WLPP No.	Item No. 2
DA No.	DA-2019/1123
Proposal	Demolition of existing structures and construction of a 14-storey mixed use development comprising 50 residential units 1 ground floor commercial tenancy and two levels of basement parking
Property	35-37 Atchison Street, WOLLONGONG
Applicant	Design Workshop Australia
Responsible Team	Development Assessment and Certification – City Centre Team (RW)

ASSESSMENT REPORT AND RECOMMENDATION

Executive Summary

Reason for consideration by Local Planning Panel - Determination

The proposal has been referred to Local Planning Panel for determination pursuant to clause 2.19(1)(a) of the Environmental Planning and Assessment Act 1979. The proposal is captured by clause 4(b) of Schedule 2 of the Local Planning Panels Direction of 1 March 2018, as the proposal is development to which State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development applies.

Proposal

The proposal is for demolition of all structures on the site and construction of a 14-storey mixed use development comprised of 50 residential units and 1 commercial tenancy above two levels of basement parking for 62 vehicles.

Permissibility

The site is zoned B3 Commercial Core pursuant to Wollongong Local Environmental Plan 2009. The proposal is categorised as a shop top housing and is permissible in the zone with development consent.

Consultation

The proposal was notified in accordance with Council's Community Participation Plan and received four (4) submissions which are discussed at section 1.5 of this report. Council's geotechnical, stormwater, landscape, traffic and environment divisions have reviewed the application and provided satisfactory referral comments. The application was considered by the Design Review Panel. External comments were received from Endeavour Energy.

Main Issues

- Response to Design Review Panel
- Clause 4.6 for building separation

RECOMMENDATION

It is recommended that further information be submitted for an alternate treatment of the south facing podium wall prior to determination. Following this information being submitted to Council's satisfaction, it is recommended that the proposal be approved subject to the recommended conditions at Attachment 7.

1 APPLICATION OVERVIEW

1.1 PLANNING CONTROLS

The following planning controls apply to the development:

State Environmental Planning Policies

- SEPP 55 – Remediation of Land
- SEPP 65 Design Quality of Residential Apartment Development
- SEPP (Infrastructure) 2007
- SEPP (Building Sustainability Index: BASIX) 2004

Local Environmental Plans

- Wollongong Local Environmental Plan (WLEP) 2009

Development Control Plans

- Wollongong Development Control Plan (WDCP) 2009

Other policies

- Apartment Design Guide
- Wollongong City-Wide Development Contributions Plan 2019

1.2 DETAILED DESCRIPTION OF PROPOSAL

The involves demolition of all structures on the site and construction of a 14-storey mixed use development with 2 levels of basement car parking containing 62 car spaces, one level of commercial space and 50 units above.

The residential tower is made up of the following:

- 6 x one bedroom units
- 38 x two bedroom units
- 6 x three bedroom units

This includes 6 units which are adaptable and 24 of which are liveable.

1.3 BACKGROUND

A Design Review Panel was held on 1 November 2018 (DE-2018/158).

A Pre-lodgement meeting was subsequently held on 24 May 2019 (PL-2019/70).

A second Design Review Panel meeting was held on 14 November 2019 following lodgement of the current application and the notes form Attachment 6. The plans have been amended to address the recommendations of the Panel as discussed at section 1.6.2.

Development History

35 Atchison Street

DA-2012/1186 – Commercial – proposed use and fit-out of personal training studio

37 Atchison Street

DA-1966/409 – Building material Showroom, Office Facilities
DA-1971/448 – Warehouse & Store
DA-1973/115 – U/G Tank & Bowser
DA-1977/423 – Use of Existing Building for Medical Clinic & Medical Sports Clinic
DA-1995/94 – Change of Use to Pharmaceutical Warehouse
DA-2012/1186 – Commercial – proposed use and fit-out of personal training studio

1.4 SITE DESCRIPTION

The site is located at 35-37 Atchison Street, Wollongong comprises 3 lots being Lot 2 DP 152994, Lot 1 DP 784111, Lot 2 DP 784111.

The site is located on the eastern side of Atchison Street, generally rectangular in shape with a slope of approximately 1m from front to rear. The combined site width is 32m wide, approximately 50m deep with a site area of 1620.2m^2. A weatherboard cottage with at-grade parking at the rear occupies 35 Atchison Street. A two-storey building used as a personal training studio occupies 37 Atchison Street. The site with is within the city centre with the immediate locality undergoing a transition to high rise development as outlined below:

North - A mixed use development is nearing completion on the adjoining land to the north, approved by the Court and subsequently modified (DA-2016/1073)

South - Directly to the south at 39 Atchison Street there is a single lot comprising a Greek Orthodox church. The church occupies the front portion of the site with a two-storey community hall behind the church which extends to the side and rear boundaries.
The next lot south of the church is 41 Atchison Street which contains a weatherboard dwelling with a warehouse at the rear. The combined width of these two lots is over 30 metres.
Further south is a large development site at 43 Atchison Street that fronts Atchison, Ellen and Kenny Streets with approval for a mixed-use development (DA-2016/1354).

East - The site adjoins a medical practice to the rear/east (34 Kenny Street) and adjoins a child-care centre to the rear (38 Kenny St).

West - Opposite the site at 38 Atchison Street is also a mixed-use development currently under construction (DA-2016/1719).

<u>Property constraints</u>

Council records identify the land as being flood affected. The design has responded to this constraint with elevated flood levels and a plenum for flood storage. The proposal has been assessed as satisfactory by Council's Stormwater Engineer regarding flooding.

1.5 SUBMISSIONS

The application was notified in accordance with Council's Community Participation Plan, including the revised plans being re-notified. A total of four (4) submissions were received and the issues identified are discussed below.

Figure 1: Notification map

Table 1: Submissions

Concern	Comment
1. Parking appears inadequate. Parking rates should be provided based on number of bedrooms instead of unit size.	The parking rates applicable to the residential component of the development are based on the number of bedrooms (refer car parking assessment under Attachment 4) 47 residential parking spaces and 10 visitor spaces are provided which satisfies the minimum requirements under both the Apartment Design Guide. Parking for the Commercial use also satisfies the parking requirements under Wollongong DCP (refer Attachment 5).
2. Religious festivals held in adjacent church/community hall and weddings, funerals and baptisms held in the church. These events involve the ringing of bells and the residential component of the development must be aware of the church's vicinity and potential noise impacts	The adjoining site to the south is a Greek Orthodox church that has been operating since the early 1970s. The church has two bell towers where bells are rung at various religious occasions, including late night and midnight masses. The applicant submitted an acoustic report that responded to the potential noise impacts from some church activities on future residents of the building. Given the relative irregularity of late-night noise, the acoustic report did not identify specific noise attenuation measures over and above normal acoustic treatment, noting that the relative infrequency and short duration of the bells ringing did not warrant further noise attenuation measures. The report also noted the design of the building incorporated the following elements to minimise noise impacts: - Solid wall facing the south boundary on Levels 1 and 2 - 9m setback to the southern boundary for units within the tower

Concern	Comment
	- Living areas not oriented to the east. The acoustic report was considered by Council's Environment Division who did not raise concerns and agreed with the recommendations of the acoustic report regarding the noise from the church. It is also relevant to note that any future noise complaints from residents of the proposed development that relate to ringing of the church bells would be considered under the relevant noise legislation under the Environment Protection Act 1997 and the Noise Guide for Local Government.
3. Loss of available street parking	No loss of on street parking will result from the development. The exiting site encompasses two properties, each with their own driveways (approximately 3m and 6m wide). The proposal will have a single driveway access at the northern end with a width of 6.0m. This represents a reduction in the overall driveway width therefore no reduction in street parking as compared to the existing situation will result from the proposal.
4. Safety concerns regarding elderly people accessing church site. Recommend level crossing for parishioners to cross Atchison Street safely, also noting other large developments under construction.	No concerns have been raised by Council's Traffic Engineer regarding this matter. Any changes to traffic and parking controls, including traffic calming measures, signage and pedestrian crossings within the road reserve requires consideration by Council's Traffic Committee. This is outside the scope of the current development application however could be presented to the Traffic Committee independent of the current development application.
5. Request signage out of the front of Church limiting the use for "wedding and Funeral Cars only'	As above. Any written requests for changes to parking restrictions should be sent to Council's Traffic Committee.
6. Developer should provide transport for workers to minimise parking impacts during construction	Parking and traffic impacts during construction will inevitably result in more traffic movements and less available street parking. This is a short-term impact and any workers will need to abide by with existing parking restrictions in the vicinity of the site. The requirement for a Construction Environmental Management Plan to be provided prior to works commencing is included in the recommended conditions in Attachment 7.
7. Any costs associated with the changes to boundary fencing will not be borne by the church as the existing wall is structurally sound	There is an existing masonry wall on the boundary of the subject site and the adjoining Church Site to the south. The survey plan submitted with the application indicates that this wall is located wholly within the boundaries of Lot 2 DP 784111 (southern part

Concern	Comment
	37 Atchison Street – refer survey plan within Attachment 2). The proposal includes construction of the podium extending to both side boundaries. This will necessitate demolition of the masonry wall and the podium wall will therefore replace the existing fence. As a front gate is currently fixed to the masonry fence at 39 Atchison Street, a condition is recommended that a minimum of 7 days written notice be given by the developer to the owners of the church so that alternate arrangements for the front gates can be made during the construction works. A dilapidation report is included as part of the recommended conditions of consent.
8. Clarification sought regarding proposed location of driveway as having the driveway next to the church at 39 Atchison Street may raise pedestrian safety issues	The driveway is located at the northern end of the site which will reduce pedestrian/traffic conflict points with the adjoining church to the south of the subject site. This is the preferred location of the driveway entrance.
9. Request that noise during construction works be lowered during wedding and funeral services held at the adjoining church at 39 Atchison Street	Construction noise is an inevitable impact of developments, noting that this is a short-term impact. To minimise these impacts, a condition is recommended for a Construction Environmental Management Plan to be submitted prior to issue of a Construction Certificate (refer Attachment 7).
10. General supportive of proposal, subject to the DRP being satisfied of the juxtaposition of the proposed building and the Orthodox Church in terms of urban design and streetscape.	The Design Review Panel (DRP) have noted that a more sensitive design approach is required to the southern façade of the podium to minimise the visual impact of a large blank wall facing the street. The applicant has provided some further detail of the southern podium elevation, identifying the finish as “embedded graphic treatment to concrete wall boundary”. This is discussed in more detail under the DRP discussion in Part 1.6.2 below.

1.6 CONSULTATION

1.6.1 INTERNAL CONSULTATION

Council’s geotechnical stormwater, landscape, traffic and environment officers have reviewed the application and provided a satisfactory referral. Recommended conditions of consent and are included in the draft consent.

1.6.2 EXTERNAL CONSULTATION

Endeavour Energy

Endeavour Energy were sent the proposal in respect of potential impacts on Endeavour Energy Network Connections and infrastructure adjacent to the site. Comments from Endeavour Energy were received and forwarded to the applicant for their reference. Suitable conditions are recommended regarding Endeavour Energy’s requirements. The frontage makes provision for a chamber sub-station.

Design Review Panel

The application was reviewed by the Design Review Panel on two occasions. The first-time pre-lodgement and the second time under the requirements of the State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development clause 28. The Panel notes from the post lodgement meeting is contained at Attachment 6. There were several concerns raised and recommendations made by the Panel that have sought to be addressed in the revised plans as outlined below.

