelter from prevailing winds, a quiet retreat from a busy lifestyle and a pleasant place to sit and enjoy.*
>
> *Improved Pedestrian Environment - Encouraging pedestrian access assists in the reduction of car dependency, promotes equal access and increases the opportunity for social exchange and community life. To ensure the pedestrian environment is safe and secure design elements were included through traffic calming, footpath widening, appropriate landscape treatments and improved lighting and visibility.*
>
> *Bicycle Routes - Bicycles will be encouraged as an alternative means of transport and will compliment and link with the existing regional cycle network. The bicycle lane will be marked appropriately. precinct site sections*
>
> *Vehicle Movement - Vehicle movement should be considered in terms of road function hierarchy, pedestrian activity patterns and safety. By undertaking traffic calming on Atchison Street it will encourage vehicles to reduce speeds and provide a pleasant and safe pedestrian environment.*
>
> *New Lighting - Lighting adds another dimension to the experience of a place. The manipulation of light and darkness can transform the place into a new environment. As more residents enter St Leonards, the activity at night will increase in line with the opening of new restaurants/ cafes in the street. The new lighting will assist in providing for a safe environment, without causing an excess of light spill into residential properties. The lighting design will provide an atmosphere that will make people want to use public spaces and also must prove synergy with the design vision*
>
> *Public Art - Public art will form an integral part of the environment in the streetscape it will entertain and engage. Art will be in the form of a vine sculpture on the corner of Christie Street and Atchison Street. An additional art form will be found on the corner of Atchison and Mitchell Street and may be in the form of sculpture, mosaics or light. The art will also provide a gateway into Atchison Street."*[2]

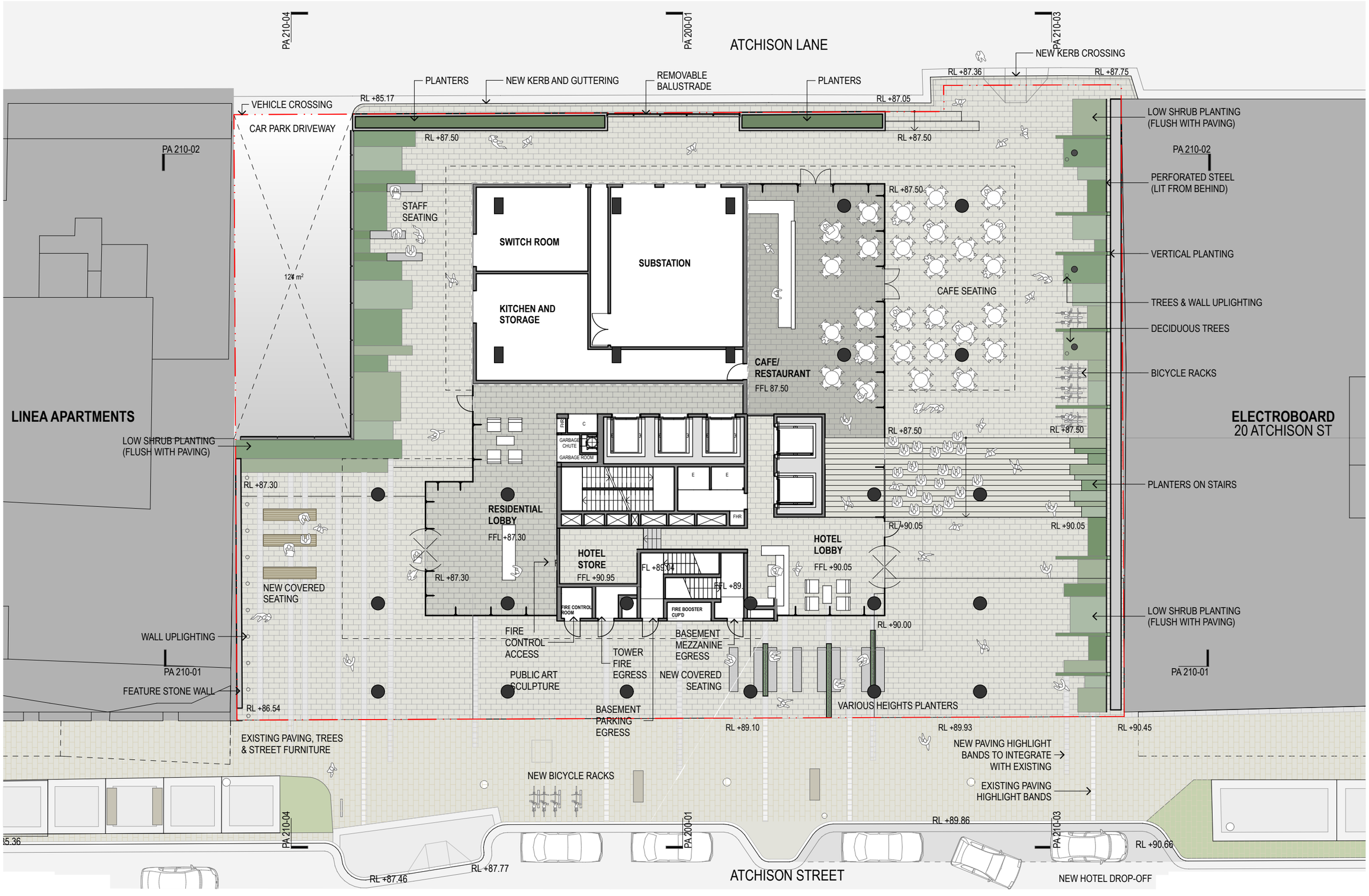


2 http://www.northsydney.nsw.gov.au/resources/documents/Masterplan_Atchison_Street_West.pdf

TOWER VIEW ANALYSIS



PUBLIC DOMAIN PLAN



09. LANDSCAPE DESIGN STATEMENT

EXISTING PUBLIC DOMAIN LANDSCAPE

The site is bounded by Atchison Street and Atchison Lane. Sloping from east to west, the public pedestrian footpath on Atchison Street was upgraded reasonably recently and is predominately precast unit pavers set in a stretcher bond pattern with street tree planting. There are also a series of stepped terraces to the east and west of the site anticipating future outdoor cafes along the street. Existing tree planting along Atchison Street consists of relatively young native trees at about 14 metre centres along the footpath. There is also some existing street furniture including bench seats, light poles and bicycle racks that are proposed to be retained.

NEW PUBLIC DOMAIN LANDSCAPE

The primary objectives of the new public domain landscape design are one of connection and place. Connections and paths to destinations on the site (ie. hotel, apartments and cafe) as well as connections through the site to destinations beyond support the concept of permeability. The concept of place is supported by creating a design that characterises the site to ensure it is memorable for occupants and visitors alike. Making new places also requires activity and this reflected by the cafe/restaurant proposal with outdoor seating and the potential to use the flight of stairs as 'intermittent' seating for nearby performances. In addition, it is expected that many pedestrians working nearby will use the through-site links as a local shortcut from Atchison Street to Atchison Lane beyond. This will also benefit the general level of activity expected around the Hotel and Residential lobbies and is anticipated to be open 24/7.

There are multiple pedestrian connections to the separate Hotel and Residential lobbies which front a paved forecourt, each with a different character. The backdrop of Hotel forecourt and lobby is a 10 metre high vertical green wall with nearby seating blocks, intersected by planting, to wait for a taxi or colleague undercover. On the western side of the site is the Residential apartment forecourt and lobby which is characterised by a feature stone wall.

An appropriate balance between hard paved surfaces and soft landscape areas is sought in the scheme. Whilst hard paved surfaces are necessary and appropriate for an urban space with dense populations and significant pedestrian traffic, such as St Leonards, the community expectation is often that green open space or planting is maximised. It is with this expectation in mind that the landscape design provides a range of different planting 'experiences' including an iconic 'green wall' and supplementary mass planting throughout the site.

The main public domain landscape components include:

- Street Interface (with Public Art Sculpture)
- Residential Forecourt
- Hotel Forecourt
- Green Wall
- Site Through-Link
- Cafe Square
- Feature Gravel Roof (at Podium Roof Level)

The drawings, as well as the following descriptions describe these components.

The proposed public domain landscape design supports and extends the objectives of the Atchison Street West Master Plan by North Sydney Council.

HARDSCAPE

A key part of the public domain are a series of 'hard' landscape elements such as seating, lighting, signage and bicycle racks to address functional and public needs. It is envisaged that these elements are fully integrated with the external works design for the Atchison Street Mixed-Use Development. For example rather than utilise proprietary seating units, a series of bespoke seating elements are proposed that align with the paving setout and have the potential to be finished in a particular texture, colour and/or integrate interpretation of the site or public art.

The distribution and integration of the various hardscape elements across the precinct adds a level of detail and important functionality to the public domain landscape design, enriching the experience for users of the space and building. Many elements are arranged in 'series', not only for functional reasons (eg. seating blocks) but to reinforce the overall design by creating an edge or a place for activities to happen.

Consideration of the existing streetscape elements and paving was made and the integration of these elements is exemplified by the existing paving bands (running north to south) being extended into the site paving and augmented by adjustments on the streetscape.

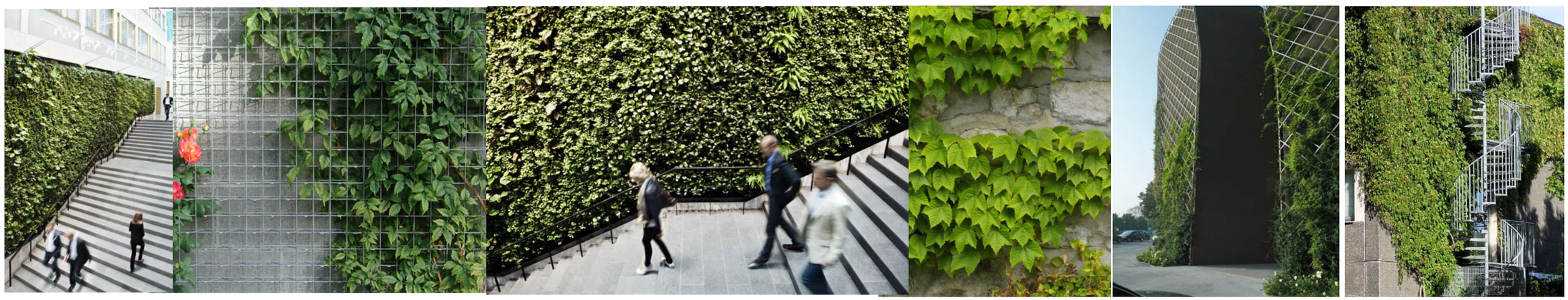
This approach ties together the site with a cohesive design approach that will provide a unique character for the Atchison Street Mixed-Use Development yet integrate with the site context.

SOFTSCAPE

Supporting the concept of different landscape experiences, the range of softscape proposed includes tree planting, mass planting beds, a green wall, and integrated feature planting in the seats. There are a range of suitable tree, shrub and groundcover species that may be used in the planting design for the development and plant selection and planting design will consider issues such as:

- a preference for plants indigenous to the Sydney area;
- microclimatic conditions (wind, access to sunlight)
- maintenance requirements of species selected (such as level of watering, fertilising and pruning required to maintain the species in the desired form);
- does the species have any known allergic or toxic potential?
- does the species grow well and look good as a mass planting?
- are the selected species readily available from local nurseries?
- does the species look good year round (i.e. does it become dormant or dieback etc)?

All of the proposed planting will be over structural slabs which can be considered an 'artificial' environment for planting and poses some challenges to ensure a successful planting outcome. That being the case, particular attention will be paid to access to water and drainage, as well as soil volume and composition for all planting. The supply of good plant stock and regular maintenance also play a part in planting success.



TREE PLANTING

The extent and nature of the tree planting is a balance between providing a clear and legible public open space, mitigating adverse wind conditions, ensuring sunlight penetration in Winter and providing an appropriate scale or screening to surrounding buildings. To this end, a row of deciduous trees are proposed for the Cafe Square.

GREEN WALL

A key feature of the landscape design is the proposal for an iconic Green Wall to the eastern boundary of the site. At around 10 metres on Atchison Lane, the wall provides a soft edge to an otherwise blank boundary wall. Comprised of a series of linear planting boxes arranged vertically, the Green Wall enables the plants to grow onto modular stainless steel grid mesh panels. Until the climber planting has established and started to cover the grid mesh, it provides a suitable 'background' to the through-site link and Cafe Square. Climbers such as ivy or fig creeping fig (Ficus pumila 'Minima') would be appropriate for the green wall as they are proven climbing species, grow rapidly with low water usage and are hardy.

The intention is that lighting is installed in the interstitial space between the grid mesh and steel sub-frame, further adding visual interest and potentially activity if a colour cycle or lighting programme system is employed.

GENERAL MASS PLANTING

The planting strategy is to create a cohesive design through the use of carefully selected tree and understorey species that also demonstrate a commitment to Australian natives and by extension, sustainability. An opportunity exists to reconnect the planting design back to the site context by selecting endemic species, where appropriate. In any case, the planting design is intended to be drought tolerant and use recycled site water for irrigation in low volumes. A range of shrubs, and groundcovers would be used to create a striped but layered effect as indicated on the drawings. The ragged edge of the mass planting beds creates an informal edge to the paving which not only has visual interest but provides opportunities for seating niches.

GRAVEL ROOF

As part of the cohesive and integrated design for the site, a feature gravel roof is proposed for the Podium Roof Level. The gravel roof links the building facade concept to the horizontal surface of the roof by using different gravel colours and sizes, separated by recycled plastic or steel edging, to create the pattern. When viewed from the apartments above, the design will be clearly visible.

MATERIALITY

Landscape materials selection has considered the context, durability of finishes in a high volume public space, resilience to vandal attack and appropriateness to contemporary addition to St Leonards. Materials selection would include selected stone (or precast) for paving and Podium walls as well as robust stainless steel elements appropriate for a major public urban space. Items such as anti-skateboard fins, if required, can be incorporated into seating and/or planters to prevent impact damage. Varying textures and surfaces will be sought to enrich the spaces.

MAINTENANCE

Whilst regular maintenance of the hard and soft landscape is expected, the design considered ways to lessen the burden of maintenance requirements. Areas of mass planting are proposed to provide visual impact without requiring a high-frequency of attention. Materials selection can also aid in decreased maintenance and resistance from vandalism. Surfaces that age gracefully, wear well and require minimal maintenance are being considered, such as natural stone paving and stainless steel.

However, the Green Wall requires specific and regular maintenance such as pruning to keep the climbers 'in check' and to avoid mature (larger) leaf forms, particularly if the Creeping Fig is selected. Maintenance access to the Green Wall is expected to be via a scissor lift or vertical mast rather than rope access but this requires further investigation to assess the options. The increased maintenance level for the Green Wall is offset by the continued benefits of the proposal, both visually and environmentally, to the public.

Resolution of the various aspects of the proposed landscape design will continue. This refinement of the proposed works will be based on the descriptions and performance objectives detailed above. Acknowledgment of ecological principles, provision of aesthetic and functional spaces and exciting design solutions will continue to guide resolution of the public domain landscape design.

SUSTAINABILITY

The intention is that ecological principles are integrated into the landscape design with the primary focus on water. Principles such as water sensitive urban design (WSUD), a thorough plant selection process and site microclimatic analysis inform the layout, materials selection and environmental response. Initiatives such as rainwater harvesting and reuse, consideration of the extent of embodied energy within landscape building materials, durability of material selection and resource requirements of new planting are all considerations.

The primary landscape ESD initiatives include:

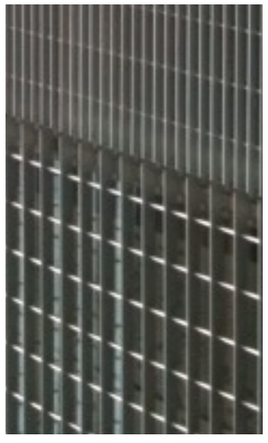
- to capture stormwater and reuse for irrigation, in addition to recycled rainwater
- a water storage tank
- fall paving to facilitate surface water recharge to mass planting beds to reduce potable water usage
- an appropriate provision of planting to improve air quality and reduce the urban heat island effect
- the selection of hardy, low water use, indigenous plant species suited to the harsh urban environment
- the selection of a range of plant species to support Biodiversity
- the possible use of recycled materials, soils and mulches (specified during documentation phase)

WATER CONSERVATION

Water is a key sustainability focus in Australian landscapes. Although many of the plant species to be selected will have low water requirements (and therefore inherently water conserving), water-efficient subsoil drip irrigation systems are proposed to ensure that the landscape is maintained to a high standard. Rainwater collected from the roof(s) and hard paved areas of the development will be reused for the irrigation water supply.

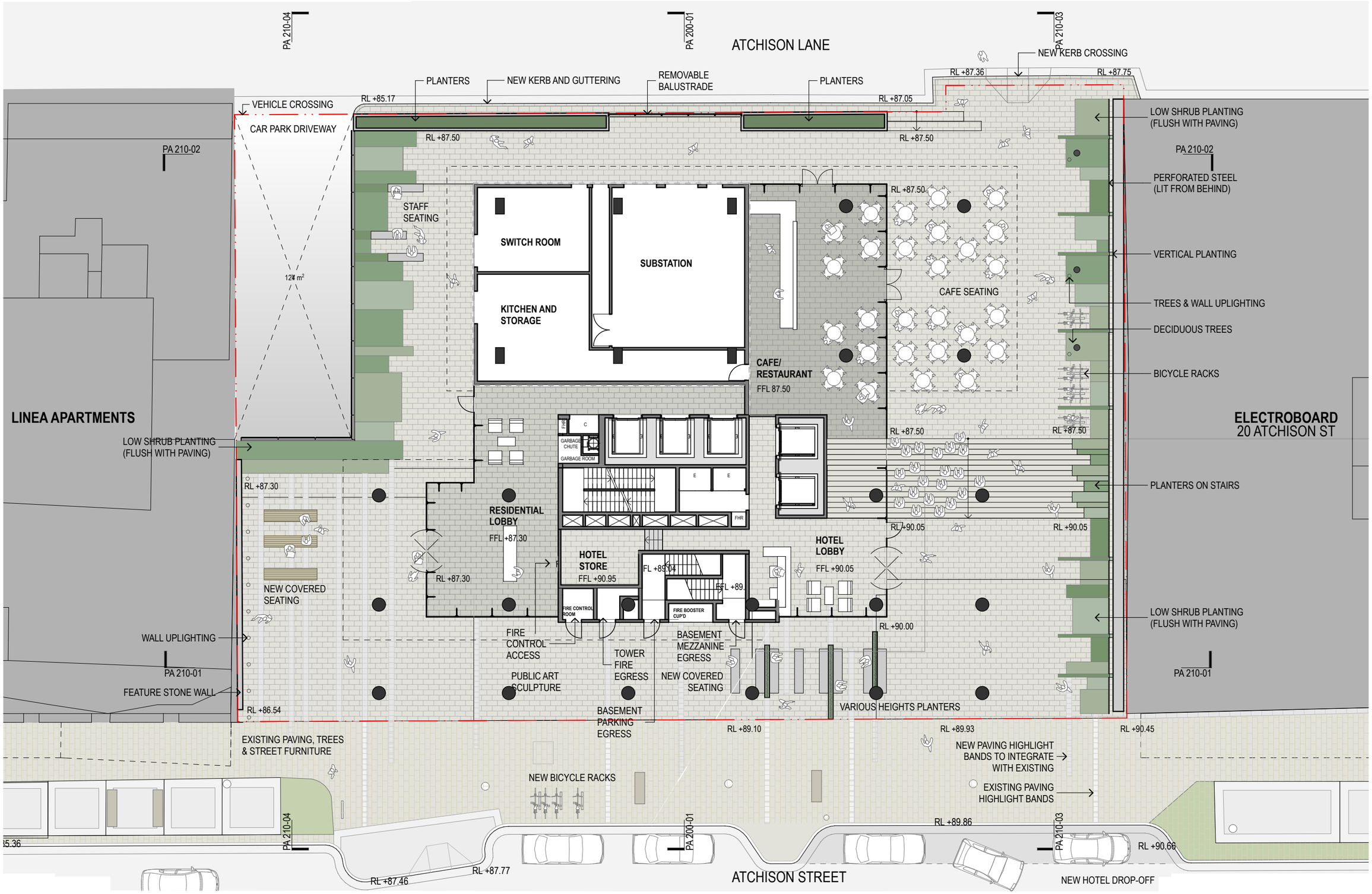
The irrigation system can be automatically scheduled via timer controls to ensure that any is undertaken after sunset, to further minimise any water loss to evaporation. To avoid any over-watering, soil moisture sensors can be installed to prevent the drip irrigation system from activating, overriding the timer controls if necessary. These systems are particularly critical for the Green Wall.

An indicative landscape plan and elevation of the Green Wall is provided as part of the drawing set. However, detailed landscape design and plant species selection will be finalised once the details of the Concept Plan have been considered.

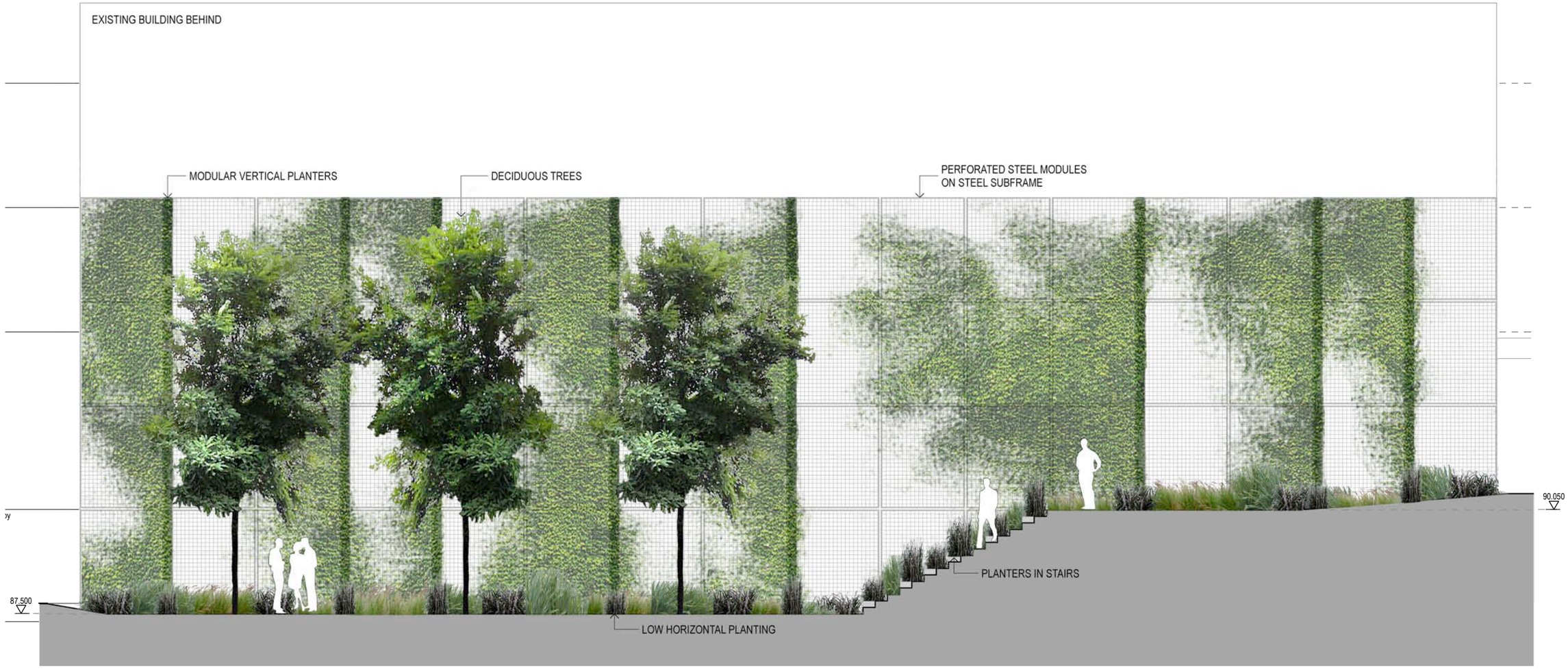





LANDSCAPE PLAN



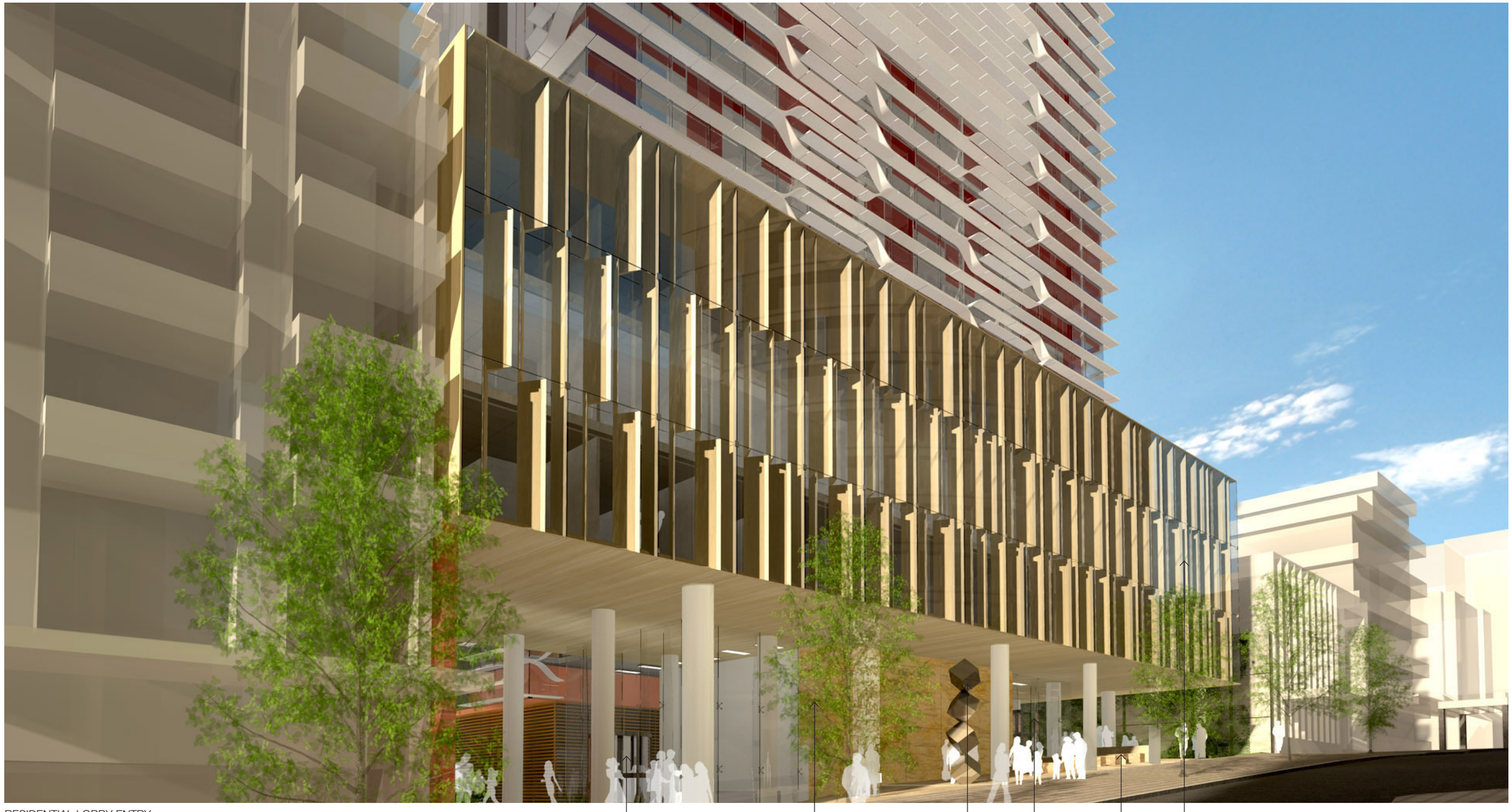
GREEN WALL


EXISTING BUILDING BEHIND
MODULAR VERTICAL PLANTERS
DECIDUOUS TREES
PERFORATED STEEL MODULES
ON STEEL SUBFRAME
90.050
PLANTERS IN STAIRS
87.500
LOW HORIZONTAL PLANTING


