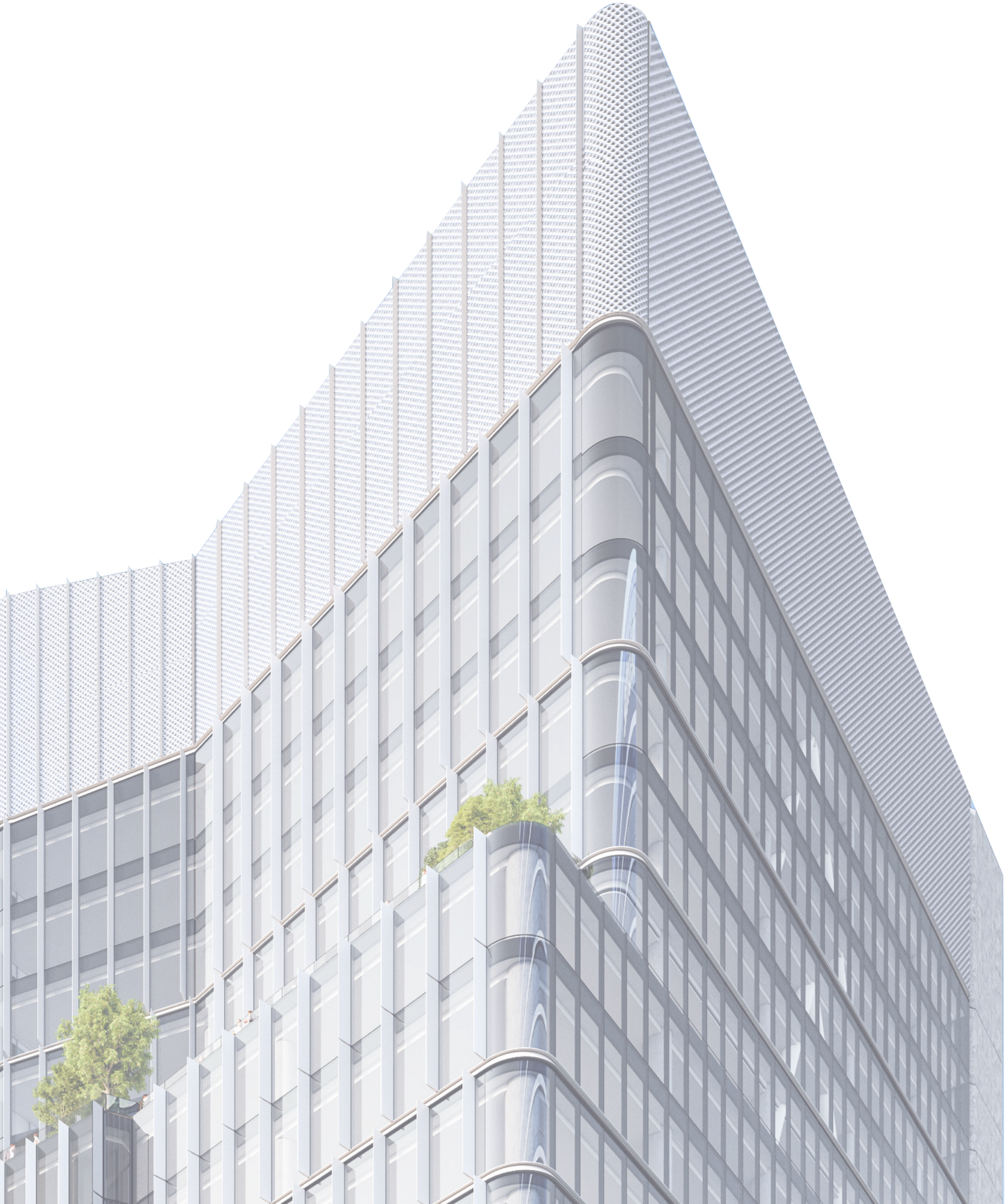


Tzannes + BlightRayner

SSDA
Design Report

2b-6 Hassall Street
Parramatta

Charter Hall

WESTERN SYDNEY UNIVERSITY

Prepared for

Charter Hall and Western Sydney University

May 2019

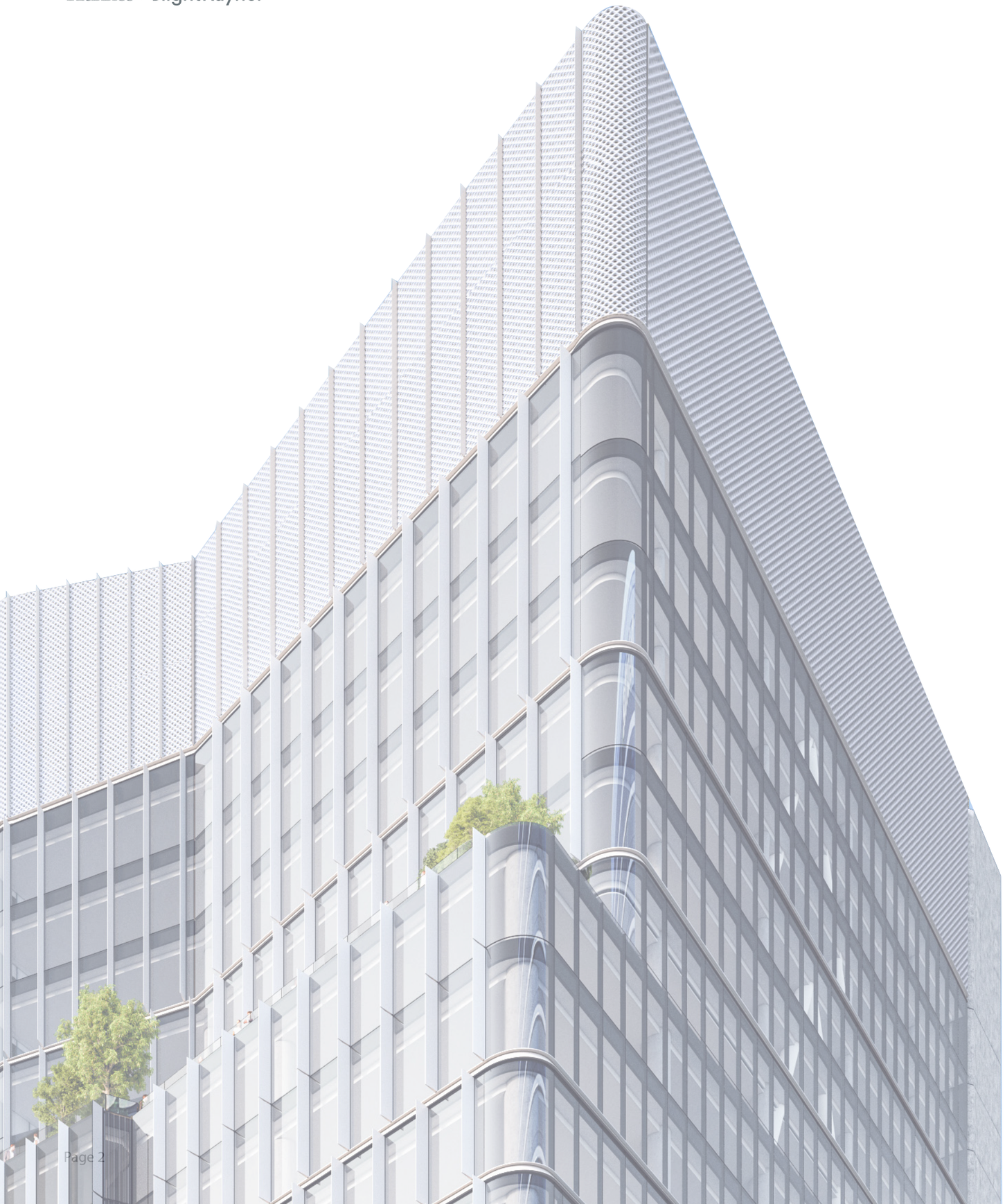


Table of Contents

Executive Summary

00

"An elegant & cohesive whole that conveys a spirit of engineering vitality..."

ARTIST'S IMPRESSION OF WESTERN FAÇADE

Executive Summary

Charter Hall's tower at 6 Hassall Street proposes to make an outstanding contribution to Parramatta's urban realm both in terms of its fit into the existing and emerging built fabric, and in terms of its public experience. The building will provide the University with a spatial configuration which maximises public engagement with engineering, and which inspires our engineers of the future and it will maximise efficiency of both mid-rise (university) and high-rise (workplace) floors to optimise flexibility over time and of the design as it progresses.

The development is anticipated to be approximately 30,440 m² Gross Floor Area (GFA) and will accommodate the following functions:

- Workplace
- Academic Faculty
- Student-led space (study spaces)
- Teaching rooms known as Centrally Allocated Teaching Spaces
- Retail
- End of Trip Facilities and general amenities
- Large external plaza space to allow for a future link through to Lancer Barracks

Our distribution of the briefed spaces allows the further carving out of the external envelope to open up the building to its context and to generate a tangible sense of turning it 'inside-out'. The eroded edges play beneficial roles in creating elevated outdoor learning and social spaces, extending gardens up from Lancer Barracks when it is re-purposed as public park spaces, and bringing daylight and outlook deep into the interior of the floors.

The project is a joint venture development with the Western Sydney University (WSU) in partnership with Charter Hall. Thought a design excellence competition process, Tzannes + Blight Rayner was selected as the joint architects on the project.

ARTIST'S IMPRESSION OF LOBBY

1.0 Introduction

01

1.1 Introduction

Western Sydney University (WSU) is embarking on a large-scale transformative program that will bring the highest quality educational opportunities and world-class research expertise to Western Sydney. The University is reshaping its network, to combine existing campuses with CBD vertical campuses and is committed to developing educational precincts that connect with and embed business, industry and community partners.

The University entered into a joint venture partnership with Charter Hall to deliver a mixed-use development on the site at 2b-6 Hassall Street, Parramatta, incorporating a new University facility. The University will establish a state-of the-art facility for engineering innovation and will offer programs across engineering, architecture and entrepreneurship with broader opportunity for additional programs offered by the School of Computing, Engineering and Mathematics (SCEM).

The strength of The University and Charter Hall's joint venture partnership is reflected in the success of the existing Parramatta City campus at 1 Parramatta Square which is approximately 250m to the north west of the site, a recognised benchmark for the proposed development. Furthermore, the development of the Building is in anticipation of the significant development activity forecast in Sydney and Western Sydney. This facility will provide the critical mass to attract funding and investment from government and industry in a key sector over the coming decades, anchoring a growing innovation and education precinct.

Tzannes and Blight Rayner's key objectives, in response to the brief from Charter Hall and WSU are:

- Make an outstanding contribution to Parramatta's urban realm both in terms of its fit into the existing and emerging built fabric, and in terms of its public experience.
- Provide the University with a spatial configuration that maximises public engagement with engineering, and which inspires our engineers of the future.
- Maximises efficiency of both mid-rise (university) and high-rise (workplace) floors to optimise flexibility over time and of the design as it progresses.

The proposed development is not that of an 'object icon' to stand out as a singular shape as this would convey the impression that engineering is not integral to society, which it is. However, our design is imbued with elements which are readily appreciated as making a mark of rare occurrence in educational and commercial architecture.

1.2 Objectives

The following objectives have been set for the project.

Create a built form which responds to the surrounding context

- Make an outstanding contribution to Parramatta's urban realm both in terms of its fit into the existing and emerging built fabric, and in terms of its public experience.
- Anchoring a dynamic education precinct as a gateway to surrounding primary, secondary and tertiary educational developments.
- Respecting the historic context by engaging with neighbouring heritage listed sites and buildings.

Create an open and connected public realm

- Introduce a new public plaza as a destination.
- Providing flexibility for future connection to Lancer Barracks to activate network of public spaces and wider educational precinct.
- Providing an engaging ground floor to showcase mixed public / student life and activate Hassall Street.
- Engaging the commercial hotel by extending retail experience into the ground floor.

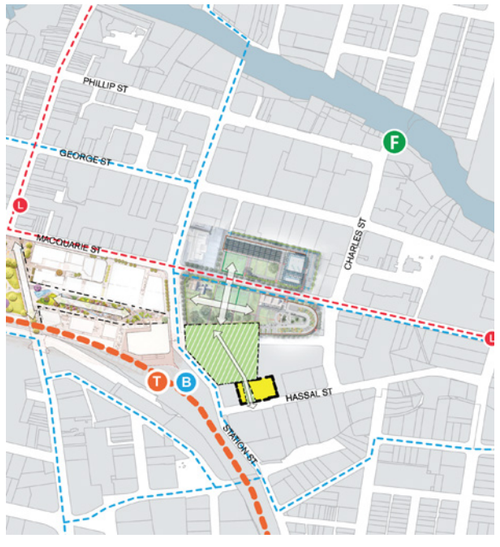
Create vibrant and active hubs where the campus community can study, live, work and innovate

- Provide the University with an open, welcoming and inviting spatial configuration which maximises public engagement with engineering to create an inclusive entry that cultivates interaction, collaboration and innovation.
- Maximises efficiency of both mid-rise (university) and high-rise (workplace) floors through careful services integration and realisation to optimise flexibility over time.
- Provide facilities to foster an active and vibrant community: retail, end-of-trip facilities, student-led spaces, teaching spaces (CATS), an innovation precinct and library.

1.3 Architectural Design Statement

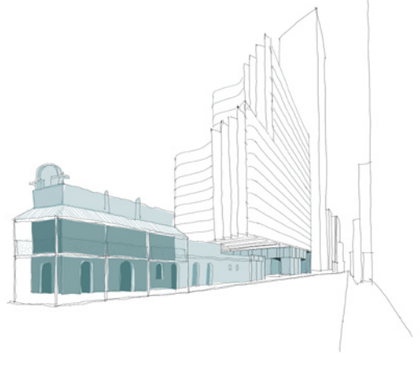
The following diagrams summarise the key principles that underpin the design.

They are first principle analysis of the immediate context and surrounding precinct. These include: anchoring a dynamic education precinct & networking public spaces, making a volumetric public experience, engaging the historic commercial hotel, minimising impacts on surrounding developments and conceptualizing the form as topographic.

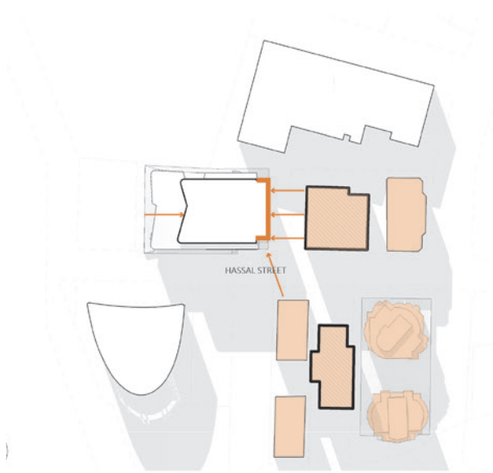


01 Anchoring a Dynamic Education Precinct & Networking Public Spaces

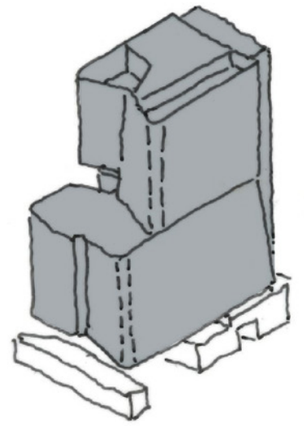
02 Making Volumetric Public Experience



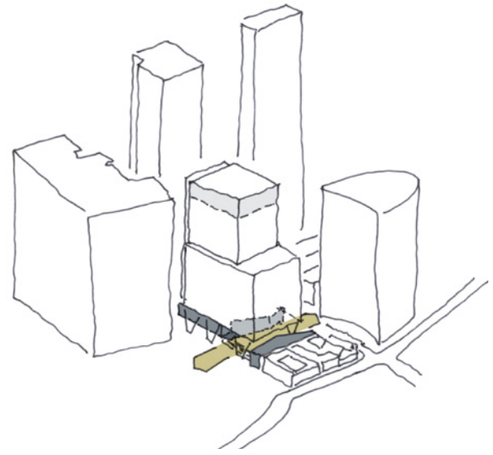
03 Engaging the Historic Commercial Hotel



04 Minimising Impacts



05 Conceptualizing the Form as Topographic



06 Furthering the Topographic Typology

1.4 Design Excellence

'Design Excellence' has been the primary goal of the design team and has been achieved through an intensive and rigorous design and critique process.

The 6 Hassall Street design team comprises Tzannes + Blight Rayner as joint architects, Solutions Consulting Australia as project manager, and a team of specialist consultants including structural, façade, ESD, traffic, visualisation, landscape, and services.

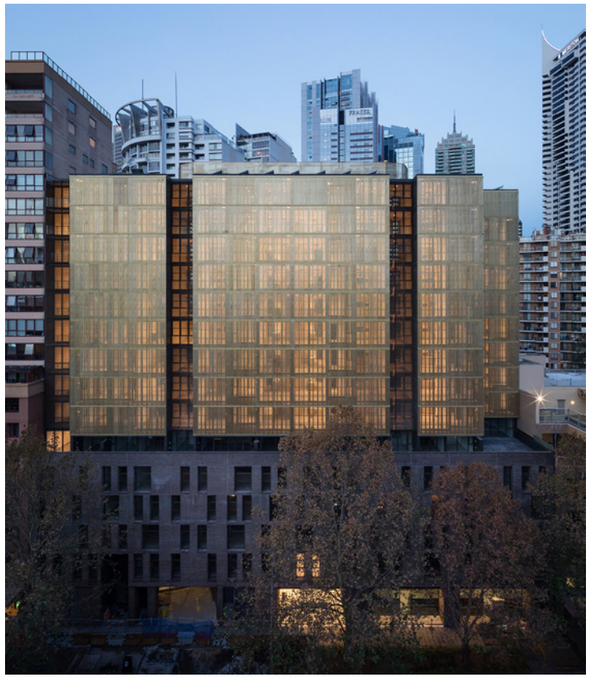
Blight Rayner is an integrated architecture, urban design and interior design practice, focused on the crafting of built environments – whether whole precincts, buildings, or the spaces within them. The practice was formed by Jayson Blight and Michael Rayner in 2016, following a collective three decades as directors of Cox Rayner Architects in Brisbane.

Tzannes is one of the most widely recognised and awarded architectural practices in Australia, combining a sophisticated understanding of urban design and architecture with a pragmatic, flexible and collaborative approach to the design process. Tzannes' 30 year track record of excellence in projects of all scales and typologies demonstrates a proven ability to design buildings of the highest quality. Tzannes are a respected advocate for the importance of good design in support of a 'better Sydney'.

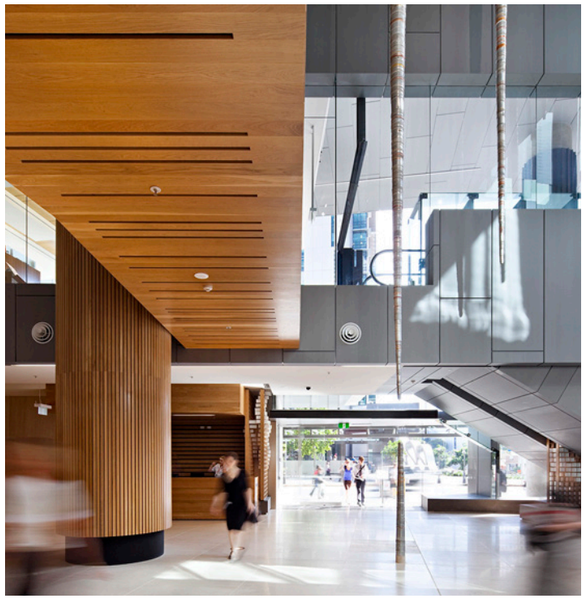
Blight Rayner, Tzannes, Charter Hall and WSU have met with the Design Competition Jury multiple times, integrating constructive feedback from the Jury while simultaneously developing the project with the consultant team.

Tzannes and Blight Rayner's directors have been involved at every step of the process, to ensure that the variety and depth of the practice's expertise and experience is applied to the design. This integrated approach is a holistic response to the design development and reinforces the integrity and philosophy of the project.

The proposal provides a distinctive, yet integrated built form which contributes positively to the immediate surroundings and Parramatta CBD in a larger extent it develops a sustainable, high quality educational and commercial building that will create not only positive teaching and learning environments as an educational building, but also provide flexible commercial spaces with high amenity.



DAY STREET APARTMENT. SYDNEY



400 GEORGE STREET BRISBANE

INTERNATIONAL HOUSE BARANGAROO. SYDNEY

111 EAGLE STREET BRISBANE

Jayson Blight was the Project Director for, and Michael Rayner was involved in the design of, 400 George Street and One One One Eagle Street when working at Cox Architecture t/a Cox Rayner.

1.5 Design Competition Process

- An architectural design competition was undertaken for the proposal between October and December 2018, in accordance with the requirements of the City of Parramatta Council and the Government Architect NSW.
- The Tzannes + Blight Rayner submission was selected as the winning design and was considered capable of achieving design excellence subject to specific recommendations of the Competition Jury.
- The final Design Competition Jury Report provided a number of design items which are required to be retained and items to be further resolved to ensure design excellence for the proposed development.
- A Design Integrity Panel was established to oversee the design development and documentation of the SSDA package in response to the Jury's recommendations.
- The Panel confirms that the detailed design of the proposed development, retains the design integrity of the competition scheme and is capable of being considered in a formal SSDA submission to the Department of Planning and Environment.
- Refer to Ethos Urban's Environmental Impact Statement and Appendices for full consideration of the design excellence process undertaken for the proposal.

COMPETITION SUMMARY

The following is an extract of the competition summary from the competition brief that was endorsed by NSW Government Architect in September 2018.

A full summary of the design review panel feedback and design integrity process is included in Section 5.0 of this report.

Site Address	2b-6 Hassall Street, Parramatta
Site Legal Description	Lot 22 in DP608861; Lot 62 in DP1006215; and Lot 7 in DP128820
Project Name	2b-6 Hassall Street, Parramatta
Competition Type	Invited Architectural Design Competition
Proponent	The Trust Company (Australia) Limited and Western Growth Developments (Innovation Hub Parramatta) Pty
Competition Manager	Daniel Howard, Senior Urbanist, Ethos Urban (02) 9956 6962 dhoward@ethosurban.com
Competition Co-ordinator	NSW Government Architect or their delegate
Architectural Design Competition Competitors	Architectus, Cox Architects, Woods Bagot and Tzannes + Blight Rayner
Technical Advisors	• Ethos Urban – Planning • WT Partnership – Quantity Surveying • AECOM – Structural Design • Weir Phillips – Heritage
Jury Members	• City of Parramatta Council - City Architect, Kim Crestani • NSW Government Architect - Acting Government Architect, Olivia Hyde • Chair of Architecture, WSU - Professor Chris Knap • City of Parramatta Council - to be confirmed • Proponent Nominee - to be confirmed
Site Area	2,647m^2
Maximum LEP 2011 FSR with bonus	11.5:1
Maximum GFA	30,440m^2 - 2% retail, target 440m^2 GFA - 50% educational (PCA A grade commercial), target 15,220m^2 GFA - 48% commercial office, target 14,780m^2 GFA
Maximum LEP 2011 Building Height	86 metres
Voluntary Planning Agreement?	No
Construction Budget	$107 million

2.0 Context

02

2.1 Site

The project site is located at 2b-6 Hassall Street, Parramatta within the City of Parramatta Local Government Area (LGA). The site is located at the eastern end of the Parramatta CBD and is in proximity to the Parramatta Railway Station and Transport Interchange (100m to the west) and the Parramatta Square urban renewal precinct (250m to the north west).

The site is located in proximity to a number of regionally significant facilities and amenities including the Parramatta Westfield Shopping Centre, the Western Sydney University (WSU) campus, the Council Civic building and Public Library as well as a range of other recreational services provided along the Parramatta River Foreshore. A location plan is provided at Figure 1.

The site is currently occupied by two existing buildings separated by a vacant lot in the centre of the site. The western lot contains a two storey commercial building with vehicle access from Hassall Street directed to an at grade car park at the rear of the site. The middle lot contains a vacant parcel of land that has previously contained a single residential dwelling that was demolished in 2011. The eastern lot contains a three storey walk up residential flat building.

The site is mapped as an area of high aboriginal sensitivity under the Parramatta Aboriginal Cultural Heritage Study Review. The Proponent is currently seeking authorised archaeological investigations and salvage of any artefacts and historical material that may be located within sub-surface areas of the site.

Overall, the locality surrounding the site is undergoing substantial change. This transition is in line with Council and the State Government's vision for Parramatta as Sydney's Central City. While the project wont have any immediate pedestrian connections, the design is future proofed to accommodate a connection to the Lancer Barracks in the event that one day this important heritage site is converted to allow public thoroughfare or use.

Site

01 Project Site
02 Parramatta Railway Station
03 Lancer barracks
04 Parramatta Square
05 Existing Arthur Phillip School
06 Parramatta Public School
07 Proposed Arthur Phillip school
08 WSU One Parramatta Square

Lot 22 in DP608861;

2 Hassall Street - 2 storey commercial building

Lot 62 in DP1006215;

4 Hassall Street - Vacant Lot

Lot 7 in DP128820.

6 Hassall Street - Three storey residential building

2.2 Photographic Survey

View 02 from the Corner of Smith and Macquarie Streets

View 03 from the Corner of Smith and Darcy Streets

View 04 from Station Street East

View from Parramatta Park

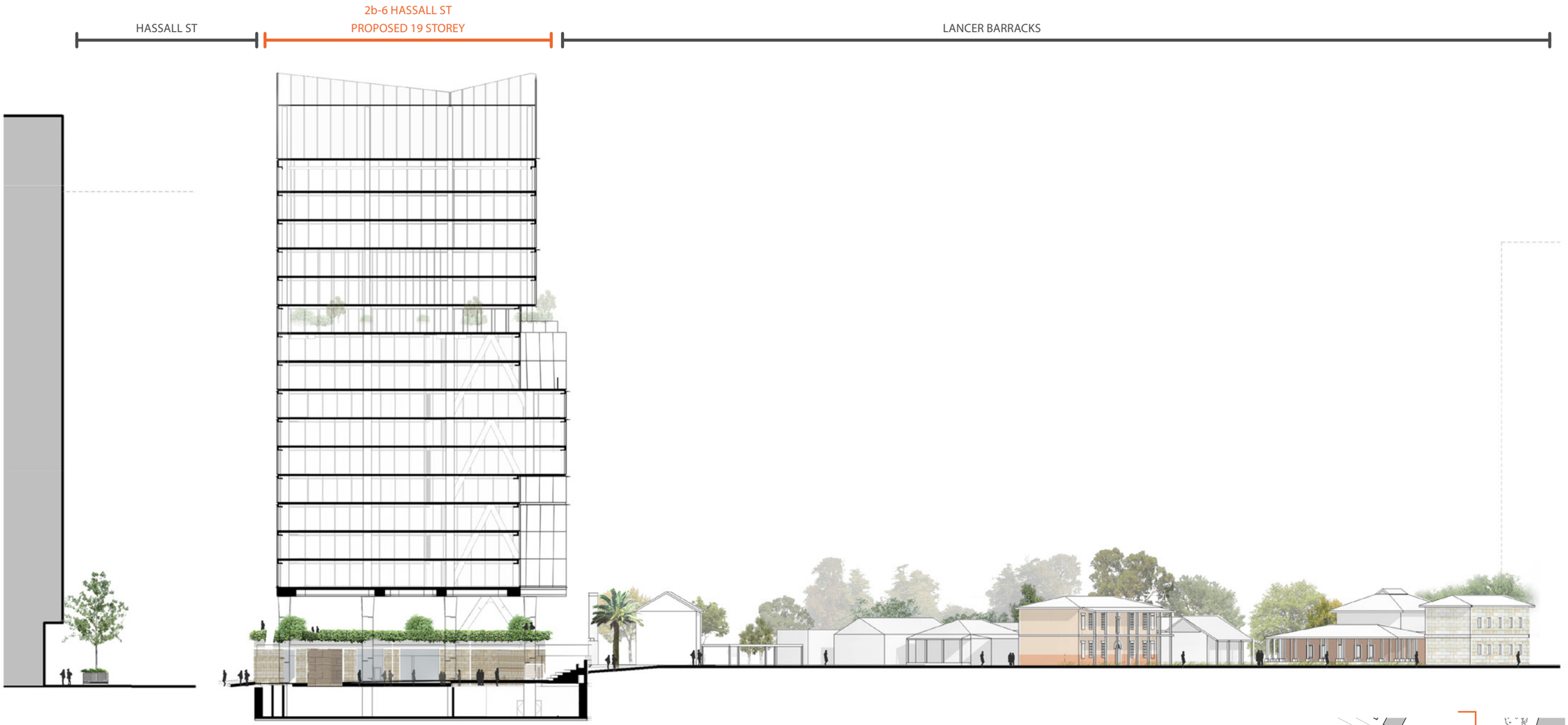
View 05 from Lancer Barracks

View 06 from Parramatta Station (Bus Interchange)

KEY MAP PHOTOGRAPHIC SURVEY

View 08 from the Corner of Hassall and Charles Streets

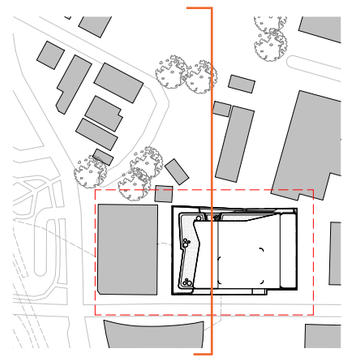
View 07 from the Corner of Hassall and Station Streets



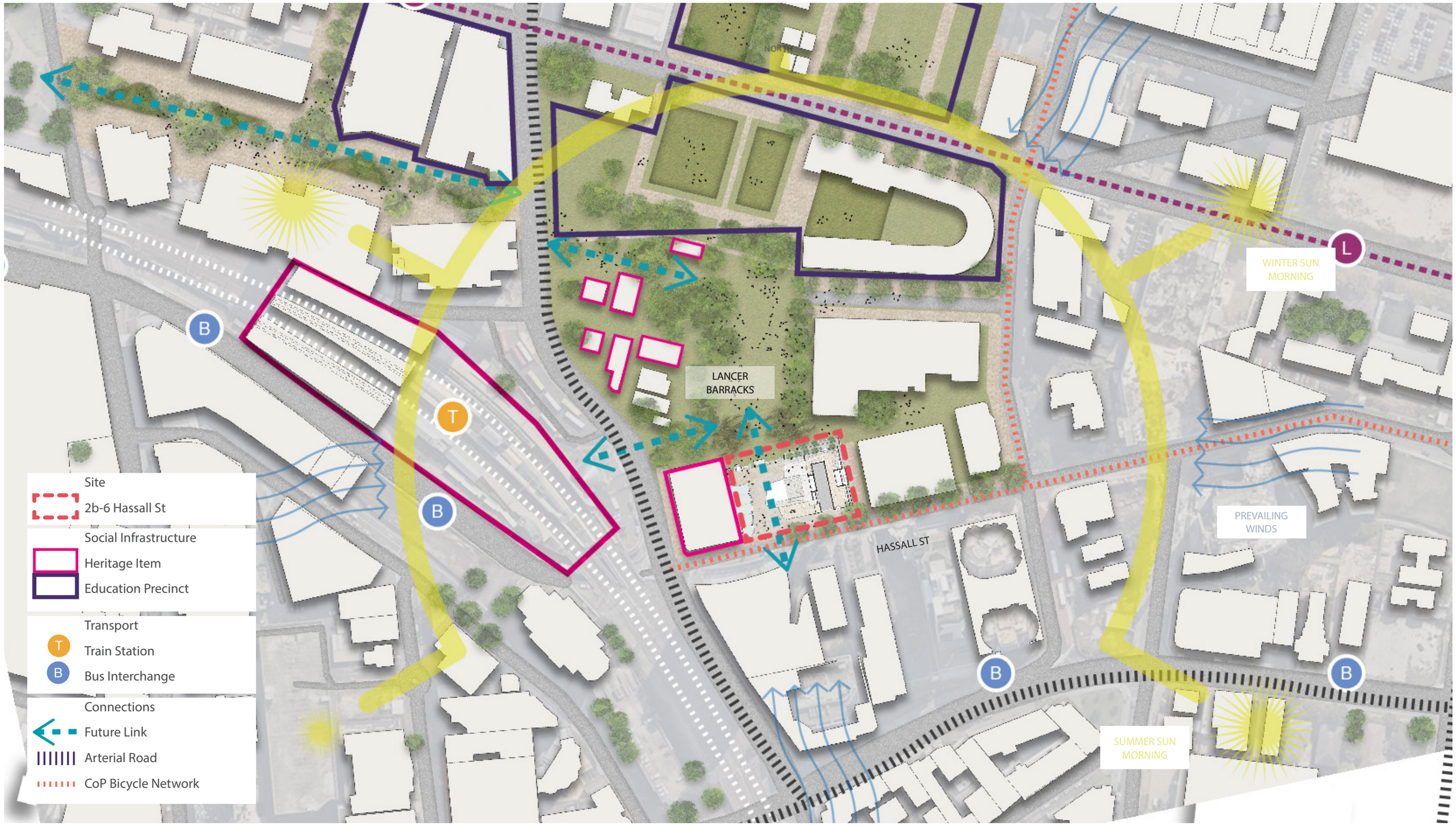
2.3 Topography & Slope of Site

There is a fall of approximately 2 metres across the project site from the northern boundary to the southern and 1 metre from the west to the east.

The Lancer Barracks to the north is located at approximately RL14.20.



2.4 Site Analysis



2.5 Heritage Context

The site is located adjacent to the heritage item "Lancer Barracks Precinct" listed on the Commonwealth Heritage List under the auspices of the Environmental Protection and Biodiversity Conservation Act 1999.

The site is also located within the designated Sensitive Area for visual impact for Old Government House and the Government Domain, which is located to the west of the site. The heritage item is listed on the National Heritage List and World Heritage List which is gazetted under the auspices of the Environmental Protection and Biodiversity Conservation Act 1999.

The site is located within the vicinity of a number of heritage items listed on both the NSW State Heritage Register, under the auspices of the NSW Heritage Act 1977 and by Schedule 5 Part 1 of the Parramatta LEP 2011. The abovementioned items also contain these listings.

The site is not listed as a heritage item or located within a heritage conservation area, however the site adjoins two local heritage items and is in the vicinity of other heritage items as illustrate. These include:

- 1751: Lancer Barracks Group (local significance)– to the immediate north of the site;
- 1707: Commercial Hotel (local significance) – to the immediate west of the site;
- 11824: First/15 Royal NSW Lancer Museum collection (State significance); and
- 100696: Parramatta Railway Station (State significance).

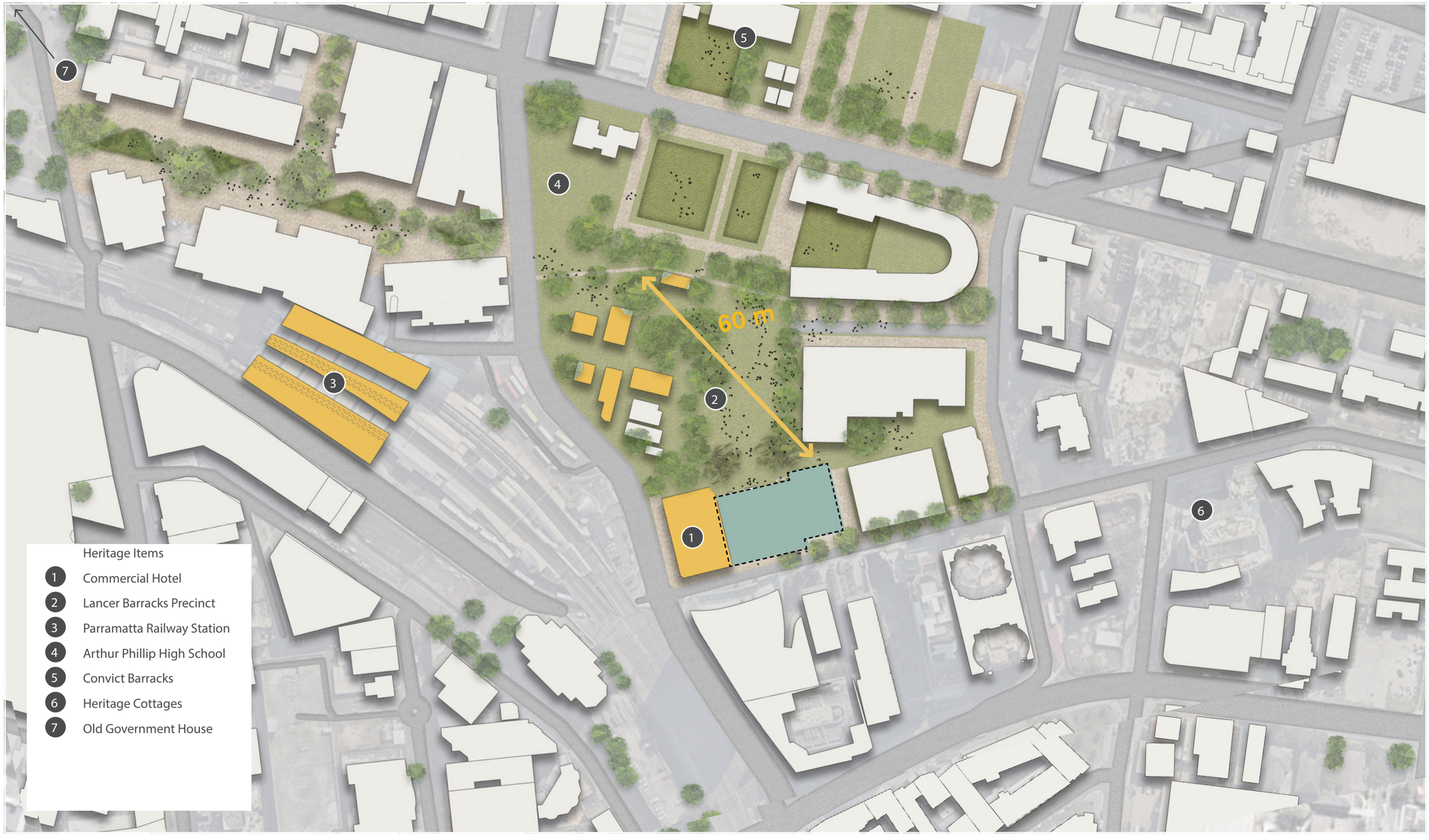
For more detailed understanding of the heritage context of the project please refer to the Heritage Impact Statement prepared by Weir Phillips.

Lancer Barracks Precinct, Smith Street, Parramatta. Schedule 5 Part 1 of the Parramatta LEP 2011. Marked Item No. I751 and Commonwealth Heritage List. Place ID. 105512

Parramatta Railway Station, 3 and 21 Darcy Street, Parramatta. Marked I00696. SHR No. 00696 (State) State Heritage Inventory Database No: 5051413

Commercial Hotel, No. 2a Hassall Street, Parramatta. State Heritage Inventory Database No. 2240277

Old Government House and the Government Domain, Parramatta, NSW. UNESCO World Heritage Item. National Heritage Item Place I.D. 3036 (National). SHR No. 00596 (State) Parramatta LEP 2011 Item No. I00596 (Local). State Heritage Inventory Database No. 5045475.