Panel's comments	Response	Comments
Context and neighbourhood character		
- ground floor frontage is dominated by services and presenting a poor streetscape, pedestrian amenity and residential frontage	- Some services have been relocated to the basement and the substation redesigned to minimise its dominance on the frontage.	- The residential amenity has been improved by minimising the services and emphasising the pedestrian and commercial entries.
- reduce impacts of substation (turning it on its side for example may be a better solution, as it allows for elegant material and building signage to face the street, instead of required service louvres)	- The substation has been redesigned and now faces the internal driveway, with a proposed painted finish to the wall facing the street	- Further detail is required. Incorporating a different material and/or treatment to the blank wall/façade and including building signage to provide visual interest and a clear street address would better respond to the DRP's comments. - A condition is recommended for details to be submitted with the Construction Certificate application.
- minimise width of driveway	- The driveway has not been reduced as the 6m width is necessary for vehicles likely to the enter and exit the site. No concerns raised by Council's Traffic Engineer.	Satisfactory
- better resolve walkway with more attention to the southern end of the frontage and potential relationship with Church	- Walkway rationalised to provide potential linkage to adjoining site to the south (church)	Satisfactory
- remove services cupboard circulation area from frontage	- The services cupboard has been relocated to the residential lobby	Satisfactory

- maximise commercial frontage	The commercial frontage has increased by 1m. Albeit minor, it is more legible given the reduction in services facing the street.	Satisfactory
- Residential entry should be comfortably proportioned & allow for views from residential entry through to rear courtyard	- The residential entry has been increased in size to provide some views towards communal open space	- Satisfactory
- relocate as many services as possible to the basement	- Sprinkler valve room and pump room relocated to Basement 1. Other services relocated within residential lobby (screened)	Satisfactory
- minimise extent of egress corridors	- Egress corridors have been rationalised	- Satisfactory
Built form and scale		
- The Panel raised concern with the streetscape and pedestrian amenity, requiring a revised layout to address the street frontage, provide direct physical and visual link from foyer to communal open space, simplify access, egress and circulation and review the commercial layout.	- Pedestrian amenity has been improved with simplified access. - The circulation at podium levels has not been reduced however is included in the gross floor area calculations.	- Satisfactory
- The Panel raised concerns with the building's core in terms of functionality and efficiency.	- The core has been redesigned so that it is more efficient and functional.	- Satisfactory
- Concerns were raised over the unit layouts leading to privacy, solar access, streetscape amenity and architectural quality, contributed to be the reduced building separation, noting that if less than 9m is to be accepted it must address these issues.	- The side setbacks have been increased from 8m to 9m, however splayed bedroom windows encroach into the 9m setback (at 8.04m). These windows are designed for privacy (highlight or angled towards rear of the site). - Rear facing units have extended further east by	- Satisfactory

	approximately 2m to improve solar access. - The rear facing units from Level 8 and above have been reduced from 2 units to 1 with the living areas and balconies oriented east.	
- Further detail of the south facing podium treatment was required to improve the visual amenity of the church forecourt.	- the revised plans indicate 'Embedded graphic treatment to concrete boundary wall'.	- A more detailed, fine grain response is warranted to this elevation to reduce the visual bulk.
- *Sustainability*		
- Deep soil zone should be provided	- The rear communal open space area provides on podium planting given that the basements extend to the side and rear boundaries.	- This is acceptable in a city centre location.
- Sustainability measures should be integrated into the development	- Photovoltaic cells are proposed on the roof.	- Satisfactory
• *Landscape*		
- Deep soil zone should be provided	- On podium planting proposed	- Satisfactory
- Non-trafficable pebble landscapes provide limited amenity	- Non-trafficable pebble landscaped areas replaced with communal open space areas and landscaping	- Satisfactory
- Functionality of communal open space areas (duplicated BBQ areas at ground level and Level 2)	- Communal open space areas on ground level amended to provide common room linking with COS area.	Could be improved to provide a greater range of functions however provides reasonable amenity.
• *Amenity*		
- Concern over location of basement loading bay at base of ramp, should be relocated	- The location of the loading bay has not changed however no concerns have been raised by Council's	- Satisfactory

	Traffic Engineer in terms of safety/conflicts	
- Adverse streetscape impacts of substation, design of walkway, egress corridors, services degrading frontage	- Walkway, egress corridors, services have been redesigned to simplify the ground floor presentation to the street.	- Satisfactory
- Privacy issues between bedrooms	- Privacy between bedrooms has been resolved through highlight and splay windows to east facing units	- Satisfactory
- Deep street facing podium level balconies	- Podium level balconies have not been altered however operable awnings ('Vergola') are now proposed over balconies to improve sunlight access to Level 2 units. Solar access report shows minimum solar access requirements are met.	- Satisfactory
- Unresolved solar access & south facing balconies not acceptable	- Solar access achieves the minimum 70% requirement with revised design – no south facing balconies are now proposed	- Satisfactory
• *Safety*		
Location of loading bay and difficult access across driveway	- The loading zone has not been relocated however no concerns with the location of the loading bay with regard to traffic/pedestrian safety have been raised by Council's Traffic Engineer.	Satisfactory
• *Housing Diversity and Social Interaction*		
- Inappropriate response to functionality needs of anticipated resident demographic for communal open spaces -	- The communal open spaces show areas for seating, indoor spaces, BBQs and soft landscaping.	- Satisfactory
- Poor relationship of common rooms with communal terrace at level 3	- The common room at Level 3 has been removed and a common room is now provided at ground level opening onto the outdoor space.	- Satisfactory

• *Aesthetics*		
Ground floor is not well resolved	Ground floor has been redesigned to reduce services and simplify pedestrian access and commercial/residential frontages	Satisfactory
South face of podium should be provided with well-integrated material (such as high quality dry pressed brick)	Patterned concrete proposed to the southern façade	Requires a more detailed façade treatment
Provide visual access to rear courtyard from entry and car park ramp	Rear and side communal open spaces now visible from residential foyer	Satisfactory
Provide well integrated solution to floodwater intake and balustrade frontage	Flood plenum is suitably screened, and glazed balustrades proposed	Satisfactory
Re-orient tower balconies to the east and west	Balconies to tower now oriented east and west	Satisfactory
Redesigning tower units to be symmetrical	Revised plans show symmetrical design	Satisfactory
Roof expression creates double roof which is wasteful and top heavy.	Revised plans show a simplified roof form	Satisfactory

The matters raised for consideration by the Panel are considered to have been adequately addressed in the revised plans as outlined above and reconsideration by the Panel was not required. However, the concerns raised by DRP regarding the treatment of the south facing podium façade requires further design detail to be provided.

2 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

2.1 SECTION 4.15(1)(A)(1) ANY ENVIRONMENTAL PLANNING INSTRUMENT

2.1.1 STATE ENVIRONMENTAL PLANNING POLICY NO. 55 – REMEDIATION OF LAND

7 Contamination and remediation to be considered in determining development application

Council records do not indicate any historic use that would contribute to the contamination of the site aside from approval for underground storage tanks at 37 Atchison Street under DA-1973/115 however it is unclear if the tanks were installed noting that the submitted Detailed Site Investigation (DSI) identifies that a SafeWork NSW search did not identify any underground storage tanks at the site. The land is not identified as being contaminated on Council mapping. The proposal does comprise a change of use. The proposal is supported by a Detailed site investigation (DSI) prepared by a suitably qualified consultant.

Soil and groundwater sampling and analysis was carried out that did not identify widespread contamination at the site. The DSI acknowledged that there were data gaps that that need resolving before concluding the site is suitable for the proposed development. These data gaps include additional soil sampling across the footprint of the building at 37 Atchison Street following demolition.

Council's Environment Officer has reviewed the proposal in this regard and is satisfied that the proposal does not raise any concerns regarding contamination subject to appropriate conditions of consent which have been included in the recommended conditions.

No concerns are raised regarding contamination as relates to the intended use of the land and the requirements of clause 7.

2.1.2 STATE ENVIRONMENTAL PLANNING POLICY NO 65—DESIGN QUALITY OF RESIDENTIAL APARTMENT DEVELOPMENT

The development is subject to the provisions of SEPP 65 and the Apartment Design Guide (ADG).

The application was accompanied by a statement by a qualified designer in accordance with Clauses 50(1A) & 50(1AB) of the Environmental Planning and Environment Regulation 2000. Clause 28 provides that the application must be referred to the relevant design review panel (if any) for advice concerning the design quality of the development while Clause 28(2) provides that a consent authority is to take into consideration (in addition to any other matters that are required to be, or may be, taken into consideration):-

(1) the advice (if any) obtained from the design review panel, and (b) the design quality of the development when evaluated in accordance with the design quality principles, and
(2) the design quality of the development when evaluated in accordance with the design quality principles, and
(3) the Apartment Design Guide

Design Review Panel

The proposal has been reviewed by a Design Review Panel in accordance with clause 28.

Design quality principles

Schedule 1 of SEPP 65 sets out the design quality principles for residential apartment development. These must be considered in the assessment of the proposal pursuant to clause 30(2)(a) of the Policy and are discussed below.

Schedule 1 Design quality principles

Principle 1: Context and neighbourhood character

The proposal is acceptable in regard to the desired future character of the area as it is consistent with the applicable planning controls applicable to the land and is not considered to result in unreasonable impacts on the locality or adjoining development. A contextual analysis has been provided which demonstrates that the building would be compatible in the existing streetscape

Principle 2: Built form and scale

The locality is one undergoing a transition towards high rise development. The proposal is consistent with the desired future character for the area reflected in the applicable planning controls.
The design of the development is considered to positively contribute to the public domain and provide high level of amenity for the occupants by way of landscaped areas, private open space and the like.

Principle 3: Density

The density of the development complies with the maximum floor space ration (FSR) permitted for the land. The development is not of a scale that is expected to place unreasonable strain on local infrastructure. Contributions applicable to the development will go towards local infrastructure and facilities. The site is well situated regarding existing employment, services and facilities.

Principle 4: Sustainability

The proposal is considered acceptable regarding sustainable design as follows:

- BASIX Certificates provided indicating minimum requirements are met.
- A Site Waste Management and Minimisation Plan has been provided indicating recycling of materials from the demolished buildings.
- The proposal does not impact on any heritage items or environmentally sensitive areas
- The proposal is an efficient use of land in a location that is close to services and public open space.
- The proposal incorporates water capture and use
- The design of the tower has 3-4 units per floor which exceeds the minimum amenity requirements of the ADG and DCP with respect to outlook, solar access and natural ventilation.
- Photovoltaics are to be incorporated onto the roof

Principle 5: Landscape

The proposal provides suitable landscaped areas and communal open space that will improve the amenity of the occupants and soften the appearance of the development from adjoining properties and the public domain. The footpath for the frontage of the development will be upgraded including provision of street trees.

Principle 6: Amenity

The proposal meets the minimum requirements for solar access, private and communal open space, storage, visual and acoustic privacy, access and the like.

Principle 7: Safety

The proposal is satisfactory regarding the principles of Crime Prevention Through Environmental Design.

Principle 8: Housing diversity and social interaction

The proposal provides a mix of unit sizes and layouts appropriate to the locality including adaptable units and liveable units and 10% of units being 1 bedroom and 10% being 3 bedrooms.

Principle 9: Aesthetics

Subject to resolution of the south facing façade of the podium, the proposal is considered to be of a high quality with regard to its appearance. A mixture of materials and finishes is provided, and the bulk of the development is suitably articulated.

Apartment Design Guide (ADG)

The development has been assessed against the provisions of the ADG and was found to be satisfactory regarding the objectives. A full assessment of the application against the ADG is contained at Attachment 4.

2.1.4 STATE ENVIRONMENTAL PLANNING POLICY (INFRASTRUCTURE) 2007

Subdivision 2 Development likely to affect an electricity transmission or distribution network

45 Determination of development applications—other development

The proposal was referred to Endeavour Energy in accordance with this clause. Comments were received including resources that were forwarded on to the applicant. Suitable conditions are included in Attachment 7 requiring consultation with the provider with regard to their specific requirements.