Front and side
of assembled
VGM module

10. PUBLIC DOMAIN IMAGES

VIEW FROM ATCHISON STREET WEST TO RESIDENTIAL LOBBY ENTRY



VIEW FROM ATCHISON STREET EAST TO HOTEL LOBBY ENTRY

VIEW FROM ATCHISON LANE EAST THROUGH CROSS SITE LINK

VIEW FROM ATCHISON LANE WEST TO BASEMENT CARPARK ENTRY

VIEW FROM ATCHISON LANE THROUGH CROSS SITE LINK TO CAFE AND GREEN WALL

VIEW FROM ATCHISON STREETTHROUGH CROSS SITE LINK TO CAFE AND LANDSCPAE ZONE

STEPPED OUTDOOR

CAFE LINKING TO HOTEL

CAFE OUTDOOR SEATING

PUBLIC DOMAIN THOROUGHFARE LINKING ATCHISON ST TO

GREEN WALL WITH MODULAR PLANTERS

LOW LEVEL PLANTERS

VIEW FROM ATCHISON STREET TO RESIDETIAL LOBBY ENTRY

VIEW FROM ATCHISON STREET TO HOTEL LOBBY ENTRY AND THROUGH SITE LINK

RAISED PODIUM HOTEL AND GYM

FEATURE STONE WALL AND BUILDING SIGNAGE ZONE

PUBLIC SEATING AND LANDSCAPE FEATURE

HOTEL LOBBY ENTRY

GREEN WALL WITH MODULAR PLANTERS

LOW LEVEL PLANTERS

PUBLIC DOMAIN THOROUGHFARE LINKING ATCHISON ST TO ATCHISON LANE

11. FACADE CONCEPT

An innovative curvilinear custom designed external sunshade system provides shade and privacy while giving the architecture of the new building a distinctive and unique character.

The facade can be delineated into the following key components

TOWER CURTAIN WALL

The panelised system consists of a series of self supporting pre fabricated units anchored directly to the building structure

Elements such as the cantilevered sun shades and window openings are integrated components and are structurally integral to the unit design.

CANTILEVERED SUNSHADES

An innovative curvilinear custom designed external sunshade system provides shade and privacy while giving the architecture of the new building a distinctive and unique character.

The sunshade system has been designed using modularized horizontal extruded aluminium sun hoods 500mm deep x 50mm wide, supported by mullions via brackets.

PODIUM FACADE

Frameless glazing with flat link fittings, supported by steel mullions clad with timber composite panels similar to Prodema.

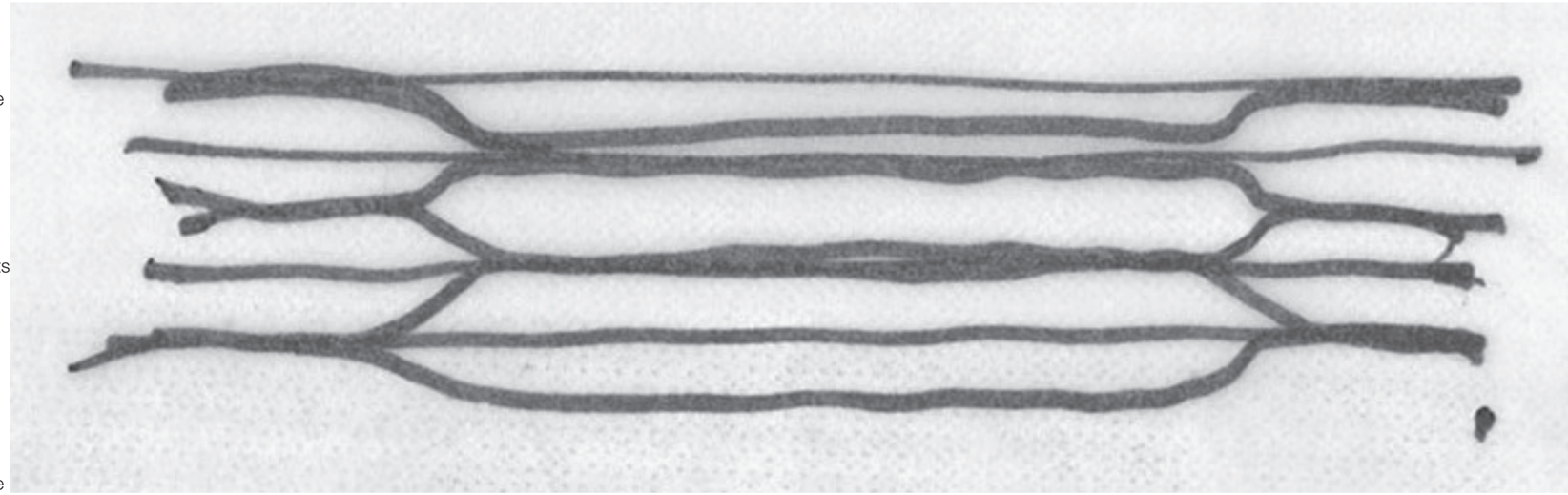


DIAGRAM: 12. CANTILEVERED FACADE SCREEN CONCEPT SKETCHES

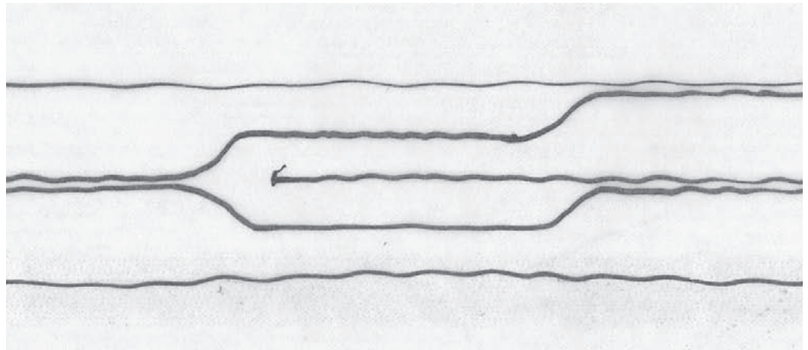


DIAGRAM: 13. CANTILEVERED FACADE SCREEN CONCEPT SKETCHES

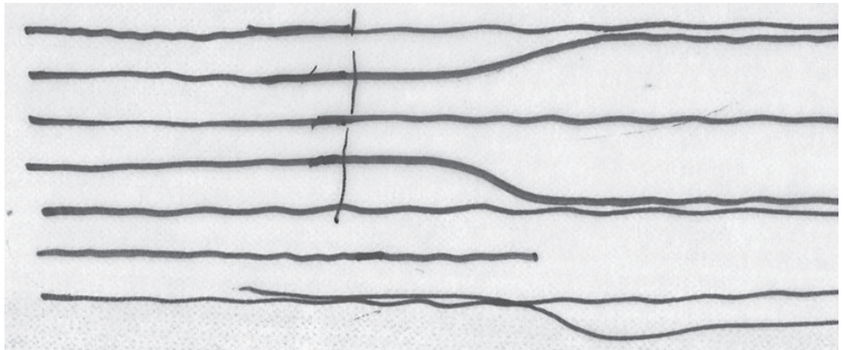
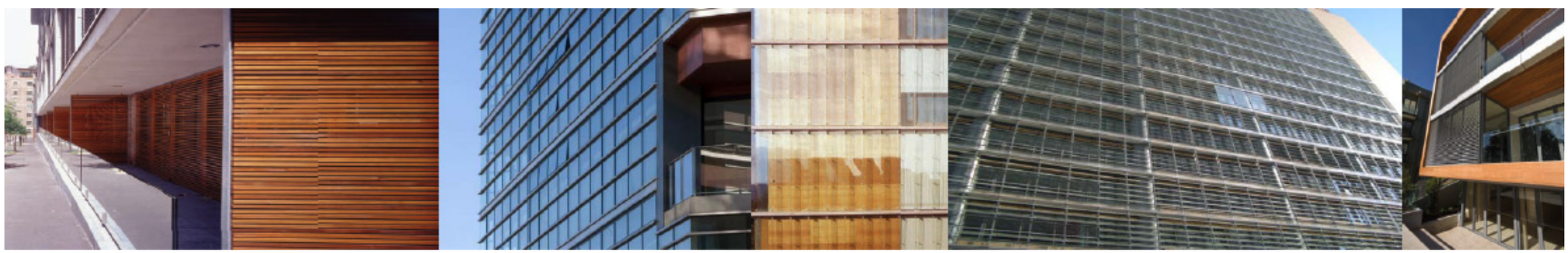


DIAGRAM: 14. CANTILEVERED FACADE SCREEN CONCEPT SKETCHES



FACADE DETAILS

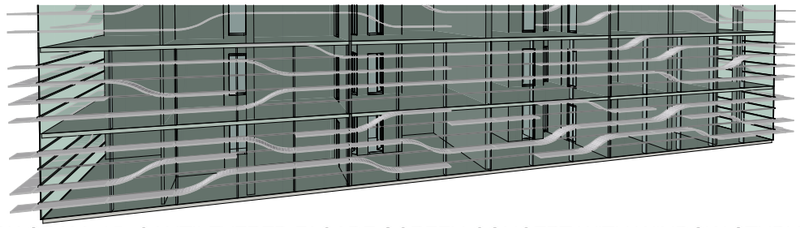
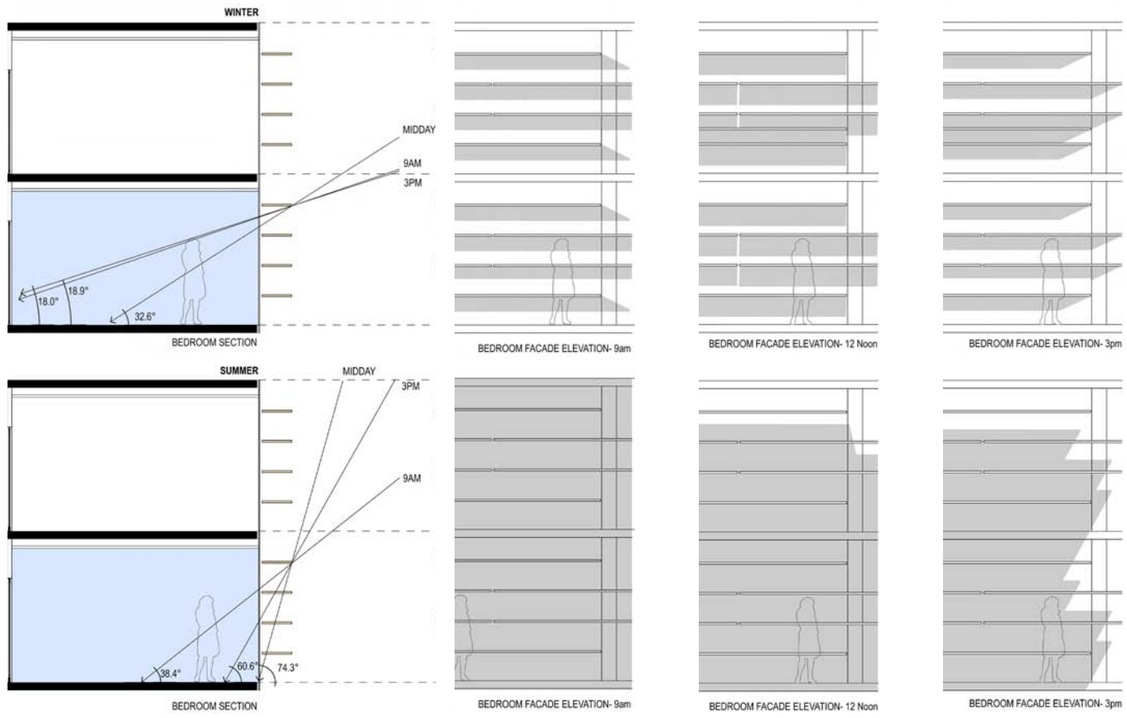


DIAGRAM: 15. CANTILEVERED FACADE SCREEN CONCEPT WITH WINDOW STUDY

DIAGRAM: 16. HORIZONTAL AND VERTICAL CANTILEVERED FACADE SCREEN DETAILS



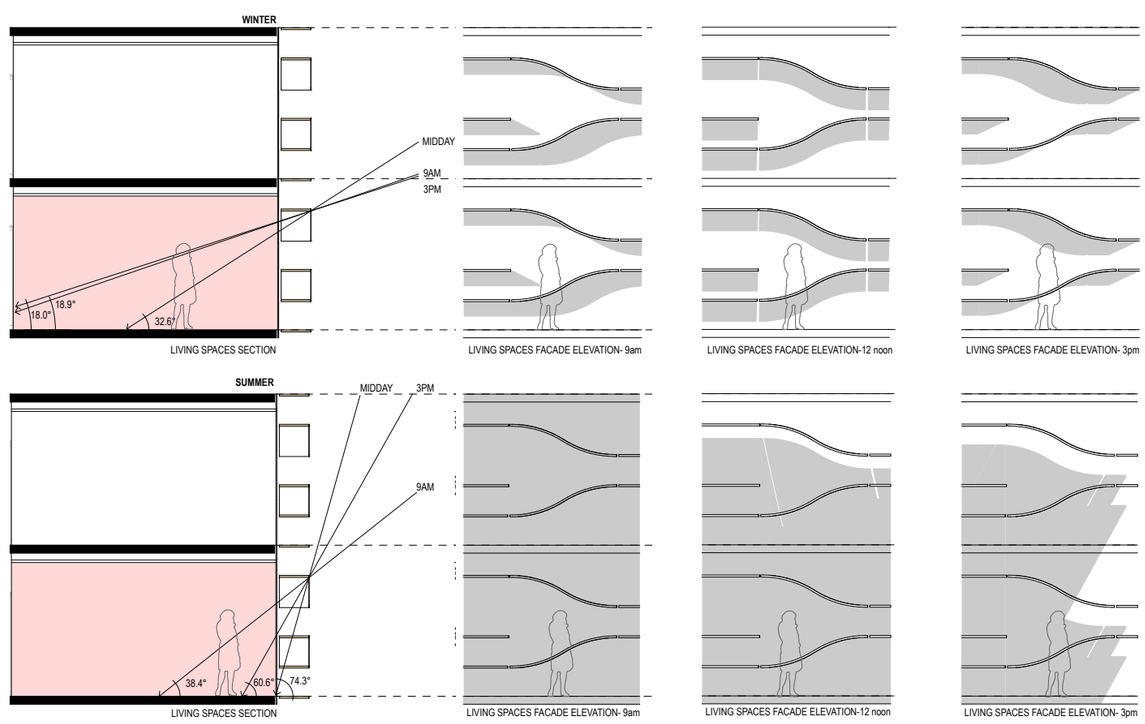


DIAGRAM: 17. CANTILEVERED FACADE SCREEN SHADING AND PRIVACY STUDIES

12. SEPP 65 COMPLIANCE ANALYSIS

The proposal is a 29 storey mixed use residential tower comprising 173 residential apartments and a 76 room hotel with a cafe. Of the residential apartments 132 are located in the North Tower and 96 in the South Tower of the development. Of these 164 have corner aspects to optmise access to natural light, ventilation and the extensive panorarmic views from the site.

The following is an overview of compliance with the Residential Flat Design Code “rule of thumb” requirements.

BUILDING HEIGHTS

The proposal has been considered through detailed analysis of the environmental impacts of the development on its surroundings and immediate neighbours. Detailed massing studies, site, shadow and traffic analysis have been undertaken as well options the detailed form and separation of the envelope. In turn this process informed the environmental design and performance of the development to optimise the efficiency, amenity orientation and aspect of the apartment design. Overall building height is 96.5m with residential apartments being located from level 6 to level 28

BUILDING DEPTH

The apartment depths have been optimised through maximising the number of apartments with corner aspects. The maximum depth of apartments is 12m in the North and 9m in the South Tower. With no kitchen sitting greater than 8m from a facade

BUILDING SEPARATION

The tower “plan” form is staggered to decrease the physical mass of the envelope whilst optimising access to natural light and ventilation for the apartments and adjacent sites. The “average” setback from the eastern and western boundaries is approximately 10.5m and is achieved through use of an articulated building form combining setbacks of 6m, 12m and 13.5m to the adjoing buildings.

A shared setback strategy across the eastern boundary has been adopted to equitably optimise the development potential of both the object site and adjoining site.

STREET SETBACKS

The proposed setback strategy endeavours to optimise equitable access to light, natural ventilation and visual privacy, whilst achieving equitable development of the object site as well as minimising constraints on the development of the adjoinging sites. The tower is set well back from the both the street and lane alignment, minimising its visual presence as well as its environmental impacts.

The North Tower is setback in the order of 4.5m from Atchison Lane and uses a shared setback strategy across the lane to the adjoining sites. The South alignment to the common street frontage is achieved with a low scale raised podium, with the tower over setback 4.5m.

The raised podium maintains the street character whilst accomodating a human scale and opening the ground plane to public access on both Atchison St and Atchison Lane.

SIDE SETBACKS

The side setbacks of the tower minimise the massing of the tower envelope. The western edge of the raised podium is located on the boundary to provide continuity in the Atchison Street streetscape elevation, whilst the eastern edge is drawn back from the boundary to optimise light and visual egress though the cross site link. Entensive shadow analysis has been undertaken to ensure an optimal siting and scale of envelope has been proposed.

OPEN SPACE

Each apartment has private open space in the form of a winter garden, with a minimum depth of 2m. Given the nature of the site the private open space is a wintergarden arrangement with operable windows.

The ground floor of the building is 562sqm. with a site area of 1750sqm. This provides a communal shared open space area that is 68%.of the site area. This is a shared space in the context of the mixed use nature of the development.

DIAGRAM: 18. NATURAL VENTILATION ANALYSIS

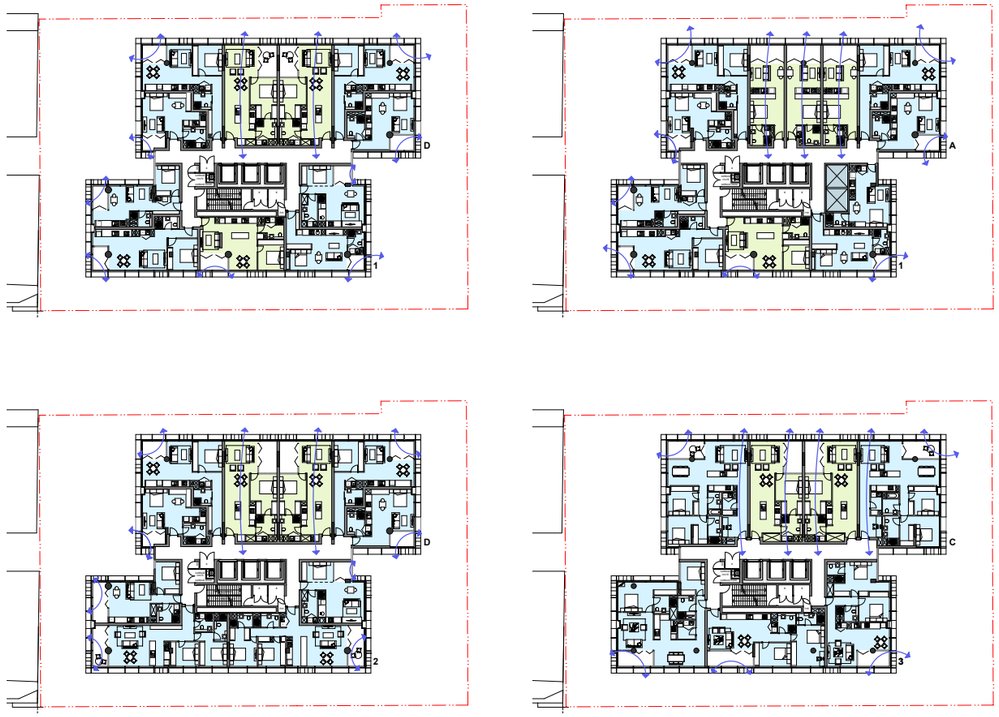
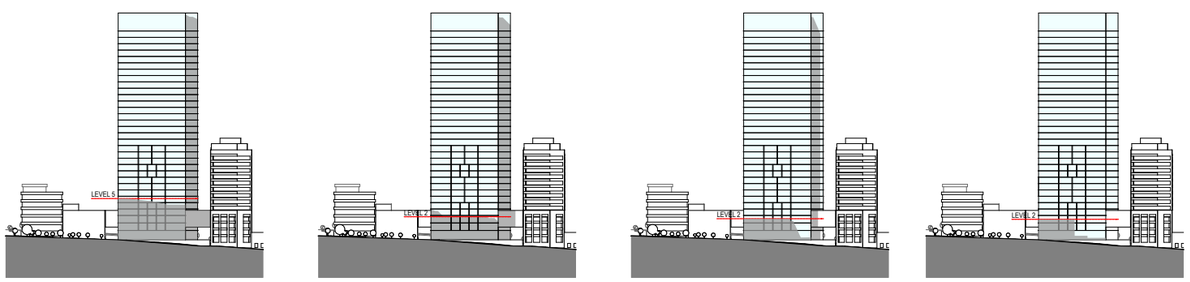


DIAGRAM: 19. SHADOW IMPACT ON TOWER ANALYSIS



North Facade June 21 9AM | North Facade June 21 10AM | North Facade June 21 11AM | North Facade June 21 MIDDAY | North Facade June 21 1PM | North Facade June 21 2PM | North Facade June 21 3PM

DIAGRAM: 20. SOLAR ACCESS ANALYSIS

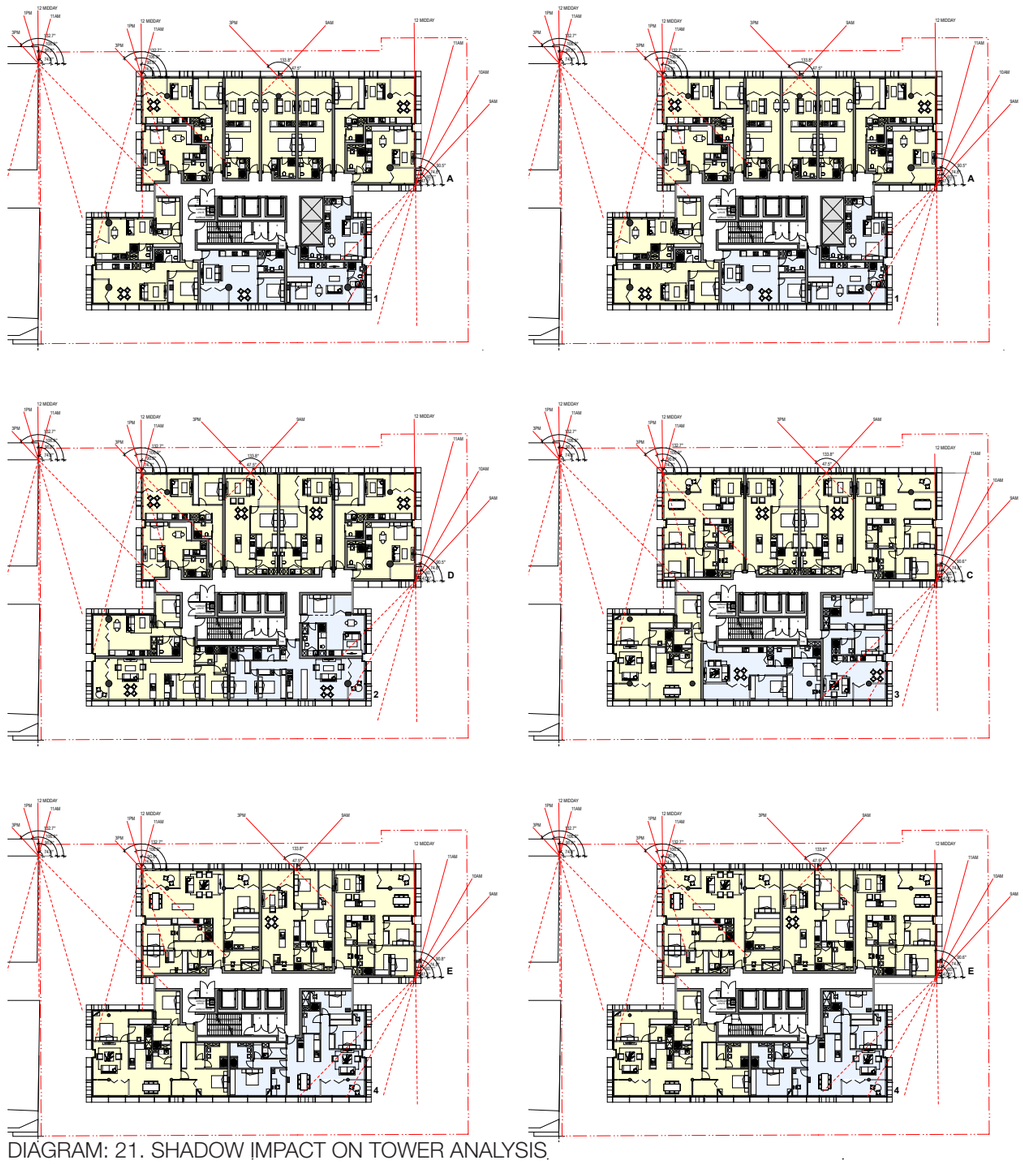
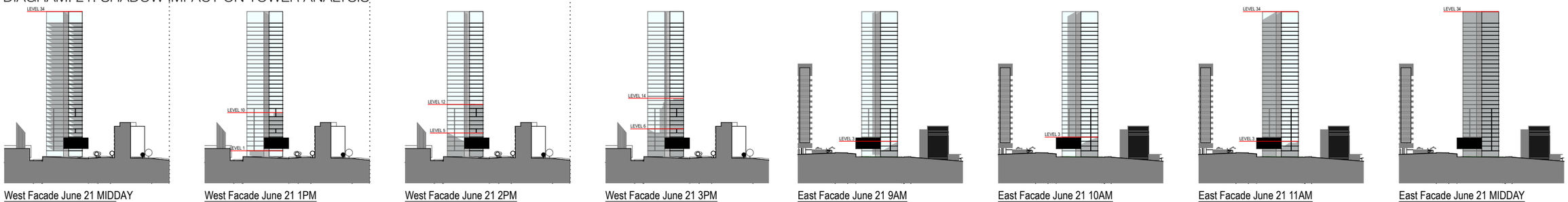


DIAGRAM: 21. SHADOW IMPACT ON TOWER ANALYSIS



West Facade June 21 MIDDAY | West Facade June 21 1PM | West Facade June 21 2PM | West Facade June 21 3PM | East Facade June 21 9AM | East Facade June 21 10AM | East Facade June 21 11AM | East Facade June 21 MIDDAY

PLANTING

Extensive landscaping of the public domain is proposed, refer to the Landscape Design Statement and Design.