7
5
4
60 m
3
2
1
6
Heritage Items
1 Commercial Hotel
2 Lancer Barracks Precinct
3 Parramatta Railway Station
4 Arthur Phillip High School
5 Convict Barracks
6 Heritage Cottages
7 Old Government House

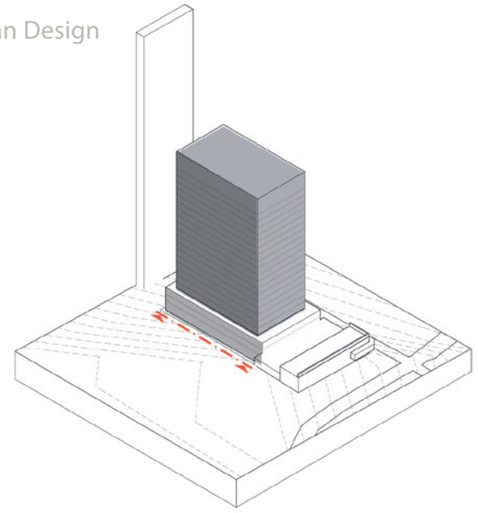
3.0 Urban Design

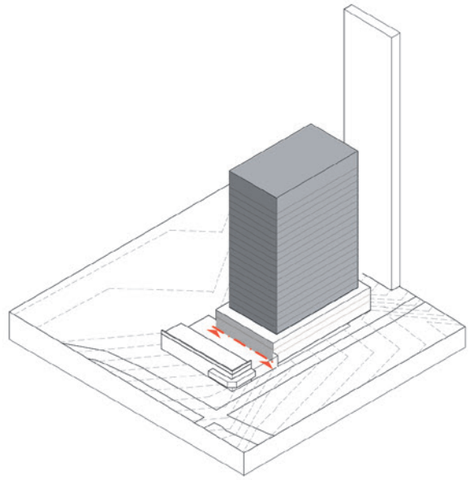
03

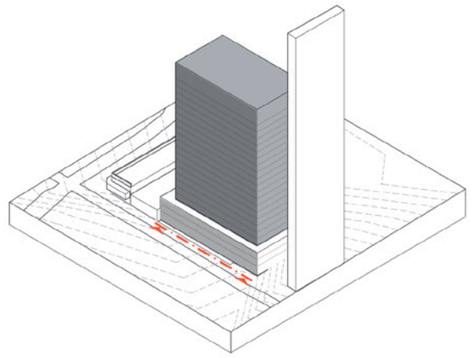
3.1 Envelope Study

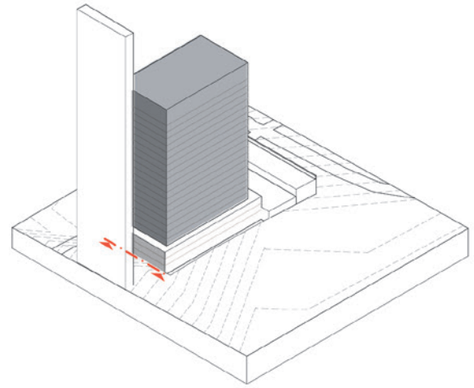
ARTIST'S IMPRESSION VIEW FROM LANCER BARRACKS

Council Endorsed DCP Envelope
11.5:1 FSR
22 Storeys Overall

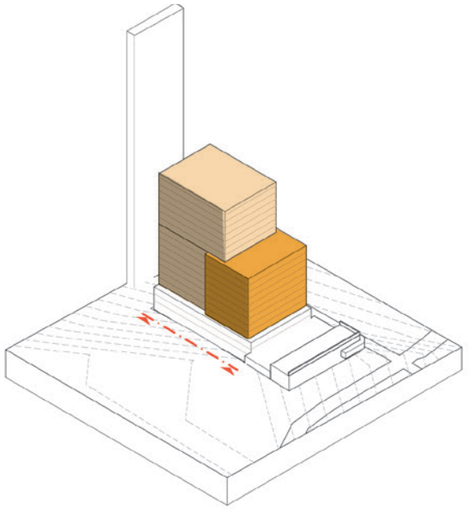


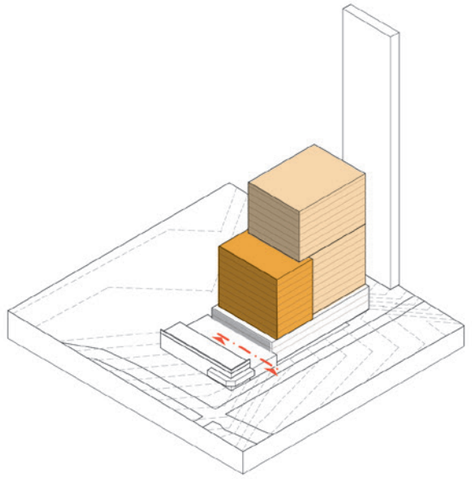


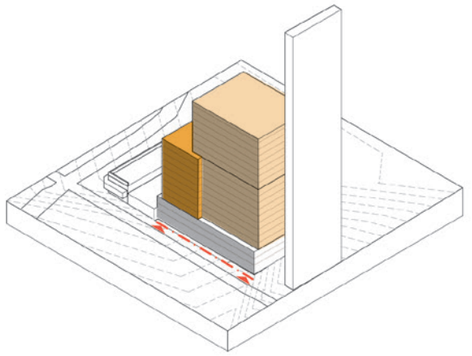


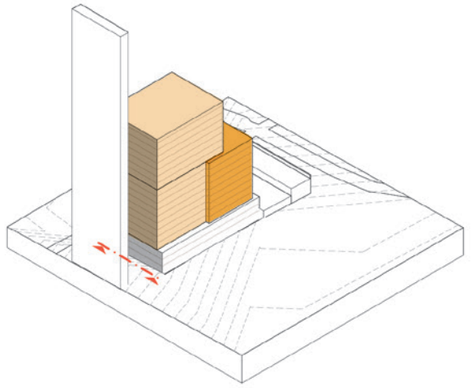


Alternate Envelope
11.5:1 FSR
12-19 Storeys Overall

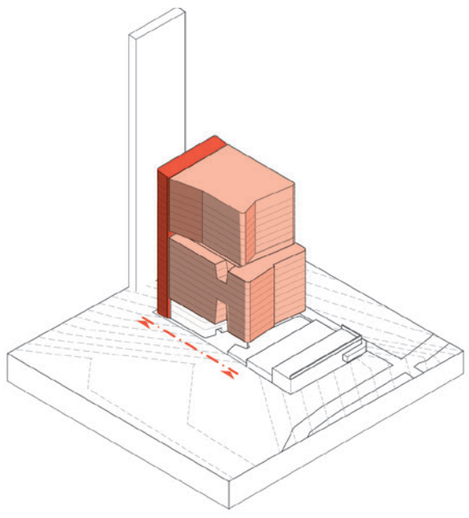


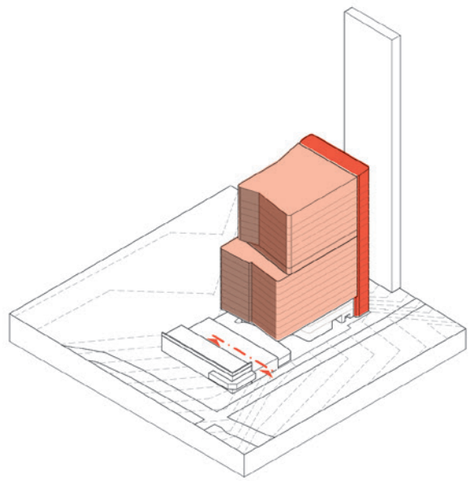


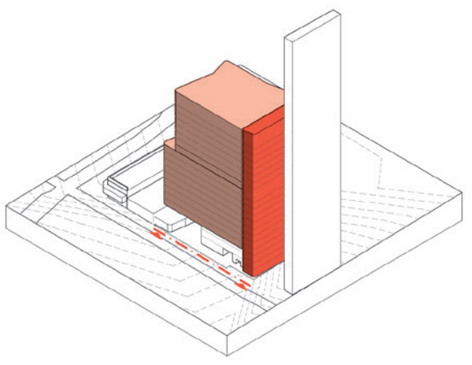


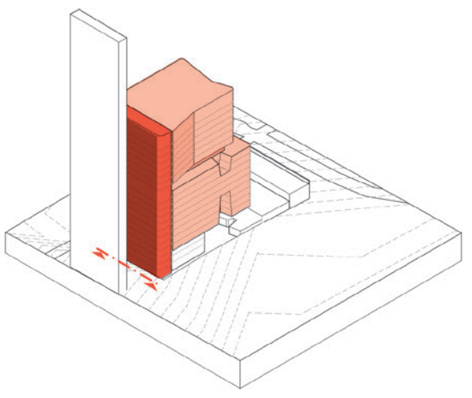


Proposed Envelope
11.5:1 FSR
19 Storeys Overall









North Boundary

West Boundary

South Boundary

East Boundary

Podium / mid-rise

	North Boundary	Comments	West Boundary	Comments	South Boundary	Comments	East Boundary	Comments
Council Endorsed DCP Envelope	3m	— Prioritises setback of lower tower from boundary to Lancer Barracks — Provides appropriate transition to Lancer Barracks — Resolves boundary privacy and fire egress — Allows sufficient separation from Police Headquarters	0m	— The Council endorsed envelope provides a 0m setback for the full height of a 3-storey podium element that is sympathetic in height and scale to the Commercial Hotel and responds to streetscape character along Hassall Street — 6m tower setback to the west for full height tower (up to 22 storeys)	2m (podium)	— Allows sufficient deep soil zone and clearance for street trees to grow — Effectively widens the footpath and public domain	0m	— The Council endorsed envelope provides a 3-storey street wall on this site for the podium fronting the Curtis Cheng Building driveway boundary
Alternate Envelope	2m for mid-rise up to 12 storeys	— Reduced setback but largely achieves the outcomes and principles set by the DCP envelope — Compared to the DCP the difference is negligible and does not change relationship building to Lancer Barracks	3m	— Mid-rise is set back 3m which provides adequate separation to the Commercial Hotel — Mid-rise only extends to 12 storeys and therefore appropriately set back — Ensures the development potential of Commercial Hotel is retained	2m	— Podium setback maintained per DCP envelope — Western mid-rise component also setback 2m up to 12 storeys	0m	— Setback maintained per DCP envelope for the podium, and extended through to tower (19 storeys) — Locating the building core along the eastern boundary for the full height of the tower is an appropriate response to the existing Police Station driveway, preserving its development potential by allowing a future party wall scenario — The building core location also preserves privacy to future residential development to the east, and focuses active façades to Hassall Street and neighbouring heritage items
Proposed Envelope	1.9m ~3.3m range	— Generally consistent with alternate envelope, with only a minor reduction in setback compare to the podium of the draft site specific DCP — Difference is negligible and does not change relationship building to Lancer Barracks	3.2m ~5.5m range for mid-rise up to 12 storeys (retail building 0m at ground floor)	— Single storey retail building to ground floor abutting the Commercial Hotel is a heritage response and achieves the outcomes and principles set by the DCP envelope — The mid-rise built form provides greater breathing space to the Commercial Hotel in and improves upon the intent of the DCP envelope through a greater setback than the podium, a generally similar setback for the mid-rise level, and by stepping back the high-rise substantially from the west boundary (over 10m) — L1 and L2 are open, providing a stepped building form from the Commercial Hotel. The proposal integrates the retail building in proportion to the scale of the Commercial Hotel at the western boundary	2.9m (average) 0.7m~5m range	— Greater average setback than DCP envelope providing improved pedestrian circulation to ground floor and greater potential for footpath circulation — Greater average setback than the mid-rise component of the alternate envelope, providing greater separation from the street — 0.7m setback to the retail building responding to the adjacent Commercial Hotel façade by proportionally extending the street wall around and into the site, creating a new activated corner.	0m	— Setback maintained per DCP envelope for the podium, and extended through to tower (19 storeys), consistent with the alternate envelope — Locating the building core along the eastern boundary for the full height of the tower is an appropriate response to the existing Police Station driveway, preserving its development potential by allowing a future party wall scenario — The building core location also preserves privacy to future residential development to the east, and focuses active façades to Hassall Street and neighbouring heritage items

Tower / high-rise

	North Boundary	Comments	West Boundary	Comments	South Boundary	Comments	East Boundary	Comments
Council Endorsed DCP Envelope	6m	— Provides appropriate transition to Lancer Barracks — Resolves boundary privacy and fire egress — Allows sufficient separation from Police Headquarters	6m	— Allows appropriate transition to the heritage listed Commercial Hotel	6m	— Minimise visual impact on street level, more legible street wall — Less down-draughts to street without wind mitigation measures	4m	— Reduced bulk at street level — Ensure appropriate transition to neighbouring properties
Alternate Envelope	2m (mid-rise west), 5m (high-rise east)	— Stepped envelope, 2 and 5 metre from north boundary — Lower mid-rise to west end, improved transition from Commercial Hotel but reduced 2m setback to Lancer barracks. — 5m high-rise setback to east end for sufficient separation to Curtis Cheng building	3m mid-rise, 20m high-rise	— Reduced setback but shorter mid-rise (12 storeys) compared to DCP envelope (which is 22 storeys for full height of tower) — Provides a stepped form and gradual transition to the Commercial Hotel — Takes account of the future development potential of the Commercial Hotel.	2m to western component (mid-rise) 5m to eastern component (high-rise)	— Stepped envelope, 2 and 5 metre from south boundary similar to north boundary — Larger floor plates to mid-rise with 2m setback but increased impact to Commercial Hotel's Hassall street façade — 5m setback to east end similar to 6m DCP envelope — Overall reduction in building height	0m	— Adjacent Curtis Cheng building driveway unlikely to be redeveloped — Street level bulk is unlikely to be impacted as future façade will be activated. — Visually separated from future residential development due to 21metre break in street wall by the existing driveway
Proposed Envelope	6m+ (majority of high-rise), 2.3m (minor portion angled at eastern end)	— Generally maintains 6m setback at the west end to allow breathing space to Lancer Barracks consistent with DCP envelope. — Reduced 2.3m setback to minor portion of east end with building core, addressing the blank wall of Curtis Cheng building and resolving any potential privacy issues to future residential apartment to the east — Cut outs on the mid-rise provides 8m setback, providing further relief and sense of scale to Lancer Barracks	3.5m/ 11.5 (Average)	— Similar to alternate envelope but greater mid-rise setback to allow even better transition and increase breathing space to Commercial Hotel — Reduced (but still substantial) setback to high-rise providing a more gradual transition to the Commercial Hotel and improved proportion to the stepped form. — Also takes account of future development potential of the Commercial Hotel	2.9m	— Modulated 2.9m setback to establish a predominant street wall which does not currently exist on Hassall street — Balanced setback that allows breathing space as well as a proximity to establish dialogue with the Commercial Hotel's Hassall street façade. — Overall reduction in building height — Wind impacts can be addressed through appropriate mitigation measures	0m	— As above plus: — As the core is located on the east, even if the driveway is to be redeveloped, it does not inhibit future potential development using a party wall

Key Considerations	Council Endorsed DCP Envelope		Alternate Envelope		Proposed Envelope	
Minimising the visual impact of new development on key heritage items within the precinct.	— Continuous 22 storey envelope — Although facilitates marginally greater setbacks to some frontage for the tower component (north and south), not the most appropriate built form scale to Lancer Barracks and Commercial Hotel	✗	— Reduced height from 22 to 12 Storeys to a large portion facing Lancer Barracks and Commercial Hotel — Provides stepped form and better relates the building to the scale of Lancer Barracks and Commercial Hotel	✓	— In addition to the benefits of the Alternate Envelope, the deep cut outs on the façade facing Lancer Barracks provide additional relief to the open space and provide a greater sense of scale — 3 storey high public plaza adjoining Lancer Barracks and 2 storey void space facing the Commercial Hotels improves the interface and allows greater breathing space to the two heritage items	✓ ✓
Developing site specific boundary setbacks and street alignments	— Rigid and equal setbacks to 3 boundaries that are not contextual. — Result in an inflexible built form envelope — Inadequate floor plates which do not respond to market demands	✗	— Minor reductions in setbacks to podium and tower to allow flexible built form — Visual bulk maintained as similar to DCP envelope	✓	— Setbacks to all boundaries are carefully considered, responding to both existing and future surrounding development — Spatial planning, definition of massing and articulation of a creates varying setbacks that appropriately modulate transitions and provides relief to heritage items.	✓ ✓
Providing future public access to Lancer Barracks and beyond	— Includes a provision for a future through site link	✓	— Retains DCP provision for a future through site link	✓	— Retains DCP provision for a future through site link — Enhance future through site link by elevating the tower to create 3 storey high public plaza	✓ ✓
Improving pedestrian amenity and the public domain on Hassall Street	— Reference design allows public domain improvement and widening of footpath and re-aligning road.	✓	— Retains DCP proposal for public domain improvement — Larger footprint with little or no additional visual impact to Hassall Street	✓	— Enhance DCP proposal for public domain improvement by increasing setback to the podium and providing 3 storey high open public domain. — Modulated tower setback establishes new street wall that responds appropriately to the adjacent developments while allowing larger floor plates.	✓ ✓
Ensure feasible development to adjacent sites	— Reference design allows 6m setback from Commercial Hotel	✓	— - Reduced setback to 3m without adversely affecting future redevelopment of the Commercial Hotel by stepping the built form	✓	— Reduced setback to 3.5m average without adversely affecting future re-development of the Commercial Hotel by stepping the built form — Improves the stepping built form with better proportion. — Locating core to the east allows future development to the Police Station driveway using a party wall	✓ ✓ ✓
Minimise overshadowing to new residential development	— Solar study indicates no impact on ADG compliance of surrounding residential development	✓	— Despite larger floor plate and wider building massing, the shadow profile of the revised envelope overall is less than the DCP envelope due to reduced building height	✓	— Despite larger floor plate and wider building massing, the shadow profile of the revised envelop overall is less than the DCP envelope due to reduced building height	✓

3.2 Massing & Envelope

Proposed Massing
The Council-Endorsed Envelope sets back a tower from the podium base. It is a conventional strategy allowing daylight to the tower and expressing low scale at the base to relate to the historic hotel. The Alternative Envelope steps the tower back from the hotel providing vertical articulation. The podium base is however fully occupied and limits the potential for openness at the ground plane.

Our approach is to redistribute floor area out of the base up to the tower in order to create maximum public space and educational showcase at the ground plane.

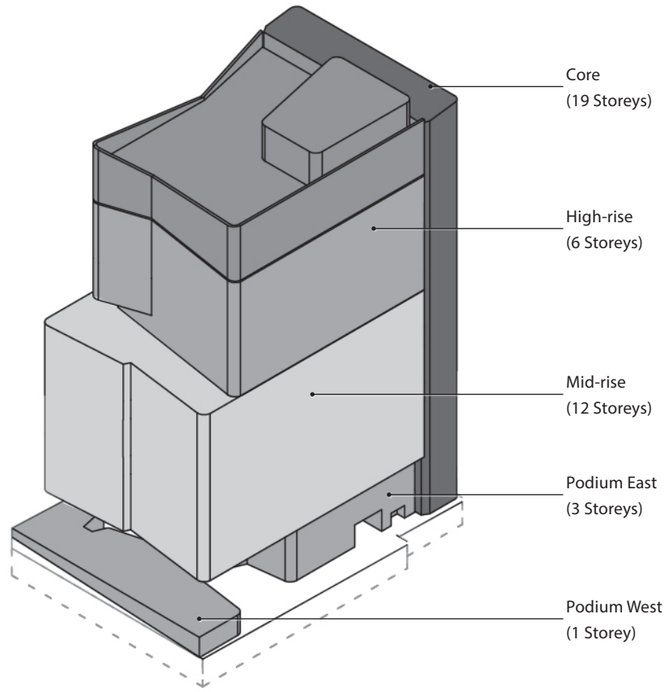
Effectively our concept is to elevate the building on piloti, taking the building to its maximum height, and optimising the ability of the ground plane to connect Hassall Street with Lancer Barracks, to reveal the workings and achievements of the universities, and to create an activated light-filled new public space in Parramatta.

The redistribution of podium floor space up into the tower also enables 'erosion' of the tower edges into a series of elevated terraces which offer outdoor amenity and which provide northern daylight penetration deep into the floor plates, and combined with an atrium which rises through the full height of the educational mid-rise.

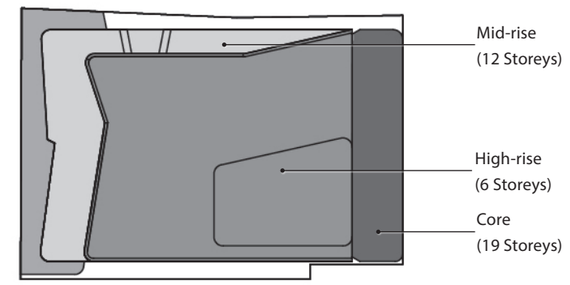
This strategy led us to think of the form as 'topographic', which we have evolved through the scheme, in particular by sculpting the ground plane down into a publicly visible reveal of university activity.

We have taken a license to sculpt the western edges of the mid-rise and tower to accentuate the concept of eroded topography and to shift orientation toward the north-west, reducing western heat loads and addressing the building toward Parramatta Square. This entails a minor encroachment over the straight line setback of the Alternative Envelope but still maintains a strong setback from the western boundary.

In all other respects the proposal achieves the intent of the alternative envelope, and the following pages elaborate on how the topographic strategy is to the benefit of the urban setting, the public realm, the university experience and the workplace environment.



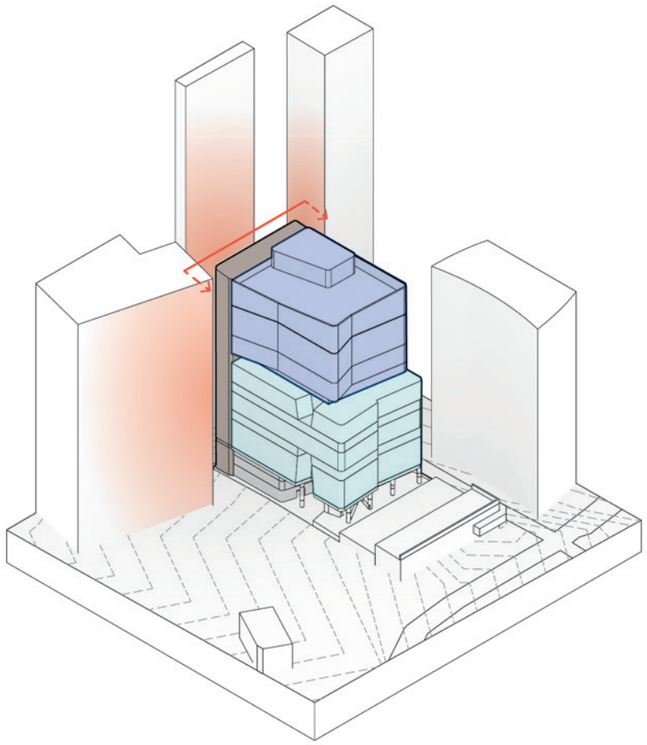
Proposed Massing - Axonometric View



Proposed Massing - Plan View

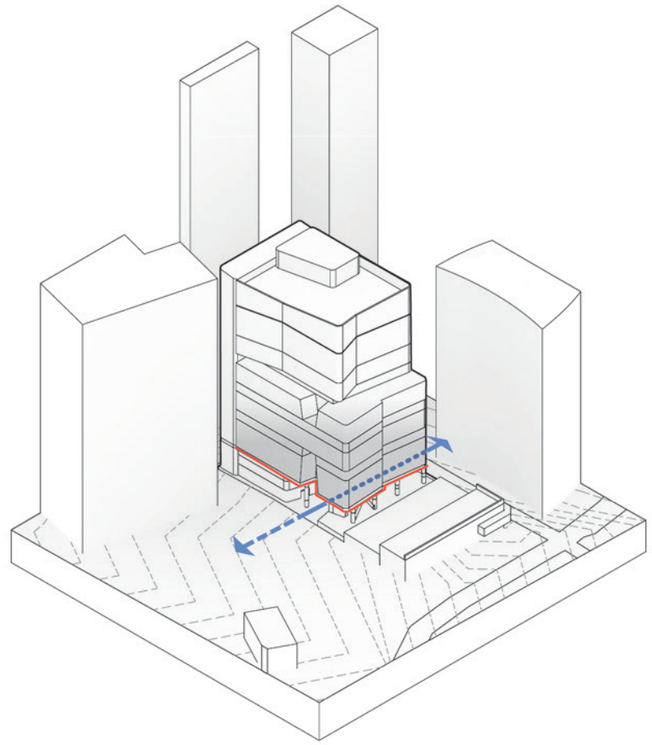
3.3 Massing & Envelope

Our proposal is to create a building of contemporary form which displays the interdependence of architecture and engineering. Spaces delineated by structure, carve-outs which penetrate natural light to the interior depths, elevated gardens and break-out spaces which enrich well-being are just some of the ingredients of this reciprocal concept. These elements also underpin our heritage response, by articulating the building into human-scaled parts that acknowledge the small scale Lancer Barracks and Commercial Hotel adjacent.



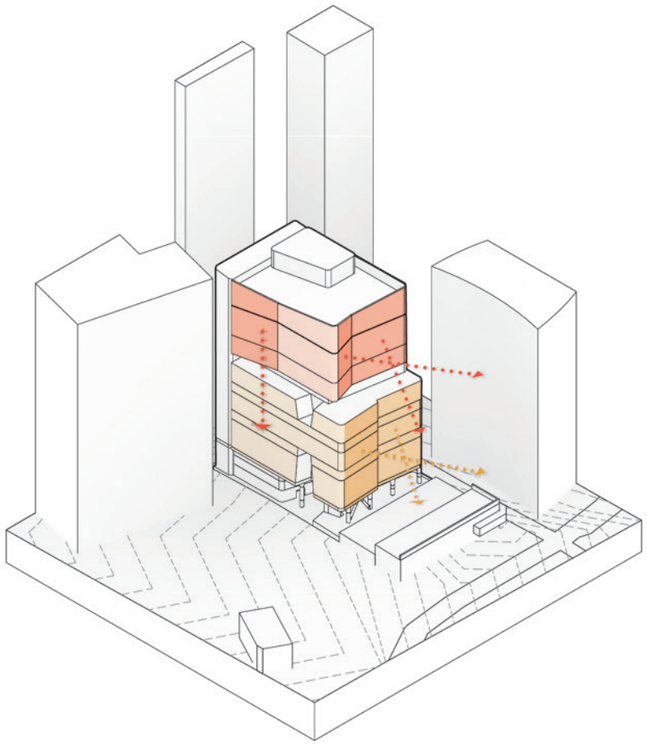
1 / Articulated Massing

The proposed massing is articulated into several parts that respond to the existing and future urban conditions. Key to the articulated massing is an expanded core that forms a spine to the parts of mass, and elegantly responds to the proximity of large existing and future tower developments.



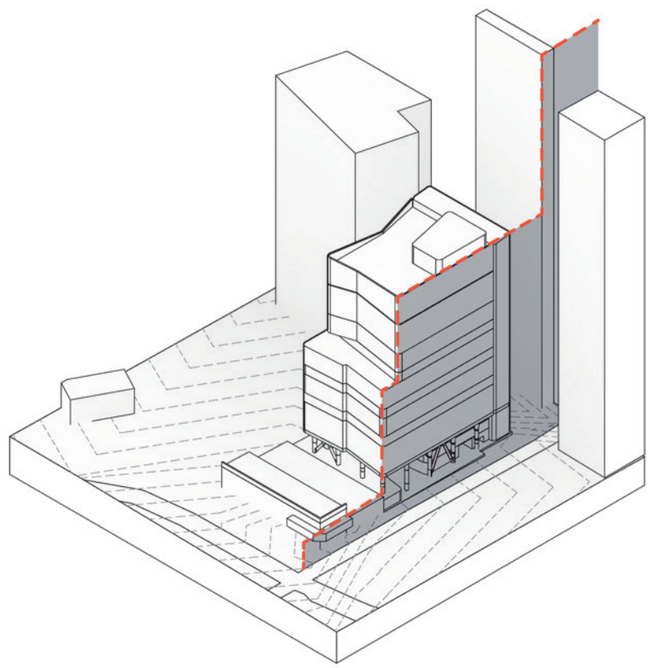
2 / Lifting + Connecting

The tower masses are lifted 3 storeys to create an open podium and to create a generous urban public plaza. Furthermore this move provides the potential to connect with the adjacent Lancer Barracks should the opportunity be available in the future.



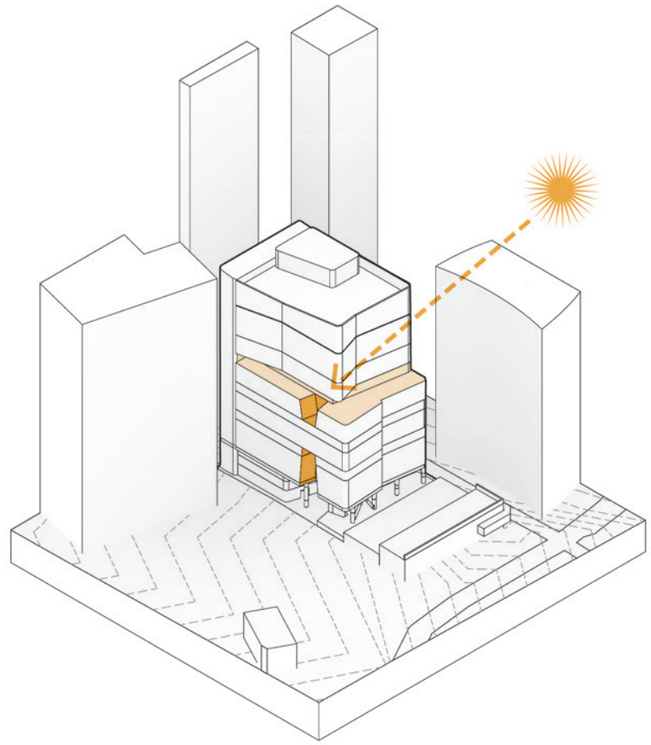
3 / Sculpting

The mass is then sculpted to address positive aspects to the north-west, west and south-west of the site. The tower also gently turns away from the un-favourable built form aspect to the north east.



4 / Street-wall

The tower parts are unified on the southern elevation as a strategy to strengthen the definition of the street-wall along Hassall St. The massing also responds to the varying scales to the east and the west of the site, from the future tower development to the east stepping down to the low Commercial Hotel to the west.



5 / Voids

Voids have been carved from the mass to allow daylight to penetrate deep into the volume of the tower. Improving the amenity and quality of the public plaza and tower floor plates.

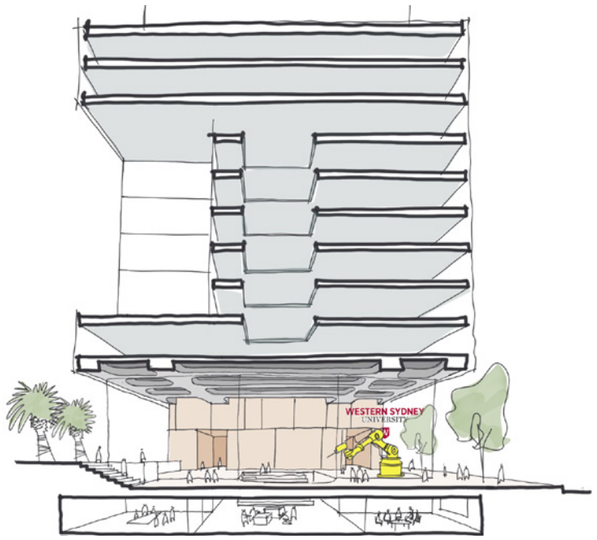
Scale of these voids are proportioned to relate to the small scale elements of Lancer Barracks building.

3.4 Heritage Response

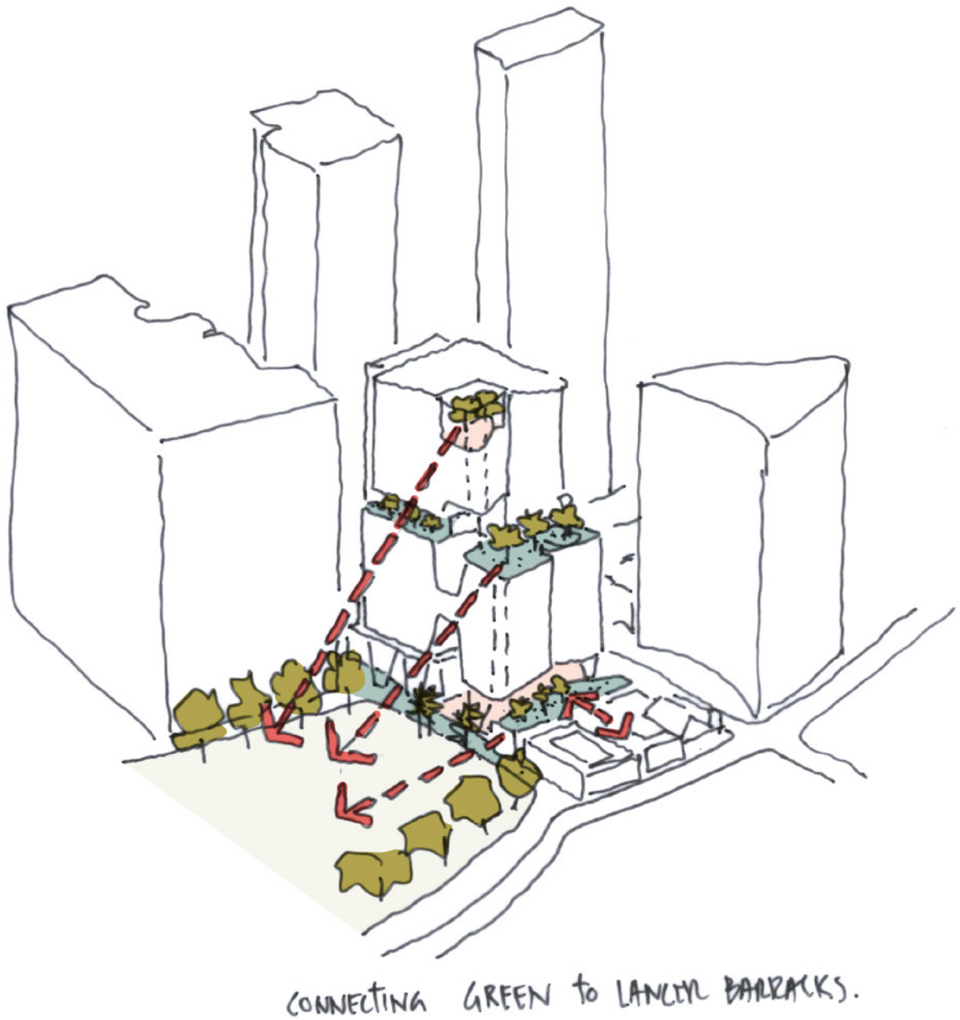
Connecting to Lancer Barracks
The building envelope has been revised and lowered to respect the scale of the Commercial Hotel and Lancer Barracks. A substantial setback to the North has been maintained, respecting the heritage context of Lancer Barracks while separation and height of the envelope allows the Barracks 'Breathing Space'.

The 'reverse' podium and it's height relate strongly to the buildings within Lancer Barracks without 'competing' with them. The articulation of the tower with small scale elements and verandas of the barracks building further establishes a conversation with the significant historic buildings.

The proposal itself will ensure the Barracks are appreciated into the future by promoting views over and into precinct. At the ground plane, the new public open spaces create view lines through to Lancer Barracks with the opportunity for a future public link.



Early Concept Sketch through Public Domain

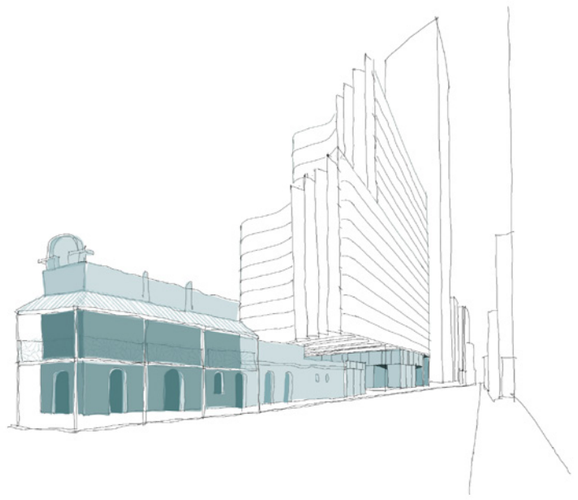


Early Concept Sketch

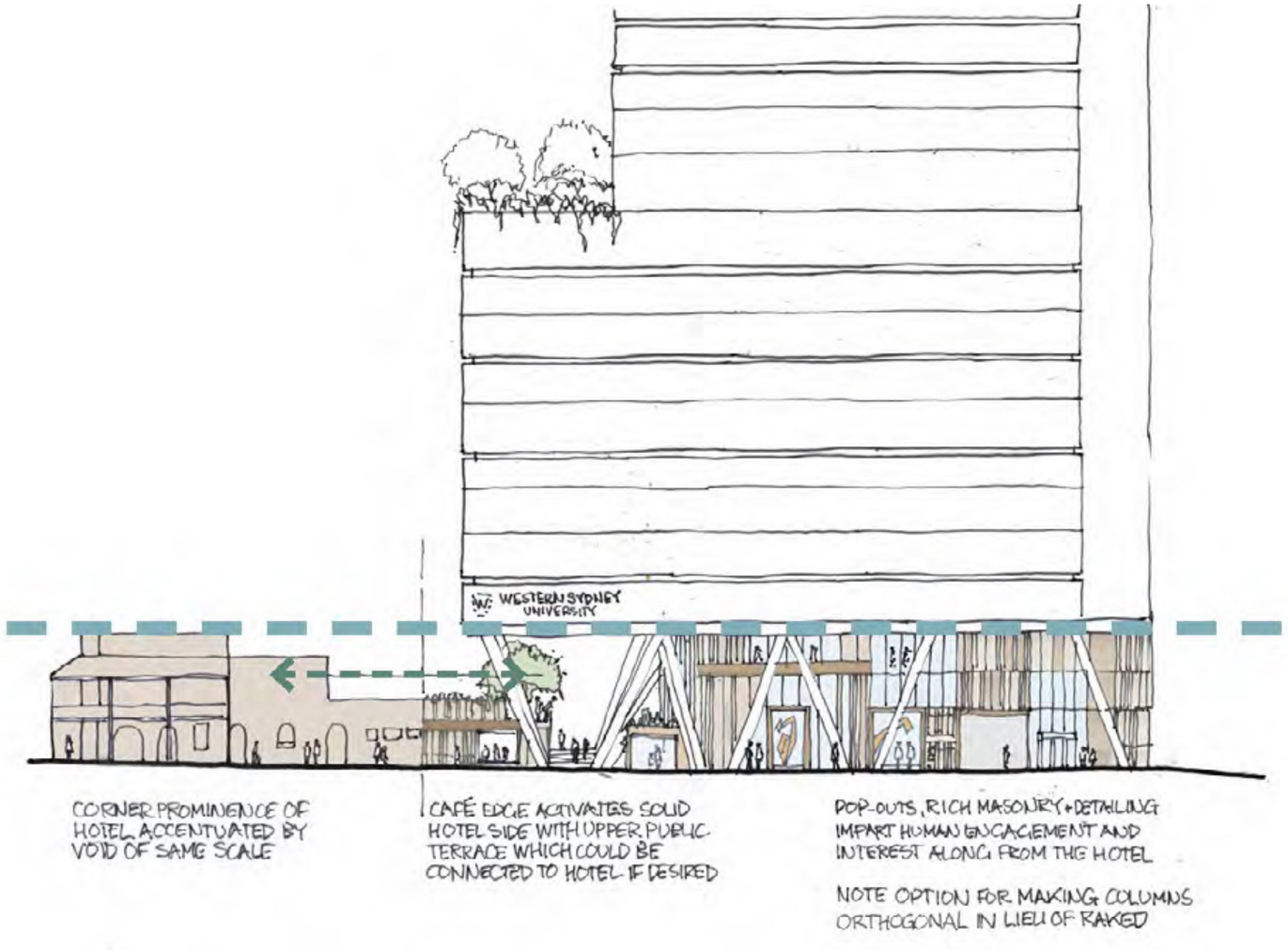
Streetscape
At ground level, the high scale of the public space respects the hotel in a converse way, by creating a soffit datum aligned with the rooftop of the Hotel. And when the Barracks is opened up to public access, this space will form a dramatic gateway to the Barracks and beyond to Parramatta Square.

Commercial Hotel
The overall lower height and stepped form of the tower gives the Commercial Hotel breathing space and prominence, this combined with the increased setback to the Western boundary reduces the impact to the Commercial Hotel when viewed from Hassall Street, Parramatta Railway Station and Lancer Barracks.

By edging the presently blank wall of the Commercial Hotel with retail outlets, the scheme provides opportunity for integration and connection from the public space with the hotel. The new public open space creates a separation between the heritage building and the tower while landscaped roof terrace's above the retail further softens the impact to the heritage hotel.



Engaging Commercial Hotel



Hassall Street Elevation - Response to Commercial Hotel

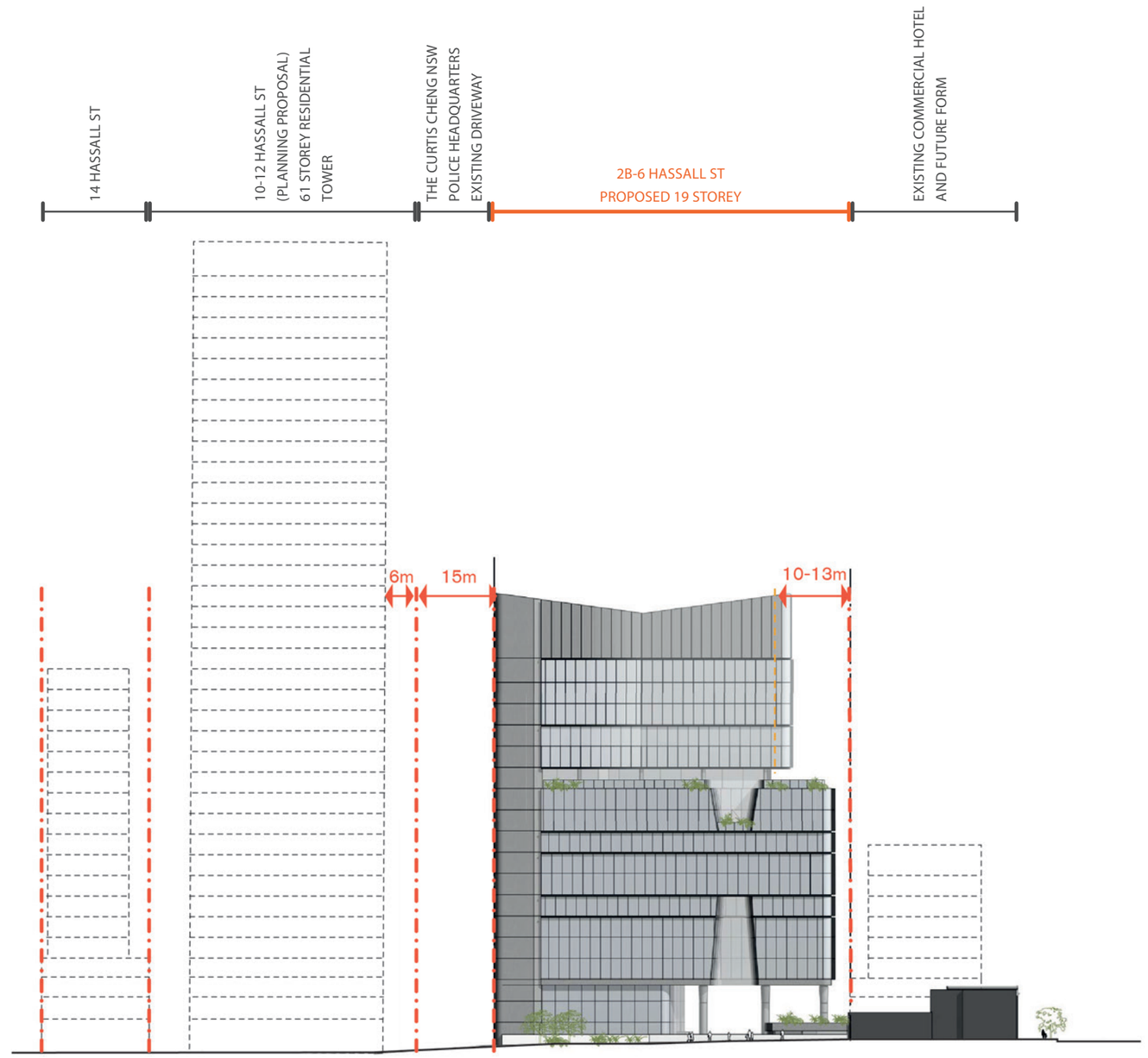
3.5 Height, Bulk and Scale

The proposed built form is a departure from the council endorsed site-specific DCP building envelope. It is a contextual and appropriate response in height, bulk and scale to both the existing and future characteristic of surrounding developments. This ensures an improved outcome in relation to the heritage values of the locality and amenity of the surrounding uses.

Despite there being no prevailing building height or street wall height along Hassall street, the proposal establishes a building height that has been modulated, providing a 3-storey base, a 12-storey mid-rise and a 19-storey tower. It is below the height of the council endorsed envelope. This stepped form creates a sympathetic transition from the Heritage Commercial Hotel to the West through to the proposed 61 storey residential tower to the East at 10-12 Hassall Street. Whilst preserving the development potential to the West, maintaining a substantial set back to Commercial Hotel in the event that it was ever re-developed. It also allows for a landscaped retail roof and a large mid-rise landscaped terrace to enhance the building amenity and soften the bulk of the vertical built form.

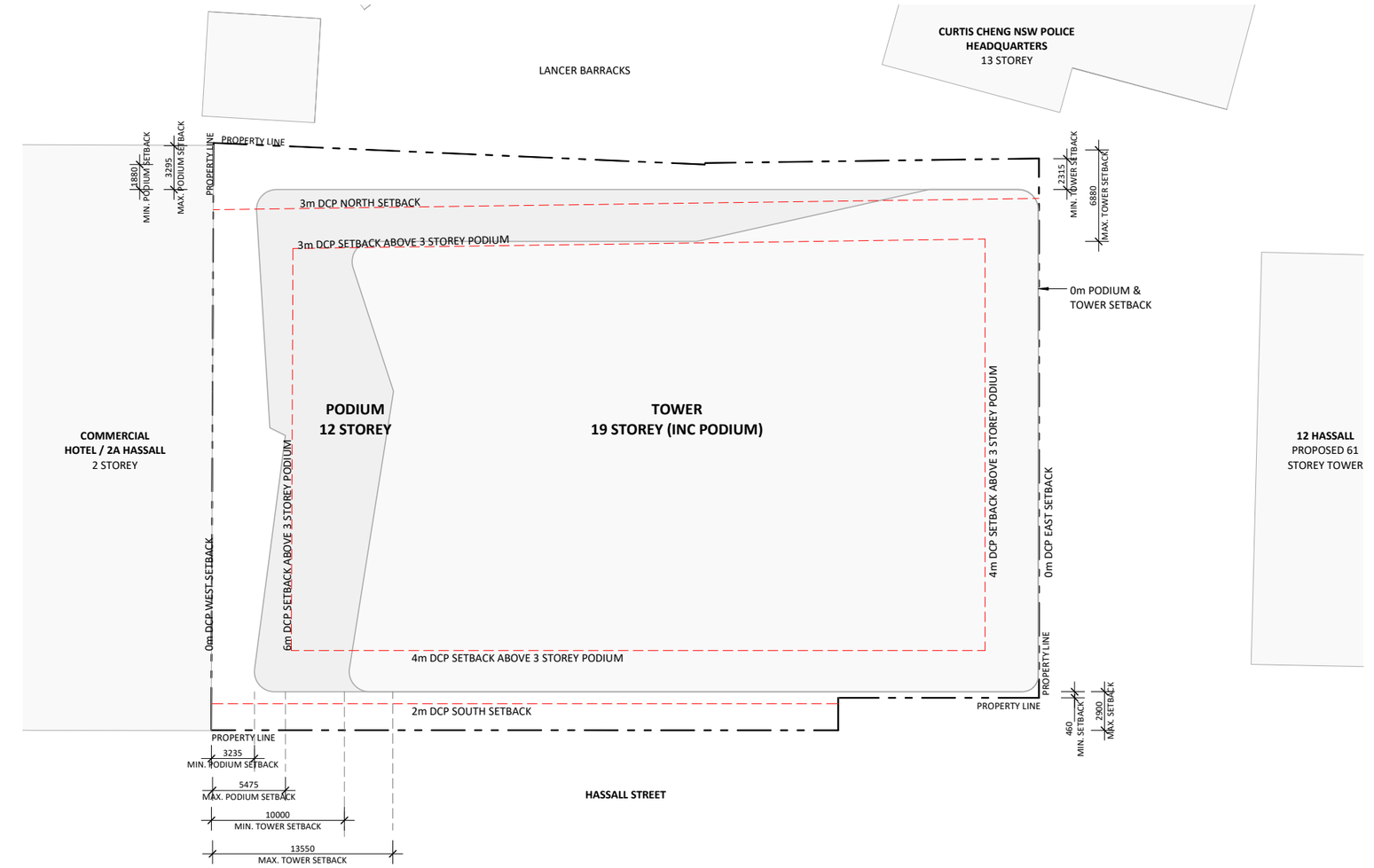
The stepped envelope also assists in breaking the building bulk horizontally by delineating the podium space and relating the height datum to the Commercial Hotel, setting the height of the expressed soffit to the underside of level 3 and the green roof above the retail building. In the mid-Rise and the tower, the bulk is further defined by a distinctive vertical step and a smooth fold to the western façade.

In addition, the proposed built form responds to the surrounding context in scale. The solid to void relationship of the Lancer Barracks buildings was explored to inform the scale and geometry of the opening in the northern façade. The recessed terrace and setback to the façade on Level 12 and above adds to this. Furthermore, the scale of the retail building proposed right on the western boundary is directly proportionate to the Commercial Hotel mass, easing the transition of low-rise Commercial Hotel with the podium space and the public plaza.



TRANSITION IN BUILDING SCALE

3.6 Setbacks

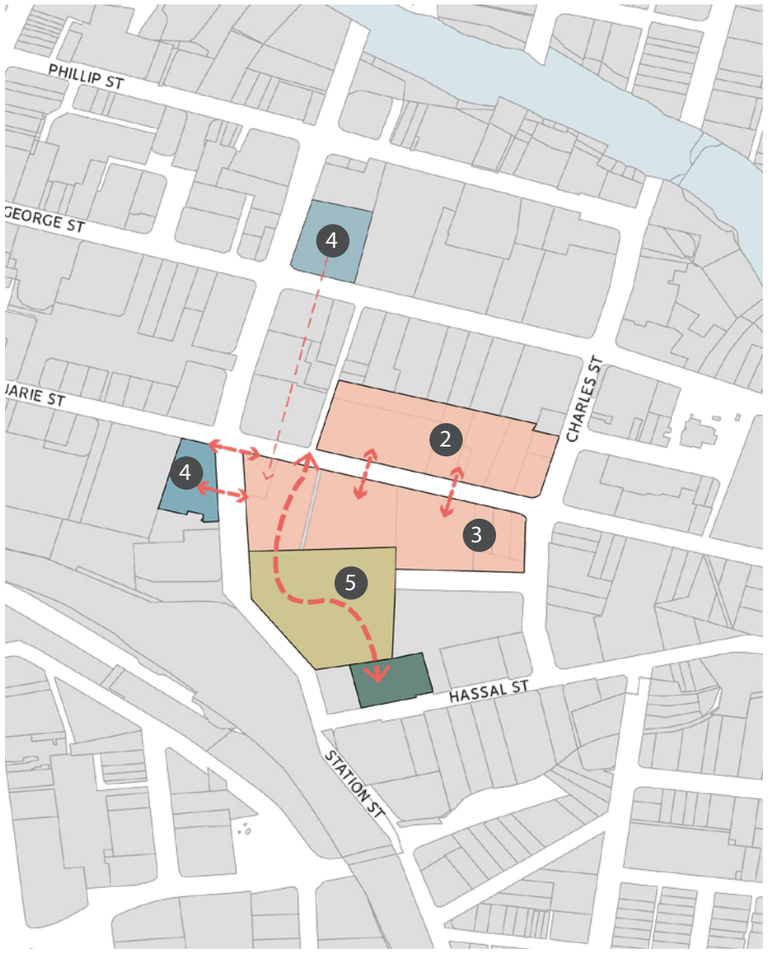


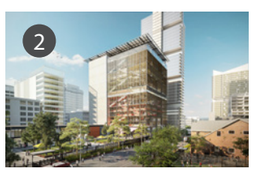
PROPOSED SETBACKS

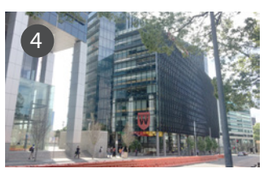
3.7 Education Precinct & Public Space Network

The current redevelopment of Parramatta Square will transform the city centre into a pedestrian prioritised urban realm served by public transport, and activated by public, educational, commercial and residential buildings. 6 Hassall Street's ground plane is anchored around a large public domain, further adding to this network of public spaces within Parramatta city. If Lancer Barracks is opened up to the public in the future, there is opportunity to create a network of public spaces from Parramatta Square through Lancer Barracks to 6 Hassall Street.