2.1.5 STATE ENVIRONMENTAL PLANNING POLICY (BUILDING SUSTAINABILITY INDEX: BASIX) 2004

The proposal is BASIX affected development to which this policy applies. In accordance with Schedule 1, Part 1, 2A of the Environmental Planning and Assessment Regulation 2000, a BASIX Certificate has been submitted in support of the application demonstrating that the proposed scheme achieves the BASIX targets.

The BASIX certificate was issued no earlier than 3 months before the date on which the development application was lodged.

2.1.5 WOLLONGONG LOCAL ENVIRONMENTAL PLAN 2009

Clause 1.4 Definitions

shop top housing means one or more dwellings located above ground floor retail premises or business premises.

Part 2 Permitted or prohibited development

Clause 2.2 – zoning of land to which Plan applies

The zoning map identifies the land as being zoned B3 Commercial Core.

Clause 2.3 – Zone objectives and land use table

The objectives of the zone are as follows:

- *To provide a wide range of retail, business, office, entertainment, community and other suitable land uses that serve the needs of the local and wider community.*
- *To encourage appropriate employment opportunities in accessible locations.*
- *To maximise public transport patronage and encourage walking and cycling.*
- *To strengthen the role of the Wollongong city centre as the regional business, retail and cultural centre of the Illawarra region.*
- *To provide for high density residential development within a mixed use development if it—*
  - *(a) is in a location that is accessible to public transport, employment, retail, commercial and service facilities, and*
  - *(b) contributes to the vitality of the Wollongong city centre.*

The proposal is satisfactory with regard to the above objectives.

The land use table permits the following uses in the zone.

> *Advertising structures; Amusement centres; Boarding houses; Car parks; Centre-based child care facilities; Commercial premises; Community facilities; Educational establishments; Entertainment facilities; Exhibition homes; Function centres; Helipads; Hostels; Hotel or motel accommodation; Information and education facilities; Medical centres; Oyster aquaculture; Passenger transport facilities; Places of public worship; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Registered clubs; Respite day care centres; Restricted premises; Roads; Self-storage units; Seniors housing; Service stations; Sex services premises;* ***Shop top housing****; Tank-based aquaculture; Tourist and visitor accommodation; Veterinary hospitals; Wholesale supplies*

The proposal is categorised as a *shop top housing* as defined above and is permissible in the zone with development consent.

Part 4 Principal development standards

Clause 4.4A Floor space ratio—Wollongong city centre

Site area: 1,620.2m²

Gross floor area (commercial): 279.3 (5.5%)

Gross floor area (residential): 4805.5 (94.5%)

Gross floor area total: 5084.8

Floor space ratio proposed: **3.14:1**

Calculation of maximum FSR permitted:

(3) For land within Zone B3 Commercial Core with a site area equal to or greater than 800 square metres and less than 2,000 square metres and a street frontage equal to or greater than 20 metres, the maximum floor space ratio for any building on that site is—

(a) $(2 + 1.5X):1$ —if the building is used only for residential purposes, or

(b) $(3.5 + 2.5X):1$ —if the building is used only for purposes other than residential purposes,

where—

X is $(\text{the site in square metres} - 800) / 1200$.

X = 1,620 – 800 / 1,200 = 0.684

(a) = (2 + 1.5 x 0.683) = 3.026

(b) = (3.5 + 2.5 x 0.683) = 5.21

(4) The maximum floor space ratio for a building on land within a business zone under this Plan, that is to be used for a mixture of residential purposes and other purposes, is—

$(NRFSR \times NR/100) + (RFSR \times R/100):1$

where—

NR is the percentage of the floor space of the building used for purposes other than residential purposes. (5.5%)

NRFSR is the maximum floor space ratio determined in accordance with this clause if the building was to be used only for purposes other than residential purposes. (5.21)

R is the percentage of the floor space of the building used for residential purposes. (94.5%)

RFSR is the maximum floor space ratio determined in accordance with this clause if the building was to be used only for residential purposes. (3.026)

(NRFSR x NR/100) + (RFSR x R/100):1

= (5.21 x 0.055) + (3.026 x 0.945):1 = 0.287 + 2.86 = **3.147:1 (5098.8m²)**

The proposed FSR of 3.14 does not exceed the maximum FSR of 3.147:1 permitted under this clause.

Clause 4.6 Exception to development standards

An exception to the development standard under Clause 8.6 building separation is sought under the current application. The applicant's 4.6 Statement forms Attachment 3 to this report.

WLEP 2009 clause 4.6 proposed development departure assessment	
Development departure	Clause 8.6 Building Separation
Is the planning control in question a development standard	Yes
4.6 (3) Written request submitted by applicant contains a justification:	
that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case, and	Yes. The applicant's request contains this justification. In summary the justification relies on compliance with the building separation standard in this instance being unnecessary as there are no unreasonable impacts arising from the non-compliance and the development is consistent with the objectives of the standard and the B3 zone objectives despite the non-compliance.
that there are sufficient environmental planning grounds to justify contravening the development standard.	Yes, the applicant's request contains this justification
4.6 (4) (a) Consent authority is satisfied that:	
the applicant's written request has adequately addressed the matters required to be demonstrated by subclause (3), and	The applicant's request has adequately addressed the matters required to be addressed by subclause (3). The applicant's request is based on the rationale that the variation to Clause 8.6 is considered to be consistent with the objectives of the clause and, that in the specific circumstances of the site, a better and more appropriate development outcome is achieved by allowing flexibility to the development standard. Generally speaking, the development better responds to the pattern of development in the immediate locality which requires a podium height built to the side boundaries, which also allows residential units within the podium that can be built to the side boundaries. In terms of the separation distance to the northern boundary, the separation provided does not compromise the privacy or amenity for occupants of either development given the layout of the units and the interface between both residential towers that results from the treatment of habitable and non-habitable parts of the buildings. In terms of building separation to the south, the requirement for there to be no separation between neighbouring buildings at podium level (relating to the commercial ground floor) cannot be physically achieved given the existing setback of the church 5.5m from the common boundary. The residential units within the podium do not achieve the 16m separation distance to the church as the podium is built to the side boundaries with blank walls. Although the separation

	distance is not achieved, the orientation of these units to the street means that no privacy impacts will result. The visual appearance responds to the required street frontage height for developments within the city centre. Consideration has also been given to the possible built form on adjoining sites to the east and south in the design of the proposed building, given that the intent of Clause 8.6 is to share the building separation equitably between sites. The design treatments to the southern façade and rear setbacks are largely compliant with the separation distances required by the SEPP 65 Apartment Design Guide and would not compromise the development potential of the adjoining eastern and southern sites. The non-compliant building separation provided responds to the character of the precinct and thus the setbacks proposed provide an appropriate outcome.
the proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out, and	The proposed development will be in the public interest because (a) it is consistent with the objectives of the building separation standard; (b) the objectives for development within the B3 zone will be achieved; (c) the development is not expected to compromise the development potential of neighbouring sites and will provide for an improved relationship with neighbouring and nearby buildings. The objectives of the standard are to ensure sufficient separation of buildings for reasons of visual appearance, privacy and solar access. The development, despite the non-compliance with the building separation standard, will be consistent with the objectives of that standard. The variation of the standard will provide for a continuous street wall which responds to the emerging and desired street context in this locality. There is not considered to be a public benefit served in this instance by insisting on strict compliance with the standard. As outlined in section 2.1.5 the proposed development has regard to the objectives for development within the zone as outlined above. The development will remain consistent with the objectives of the B3 zone despite the non-compliance with Clause 8.6.
the concurrence of the Secretary has been obtained.	Yes; the WLPP can exercise its assumed concurrence in this instance.

Part 7 Local provisions – general

Clause 7.1 Public utility infrastructure

Conditions of consent are recommended regarding specific requirements of utility providers.

Clause 7.3 Flood planning

The site is identified as being flood affected and the provisions of this clause apply. The matters under subclause 3 of this clause have been considered by Council's Stormwater Engineer and have been found satisfactory subject to conditions. The proposal is satisfactory regarding the objectives of this clause.

Clause 7.6 Earthworks

The proposal comprises excavation for two levels of basement car parking. Subject to appropriate protection of adjoining property during construction, suitable removal and disposal of any hazardous fill material, the earthworks are not expected to have a detrimental impact on environmental functions and processes, neighbouring uses or heritage items and features surrounding land.

Clause 7.13 Certain land within business zones

The proposal provides an active use at ground floor level in accordance with this control.

Clause 7.18 Design excellence in Wollongong city centre and at key sites

The proposal is considered to be consistent with the provisions for design excellence as follows:

(4) In considering whether development to which this clause applies exhibits design excellence, the consent authority must have regard to the following matters:

(a) whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved

The Design Review Panel have reviewed the proposal and their recommendations have been incorporated into the current plans. The proposal is satisfactory regarding the ADG and Council's development controls.

(b) whether the form and external appearance of the proposed development will improve the quality and amenity of the public domain,

The proposed building form is compatible with the existing streetscape.

(c) whether the proposed development detrimentally impacts on view corridors,

The site is outside the distant panoramic view corridor from Flagstaff Hill looking towards the escarpment and is not identified as a framed view along the street. No specific views through the site are identified.

(d) whether the proposed development detrimentally overshadows an area shown distinctively coloured and numbered on the Sun Plane Protection Map,

The development does not overshadow any sun plane protection areas.

(e) how the proposed development addresses the following matters:

(i) the suitability of the land for development,

The site is considered suitable for the development.

(ii) existing and proposed uses and use mix,

The proposal is considered to be consistent with the desired future character of the area reflected in the applicable planning controls.

(iii) heritage issues and streetscape constraints,

The are no particular constraints that would preclude the development.

(iv) the location of any tower proposed, having regard to the need to achieve an acceptable relationship with other towers (existing or proposed) on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form,

The proposed tower has an acceptable relationship with the approved residential tower under construction on the adjoining northern site (31-33 Atchison St), with similar separation distances and location/design of bedrooms and living areas. The proposal has been designed with future development in mind regarding setbacks and building separation to the south and east of the site.

(v) bulk, massing and modulation of buildings,

The bulk and mass of the building is considered acceptable.

(vi) street frontage heights,

The proposal has a suitable street frontage height and will continue the approved street frontage height of the adjoining shop top housing development to the north.

(vii) environmental impacts such as sustainable design, overshadowing, wind and reflectivity,

The proposal meets BASIX targets.

Overshadowing impacts are considered acceptable.

An Environmental Wind Assessment indicates the proposal will satisfy the wind acceptability criteria at pedestrian and public access locations within and around the development.

The proposal is not expected to result in adverse reflectivity. Where there are large glazed areas, they are recessed behind balconies.

(viii) the achievement of the principles of ecologically sustainable development,

The proposal is broadly acceptable regarding the principles of ecologically sustainable development. The proposal is an efficient use of land in an accessible location. The proposal will not directly impact on environmentally sensitive areas. The proposal is not considered have adverse impacts in terms of intergenerational equity in ways that can be attributed to the assessment of the proposal. The proposal satisfies the minimum energy and water efficiency requirements.

(ix) pedestrian, cycle, vehicular and service access, circulation and requirements,

The proposal is satisfactory regarding access, servicing and parking.

(x) impact on, and any proposed improvements to, the public domain.

The proposal will upgrade the footpath along the street frontage.

Part 8 Local provisions—Wollongong city centre

Clause 8.1 Objectives for development in Wollongong city centre

The proposal is satisfactory regarding these objectives.

Clause 8.4 Minimum building street frontage

Development consent must not be granted to the erection of a building that does not have at least one street frontage of 20 metres or more. The site meets the street frontage requirement having a width of 32m.

It is also noted that the sites to the south are capable of being consolidated to achieve to 20m frontage in the event redevelopment is sought in the future.