VISUAL PRIVACY

The cantilevered sunshades and internal shading devices optimise both internal and external privacy whilst optimising the access to natural daylight, ventilation and views. Vertical blades are located at low level and localised to address specific view paths and privacy issues

PEDESTRIAN ACCESS

Pedestrian access from both Atchison St and Atchison Lane is made available though the cross site linkage that connects the apartment entrance to both northern and southern boundaries of the site.

Access to the car park is made available via the lifts and fire stairs located within the residential lobby.

Compliance with the relevant accesibility standards have been used as a basis and design guideline for all circulation as access components of the design. Adaptable apartment designs are allowed for in the residential apartment configuration and design.

VEHICLE ACCESS

The driveway width is 5.5m. The vehicle entry is situated on Atchison Lane which is predominantly a service corridor. A small hotel drop off zone is proposed on Atchison St.

Pedestrian amenity has been optimised by minimising the extent and imapct of these activities.

APARTMENT LAYOUT

The single sided apartments in the north and south towers allow for living and bedroom spaces that are no greater than 7.3m from the balcony.

The maximum depth that any kitchen is located from a window is 7.8m.

No apartments are over 13m deep.

The project has no balconies, however, winter gardens are provided which have a minimum depth of 2m.

The residential floors have ceiling heights are a minimum of 2.7m for habitable rooms and 2.4m for non-habitable rooms. The penthouse floor has a ceiling height of 2.95m for habitable rooms and 2.4m for non-habitable rooms.

The typical tower floor is designed around a double loaded corridor, with a single core and an average of 8 apartments per floor.

All residential apartment corridors have access to 2 sources natural light and are naturally ventilated.

The total internal apartment storage for;

- studio apartments ranges from: 6.5 - 17 sqm
- 1 bedroom apartments ranges from: 10.8-21.5 sqm
- 2 bedroom apartments ranges from: 13-30 sqm
- 3 bedroom apartments ranges from: 22.8-45 sqm.

Additional basement storage cages are available to owner occupiers to purchase.

73% of the apartments achieve the minimum required access to daylight of 3hrs per day. with the staggered geometry of the tower design maximising the number of apartments with a corner aspects and minimises the number of single sided apartments.

13. SEPP 65 DESIGN VERIFICATION STATEMENT

SUMMARY

This section has been prepared on behalf of Southern Cross Asset for Bancor Developments Pty Ltd as the Preferred Project Report of the Part 3A Application to the NSW Department of Planning. This submission seeks the approval of the proposed redevelopment of 6-16 Atchison St, St Leonards.

The development involves:

- the demolition of the existing buildings and structures on the site;
- construction of 5 and a half (mezzanine) basement levels containing services; garbage room; loading dock; carparking (total of 146 car parking spaces) and 17 motorbike spaces;
- Refreshment room (cafe) and apartment and “hotel” lobby at the ground level;
- 5 levels of “hotel” (76 rooms); and
- 22 levels of residential apartments (173 units).

Refer to the relevant and applicable Council Codes and Planning Instruments for which the proposal has been design to comply

This report is intended to be read in conjunction with the architectural plans and analysis prepared by Francis-Jones Morehen Thorp Pty Ltd (the Architect), including the following reports:

- Environmental Assesment prepared by City Plan
- Capital Investment Value Report BMT
- Survey Plan prepared by John R.Holt
- Structural Design Report prepared by TTW
- Facade Design Report prepared by TTW
- Independent SEPP 65 review prepared by Peter John Cantrill
- Transport and Accessibility Report prepared by URaP - TTW
- Ecological Sustainable Development & BASIX prepared by Steensen Varming
- Electrical and Mechanical Design Report prepared by Steensen Varming
- Hydraulic plans and report prepared by Warren Smith & Partners
- Construction Management Plan including Construction Waste Management Plan prepared by CPM consulting
- Operational Waste Management Plan prepared by ARUP
- Contamination Investigation Douglas Partners
- Employment Capacity prepared by Hill PDA
- Acoustic Report prepared by Acoustic Studio
- CPTED analysis prepared by City Plan Strategy and Development
- Wind Impact Assessment prepared by Heggies
- BCA Report prepared by Dix Gardner

We confirm that Mr Richard Francis-Jones of Francis-Jones Morehen Thorp Pty Ltd directed the design of the enclosed development application, which is represented by drawings;

- PA-100-01 to PA-100-17
- PA-110-01, PA-111-01, PA-120-01, PA-130-01, PA-140-01
- PA-150-01 to PA-150-03
- PA-160-01 to PA-160-03
- PA-170-01
- PA-200-01 and PA-200-02
- PA-210-01 to PA-210-07
- PA-300-01 to PA-300-04
- PA-600-01 to PA-600-08

and that Mr Richard Francis-Jones is registered as an architect in NSW (registration No. 5301) in accordance with the Architects Act 1921.

We confirm that the enclosed documentation achieves the intent of the design principles set out in State Environmental Planning Policy 65 - Design Quality of Residential Flat Development and has been designed with regard to the publication Residential Flat Building Code.

PRINCIPLE NO. 1: CONTEXT

“Good design responds and contributes to its context. Context can be defined as the key natural and built features of the area.”

The site consists of 3 lots spanning 6-16 Atchison St, St Leonards, it is a mid block site and rectangular in proportion and is bounded between Atchison St and Atchison Lane on the North and South. To the West and East are a 17 storey residential building and 3 storey commercial development respectively.The site currently accommodates;

- 6-12 Atchison St - 4 storey commercial/retail building including basement car park with rear access from Atchison Lane
- 14 Atchison St - 3 storey commercial building including basement car park with rear access from Atchison Lane.
- 16 Atchison St - 3 storey commercial building including basement car park with rear access from Atchison Lane

The surrounding built form is a mix of residential, commercial, mixed -use sites and public transport infrastructure.

The precinct is characterised by a dense urban environment of commercial, retail and high density residential developments. The precinct is divided into quarters by the Pacific Highway running East/West and the Chatswood rail line running North/South.

The precinct has been identified as a focus for increased density and activity given its close proximity to public transport nodes and employment potential., Refer to PA-111-01 Precinct Analysis Plan

PRINCIPLE NO. 2: SCALE

Good design provides an appropriate scale in terms of bulk and height that suits the scale of the street and the surrounding buildings.

The design proposal for this apartment building, hotel and public open space has emerged from a close and detailed analysis of this important St Leonards site, the streetscape, environmental effects and urban form. Our objective has been to create a very high quality building of distinctive architecture together with a landscaped public open space sequence that forms carefully scaled through block public connections.

A podium form aligns with the adjacent building scale to create a human scale to both Atchison Street and Atchison Lane, with the tower above set well back from the street alignment. The podium is raised up and set back from the north to create generous and inviting public open spaces and a sense of invitation for the through block pedestrian connection.

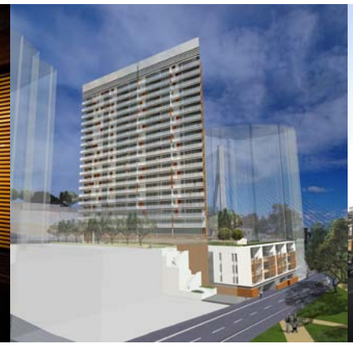
The tower form above the podium has been carefully proportioned into a slim off-set pair to create an elegant contribution to the skyline of St Leonards. The tower position and height is determined to minimise environmental effects such as overshadowing on any nearby residential or public open spaces and sit comfortably within the relative heights of adjacent towers such as the Forum and IBM.

An innovative curvilinear custom designed external sunshade system provides shade and privacy while giving the architecture of the new building a distinctive and unique character. Equal care and attention is paid to the detailing of each element of the architecture including elements of the landscaped public open space such as the green wall, amphitheatre and plaza.

Refer to PA-300-01 to PA-300-04






PRINCIPLE NO. 3: BUILT FORM

Good design achieves an appropriate built form for a site and the building's purpose, in terms of building alignments, proportions, building type and manipulation of building elements.

The design proposal for this apartment building, hotel and public open space has emerged from a close and detailed analysis of this important St Leonards site, the streetscape, environmental effects and urban form. Our objective has been to create a very high quality sustainably designed building of distinctive architecture together with a landscaped public open space sequence that forms a through block public connection.

A finely detailed podium aligns with the adjacent building scale to create a human scale to both Atchison Street and Atchison Lane, with the tower above set well back from the street alignment. The podium is raised up and set back from the north to create generous and inviting public open spaces and a sense of invitation for the through block pedestrian connection.

The tower form above the podium has been carefully proportioned into a slim off-set pair to create an elegant contribution to the skyline of St Leonards. The tower position and height is determined to minimise any environmental effects such as overshadowing on any nearby residential or public open spaces and sit comfortably within the relative heights of adjacent towers such as the Forum and IBM.

An innovative curvilinear custom designed external sunshade system provides shade and privacy while giving the architecture of the new building a distinctive and unique character. Equal care and attention is paid to the detailing of each element of the architecture including elements of the landscaped public open space such as the green wall, amphitheatre and plaza.

PRINCIPLE NO. 4: DENSITY

Good design has a density appropriate for a site and its context, in terms of floor space yields (or numbers of units or residents).

The site is located within an identified development zone as outlined in the St Leonards Strategy 2006. The site bridges the boundaries of the Urban centre the Mixed Use Transition Zone. Both zones have been the focus of recent and significant redevelopment in recent years with a focus on developing mixed use residential schemes.

As illustrated in the SEPP 65 analysis and the previous form, massing and shadow analysis the development is in line with the appropriate bulk, scale and density for a mixed use development on the subject site.

The subject proposal located as it is in a Specialised Centre, has the unique opportunity to increase housing affordability and availability by 173 dwellings to assist in satisfying the 25,000 new dwellings required per year consistent with State policy.

PRINCIPLE NO. 5: RESOURCE, ENERGY AND WATER EFFICIENCY

Good design makes efficient use of natural resources, energy, and water throughout its full life cycle,including construction

The proposed development has met the targets set out in the Building & Sustainability Index (BASIX).

The developer is commited to attaining a Green Building Council of Australia (GBCA) 4 Star Greenstar rating. Steensen Varming have undertaken a preliminary analysis of building performance and a 4 Star design rating has been achieved.

Aside from this the design proposal embodies extensive passive sustainable design initiatives such as;

- Excellent passive solar gain and loss properties.
- Cross ventilation to all units. with single sided apartments using a hybrid mechanical cross ventilation system
- optimising the number of apartments with Northerly aspects to living spaces to maximise solar access, daylight penetration and reduced heating and electrical lighting requirements.
- both passive and active sunshading devices to reduce solar gains and increase control of the internal environment against late afternoon sun.
- Collection and reuse of rainwater, as well as the capture, resuse and storage of hydraulic and fire service testing flows.

Waste and recycling facilities are provided in the basement with recycling repositories on each residential floor.

PRINCIPLE NO. 6: LANDSCAPE

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for both the residents and for the public domain.

The primary objectives of the new public domain landscape design are one of connection and place. Connections and paths to destinations on the site (ie. hotel, apartments and cafe) as well as connections through the site to destinations beyond support the concept of permeability. The concept of place is supported by creating a design that characterises the site to ensure it is memorable for occupants and visitors alike. Making new places also requires activity and this reflected by the cafe/restaurant proposal with outdoor seating and the potential to use the flight of stairs as 'intermittent' seating for nearby performances. In addition, it is expected that many pedestrians working nearby will use the through-site links as a local shortcut from Atchison Street to Atchison Lane beyond. This will also benefit the general level of activity expected around the Hotel and Residential lobbies and is anticipated to be open 24/7.

There are multiple pedestrian connections to the separate Hotel and Residential lobbies which front a paved forecourt, each with a different character. The backdrop of Hotel forecourt and lobby is a 10 metre high vertical green wall with nearby seating blocks, intersected by planting, to wait for a taxi or colleague undercover. On the western side of the site is the Residential apartment forecourt and lobby which is characterised by a feature stone wall.

An appropriate balance between hard paved surfaces and soft landscape areas is sought in the scheme. Whilst hard paved surfaces are necessary and appropriate for an urban space with dense populations and significant pedestrian traffic, such as St Leonards, the community expectation is often that green open space or planting is maximised. It is with this expectation in mind that the landscape design provides a range of different planting 'experiences' including an iconic 'green wall' and supplementary mass planting throughout the site.

The main public domain landscape components include:

- Street Interface (with Public Art Sculpture)
- Residential Forecourt
- Hotel Forecourt
- Green Wall
- Site Through-Link
- Cafe Square
- Feature Gravel Roof (at Podium Roof Level)

The drawings, as well as the following descriptions describe these components.

The proposed public domain landscape design supports and extends the objectives of the Atchison Street West Master Plan by North Sydney Council.

PRINCIPLE NO. 7: AMENITY

Good design provides amenity through the physical, spatial and environmental quality of a development.

The proposal is a 29 storey mixed use residential tower comprising 173 residential apartments and a 76 room hotel with a cafe.

The development proposal comprises 173 residential apartments comprised of

- 30 studio units
- 64 one bedroom units
- 66 two bedroom units
- 13 three bedroom units;

Of the residential apartments 100 are located in the North Tower and 73 in the South Tower of the development. Of these 158 have corner aspects to optmise access to natural light, ventilation and extensive panorarmic views from the site.

Each apartment has private open space in the form of a winter garden, typically located at the corners of the envelope and have a minimum dimension of 2m.

Considered design of screening has been key to the innovative curvilinear bespoke external sunshade system, which provides shade and privacy while giving the architecture of the new building a distinctive and unique character.

The development also includes a gym which will be shared with the hotel. The compliance table and solar access diagrams in the earlier analysis detail measures to improve the amenity of occupants.

Given the opening of the ground plane with new landscaped cross site links, residential/hotel lobbies and the new hotel cafe will create an active environment both during and following business hours facilitating excellent levels of passive surveillance to patrons of the development.

Strong visual links through the cross site links promote this endeavour. This will enable the public to view into the developments public domain to provide a point of interest along what is currently not a well activated edge on Atchison Lane.

PRINCIPLE NO. 8: SAFETY AND SECURITY

Good design optimises safety and security, both internal to the development and for the public domain.

It is accepted that mixed use development does not constitute an increased crime risk. Its operation accords with other centre activities, with pedestrian and vehicle movements to and from the site and its immediate surrounds, generating an active presence. The design of the development reflects opportunities for appropriate “security design” based on CPTED principles.

It is intended that development will have an active environment after business hours giving good passive surveillance to the residential occupants and an active public domain. Strong visual links through the cross site links promote this endeavour.

This will enable the public to view into the developments public domain to provide a point of interest along what is currently not a well activated edge on Atchison Lane.

PRINCIPLE NO. 9: SOCIAL DIMENSIONS

Good design responds to the social context and needs of the local community in terms of lifestyles, affordability and access to social facilities.

The site is located within one of the most heavily serviced public transport hubs in the Sydney basin. Facilities need to support mixed-use developments such as childcare facilities, schools, health care, supermarkets, educational and leisure facilities are all in close proximity.

The adjoining St Leonards railway station, frequent bus and taxi service on the Pacific Highway supports excellent connectivity to the city, local and regions and beyond.

The development will have exceptional pedestrian amenity with special regard to accessible access. Given the ageing nature of the Australian population many visitors will require equitable access to the siite which is achieved at all levels of the development

The site is located along two major and increasingly well used pedestrian routes - access from St Leonards train station to Crows Nest is generally taken by either Atchison St or Atchison Lane.

The Foyers can be easily accessed from both these routes, either directly from Atchison Lane or a via strong visual connections on Atchison Street

It is intended that development will have an active environment after business hours giving good passive surveillance to the residential occupants and an active public domain. Strong visual links through the cross site links promote this endeavour.

This will enable the public to view into the developments public domain to provide a point of interest along what is currently not a well activated edge on Atchison Lane.

The open landscaped courtyard to the East and the open area to the north will activate the edges of the development.




PRINCIPLE NO. 10: AESTHETICS

Quality aesthetics require the appropriate composition of building elements, texture, materials and colours and reflect the use, internal design and structure of the development

The design proposal for this apartment building, hotel and public open space has emerged from a close and detailed analysis of this important St Leonards site, the streetscape, environmental effects and urban form.

The site being located adjacent on a significant pedestrian and corridor and adjacent one of the busiest transport corridors in the Sydney basin has played a key role in the selection of façade treatments and materials

The objective has been to create a very high quality building of distinctive architecture together with a landscaped public open space sequence that forms a through block public connection.

The podium is raised up and set back from the North to create generous and inviting public open spaces and a sense of invitation for the through block pedestrian connection.

The intent being to carefully address the finer scales of detail such that the finishes and planning of the site set a new standard for the precinct and provide a benchmark for future development.

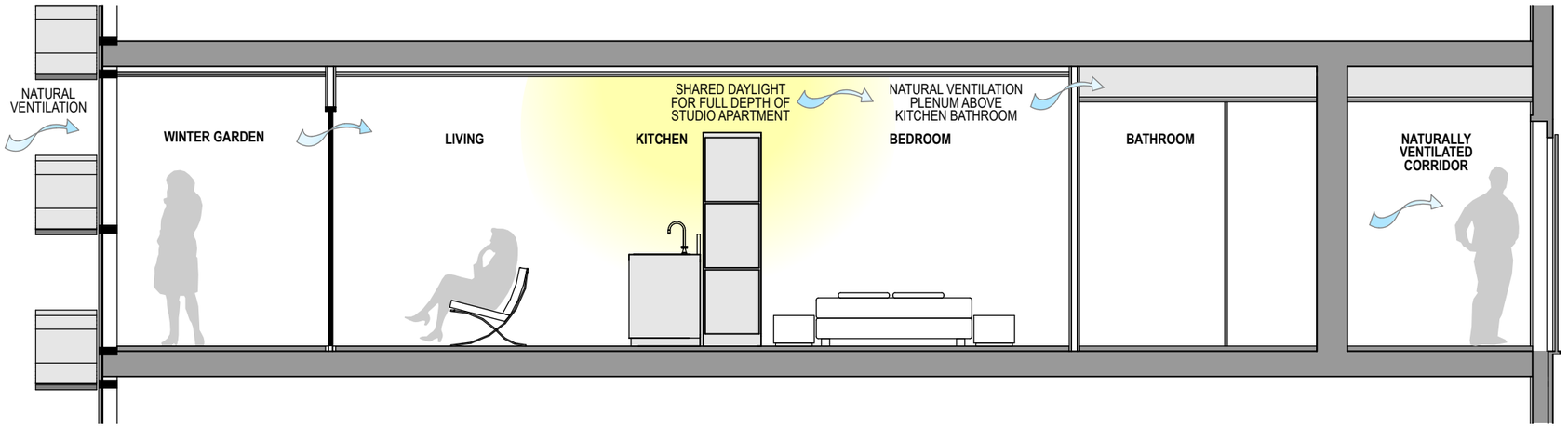
The building elevation is composed of a 3 elements being clear open space at the public domain, with a raised double height podium space softening the visual presence of the tower over which is set back from the street edge.

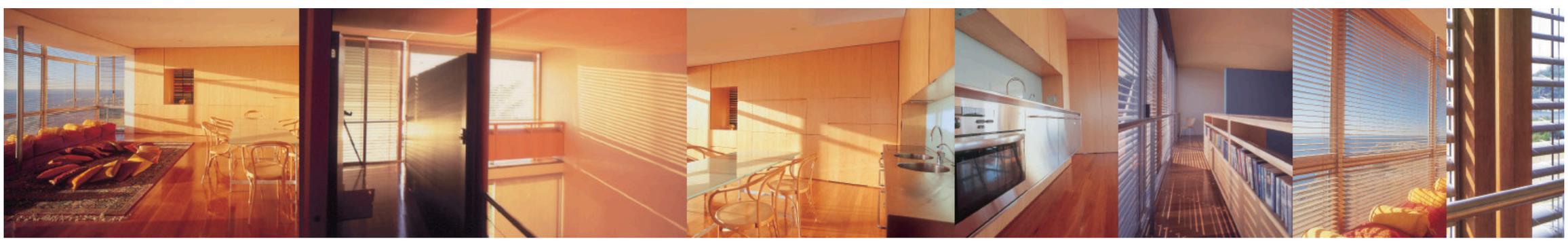
A podium consists of a finely detailed timber, stone and glass podium which aligns with the adjacent building scale to create a human scale to both Atchison Street and Atchison Lane,

The tower form above the podium has been carefully proportioned into a slim off-set pair to create an elegant contribution to the skyline of St Leonards.

An innovative curvilinear custom designed external sunshade system provides shade and privacy while giving the architecture of the new building a distinctive and unique character.