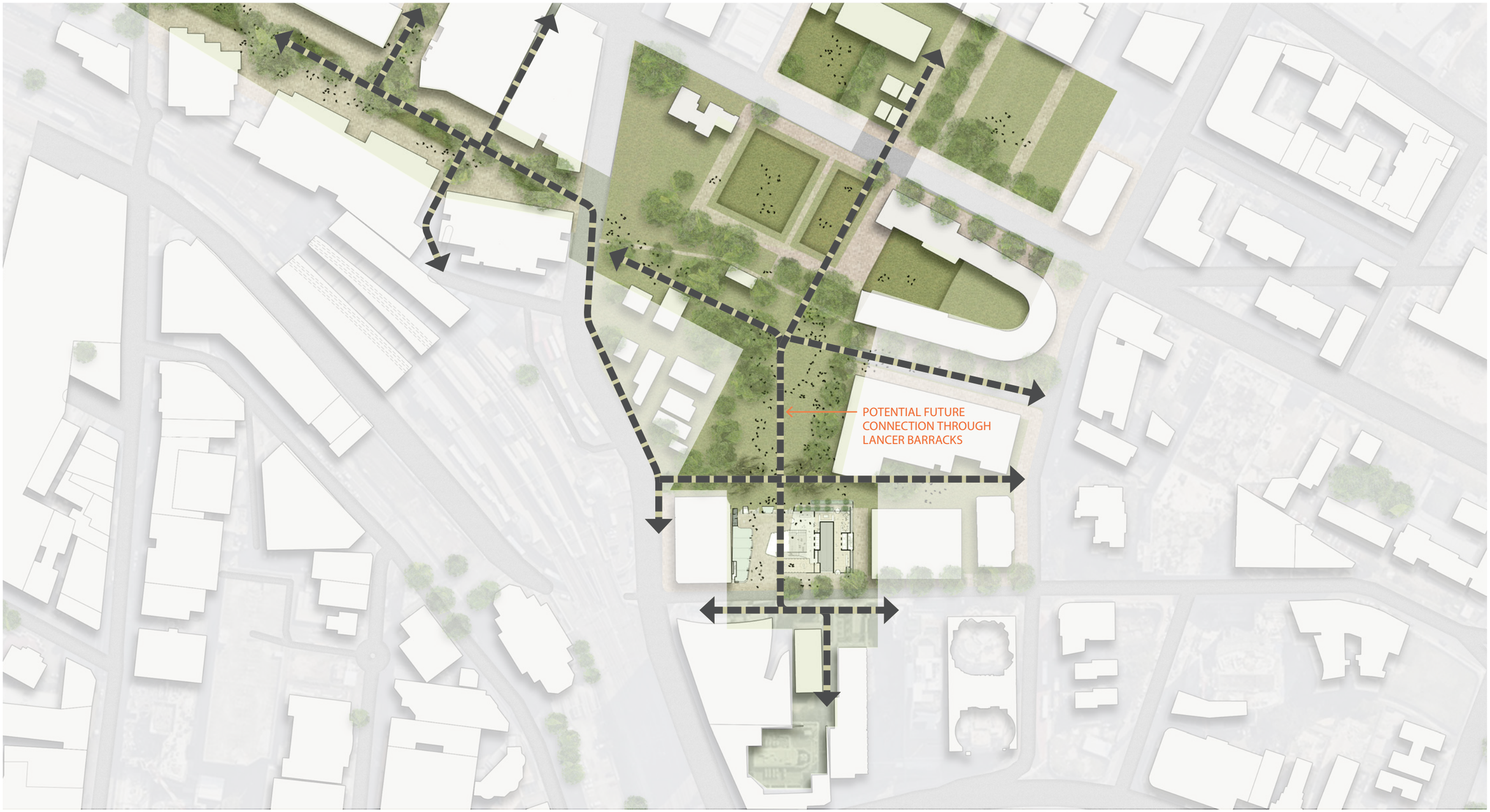
If Lancer Barracks is repurposed and made accessible to the public it could become the heart of a vibrant primary, secondary and tertiary education precinct. It would connect the existing Western Sydney University buildings, the Arthur Phillip School and Parramatta Public School. We conceive 6 Hassall Street as a major public gateway to the precinct, where the processes of the two universities are synonymous with the public experience of the project.







1. PARRAMATTA SQUARE
2. ARTHUR PHILLIP SCHOOL
3. PARRAMATTA PUBLIC SCHOOL
4. WESTERN SYDNEY UNIVERSITY
5. LANCER BARRACKS



Public Space Potential Connection Network

3.8 Public Domain

The Western Sydney University Innovation Hub is designed from a first principles analysis of a number of key considerations: the urban and site context to the immediate surroundings, the broader urban realm of the Parramatta CBD, the project brief and maximising the efficiencies and flexibility for its end user such as the commercial tenants and the university students.

The site is defined on each side by four very distinct existing and future conditions. The building has been designed to respond and positively contribute to each of these unique contexts.

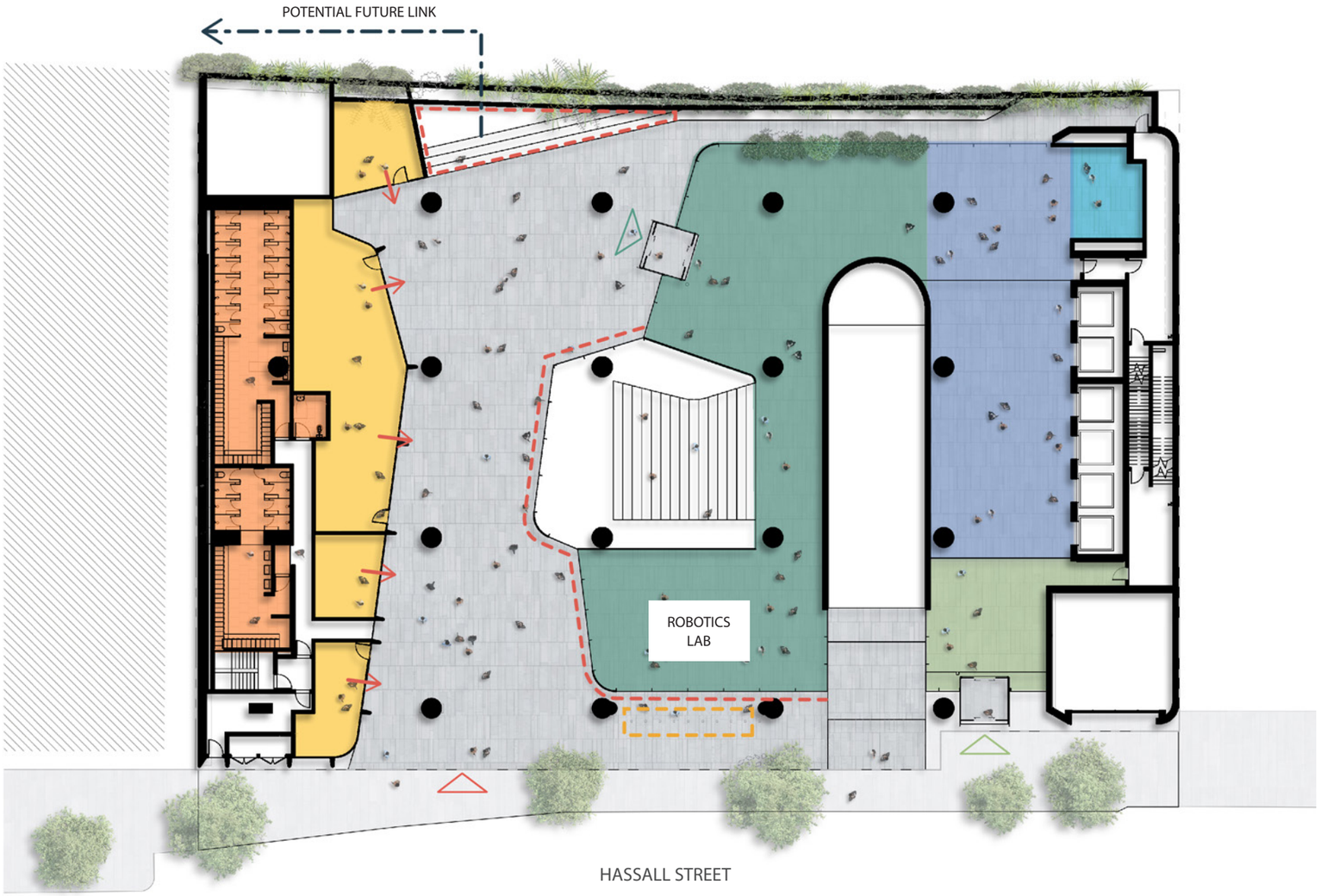
The southern frontage interfaces directly with Hassall Street and fronts a 21-storey commercial tower (being the Eclipse Tower). To the west is a 2-storey heritage listed commercial hotel occupying the Station Street and Hassall Street corner directly facing Parramatta railway station. Located to the north is Lancer Barracks, a closed off historic military facility and grounds with the future possibility of providing through site links towards Parramatta Square and a direct link to Station Street from the site. To the east at 10-12 Hassall Street, a 61-storey high residential tower is proposed through a Planning Proposal.

To provide a ground plane that maximises visual and physical permeability between the public domain and the program housed within, the tower is elevated 3 levels above ground to create a new public plaza activating Hassall Street. The 3-storey high open street frontage also counteracts with the massing of commercial tower across the street. The elevated base of the tower respects the commercial hotel in a converse way, by creating a soffit datum aligned with the rooftop of the Hotel. And if Lancer Barracks is opened up to public access in the future, this space will form a dramatic gateway to the Barracks and beyond to Parramatta Square. The first 3 levels of the Hassall Street façade are also setback further to enhance the pedestrian experience with a generous footpath.

The ground plane towards the centre of the public plaza is carved out to reveal a lower ground space creating a public and university realm for people to look up and down into multiple engineering activities by the University – robotics, maker spaces, collaborative spaces, exhibition spaces – which showcase the dynamics of engineering. Further voids are carved into L1 and L2 connecting 4 levels to accentuate this engagement, revealing further activity and conveying to students and staff belonging to the whole.

The tower massing is also strategically eroded to the north to allow sun to penetrate deep into the public plaza and onto the amphitheatre steps located on the northern end of the plaza creating not only a gathering place for both professionals and students interaction but future proofing the design to integrate the possible opening of Lancer Barracks. These strategies articulate the building and large open spaces into human-scaled parts, acknowledging the small-scale Lancer Barracks and Commercial Hotel adjacent.

The retail edge of the Commercial Hotel has been extended into the public plaza to activate the journey at ground level offering retail, Food and Beverage shop-fronts, creating a new destination in the precinct.



ARTIST'S IMPRESSION VIEW FROM WSU LOBBY

4.0 Architecture

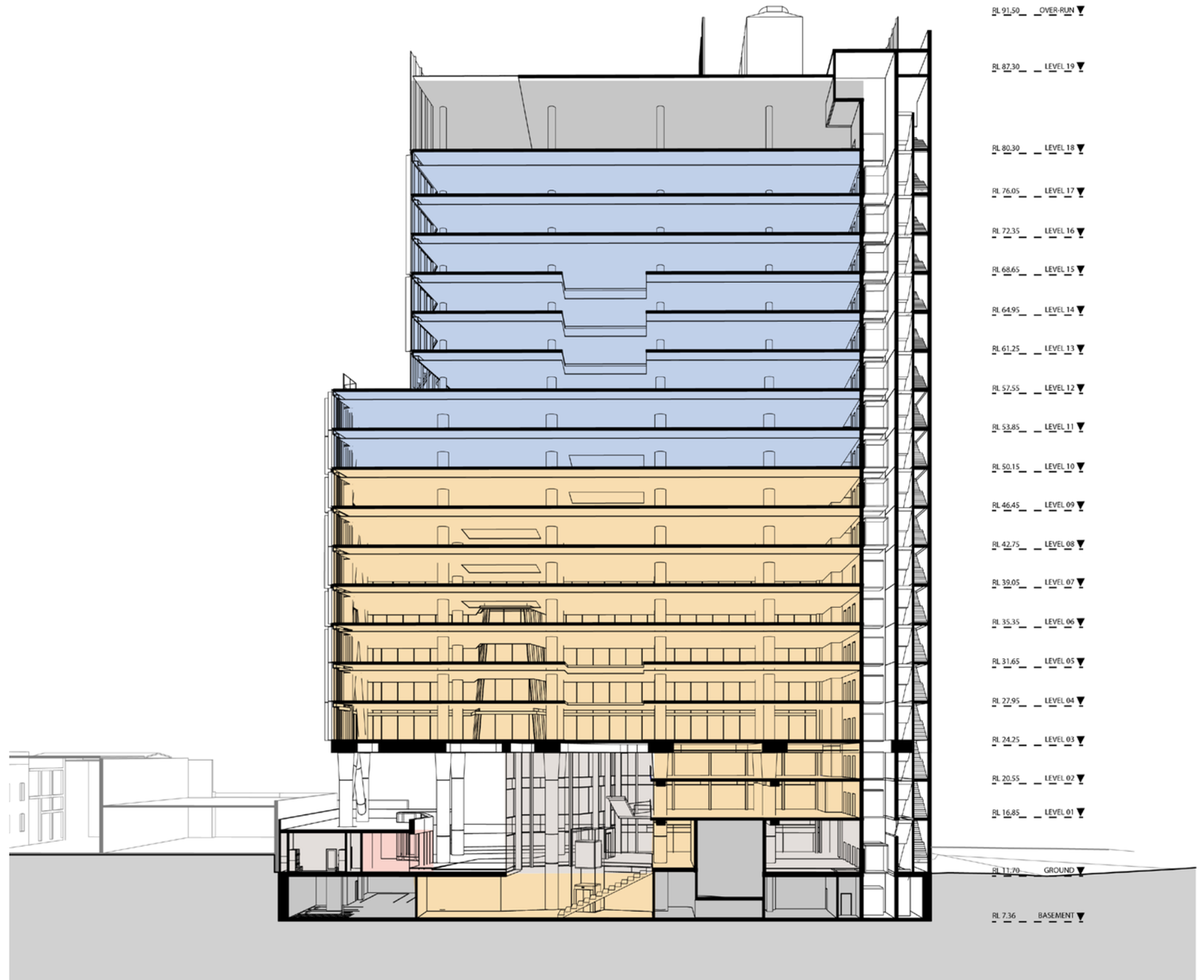
04

ARTIST'S IMPRESSION VIEW FROM HASSALL STREET

4.1 Programme/Use

The tower is comprised of a dynamic mixed-use programme, primarily shared between the education (university) and commercial use, with small amounts of retail to activate the public domain.

The commercial programme will be located in the upper most floors of the tower from level 10 to level 17 then the university will occupy floor area from the basement up to level 9. Retail will be located across the ground floor, with plant room located on level 18 and 19, and a single level basement

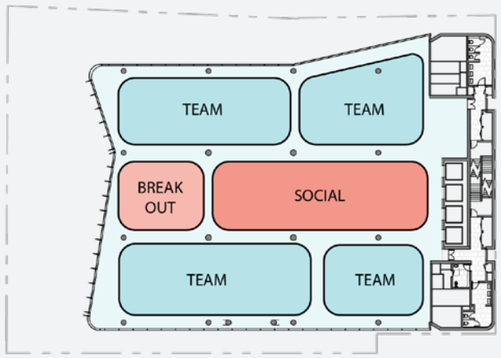


AREA OVERVIEW

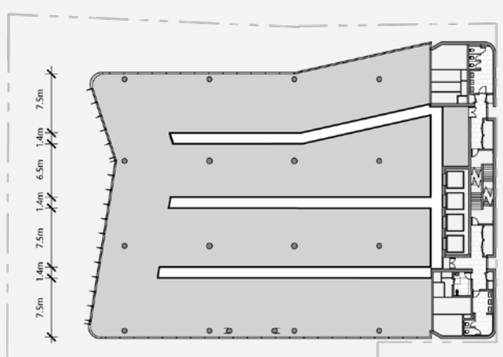
Commercial	12,981m^2
University	15,942 m^2
Retail	205 m^2
Total GFA	30,439 m^2
Total Outdoor Space	1,124 m^2
Total Carparks	14

High-rise

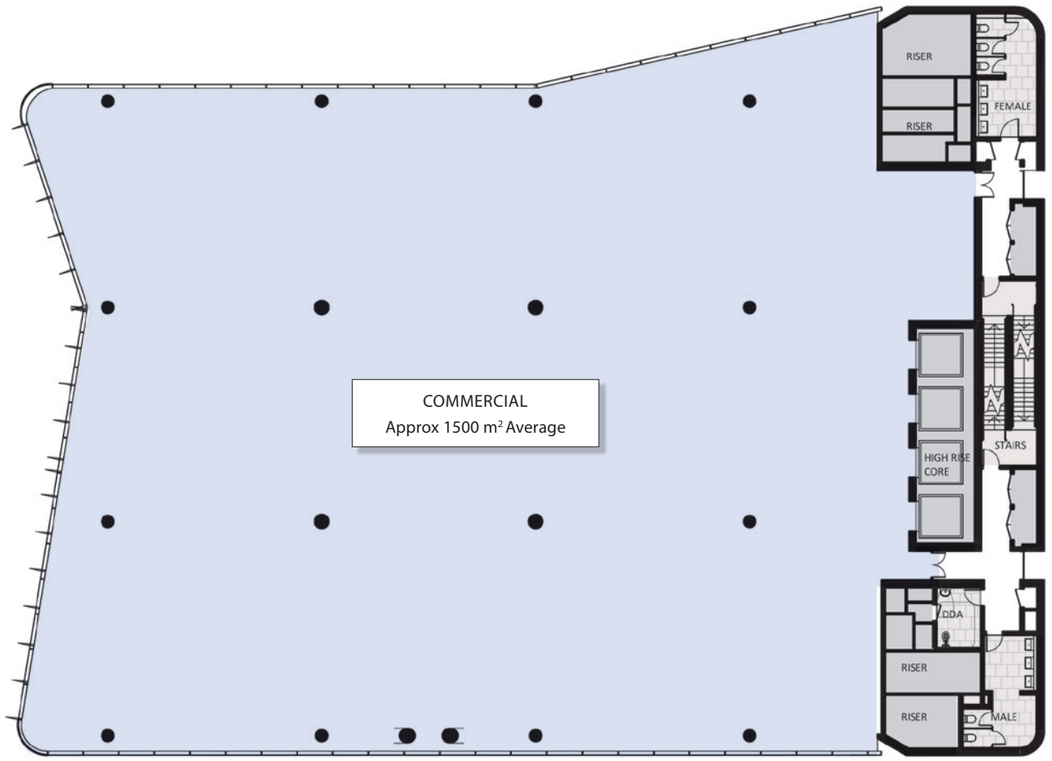
Typical floor plate of the high-rise features an offset service core which enables maximum flexibility for programme and use.



Functional Zoning



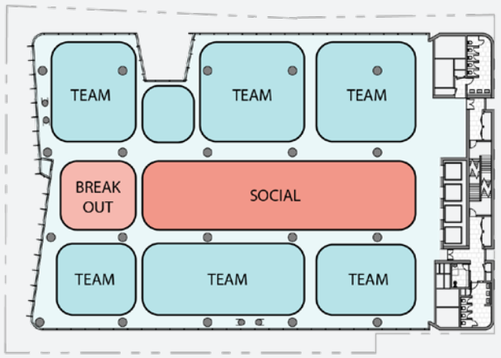
Circulation



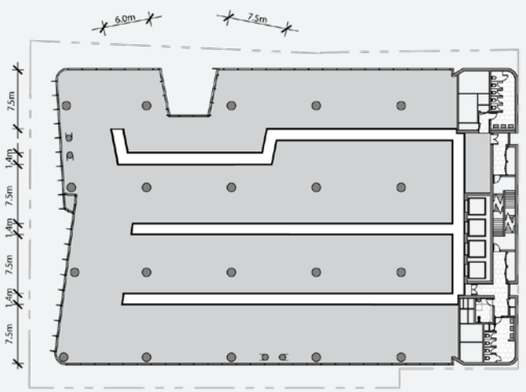
Typical High-rise Floor Plate

Mid-Rise

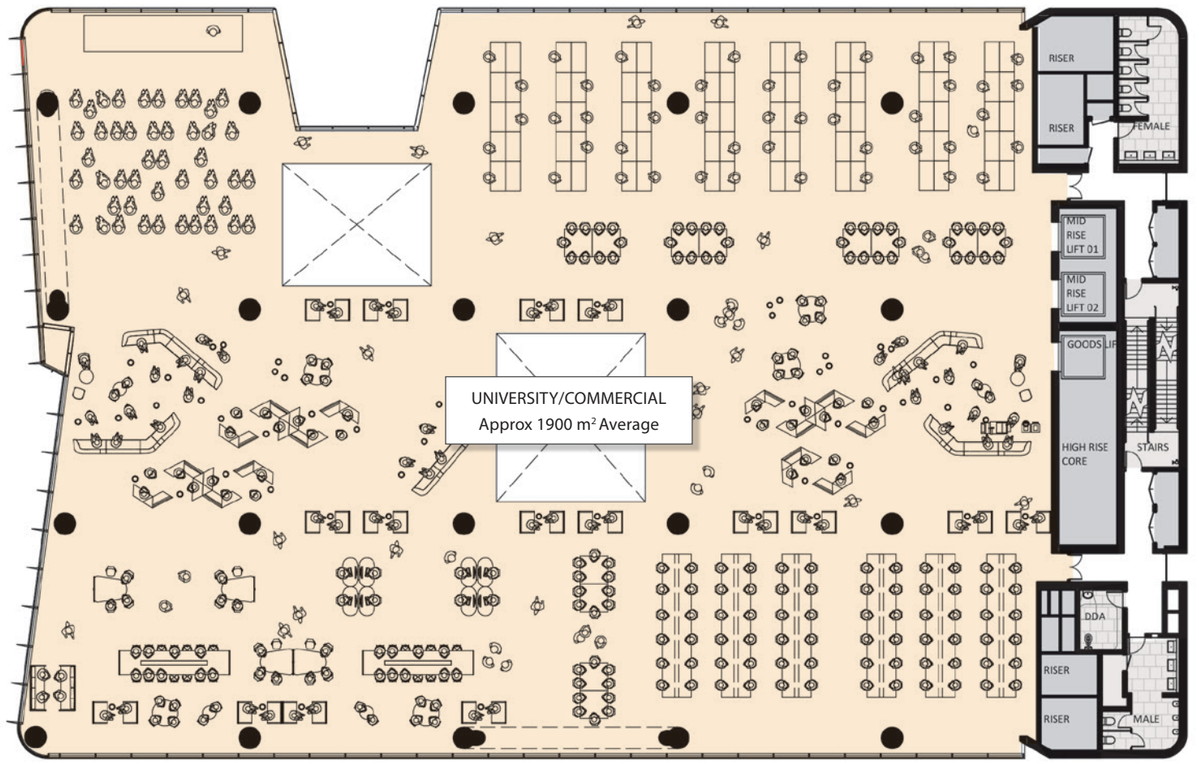
The typical mid-rise floor plate features a large floor area integrating external atriums to promote daylight penetration deep into the floor plate. It also promote flexible opportunity for internal atirum voids for interconnectivity between floors.



Functional Zoning



Circulation



Typical Mid-rise Floor Plate

Ground Floor

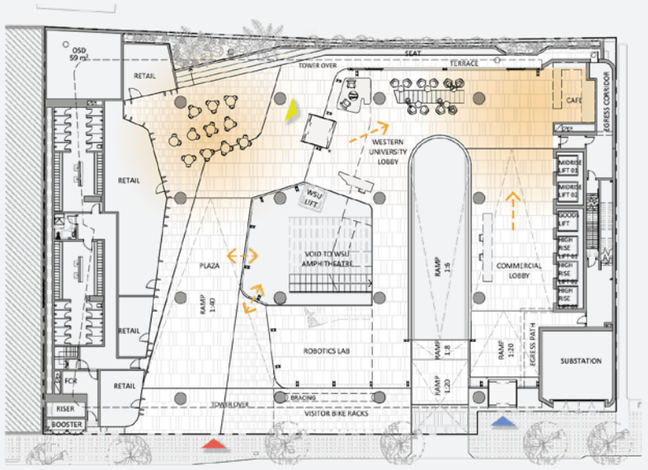
The ground floor is an open and interconnected space. The floor plan organises the building service core to the immediate eastern boundary, a centralised car park entry ramp, a large contiguous lobby with multiple entries, an open urban plaza, a retail spine and concealed end of trip facilities.

Social Infrastructure
There are two key social spaces located on the ground floor that promote interaction between the diverse users of the building. A dedicated cafe and seating zone within the lobby space and a plaza space with fixed and loose seating opportunities.

Entry/Connection
There are two main entries into the building lobby, that provide flexible options for both university and commercial patrons.

Access
Equitable access has been considered across the floor plan, with accessible ramps and multiple lift locations provided.

Interconnectivity
A large atrium space carved out of the podium extends vertically down into a flexible lower ground teaching space for the university and vertically up through the university podium space.



Access, Connections & Social Spaces

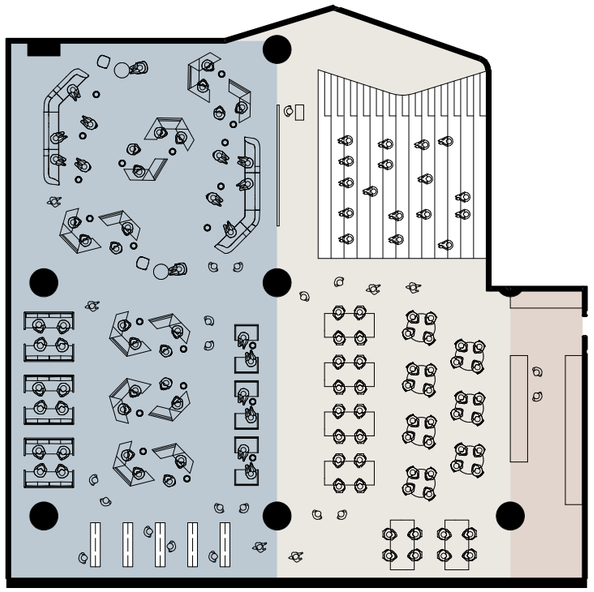
Lower Ground Floor

Flexible Teaching Space

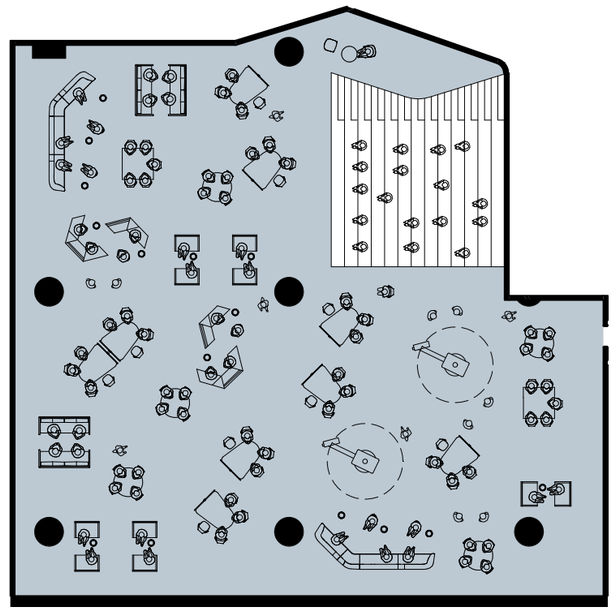
Located on the basement level of the building is a dedicated and interconnected space that provides a flexible teaching space for the university. The space engages and interconnects spatially with the public domain through it's vertical atrium.

Subject to future interior and fitout design the flexible space has the potential to facilitate various forms of university activities and uses, including large lectures, exhibitions, informal and formal learning and break-out spaces.

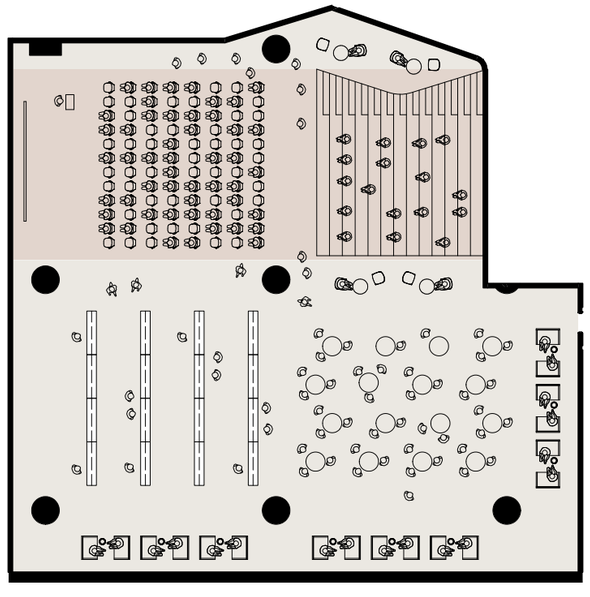
University Flexible Teaching Space



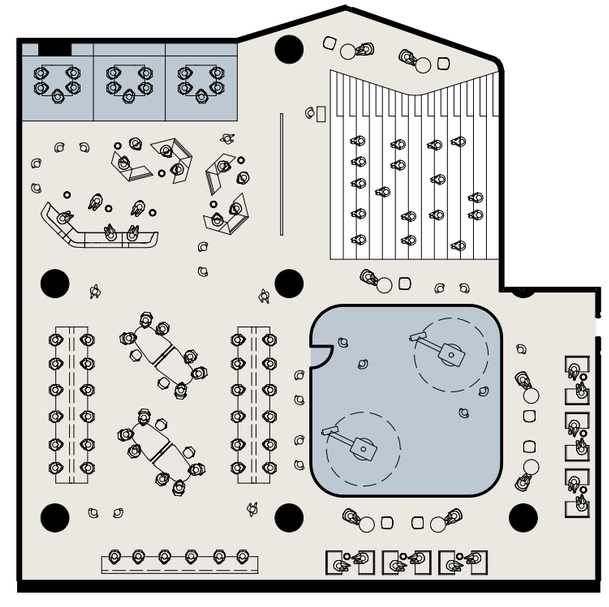
1 / Lecture, Informal Learning & kitchen Break-out



2 / Free Plan, 'Learning-scape'



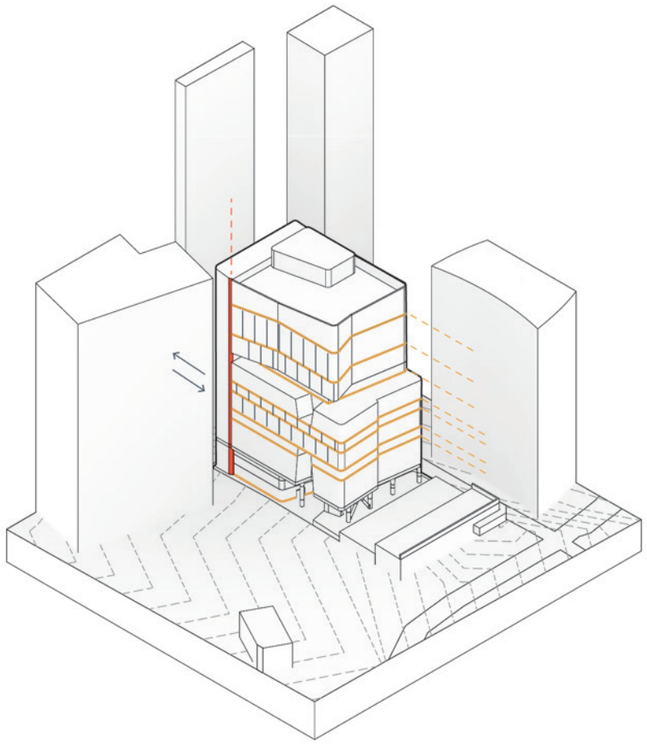
3 / Augmented Lecture, Exhibition & Break-out



4 / Multi-modal, Fab-Lab, Digital seminars & Informal Learning

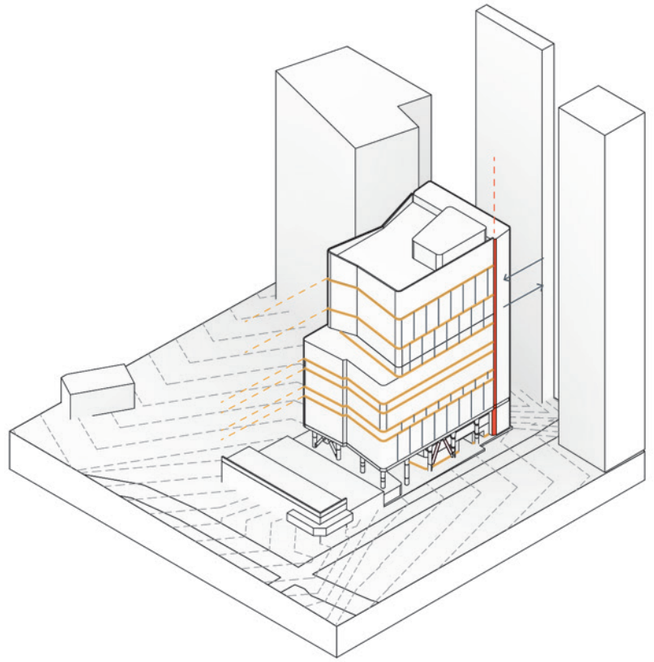
4.2 Built Form

Articulation & Scale
Various techniques are implemented throughout the expression of the built form to articulate and scale the overall massing. These techniques include the use of shadow lines and recess panels, shifting mullions within the curtain wall system and the use of materiality.



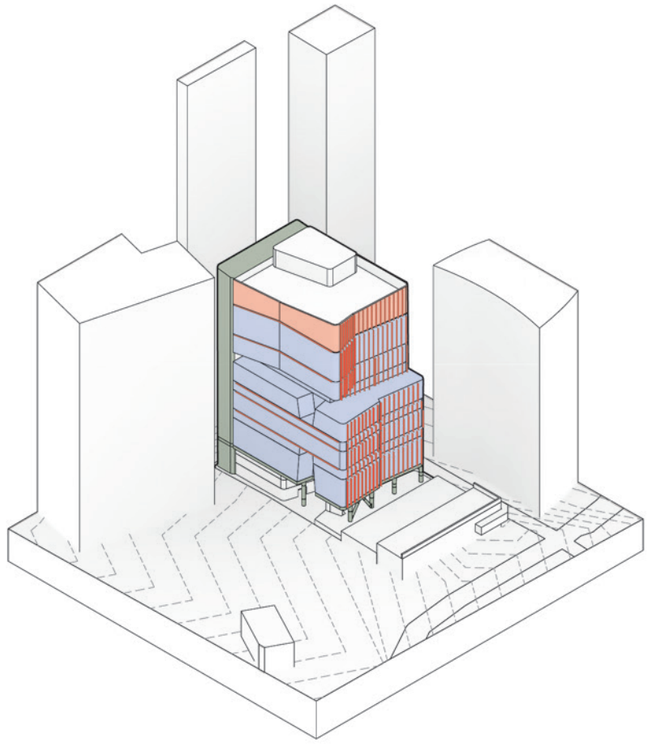
1 / Articulation

The composition of the built form is articulated through the specific introduction of shadow lines and recess panels. Vertically at the junction between the masonry core and the glazed curtain wall, a subtle fillet is created in the core. Whilst horizontally, recess metal panels are introduced at certain levels within the glazed curtain wall to create distinction and break up the façade.



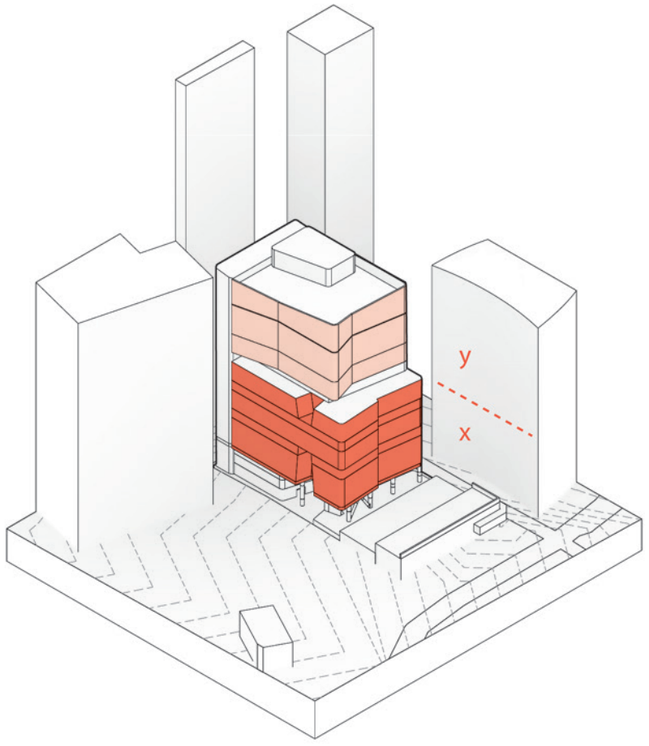
2 / Mullion Shifting

A subtle horizontal shift is also introduced into the curtain wall façade creating a pattern and texture in the surface of the built form. This shift is integrated in between the recess panels, creates a rhythm and pattern that further articulates the façade of the form.



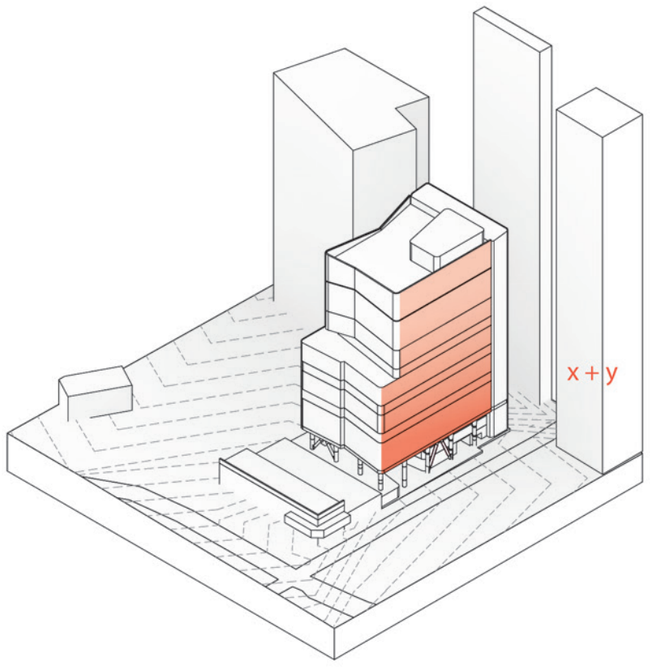
3 / Materiality

Materiality is used as a device to further emphasise and articulate the massing of the built form. Distinctive materials are applied to key mass elements such as the core and podium- conceived as solid masonry elements. The glazed curtain wall enhances the sculpted masses. And the metallic façade elements such as the shading fins and perforated plant room screen.



4 / Scale - North/West Elevations

Scale is addressed primarily through the use of mass and the façade simply emphases this strategy. To the north and the west, the mass is split into two volumes, articulated by a recessed level on level 12 to reduce the effect of scale. Sculpting of the façade and roof line is expressed through the singular curtain wall system.



5 / Scale - Southern Elevation

On the south elevation the masses converge into a flattened plane. This expresses the full scale of the tower. A juxtaposition to the western and northern elevations.

ARTIST'S IMPRESSION VIEW FROM WSU LOBBY

Hassall Street Elevation

4.2 Built Form

Engineering On Show

Just as we don't propose an architecture foreign to its context, we have not proposed a singular engineering solution. Rather our approach is to portray engineering's capacity to delineate and articulate spaces for people to inhabit, engage and enjoy. Concrete at the base expresses the 'public' volume; concrete up the tower visibly braces the structure and, with the core at the opposite end, frees the floor plates for multiple configurations and interconnecting voids

4.3 Streetscape

Materiality

The materiality of the podium and public domain is proposed to take on a more solid and textured character. Experienced at a more human scale, large structural elements come to the ground and into direct contact with the public domain. Sculpted structural elements are proposed as a raw off form concrete and traffic-able surfaces a durable stone. This masonry character enhances the formal idea of the building and enhances it's shared datum and relationship to the adjoining Commercial Hotel.

ARTIST'S IMPRESSION VIEW FROM HASSALL STREET

ARTIST'S IMPRESSION VIEW FROM HASSALL STREET

Columns & Bracing

At the podium the columns and bracing elements are on full display. Through the large podium open space and seamless shop front glazing system, these large scale structural elements, are elegantly profiled at their capitals - an expression of their structural performance. Whilst the key junction points between bracing and column are left exposed and unadorned, as a display of the strength of the structural engineering of the building.

Soffit

The soffit is considered as an extension of the façade of the public domain and streetscape. Deep sculpted coffers express the primary beam system of the elevated tower above. Also proposed as a raw off form concrete surface, it is honest and enhances the overall aesthetic of the streetscape character.

4.4 Façade

Podium

The podium is a triple height aluminium framed, glazed window wall system.

Tower

The main façade of the tower is of unitised, insulated glass unit aluminium curtain wall construction. The curtain wall panelling is inclined and facetted in specific areas between levels moving up and around the tower. The unitised system provides increased quality assurance in panel performance, fabrication and installation while also assisting construction speed.

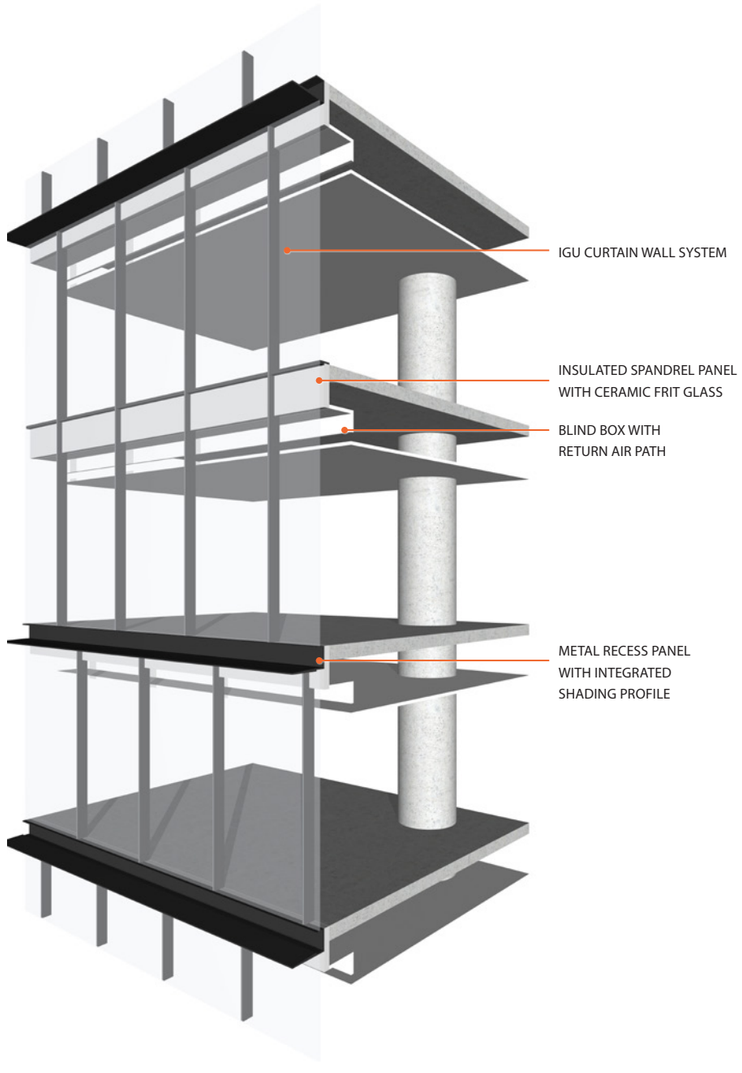
Specific features are spread across the curtain wall with:

- Horizontal recessed zones in panel to express façade bands and horizontal shading profiles;
- Horizontal sunshade features on northern elevation to protect from overhead sun and mitigate reflection onto adjacent Lancer Barracks; and
- Vertical sunshading elements on Western façade to protect from end of day sun.

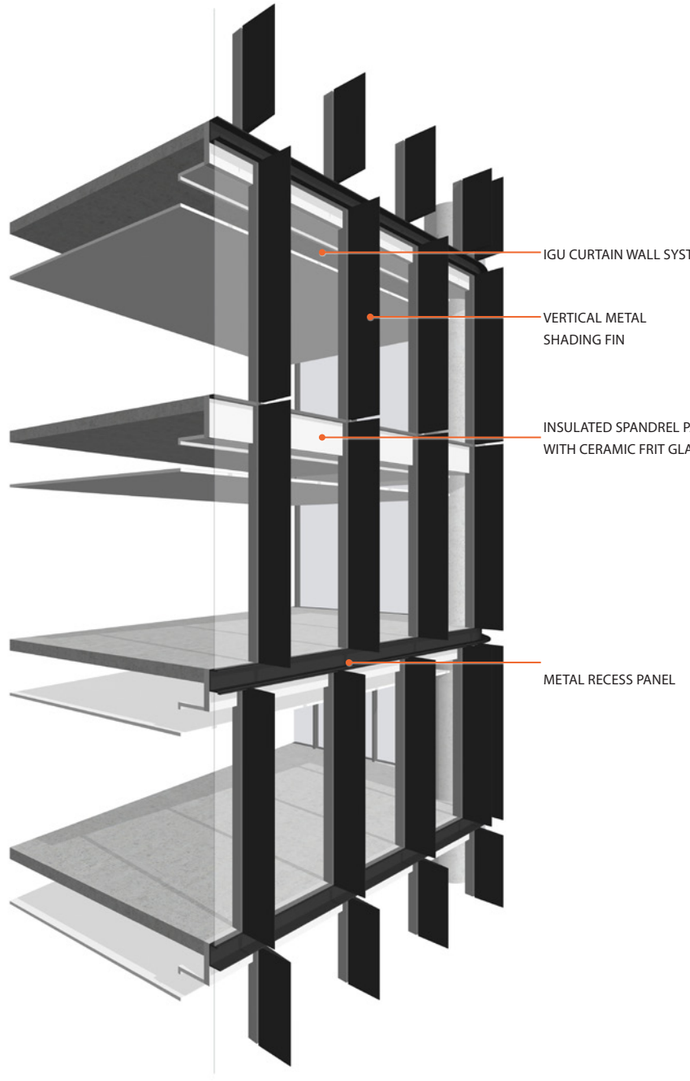
Glazed balustrades are provided to level 10 and level 12 landscaped terrace area.