Clause 8.6 Building separation within Zone B3 Commercial Core or Zone B4 Mixed Use

The objective of this clause is to ensure sufficient separation of buildings for reasons of visual appearance, privacy and solar access. The clause states:

(2) Buildings on land within Zone B3 Commercial Core or B4 Mixed Use must be erected so that—
(a) there is no separation between neighbouring buildings up to the street frontage height of the relevant building or up to 24 metres above ground level whichever is the lesser, and
(b) there is a distance of at least 12 metres from any other building above the street frontage height and less than 45 metres above ground level, and
(c) there is a distance of at least 28 metres from any other building at 45 metres or higher above ground level.

(3) Despite subclause (2), if a building contains a dwelling, all habitable parts of the dwelling including any balcony must not be less than—
(a) 20 metres from any habitable part of a dwelling contained in any other building, and
(b) 16 metres from any other part of any other building.

(4) For the purposes of this clause, a separate tower or other raised part of the same building is taken to be a separate building.

(5) In this clause—
***street frontage height** means the height of that part of a building that is built to the street alignment.*

Comment:
The proposed development does not comply in full with Clause 8.6 and an exception to the standard has been sought by the applicant addressing Clause 4.6 of the LEP. The submission forms Attachment 3.

For the purpose of considering compliance with the separation controls, only buildings to the north, south and east of the site are relevant as the buildings to the west are sufficiently distant from the proposed building being separated by a road.

The proposed building is required to have:
- a zero (0m) separation to neighbouring buildings to the north and south up to the street frontage height; and
- 16m separation between buildings to the south (church with no dwellings) at Levels 1 and 2 of the proposed building (i.e. within the podium)
- 20m separation between buildings to the north (similar shop top housing development at 31-33 Atchison Street).

The applicant has summarised the proposal's compliance with the separation controls in the following table:

Adjoining Properties	Boundary Setback Proposed	Building Separation Allowances	Building Separation Compliance
North (31-33 Atchison Street)	Levels 1-13 = between 8.04m and 9m	Levels 1-13 = between 16.04m and 18m (residential interface with Onyx under construction)	No
South (39-41 Atchison Street)	Levels 1-13 = between 8.04m and 9m	• Existing Conditions Not Applicable (no development above Level 1 existing) • Between 16.04m and 17.04m (8m allowance if adjoining developed for commercial purposes) • Between 18.04m and 19.04m (10m allowance if adjoining developed for residential purposes)	• N/A • Yes • No
East (34-38 Kenny Street	Levels 1-7 = between 9.56m and 9.8m	• Existing Conditions Not Applicable (no development above Level 1 existing) • For Levels 1-7 between 17.56m and 17.8m (8m allowance if adjoining developed for commercial purposes) • For Levels 1-7 between 19.56m and 19.8m (10m allowance if adjoining developed for residential purposes)	• N/A • Yes • No
	Levels 8-13 = between 14.19m and 14.44m	• For Levels 8-13 between 22.19m and 22.44m (8m allowance if adjoining developed for commercial purposes) • For Levels 8-13 between 24.19m and 24.44m (10m allowance if adjoining developed for residential purposes)	• Yes • Yes

To the north

The street frontage height is 11.65m, which forms the building's podium, with ground floor commercial and two levels of residential apartments. The podium is proposed to be built to the northern boundary. In relation to the ground floor commercial component, the development meets the requirement for no separation in relation to subclause 2(a) given the podiums of the subject site and 31-33 Atchison Street to the north will be continuous.

Levels 1 and 2 within the podium contain dwellings, with blank walls facing the side boundaries. Although the walls are blank, the zero (0m) separation does not meet the 20m separation distance under subclause 3(a).

The residential tower from Level 2-Level 13 maintains a 9m setback from the northern boundary to all levels, with angled windows encroaching into the 9m setback at a minimum distance of 8.04m. The development at 31-33 Atchison Street (under construction) has a similar setback to its southern boundary, resulting in a separation distance of between 16m-18m between the two sites.

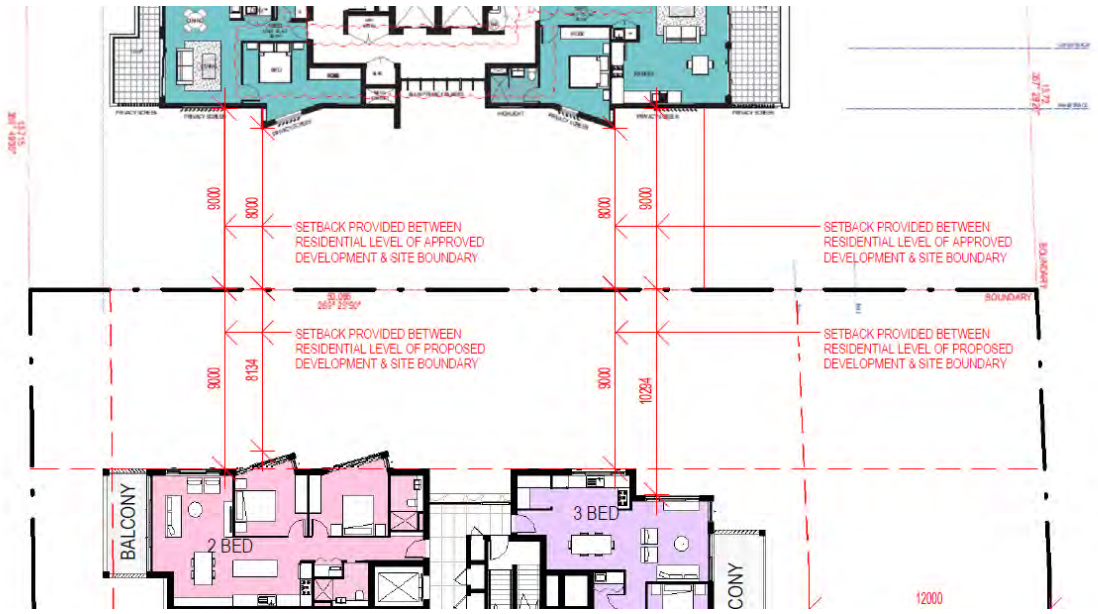

Figure 2: Floor plan showing typical separation distance between the residential towers on the subject site and 31-33 Atchison St to the north

<u>To the south</u>

Adjoining the site to the south is the Greek Orthodox church and community hall (39 Atchison Street). The church is positioned at the front of the site, with a setback of 5.5m from its northern boundary and a height of approximately 7m. Given there are no dwellings at 39 Atchison Street, the separation distance of 16m under subclause 3(b) applies but is not achieved as the podium is proposed with a zero (0m) setback to the side boundaries, resulting in a separation distance of 5.5m to the church.

Figure 3: Site photo showing adjacent church with 5.5m setback to its northern boundary

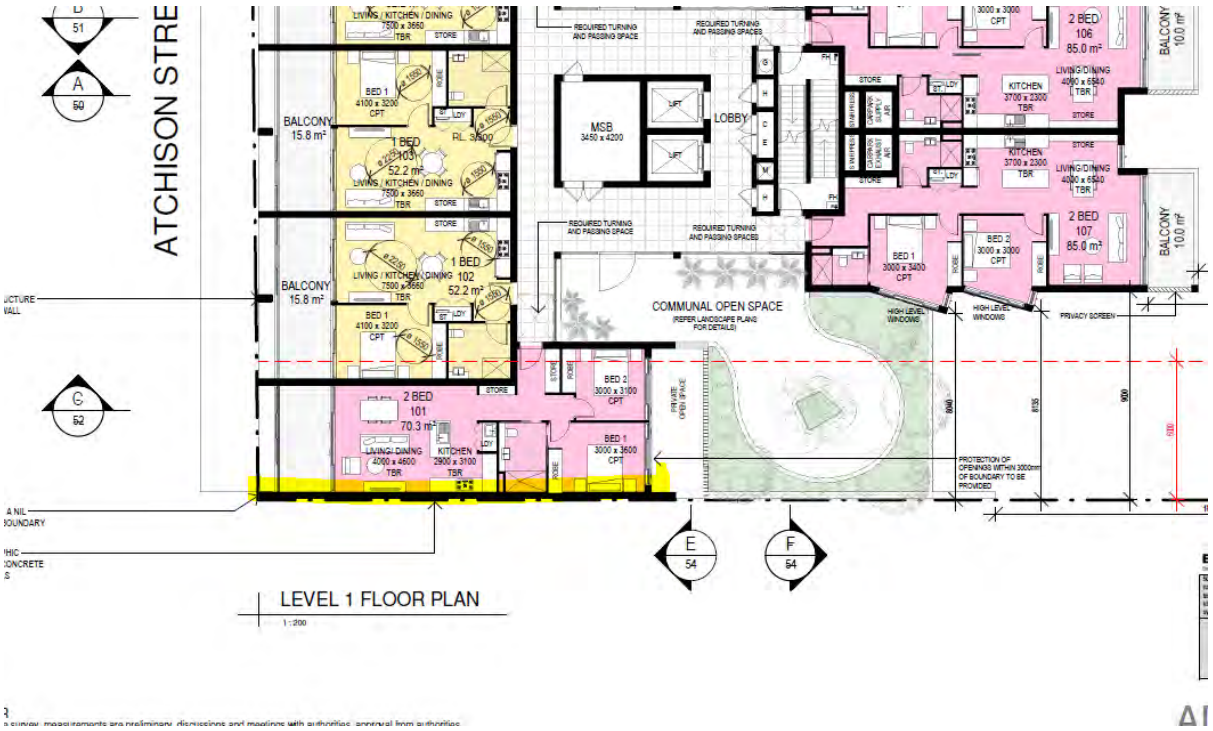

Figure 4: Part Level 1 plan showing dwellings within the podium with a zero (0m) side setback to the southern boundary (adjoining the church site at 39 Atchison St)

Above the podium, the tower has a setback to the southern boundary of between 8.04m-9m which equitably shares the minimum separation distances if this site is redeveloped for commercial purposes in the future (i.e. achieving a 16m separation distance), however would require an 11m-12m setback to the northern boundary of 39 Atchison Street to comply with the 20m separation distance under subclause 3(a) in the event that dwellings are proposed as part of a redevelopment.

<u>To the east</u>

The site adjoins two properties to its eastern (rear) boundary. At 34 Kenny Street, a two-storey medical practice is located 15m from its rear boundary. Adjoining the site to the south-east is 38-42 Kenny Street, which comprises a single storey child-care centre that has a minimal (100mm) setback to the rear boundary.

As there are no dwellings contained within the adjoining eastern sites, the minimum separation distance of 16m under subclause 3(b) applies. A 9.5m rear setback is proposed to habitable areas of the proposed building at Level 1. As 34 Kenny St is setback 15m, the 16m separation distance is easily achieved. The floor level at Level 1 is approximately 7m above existing ground level at the rear boundary, therefore there is no interface with the single storey building (child-care centre) at 38 Kenny Street therefore there is no development departure with regard to this site.

A Clause 4.6 Statement has been submitted in relation to the development departures identified above which forms Attachment 3.

2.2 SECTION 4.15(1)(A)(II) ANY PROPOSED INSTRUMENT

None applicable.

2.3 SECTION 4.15(1)(A)(III) ANY DEVELOPMENT CONTROL PLAN

2.3.1 WOLLONGONG DEVELOPMENT CONTROL PLAN 2009

The proposal is considered to be acceptable with regard to the DCP. Variations that are requested and supported in this instance as detailed below with the remainder of the assessment against the DCP contained at Attachment 5.

CHAPTER A1 – INTRODUCTION

8 Variations to development controls in the DCP

Chapter D13 – Wollongong City Centre

Part 2.5 Side setbacks

It is noted that the visual privacy requirements under the Part 3F of the ADG prevails with regard to the privacy objectives. However, the objectives of this part relate to additional considerations as discussed below.