Equal care and attention is paid to the detailing of each element of the architecture including elements of the landscaped public open space such as the green wall, amphitheatre and plaza





14. ARCHITECTURAL DRAWINGS

PLANS

PA-100-01	PROPOSED SITE PLAN	A3@1:200
PA-100-02	GROUND LEVEL RESIDENTIAL ENTRY LOWER	A3@1:200
PA-100-03	GROUND LEVEL HOTEL ENTRY UPPER	A3@1:200
PA-100-04	HOTEL LEVEL A	A3@1:200
PA-100-05	HOTEL LEVEL B	A3@1:200
PA-100-06	HOTEL LEVEL C	A3@1:200
PA-100-07	HOTEL LEVEL D	A3@1:200
PA-100-08	TYPICAL RESIDENTIAL TYPE 1A PLAN	A3@1:200
PA-100-09	TYPICAL RESIDENTIAL TYPE 1D PLAN	A3@1:200
PA-100-10	TYPICAL RESIDENTIAL TYPE 2D PLAN	A3@1:200
PA-100-11	TYPICAL RESIDENTIAL TYPE 3C PLAN	A3@1:200
PA-100-12	TYPICAL RESIDENTIAL TYPE 4E PLAN	A3@1:200
PA-100-13	TYPICAL RESIDENTIAL TYPE 4E PENTHOUSE PLAN	A3@1:200
PA-100-14	ROOF PLAN	A3@1:200
PA-100-15	BASEMENT MEZZANINE	A3@1:200
PA-100-16	BASEMENT LOADING DOCK B1	A3@1:200
PA-100-17	BASEMENT TYPICAL LEVELS B2	A3@1:200
PA-100-18	BASEMENT TYPICAL LEVELS B3-B5	A3@1:200

SECTIONS

PA-200-01	NORTH-SOUTH SECTION	A3@1:500
PA-200-02	EAST-WEST SECTION	A3@1:500
PA-210-01	PUBLIC DOMAIN SECTION ATCHISON ST E/W	A3@1:200
PA-210-02	PUBLIC DOMAIN SECTION ATCHISON LANE E/W	A3@1:200
PA-210-03	PUBLIC DOMAIN CAFE N/S	A3@1:200
PA-210-04	PUBLIC DOMAIN CARPARK N/S	A3@1:200
PA-210-05	PUBLIC DOMAIN ATCHISON ST ELEVATION	A3@1:200
PA-210-06	PUBLIC DOMAIN ATCHISON LANE ELEVATION	A3@1:200
PA-210-07	GREEN WALL ELEVATION	A3@1:200

ELEVATIONS

PA-300-01	NORTH ELEVATION	A3@1:500
PA-300-02	EAST ELEVATION	A3@1:500
PA-300-03	SOUTH ELEVATION	A3@1:500
PA-300-04	WEST ELEVATION	A3@1:500

ATCHISON LANE

PA 210-04 PA 200-01 PA 210-03

NEW KERB CROSSING

RL +87.36 RL +87.75

PLANTERS NEW KERB AND GUTTERING REMOVABLE BALUSTRADE PLANTERS

RL +85.17 RL +87.05

VEHICLE CROSSING

CAR PARK DRIVEWAY

RL +87.50 RL +87.50

PA 210-02

LOW SHRUB PLANTING (FLUSH WITH PAVING)

PA 210-02

PERFORATED STEEL (LIT FROM BEHIND)

STAFF SEATING

SWITCH ROOM

SUBSTATION

RL +87.50

VERTICAL PLANTING

124 m²

CAFE SEATING

KITCHEN AND STORAGE

TREES & WALL UPLIGHTING

DECIDUOUS TREES

CAFE/ RESTAURANT

FFL 87.50

BICYCLE RACKS

LINEA APARTMENTS

ELECTROBOARD 20 ATCHISON ST

LOW SHRUB PLANTING (FLUSH WITH PAVING)

RL +87.50 RL +87.50

RL +87.30

PLANTERS ON STAIRS

RESIDENTIAL LOBBY

FFL +87.30

RL +90.05 RL +90.05

HOTEL STORE

FFL +90.95

HOTEL LOBBY

FFL +90.05

RL +87.30

NEW COVERED SEATING

LOW SHRUB PLANTING (FLUSH WITH PAVING)

WALL UPLIGHTING

RL +90.00

FIRE CONTROL ACCESS

TOWER FIRE EGRESS

BASEMENT MEZZANINE EGRESS

PA 210-01

PUBLIC ART SCULPTURE

NEW COVERED SEATING

PA 210-01

FEATURE STONE WALL

RL +86.54

BASEMENT PARKING EGRESS

VARIOUS HEIGHTS PLANTERS

RL +89.10 RL +89.93 RL +90.45

EXISTING PAVING, TREES & STREET FURNITURE

NEW PAVING HIGHLIGHT BANDS TO INTEGRATE WITH EXISTING

NEW BICYCLE RACKS

EXISTING PAVING HIGHLIGHT BANDS

RL +89.86

PA 210-04 PA 200-01 PA 210-03

RL +85.36 RL +90.66

RL +87.46 RL +87.77

ATCHISON STREET

NEW HOTEL DROP-OFF

0 2 5 10m

1:200 @ A3 APRIL 20

Proposed Site Plan

fjmt francis-jones morehen thorp

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

PA-100-

ATCHISON LANE

A0 A1 A2 A3 A4 A5

8,000 6,675 6,450 6,450 6,675

PA 210-04 PA 200-01 PA 210-03

NEW KERB CROSSING

RL +87.36 RL +87.75

PLANTERS NEW KERB AND GUTTERING REMOVABLE BALUSTRADE PLANTERS

RL +85.17 RL +87.05

VEHICLE CROSSING

CAR PARK DRIVEWAY

RL +87.50 RL +87.50

LOW SHRUB PLANTING (FLUSH WITH PAVING)

PA 210-02

PERFORATED STEEL (LIT FROM BEHIND)

VERTICAL PLANTING

TREES & WALL UPLIGHTING

DECIDUOUS TREES

BICYCLE RACKS

CAR PARK TRANSFER COLUMN

CAR PARK TRANSFER COLUMN

PA 210-02

PA 210-01

PA 210-01

C1 C2 C3 C4 C5

8,450 6,485 7,600 8,200 5,885

124 m²

STAFF SEATING

SWITCH ROOM

SUBSTATION

KITCHEN AND STORAGE

CAFE SEATING

CAFE/ RESTAURANT

FFL 87.50

RL +87.50 RL +87.50 RL +87.50

LINEA APARTMENTS

ELECTROBOARD 20 ATCHISON ST

LOW SHRUB PLANTING (FLUSH WITH PAVING)

RL +87.30

RESIDENTIAL LOBBY

FFL +87.30

RL +87.30

FFL +87.96 FFL +87.96

FFL +87.30 FFL +89.04 FFL +89.04

FFL +87.50

FEMALE TOILETS

ACESSIBLE TOILETS

MALE TOILETS

FIRE CONTROL ROOM

FIRE BOOSTER CUP'D

GARBAGE CHUTE

GARBAGE ROOM

FHR

C

NEW COVERED SEATING

WALL UPLIGHTING

PA 210-01

FEATURE STONE WALL

RL +86.54

FIRE CONTROL ACCESS

PUBLIC ART SCULPTURE

TOWER FIRE EGRESS

BASEMENT PARKING EGRESS

BASEMENT MEZZANINE EGRESS

NEW COVERED SEATING

REFER TO UPPER GROUND FLOOR

RL +89.10

EXISTING PAVING, TREES & STREET FURNITURE

NEW BICYCLE RACKS

5,370 1,980 6,750 7,010 7,015 6,000

B1 B2 B3 B4 B5 B6 B7

PA 210-04 PA 200-01 PA 210-03

RL +85.36 RL +87.46 RL +87.77 RL +88.75

ATCHISON STREET

0 2 5 10m

1:200 @ A3

APRIL 2011

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Ground Level Residential Entry Lower

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

PA-100-02

fjmt
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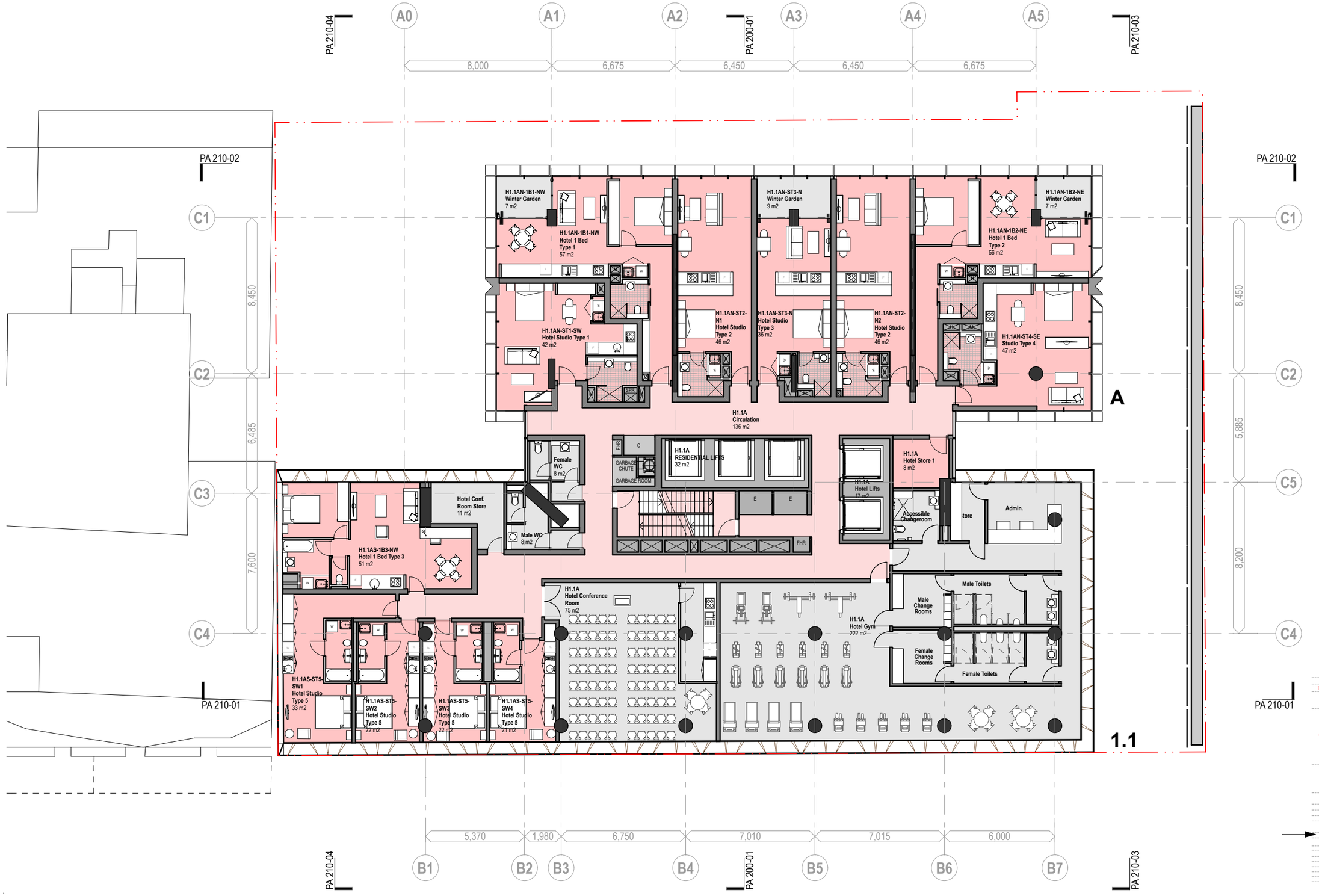
Ground Level Hotel Entry Upper

1:200 @ A3

APRIL 2011



fjmt
francis-jones morehen thorp

Hotel Level A

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

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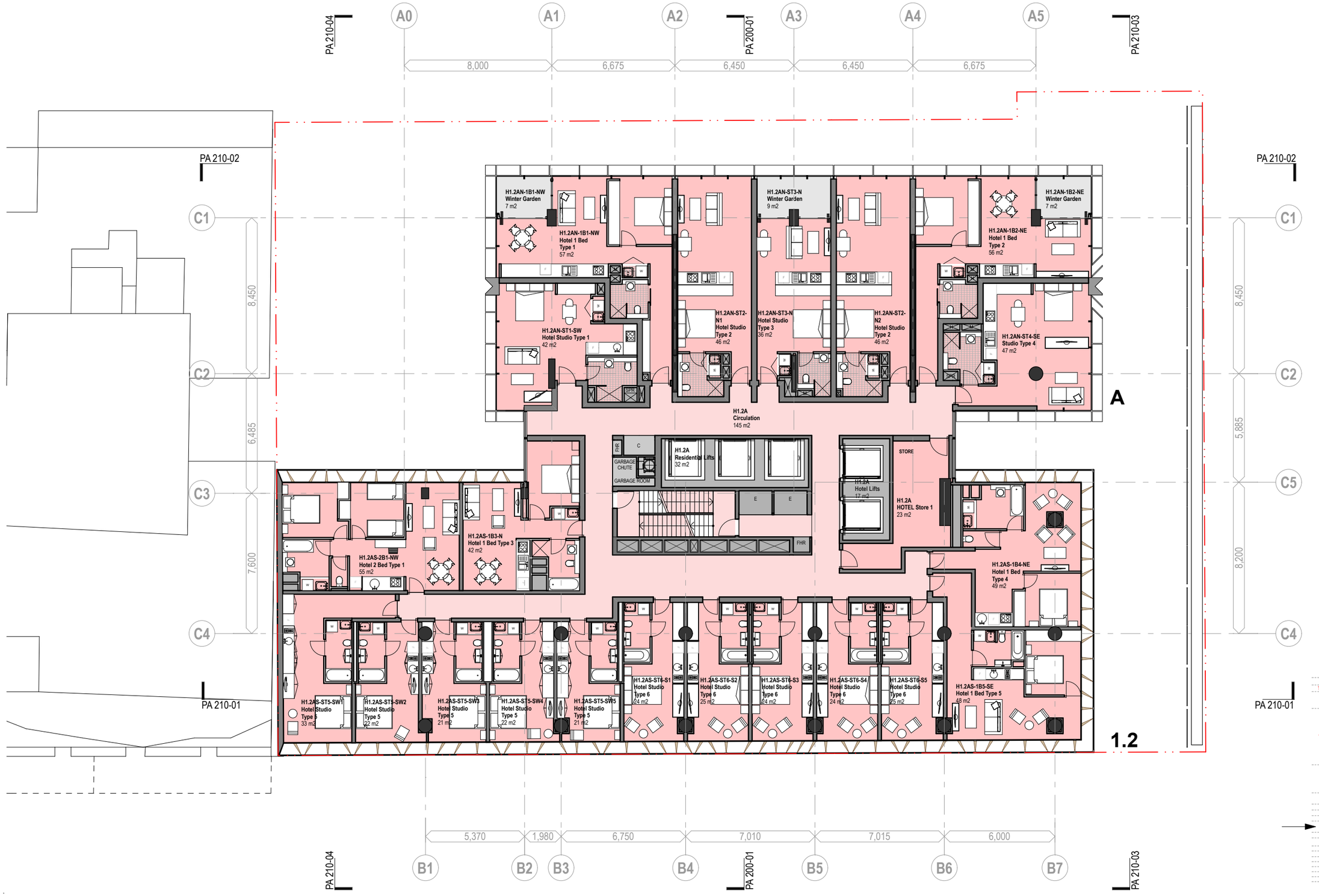
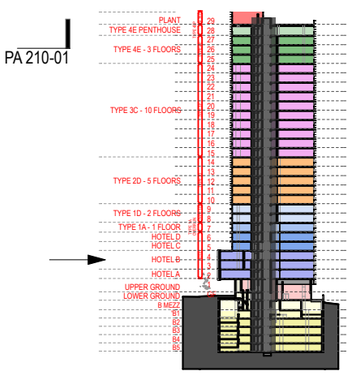
PA-100-04





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Hotel Level B

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

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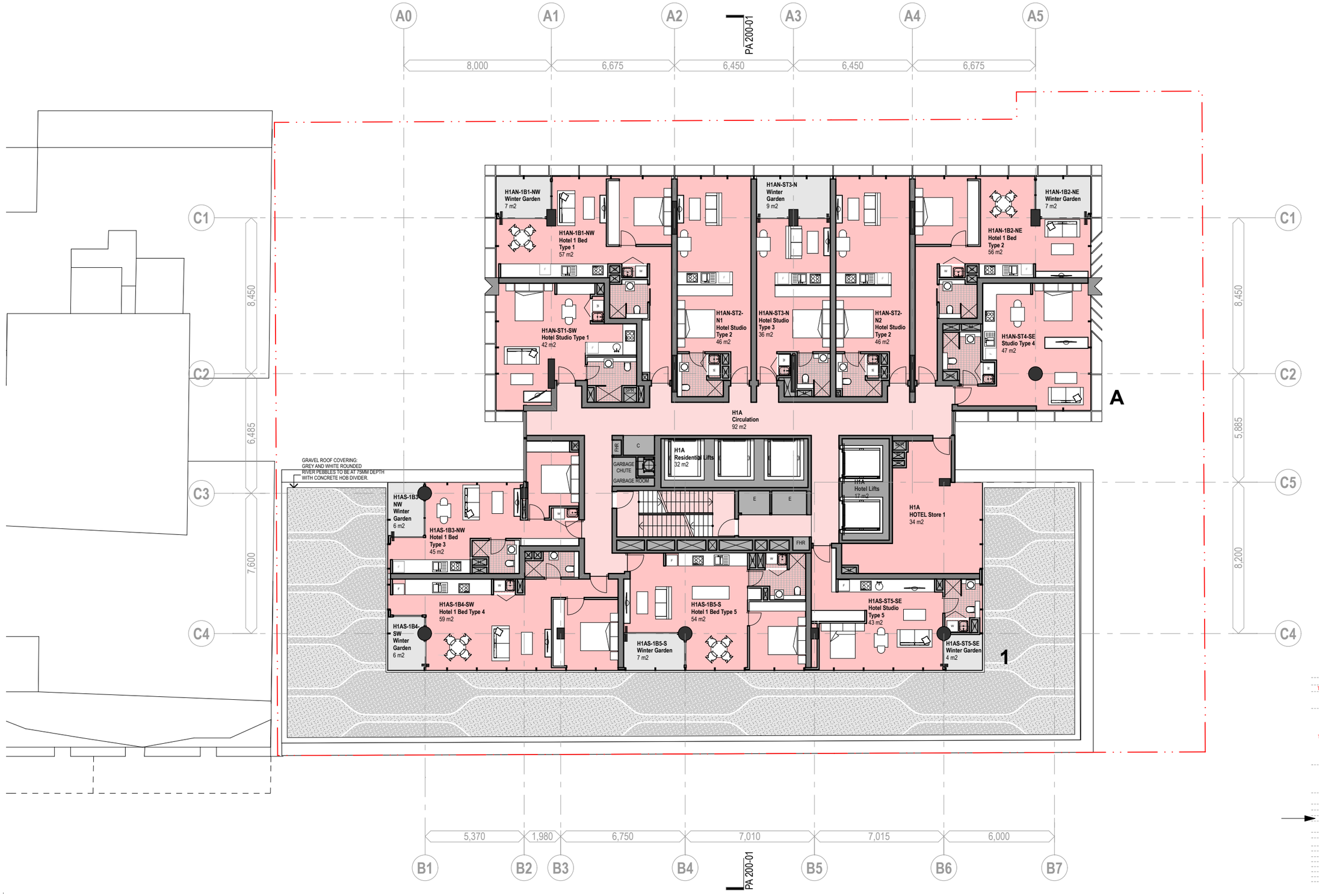

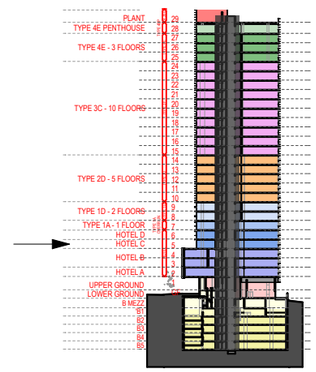

fjmt
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Hotel Level C

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

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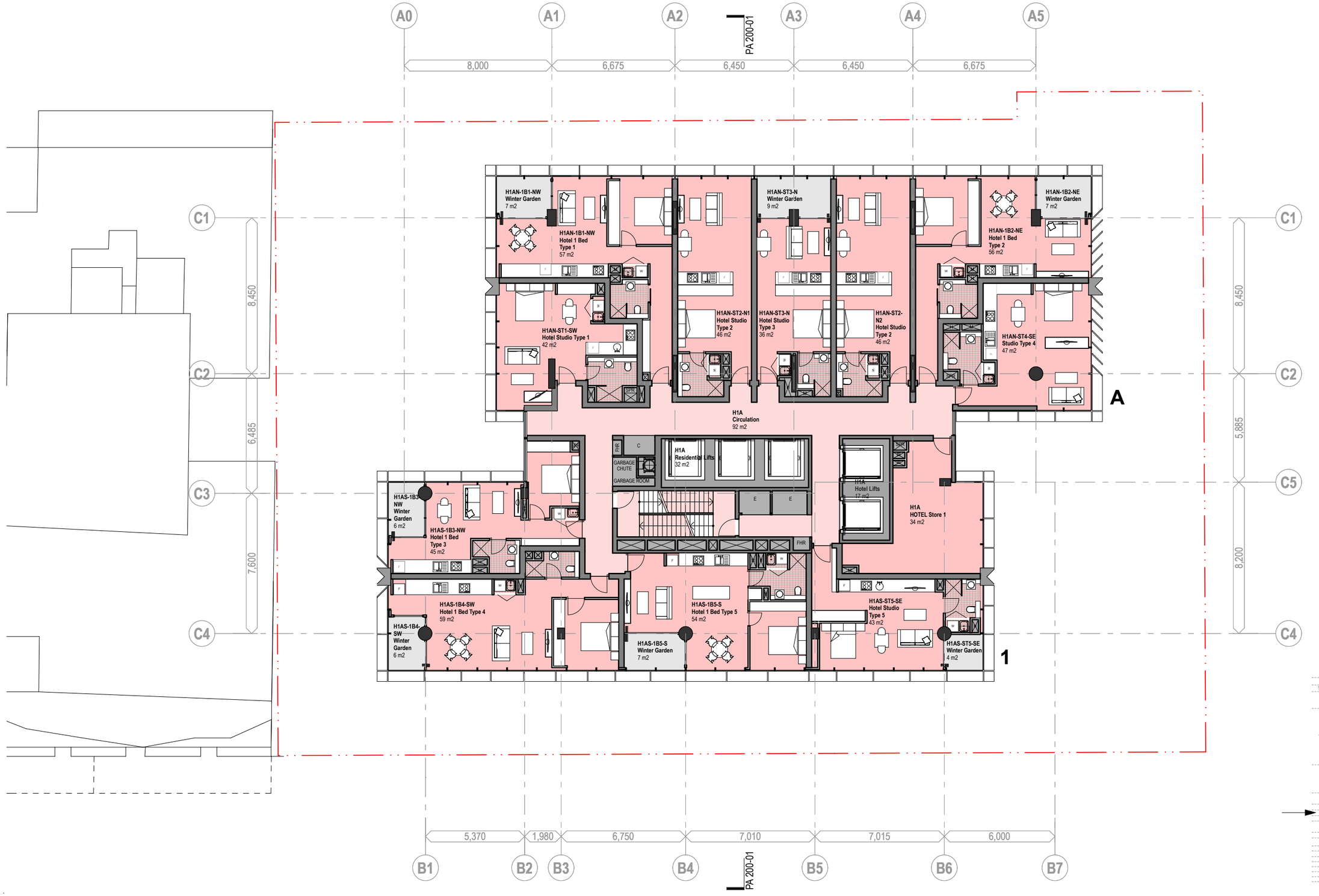
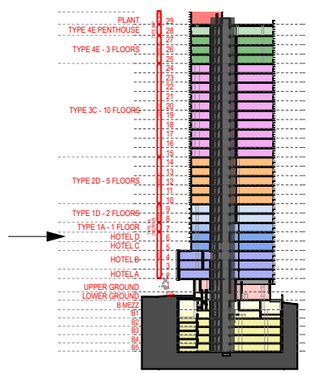
APRIL 2011

PA-100-06





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Hotel Level D (Typical 1A Floor Plan)

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

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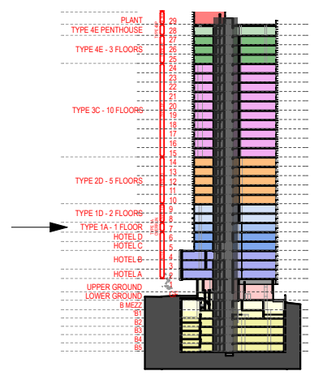
APRIL 2011

PA-100-07



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Typical Residential Type 1A Plan (with Lift Overrun)

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

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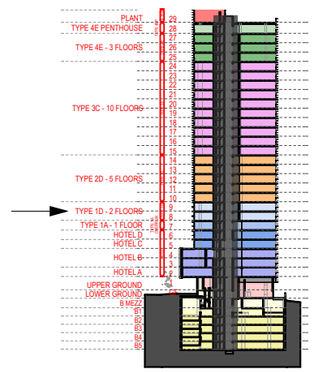
APRIL 2011

PA-100-08



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Typical Residential Type 1D Plan

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

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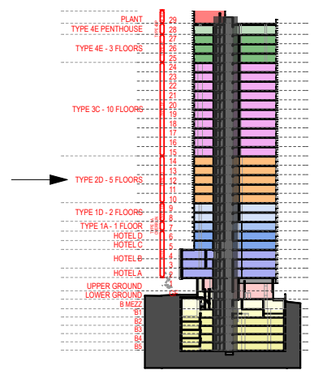

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Typical Residential Type 2D Plan