Roof

Architectural mesh screening is provided above curtain wall at lev1l 18, 19 and roof level as a transition from glazed façade to open space above. Also serving to conceal view to plant and access/maintenance infrastructure.

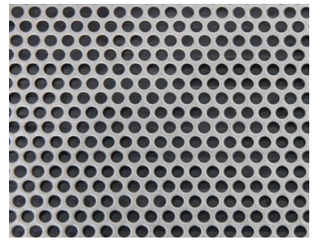


North Elevation

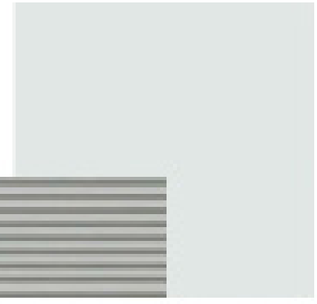


West Elevation

4.5 Materiality



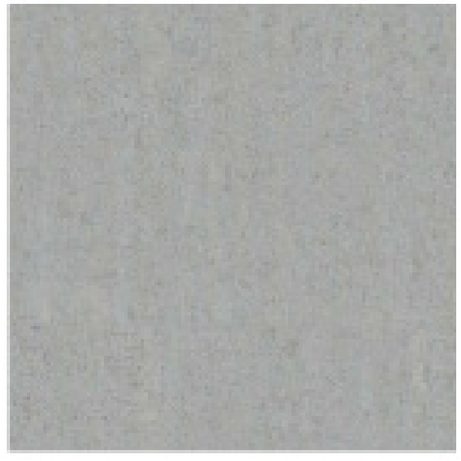
5. Aluminium sheet - Perforated



4. Vision Glass
Clear

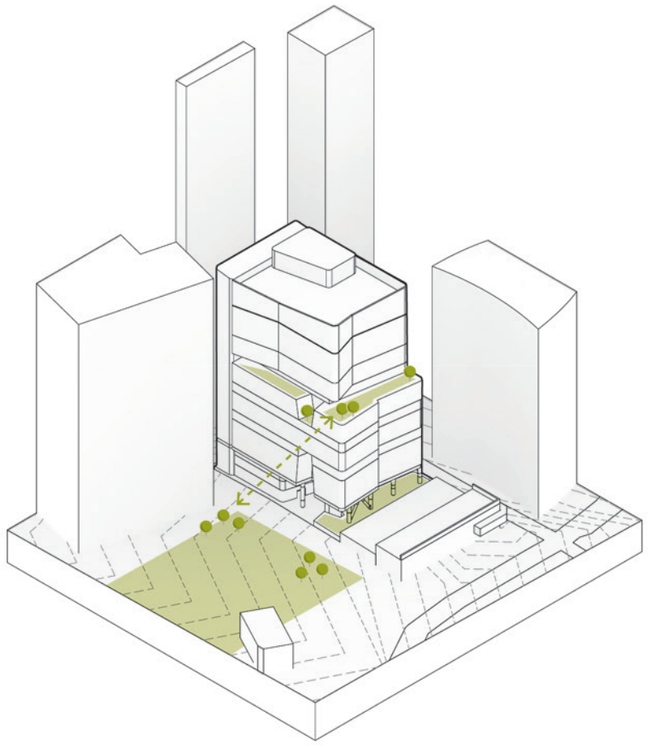
3. Shadow Box
Panel Finish

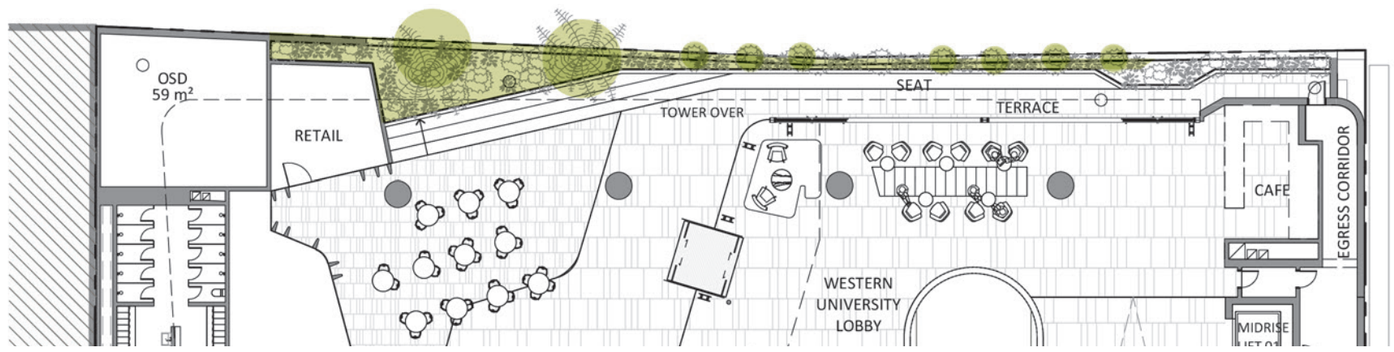
2. Metalwork Finish
Paint Finish Dark Charcoal



1. Concrete
Off White

4.6 Green Terraces & Green Wall





Green Terraces

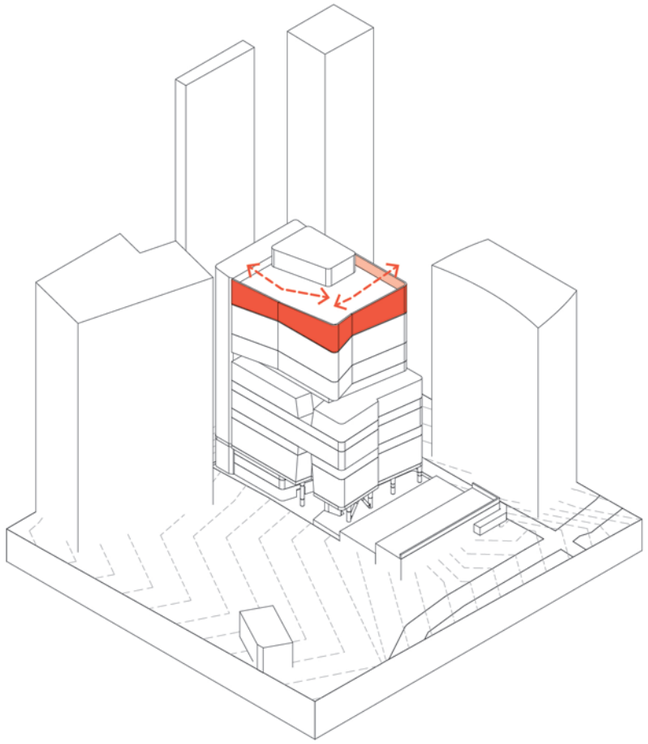
Roof terraces create a spatial connection and relationship with the nearby Lancer Barracks parade grounds. Level 10 includes an integrated pocket terrace to the north. At level 12 a larger roof terrace provides access to daylight and planting elements to both the northern and western elevations. Whilst to the west there is a extensive green terrace provided to the retail podium rooftop adjacent the public plaza.

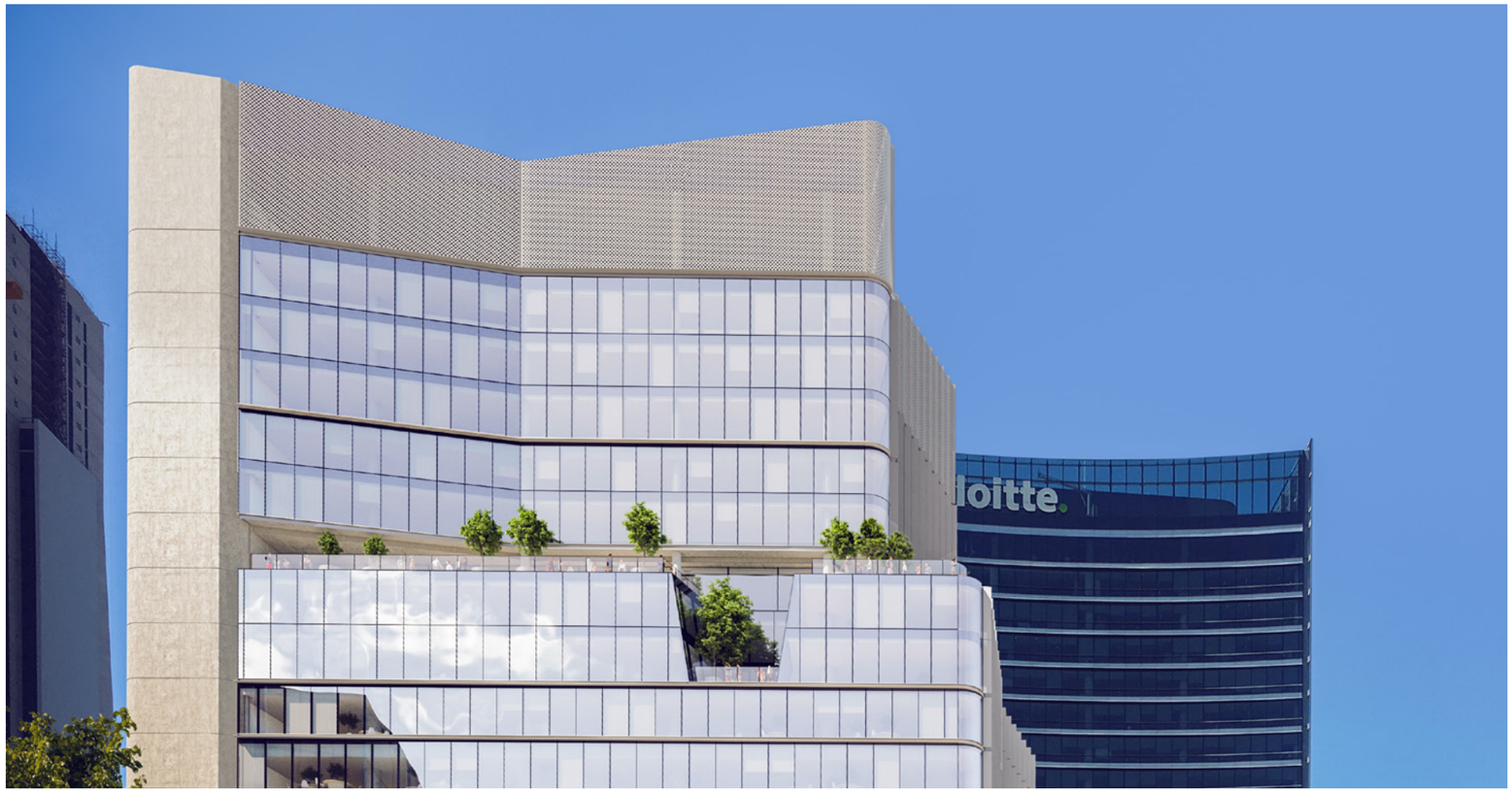
Green Wall

Elevated planters wrap along the northern boundary on the ground plane. These planters create a natural edge and buffer between the adjoining open spaces.

For more comprehensive information on the green terraces and green wall please refer to the landscape design report under appendix.

4.7 Roof Form

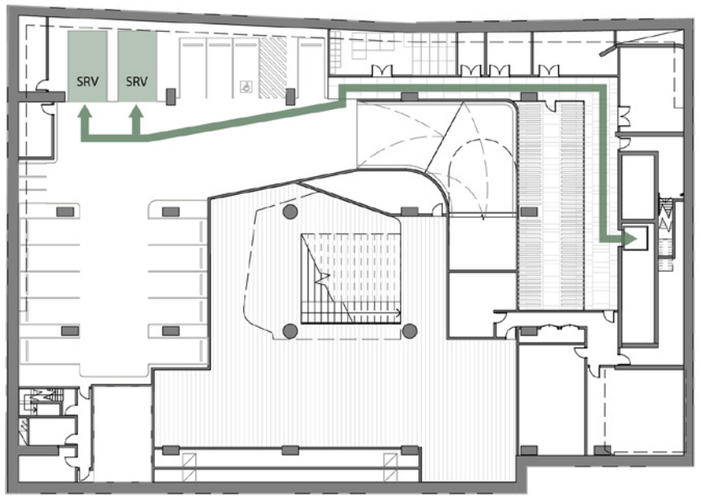




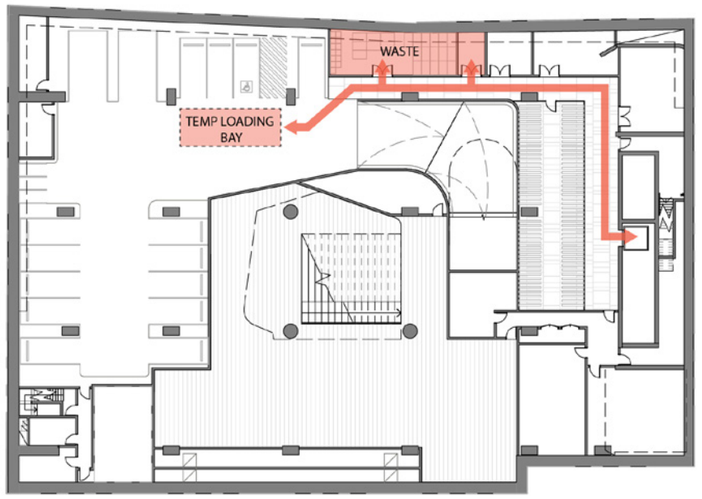
Expressive Roof Form

A key component of the architecture is the integrated and expressive roof form. The raking geometry flows along and accentuates the sculpted façade lines. Dynamic in its expression, the roof line creates varying profiles and enhances the perspective geometry when viewed from different angles and distant views.

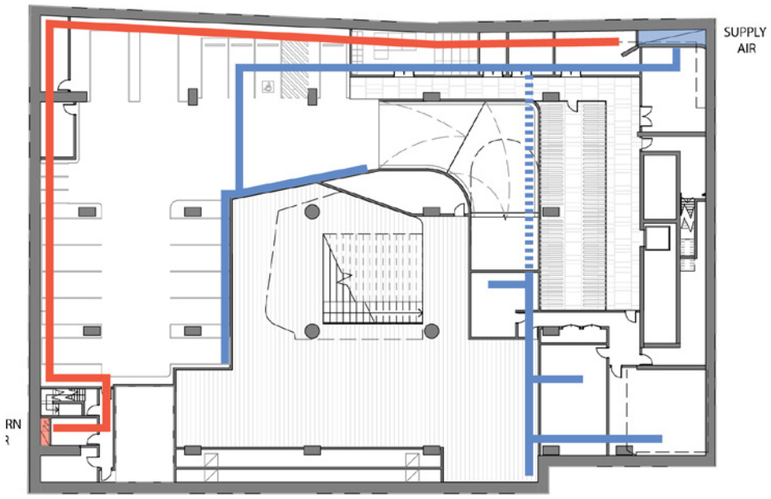
Tectonically the form belongs to the façade, however is distinct in its materiality. Exploring aluminium and perforation apertures, the roof form expresses an industrial and modern character for the building, whilst the perforated panels play with light and transparency. Furthermore the screening element integrates and provides ventilation to plant equipment for the building services.



Loading



Waste Management



Mechanical Services

4.8 Integration of Services - Basement

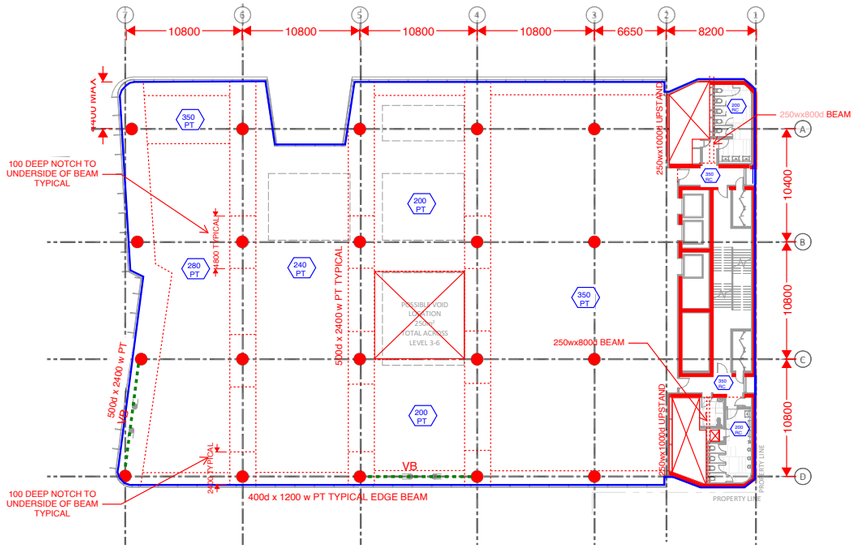
Access to the car park and loading dock occurs off Hassall Street via a ramp down to the Basement level. To examine the feasibility of this configuration a swept path analysis was undertaken by Ason Traffic consultant for an Small Rigid Vehicle (SRV). The SRV can adequately turn around in this arrangement. All waste and recycling systems will be collected by the appointed waste contractor from an area within 20m of the waste storage room. The main waste area is located in the north east corner of the basement and is easily accessed from the upper floors via the goods lift.

The diagram above shows the collection zone and indicative layout of the recommended systems. Provision will be provided for suitable collection of waste including:

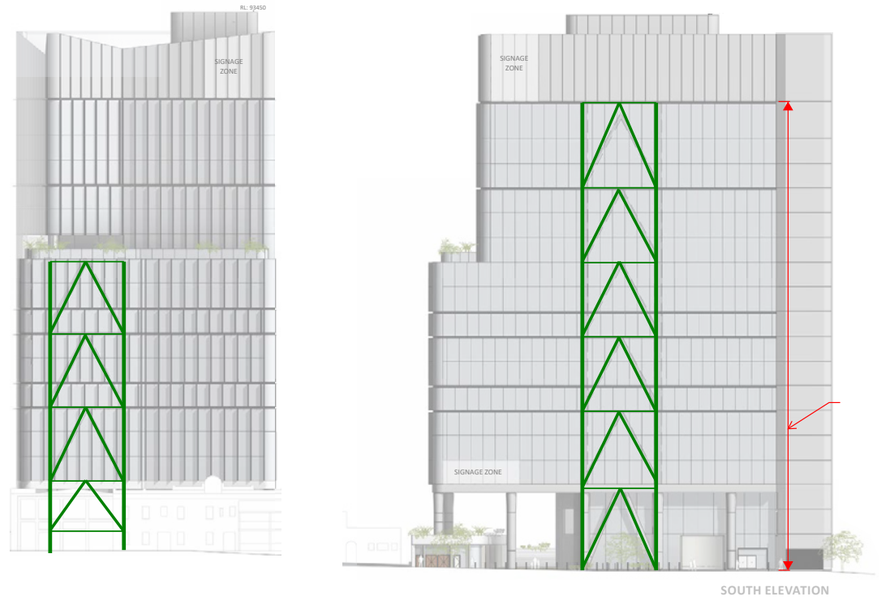
- Compost
- Co-mingle recycling
- Large appliance storage for reuse or recycling
- Landfill

Water will be collected and processed through the OSD. Please refer to the OSD documentation prepared by Floth.

The fire booster and Fire Control Room have been located facing Hassall Street, meeting Fire and Rescue NSW's requirements.



Preliminary Structural Concept (Image: RBG)



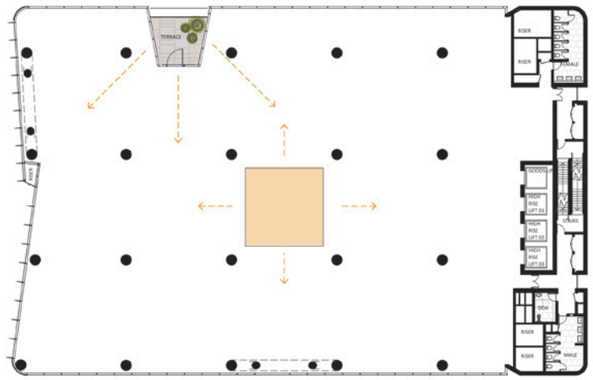
Preliminary Lateral Stability Concept (Image: RBG)

4.9 Structure

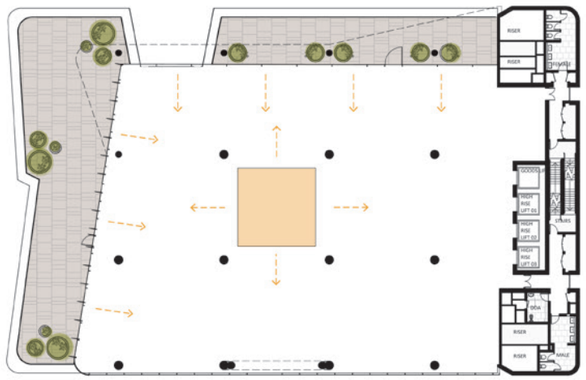
The structural system of the building is derived directly from the site-specific planning response of the built form. The proposed building core is offset to the East, responding to the future 61-storey residential tower to obstruct sightlines to the future residential apartments. This core location respects the two heritage items, the Commercial Hotel to the West and Lancer Barracks to the North of the site. It also allows permeability through to the ground floor plaza from Hassall Street, minimising blank wall to the South and most importantly provides clean uninterrupted floor space for the tenants.

Structurally, the off-set core creates a twisting moment to the overall tower structure. To stabilise the building, two structural bracings were introduced to the building, adding further articulation to the building façade. The south bracing in particular, comes all the way down to the ground landing adjacent to the main plaza entry. An appropriate response in showcasing the engineering character of WSU's Engineering building to the wider public.

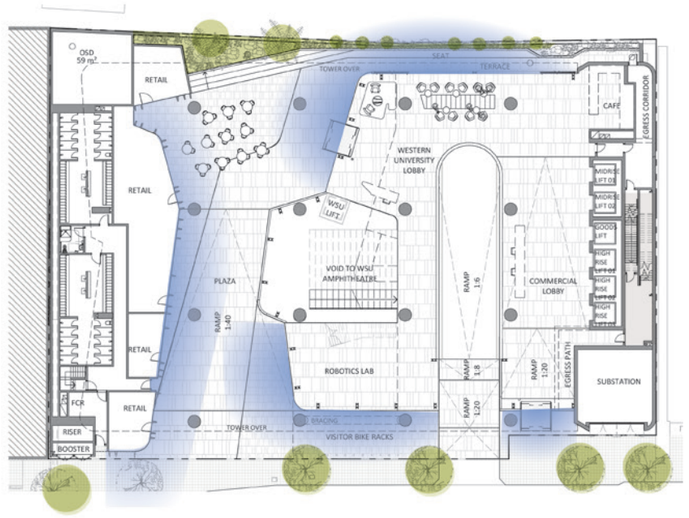
The structural grid is approximately 11m in the north south and 10.5m to the east west. A generous column spacing allowing flexibility and appropriate floor plates averaging 1900 m^2 to the mid-rise and 1500 m^2 to the high-rise, responding to the needs of WSU's functional requirements and the current requirements of the Parramatta commercial office market. The large contiguous floor plates can easily be subdivided and are future proofed with provisions for soft spots in the slab to allow inter-tenancy voids connecting multiple floors.



Terraces & Voids - Level 10



Terraces & Voids - Level 12



Ground Plane Passive Surveillance

4.10 Environment Amenity

Our 'topographic' approach is intended to not only impart the building with changing character from around its context, but to generate visible environmental benefits that are seen as synonymous with engineering for the future. Physically, the benefits include solar access deep into the interior, the ability to utilise mixed mode conditioning to a central void, and elevating multiple roof terraces. Characterised as voids and terraces, these devices enhance the environmental amenity of the tower floor plates.

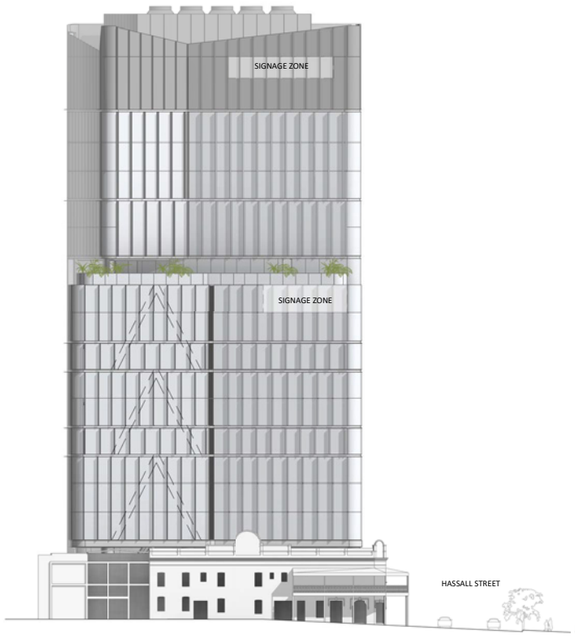
Voids
There is an opportunity for voids within the central bays of the typical floor plates across the tower. In conjunction with the external terraces which are extracted from the northern and western façades, these voids provide access of natural light to penetrate deep into the occupied floor plates.

Terraces
Breakout terraces are provided to both level 10 and level 12. Level 10 introduces a small break out terrace, whilst level 12 provides two larger terraces and the flexibility to be subdivided and serve two separate tenants.

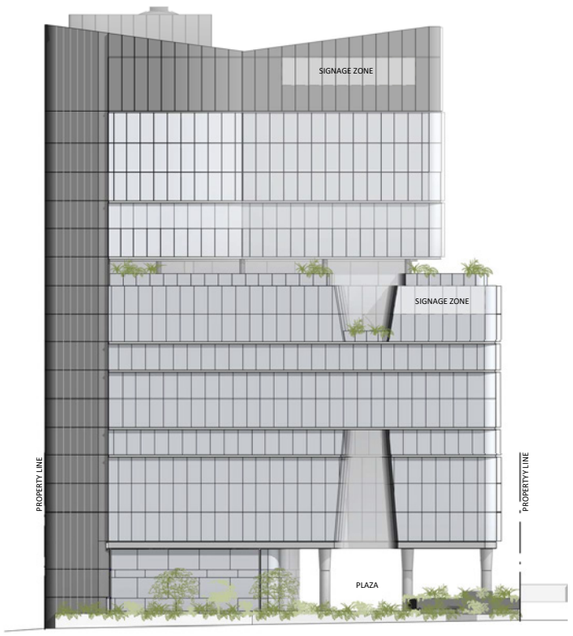
4.11 Crime Prevention

Crime Prevention through Environmental Design Principles (CPTED) have been taken into consideration throughout the design process. Please refer to the Crime Prevention Through Environmental Design Assessment prepared by the planner - Ethos Urban for more detailed information. In summary the following designing and planning principles have been incorporated into the design:

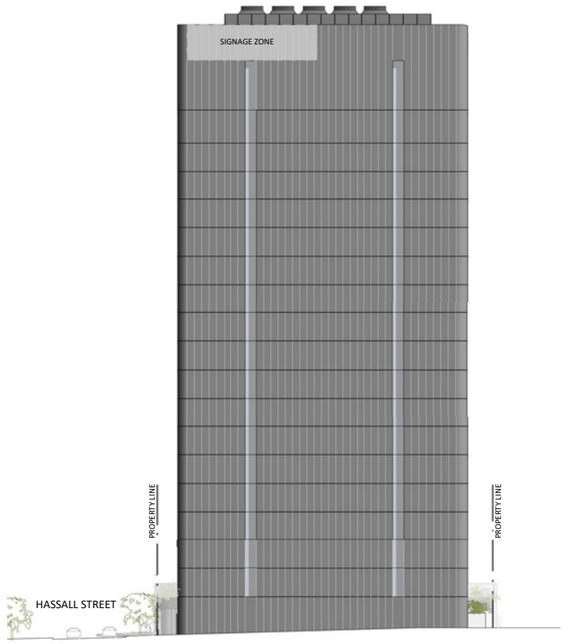
- The development provides a high level of natural surveillance
- The proposed plaza combined with the retail uses will attract a greater amount of pedestrian activity
- A lighting strategy will be developed by a qualified specialist to ensure adequate lighting is provided internally and externally to the building
- The proposal provides a high level of territorial reinforcement
- The proposed high quality development provides the opportunity to act as a catalyst for environmental improvements to the surrounding public areas



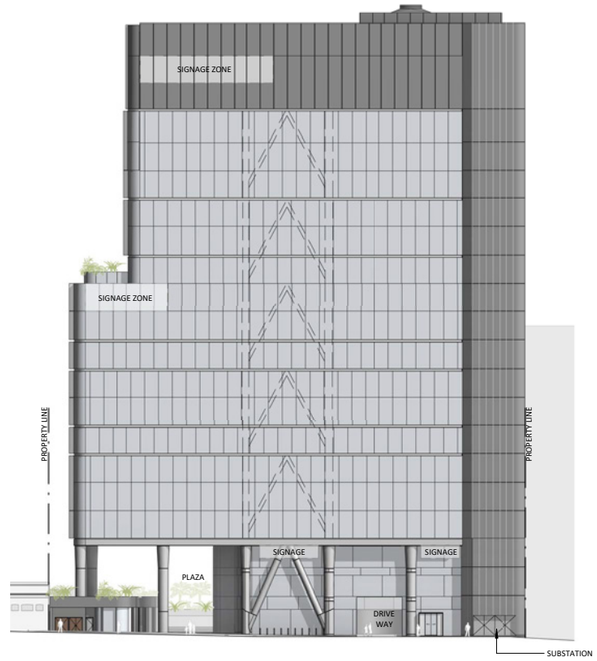
West Elevation



North Elevation



East Elevation



South Elevation

4.12 Signage

The following external signage zones has been proposed on the façade to enhance the presence of WSU and commercial tenant to the immediate and wider surrounding context from street level views, mid range views to distance views.

The signage zones are proportioned to accommodate existing WSU and future commercial tenant signs.

5.0 Response to Jury's Comments

05

1. Interface with Lancer Barracks

Comment
"Refinement of the scheme's response and interface with Lancer Barracks that addresses:

i) Development of an additional Ground Floor option which addresses the Lancer Barracks but does not open up a through-site link; and

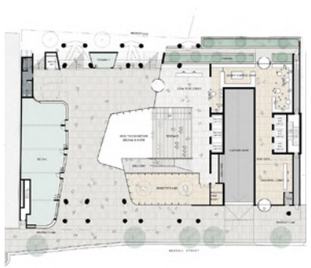
ii) Development of an additional interim Ground Floor option that provides a connection from the rear of the site to Station Street directly behind the Commercial Hotel (with any works external to the site excluded from the stated budget)." - Jury memo 21 November 2018

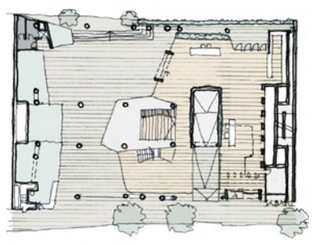
"The Jury is concerned that the refinements to the structural system has impacted the building's representation as an engineering and architecture building, as proposed in the competition scheme. This original proposal demonstrated an overt display of engineering and architectural cleverness and innovation, which the Jury acknowledge, was not fully resolved as a viable structural system, however the approach to a structure that is both sculptural and structural was a key element to the scheme and the Jury's endorsement of it." - Jury memo 17 December 2018

Response
The Ground floor arrangement has been designed to accommodate both current and future condition where connection to Lancer Barracks and/or Station Street might occur. The Open public plaza is maintained, and activated by series of retail and F&B on one side and university maker spaces on the other side.

Integration of amphitheatre seating and stairs is utilised on the northern side of the plaza to connect level differences between our site and Lancer Barracks. This amphitheatre seating also function as an outdoor gathering space for both commercial tenant and university students.

When Lancer Barracks opens to the public, this seating/stairs arrangement will provide seamless connection to accommodate pedestrian movement and level differences between the two sites.





PROPOSED GROUND PLAN - CURRENT AND FUTURE CONDITION

2. Ground floor column arrangement

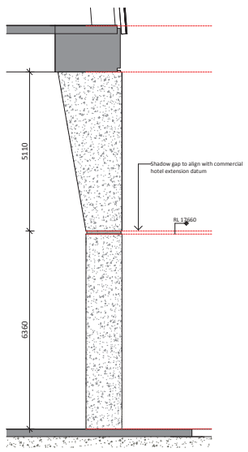
Comment
"Whilst maintaining the design intent, consider rationalising the Ground Floor column arrangement, with a view to the splayed columns being arranged in one plane." - Jury memo 21 November 2018

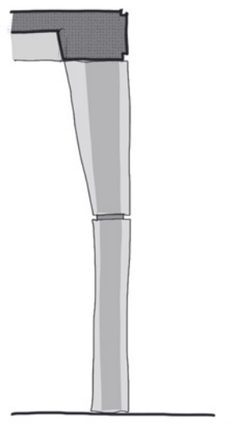
Response
The raking ground floor column has been rationalised to cater for maximum permeability through the site.

Orthogonal column as an honest structural approach

Sculpted orthogonal columns which relates to the exposed soffit.

Utilisation of steel bracing on key locations to stabilise the tower due to offset core.





GROUND FLOOR COLUMN DESIGN ITERATION

3. Façade Elements and Performance

Comment
"Develop façade elements and add sun shading as required, to enable endorsement from an ESD perspective by Floth and Flux (as Parramatta Council's ESD consultant). Confirmation is to be provided that the further developed scheme will be capable of achieving the ESD targets set out in C7.4 of the Design Competition Brief." - Jury memo 21 November 2018

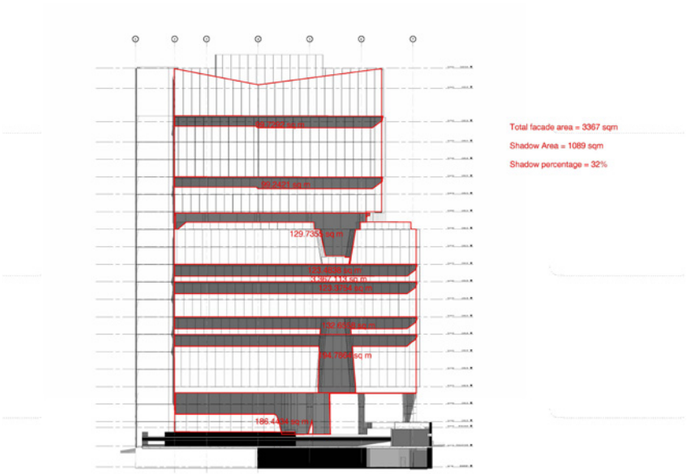
"The Jury queried the lack of solar shading to the northern elevation. It remains the view of the Jury that reliance on performance glass and mechanical systems is not ideal for managing energy use and internal climate control in a building of this scale and type. Investigations into natural ventilation and solar shading to this façade are encouraged." Jury memo 17 December 2018

Response
Please refer to Floth reports for glass curtain wall façade performance.

Sun shading has been further developed, horizontal sunshades are incorporated on the northern façade by integrating horizontal fins on key level recess detail.

Furthermore, Vertical sunshades are integrated on the western façade.

Possible additional strategy of using frit pattern



FAÇADE ELEMENT DESIGN ITERATION

4. Improving Commercial Foyer

Comment
"Look for improvements in the interface and identity of the office tower lobby entry, driveway and WSU foyer spaces. The Jury suggests transparency across the driveway and potentially a flat 'porte cochère' area within the footprint of the building would be beneficial if achievable without unduly affecting the amenity of the Lower Ground Floor layout." - Jury memo 17 December 2018

Response
Commercial frontage has been improved by shifting the carpark ramp west, resulting in a wider commercial lobby.

Glass façade is introduces to substitute solid wall separating commercial lobby and university spaces across the driveway. This improves the visual connection between the two spaces significantly.

Flat porte cochère cannot be accommodated due to carpark ramp gradient constraints, although the floor finish of the entry to the carpark has been improved by utilising stone tile finish or similar material, to complement the floor finish on the commercial foyer and university space / This combine with setback garage door creates a much more continuous space, which enhance pedestrian experience walking down Hassall Street.

5. Southern Elevation

Comment
"Revise the southern elevation / Hassall Street façade, so it presents a consistent alignment and eliminates the raked façade." - Jury memo 17 December 2018

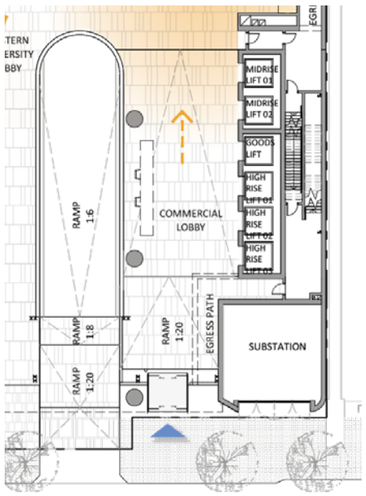
Response
Raked façade to the south has been straighten up, which help with structure efficiency while maintaining the design principle of tower coming down to ground in spite of a more traditional podium tower relationship.

6. Floor plates amenities

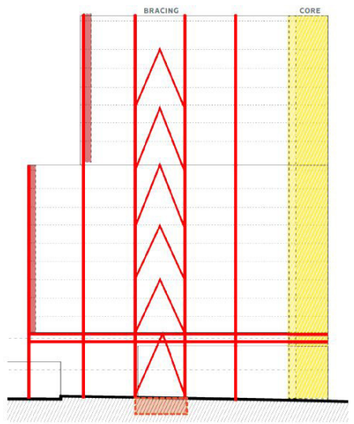
Comment
"Larger and more contiguous floor plates are supported including flexible provisions within the building structure for future intra-tenancy voids for vertical connectivity. The Jury understand that the intra-tenancy voids are subject to separate internal fit out but would strongly support these as a way of creating good workplaces and retaining the integrity of the competition proposal with specific reference to connection to the recess on the north side of the façade.." - Jury memo 17 December 2018

Response
Podium cutouts on the northern façades are retained to maximise daylight penetration.

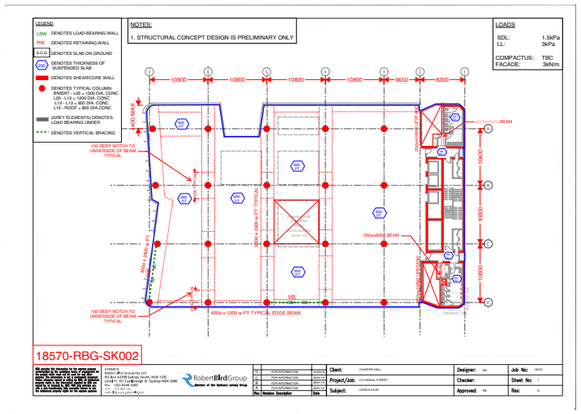
Structural provision for the future central void has been accommodated.



COMMERCIAL ENTRANCE - GROUND FLOOR



SOUTHERN ELEVATION STRUCTURAL SYSTEM



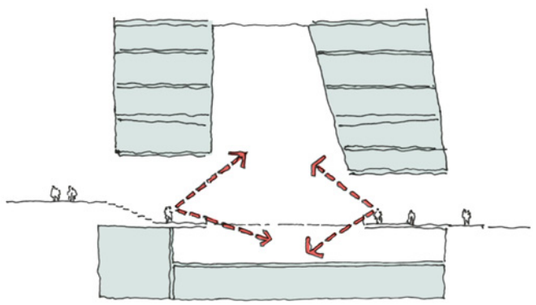
TYPICAL FLOOR PLATE STRUCTURAL SYSTEM

7. Vertical Connection on ground floor

Comment
"The vertical stair running inside the lower floor void adjacent to the robotics display should be further developed having regard to the original competition entry. The original entry presented a stair that was more visibly prominent from the ground floor plane as more of a sculptural element of the building with the visible character of it connecting multiple floors adding a dynamic character to the central void spaces." - Jury memo 17 December 2018

Response
The vertical stair has been design with the intent to not only provide a vertical circulation between levels but also as a feature element that complement the dynamic relation if shifting voids on Lower Ground, Ground and L01.

This stair which connects Ground Floor, Level 1 and Level 2, will complement the amphitheatre seating on lower ground. Together, they create a dynamic university space that stimulates people movements.



SHIFTING VOIDS AND VERTICAL MOVEMENT

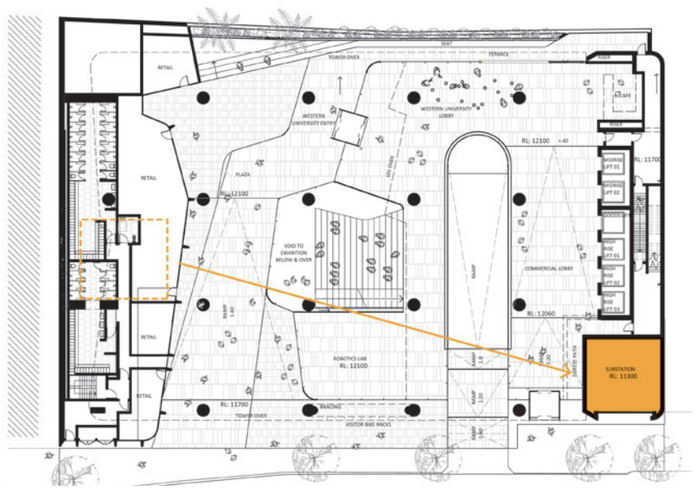
8. Substation re-location

Comment
"The substation location, though relatively unobtrusive and allowable within the legislative requirements, should be further reviewed during the design development stage to explore any feasible opportunities to minimise its impact on the active ground plane proposed and even the potential to relocate it to Level 1." - Jury memo 17 December 2018

Response
The substation has been relocated away from the retail area to accommodate maximum retail area and EOT facilities. Substation has been relocated to the south east corner of the site adjacent to commercial lobby. Although this will have some impact to the commercial foyer, width of the commercial foyer is maintained.

Upon many considerations, this location is believed to be the best location on ground floor which achieve compliance and has the least negative impact from functional and aesthetic point of view.

Potential to relocate substation to level 1 is being investigated, we note that the substation can potentially be relocated above the carpark ramp entry pending to further correspondence with Endeavour.



GROUND FLOOR PLAN - POTENTIAL SUBSTATION LOCATION

9. University entrance and pedestrian flow management.

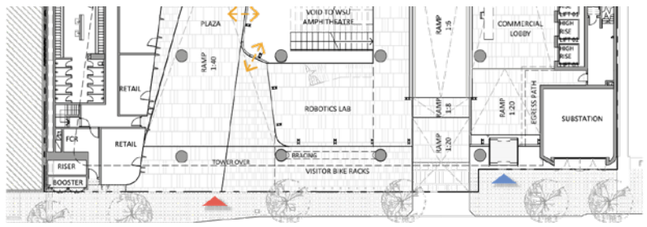
Comment
"The WSU lobby entrance should be reviewed to ensure it is a viable and well-used entry point to the lift core, especially while no site through link exists. The corporate tenancy entry foyer is likely to have a large proportion of the pedestrian traffic given that this is the shorter route to the lifts." - Jury memo 17 December 2018

Response
Lift arrangements has been further developed along with pedestrian access strategy from university and commercial point of view.

The entrance from Hassall Street will utilise pedestrian screening / control system or a similar measure which will only allow commercial tenant and guests to pass through.

Meanwhile, university students will have to walk through the newly introduced plaza to reach the lift lobby to ensure the plaza will have pedestrian traffic.

Other than university students passing through, when connection to Lancer barracks has not been realised, retail and F&B kiosks will create a new destination for surrounding commercial tenant and residents.



GROUND FLOOR PLAN - UNIVERSITY AND COMMERCIAL ENTRANCES

10. Ground floor sequencing

Comment
"The open engaging proposal of the original ground plane should be maintained with multiple spaces of varying scale, activity and character and ensure that the circulation patterns across the ground floor are maintained and appealing. The northern side of these area should be more specific rather than just circulation spaces.." - Jury memo 17 December 2018

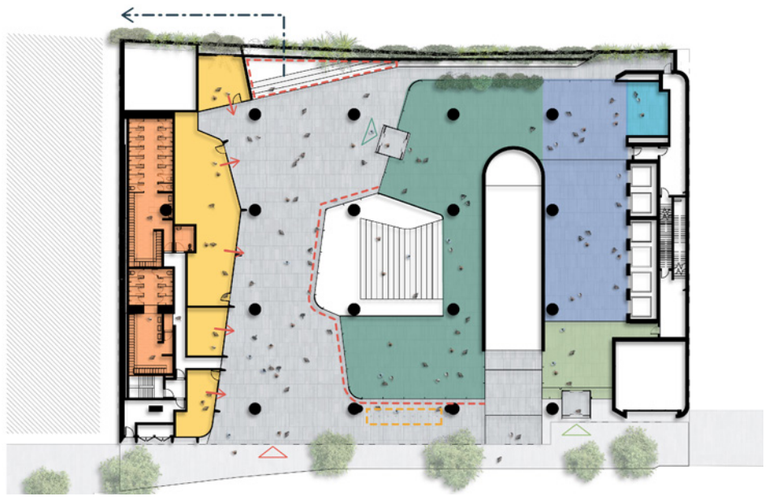
Response
The ground floor arrangement has been developed with the approach of creating a series of spaces with different function and character.

The entrance to the plaza on Hassall street is made as wide as possible to draw people in and provide maximum visual connection to Lancer Barracks.