The applicant has submitted a variation request

(a) The control being varied;

Chapter D13, 2.5 Side and rear building setbacks and building separation

The following setbacks are required:

Zone	Building condition	Minimum side setback	Minimum rear setback
Commercial Core	Up to street frontage heights	0m	0m
	Residential uses (habitable rooms) between street frontage height and 45m	12m	12m
	All uses (including non-habitable residential) between street frontage height and 45m	6m	6m
	All uses above 45m	14m	14m

(b) The extent of the proposed variation and the unique circumstances as to why the variation is requested;

Setbacks to habitable rooms between the street frontage height and 45m are generally 9m to the northern and southern side boundaries, with angled bedroom windows protruding into this setback by 1m (high level windows to bedrooms). These setbacks continue above 45m (Level 13). The balconies on Levels 8-13 have a rear setback of over 14 metres.

The setbacks to the north are acceptable given the comparable side setbacks and defensive façade adopted to this boundary. The approved shop top housing development on adjoining land to the north (31-33 Atchison St) adopts a defensive façade to the boundary facing the subject site.

(c) Demonstrate how the objectives are met with the proposed variations; and

The objectives of the control are as follows:

a) To ensure an appropriate level of amenity for building occupants in terms of daylight, outlook, view sharing, ventilation, wind mitigation, and privacy.

b) To achieve usable and pleasant streets and public domain areas in terms of wind mitigation and daylight access.

The units within the approved development to the north (DA-2016/1073/A) are generally oriented to the east and west and have similar angled bedrooms windows to minimise overlooking to the subject site and providing privacy to occupants. Given this building will overshadow the subject site, solar access to the units as part of the proposed development also rely on east and western solar access to meet the minimum requirements.

The amenity of likely potential development on land to the south is not considered to be adversely impacted by this variation, noting that any high-rise redevelopment for residential purposes is likely to adopt a similar layout with living areas and balconies oriented east and west to achieve adequate solar access.

The proposal is further considered satisfactory regarding separation requirements under the ADG.

A wind effects report has been submitted that indicates no adverse wind impacts on the public domain. Enough daylight access to the street will be available, noting that lesser building separation distances under the ADG are allowed for non-habitable rooms.

(d) Demonstrate that the development will not have additional adverse impacts as a result of the variation.

Given the amenity and public domain objectives are achieved despite the variation to the setbacks, a variation is supported in this instance.

Part 2.7 Deep soil zone

A deep soil zone area of 15% of the site area is required under this part.

The development includes planting on the podium in lieu of a deep soil zone as the basement levels extend to the side and rear boundaries of the site. The applicant has requested a variation to the deep soil area.

The objectives of this part are:

a) To provide an area on sites that enables soft landscaping and deep soil planting, permitting the retention and/or planting of trees that will grow to a large or medium size.

b) To limit building bulk on a site and improve the amenity of developments, allowing for good daylight access, ventilation, and improved visual privacy.

c) To provide passive and active recreational opportunities

The site is within the B3 Commercial Core zone in Wollongong City Centre. As buildings are permitted to extend to the boundaries, provision of a deep soil component must be provided on structure. The ground level communal open space provides an area designed to accommodate tree growth and more mature plantings. *A deep soil zone area achieving 7% is required under the ADG which has been achieved.*

The proposed planting achieves the objectives of this part as it will provide suitable soft landscaping as part of the development and will provide passive recreation opportunities for the residents as it forms part of the communal open space area. A variation is supported.

2.3.2 WOLLONGONG CITY WIDE DEVELOPMENT CONTRIBUTIONS PLAN 2019

Contributions are payable for development exceeding $100,000. The estimated cost of works is $13,000,000 and a contribution is therefore required. A condition of consent regarding the levy is contained in Attachment 7.

2.4 SECTION 4.15(1)(A)(IIIA) ANY PLANNING AGREEMENT THAT HAS BEEN ENTERED INTO UNDER SECTION 7.4, OR ANY DRAFT PLANNING AGREEMENT THAT A DEVELOPER HAS OFFERED TO ENTER INTO UNDER SECTION 7.4

There are no planning agreements entered into or any draft agreement offered to enter into under S7.4 which affect the development.

2.5 SECTION 4.15(A)(IV) THE REGULATIONS (TO THE EXTENT THAT THEY PRESCRIBE MATTERS FOR THE PURPOSES OF THIS PARAGRAPH)

92 What additional matters must a consent authority take into consideration in determining a development application?

Conditions of consent are recommended regarding demolition.

2.6 SECTION 4.15(1)(B) THE LIKELY IMPACTS OF DEVELOPMENT

The proposal is satisfactory regarding the applicable planning controls as detailed in the body of this report.

Issues raised in submissions following notification are discussed in the body of this report and are not considered to warrant refusal of the application.

Internal and external referrals are satisfactory subject to appropriate conditions of consent. Subject to some further design changes and detail, the proposal is considered acceptable with respect of the likely impacts.

2.7 SECTION 4.15(1)(C) THE SUITABILITY OF THE SITE FOR THE DEVELOPMENT

Does the proposal fit in the locality?

The proposal is of character and bulk and scale anticipated by the applicable planning controls and considered compatible with likely future development in the locality.

Are the site attributes conducive to development?

There are no site constraints that would prevent the proposal. The development has reasonably responded to the flooding constraints of the site.

2.8 SECTION 4.15(1)(D) ANY SUBMISSIONS MADE IN ACCORDANCE WITH THIS ACT OR THE REGULATIONS

Submissions received following public exhibition are discussed at section 1.5 of this report.

2.9 SECTION 4.15(1)(E) THE PUBLIC INTEREST

The proposal is satisfactory regarding the applicable planning controls as detailed in the body of this report. Impacts arising from the development are considered acceptable. Submissions have been assessed and in the context of the general compliance of the development are not considered to warrant further changes to the proposal. Internal and external referrals are satisfactory subject to appropriate conditions of consent

In consideration of the above, approval of the proposal is considered to be in the public interest.

3 CONCLUSION

This application has been assessed as satisfactory having regard to the Heads of Consideration under Section 4.15 of the Environmental Planning and Assessment Act 1979. The proposed development is permissible with consent and has regard to the objectives of the zone and is consistent with the applicable provisions of the relevant planning instruments including Wollongong LEP 2009 and SEPP 65, ADG, Council DCPs, Codes and Policies. The design of the development is appropriate regarding the controls outlined in these instruments. The proposal involves variations to side setback requirements and deep soil zone under WDCP2009. Variation request statements have been submitted and assessed as reasonable.

The recommendations of the Design Review Panel are reflected in the revised plans and matters raised by the Panel are largely resolved, with further detail required of the treatment to the south facing façade of the podium. The proposed embedded graphic treatment to the concrete wall is not considered to provide adequate visual relief to the bulk of the podium when viewed from the south, particularly from the adjoining church site.

Internal referrals are satisfactory, and submissions have been considered in the assessment. It is considered that the proposed development has otherwise been designed appropriately given the nature and characteristics of the site and is unlikely to result in significant adverse impacts on the character or amenity of the surrounding area.

4 RECOMMENDATIONS

1. That an alternate treatment of the south facing podium wall be investigated to better reflect the Design Review Panel's recommendations to improve the visual amenity of the church directly adjoining the site to the South.
2. That following receipt of the above information, the Wollongong Local Planning panel delegate to Council the authority to determine the application subject the draft conditions contained at Attachment 7.

5 ATTACHMENTS

1 Aerial photograph and Wollongong Local Environmental Plan 2009 zoning map

2 Plans

3 Applicant's Clause 4.6 Statement

4 Apartment Design Guide Assessment

5 Wollongong DCP 2009 Assessment

6 Design Review Panel notes of November 2019

7 Recommended conditions of consent

Attachment 1 – Aerial photo and WLEP 2009 zoning map

PN1800 - MIXED DEVELOPMENT

35-37 ATCHISON STREET, WOLLONGONG

TQM

SITE ADDRESS

35-37 ATCHISON STREET, WOLLONGONG
LOTS 1 & 2 D.P. 784111 AND LOT 2 D.P. 152994

SITE AREA

1620.2 sqm TOTAL

SUMMARY

GFA	TOTAL ALLOWABLE	5091.1 sqm
	TOTAL PROPOSED	5084.8 sqm
FSR	ALLOWABLE	3.15 : 1
	PROPOSED	3.14 : 1

NOTE: FSR CALCULATIONS (WOLLONGONG CITY CENTRE)

X = (SITE AREA - 800) / 1200 = 0.6835

RFSR = (2.0 + 1.5X) : 1 = 3.025 : 1
NRFSR = (3.5 + 2.5X) : 1 =4.586 : 1

CALCULATION BASED ON 5% COMMERCIAL + 95% RESIDENTIAL

MIXED USE FSR = (NRFSR x NR/100) + (RFSR x R/100) : 1
= (5.208 x 5/100) + (3.025 x 95/100) : 1
= 3.14 : 1

COMMON OPEN SPACE AREA — REQUIRED 405 sqm (25%)
PROPOSED 521 sqm (32%)

COMMON LANDSCAPED AREA — PROPOSED 391 sqm (24%)

DEEP SOIL ZONE — PROPOSED 115.7sqm (7%)

CARPARKING REQUIRED

47	RESIDENTIAL	
	(0.6 SPACES PER 1 BED) x 6 =	3.6
	(0.9 SPACES PER 2 BED) x 38 =	34.2
	(1.4 SPACES PER 3 BED) x 6 =	8.4
		46.2
10	VISITORS	
	(0.2 SPACES PER UNIT) x 50 =	10
5	COMMERCIAL	
	(1 PER 60 SQM) x 279.3 =	4.7

CARPARKING PROVIDED

47	RESIDENTIAL
10	VISITORS
5	COMMERCIAL

MOTORBIKE SPACES PROVIDED

4	RESIDENTIAL (1 PER 15 UNITS)
1	VISITORS (NIL REQUIRED)
1	COMMERCIAL (1 PER 25 CARS)

BICYCLE SPACES PROVIDED

17	RESIDENTIAL (1 PER 3 UNITS)
5	RES VISITOR (1 PER 12 UNITS)
2	COM STAFF (1 PER 200SQM)
1	COM VISITOR (1 PER 750SQM)

70% OF UNITS (35 UNITS) REQUIRED TO ACHIEVE SOLAR COMPLIANCE (ADG)
TOTAL PROVIDED = 37 UNITS (74%)

60% OF UNITS (30 UNITS) REQUIRED TO ACHIEVE CROSS VENTILATION (ADG)
TOTAL PROVIDED = 44 UNITS (88%)

10% OF UNITS (5) REQUIRED TO BE ADAPTABLE
10% OF UNITS (5) REQUIRED TO ACHIEVE SILVER (LIVABLE HOUSING)

TOTAL ADAPTABLE PROVIDED - 6 UNITS
(102, 103, 104, 202, 203, 204)

TOTAL LIVABLE PROVIDED - 24 UNITS
(101, 105, 201, 205, 401, 402, 501, 502, 601, 606, 701, 702, 801, 802, 901, 902, 1001, 1002, 1101, 1102, 1201, 1202, 1301, 1302)

UNIT TYPE SCHEDULE

UNIT TYPE	NO:
1 BED	6
2 BED	38
3 BED	6
TOTAL NUMBER OF UNITS	50

BASIX Certificate
Building Sustainability Index www.basix.nsw.gov.au

5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens

NatHERS

Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

OSRVUZBMEF 26 May 2020
Assessor Barry Cotten
Accreditation No. 20470
Address 803, Tab 35-37 Atchison Street Wollongong NSW 2500