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

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APRIL 2011

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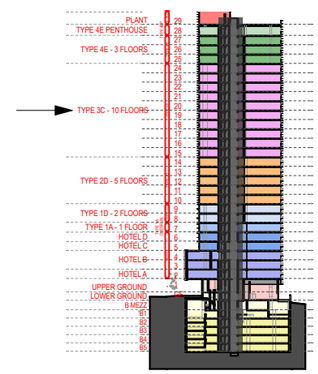

fjmt
francis-jones morehen thorp

Typical Residential Type 3C Plan

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

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APRIL 2011

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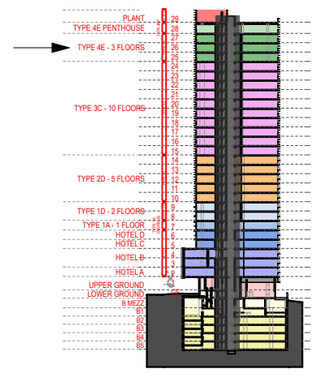

fjmt
francis-jones morehen thorp

Typical Residential Type 4E Plan

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

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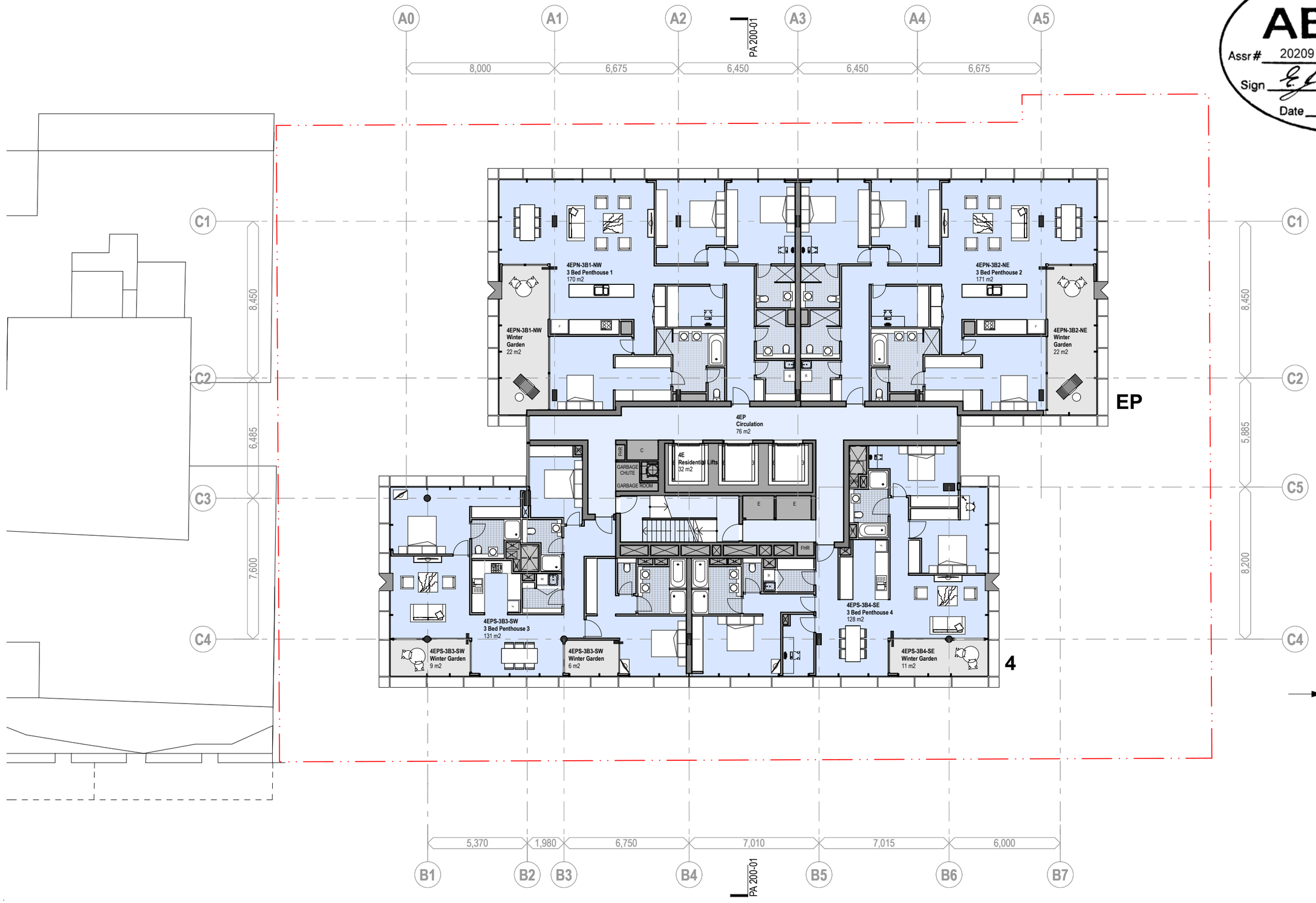
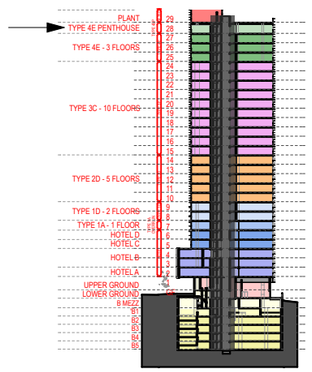
APRIL 2011

PA-100-12





fjmt
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Typical Residential 4E Penthouse Plan

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

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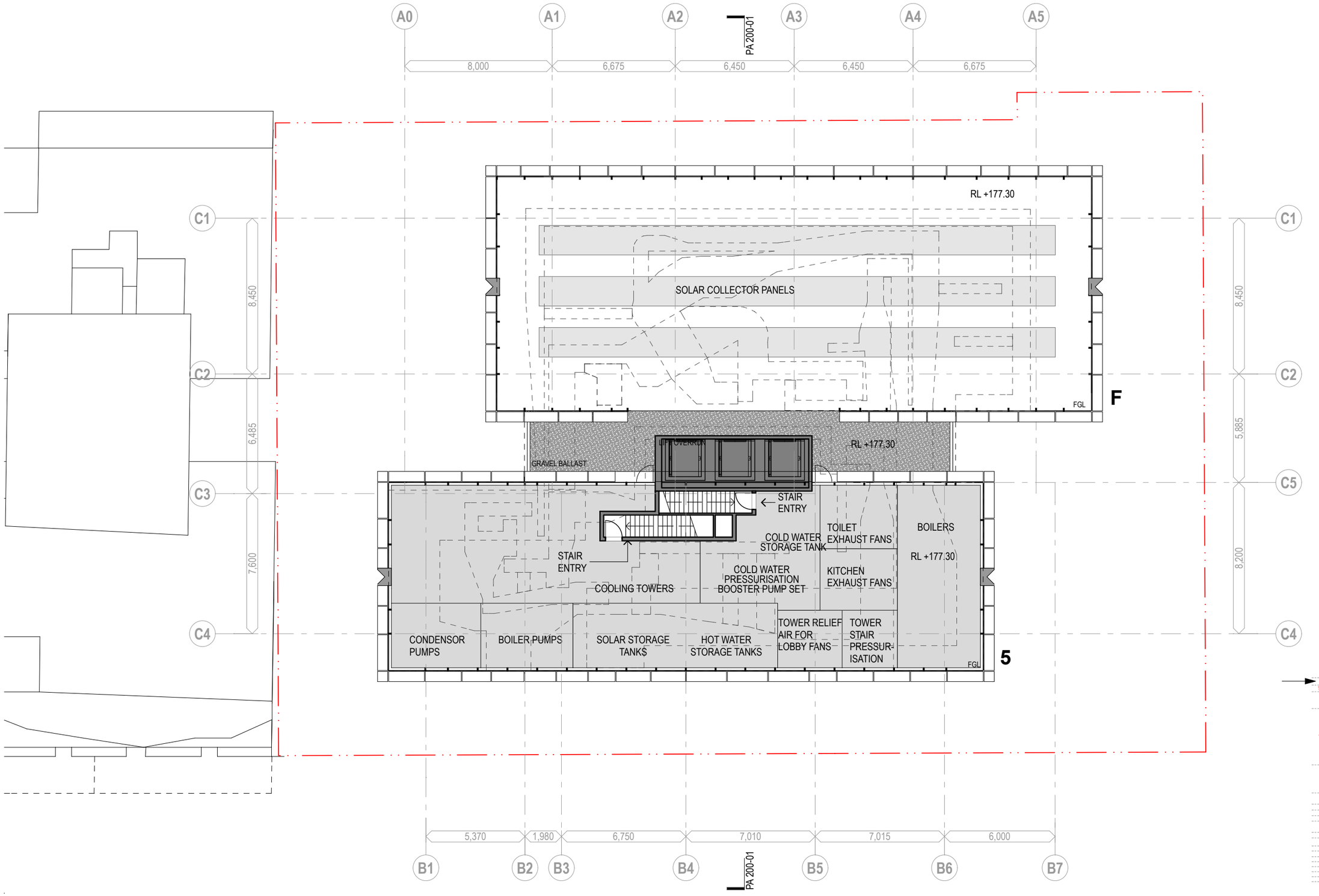
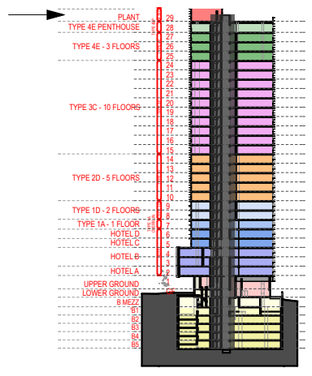
APRIL 2011

PA-100-13





fjmt
francis-jones morehen thorp

Roof Plan

0 2 5 10m

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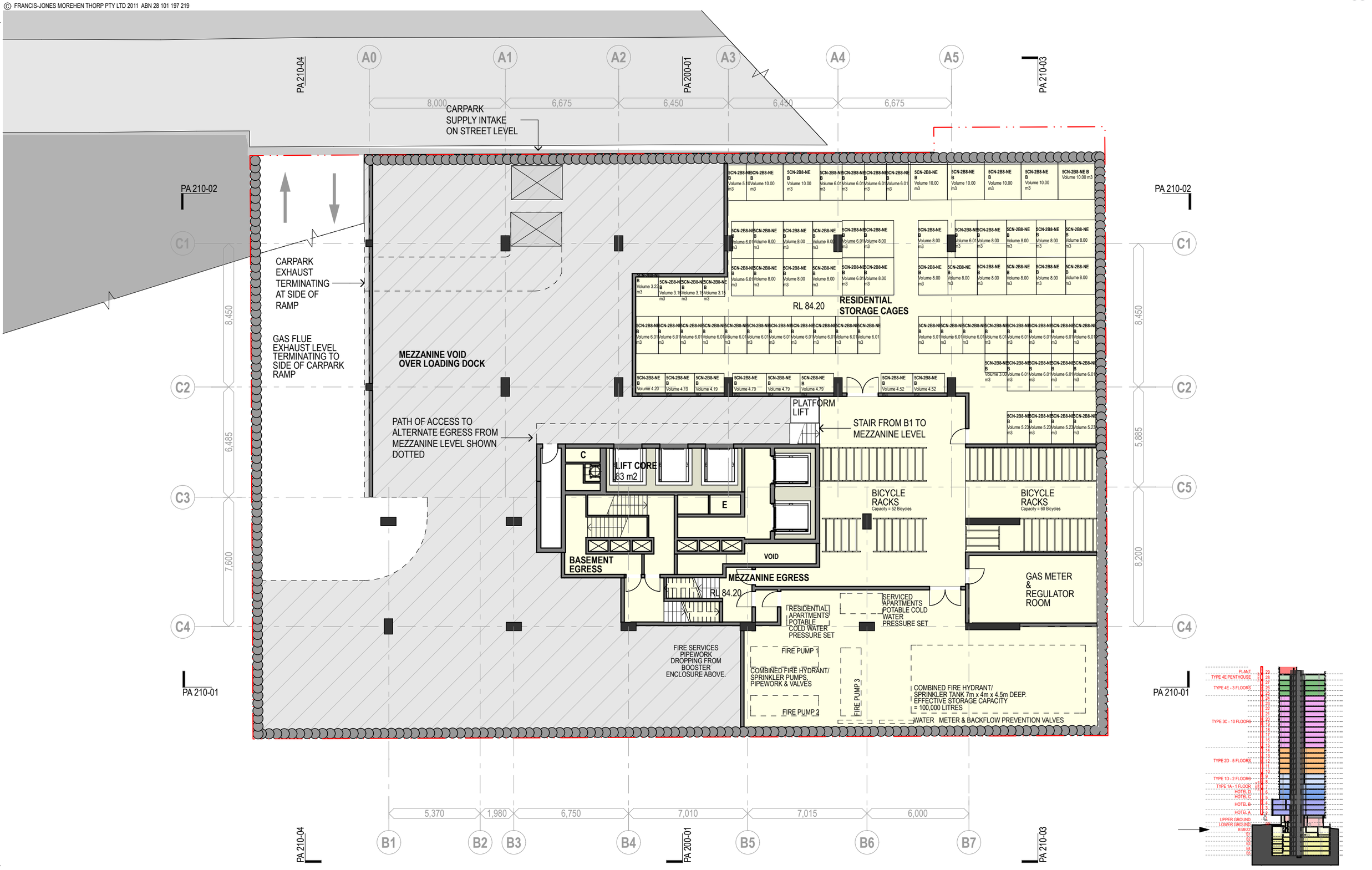
APRIL 2011

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

PA-100-14



PA 210-01

fjmt
francis-jones morehen thorp

Basement Mezzanine

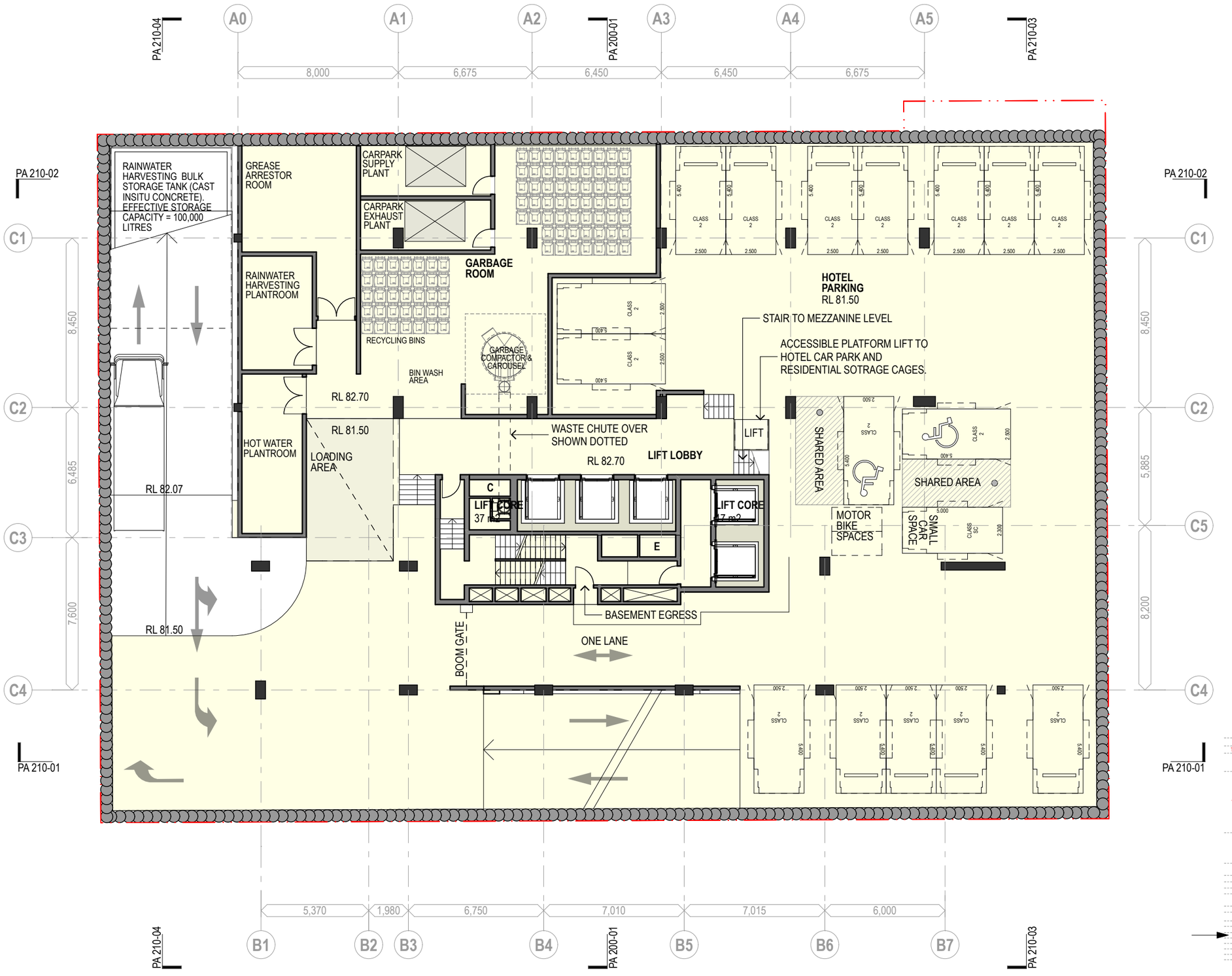
0 2 5 10m

1:200 @ A3

APRIL 2011

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

PA-100-15



fjmt
francis-jones morehen thorp

Basement Loading Dock B1

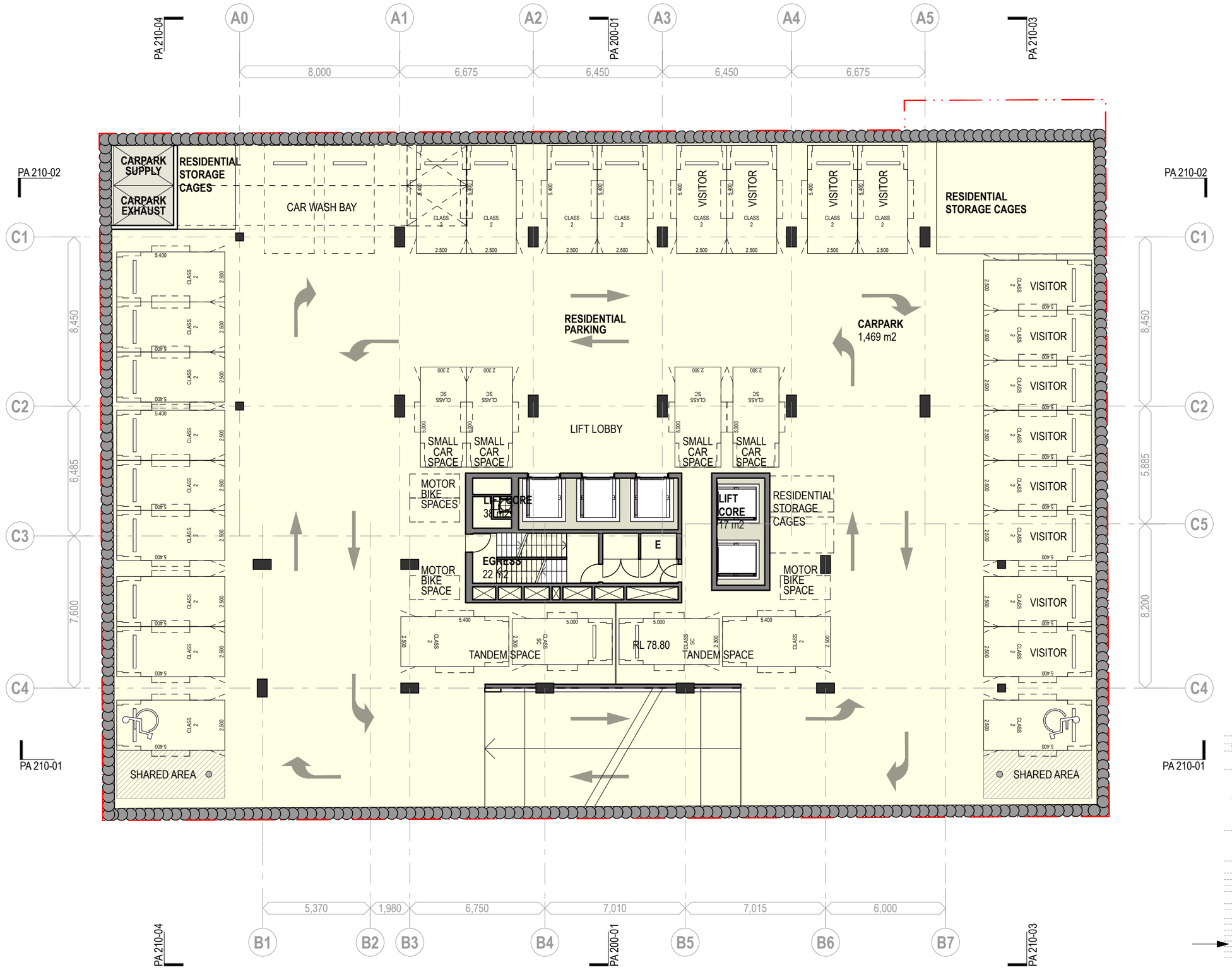
Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

0 2 5 10m

1:200 @ A3

APRIL 2011

PA-100-16



fjmt
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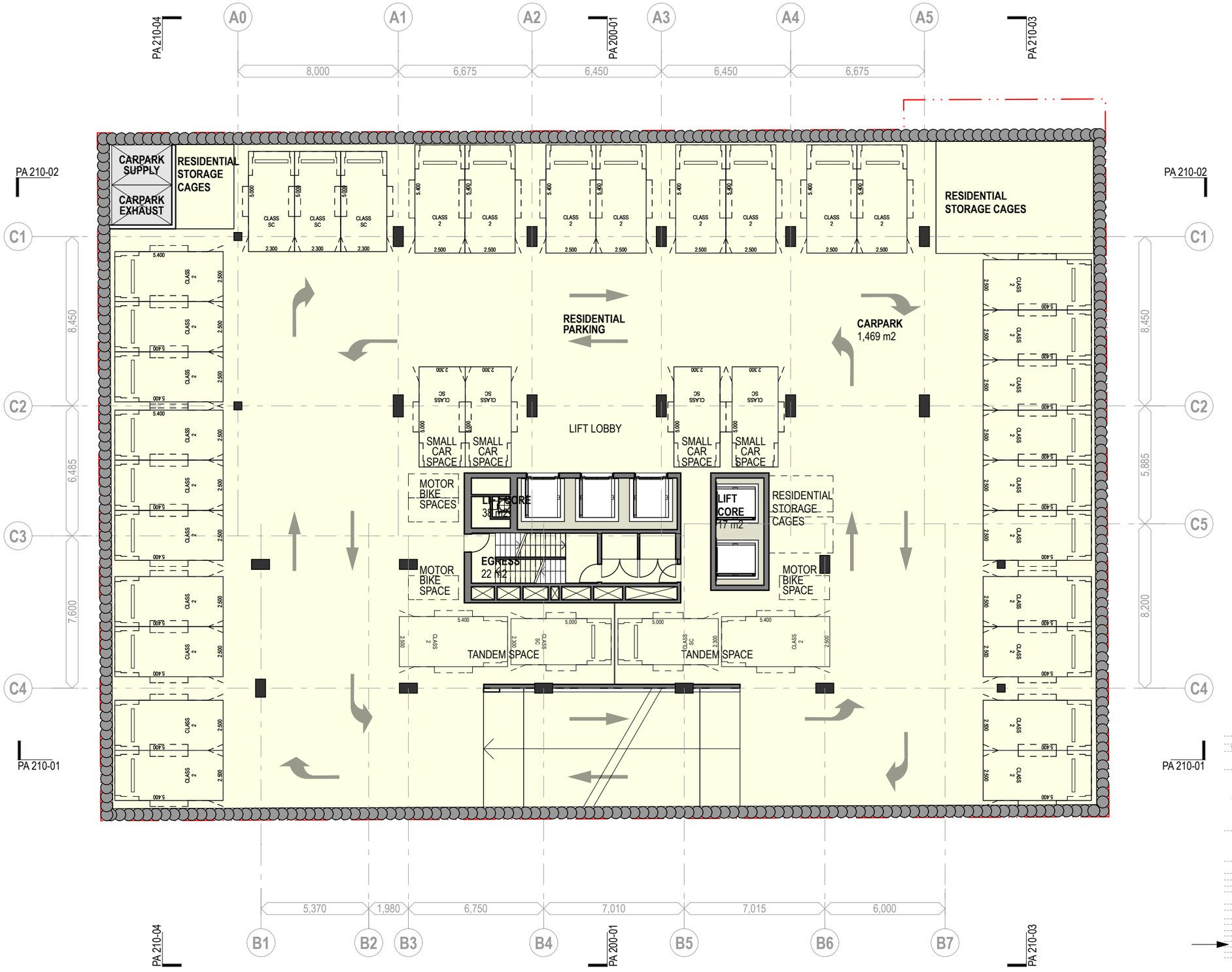
Basement Level B2

0 2 5 10m

1:200 @ A3

APRIL 2011



fjmt
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Basement Typical Levels B3-B5

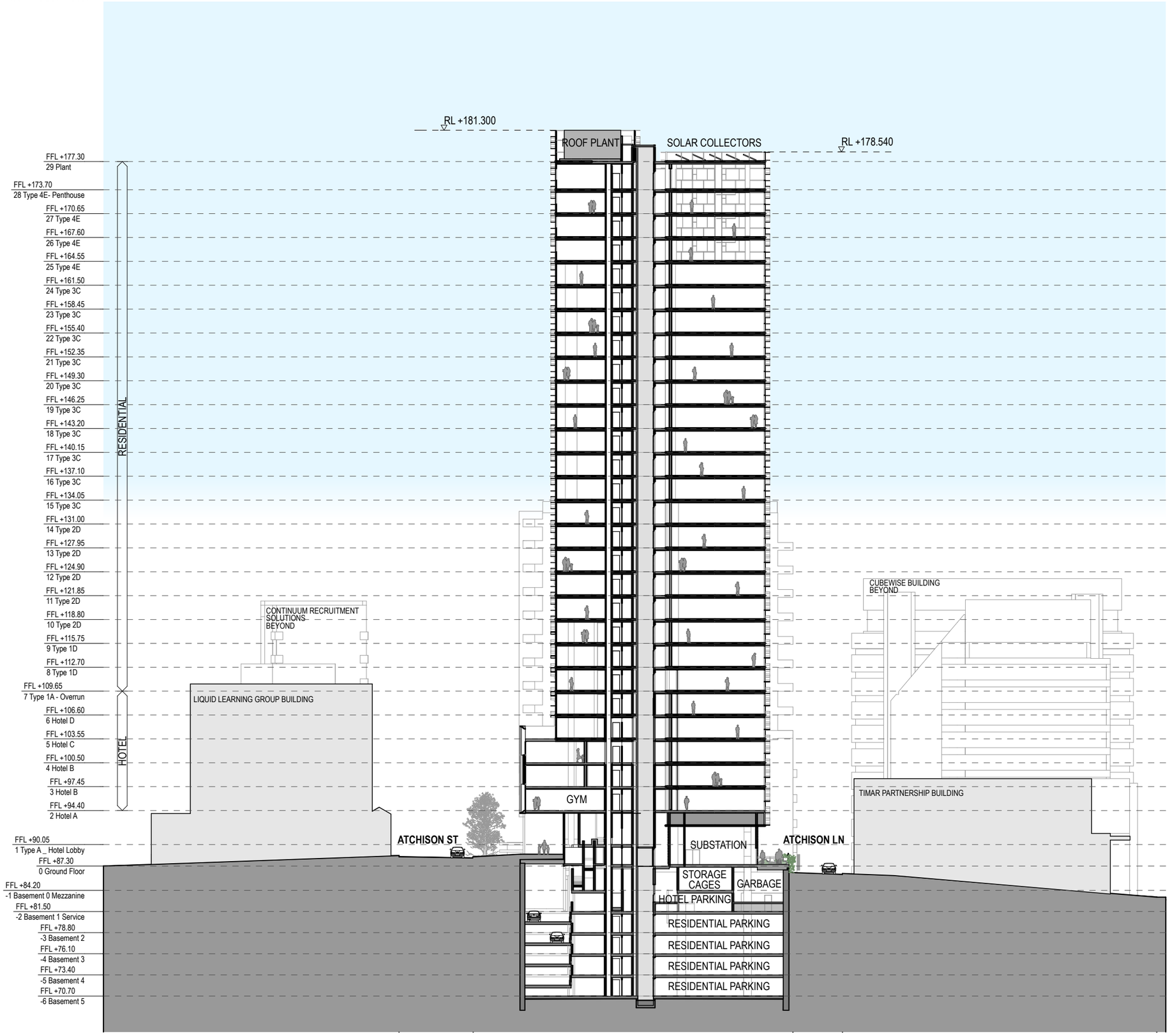
Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