This plaza tapers to a narrower path in the middle portion to encourage foot traffic to look at the maker spaces adjacent separated by transparent triple height glass curtain wall. This bottleneck arrangement also separates the southern and northern part of the plaza.

The northern part of the plaza is a designated gathering space, where an amphitheatre seating complements adjacent retail and F&B kiosk.

Upon entering the university space, a spacious area can be utilised as a seating area and cafes. This can potentially be spilling out to the northern outdoor area where outdoor sitting area is envisioned sitting nicely with the colonnade.



Public Domain

6.0 Sustainability

06

The design of the building focuses on energy and water efficiency, a high quality of indoor environment and carbon reduction in delivery and operation.

The project will achieve a 6 Star Green Star rating under the Design and As-Built v1.2 tool which, when accompanied by Charter Hall and WSU's sustainability requirements, forms the backbone of the ESD principles being considered.

The project is also committed to a comprehensive commissioning and building tuning programme to ensure that the building operates to the design intent and a high level of occupant satisfaction as well as energy and water efficiency targets are achieved.

Sustainable Building Principles

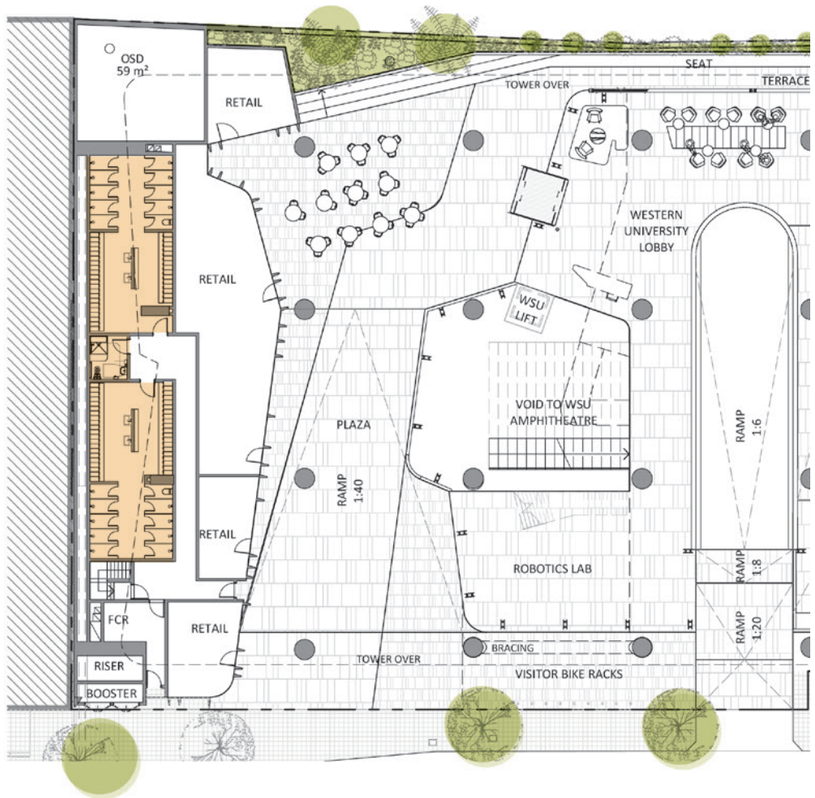
The building includes the following features which will contribute to the 6 Star Green Star Rating:

- Strong passive design response including external shading, high performance double glazing and allowance for a blind box to the North, South and West to minimise energy use, maintain a high standard of thermal comfort, and maintain access to views and daylight.
- The use of LED lighting will result in a significant energy reduction relative to fluorescent lighting historically used in this type of application
- Improved air quality through high ventilation rates and minimising recirculated air. In addition, selection of finishes and adhesives and sealants will minimise VOC and formaldehyde off-gassing
- Improve the ecological value of the site area via introduction of planted vegetation

Building Performance

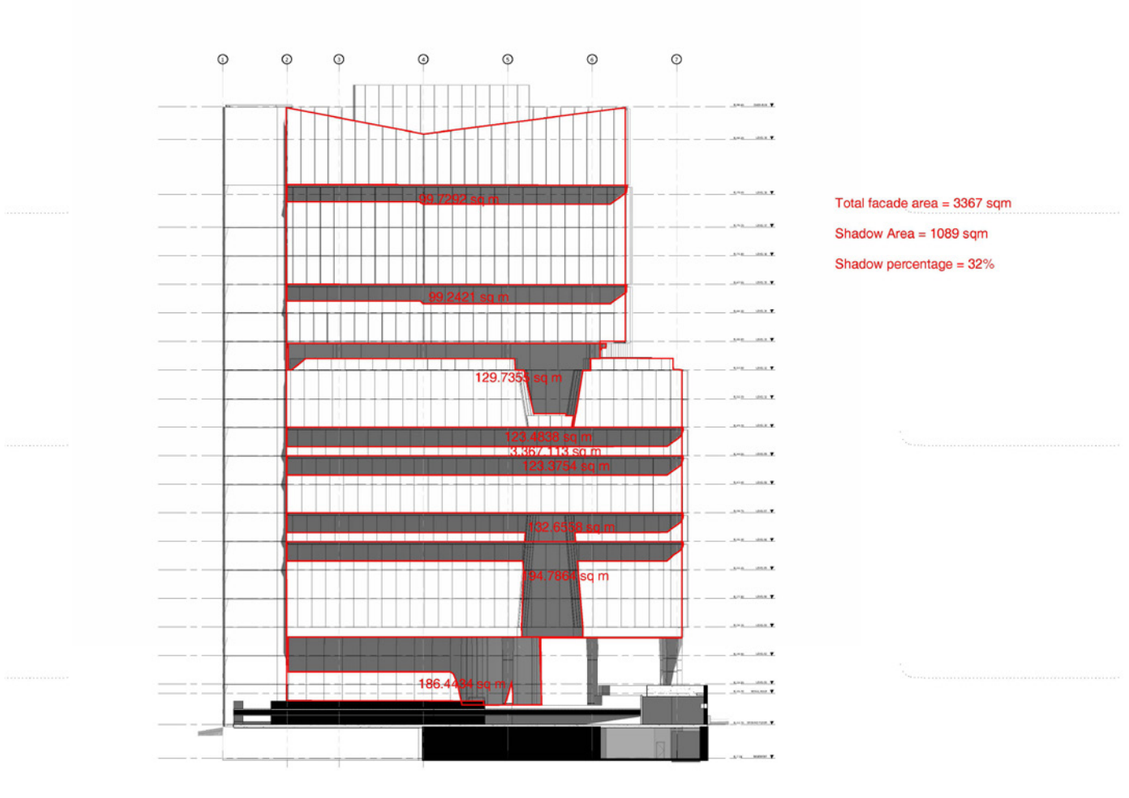
The building is to be designed and constructed to achieve a high standard of operational building performance by incorporating the following principles:

- Energy and water efficiency are a primary consideration of the building design
- A high standard of indoor environment quality with a focus on occupant thermal comfort, daylighting and air quality.
- The glazing performance proposed is:
  - UV Value - 1.7
  - SHGC - 0.4
  - VLT – 45-50%
  - Reflectivity - 20% max



End of Trip Facilities

Located on the ground floor level directly adjacent to the public plaza, the building includes provision of well-designed end of trip (EOT) facilities. This provides runners to directly access the EOT from street which further activates the public plaza. Its positioning also allows natural light into the facilities through the use of skylights.

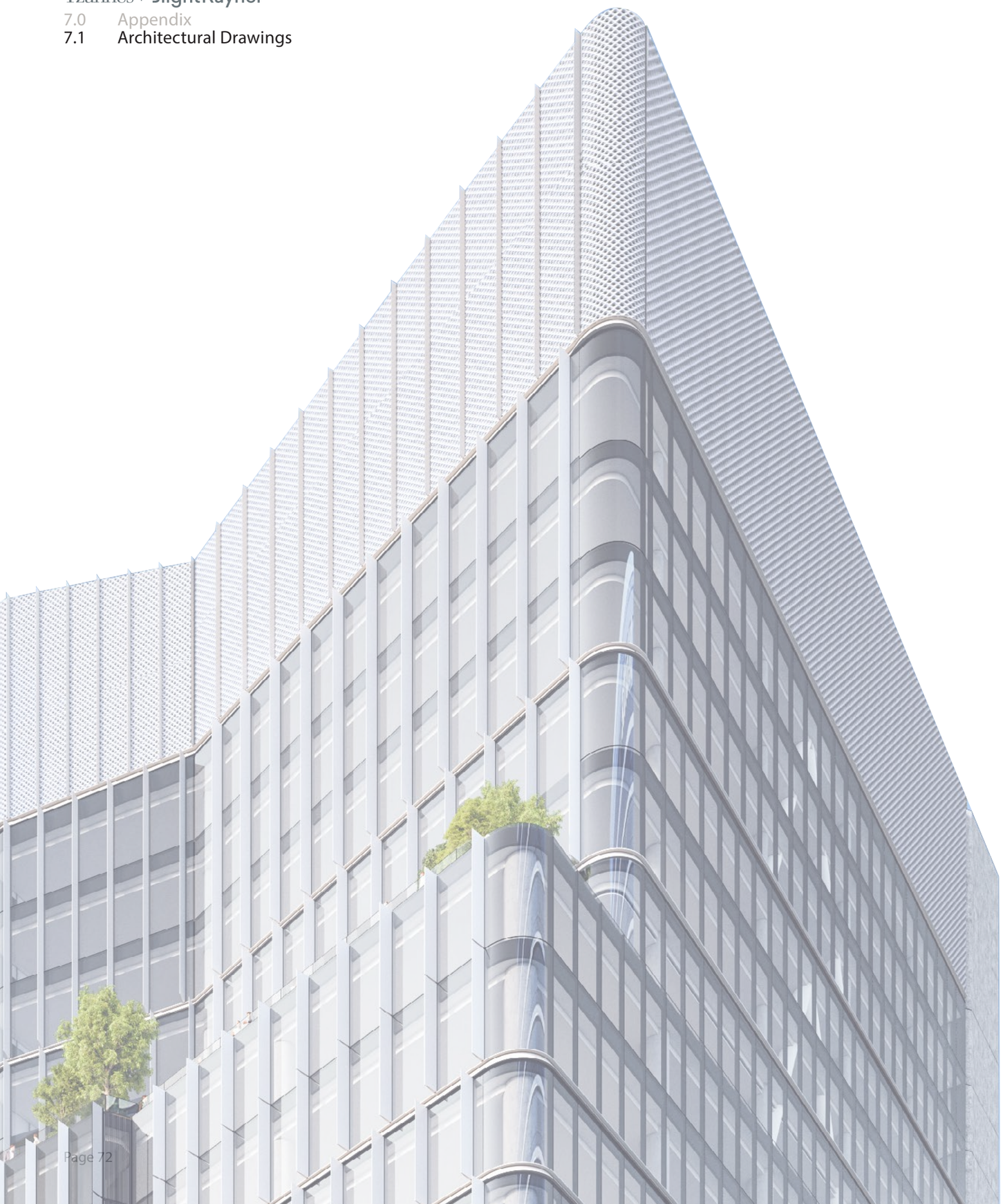


Proposed Shading Performance to Northern Elevation (Image: Floth)

Horizontal and vertical shading fins are incorporated within the façade system to provide adequate shading of the proposed glazed curtain wall system. These shading devices not only reduce the heat load on the building but also act to mitigate reflection and glare onto nearby open spaces.

7.0 Appendix

07



Tzannes + BlightRayner

Architectural Drawings SSDA

2b-6 Hassall Street Parramatta

Charter Hall

WESTERN SYDNEY UNIVERSITY

Prepared for
Charter Hall and Western Sydney University
May 2019

Drawing List

Sheet No	Sheet Name	Rev
01.00	Cover Sheet & Drawing List	J
03.10	Site Plan	J
03.50	Proposed Setback Diagram	J
10.00	Basement	J
10.01	Ground Level	J
10.02	Level 01	J
10.03	Level 02	J
10.04	Level 03	J
10.05	Levels 04-06	J
10.06	Levels 07-09	J
10.07	Level 10	J
10.08	Level 11	J
10.09	Level 12 - Terrace	J
10.10	Levels 13-17	J
10.11	Level 18 - Plant	J
10.12	Level 19 - Plant	J
10.13	Roof Plan	J

Sheet No	Sheet Name	Rev
11.03	Reflected Ceiling Plan - Level 02	J
18.00	GFA Diagrams - Midrise	J
18.01	GFA Diagrams - Highrise	J
20.00	Section A	J
20.01	Section B	J
20.10	Podium Section B	J
20.11	Podium Section A	J
30.00	North Elevation	J
30.01	East Elevation	J
30.02	South Elevation	J
30.03	West Elevation	J
30.10	Podium Elevation - South	J
52.01	Facade Section - North Façade	J
52.02	Facade Section -West Façade	J
52.03	Facade Section - South Façade	J
52.04	Façade Section - Plant	J
60.01	External Finishes Schedule	J

Development Summary
2B-6 Hassall Street, Paramatta

Site Area	2,647.00
FSR	11.50
Total Permitted GFA	30,440.50

BUILDING 01

Level	Floor-to-Floor m	RL m	GFA m²	UNIVERSITY GFA m²	COMMERCIAL GFA m²	VOID GFA m²	RETAIL GFA m²	EOT GFA m²	STORAGE GFA m²	LOBBY/ CIRCULATION GFA m²	WC GFA m²
LEVEL 17	4.20	76.05	1,592	0	1,542	0	0	0	0	0	50
LEVEL 16	3.70	72.35	1,594	0	1,542	0	0	0	0	0	52
LEVEL 15	3.70	68.65	1,592	0	1,542	0	0	0	0	0	50
LEVEL 14	3.70	64.95	1,594	0	1,542	0	0	0	0	0	53
LEVEL 13	3.70	61.25	1,595	0	1,542	0	0	0	0	0	53
LEVEL 12	3.70	57.55	1,449	0	1,396	0	0	0	0	0	53
LEVEL 11	3.70	53.85	1,991	0	1,935	0	0	0	0	0	56
LEVEL 10	3.70	50.15	1,997	0	1,941	0	0	0	0	0	56
LEVEL 09	3.70	46.45	2,029	1,973	0	0	0	0	0	0	56
LEVEL 08	3.70	42.75	2,029	1,973	0	0	0	0	0	0	56
LEVEL 07	3.70	39.05	2,006	1,953	0	0	0	0	0	0	53
LEVEL 06	3.70	35.35	1,977	1,923	0	0	0	0	0	0	54
LEVEL 05	3.70	31.65	1,846	1,791	0	125	0	0	0	0	55
LEVEL 04	3.70	27.95	1,841	1,786	0	125	0	0	0	0	56
LEVEL 03	3.70	24.25	1,958	1,904	0	0	0	0	0	0	54
LEVEL 02	3.70	20.55	853	807	0	0	0	0	0	0	46
LEVEL 01	3.70	16.85	771	725	0	0	0	0	0	0	47
GROUND FLOOR	5.15	11.70	1,118	502	0	0	211	131	0	274	0
TOTAL			29,833	15,337	12,981	251	211	131	0	274	899

BELOW GROUND

Level	Floor-to-Floor m	RL m	GFA m²	UNIVERSITY GFA m²	COMMERCIAL GFA m²	VOID GFA m²	RETAIL GFA m²	EOT GFA m²	STORAGE GFA m²	LOBBY/ CIRCULATION GFA m²	WC GFA m²
BASEMENT	4.34	7.36	607	607	0	0	0	0	0	0	0
TOTAL			607	607	0	0	0	0	0	0	0

	GFA m²	UNIVERSITY GFA m²	COMMERCIAL GFA m²	VOID GFA m²	RETAIL GFA m²	EOT GFA m²	STORAGE GFA m²	LOBBY/ CIRCULATION GFA m²	WC GFA m²
GRAND TOTAL	30,439	15,944	12,981	251	211	131	0	274	899

GFA TOTAL			
Maximum Floor Space Ratio (FSR) - GFA : Site Area	11.5	30,440.50	m²
Proposed Floor Space Ratio (FSR) - GFA : Site Area	11.5	30,439	m²
GFA Available to meet maximum FSR yield		1.02	m²

CAR PARKING ALLOCATIONS	
AREA	No. PROVIDED
CAR PARKING	14
Total	14

BICYCLE PARKING ALLOCATIONS		
AREA	GREENSTAR REQ's	PROVIDED
Total	180	188

SANITARY PROVISIONS								
TYPICAL FLOOR	1940 m²		WCs Required	Urinals Required	Washbasins Required	WCs Provided	Urinals Provided	Washbasins Provided
1:10 POPULATION	TOTAL	194						
	MALE	97	2	3	3	2	3	3
	FEMALE	97	5	0	3	5	0	3
	UNISEX ACC. WC		1	0	1	1	0	1

Tzannes + BlightRayner

LANCER BARRACKS

LITTLE STREET

CHARLES STREET

PARRAMATTA STATION

STATION STREET EAST

THE CURTIS CHENG CENTRE
NSW POLICE
HEADQUARTERS

13 STOREY

COMMERCIAL
HOTEL/
2A HASSALL

2 STOREY

2B-6
HASSALL ST

12 HASSALL
PROPOSED 61
STOREY
TOWER

MACQUARIE
TOWERS
PROPOSED 54
& 41 STOREY

HASSALL STREET

ECLIPSE

22 STOREY
COMMERCIAL

SKYRISE/
11 HASSALL

IN
CONSTRUCTION
43 STOREY
TOWER

FIORI
APARTMENTS

2 X 21 STOREY
RESI.

IMPERIAL/
9 HASSALL

PROPOSED 2 X
21 STOREY
RESI.

VALENTINE AVENUE

WIGRAM STREET

Rev	Description	Consultant	Date	Issued by
G	For Information	BRT	19.03.19	TW
H	Draft SSDA Drawings	BRT	22.03.19	MSK
I	Draft SSDA Drawings	BRT	08.04.19	TW
J	SSDA Submission	BRT	03.05.19	TW

Charter Hall

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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
SITE PLAN

Project No. 18032
Drawing No. 03.10
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

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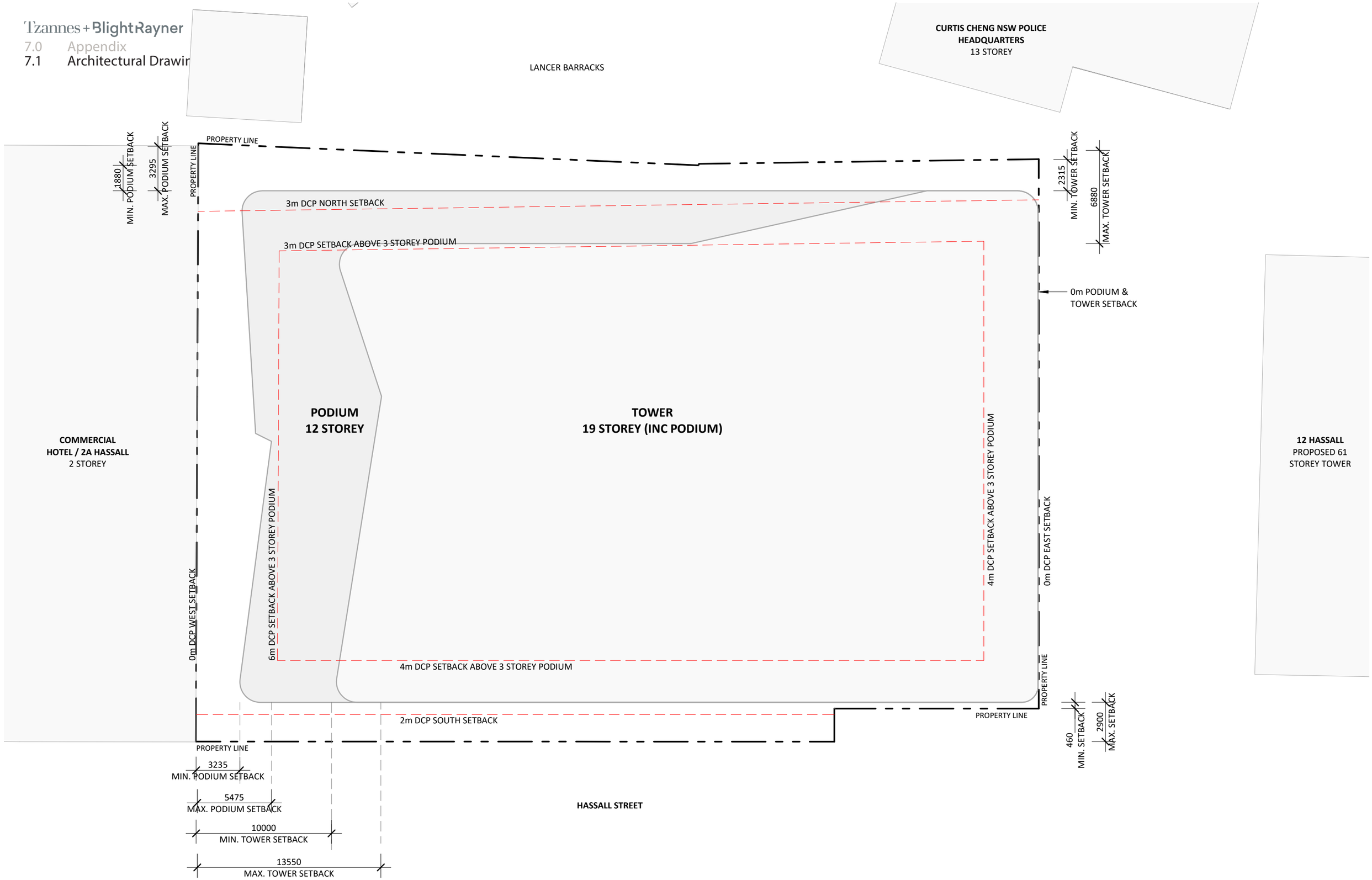

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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
PROPOSED SETBACK DIAGRAM

Project No. 18032
Drawing No. 03.50
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

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Tzannes + BlightRayner

PARKING SCHEDULE	
CAR BAYS	13
PWD BAYS	1
SRV BAYS	2
EOT BICYCLE PARKING	178

Rev	Description	Consultant	Date	Issued by
G	For Information	BRT	19.03.19	TW
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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
BASEMENT

Project No. 18032
Drawing No. 10.00
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

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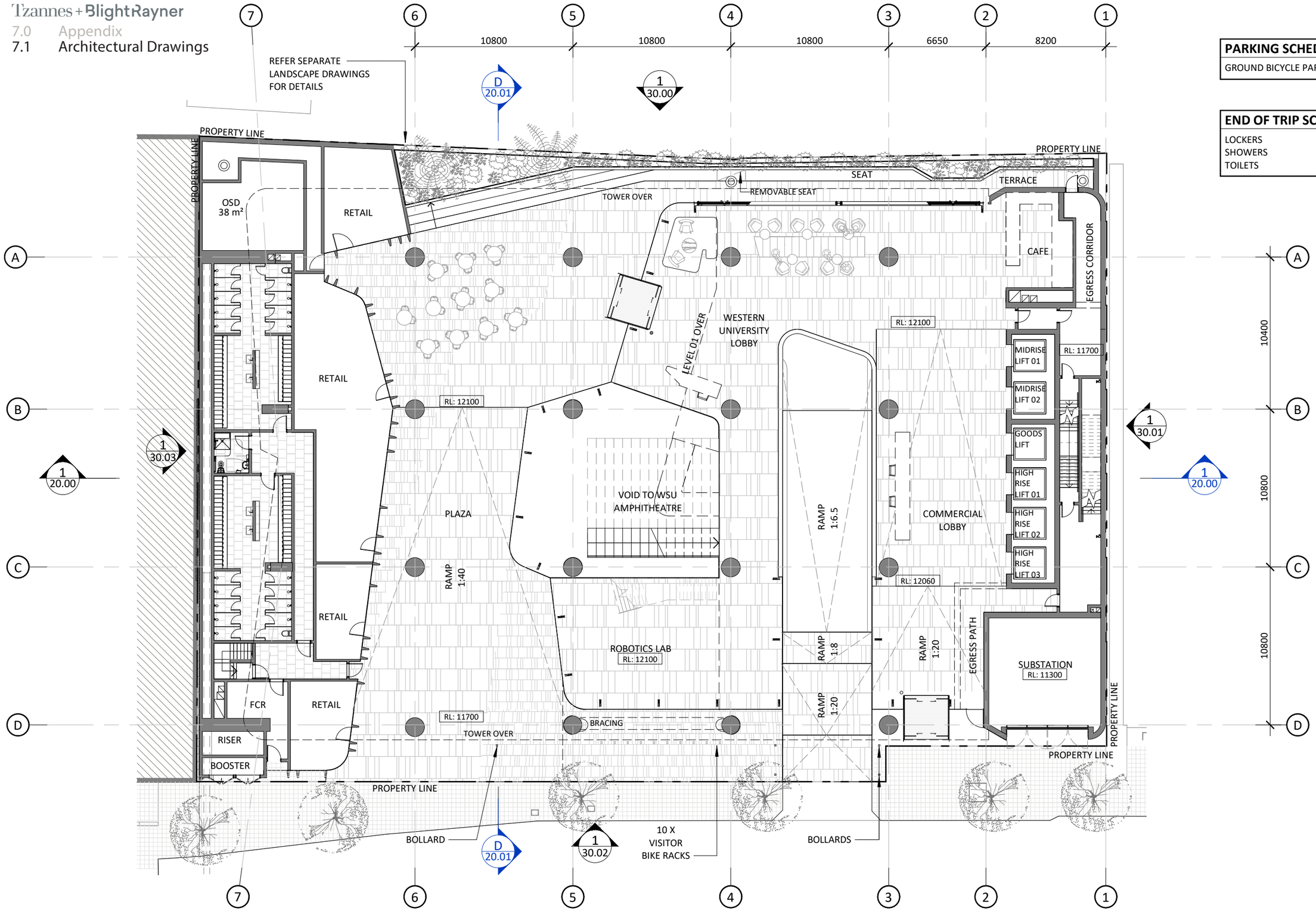
PARKING SCHEDULE	
GROUND BICYCLE PARKING	10

END OF TRIP SCHEDULE	
LOCKERS	170
SHOWERS	19
TOILETS	2



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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
GROUND LEVEL

Project No. 18032
Drawing No. 10.01
Revision J
Date 03.05.19
Drawn by Author
Checked by Checker
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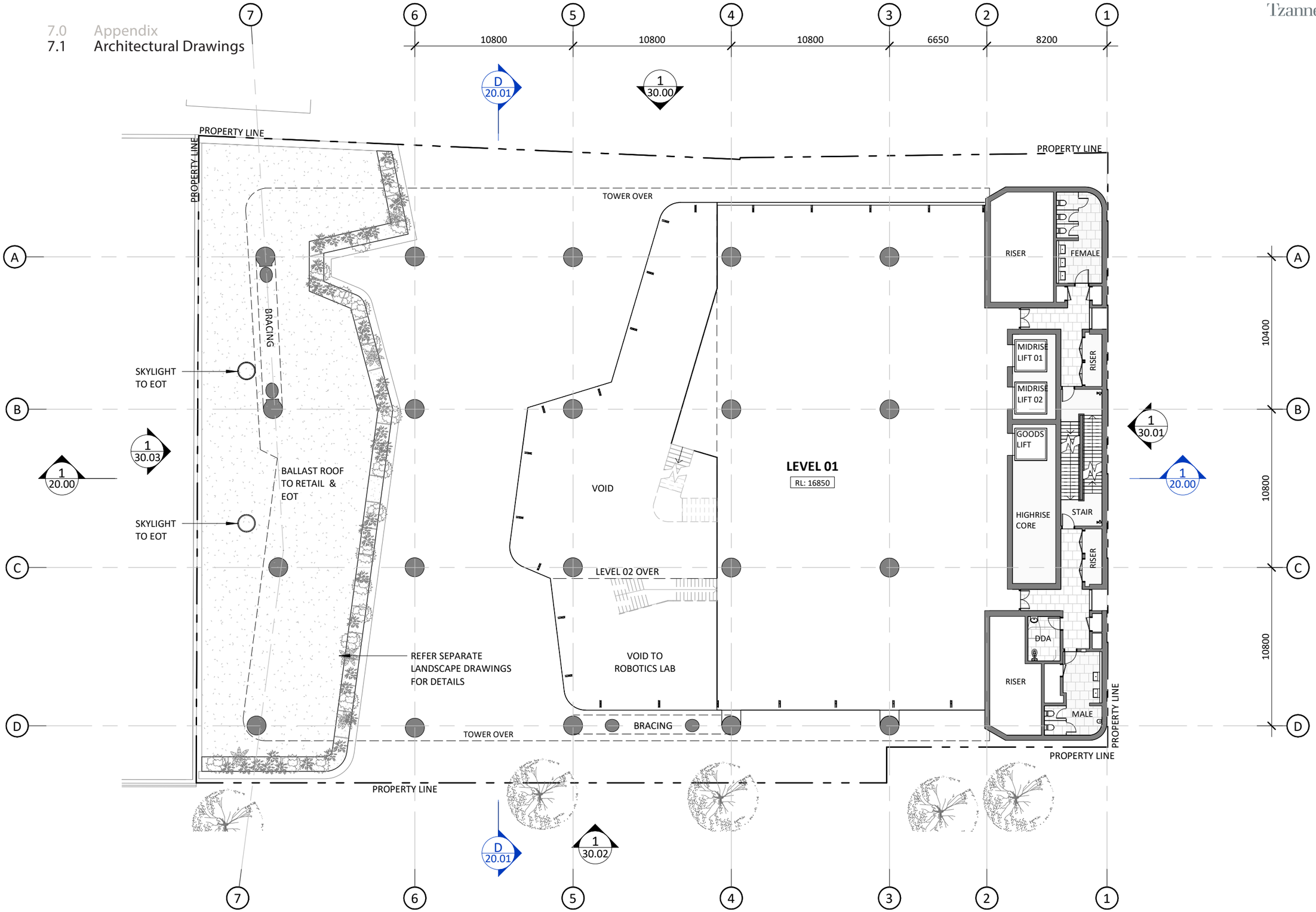

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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
LEVEL 01

Project No. 18032
Drawing No. 10.02
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

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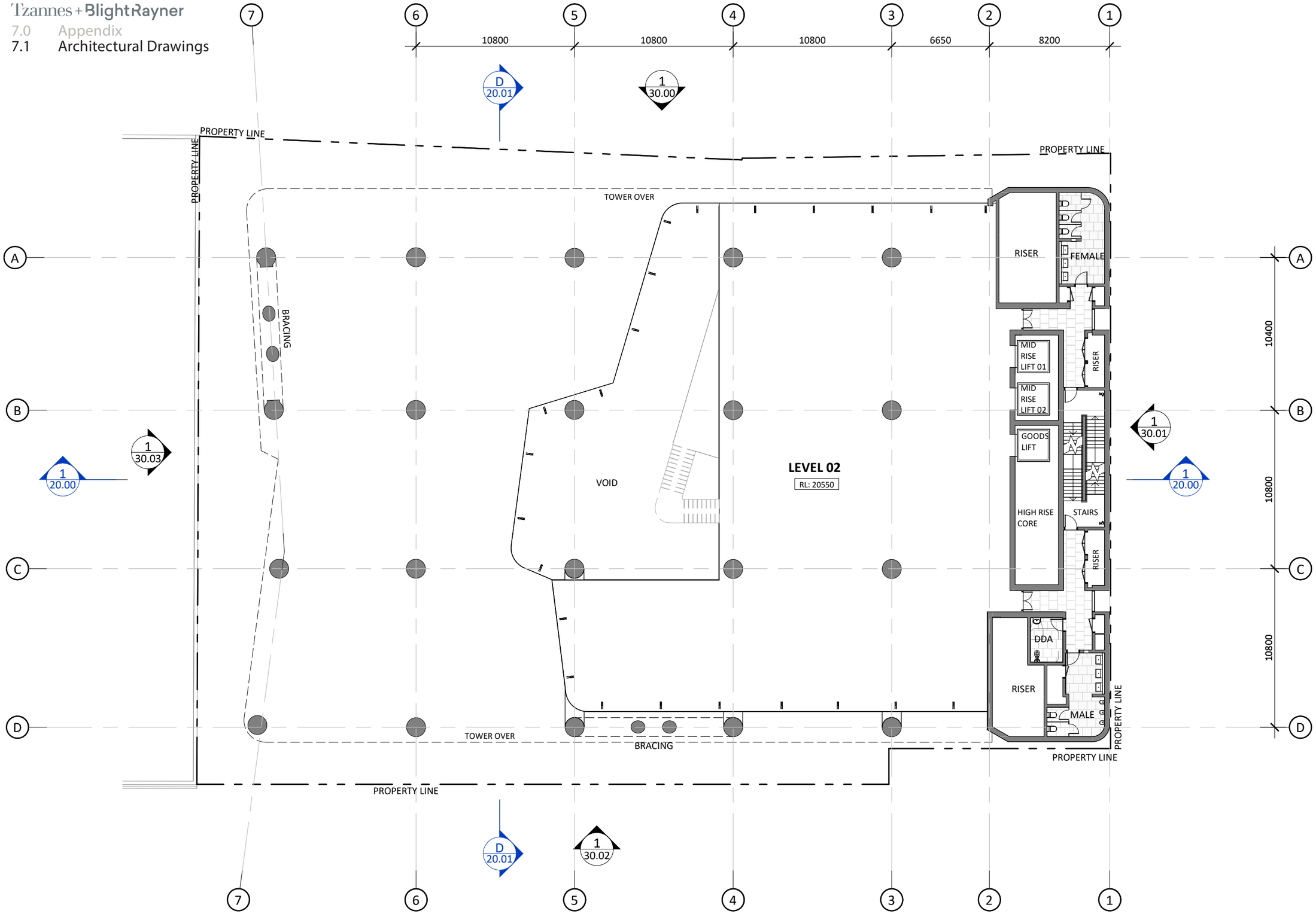

Rev	Description	Consultant	Date	Issued by
G	For Information	BRT	19.03.19	TW
H	Draft SSDA Drawings	BRT	22.03.19	MSK
I	Draft SSDA Drawings	BRT	08.04.19	TW
J	SSDA Submission	BRT	03.05.19	TW

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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
LEVEL 02

Project No. 18032
Drawing No. 10.03
Revision J
Date 03.05.19
Drawn by Author
Checked by Checker
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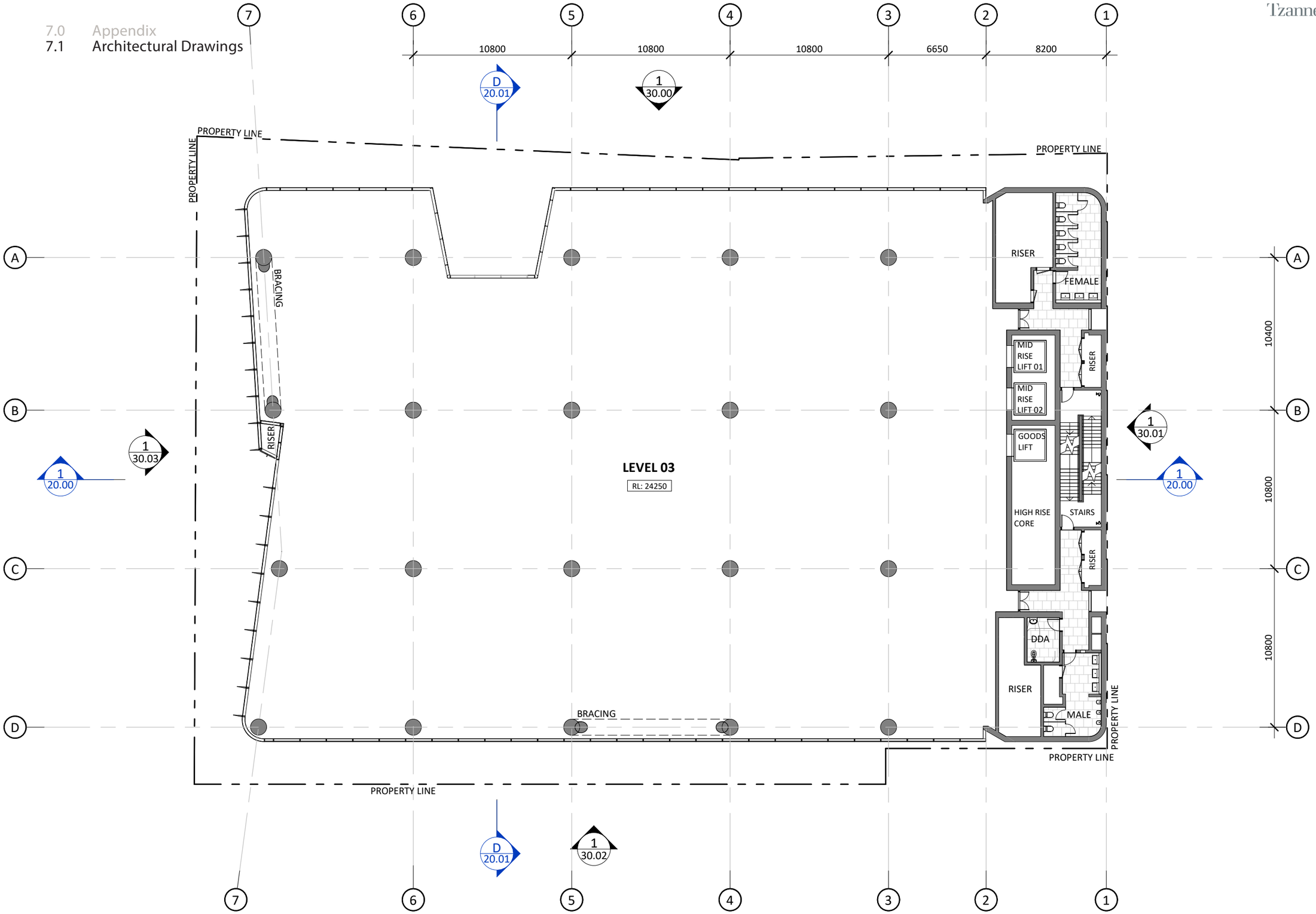

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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
LEVEL 03

Project No. 18032
Drawing No. 10.04
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

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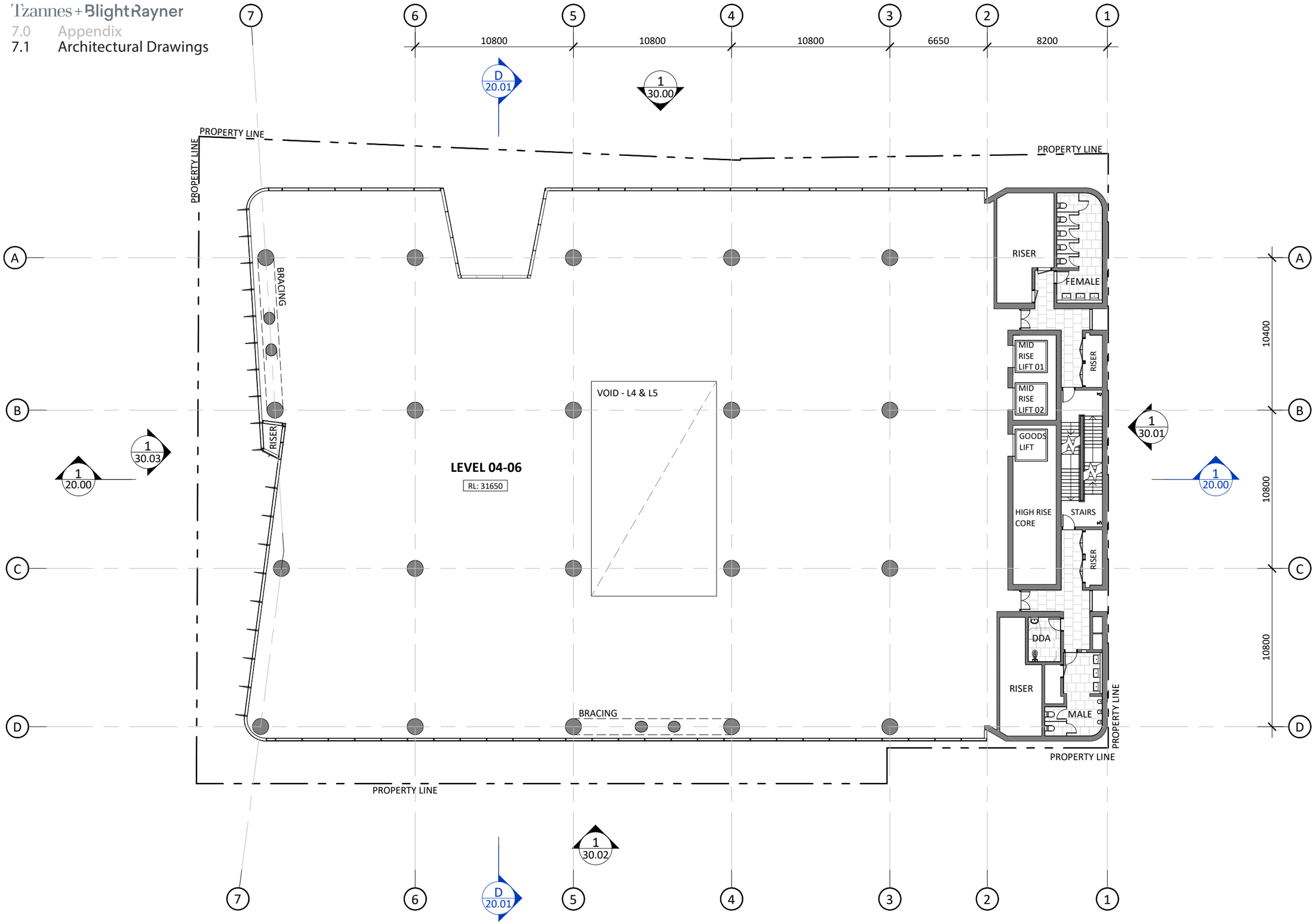

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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
LEVELS 04-06

Project No. 18032
Drawing No. 10.05
Revision J
Date 03.05.19
Drawn by Author
Checked by Checker
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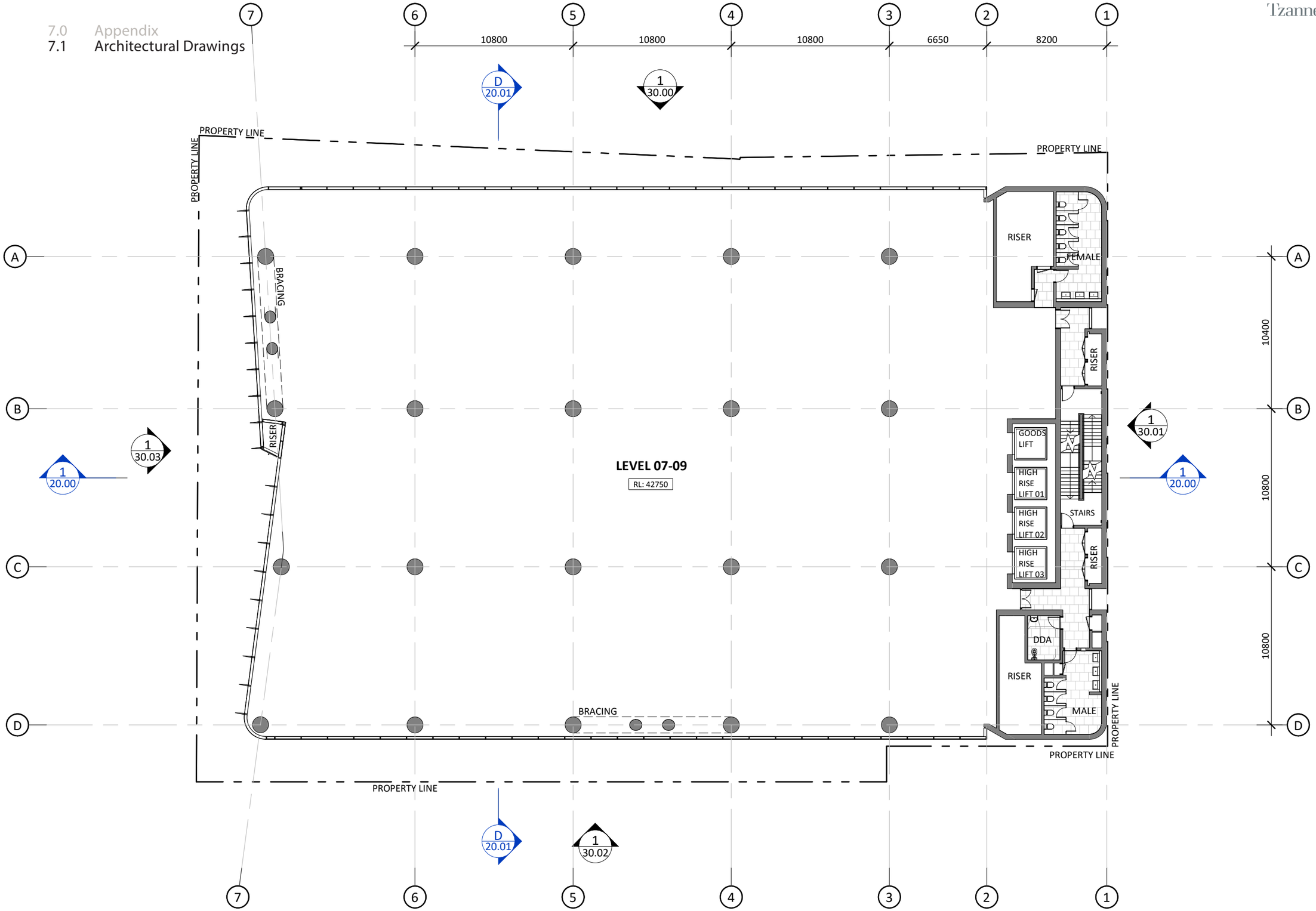

Rev	Description	Consultant	Date	Issued by
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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
LEVELS 07-09

Project No. 18032
Drawing No. 10.06
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