DRAWING LIST

SHEET NO.	SHEET NAME	REV.
00	COVERSHEET	Q
01	DCP ANALYSIS	Q
02	URBAN + LOCAL CONTEXT	Q
03	FUTURE CONTEXT	Q
04	EXISTING STREET VIEWS	Q
06	SITE SURVEY	Q
07	DEMOLITION PLAN	Q
09	PRECEDENCE	Q
10	FUTURE STREET VIEWS	Q
11	FUTURE PERSPECTIVE VIEWS	Q
12	FUTURE PRESPECTIVE VIEWS	Q
15	NEIGHBOURING BUILDING ANALYSIS	Q
16	NEIGHBOURING BUILDING ANALYSIS	Q
17	NEIGHBOURING BUILDING ANALYSIS	Q
18	NEIGHBOURING BUILDING ANALYSIS	Q
19	NEIGHBOURING BUILDING ANALYSIS	Q
20	SITE PLAN	Q
21	BASEMENT 2	Q
22	BASEMENT 1	Q
23	GROUND FLOOR	Q
24	LEVEL 1	Q
25	LEVEL 2	Q
26	LEVEL 3	Q
27	LEVEL 4	Q
28	TYPICAL LEVEL - LEVEL 5-7	Q
29	LEVEL 8	Q
30	TYPICAL LEVEL - LEVEL 9-13	Q
31	ROOF PLAN	Q
32	GFA PLANS	Q
33	KEY PLANS	Q
34	ADAPTABLE AND LIVABLE UNITS	Q
35	PLENUM FLOOR PLAN & SECTION	Q
40	ELEVATIONS	Q
41	ELEVATIONS	Q
42	ELEVATIONS	Q
43	CONTEXTUAL ELEVATION	Q
44	CONTEXTUAL ELEVATION	Q
50	SECTIONS	Q
51	SECTIONS	Q
52	SECTIONS	Q
53	SECTIONS	Q
54	SECTIONS	Q
60	3D VIEWS	Q
70	SHADOW DIAGRAMS - JUNE	Q
71	SHADOW DIAGRAMS- JUNE	Q
72	SHADOW DIAGRAMS - JUNE	Q
73	SHADOW DIAGRAMS - JUNE	Q
74	SHADOW DIAGRAMS - DECEMBER	Q
80	STORAGE SCHEDULE	Q
81	CROSS VENTILATION ANALYSIS	Q
82	SOLAR COMPLIANCE ANALYSIS - SHEET 1	Q
83	SOLAR COMPLIANCE ANALYSIS - SHEET 2	Q
84	SOLAR COMPLIANCE ANALYSIS - SHEET 3	Q

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FLOOD, DRAINAGE + TRAFFIC	ATB CONSULTING ENGINEERS	GORAN UGRINOVSKI	0414 622 844	goran@atbconsulting.com.au
GEOTECH + CONTAMINATION	EI AUSTRALIA	JOEL HEININGER	0467 639 062	joel.heininger@eiaustralia.com.au
LANDSCAPE	TAYLOR BRAMMER LANDSCAPE ARCHITECTS	MATTHEW TAYLOR	(02) 9387 8855	dmtaylor@taylorbrammer.com.au
BCA CONSULTANT	BUILDING CODE ASSISTANCE	PETER DIX	0407 270 908	peter@buildingcodeassistance.com.au
PLANNING CONSULTANT	MMJ PLANNING	LUKE ROLLINSON	0414 965 984	luke.rollinson@mmj.com.au
ARBORIST	ALLIED TREES	WARWICK VARLEY	0402 763 414	warwick@alliedtrees.com.au
ACCESS CONSULTANT	ACCESSIBLE BUILDING SOLUTIONS	HOWARD MOUTRIE	(02) 9528 0276	howard@absaccess.com.au
SERVICE CONSULTANT	HHH CONSULTING	HABIB MEHDI	0404 458 123	habib@hhhconsulting.com.au
ACOUSTIC CONSULTANT	HARWOOD ACOUSTICS	MATTHEW HARWOOD	0414 315 775	matthew@harwoodacoustics.com.au
3D MONTAGE	IVOLVE	SUNNY CHAN	0423 498 409	schan@ivolvestudios.com
QUANTITY SURVEYOR	PROPERTY & BUILDING ASSESSMENTS PTY LTD	ANGELO ANTIDORMI	0418 455 294	info@pbaqs.com.au
WASTE CONSULTANT	ELEPHANTS FOOT	WHITNEY BRUNSEN	(02) 9780 3573	whitney.brunson@elephantsfoot.com.au
FIRE ENGINEER	HOLMES FIRE	ERIL CARLSSON	(02) 9780 3573	erik.carlsson@holmesfire.com
WIND + SOLAR CONSULTANT	SLR	HORATIO CAI	(02) 9427 8100	hcai@slrconsulting.com

GFA SCHEDULE

LEVEL	AREA	FSR
GROUND FLOOR	279.3 m²	0.17
GROUND FLOOR	162.4 m²	0.10
LEVEL 1	590.2 m²	0.36
LEVEL 2	590.2 m²	0.36
LEVEL 3	216.0 m²	0.13
LEVEL 4	370.2 m²	0.23
LEVEL 5	370.2 m²	0.23
LEVEL 6	370.2 m²	0.23
LEVEL 7	370.2 m²	0.23
LEVEL 8	294.3 m²	0.18
LEVEL 9	294.3 m²	0.18
LEVEL 10	294.3 m²	0.18
LEVEL 11	294.3 m²	0.18
LEVEL 12	294.3 m²	0.18
LEVEL 13	294.3 m²	0.18
	5084.8 m²	3.14

DISCLAIMER
Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client. All parking and ramps to traffic engineers details.

ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

DISCLAIMER
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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST		
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS		
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES		
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET		
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE		
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING		
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES				
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK				

DESIGN WORKSHOP AUSTRALIA

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Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT: TQM
MIXED DEVELOPMENT

ADDRESS: 35-37 ATCHISON STREET, WOLLONGONG

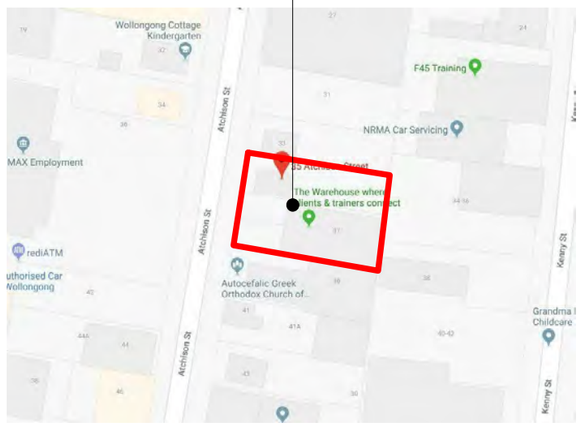
DRAWING NAME: COVERSHEET

DATE: OCT 2018
DRAWN: NT, CS
SCALE: 1 : 100
QA: RG

PROJECT No. 1800
DWG No. 00
Rev. Q

A3

SITE LOCATION
35-37 ATCHISON STREET, WOLLONGONG



SITE LOCATION
35-37 ATCHISON STREET, WOLLONGONG

SITE LOCATION
35-37 ATCHISON STREET, WOLLONGONG

AERIAL PHOTOGRAPH
35-37 ATCHISON STREET, WOLLONGONG

SITE LOCATION
35-37 ATCHISON STREET, WOLLONGONG

ZONING MAP
B3 - COMMERCIAL CORE

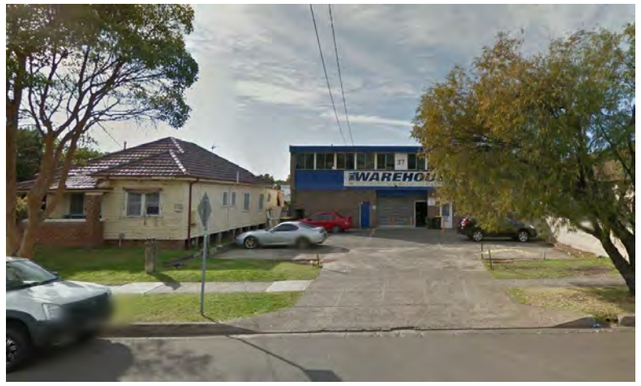
SITE LOCATION
35-37 ATCHISON STREET, WOLLONGONG

FSR
1.5:1 ALLOWED

SITE LOCATION
35-37 ATCHISON STREET, WOLLONGONG

BUILDING HEIGHT
60 METRES HEIGHT LIMIT

STREET VIEW
35 ATCHISON STREET, WOLLONGONG



STREET VIEW
37 ATCHISON STREET, WOLLONGONG

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
P	16.03.2020	ADDITIONAL INFORMATION

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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
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BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
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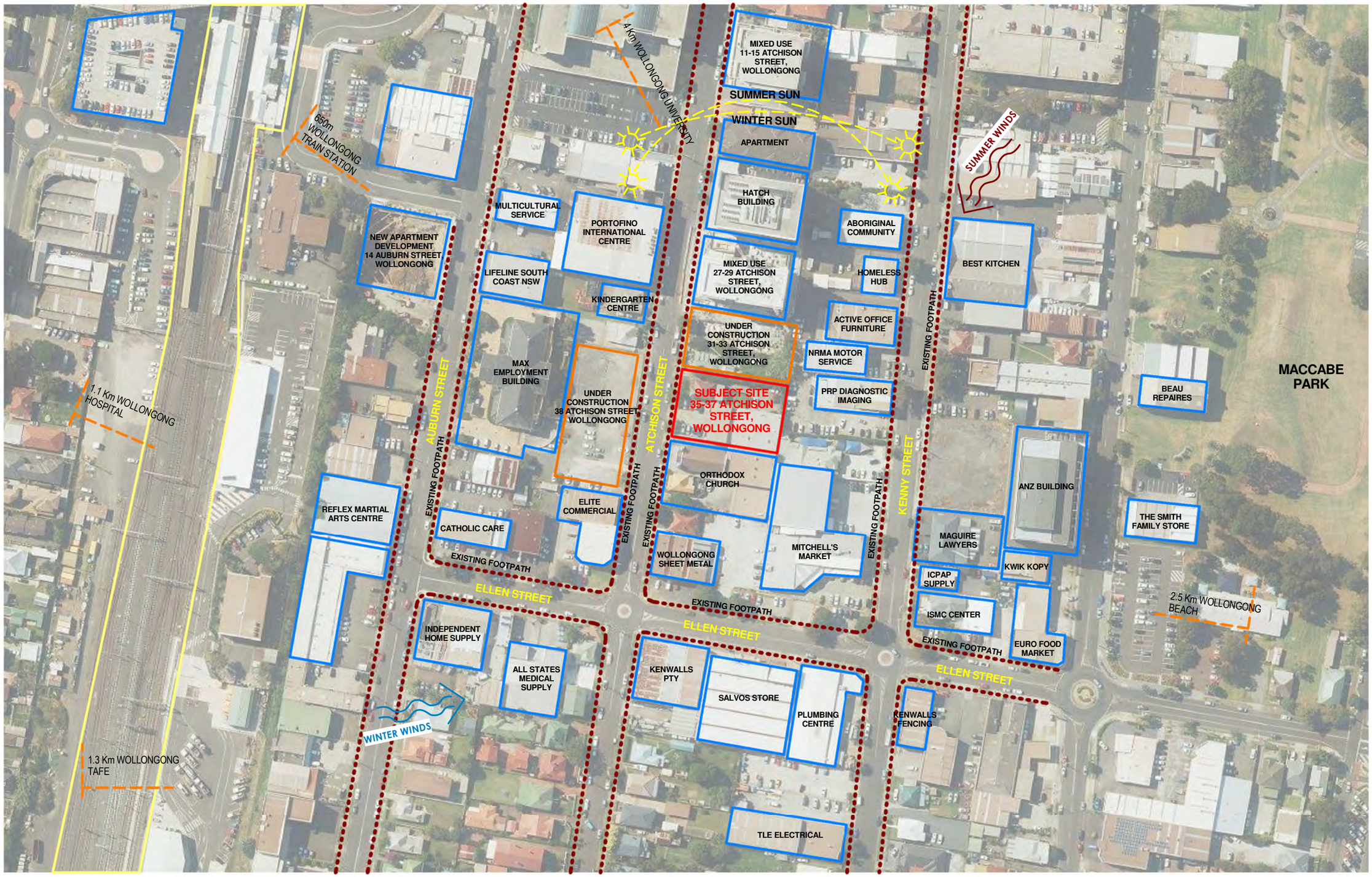
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	DCP ANALYSIS
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	
QA:	RG
PROJECT No.	1800
DWG No.	01
Rev.	P