0 2 5 10m

1:200 @ A3

APRIL 2011

PA-100-18



North-South Section

0 5 10 20m

1:500 @ A3

APRIL 2011

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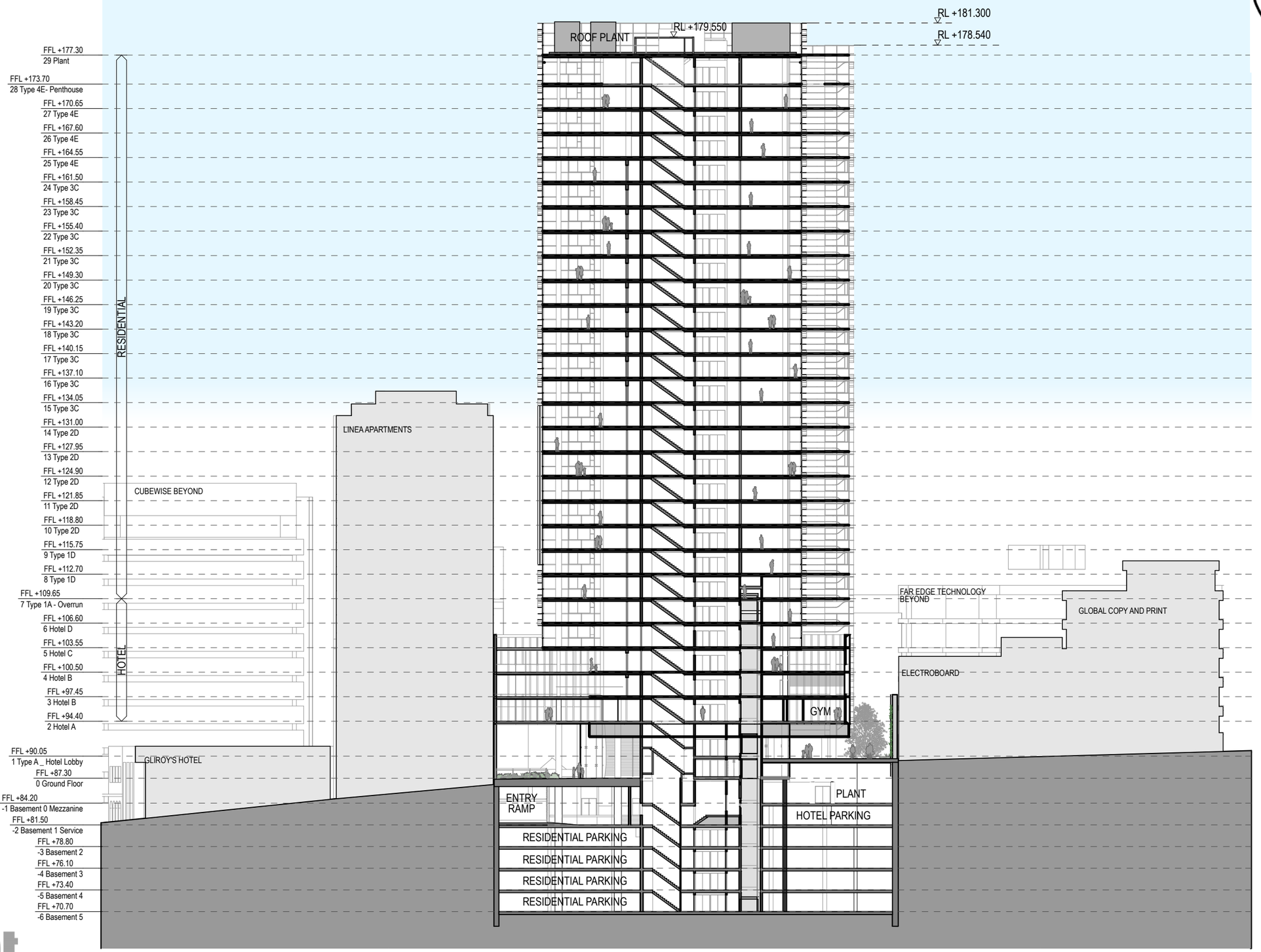
Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

PA-200-01



East-West Section

0 5 10 20m

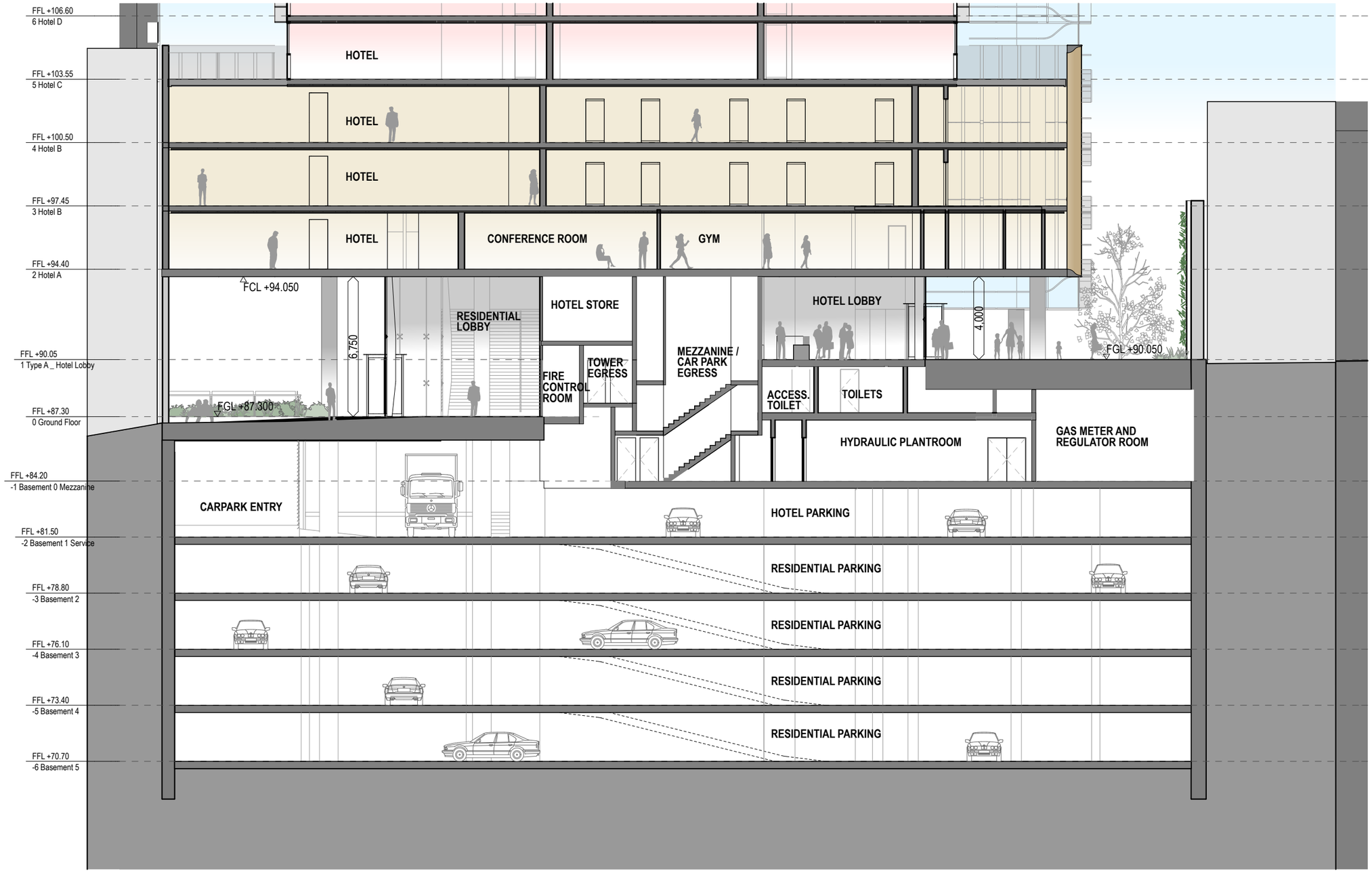
1:500 @ A3

APRIL 2011

fjmt
francis-jones morehen thorp

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

PA-200-02



fjmt
francis-jones morehen thorp

Podium Atchison St EW

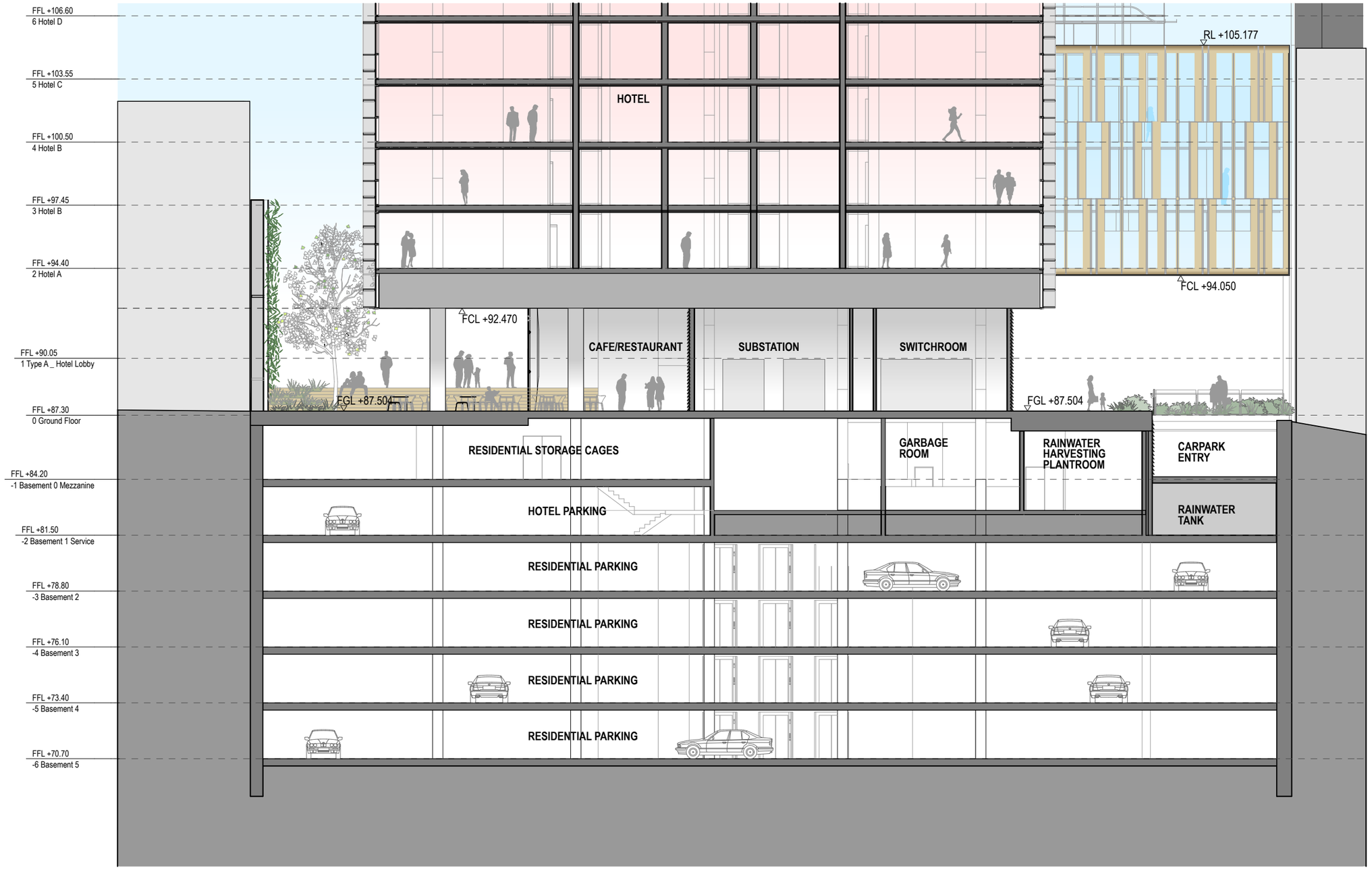
Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

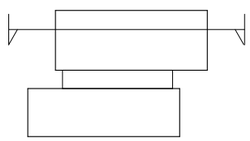
0 2 5 10m

1:200 @ A3

APRIL 2011

PA-210-01





0 2 5 10m

1:200 @ A3

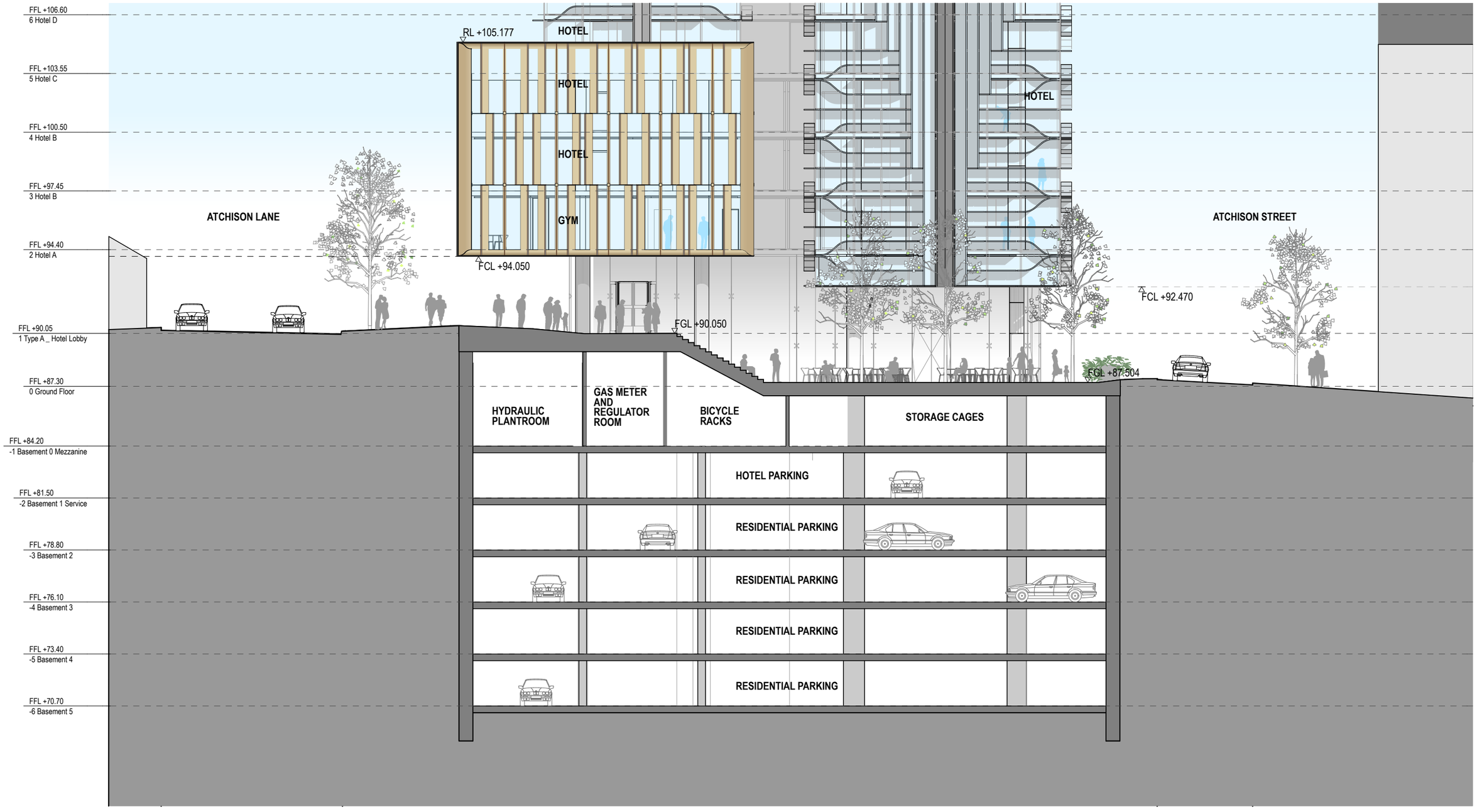
APRIL 2011

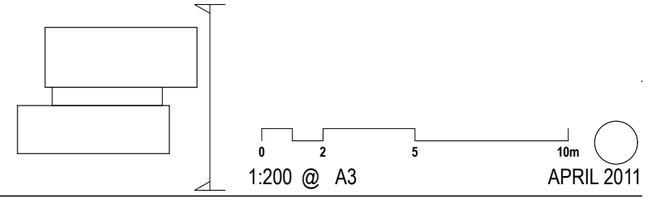
fjmt
francis-jones morehen thorp

Podium Atchison Lane EW

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

PA-210-02





1:200 @ A3

APRIL 2011

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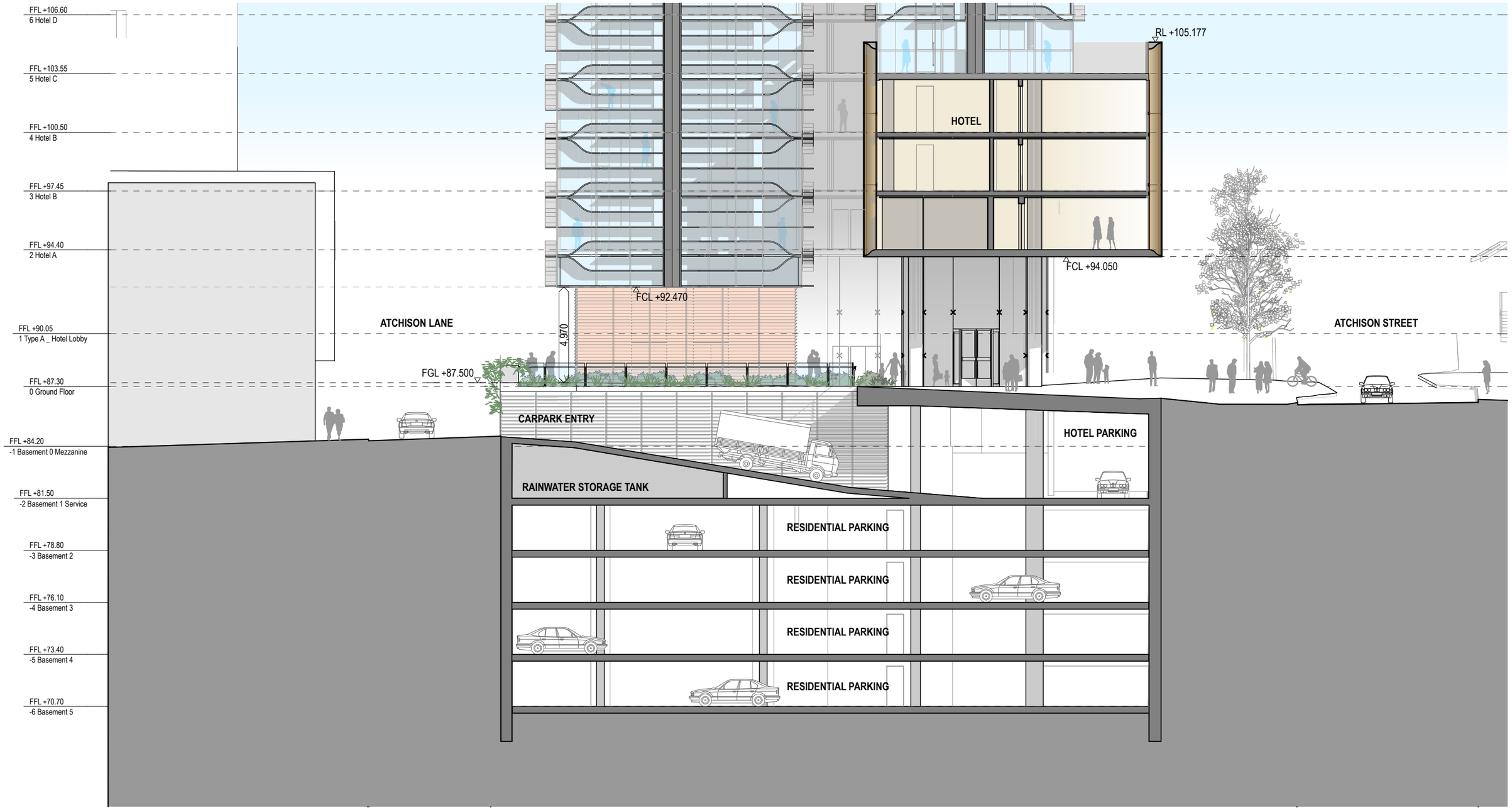
Public Domain Cafe NS

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

PA-210-03



fjmt
francis-jones morehen thorp

Public Domain Carpark NS

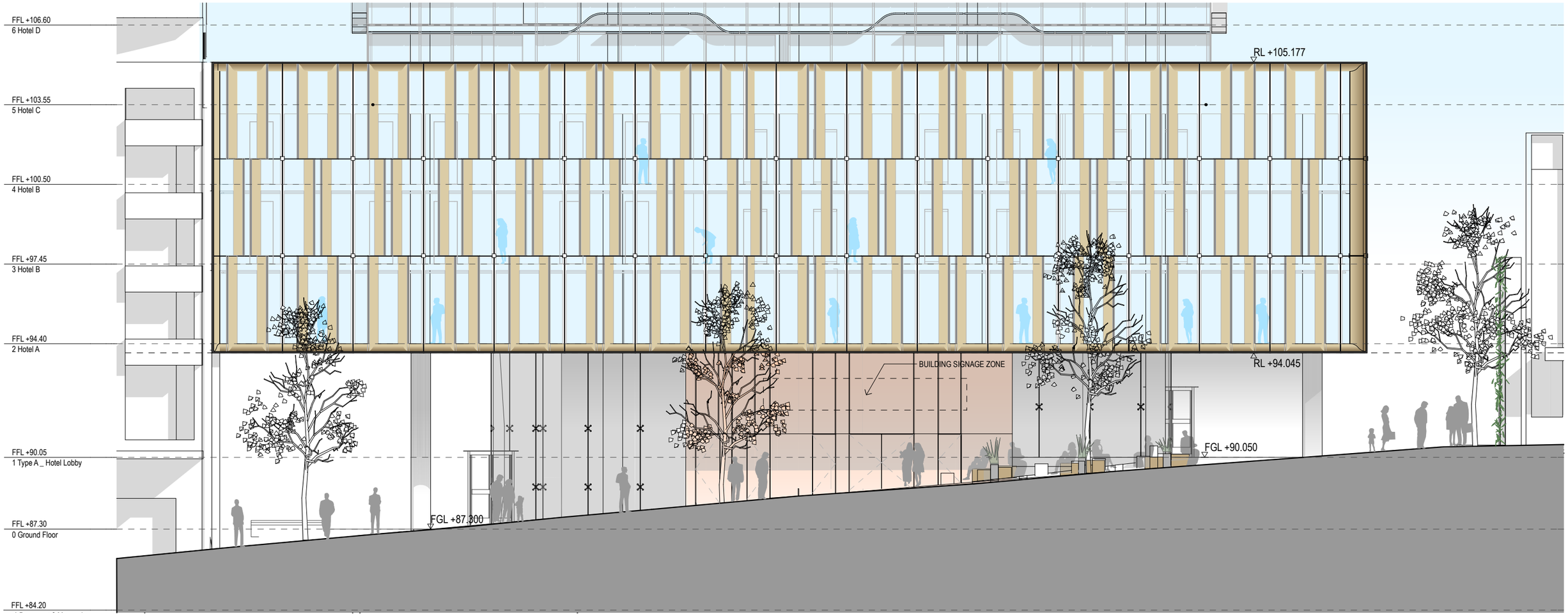
Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