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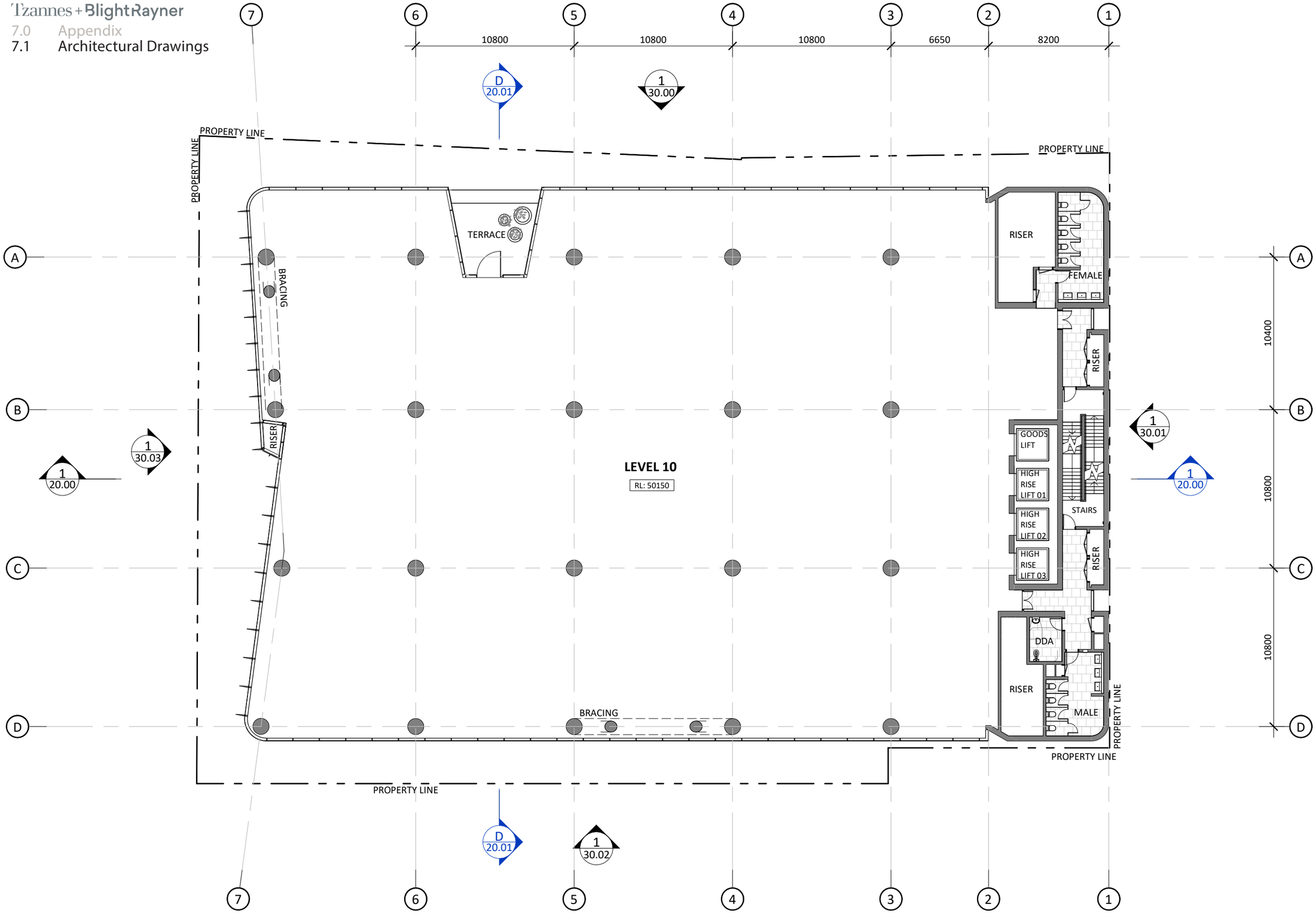

Rev	Description	Consultant	Date	Issued by
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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
LEVEL 10

Project No. 18032
Drawing No. 10.07
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

SCALE @A3
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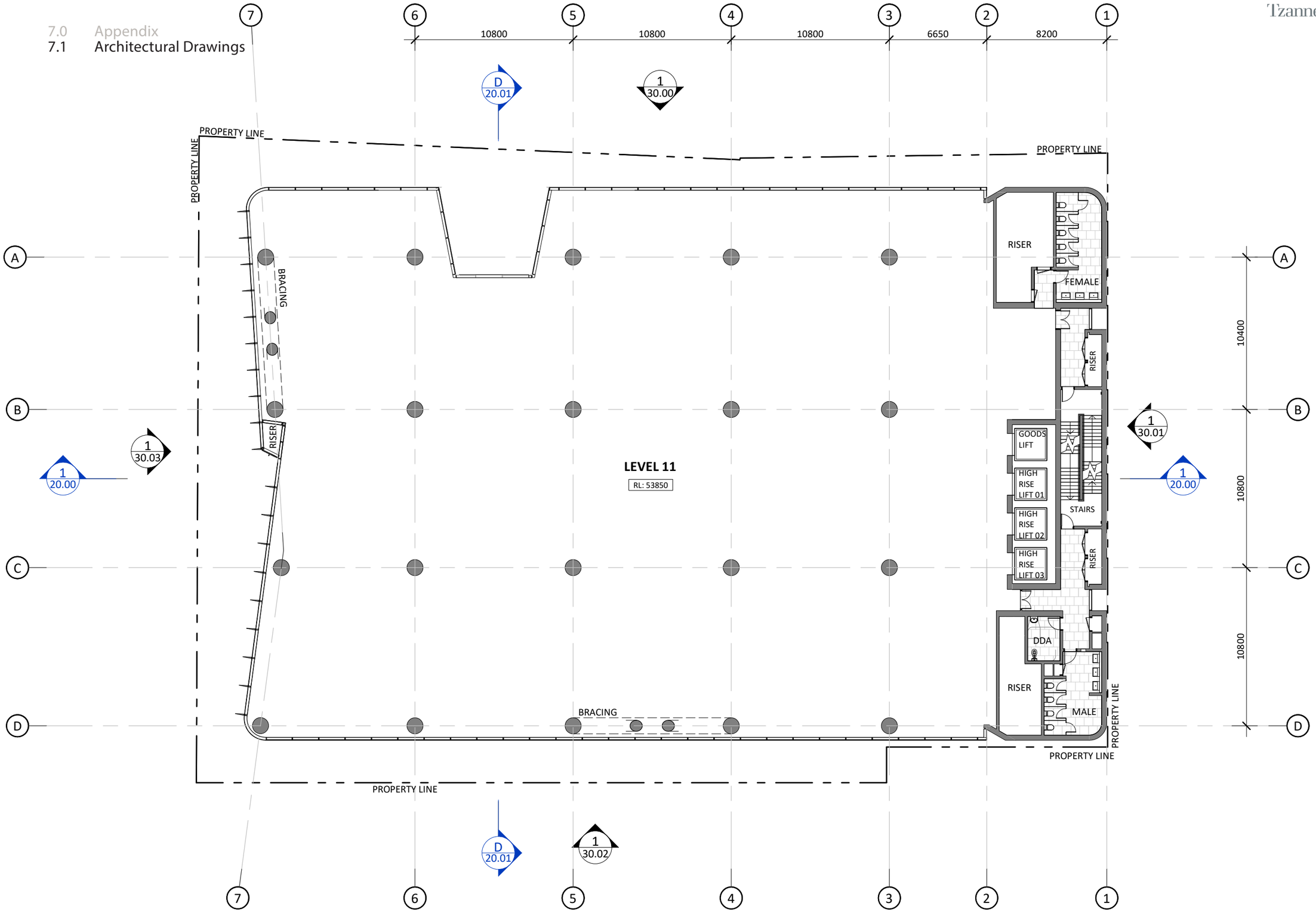

Rev	Description	Consultant	Date	Issued by
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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
LEVEL 11

Project No. 18032
Drawing No. 10.08
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

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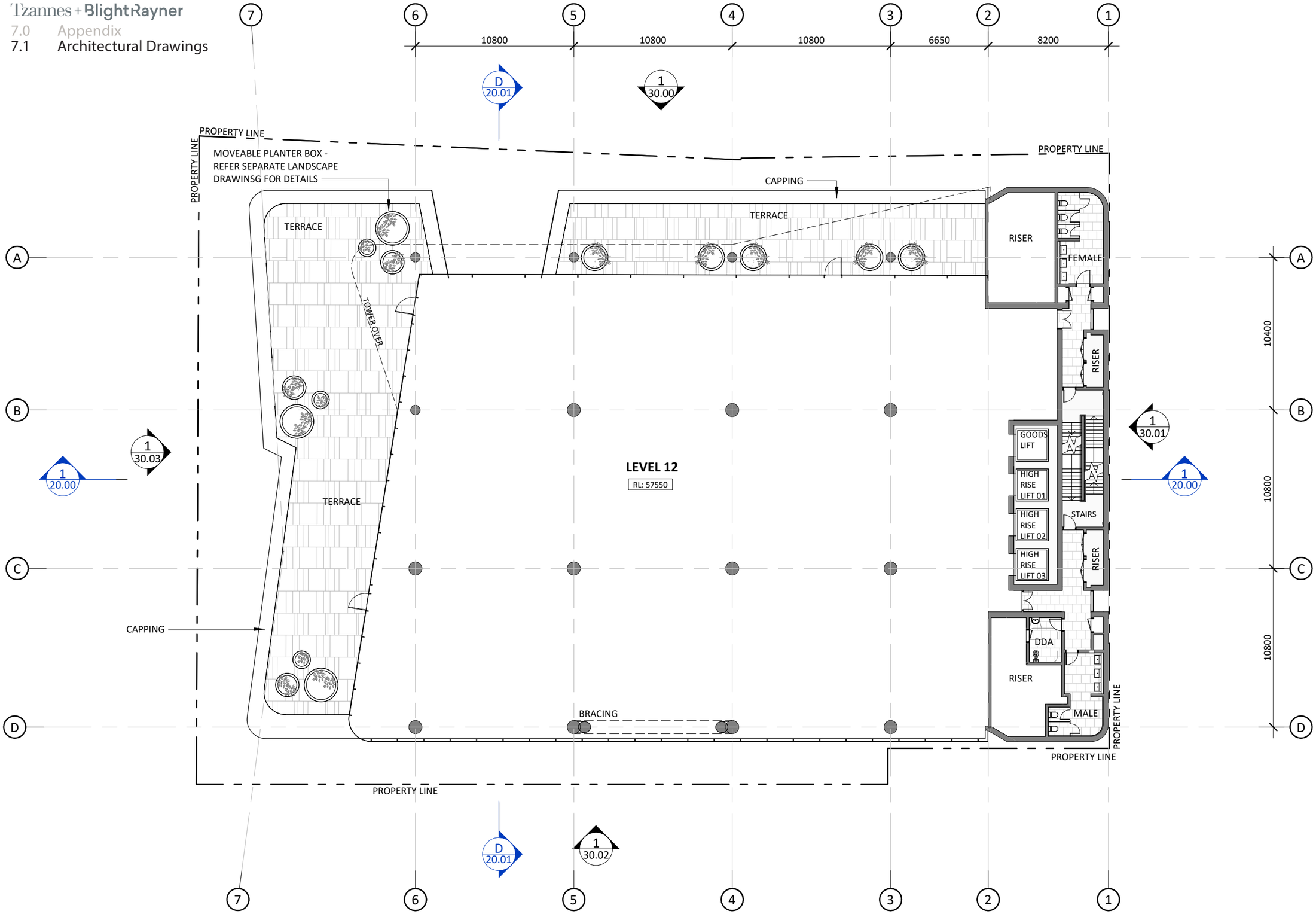

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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
LEVEL 12 - TERRACE

Project No. 18032
Drawing No. 10.09
Revision J
Date 03.05.19
Drawn by Author
Checked by Checker
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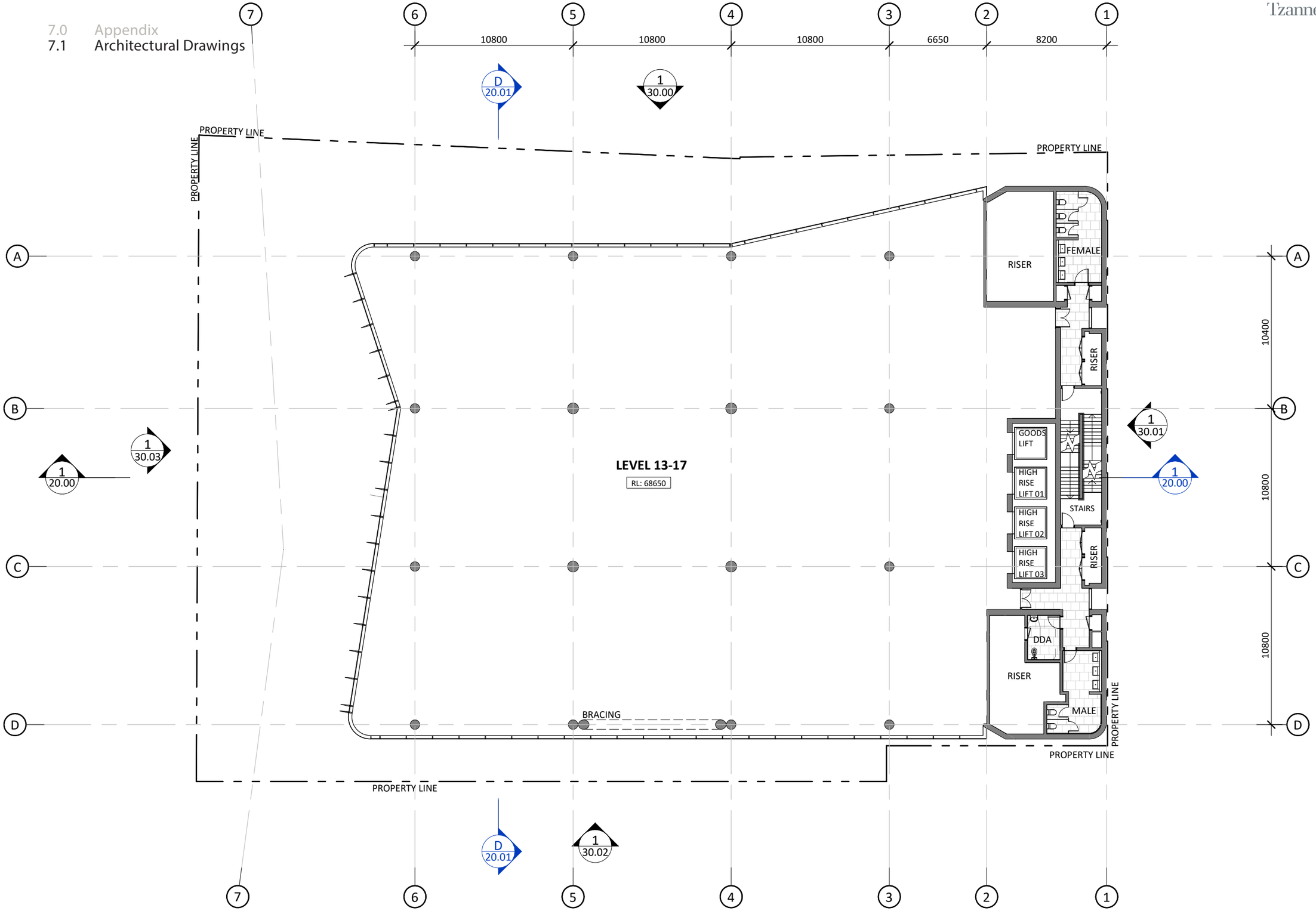

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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
LEVELS 13-17

Project No. 18032
Drawing No. 10.10
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

SCALE @A3
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Rev	Description	Consultant	Date	Issued by
G	For Information	BRT	19.03.19	TW
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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
LEVEL 18 - PLANT

Project No. 18032
Drawing No. 10.11
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

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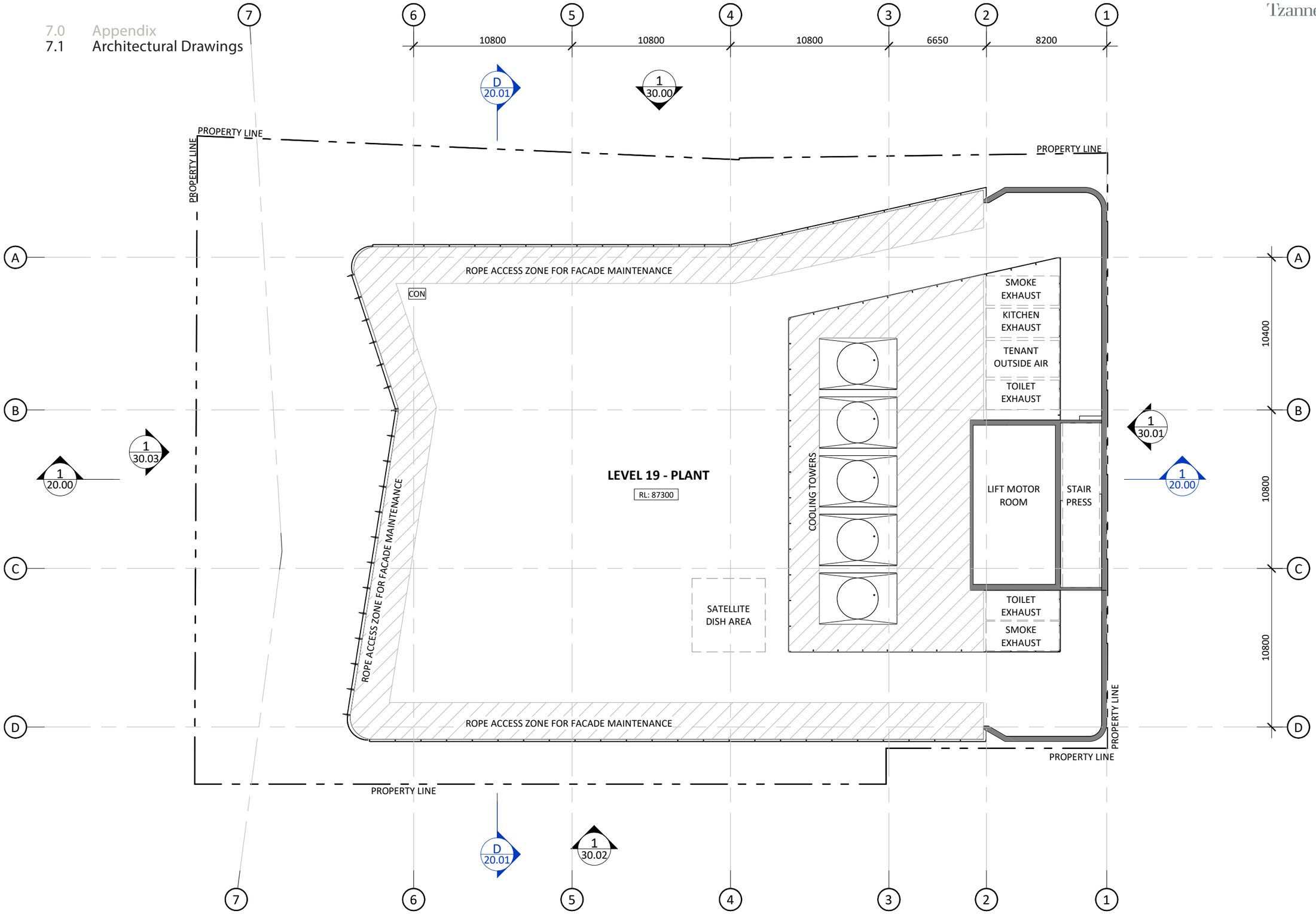

Rev	Description	Consultant	Date	Issued by
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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
LEVEL 19 - PLANT

Project No. 18032
Drawing No. 10.12
Revision J
Date 03.05.19
Drawn by Author
Checked by Checker
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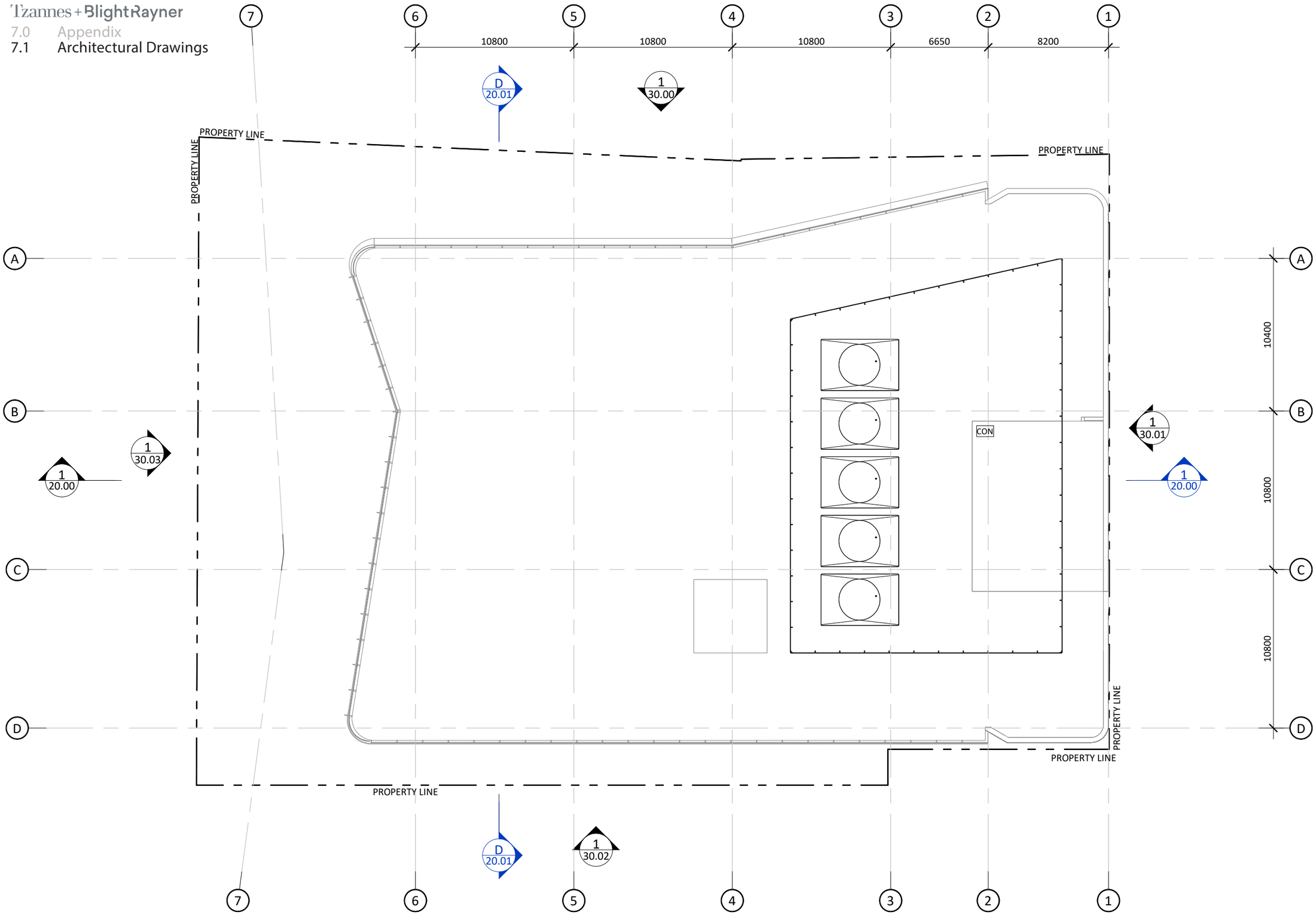

Rev	Description	Consultant	Date	Issued by
G	For Information	BRT	19.03.19	TW
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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
ROOF PLAN

Project No. 18032
Drawing No. 10.13
Revision J
Date 03.05.19
Drawn by Author
Checked by Checker
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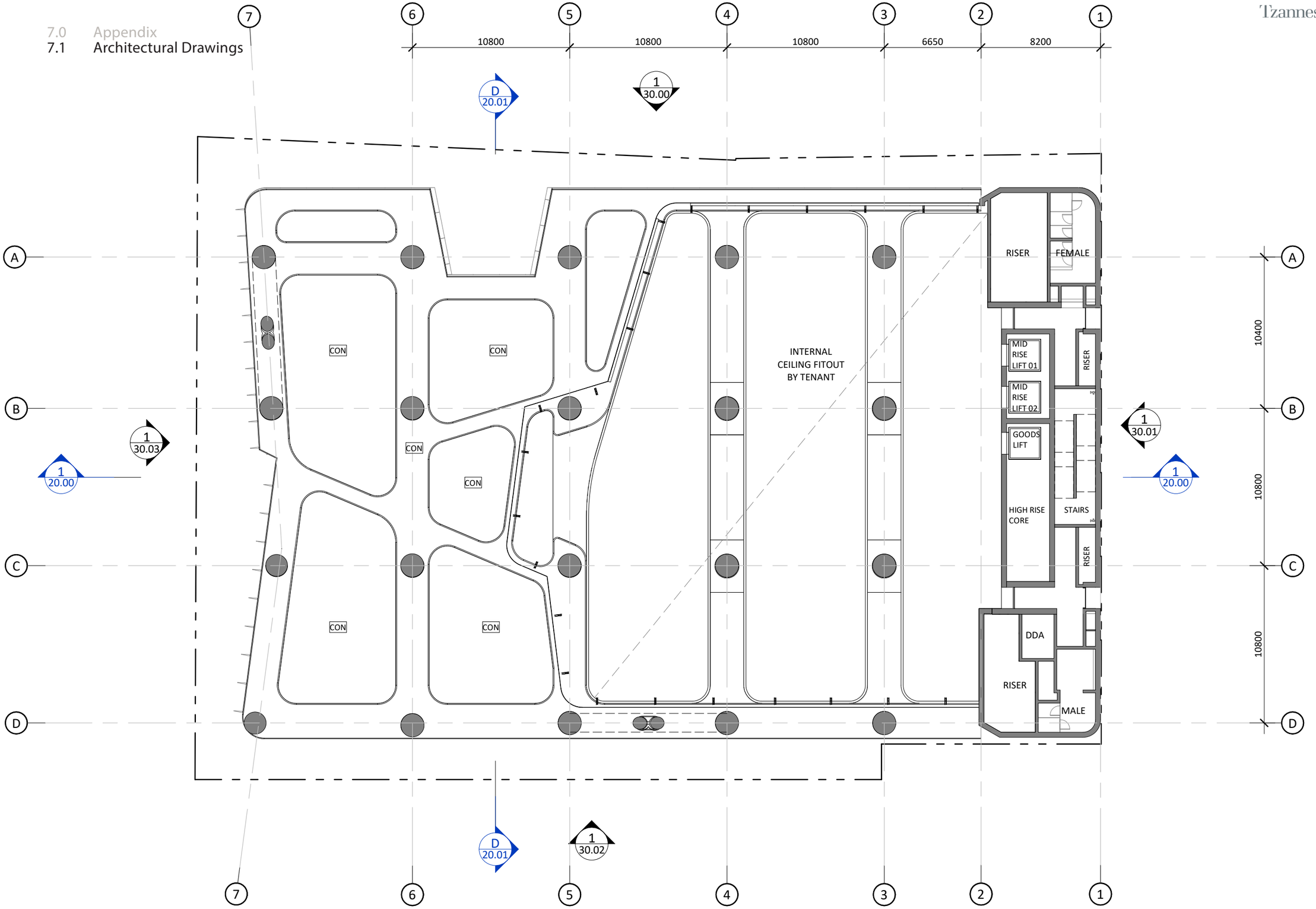

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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
RCP - LEVEL 02

Project No. 18032
Drawing No. 11.03
Revision J
Date 03.05.19
Drawn by Author
Checked by Checker
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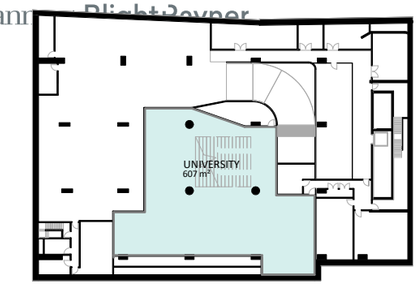

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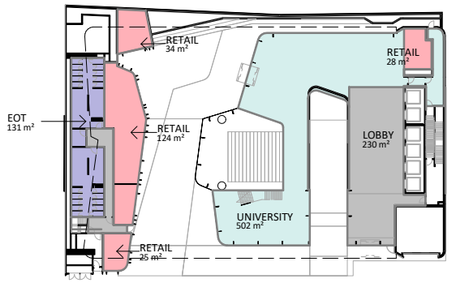

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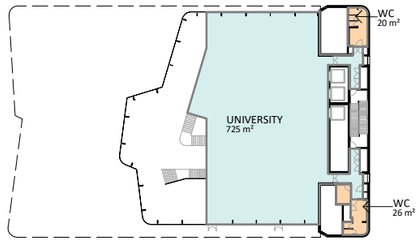

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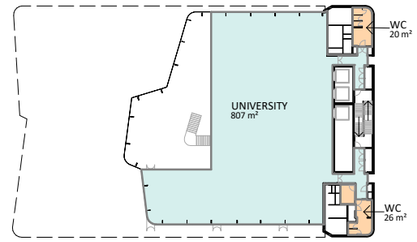

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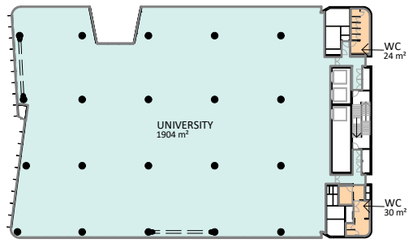

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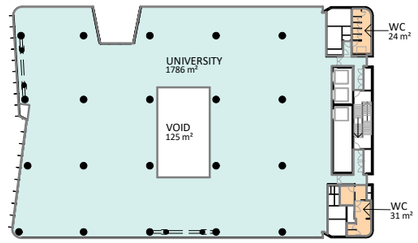

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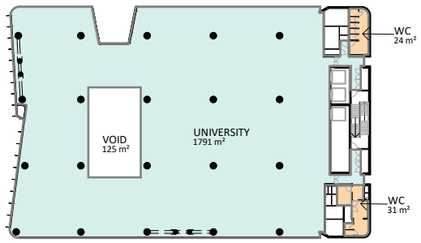

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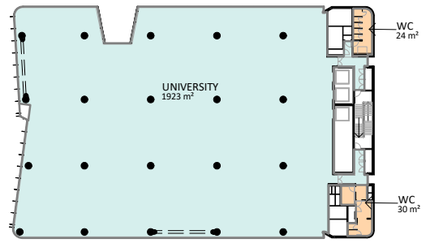

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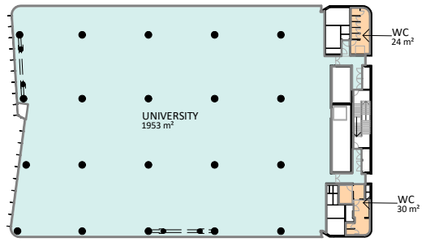

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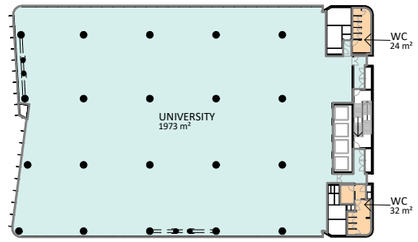

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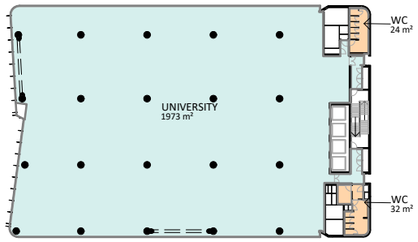

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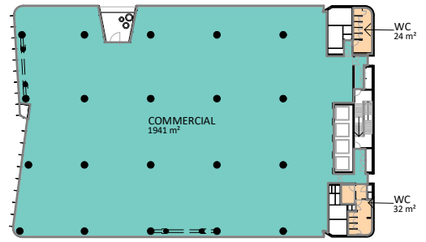

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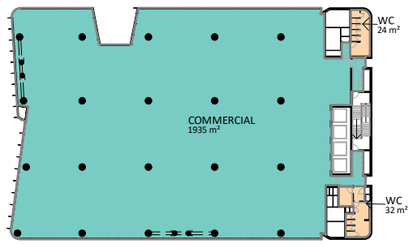

11 LEVEL 11
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AREAS HAVE BEEN CALCULATED BASED ON THE GROSS FLOOR AREA DEFINITION OBTAINED IN THE *PARRAMATTA DEVELOPMENT CONTROL PLAN 2011*

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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
GFA DIAGRAMS - MIDRISE

Project No. 18032
Drawing No. 18.00
Revision J
Date 03.05.19
Drawn by Author
Checked by Checker
SCALE @A3 1 : 1000
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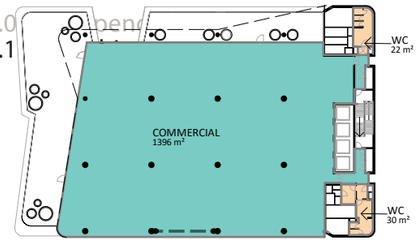
3/05/2019 3:20:34 PM

7.0 Open
7.1



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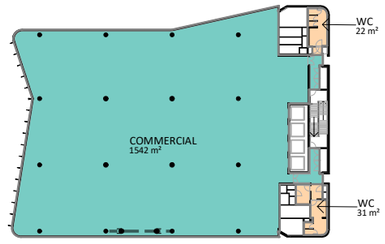

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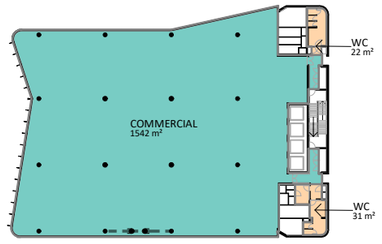

3 / 20.00 LEVELS 14
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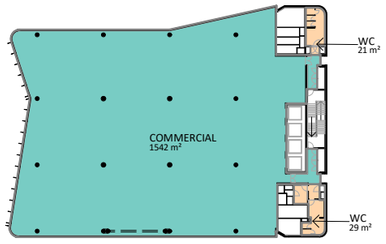

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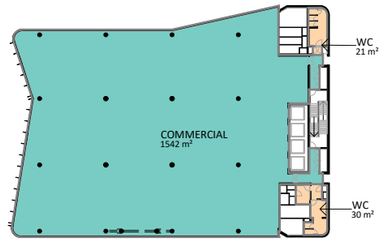

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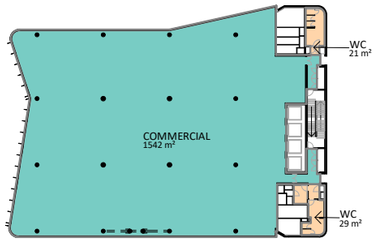

6 / 20.00 LEVEL 17
1 : 1000

GFA SCHEDULE

LEVEL	AREA
BASEMENT	607 m²
GROUND FLOOR	1118 m²
LEVEL 01	771 m²
LEVEL 02	853 m²
LEVEL 03	1958 m²
LEVEL 04	1841 m²
LEVEL 05	1846 m²
LEVEL 06	1977 m²
LEVEL 07	2006 m²
LEVEL 08	2029 m²
LEVEL 09	2029 m²
LEVEL 10	1997 m²
LEVEL 11	1991 m²
LEVEL 12	1449 m²
LEVEL 13	1595 m²
LEVEL 14	1594 m²
LEVEL 15	1592 m²
LEVEL 16	1594 m²
LEVEL 17	1592 m²
Total:	30439 m²

Rev	Description	Consultant	Date	Issued by
G	For Information	BRT	19.03.19	TW
H	Draft SSDA Drawings	BRT	22.03.19	MSK
I	Draft SSDA Drawings	BRT	08.04.19	TW
J	SSDA Submission	BRT	03.05.19	TW

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Brisbane, Qld, 4000
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T: 61 7 3905 6500
E: info@blightrayner.com.au

Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
GFA DIAGRAMS - HIGHRISE

Project No. 18032
Drawing No. 18.01
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

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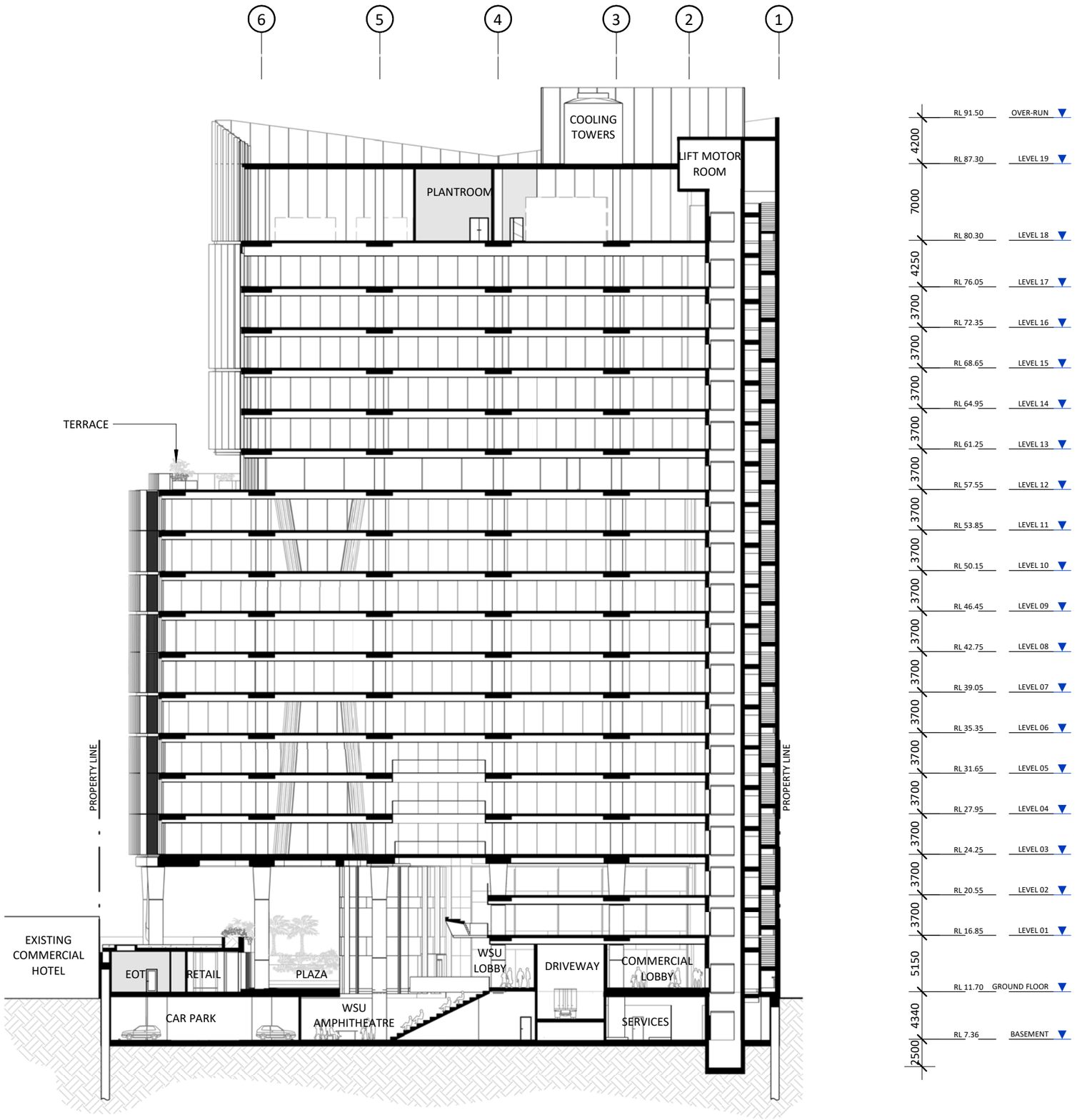
3/05/2019 3:20:46 PM



Rev	Description	Consultant	Date	Issued by
G	For Information	BRT	19.03.19	TW
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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
SECTION A

Project No. 18032
Drawing No. 20.00
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

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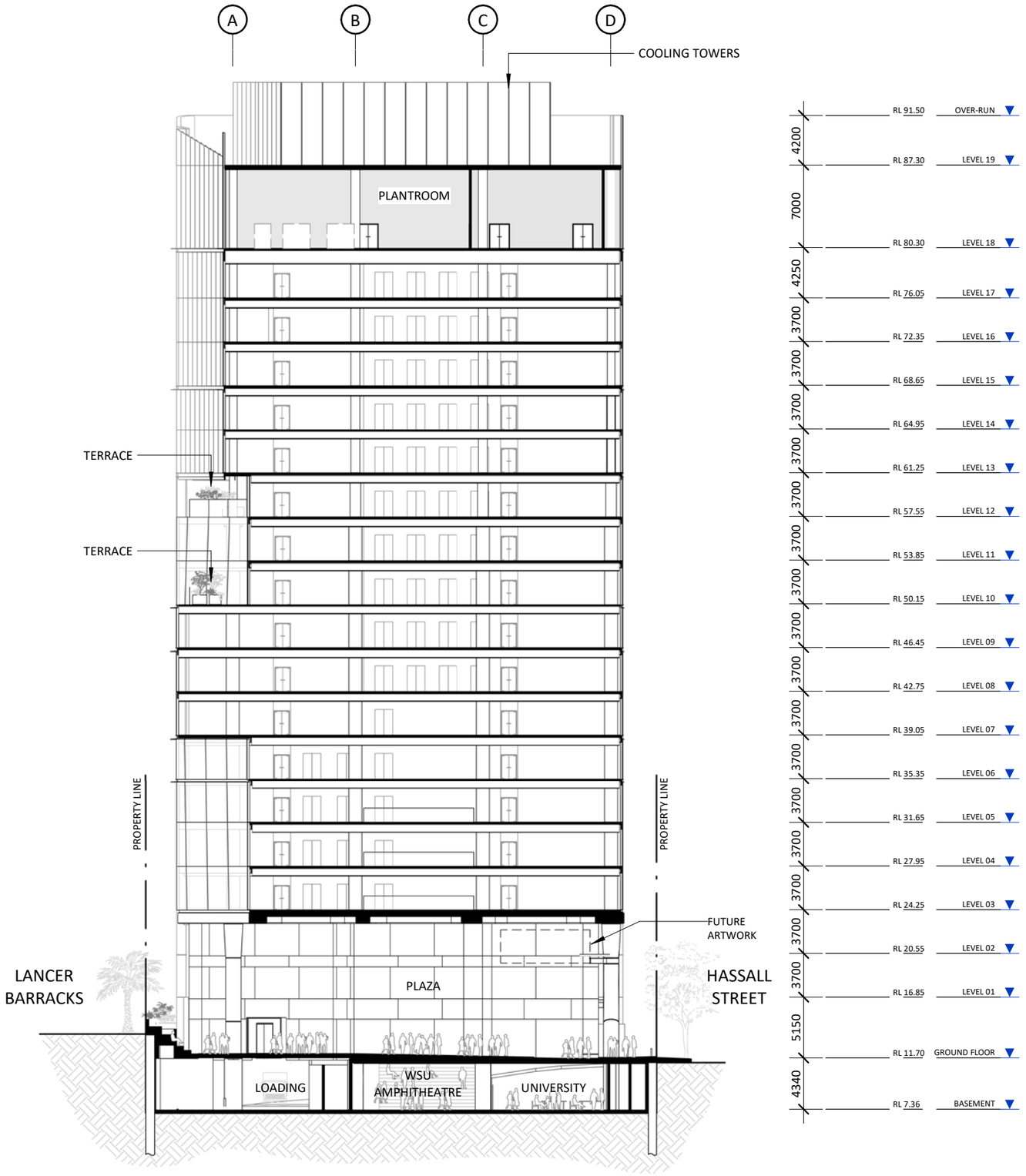

Rev	Description	Consultant	Date	Issued by
G	For Information	BRT	19.03.19	TW
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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
SECTION B

Project No. 18032
Drawing No. 20.01
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

SCALE @A3
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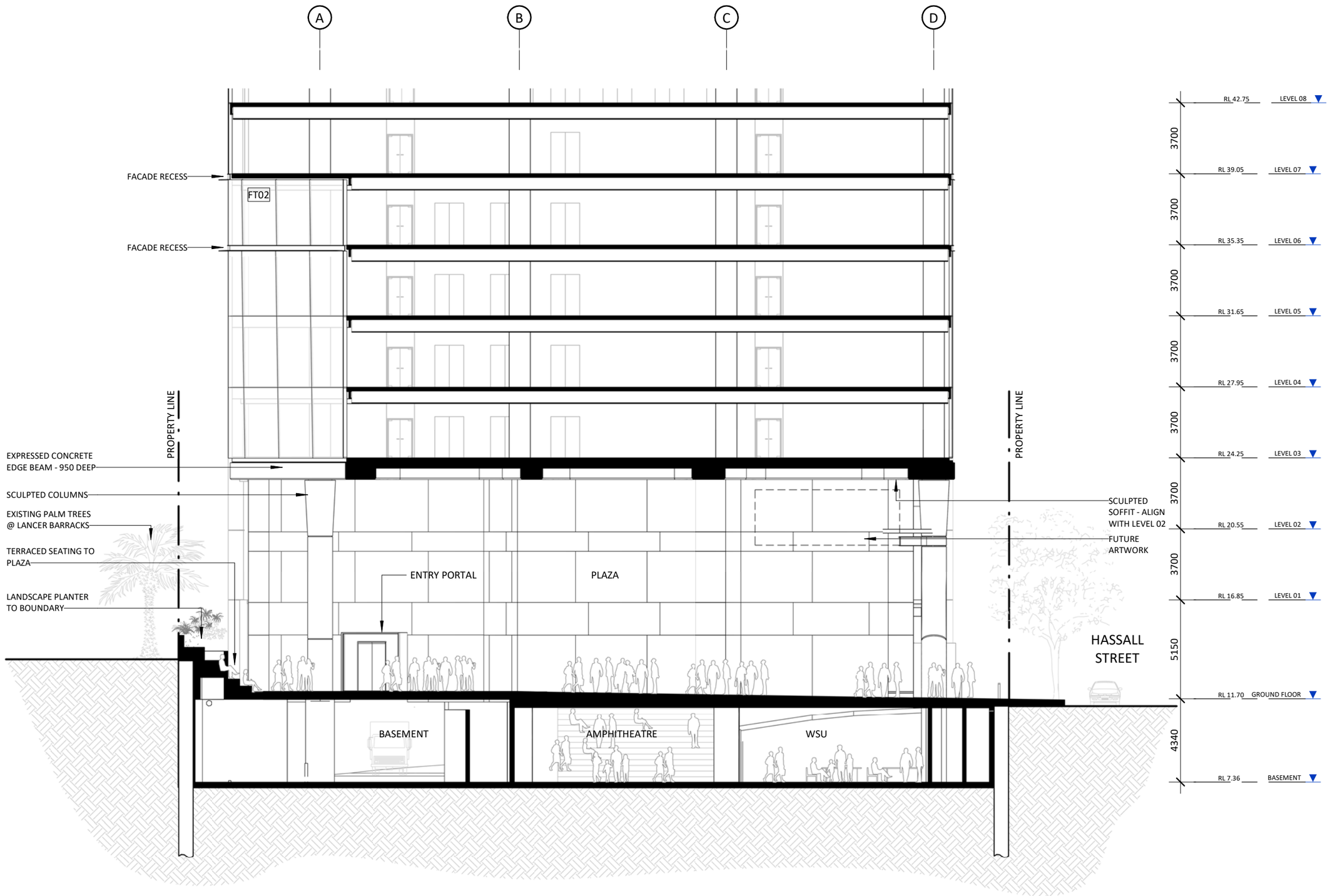

Rev	Description	Consultant	Date	Issued by
G	For Information	BRT	19.03.19	TW
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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
PODIUM SECTION A

Project No. 18032
Drawing No. 20.10
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

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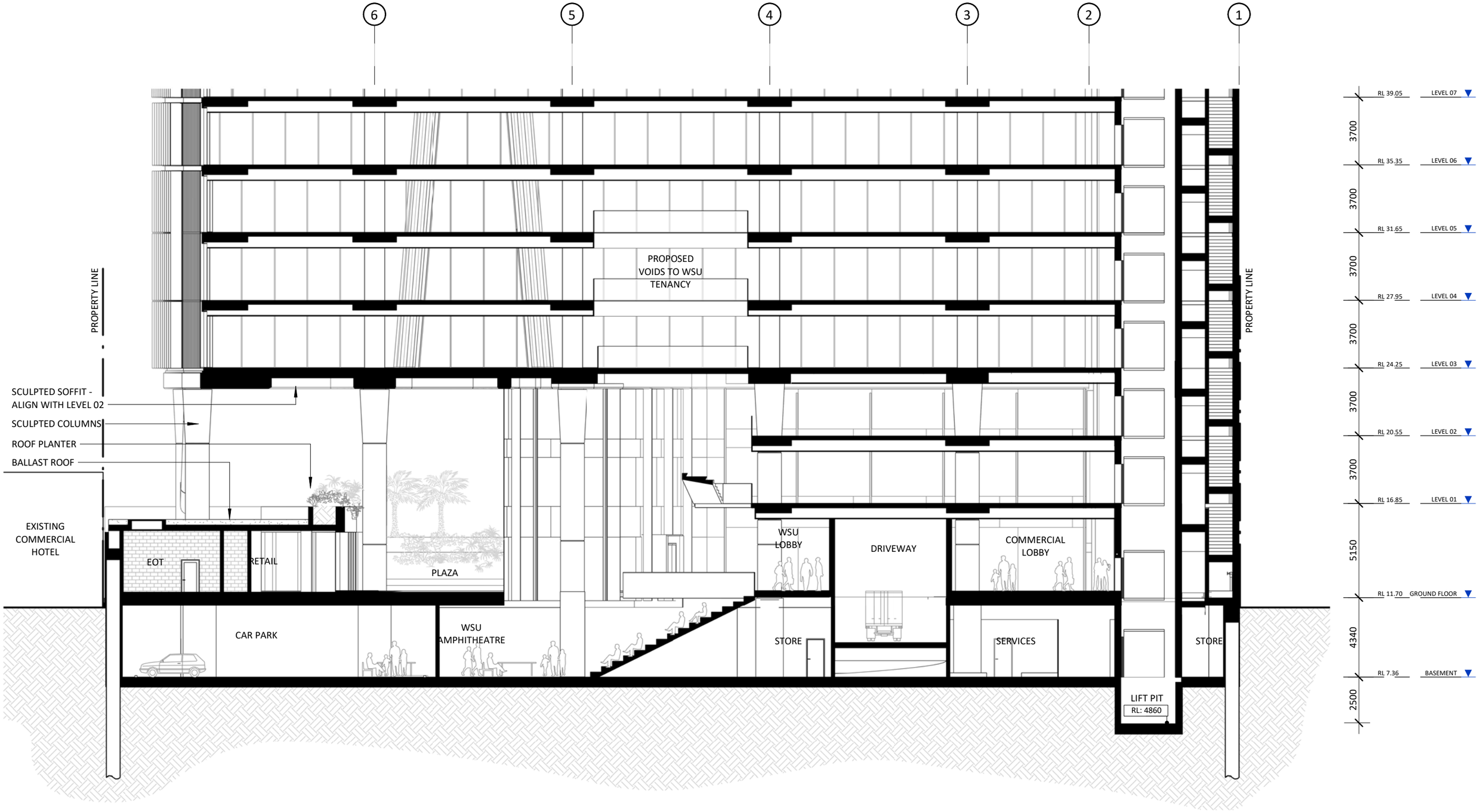

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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
PODIUM SECTION B

Project No. 18032
Drawing No. 20.11
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

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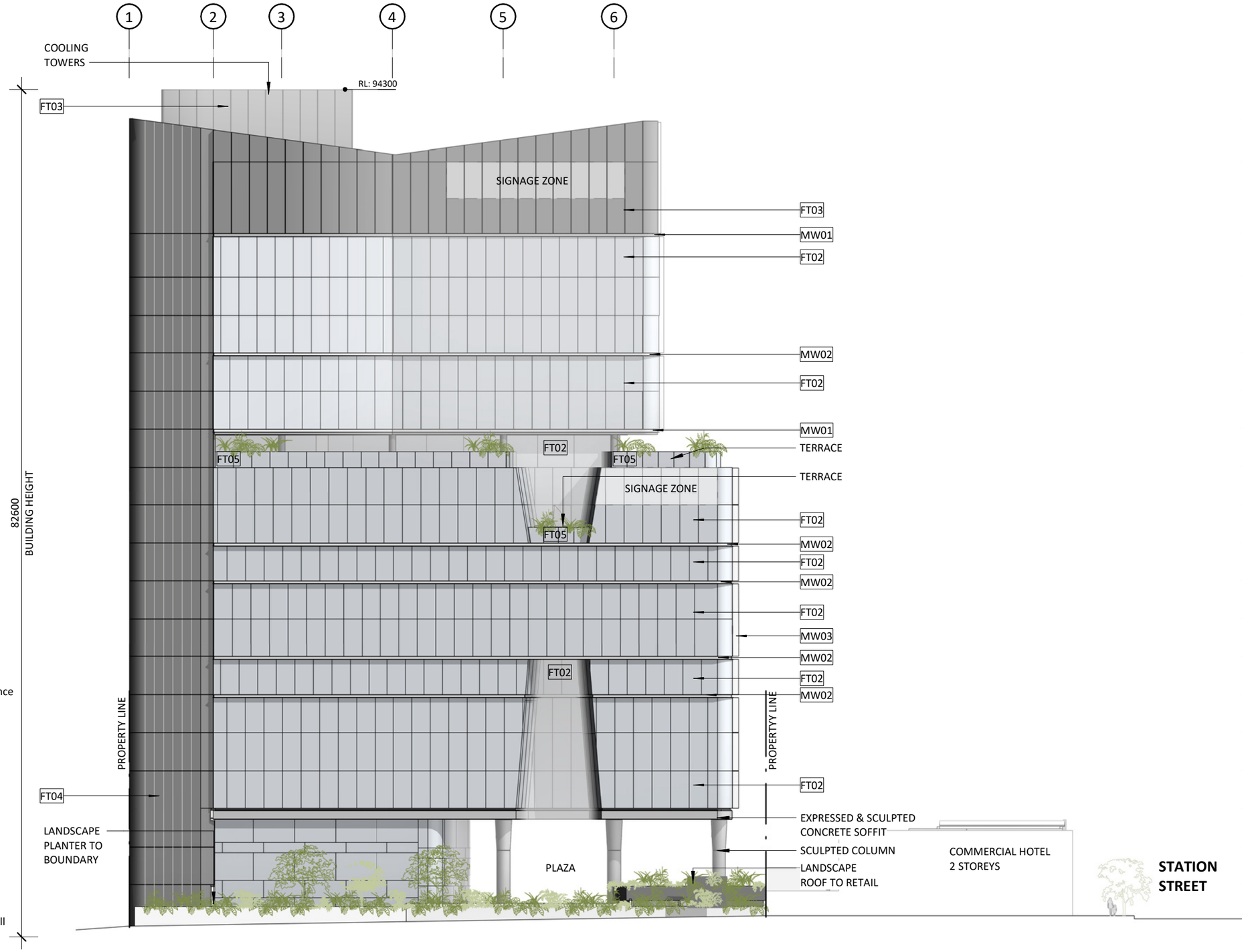

LEGEND

FT01 **Podium Glazing 01**
Frameless four sided glass structurally glazed to Structural Steel Supports. Joints to be silicone nominally 15mm. Steel supports painted.
Colour: Low Iron Clear Glass

FT02 **Curtain Wall System 01**
Full Height aluminium framed, unitized curtain wall glazing system with structurally glazed IGU performance glazing and black spacers.
VLT: 45 -50% VLT
SHGC: 0.20min
Reflectivity: 20%max
Colour: Neutral

FT03 **Curtain Wall System 02**
Full Height aluminium framed, unitized curtain wall glazing system with perforated aluminium panel and black spacers.

FT04 **Concrete**
Off-form concrete with horizontal reveals
Colour: Off White

MW01 **Patterned Recess Channel**
Typical Recessed Detail to Curtain Wall System

MW02 **Horizontal Sun Shading**
Horizontal solid aluminium sun shading to curtain wall System

MW03 Vertical Sun Shading
Vertical solid aluminium sun shading to curtain wall system

Rev	Description	Consultant	Date	Issued by
G	For Information	BRT	19.03.19	TW
H	Draft SSDA Drawings	BRT	22.03.19	MSK
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E: info@blightrayner.com.au

Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
NORTH ELEVATION

Project No. 18032
Drawing No. 30.00
Revision J
Date 03.05.19
Drawn by Author
Checked by Checker
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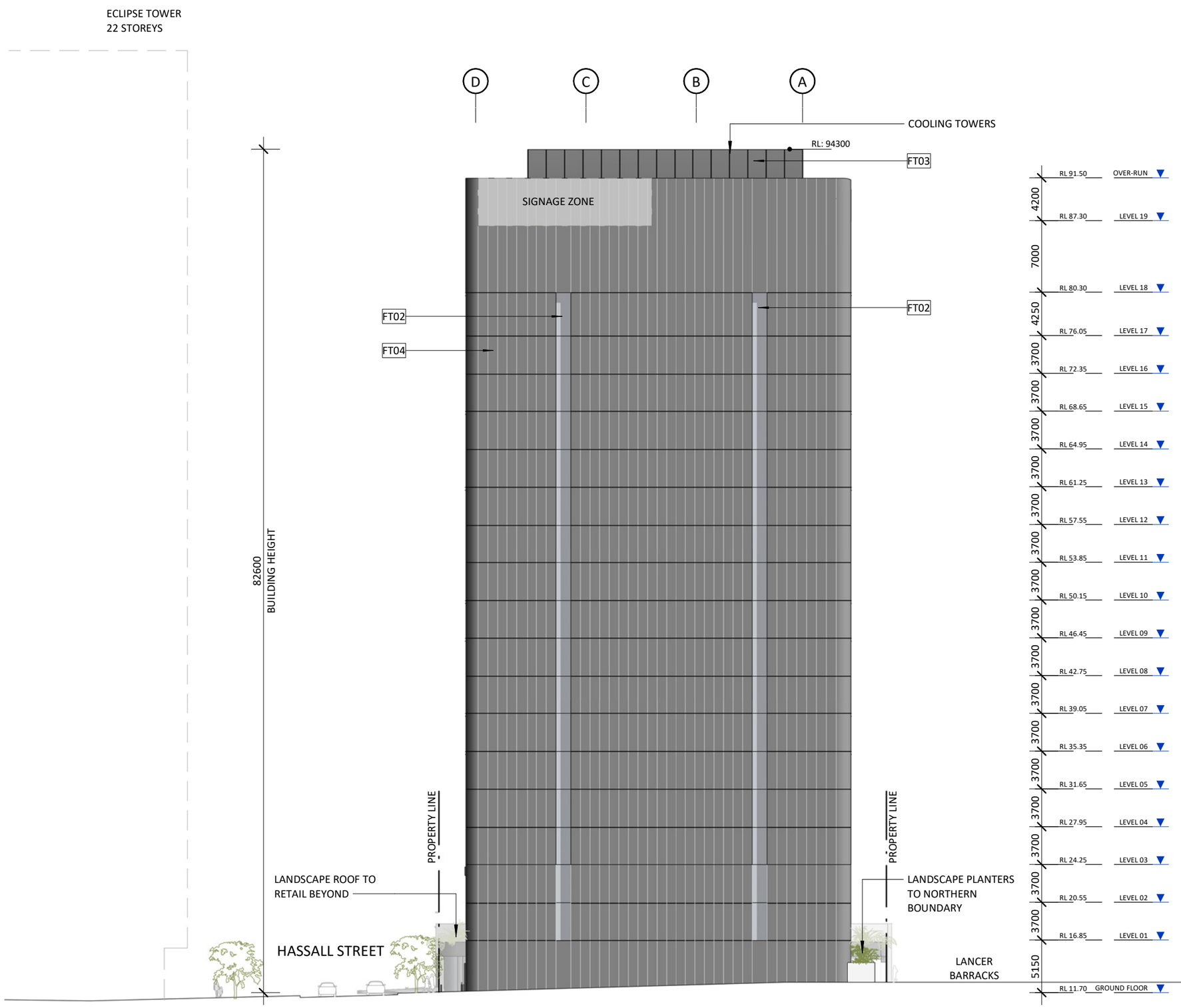

LEGEND

FT01 **Podium Glazing 01**
Frameless four sided glass structurally glazed to Structural Steel Supports. Joints to be silicone nominally 15mm. Steel supports painted.
Colour: Low Iron Clear Glass

FT02 **Curtain Wall System 01**
Full Height aluminium framed, unitized curtain wall glazing system with structurally glazed IGU performance glazing and black spacers.
VLT: 45 -50% VLT
SHGC: 0.20min
Reflectivity: 20%max
Colour: Neutral

FT03 **Curtain Wall System 02**
Full Height aluminium framed, unitized curtain wall glazing system with perforated aluminium panel and black spacers.

FT04 **Concrete**
Off-form concrete with horizontal reveals
Colour: Off White

MW01 **Patterned Recess Channel**
Typical Recessed Detail to Curtain Wall System

MW02 **Horizontal Sun Shading**
Horizontal solid aluminium sun shading to curtain wall System

MW03 Vertical Sun Shading
Vertical solid aluminium sun shading to curtain wall system

Rev	Description	Consultant	Date	Issued by
G	For Information	BRT	19.03.19	TW
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E: info@blightrayner.com.au

Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
EAST ELEVATION

Project No. 18032
Drawing No. 30.01
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

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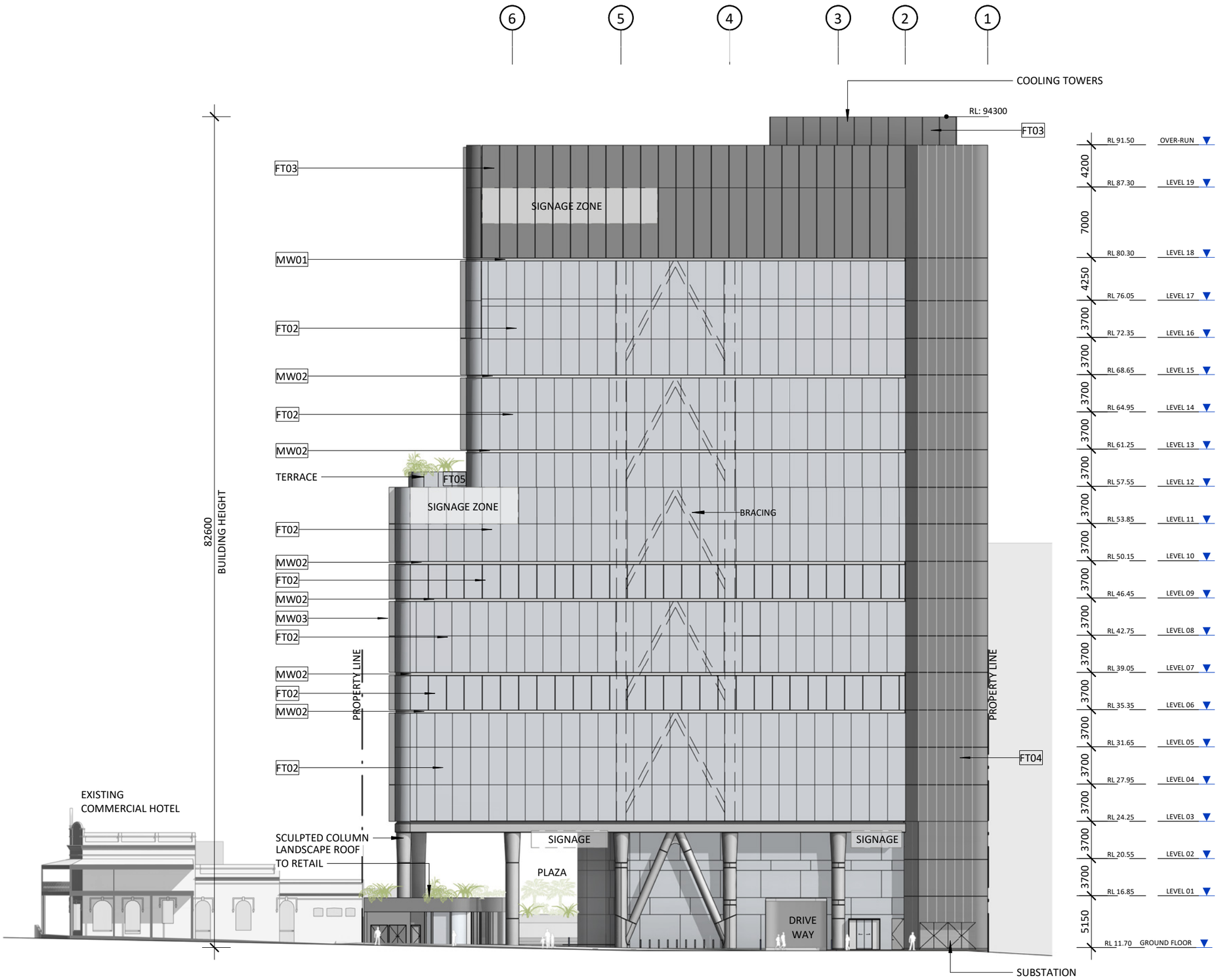

LEGEND

FT01 **Podium Glazing 01**
Frameless four sided glass structurally glazed to Structural Steel Supports. Joints to be silicone nominally 15mm. Steel supports painted.
Colour: Low Iron Clear Glass

FT02 **Curtain Wall System 01**
Full Height aluminium framed, unitized curtain wall glazing system with structurally glazed IGU performance glazing and black spacers.
VLT: 45 -50% VLT
SHGC: 0.20min
Reflectivity: 20%max
Colour: Neutral

FT03 **Curtain Wall System 02**
Full Height aluminium framed, unitized curtain wall glazing system with perforated aluminium panel and black spacers.

FT04 **Concrete**
Off-form concrete with horizontal reveals
Colour: Off White

MW01 **Patterned Recess Channel**
Typical Recessed Detail to Curtain Wall System

MW02 **Horizontal Sun Shading**
Horizontal solid aluminium sun shading to curtain wall System

MW03 Vertical Sun Shading
Vertical solid aluminium sun shading to curtain wall system

Rev	Description	Consultant	Date	Issued by
G	For Information	BRT	19.03.19	TW
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E: info@blightrayner.com.au

Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
SOUTH ELEVATION

Project No. 18032
Drawing No. 30.02
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

SCALE @A3
1 : 400
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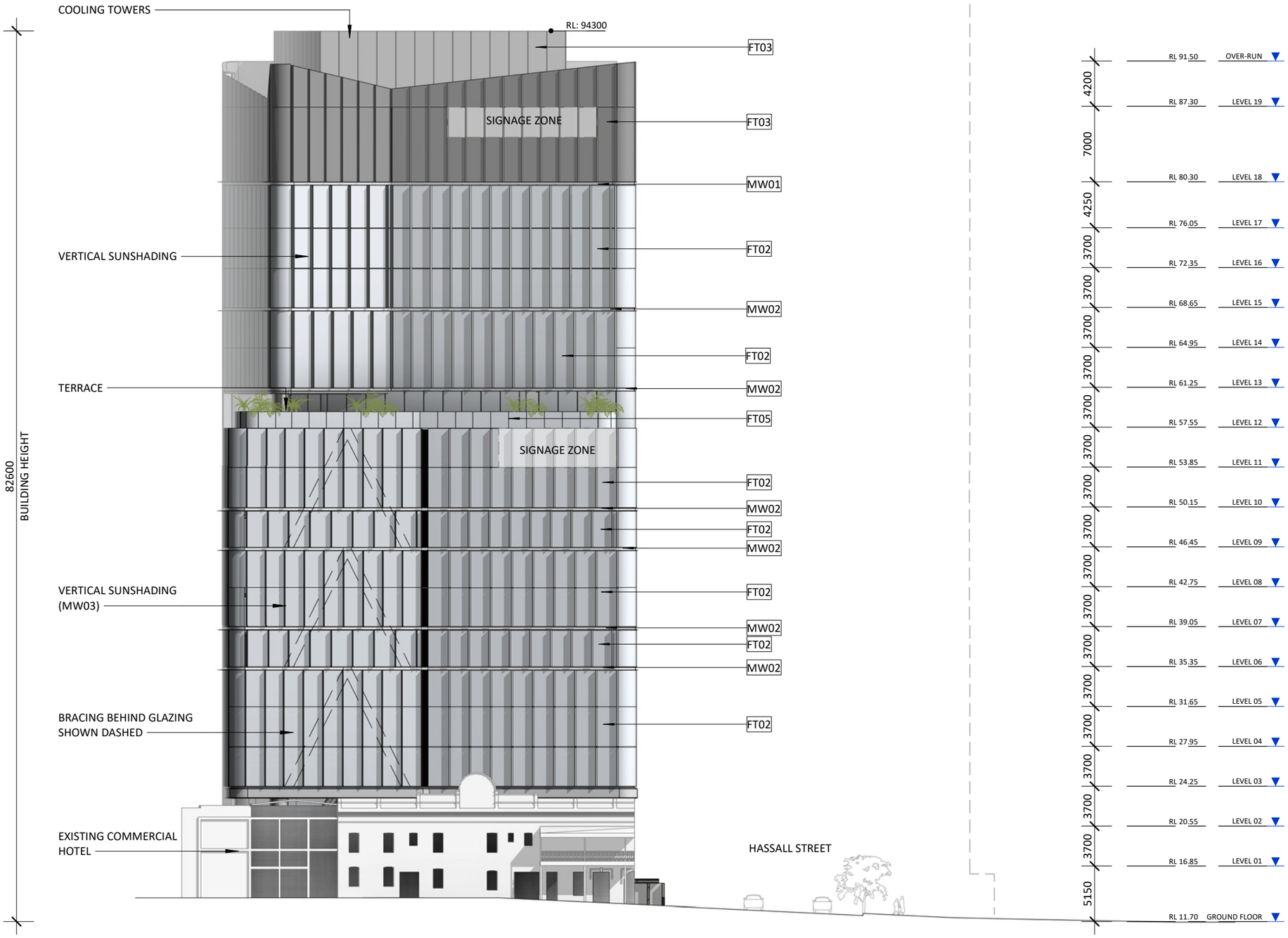
3/05/2019 3:35:10 PM

ECLIPSE TOWER
22 STOREYS



LEGEND

FT01 **Podium Glazing 01**
Frameless four sided glass structurally glazed to Structural Steel Supports. Joints to be silicone nominally 15mm. Steel supports painted.
Colour: Low Iron Clear Glass

FT02 **Curtain Wall System 01**
Full Height aluminium framed, unitized curtain wall glazing system with structurally glazed IGU performance glazing and black spacers.
VLT: 45 -50% VLT
SHGC: 0.20min
Reflectivity: 20%max
Colour: Neutral

FT03 **Curtain Wall System 02**
Full Height aluminium framed, unitized curtain wall glazing system with perforated aluminium panel and black spacers.

FT04 **Concrete**
Off-form concrete with horizontal reveals
Colour: Off White

MW01 **Patterned Recess Channel**
Typical Recessed Detail to Curtain Wall System

MW02 **Horizontal Sun Shading**
Horizontal solid aluminium sun shading to curtain wall System

MW03 Vertical Sun Shading
Vertical solid aluminium sun shading to curtain wall system

Rev	Description	Consultant	Date	Issued by
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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
WEST ELEVATION

Project No. 18032
Drawing No. 30.03
Revision J
Date 03.05.19
Drawn by Author
Checked by Checker
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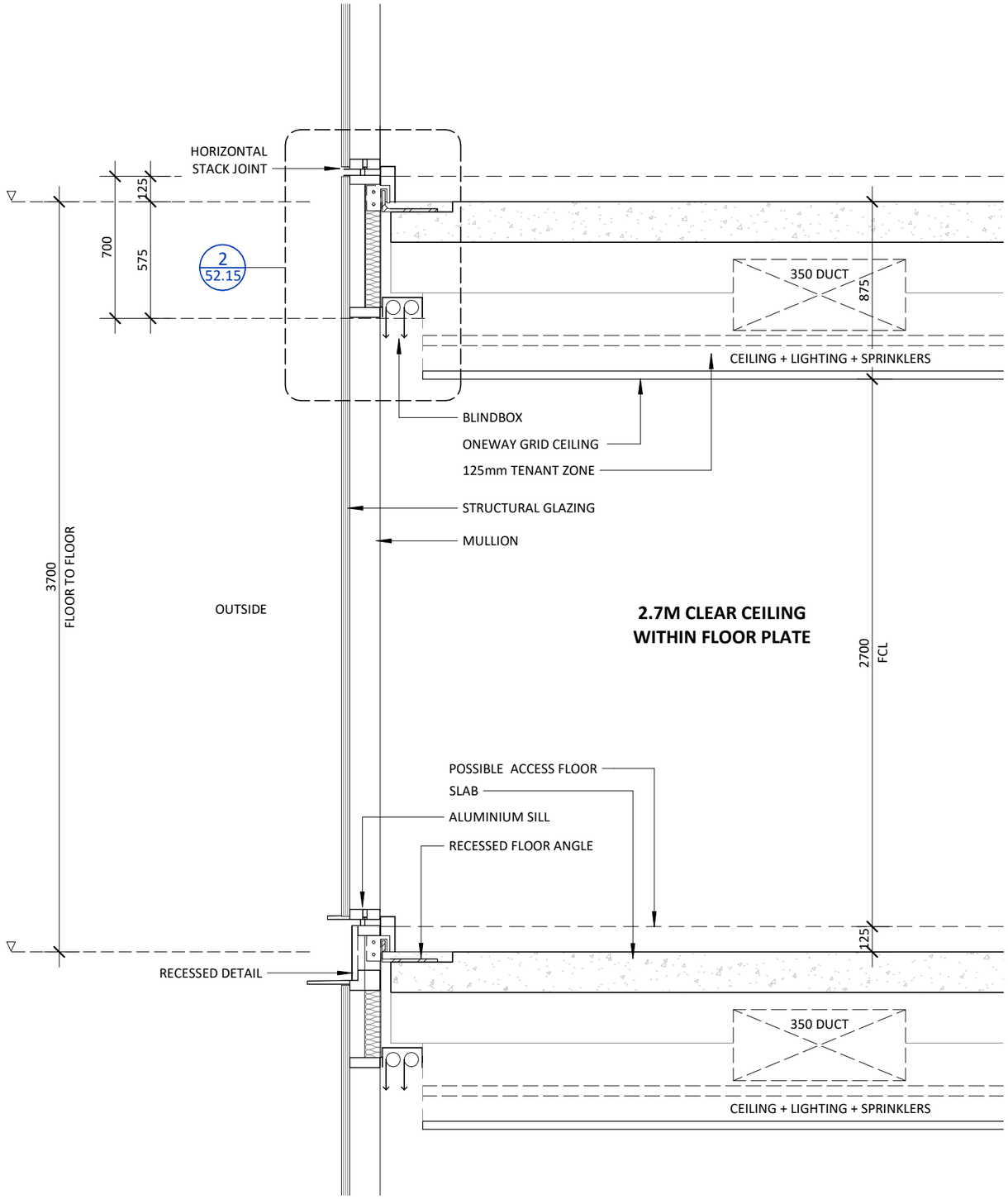
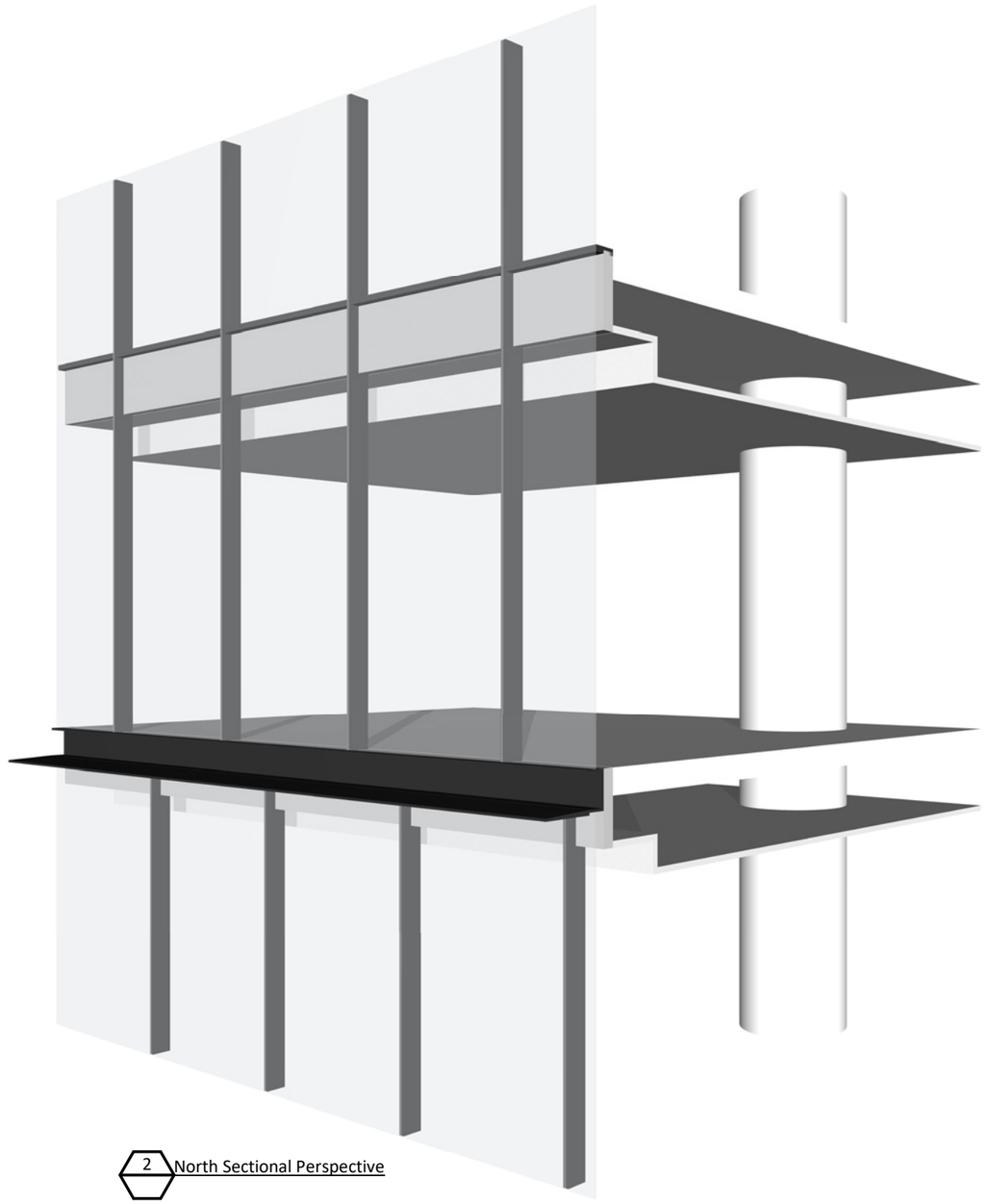
3/05/2019 3:35:59 PM





2 North Sectional Perspective

Rev	Description	Consultant	Date	Issued by
G	For Information	BRT	19.03.19	TW
H	Draft SSDA Drawings	BRT	22.03.19	MSK
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E: info@blightrayner.com.au

Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
FACADE SECTION - NORTH FACADE

Project No. 18032
Drawing No. 52.01
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

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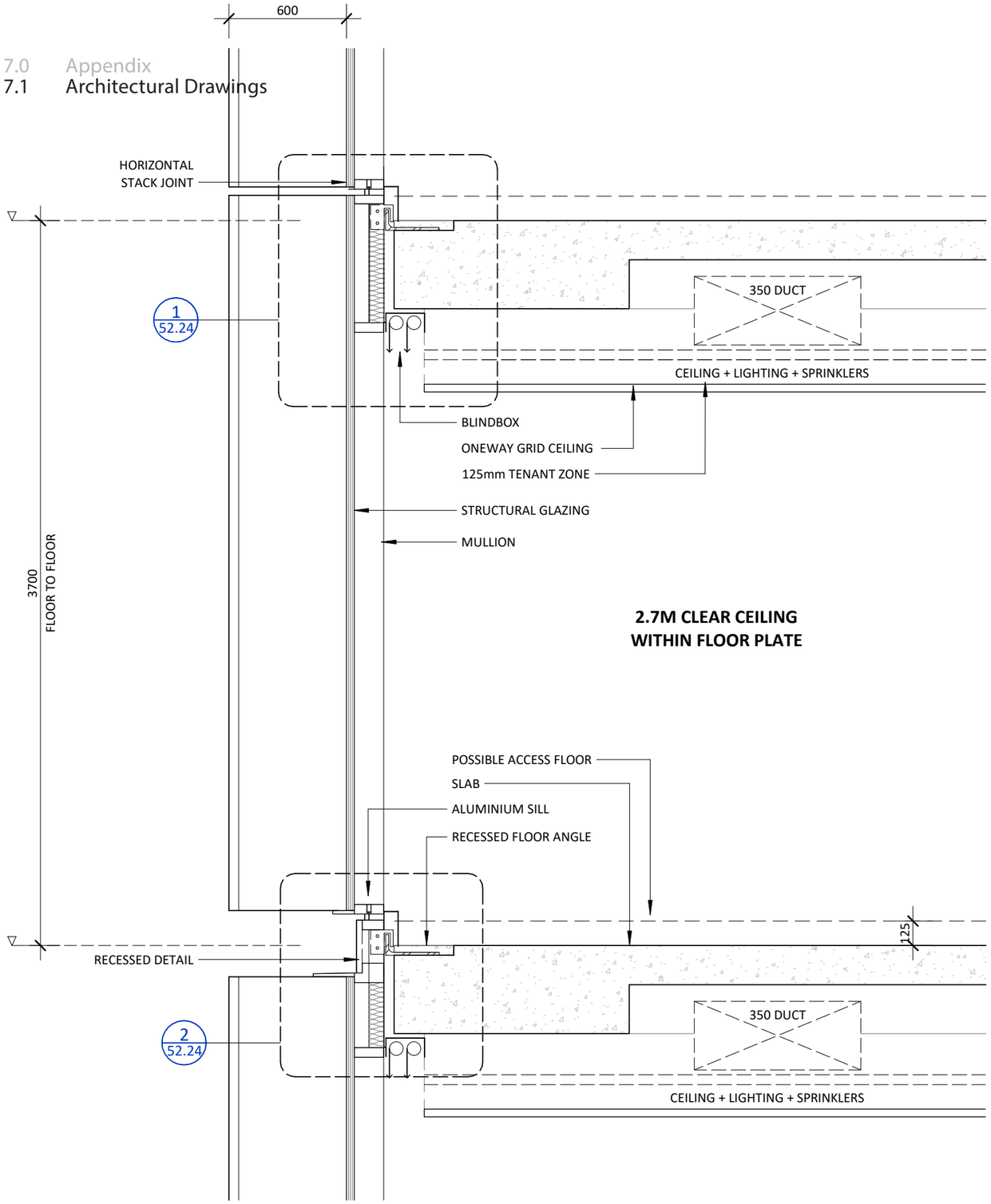
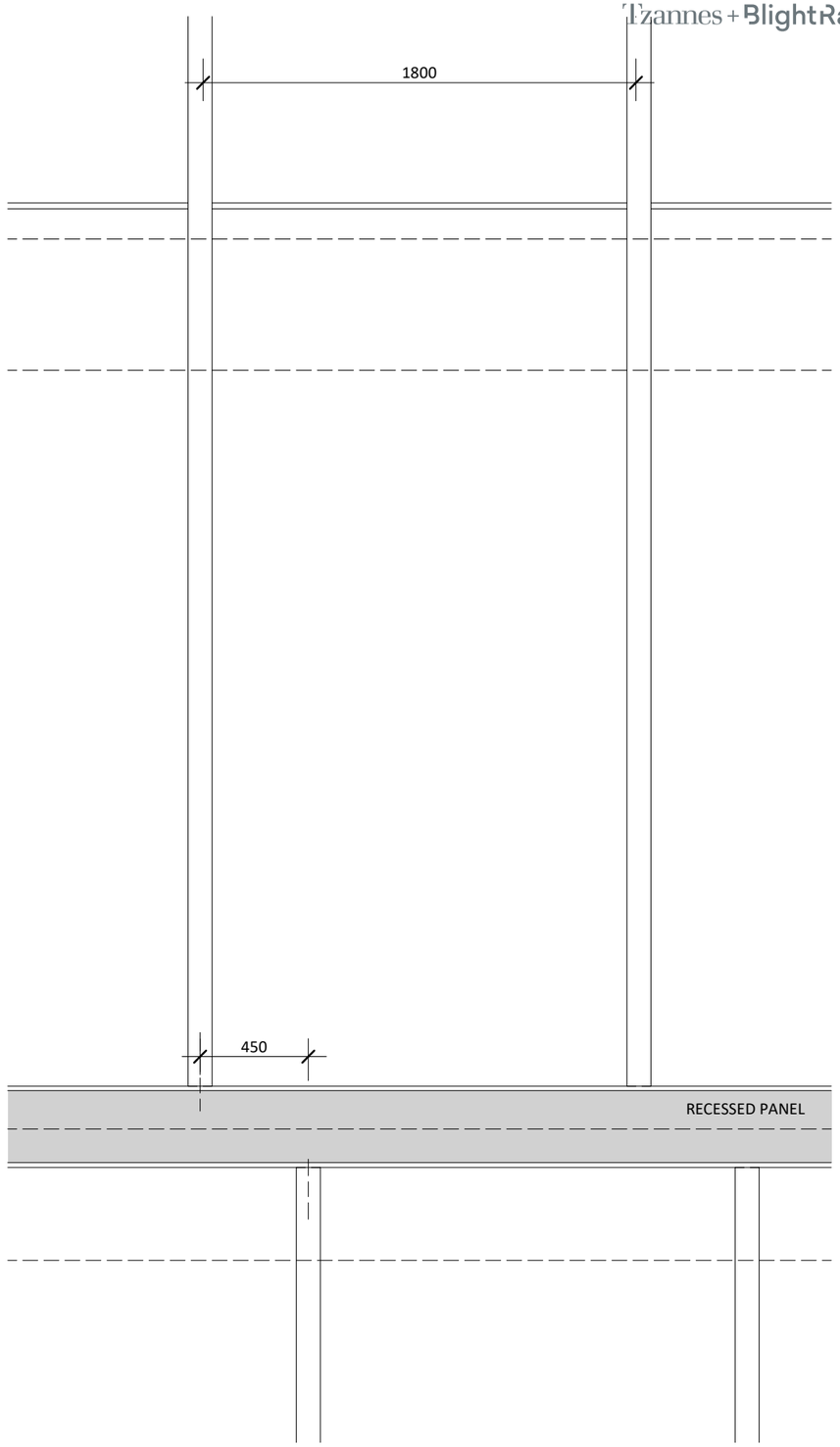
3/05/2019 3:24:41 PM



2.7M CLEAR CEILING
WITHIN FLOOR PLATE



1 FLOOR TO FLOOR - WEST FACADE
1 : 25

2 FACADE - TYPICAL WEST ELEVATION
1 : 25

Rev	Description	Consultant	Date	Issued by
G	For Information	BRT	19.03.19	TW
H	Draft SSDA Drawings	BRT	22.03.19	MSK
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T: 61 7 3905 6500
E: info@blightrayner.com.au

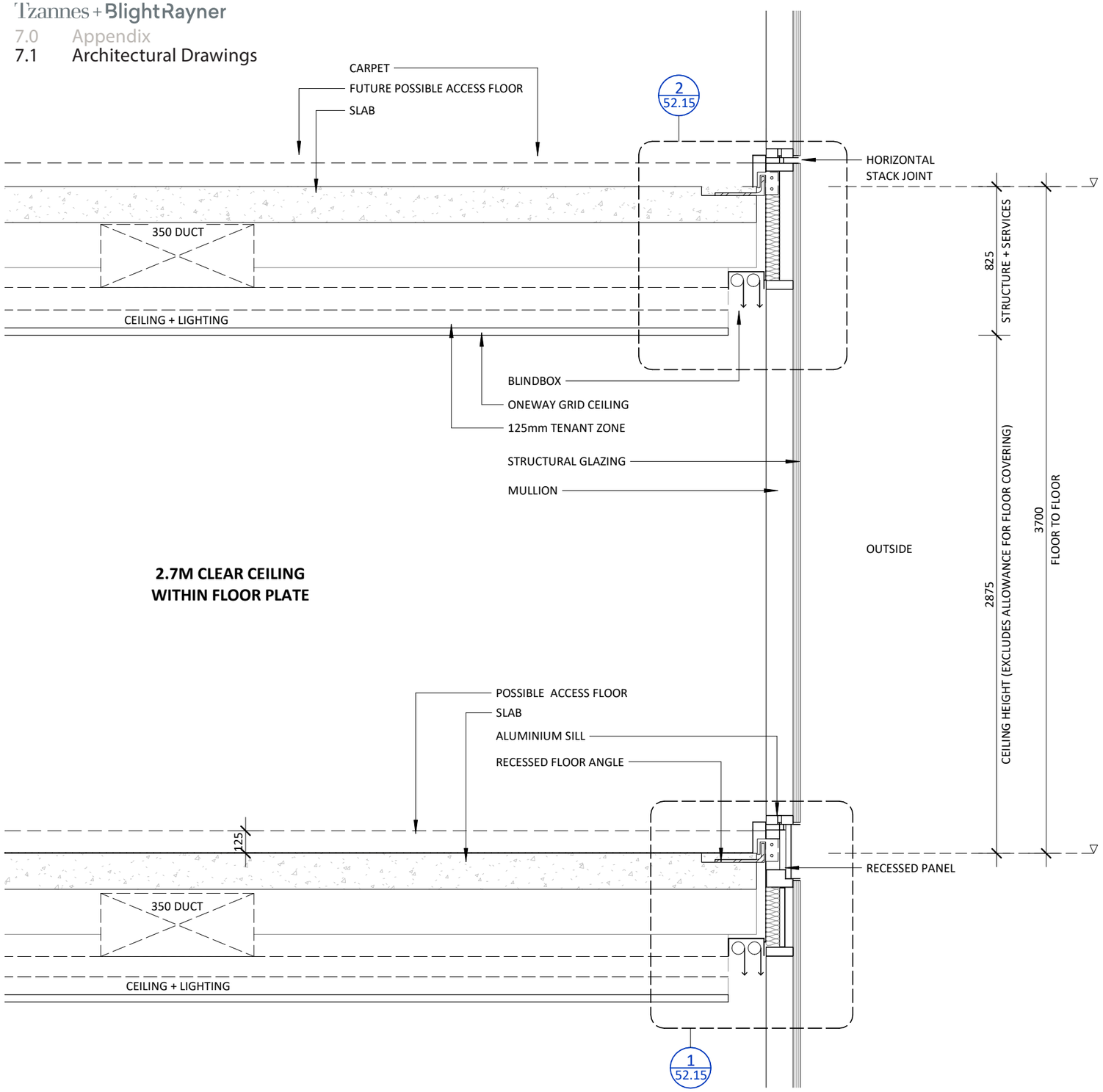
Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
FACADE SECTION -WEST FACADE