0 2 5 10m

1:200 @ A3

APRIL 2011

PA-210-04



fjmt
francis-jones morehen thorp

Public Domain Atchison Street Elevation

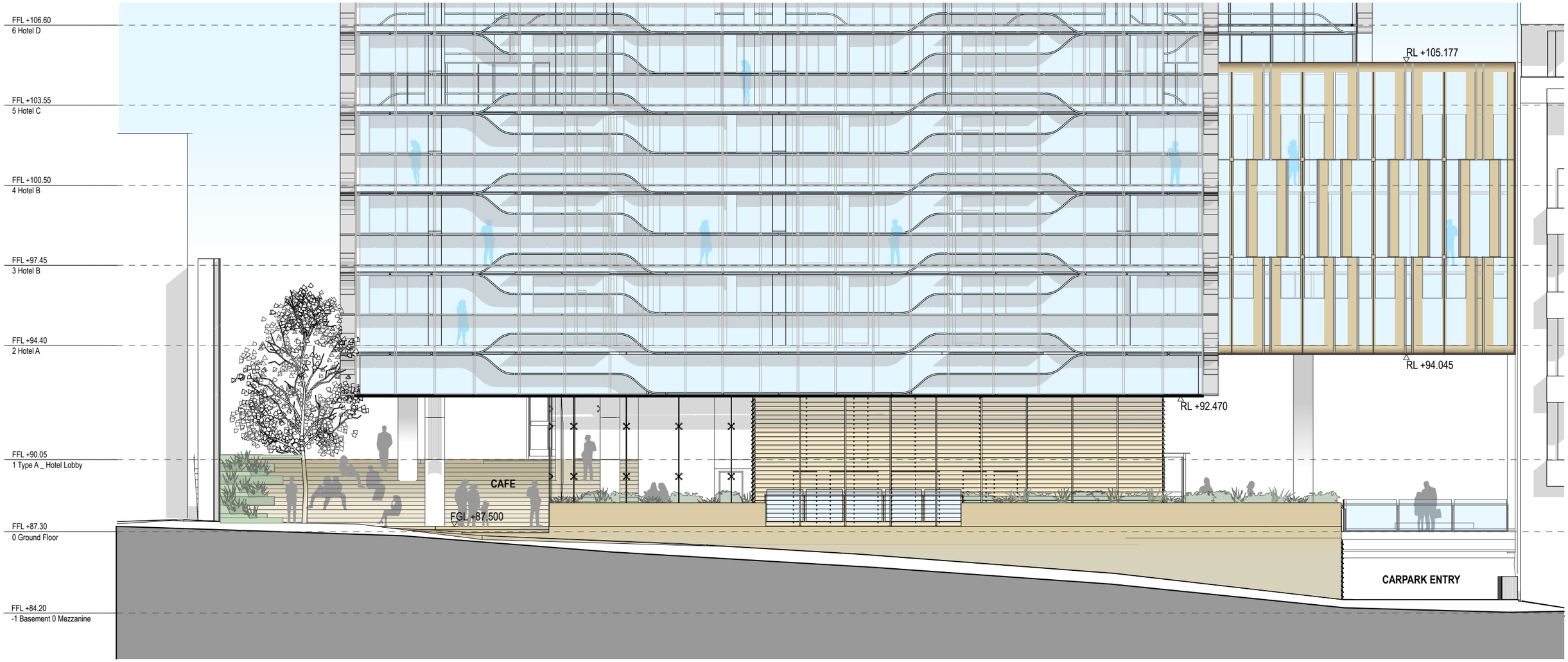
Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

0 2 5 10m

1:200 @ A3

APRIL 2011

PA-210-05



fjmt
francis-jones morehen thorp

Public Domain Atchison Lane Elevation

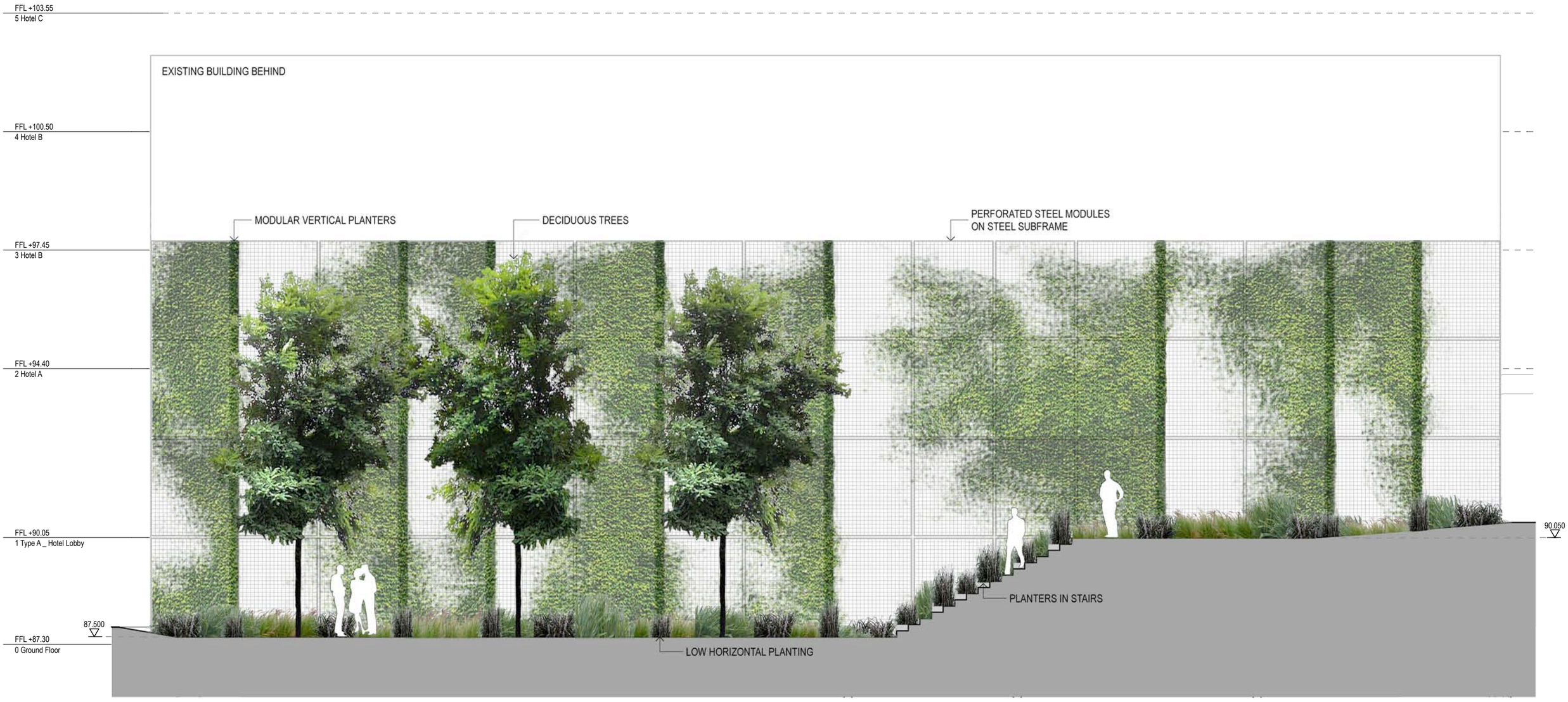
Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

0 2 5 10m

1:200 @ A3

APRIL 2011

PA-210-06



fjmt
francis-jones morehen thorp

Green Wall Elevation

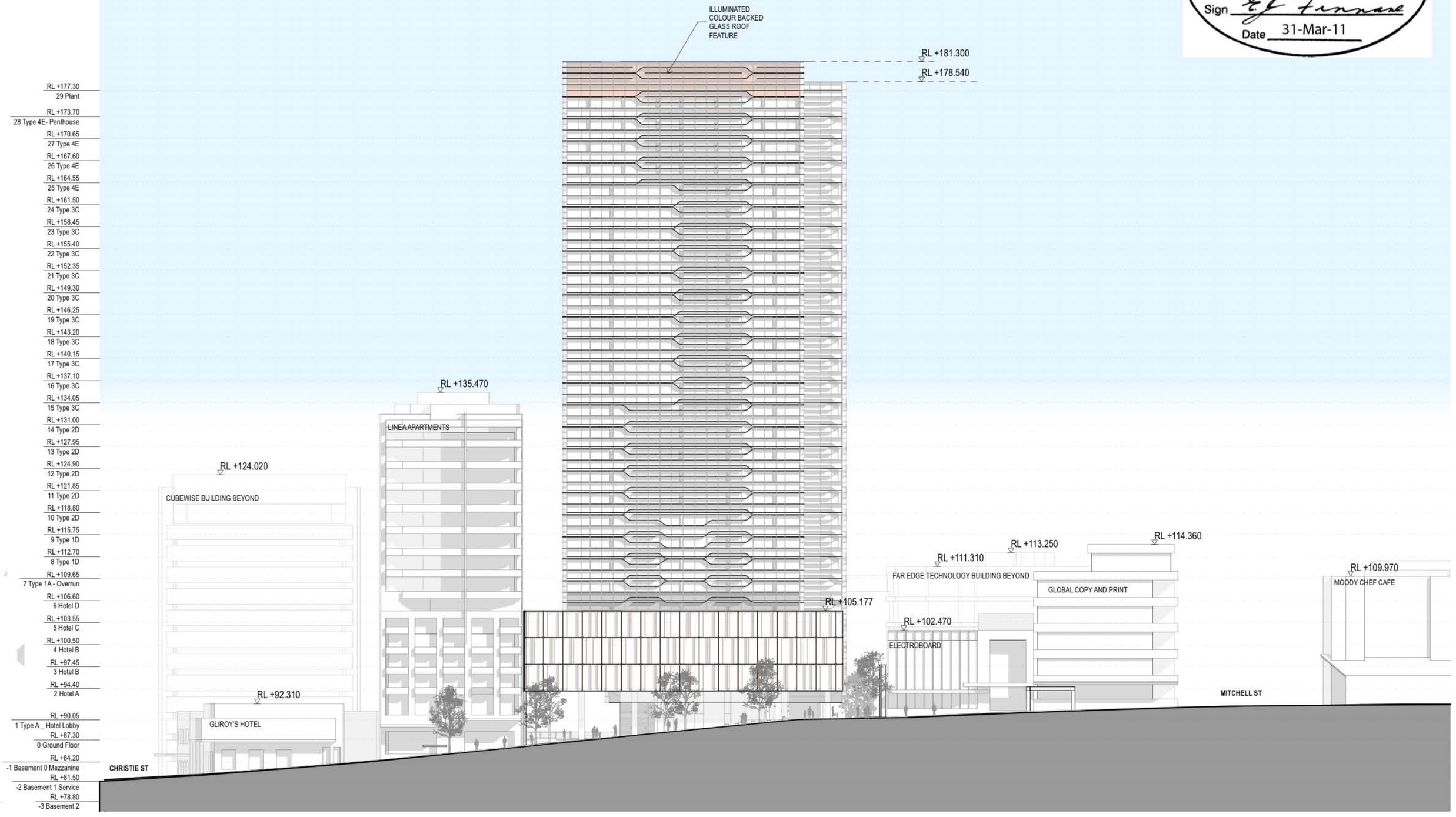
0 2 5 10m

1:200 @ A3

APRIL 2011

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

PA-210-07



fjmt
francis-jones morehen thorp

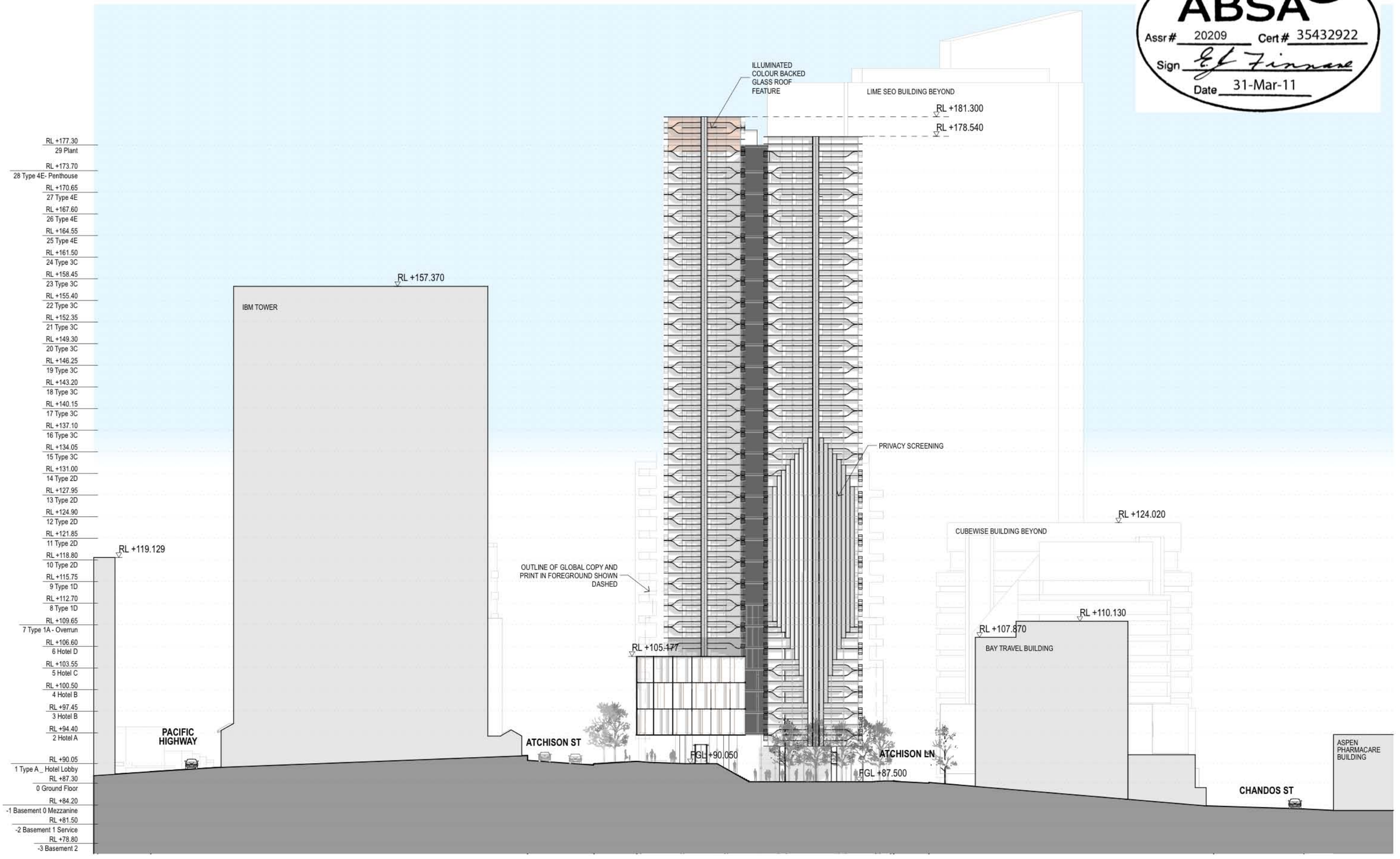
South Elevation

0 5 10 20m
1:500 @ A3

APRIL 2011

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

PA-300-03



fjmt
francis-jones morehen thorp

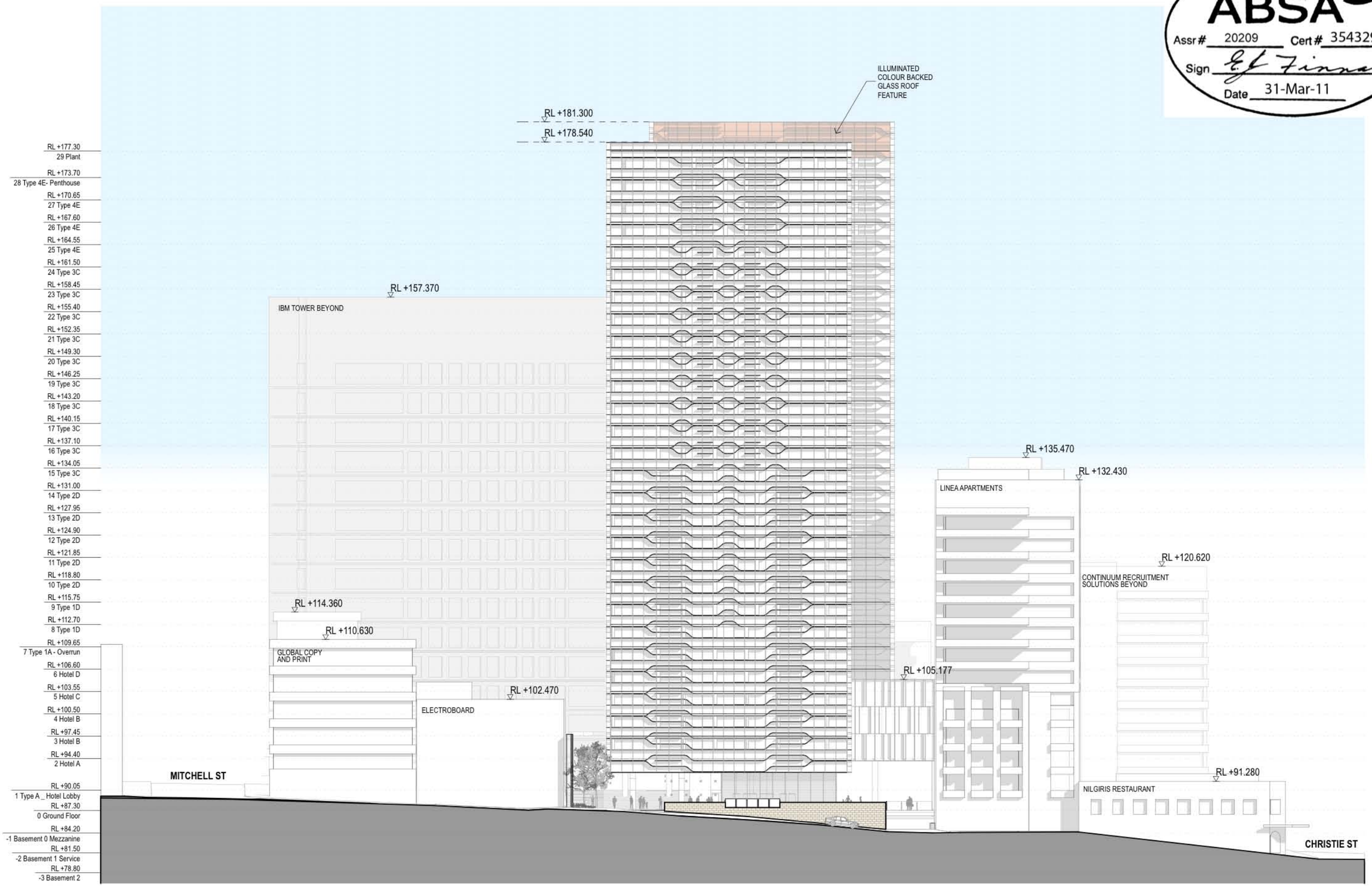
East Elevation

0 5 10 20m
1:500 @ A3

APRIL 2011

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

PA-300-02



fjmt
francis-jones morehen thorp

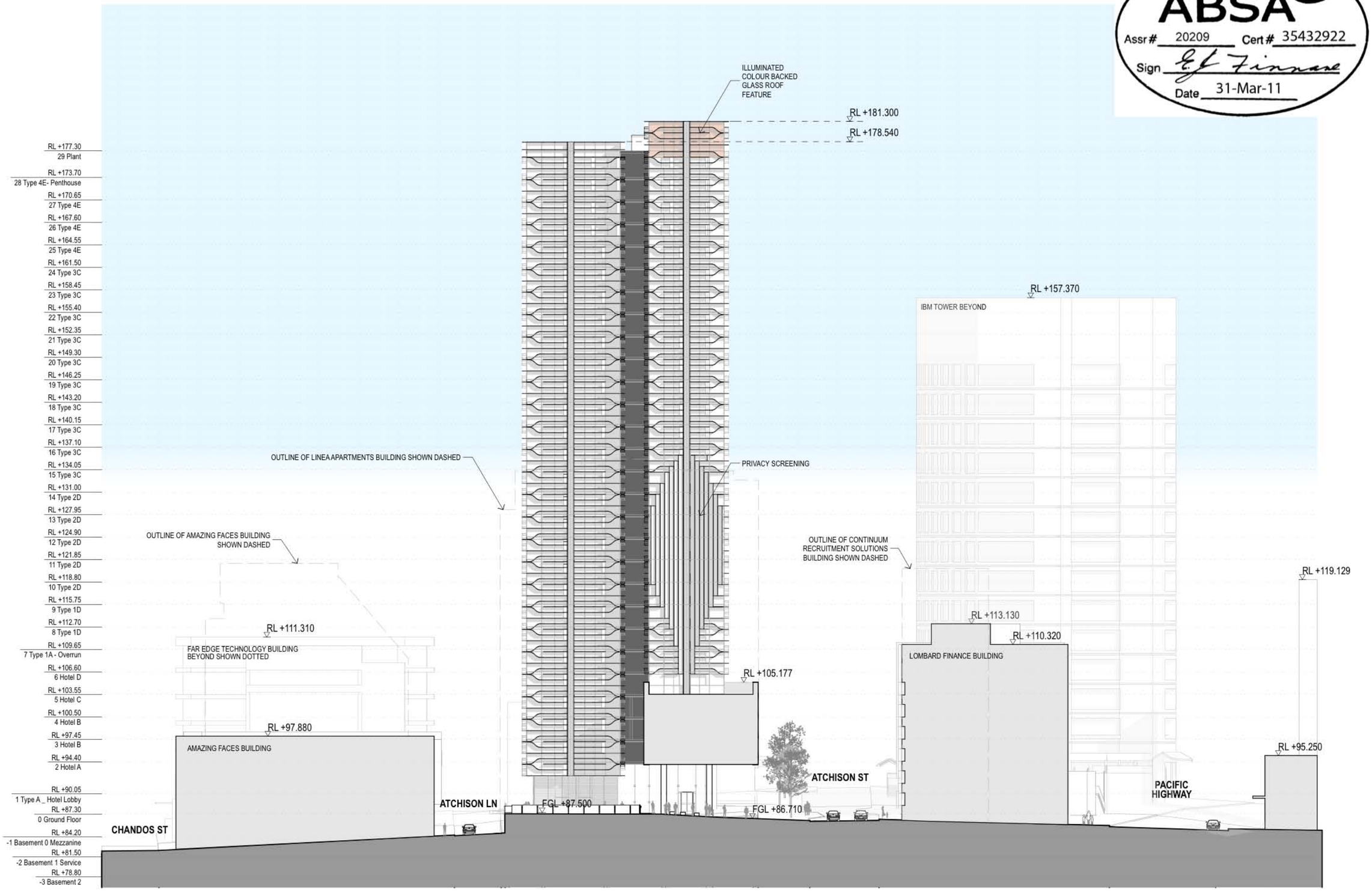
North Elevation

0 5 10 20m
1:500 @ A3

APRIL 2011

Proposed Mixed Use Redevelopment - 6-16 Atchison St, St Leonards

PA-300-01



fjmt
francis-jones morehen thorp

West Elevation

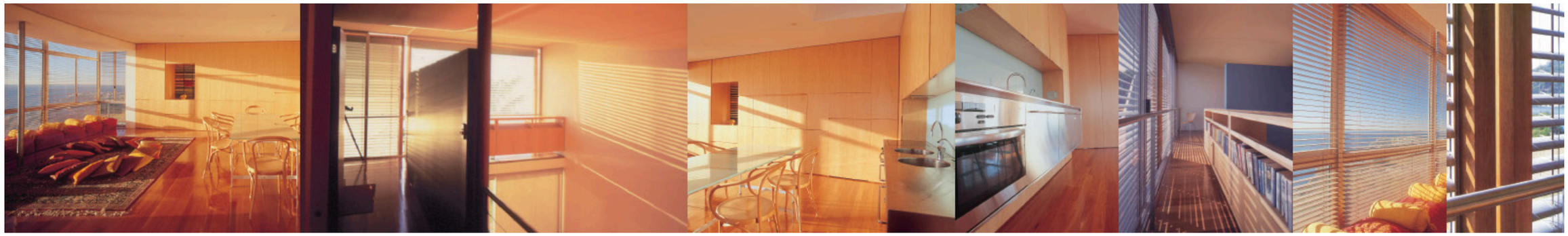
0 5 10 20m
1:500 @ A3

APRIL 2011

15. FINISHES SCHEDULE

	ITEM	FINISH
PUBLIC DOMAIN		
	EXTERNAL GROUND	PRECAST CONCRETE PAVERS
	STAIRS	PRECAST CONCRETE PAVERS WITH TIMBER INFIL
	SOFFIT	PRODEMA AND ALPOLIC
	BALUSTRADE	LAMINATED AND TOUGHENED GLASS
	COLUMNS	OFF FORM CONCRETE FINISH WITH SNOW WHITE TINT
RESIDENTIAL LOBBY		
	INTERNAL FLOORING	STONE TILES
	FAÇADE	TOUGHENED MONOLITHIC FRAMLESS STRUCTURAL GLASS WALL
	INTERNAL WALLS	CHINESE BLACK BASALT, 20MM
	CEILINGS	ALPOLIC
	ENTRY DOORS	REVOLVING GLASS DOOR
	COLUMNS	OFF FORM CONCRETE FINISH WITH SNOW WHITE TINT
HOTEL LOBBY		
	INTERNAL FLOORING	STONE TILES
	FAÇADE	TOUGHENED MONOLITHIC FRAMLESS STRUCTURAL GLASS WALL
	INTERNAL WALLS	ALUMINIUM LOUVRE FEATURE WALL
	CEILINGS	ALPOLIC
	DOORS	REVOLVING GLASS DOOR
	COLUMNS	OFF FORM CONCRETE FINISH WITH SNOW WHITE TINT
CAFÉ		
	INTERNAL FLOORING	PRECAST CONCRETE PAVERS
	EXTERNAL FLOORING	PRECAST CONCRETE PAVERS
	FAÇADE	TOUGHENED MONOLITHIC FRAMLESS STRUCTURAL GLASS WALL
	INTERNAL WALLS	ALUMINIUM LOUVRE FEATURE WALL
	CEILINGS	ALPOLIC
	DOORS	FRAMELESS GLASS PIVOT DOORS
	COLUMNS	OFF FORM CONCRETE FINISH
POOL AND GYM		
POOL AND GYM	**INTERNAL FLOORING**	MOISTURE RESISTANT CARPET
	WALLS	PAINTED PLASTERBOARD
	FAÇADE	TOUGHENED MONOLITHIC FRAMLESS STRUCTURAL GLASS WALL AND TIMBER FEATURE PANELS
	COLUMNS	OFF FORM CONCRETE FINISH WITH SNOW WHITE TINT
CHANGE ROOMS	**INTERNAL FLOORING**	CERAMIC TILING TYPE 3
	WALLS	CERAMIC TILING TYPE 3
	CEILINGS	PAINTED PLASTERBOARD
	DOORS	SOLID CORE WITH PAINT FINISH
	CUBICLE PARTITIONS	TYPICAL LAMINATED
HOTEL		
GENERAL:	**PARTITION WALLS**	PAINTED PLASTERBOARD, 100MM
	INTERTENANCY WALLS	PAINTED GYPROCK STRATA WALL
	SKIRTING	INTEGRATED 'MODULINE' DATA/POWER SKIRTING
	CEILINGS	PAINTED ACOUSTIC RATED PLASTERBOARD
	BLINDS	ROLLER BLIND- 'SILENT GLISS' OR SIMILAR DOUBLE SIDED FABRIC
	FAÇADE	GLASS CURTAIN WALL
	SUN SHADING	ALUMINIUM SHADE SCREENS
	COLUMNS	OFF FORM CONCRETE FINISH
LIVING SPACES	**FLOORING**	CARPET TYPE 1
	DOORS	HOLLOW CORE WITH PAINT FINISH
KITCHEN	**FLOORING**	CERAMIC TILING TYPE 1
BEDROOM	**FLOORING**	CARPET TYPE 1
	DOORS	HOLLOW CORE WITH PAINT FINISH
BATHROOM	**FLOORING**	CERAMIC TILING TYPE 2
	DOORS	HOLLOW CORE WITH PAINT FINISH
LAUNDRY	**FLOORING**	CERAMIC TILING TYPE 2
	DOORS	BIFOLD WITH PAINT FINISH
	SPLASHBACK	CERAMIC TILING TYPE 2
WINTERGARDEN	**DOORS**	ALUMINIUM FRAME SLIDING
	FLOORING	STONE PAVING TYPE 1
	CEILING	PAINTED PLASTERBOARD
RESIDENTIAL		
GENERAL:	**PARTITION WALLS**	PAINTED PLASTERBOARD, 100MM
	INTERTENANCY WALLS	PAINTED GYPROCK STRATA WALL
	SKIRTING	INTEGRATED MDF FLUSH SKIRTING
	CEILINGS	PAINTED ACOUSTIC RATED PLASTERBOARD
	BLINDS	ROLLER BLIND- 'SILENT GLISS' OR SIMILAR DOUBLE SIDED FABRIC
	FAÇADE	GLASS CURTAIN WALL
	SUN SHADING	ALUMINIUM SHADE SCREENS
	COLUMNS	OFF FORM CONCRETE FINISH
LIVING SPACES	**FLOORING**	CARPET TYPE 1
	DOORS	HOLLOW CORE WITH PAINT FINISH
KITCHEN	**FLOORING**	CERAMIC TILING TYPE 1
BEDROOM	**FLOORING**	CARPET TYPE 1