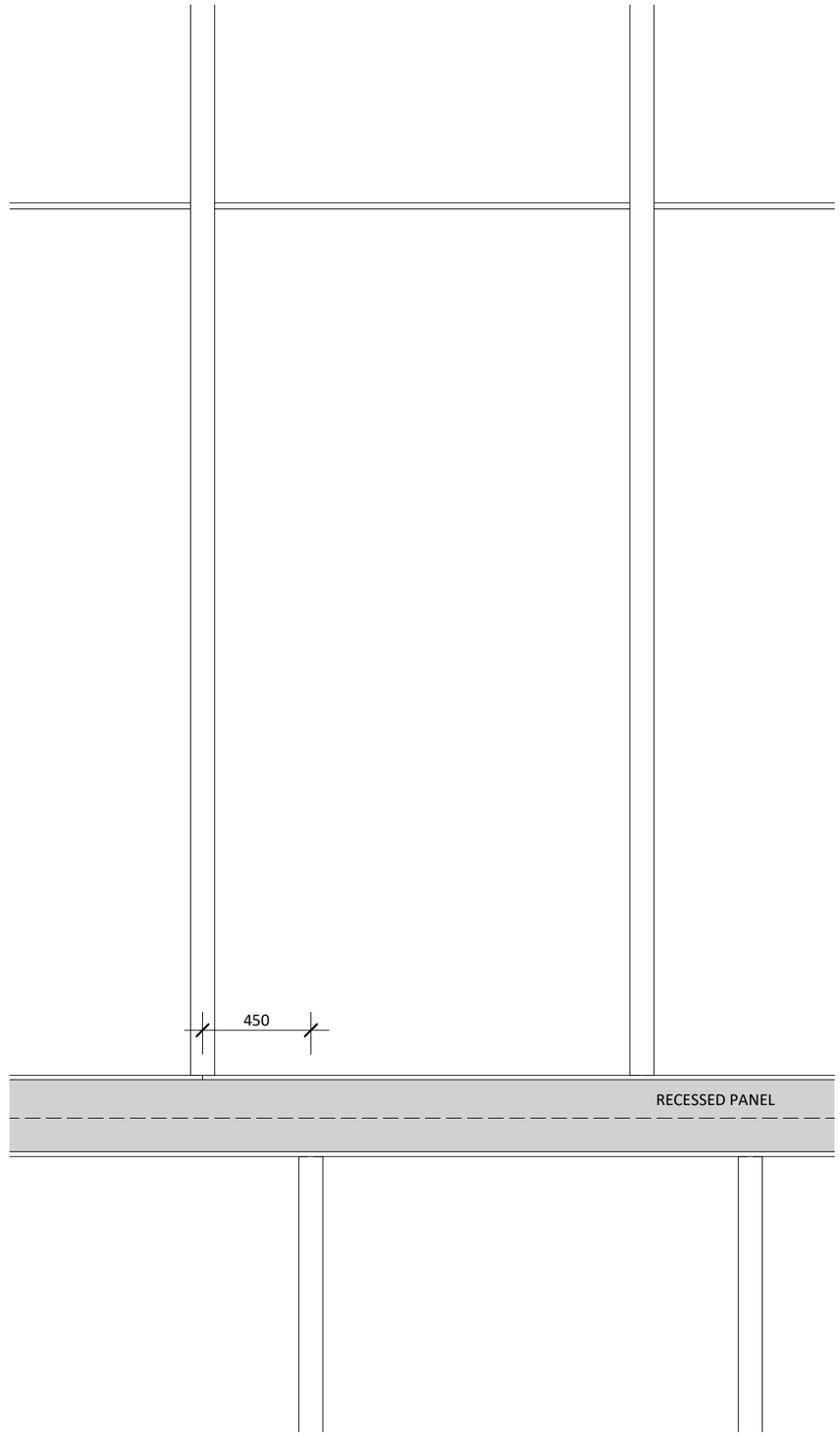
Project No. 18032
Drawing No. 52.02
Revision J
Date 03.05.19
Drawn by Author
Checked by Checker
SCALE @A3 1 : 25

3/05/2019 3:24:48 PM



2.7M CLEAR CEILING WITHIN FLOOR PLATE

1 FLOOR TO FLOOR - SOUTH FACADE
1 : 25



2 FACADE - TYPICAL SOUTH ELEVATION
1 : 25

Rev	Description	Consultant	Date	Issued by
G	For Information	BRT	19.03.19	TW
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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
FACADE SECTION - SOUTH FACADE

Project No. 18032
Drawing No. 52.03
Revision J
Date 03.05.19
Drawn by Author
Checked by Checker
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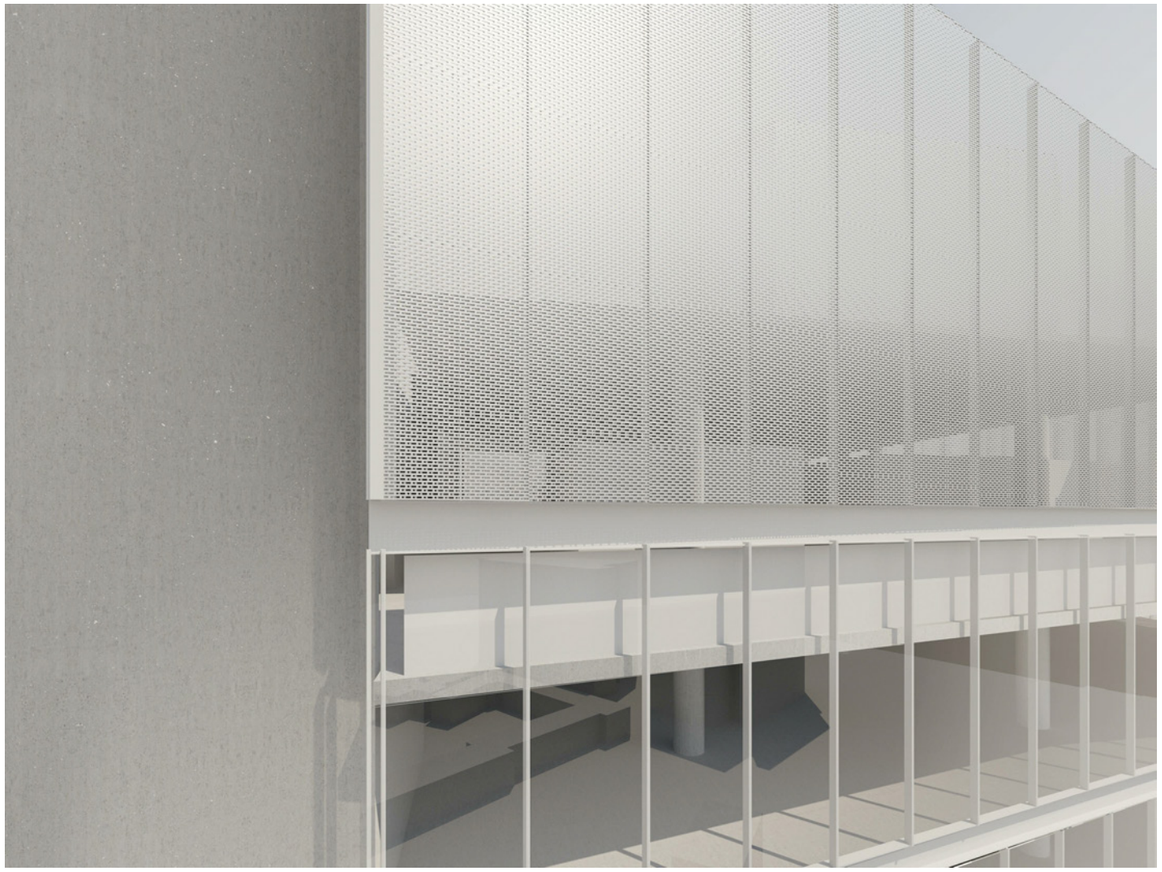

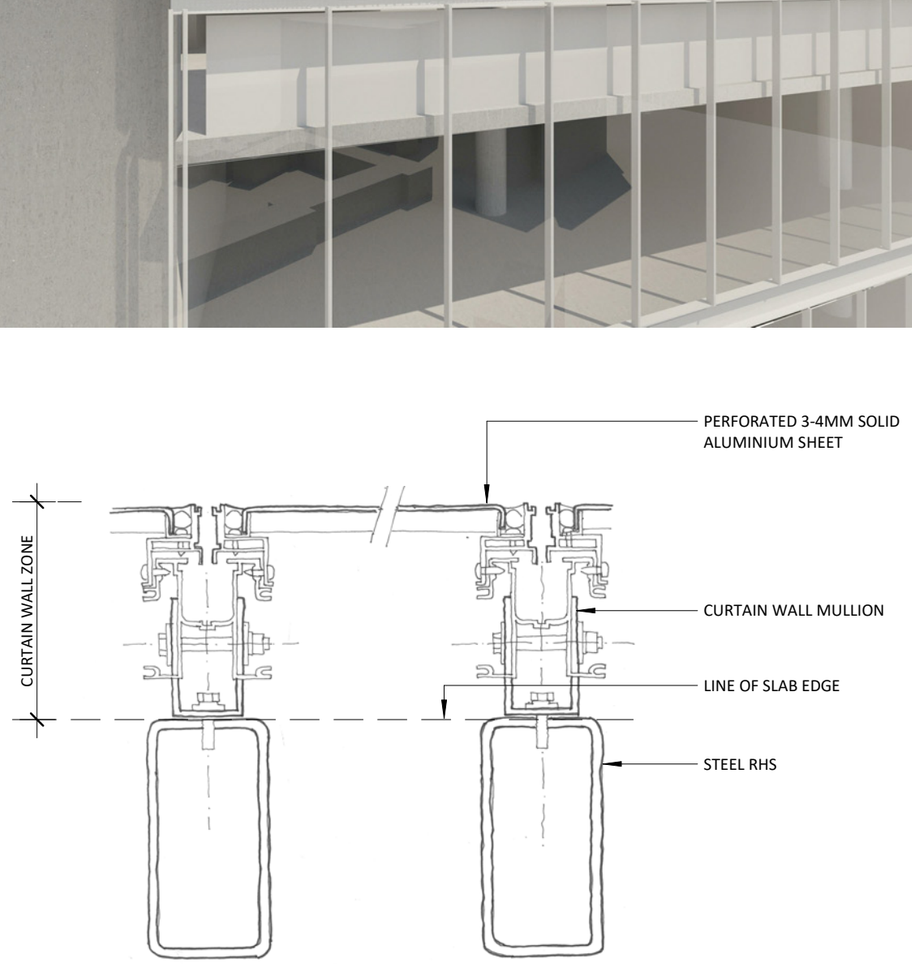

1 Plant Level - Facade Plan Detail
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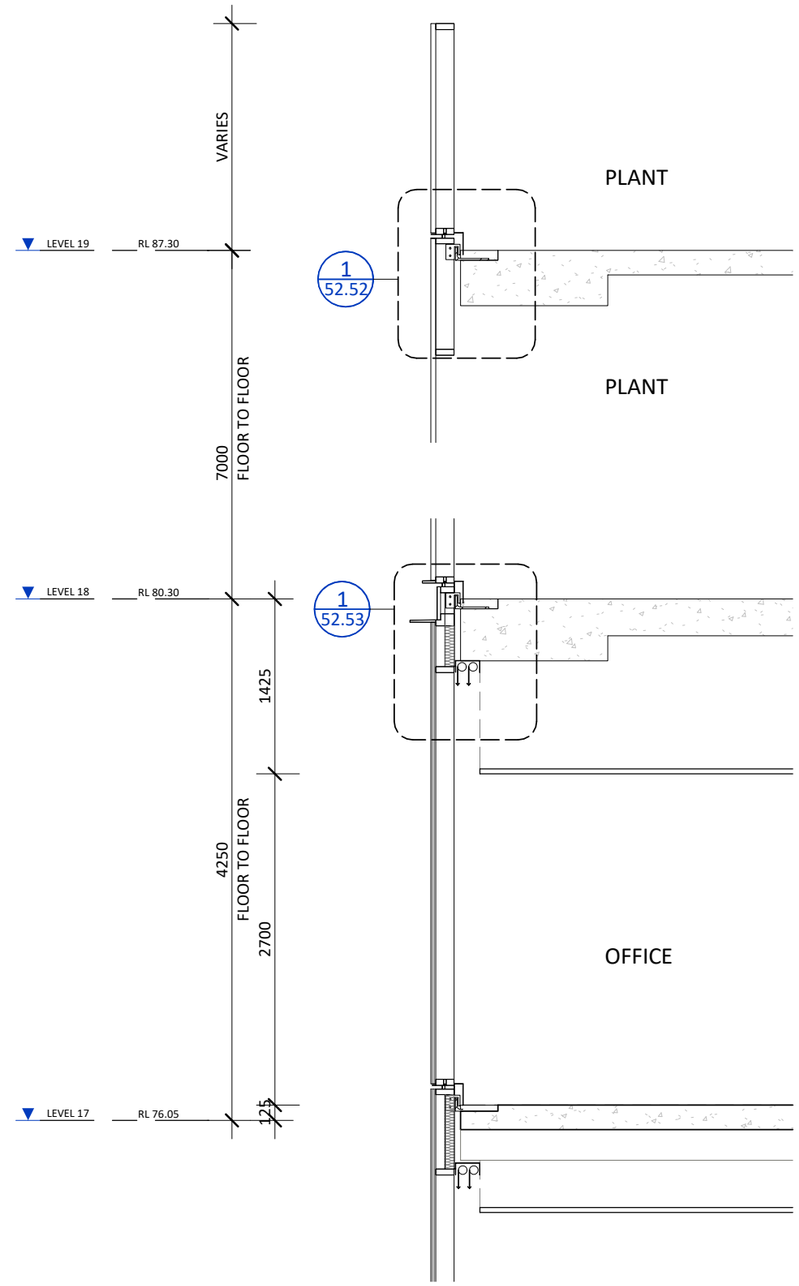

3 DETAIL SECTION - LEVEL 18 - 19 FACADE MESH
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Rev	Description	Consultant	Date	Issued by
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H	Draft SSDA Drawings	BRT	22.03.19	MSK
I	Draft SSDA Drawings	BRT	08.04.19	TW
J	SSDA Submission	BRT	03.05.19	TW

Charter Hall

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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
FACADE SECTION - PLANT

Project No. 18032
Drawing No. 52.04
Revision J

Date 03.05.19
Drawn by Author
Checked by Checker

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As indicated

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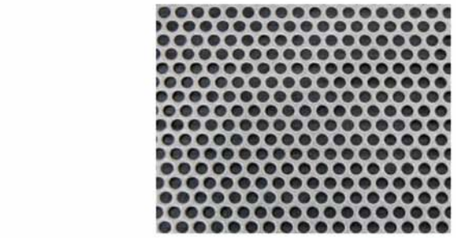
4.5 Materiality



5. Aluminum sheet - Perforated

4. Vision Glass
Clear

3. Shadow Box
Panel Finish

2. Metalwork Finish
Paint Finish Drark Charcoal

1. Concrete
Off White

Rev	Description	Consultant	Date	Issued by
I	SSDA Submission	BRT	08.03.19	TW

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Project Name
Hassall Street

Project Address
2-6 Hassall Street Parramatta NSW 2150

Sheet Name
EXTERNAL FINISHES SCHEDULE

Project No. 18032
Drawing No. DA.60.01
Revision I

Date 08.03.19
Drawn by AT
Checked by MP

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2B-6 Hassall Street, Parramatta
Landscape SSDA Report_Final Rev E

02 MAY 2019

Prepared for

Charter Hall

WESTERN SYDNEY UNIVERSITY

ASPECT Studios™

Contents

1. Introduction and Design Principles

1.1 LOCATION PLAN

1.2 INTRODUCTION

2b-6 Hassall Street Parramatta is located in the heart of Parramatta CBD approximately 500 metres to the south of Parramatta river. The site is well served by public transport, located within walking distance of the ferry, train station, main bus routes, and the proposed future light rail.

To the north of the site is the Lancer Barracks, a State heritage listed military site. New development in the vicinity includes the Arthur Phillip High School north of Lancer Barracks, and upgrade of the adjacent laneways to improve permeability to and around Lancer Barracks and the School. Adjacent to the west of the site sits the local heritage listed commercial hotel.

Public domain improvements of the project includes the upgrade of Hassall Street, a new through-site link on the ground floor of the building, footpath/verge and landscape design on the terraces.

1.3 DESIGN PRINCIPLES

- provide high quality streetscape that welcomes visitors to the site
- recognise key pedestrian movement paths to inform the design of the through-link plaza
- create a multi-used public space that can promotes interfaces with both retail shops and the street
- define a transition zone between Hassall street and the plaza through utilising the change of paving layout and materials
- provide a planting screen to soften the retaining wall and enhance the landscape character
- consider the connection between the street and Lancer Barracks and design to allow the connection to be incorporated at a future stage
- create a flexible and functional terrace garden

General Notes:

1. Indicative landscape design strategy only.
2. All loose furniture, moveable pots and retail FF&E to future tenants and are shown indicatively only.

2.1 Landscape Plan | Public Domain Plaza + Level 1 Roof Garden

Design Statement

Public Domain Plaza - Ground Level

The ground floor public domain is designed to enhance the pedestrian experience and sense of place around the Hassall St plaza. The plaza provides a clear path of travel connecting Hassall St and the potential Lancer Barracks open space. The continuous active retail frontage, together with planters and integrated seating edges provides users with opportunities to linger, study and gather. The overall landscape design features elements that complements the architectural language to ensure an integrated and consistent design solution across the site.

The streetscape design includes CoP seats, bike racks, new paving and new trees to ensure consistency with the surrounding urban environment.

Retail Roof Garden - Level 1

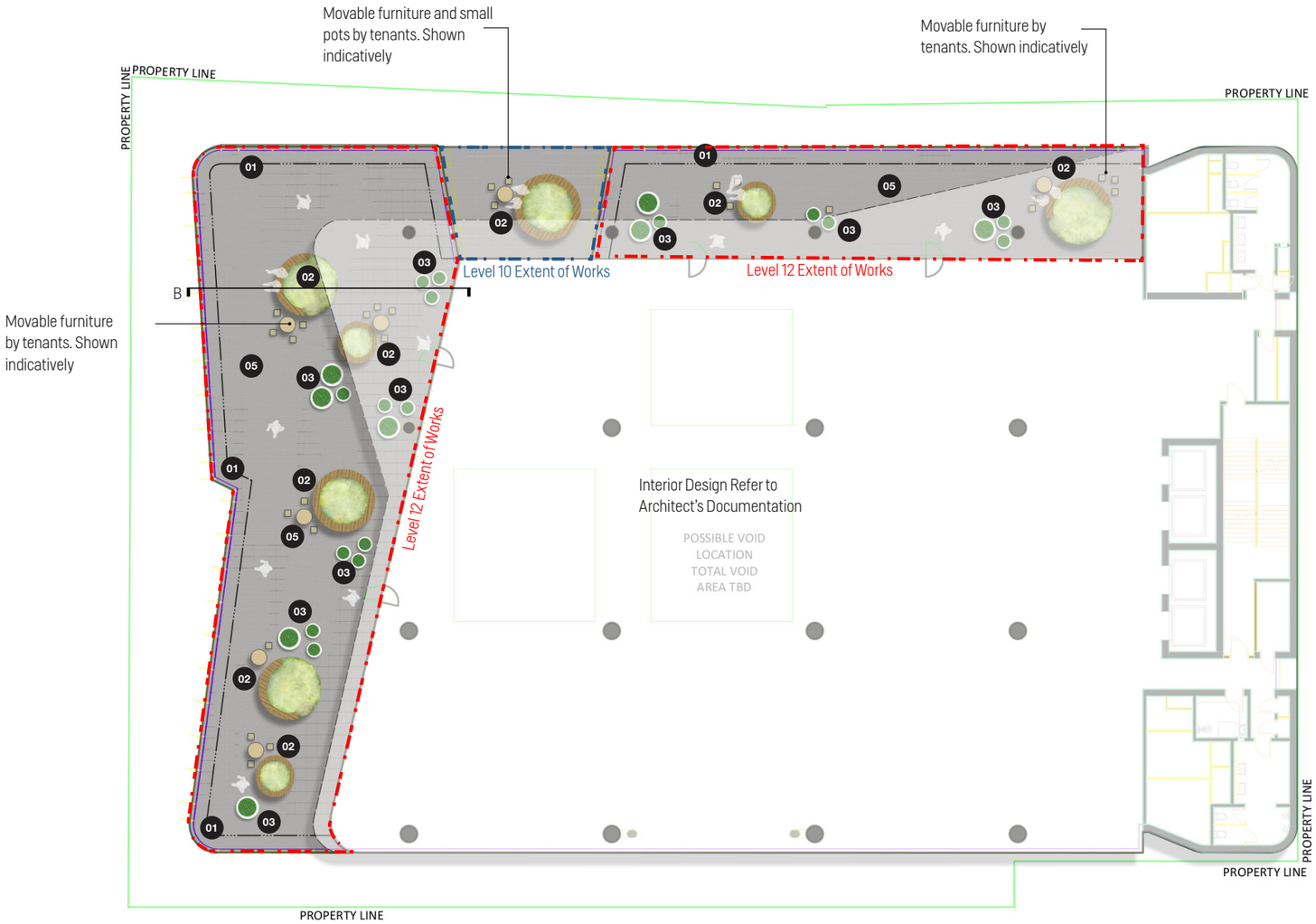
The level 1 roof garden includes lush green cascading plants along the edge of the rooftop. This green frame above the western retail shops provides another focal point for pedestrians walking through the plaza and not only softens the building facade, but also has additional benefits of reducing surface stormwater runoff from the roof top.

	KEY
1	Seating terrace. Finish to seating to be weather resilient.
2	Densely planted understorey plants
3	1.8m high planting buffer in front of shoring wall. Shoring wall design by others
4	Small pots and plants shown indicatively - to be provided by future tenant
5	Planters above shoring wall where the section is lower. Refer to engineer's furture shoring wall details
6	1200mm min. wide egress path to the northern site and 6000mm wide egress path throughout the plaza shown by dashed lines in orange
7	Stone paving - pedestrian grade
8	Transition pavement blended into stone pavers and CoP concrete unit pavers
9	Large raised planter with integrated seating, additional smaller pots with planting and movable retail furniture to be provided and maintained by future tenant
10	Cascading plants and mass planting to the perimetre of retail rooftop
11	Cafe tables and loose furniture shown indicatively to future tenants
12	Bollards - Utility suite (to CoP)
13	Concrete unit paving - 300x300mm (to CoP)
14	Street tree planting in grate - Flindersia australis (to CoP)
15	Street seats under tree canopy - Utility suite (to CoP)
16	Bike racks - Utility suite (to CoP)
17	Entry to the underground carpark to architects specification

2.2 Landscape Plan | Level 10 and Level 12 Terrace Garden

General Notes:

1. Indicative landscape design strategy only.
2. All loose furniture, moveable pots and retail FF&E to future tenants and are shown indicatively only.



Design Statement

Terrace Garden - Level 10

The terrace design on the level 10 is focused on providing future tenants with adaptable spaces to suit different uses. Circular planters with low maintenance mass planting and integrated seating will be served as a popular break out space for future tenants. Additional space around the terrace garden will allow flexibility in the future to accommodate loose furniture and additional smaller pots with planting, subject to the future tenants.

Terrace Garden - Level 12

The northern terrace on level 12 has been designed to utilise the open views towards Lancer Barracks. This space will also be available for users of the building for lunch or coffee breaks. Movable feature pots will enhance the character of the space and will be planted with seasonal plants to provide visual and colour interest throughout the year.

More large planters are located at the western side of the terrace. These strategically located planters and seating elements are fixed elements and complemented by smaller moveable pots and seating provided by the tenants, allowing users to gather for casual catch ups, hold social events and for outdoor lunch.

KEY	
1	Balustrade to architects detail. Located to provide 900mm wide maintenance access
2	Feature planters with planting and integrated seating complemented by smaller moveable pots and seating by tenants - minimum 1m setback from balustrade
3	Feature pots with planting in groups shown indicatively
4	Loose furniture shown indicatively to future tenants
5	Terrace unit paving with pedestal system by architects

2B-6 Hassall Street Parramatta

ASPECT Studios™

Clients:
Charter Hall | Western Sydney Univeristy

Drawn: HB
Checked: NB

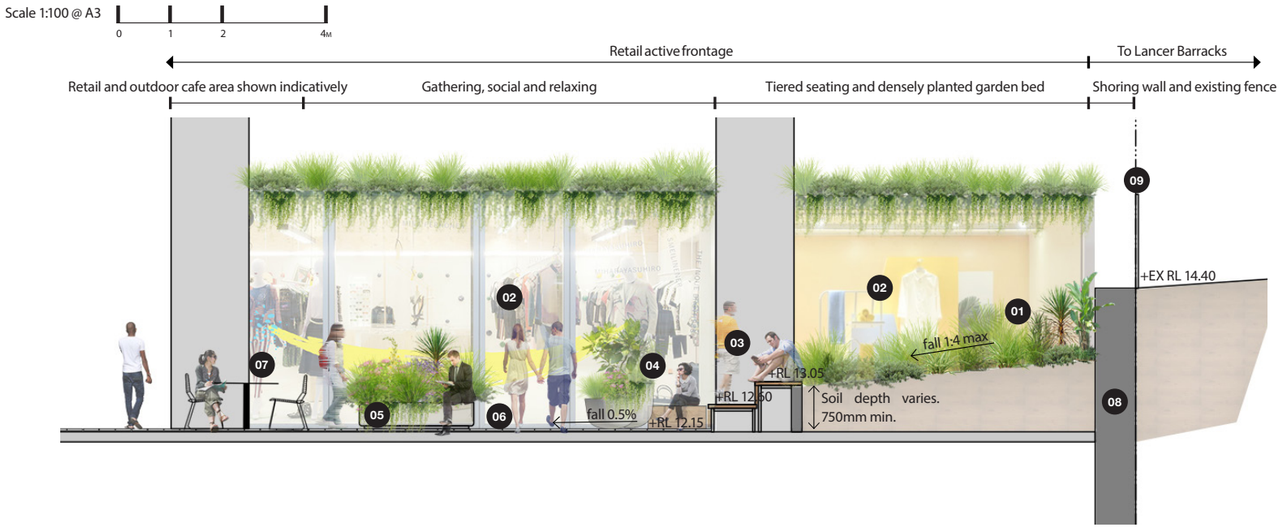
Scale: 1:250@A3
Date: May 2019

0 2.5 5 10M

Landscape SSDA Report | Final
Rev: E

2.3 Landscape Sections and Elevations

SECTION A - Ground Level Seating terrace and retail frontage



	KEY
1	Planting screen in front of shoring wall and densely planted under-storey plants to create a lush garden
2	Retail shops frontage to architects and future tenants
3	Seating terrace and furture link to Lancer Barracks
4	Small pots and plants shown indicatively - to be provided by future tenant
5	Feature planters with planting and integrated seating complement-ed by smaller movable pots and seating by tenants
6	Stone paving
7	Cafe tables and loose furniture by tenants shown indicatively
8	Shoring wall design by others
9	Existing fence to be retained

TYPICAL SECTION B - Level 12 Terrace garden

	KEY
1	Feature planters with planting and integrated seating complemented by smaller movable pots and seating by tenants
2	Small pots and plants shown indicatively - to be provided by future tenant
3	Terrace unit paving and pedestal system by architects
4	Balustrade shown indicatively and 900mm wide maintenance access by architects

3.1 Planting Palette

PLANT SCHEDULE

Botanical Name	Common Name	Exotic/Native	Pot Size (L)	Spacing (mm)
Ground Floor Plaza				
Alpinia caerulea	Native Ginger	Native	45	1000
Alocasia macrorrhiza	Cunjevoi	Native	45	1000
Ctenanthe Grey Star	Fishbone Prayer Plant	Exotic	25	500
Blechnum nudum	Fishbone Fern	Native	25	500
Acanthus mollis	Oyster Plant	Exotic	25	500
Ajuga reptans	Bugle Plant	Exotic	5	400
Viola hederacea	Native violet	Native	5	400
Trachelspermum jasminiodes	Star Jasmine	Exotic	25	500
Cissus antarctica	Kangaroo Vine	Native	25	500
Ficus elastica	Rubber Fig	Exotic	25	500
Retail Green Roof				
Trachelspermum jasminiodes	Star Jasmine	Exotic	25	500
Scaevolea aemula	Fan Flower	Native	5	400
Dicondra silver falls		Exotic	5	400
Hardenbergia voliacea	Native Sarsparella	native	5	500
Level 10 & Level 12 Terrace				
Russelia equisetiformis	Coral Plant	Exotic	25	500
Salvia guaranitica 'Black and Blue'	Anise Scented Sage	Exotic	25	600
Scaevolea aemula	Fan Flower	Native	5	400
Hardenbergia voliacea	Native Sarsparella	native	5	500
Chrysocephalum apiculatum	Yellow Buttons	Native	5	400
Sansevieria trifasciata	Snake Plant	Exotic	25	400


Alpinia caerulea


Acanthus mollis


Ajuga reptans


Alocasia macrorrhiza


Blechnum nudum


Ctenanthe Grey Star


Viola hederacea


Chrysocephalum apiculatum


Russelia equisetiformis


Hardenbergia violacea


Trachelspermum jasminiodes


Scaevolea aemula

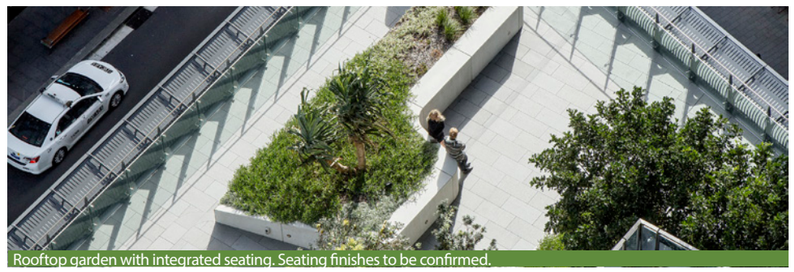
3.2 Materials + Precedent Images


Screening plants and integrated seats


Feature pots and planting


Dense screening plants


Tiered seating terrace and integrated stairs. FInishes to seating to be weather resilient.


Rooftop garden with integrated seating. Seating finishes to be confirmed.


Feature transition paving


Screening climbing plants with strings


Planter with integrated seating


Densely planted understorey planting

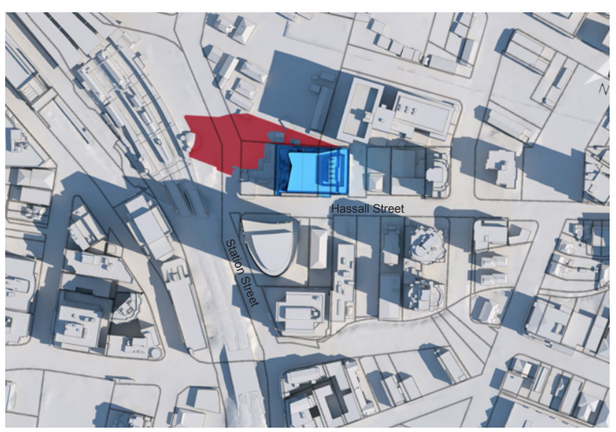

Feature plaza style stone paving

Summer 22 December

Proposed development shadow

Existing shadow

Cadastre overlay



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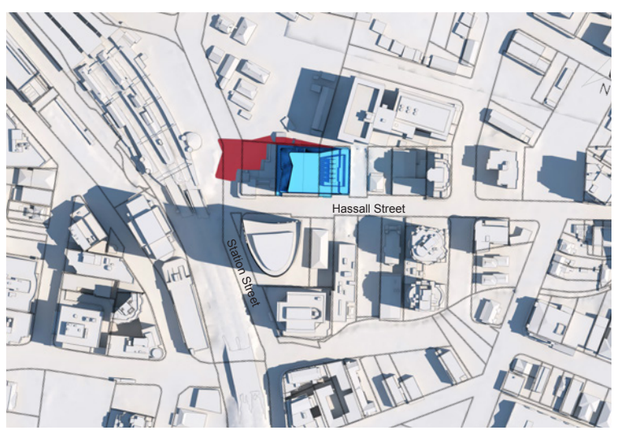

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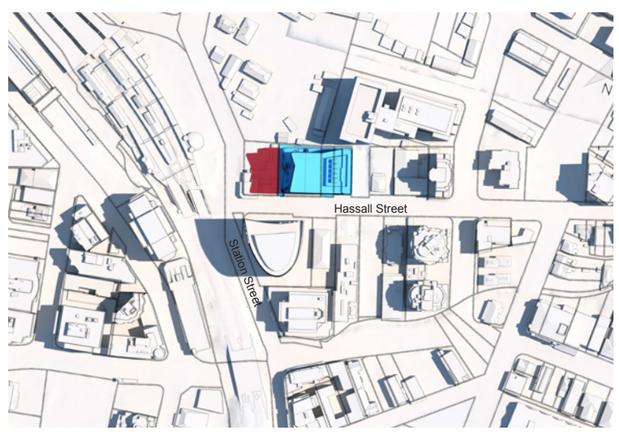

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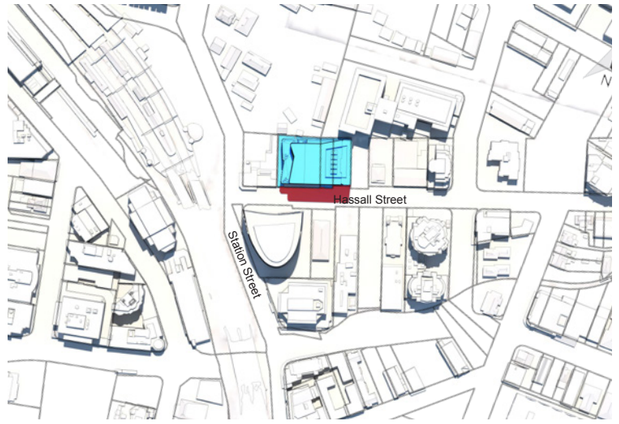

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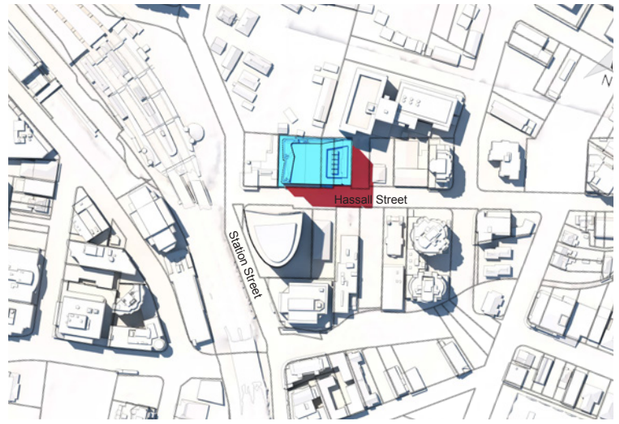

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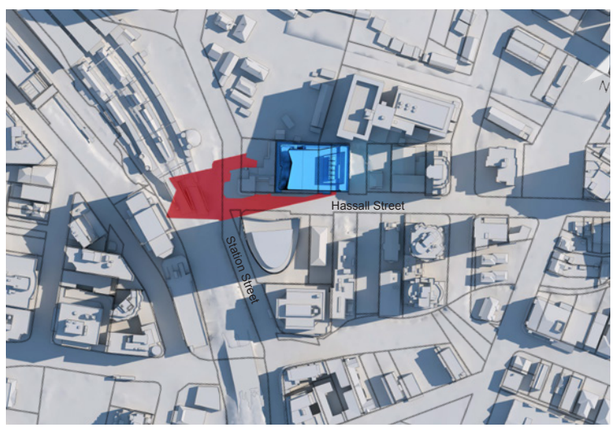
Autumn 21 March

Proposed development shadow

Existing shadow

Cadastre overlay



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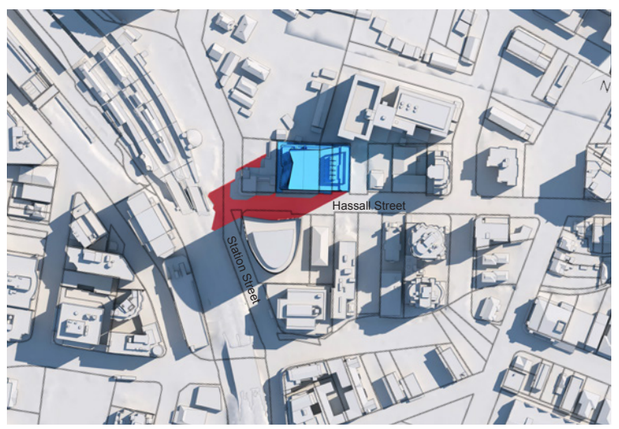

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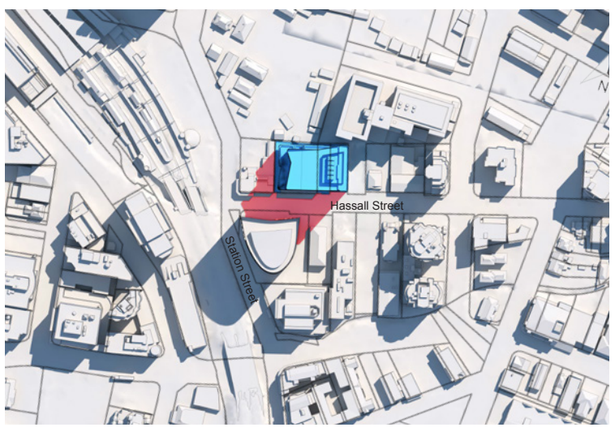

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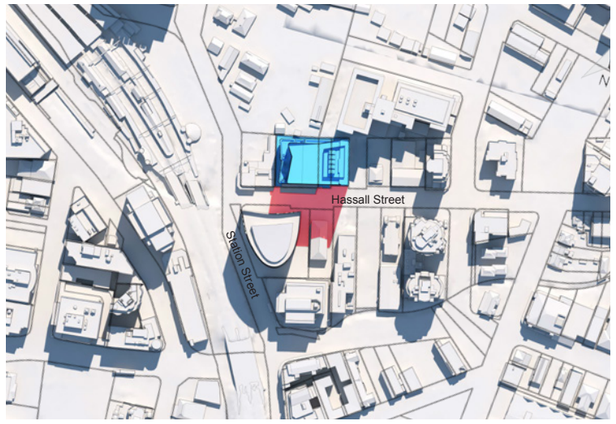

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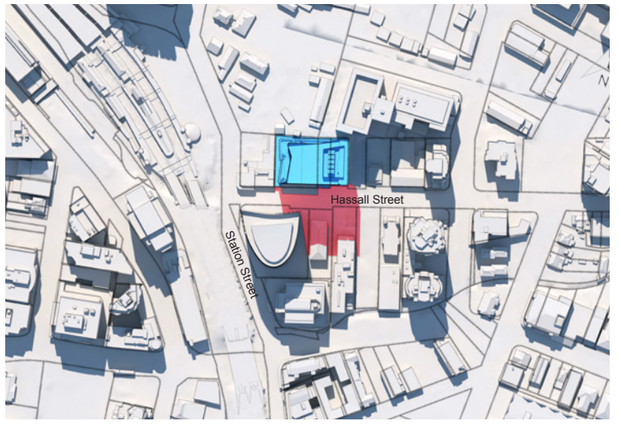

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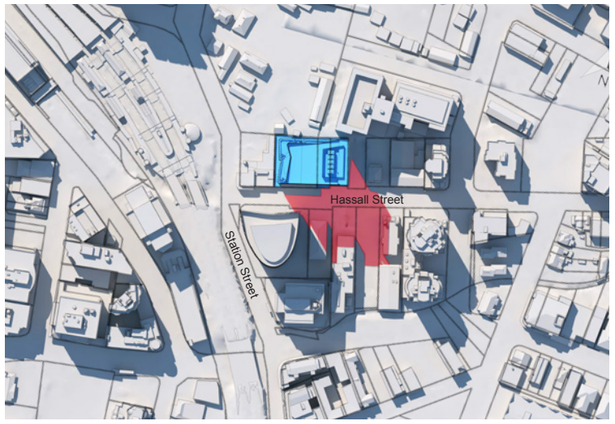

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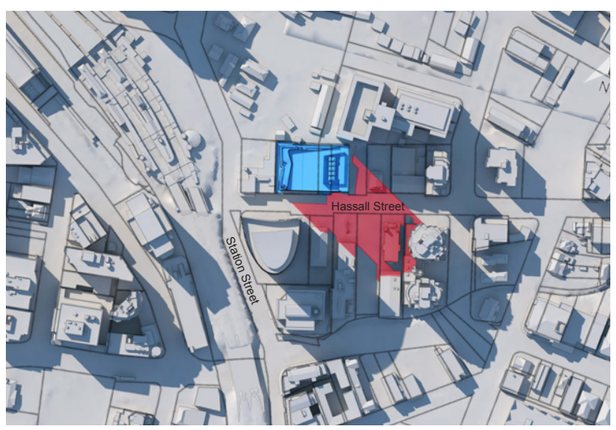

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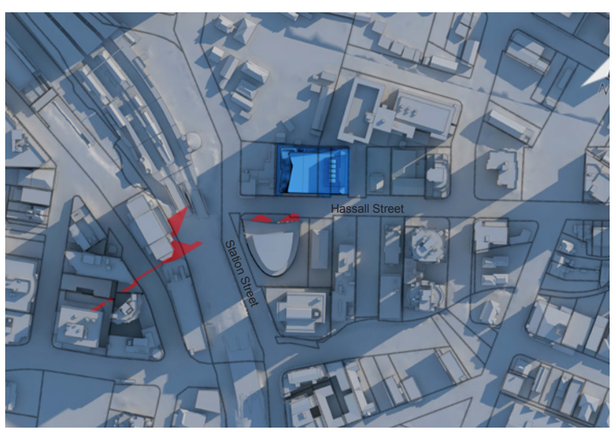
Winter 21 June

Proposed development shadow

Existing shadow

Cadastre overlay



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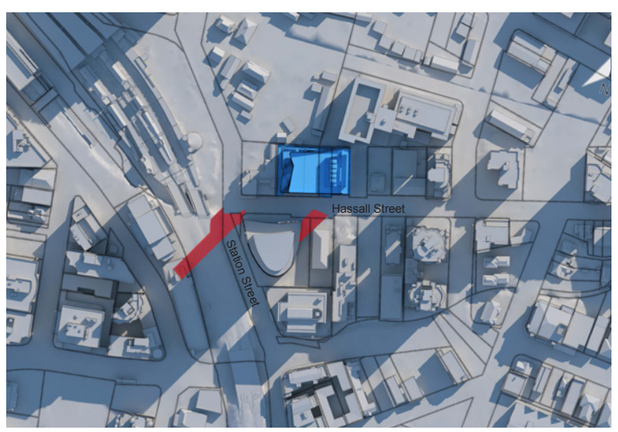

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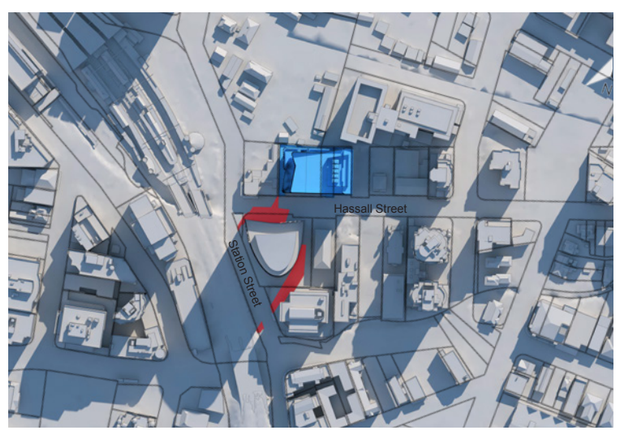

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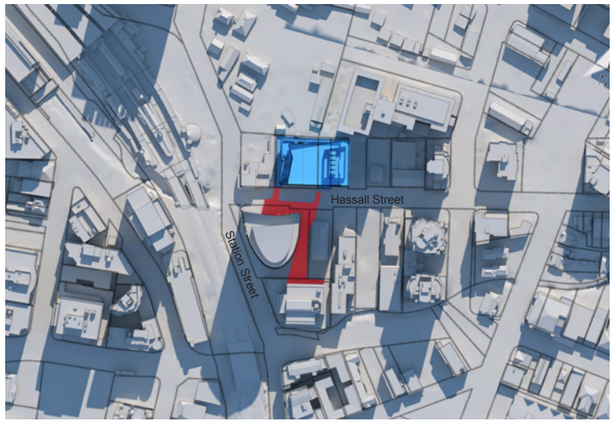

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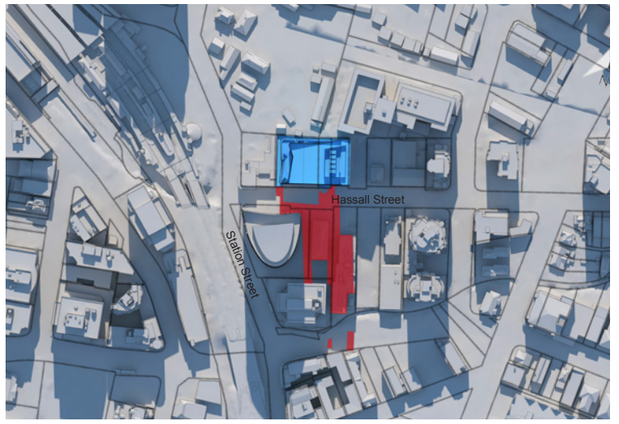

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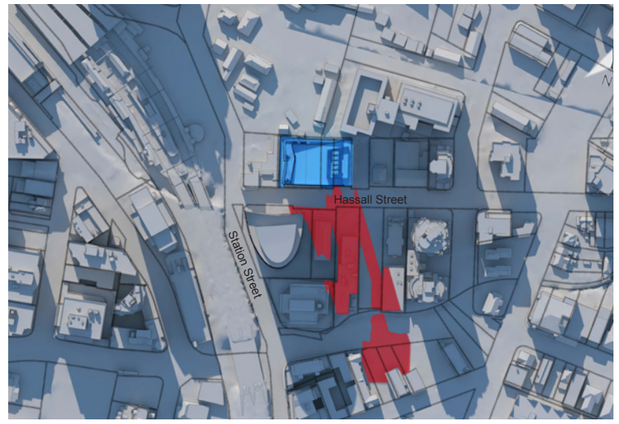

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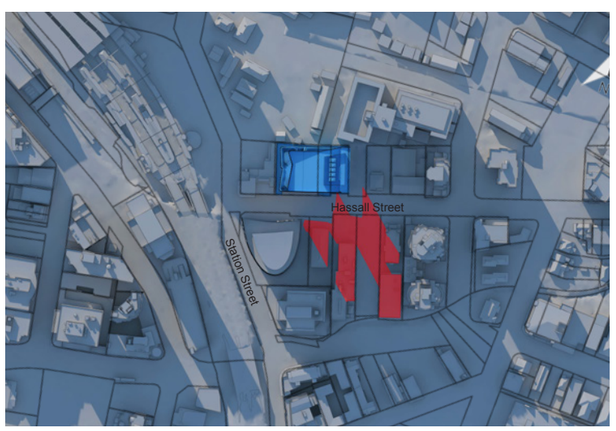

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