PLANT ROOF		
	INTERNAL FLOORING	EXPOSED CONRETE
	WALLS	EXPOSED CONCRETE/MASONRY
GF PLANT ROOM		
	INTERNAL FLOORING	CONRETE
	WALLS	EXPOSED CONCRETE/MASONRY
	SUBSTATION EXTERNAL WALLS	ALUMINIUM LOUVRES
	SUBSTATION EXTERNAL DOORS	ALUMINIUM LOUVRED DOOR
	CEILINGS	EXPOSED CONCRETE
	DOORS	SOLID CORE WITH PAINT FINISH
BASEMENT PLANT ROOM		
	INTERNAL FLOORING	CONRETE
	WALLS	EXPOSED CONCRETE/MASONRY
	CEILINGS	EXPOSED CONCRETE
	DOORS	SOLID CORE WITH PAINT FINISH
LIFT CAR		
	FLOOR	STONE TILING
	WALLS	MIRROR
	CEILING	STAINLESS STEEL WITH INTEGRATED LIGHTS



16. PROPOSED DEVELOPMENT ANALYSIS

LEVEL DESCRIPTION	NUMBER OF LEVELS	FLOOR TO FLOOR HEIGHT	APARTMENT TYPE OR BUILDING USE PER LEVEL	ROOM NUMBER	APARTMENT TYPE OR BUILDING USE	APARTMENT INTERNAL AREA (UFA)	WINTER GARDEN (UFA)	TOTAL UFA	NSC "NON" GFA Space	NSC GFA Space (From inside face of facade)	GBA (From outside face of façade)	EFFICIENCY (UFA/GFA)	**SEPP65 Natural Ventilation 60%**	SEPP65 Natural Ventillation 60% Including wide frontage	**SEPP65 Natural Daylight Hours 70%**
Typ. Basement	**4**	**2700**	**0**			**0**	**0**	**0**	**6905**	**0**	**6905**	**0%**	NOT APPLICABLE		
Level B2-B5				B2-B5	CARPARK				1469		1469				
				B2-B5	EGRESS				22		22				
				B2-B5	HOTEL LIFTS				17		17				
				B2-B5	MECHANICAL				14		14				
				B2-B5	RESIDENTIAL LIFTS				32		32				
				B2-B5	Common Risers				16		16				
				B2-B5	STORAGE				56		56				
				B2-B5	BASEMENT WALLS				100		100				
	FLOOR TOTAL					*0*	*0*		*1726*	*0*	*1726*				
Basement -1	**1**	**2700**	**0**			**0**	**0**	**0**	**1599**	**0**	**1599**	**0%**	NOT APPLICABLE		
Level B1				B1	Circulation				98		98				
				B1	GARBAGE ROOM				143		143				
				B1	GREASE ARRESTOR				39		39				
				B1	HOT WATER PLANT				28		28				
				B1	HOTEL LIFTS				17		17				
				B1	LOADING ZONE				32		32				
				B1	MECHANICAL				38		38				
				B1	Parking				1049		1049				
				B1	RAINWATER				23		23				
				B1	RESIDENTAIL LIFTS				32		32				
				B1	Common Risers				16		16				
				B1	BASEMENT WALLS				100		100				
	FLOOR TOTAL					*0*	*0*		*1599*	*0*	*1599*				
Basement Mezz	**0.5**	**3100**	**0**			**0**	**0**	**0**	**477**	**0**	**477**	**0%**	NOT APPLICABLE		
Level BM				BM	Circulation				104		104				
				BM	LIFTS				17		17				
				BM	LIFTS				32		32				
				BM	PLANT				32		32				
				BM	STORAGE				95		95				
				BM	PLANT				155		155				
				BM	STORAGE				46		46				
				BM	Common Risers				13		13				
				BM	STORAGE				359		359				
				BM	BASEMENT WALLS				100		100				
	FLOOR TOTAL					*0*	*0*		*955*	*0*	*955*				
Lower Ground	**1**	**6250**	**0**			**339**	**0**	**339**	**256**	**339**	**595**	**34%**	NOT APPLICABLE		
Level 0				GF1	CAFE	238		238		237.7	238				
				GF1	EGRESS			0	57	0.0	57				
				GF1	FIRE SERVICES			0	17	0.0	17				
				GF1	HOTEL LIFTS			0	17	0.0	17				
				GF1	RESIDENTIAL LIFTS			0	32	0.0	32				
				GF1	RESIDENTIAL LOBBY	101		101		101.2	101				
				GF1	Common Risers			0	14	0.0	14				
				GF1	SUB-STATIONS			0	85	0.0	85				
				GF1	SWITCHROOM			0	33	0.0	33				
	FLOOR TOTAL					*339*	*0*	*339*	*256*	*339*	*595*				
Upper Ground	**1**	**3050**	**0**			**77**	**0**	**77**	**82**	**77**	**159**	**77%**	NOT APPLICABLE		
Level 1				GF2	CIRCULATION			0	17	0.0	17				
				GF2	HOTEL LIFTS			0	17	0.0	17				
				GF2	HOTEL LOBBY	77		77		77.4	77				
				GF2	RESIDENTIAL LIFTS			0	32	0.0	32				
				GF2	Common Risers			0	16	0.0	16				
	FLOOR TOTAL					*77*	*0*	*77*	*82*	*77*	*159*				
Hotel Level A	**1**	**3050**	**12**		**Studio / 1-Bed**	**804**	**23**	**827**	**86**	**1024**	**1110**	**81%**			
Level 2	North Tower		1	H1.1AN-1B1-NW	Hotel 1 Bed Type 1	57	7	64		64	64				
			1	H1.1AN-1B2-NE	Hotel 1 Bed Type 2	56	7	63		63	63				
			1	H1.1AN-ST2-N1	Hotel Studio Type 2	46	0	46		46	46				
			1	H1.1AN-ST3-N	Hotel Studio Type 3	36	9	45		45	45				
			1	H1.1AN-ST2-N2	Hotel Studio Type 2	46	0	46		46	46				

LEVEL DESCRIPTION	NUMBER OF LEVELS	FLOOR TO FLOOR HEIGHT	APARTMENT TYPE OR BUILDING USE PER LEVEL	ROOM NUMBER	APARTMENT TYPE OR BUILDING USE	APARTMENT INTERNAL AREA (UFA)	WINTER GARDEN (UFA)	TOTAL UFA	NSC "NON" GFA Space	NSC GFA Space (From inside face of facade)	GBA (From outside face of façade)	EFFICIENCY (UFA/GFA)	**SEPP65 Natural Ventillation 60%**	SEPP65 Natural Ventillation 60% including wide frontage	**SEPP65 Natural Daylight Hours 70%**
			1	H1.1AN-ST1-SW	Hotel Studio Type 1	42		42		42	42		NOT APPLICABLE		
			1	H1.1AN-ST4-SE	Hotel Studio Type 4	47		47		47	47				
				H1.1AN	Service Risers North			0	8	0	8				
	South Tower		1	H1.1AS-ST5-SW1	Hotel Studio Type 5	33		33		33	33				
			1	H1.1AS-ST5-SW2	Hotel Studio Type 5	22		22		22	22				
			1	H1.1AS-ST5-SW3	Hotel Studio Type 5	22		22		22	22				
			1	H1.1AS-ST5-SW4	Hotel Studio Type 5	21		21		21	21				
			1	H1.1AS-1B3-NW	Hotel 1 Bed Type 3	51		51		51	51				
				H1.1AS	Service Risers South			0	4	0	4				
				H1.1A	Hotel Gym	222		222		222	222				
				H1.1A	Hotel Store 1			0	8	0	8				
				H1.1A	Conference Room incl' W/Cs and Store	102		102	0	102	102				
	Common Use			H1.1A	Residential Lifts			0	32	0	32				
				H1.1A	Hotel Lifts			0	17	0	17				
				H1.1A	Facade			0		62	62				
				H1.1A	Circulation			0		136	136				
				H1.1A	Common Risers			0	16	0	16				
	FLOOR TOTAL		12			*804*	*23*	*827*	*86*	*1024*	*1110*				
Hotel Level B	**2**	**3050**	**42**		**Studio / 1-Bed**	**1535**	**46**	**1581**	**211**	**1994**	**2205**	**79%**			
Level 3-4	North Tower		1	H1.2AN-1B1-NW	Hotel 1 Bed Type 1	57	7	64		64	64		NOT APPLICABLE		
			1	H1.2AN-1B2-NE	Hotel 1 Bed Type 2	56	7	63		63	63				
			1	H1.2AN-ST2-N1	Hotel Studio Type 2	46		46		46	46				
			1	H1.2AN-ST3-N	Hotel Studio Type 3	36	9	45		45	45				
			1	H1.2AN-ST2-N2	Hotel Studio Type 2	46		46		46	46				
			1	H1.2AN-ST1-SW	Hotel Studio Type 1	42		42		42	42				
			1	H1.2AN-ST4-SE	Hotel Studio Type 4	47		47		47	47				
				H1.2AN	Service Risers North			0	8	0	8				
	South Tower		1	H1.2AS-1B3-N	Hotel 1 Bed Type 3	42		42		42	42				
			1	H1.2AS-1B4-NE	Hotel 1 Bed Type 4	49		49		49	49				
			1	H1.2AS-1B5-SE	Hotel 1 Bed Type 5	48		48		48	48				
			1	H1.2AS-2B1-NW	Hotel 2 Bed Type 1	55		55		55	55				
			1	H1.2AS-ST5-SW1	Hotel Studio Type 5	33		33		33	33				
			1	H1.2AS-ST5-SW2	Hotel Studio Type 5	22		22		22	22				
			1	H1.2AS-ST5-SW3	Hotel Studio Type 5	21		21		21	21				
			1	H1.2AS-ST5-SW4	Hotel Studio Type 5	22		22		22	22				
			1	H1.2AS-ST5-SW5	Hotel Studio Type 5	21		21		21	21				
			1	H1.2AS-ST6-S1	Hotel Studio Type 6	24		24		24	24				
			1	H1.2AS-ST6-S2	Hotel Studio Type 6	25		25		25	25				
			1	H1.2AS-ST6-S3	Hotel Studio Type 6	24		24		24	24				
			1	H1.2AS-ST6-S4	Hotel Studio Type 6	24		24		24	24				
			1	H1.2AS-ST6-S5	Hotel Studio Type 6	25		25		25	25				
				H1.2A	Hotel Store 1	0		0	23	0	23				
				H1.2AS	Service Risers South			0	10	0	10				
	Common Use			H1.2A	RESIDENTIAL LIFTS			0	32	0	32				
				H1.2A	HOTEL LIFTS			0	17	0	17				
				H1.2A	Facade			0		62	62				
				H1.2A	CIRCULATION			0		145	145				
				H1.2A	Common Risers			0	15	0	15				
	FLOOR TOTAL		21			*767*	*23*	*790*	*105*	*997*	*1103*				
Hotel Level C and D	**2**	**3050**	**22**		**Studio / 1-Bed**	**1062**	**93**	**1156**	**226**	**1349**	**1576**	**86%**			
Level 5-6	North Tower		1	H1AN-1B1-NW	Hotel 1 Bed Type 1	57	7	64		64	64		NOT APPLICABLE		
			1	H1AN-1B2-NE	Hotel 1 Bed Type 2	56	7	63		63	63				
			1	H1AN-ST2-N1	Hotel Studio Type 2	46		46		46	46				
			1	H1AN-ST3-N	Hotel Studio Type 3	36	9	45		45	45				
			1	H1AN-ST2-N2	Hotel Studio Type 2	46		46		46	46				
			1	H1AN-ST1-SW	Hotel Studio Type 1	42		42		42	42				
			1	H1AN-ST4-SE	Hotel Studio Type 4	47		47		47	47				
				H1AN	Service Risers North			0	8	0	8				
	South Tower		1	H1AS-1B3-NW	Hotel 1 Bed Type 3	45	6	51		51	51				
			1	H1AS-1B4-SW	Hotel 1 Bed Type 4	59	6	65		65	65				
			1	H1AS-1B5-S	Hotel 1 Bed Type 5	54	7	61		61	61				

LEVEL DESCRIPTION	NUMBER OF LEVELS	FLOOR TO FLOOR HEIGHT	APARTMENT TYPE OR BUILDING USE PER LEVEL	ROOM NUMBER	APARTMENT TYPE OR BUILDING USE	APARTMENT INTERNAL AREA (UFA)	WINTER GARDEN (UFA)	TOTAL UFA	NSC "NON" GFA Space	NSC GFA Space (From inside face of facade)	GBA (From outside face of façade)	EFFICIENCY (UFA/GFA)	**SEPP65 Natural Ventillation 60%**	SEPP65 Natural Ventillation 60% Including wide frontage	**SEPP65 Natural Daylight Hours 70%**
			1	H1AS-ST5-SE	Hotel Studio Type 5	43	4	47		47	47				
				H1A	Hotel Store 1				34	0	34				
				H1AS	Service Risers South				7	0	7				
	Common Use			H1A	RESIDENTIAL LIFTS				32	0	32				
				H1A	HOTEL LIFTS				17	0	17				
				H1A	Facade					5	5				
				H1A	CIRCULATION					92	92				
				H1A	Common Risers				15	0	15				
	FLOOR TOTAL		11			*531*	*47*	*578*	*113*	*675*	*788*				
Type 1A Floor (O/Run)	**1**	**3050**	**12**		**Studio / 1-Bed**	**530.76**	**76.82**	**607.58**	**83.43**	**704.5**	**787.93**	**86%**	**75%**	**100%**	**100%**
	North Tower	7	1	1AON-1B1-NW	1 Bed Type 1	57	7	64		64	64		1	1	1
			1	1AON-1B2-NE	1 Bed Type 2	56	7	63		63	63		1	1	1
			1	1AON-ST2-N1	Studio Type 2	36	9	45		45	45		0	1	1
			1	1AON-ST3-N	Studio Type 3	36	9	45		45	45		0	1	1
			1	1AON-ST2-N2	Studio Type 2	36	9	45		45	45		0	1	1
			1	1AON-ST1-SW	Studio Type 1	36	6	42		42	42		1	1	1
			1	1AON-ST4-SE	Studio Type 4	40	6	46		46	46		1	1	1
				1AON	Service Risers North				10	0	10				
	South Tower	5	1	1AOS-1B3-NW	1 Bed Type 3	45	6	51		51	51		1	1	1
			1	1AOS-1B4-SW	1 Bed Type 4	58	6	64		64	64		1	1	1
			1	1AOS-1B5-S	1 Bed Type 5	54	7	61		61	61		1	1	1
			1	1AOS-ST5-NE	Studio Type 5	34		34		34	34		1	1	1
			1	1AOS-ST6-SE	Studio Type 6	43	4	47		47	47		1	1	1
				1AOS	Service Risers South				9	0	9				
	Common Use			1AO	RESIDENTIAL LIFTS				32	0	32				
				1AO	HOTEL LIFTS				17	0	17				
				1AO	Facade					5	5				
				1AO	CIRCULATION					92	92				
				1AO	Common Risers				15	0	15				
	FLOOR TOTAL		12			*531*	*77*	*608*	*83*	*705*	*788*		*9*	*12*	*12*
Type 1D Floors	**2**	**3050**	**22**		**Studio / 1-Bed**	**1108**	**144**	**1252**	**134**	**1411**	**1545**	**89%**	**73%**	**100%**	**100%**
	North Tower	12	1	1DN-1B1-NW	1 Bed Type 1	57	7	64		64	64		1	1	1
			1	1DN-1B3-NE	1 Bed Type 3	56	7	63		63	63		1	1	1
			1	1DN-1B2-N1	1 Bed Type 2	61	9	70		70	70		0	1	1
			1	1DN-1B2-N2	1 Bed Type 2	61	9	70		70	70		0	1	1
			1	1DN-ST1-SW	Studio Type 1	36	6	42		42	42		1	1	1
			1	1DN-ST2-SE	Studio Type 2	40	6	46		46	46		1	1	1
				1DN	Service Risers North				12	0	12				
	South Tower	10	1	1DS-1B4-NW	1 Bed Type 4	45	6	51		51	51		1	1	1
			1	1DS-1B5-SW	1 Bed Type 5	58	6	64		49	49		1	1	1
			1	1DS-1B6-S	1 Bed Type 6	54	7	61		61	61		0	1	1
			1	1DS-ST3-NE	Studio Type 3	44	5	49		49	49		1	1	1
			1	1DS-ST4-SE	Studio Type 4	43	4	48		48	48		1	1	1
				1DS	Service Risers South				8	0	8				
	Common Use			1D	RESIDENTIAL LIFTS				32	0	32				
				1D	Facade					5	5				
				1D	CIRCULATION					90	90				
				1D	Common Risers				15	0	15				
	FLOOR TOTAL		11			*554*	*72*	*626*	*67*	*706*	*773*		*8*	*11*	*11*
Type 2D Floors	**5**	**3050**	**50**		**Studio/1-Bed / 2-Bed**	**2762**	**394**	**3155**	**344**	**3610**	**3954**	**87%**	**80%**	**100%**	**100%**
	North Tower	30	1	2DN-1B1-NW	1 Bed Type 1	57	7	64		64	64		1	1	1
			1	2DN-1B3-NE	1 Bed Type 3	56	7	63		63	63		1	1	1
			1	2DN-1B2-N1	1 Bed Type 2	61	9	70		70	70		0	1	1
			1	2DN-1B2-N2	1 Bed Type 2	61	9	70		70	70		0	1	1
			1	2DN-ST1-SW	Studio Type 1	36	6	42		42	42		1	1	1
			1	2DN-ST2-SE	Studio Type 2	40	6	46		46	46		1	1	1
				2DN	Service Risers North				12	0	12				
	South Tower	20	1	2DS-1B4-NW	1 Bed Type 4	45	10	55		55	55		1	1	1
			1	2DS-2B1-SW	2 Bed Type 1	76	10	86		86	86		1	1	1
			1	2DS-2B2-SE	2 Bed Type 2	79	10	89		89	89		1	1	1
			1	2DS-ST3-NE	Studio Type 3	42	5	47		47	47		1	1	1
				2DS	Service Risers South				10	0	10				
	Common Use			2D	RESIDENTIAL LIFTS				32	0	32				

LEVEL DESCRIPTION	NUMBER OF LEVELS	FLOOR TO FLOOR HEIGHT	APARTMENT TYPE OR BUILDING USE PER LEVEL	ROOM NUMBER	APARTMENT TYPE OR BUILDING USE	APARTMENT INTERNAL AREA (UFA)	WINTER GARDEN (UFA)	TOTAL UFA	NSC "NON" GFA Space	NSC GFA Space (From inside face of facade)	GBA (From outside face of façade)	EFFICIENCY (UFA/GFA)	**SEPP65 Natural Ventillation 60%**	SEPP65 Natural Ventillation 60% Including wide frontage	**SEPP65 Natural Daylight Hours 70%**
				2D	Facade					5	5				
				2D	CIRCULATION					86	86				
				2D	Common Risers					0	15				
	FLOOR TOTAL		10			*552*	*79*	*631*	*69*	*722*	*791*		*8*	*10*	*10*
Type 3C Floors	**10**	**3050**	**70**		**1-Bed / 2-Bed**	**5803.9**	**670.6**	**6474.5**	**686.2**	**7344.1**	**8030.3**	**88%**	**71%**	**100%**	**100%**
	North Tower	40	1	3CN-1B1-N1	1 Bed Type 1	60	9	69		69	69		0	1	1
			1	3CN-1B1-N2	1 Bed Type 1	60	9	69		69	69		0	1	1
			1	3CN-2B1-NW	2 Bed Type 1	104	10	114		114	114		1	1	1
			1	3CN-2B2-NE	2 Bed Type 2	103	10	113		113	113		1	1	1
				3CN	Service Risers North				14	0	14				
	South Tower	30	1	3CS-2B3-SW	2 Bed Type 3	101	9	110		110	110		1	1	1
			1	3CS-2B4-S	2 Bed Type 4	76	11	87		87	87		1	1	1
			1	3CS-2B5-SE	2 Bed Type 5	77	8	85		85	85		1	1	1
				3CS	Service Risers South				8	0	8				
	Common Use			3C	RESIDENTIAL LIFTS				32	0	32				
				3C	Facade					5	5				
				3C	CIRCULATION					82	82				
				3C	Common Risers				15	0	15				
	FLOOR TOTAL		7			*580*	*67*	*647*	*69*	*734*	*803*		*5*	*7*	*7*
Type 4E Floors	**3**	**3050**	**15**		**2-Bed / 3-Bed**	**1760**	**207**	**1967**	**207**	**2216**	**2423**	**89%**	**12**	**15**	**15**
	North Tower	9	1	4EN-2B1-N	2 Bed Type 1	82	12	95		95	95		0	1	1
			1	4EN-2B2-NE	2 Bed Type 2	103	10	113		113	113		1	1	1
			1	4EN-3B1-NW	3 Bed Type 1	142	20	162		162	162		1	1	1
				4EN	Service Risers North				12	0	12				
	South Tower	6	1	4ES-3B2-SW	3 Bed Type 2	131	15	146		146	146		1	1	1
			1	4ES-3B3-SE	3 Bed Type 3	128	11	139		139	139		1	1	1
				4ES	Service Risers South				10	0	10				
	Common Use			4E	RESIDENTIAL LIFTS				32	0	32				
				4E	Facade					6	6				
				4E	CIRCULATION					78	78				
				4E	Common Risers				15	0	15				
	FLOOR TOTAL		5			*587*	*69*	*656*	*69*	*739*	*808*		*4*	*5*	*5*
Type 4EP Penthouse	**1**	**3600**	**4**		**2-Bed / 3-Bed**	**599**	**70**	**669**	**61**	**751**	**812**	**89%**	**4**	**4**	**4**
	North Tower	2	1	4EPN-3B2-NE	3 Bed Penthouse 2	170	22	192		192	192		1	1	1
			1	4EPN-3B1-NW	3 Bed Penthouse 1	170	22	192		192	192		1	1	1
				4EPN	Service Risers North				4	0	4				
	South Tower	2	1	4EPS-3B4-SE	3 Bed Penthouse 4	128	11	139		139	139		1	1	1
			1	4EPS-3B3-SW	3 Bed Penthouse 3	131	15	146		146	146		1	1	1
				4EPS	Service Risers South				10	0	10				
	Common Use			4EP	RESIDENTIAL LIFTS				32		32				
				4EP	Façade					6	6				
				4EP	Circulation					76	76				
				4EP	Common Risers				15		15				
	FLOOR TOTAL		4			*599*	*70*	*669*	*61*	*751*	*812*		*4*	*4*	*4*
Roof Level	**1**	**4550**	**0**		**Plant and Equipment**	**0**	**0**	**0**	**805.84**	**0**	**805.84**	**0%**			
					Plant				805.84		806				
	FLOOR TOTAL					*0*	*0*		*806*	*0*	*806*