A3



URBAN + LOCAL CONTEXT

NST

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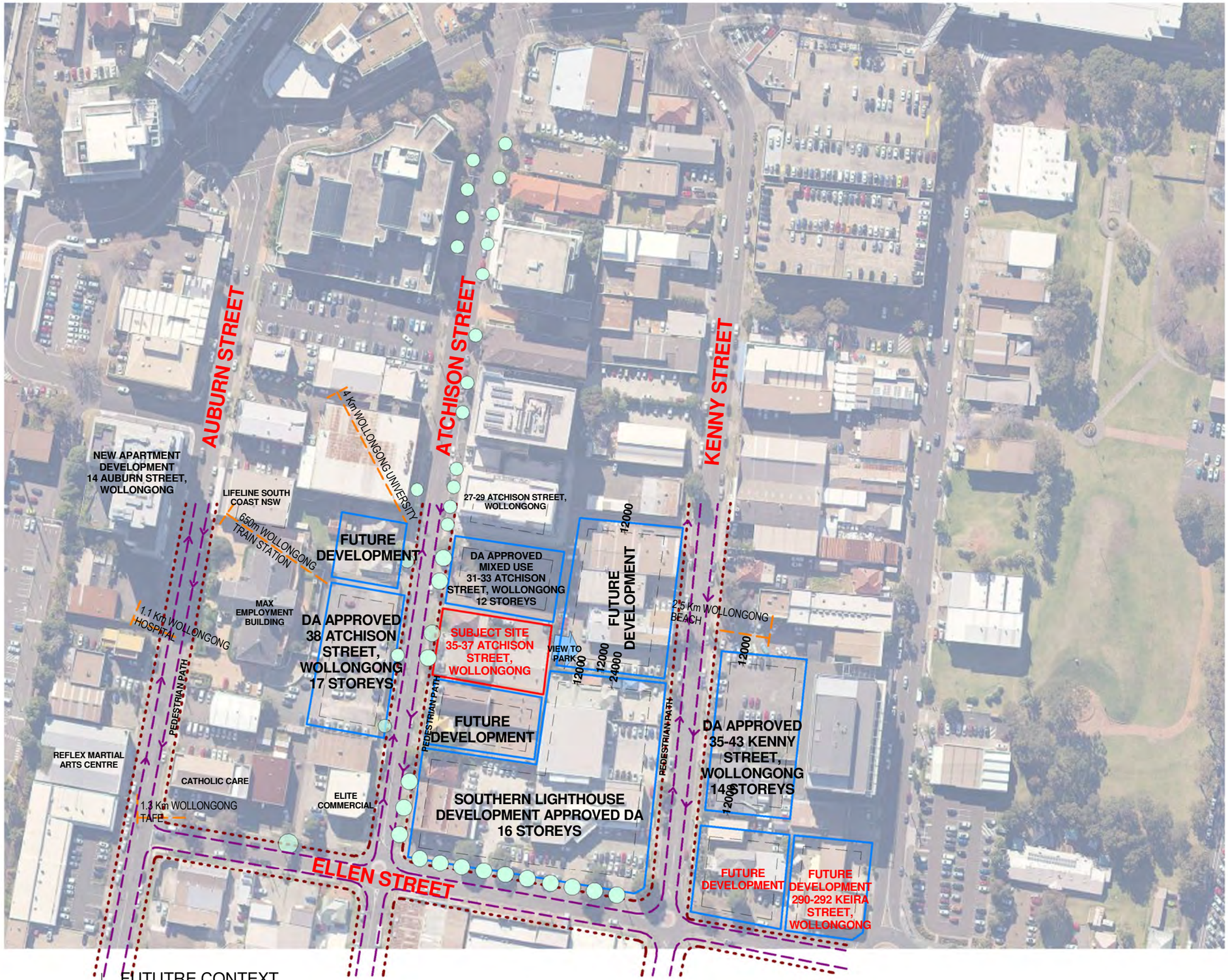
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	URBAN + LOCAL CONTEXT

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	NST
QA:	RG

PROJECT No.	1800
DWG No.	02
Rev.	P

A3



FUTUTRE CONTEXT

NTS

DISCLAIMER

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

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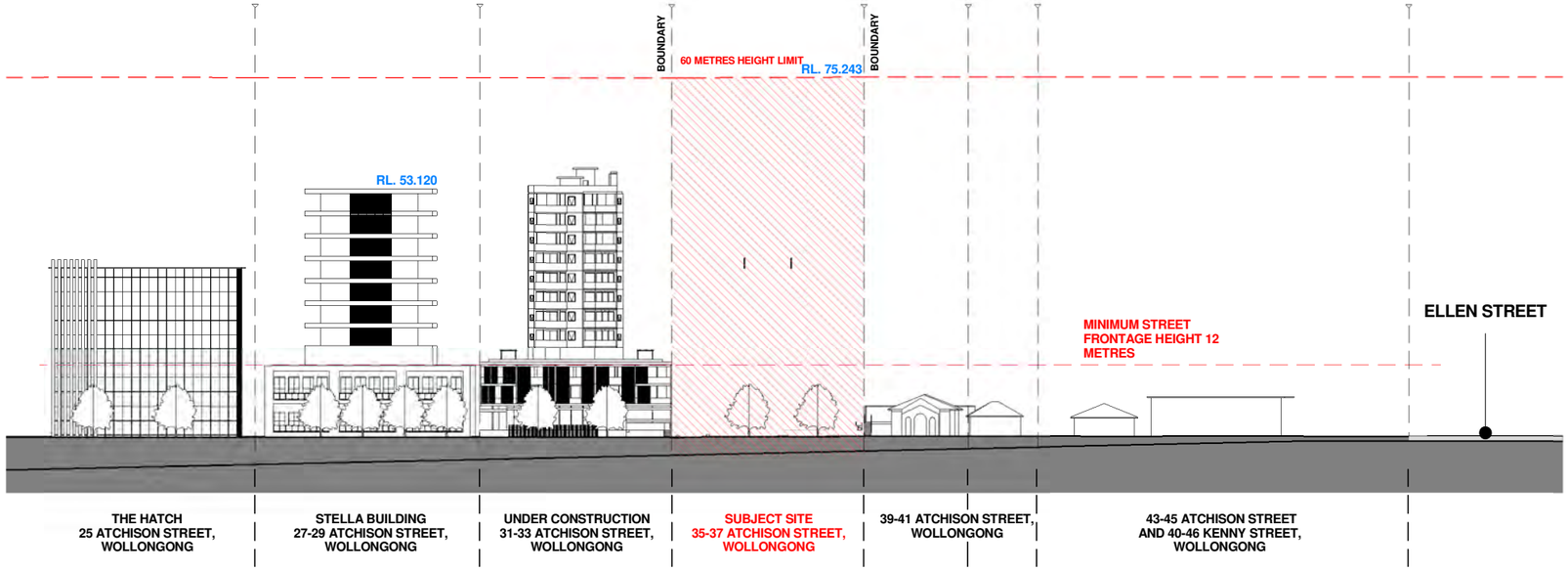
CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	FUTURE CONTEXT

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	NTS
QA:	RG

PROJECT No.	1800
DWG No.	03
Rev.	Q

A3



EXISTING ATCHISON STREET VIEW

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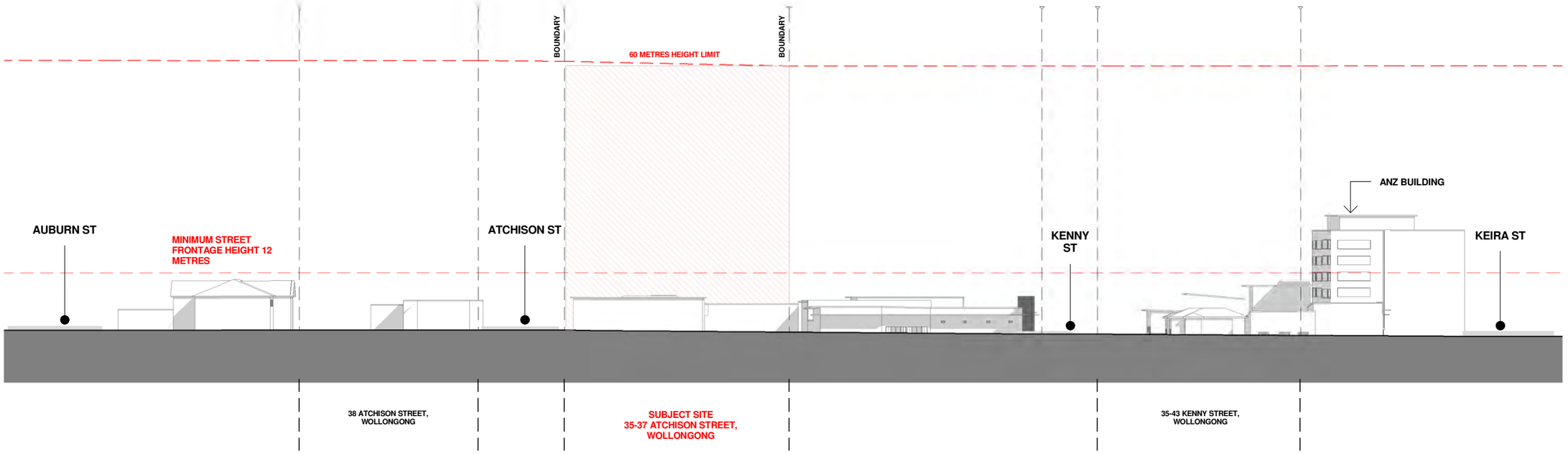

EXISTING ELLEN STREET VIEW

1 : 1000

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

Legend:

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BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
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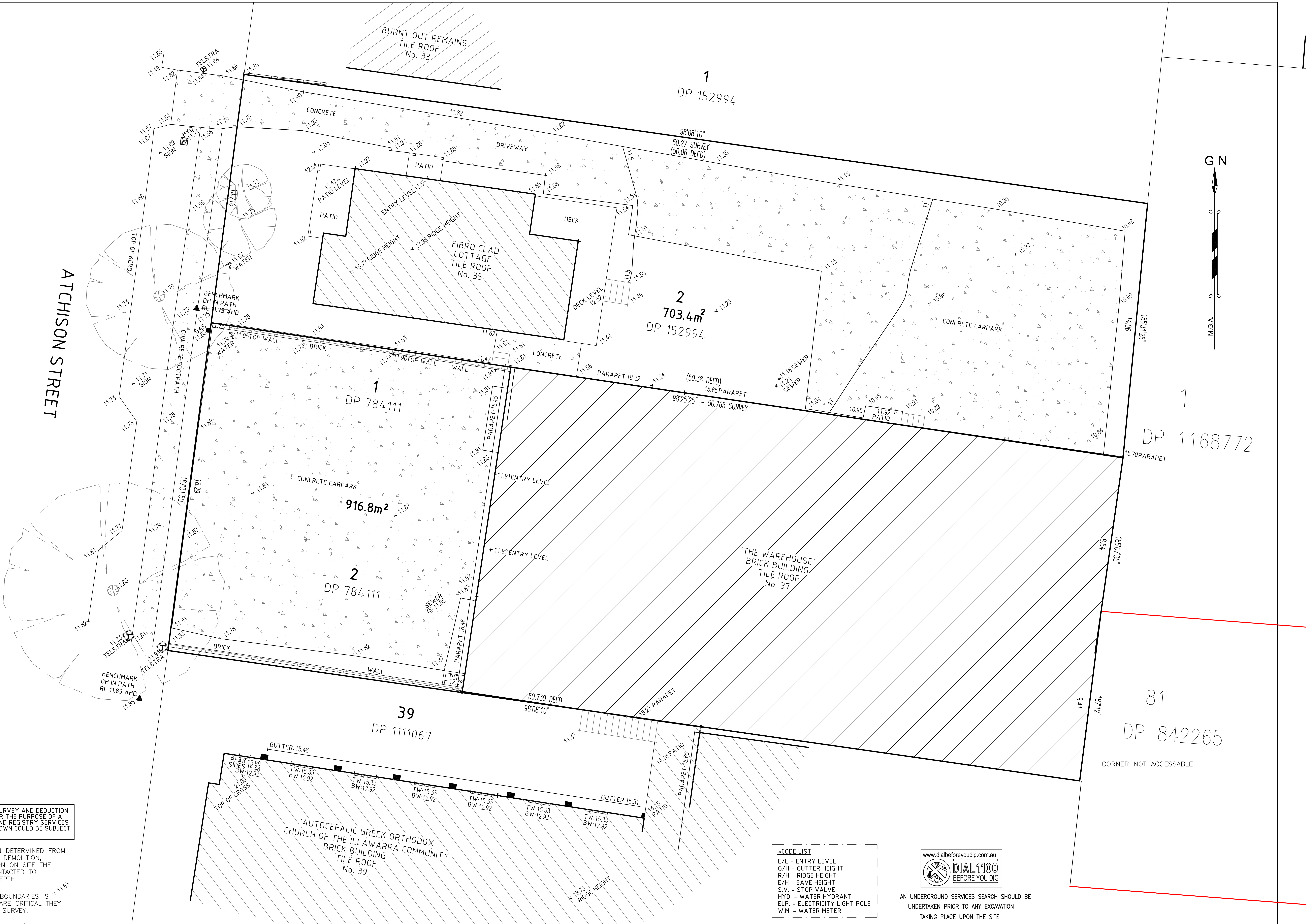
CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	EXISTING STREET VIEWS

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 1000
QA:	RG

PROJECT No.	1800
DWG No.	04
Rev.	Q

A3



BEARINGS AND DISTANCES BY PARTIAL SURVEY AND DEDUCTION. IF A SURVEY WAS TO BE CARRIED OUT FOR THE PURPOSE OF A REDEFINITION PLAN AND LODGED WITH LAND REGISTRY SERVICES THE POSITION OF THE BOUNDARIES AS SHOWN COULD BE SUBJECT TO CHANGE.

NOTES :

SERVICES SHOWN HEREON HAVE BEEN DETERMINED FROM VISUAL EVIDENCE ONLY.PRIOR TO ANY DEMOLITION, DESIGN, EXCAVATION OR CONSTRUCTION ON SITE THE RELEVANT AUTHORITY SHOULD BE CONTACTED TO ESTABLISH DETAILED LOCATION AND DEPTH.

RELATIONSHIP OF IMPROVEMENTS TO BOUNDARIES IS DIAGRAMMATIC ONLY.WHERE OFFSETS ARE CRITICAL THEY SHOULD BE CONFIRMED BY FURTHER SURVEY.

BEARINGS AND DISTANCES ARE BY TITLEAND/OR DEED ONLY. NO BOUNDARY INVESTIGATION HAS BEEN CARRIED OUT.

×CODE LIST
- E/L - ENTRY LEVEL
- G/H - GUTTER HEIGHT
- R/H - RIDGE HEIGHT
- E/H - EAVE HEIGHT
- S.V. - STOP VALVE
- HYD. - WATER HYDRANT
- ELP. - ELECTRICITY LIGHT POLE
- W.M. - WATER METER

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AN UNDERGROUND SERVICES SEARCH SHOULD BE UNDERTAKEN PRIOR TO ANY EXCAVATION TAKING PLACE UPON THE SITE

No	DATE	REVISION DETAILS	BY
A	08.06.18	ISSUE FOR INFORMATION	CR.

CONSULTING REGISTERED SURVEYORS

C. ROBSON & ASSOCIATES PTY. LTD.
LAND & ENGINEERING SURVEYORS
UNIT 1, LEVEL 6, 85-87 SMITH STREET WOLLONGONG 2500
Phone: 02 4243 1645 Fax: 02 4243 1658 Mobile 0402 641 693
Email: crobsonsur@optusnet.com.au
A.B.N. 63 105 569 837

0 2 4 6 8 10m
1 : 100 A1
1 : 200 A3

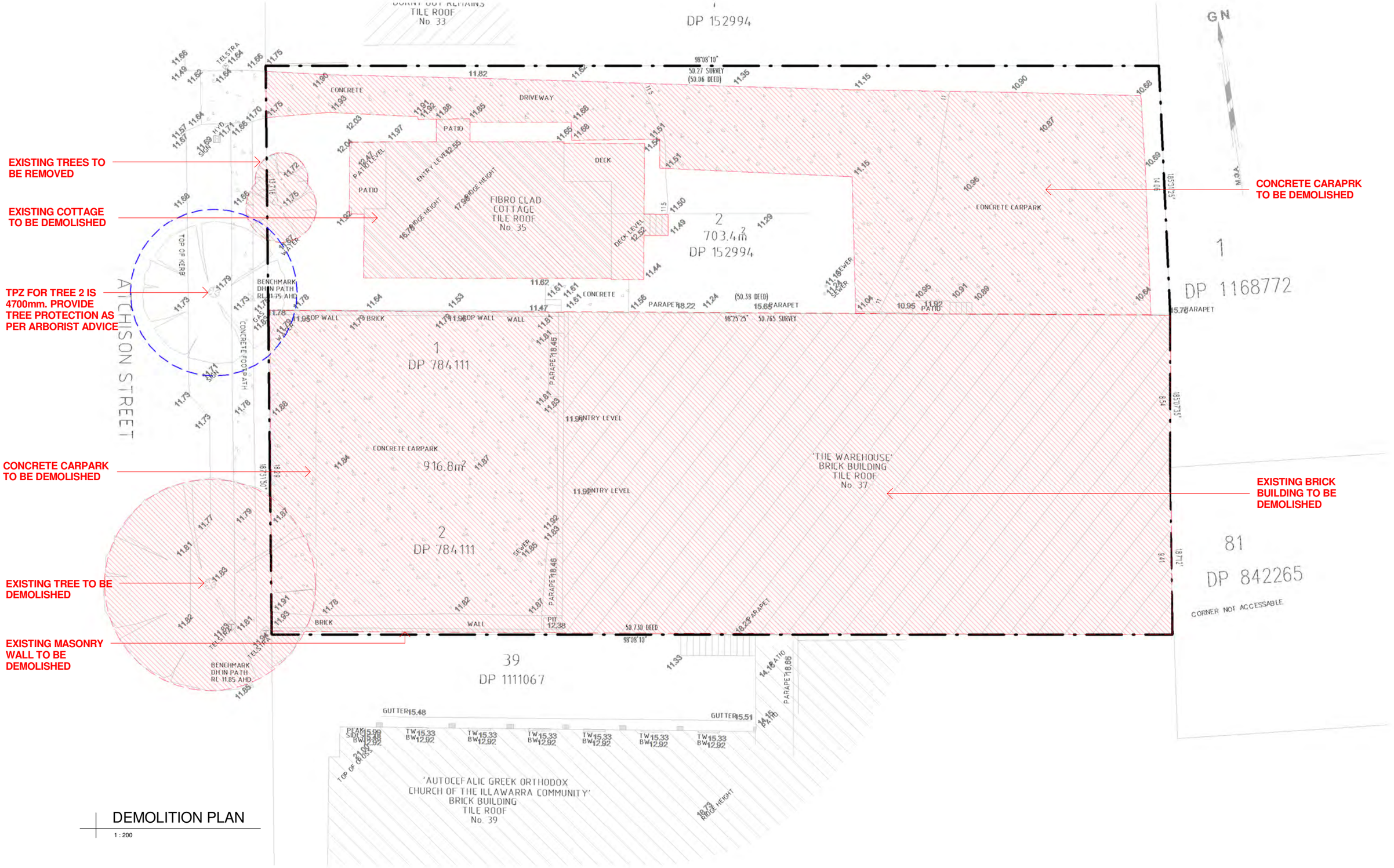
CLIENT: DESIGN WORKSHOP

SCALES:	AS SHOWN
DATUM:	AHD
GRID:	LOCAL
JOB REF:	182570
APPROVED:	CR

PROJECT: 35 & 37 ATCHISON STREET - WOLLONGONG
LOTS 1 & 2 DP 784111
LOTS 2 DP 152994

DRAWING: DETAIL SURVEY PLAN

DRAWING No 18257/0
REVISION A
SHEET 1 OF 1 SHEETS A1
ISSUED FOR: INFORMATION



DEMOLITION PLAN

1 : 200

DISCLAIMER

Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client. All parking and ramps to traffic engineers details.

ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

DESIGN WORKSHOP AUSTRALIA

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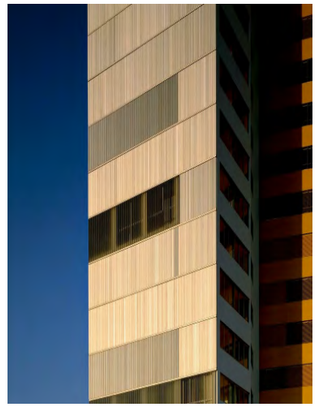
Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

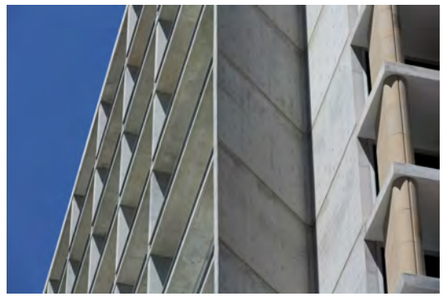
CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	DEMOLITION PLAN

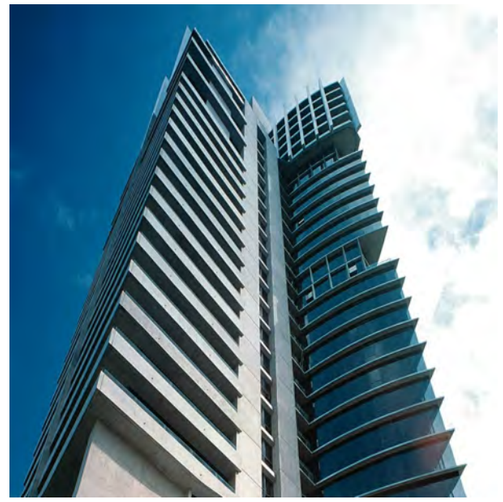
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 200
QA:	RG

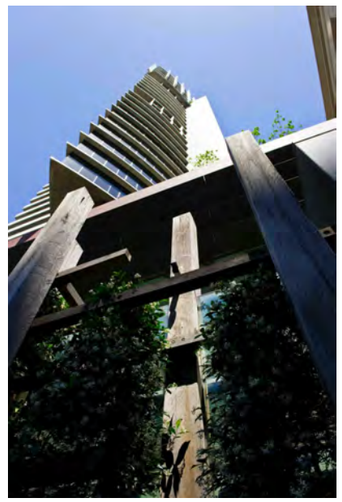
PROJECT No.	1800
DWG No.	07
Rev.	Q

A3









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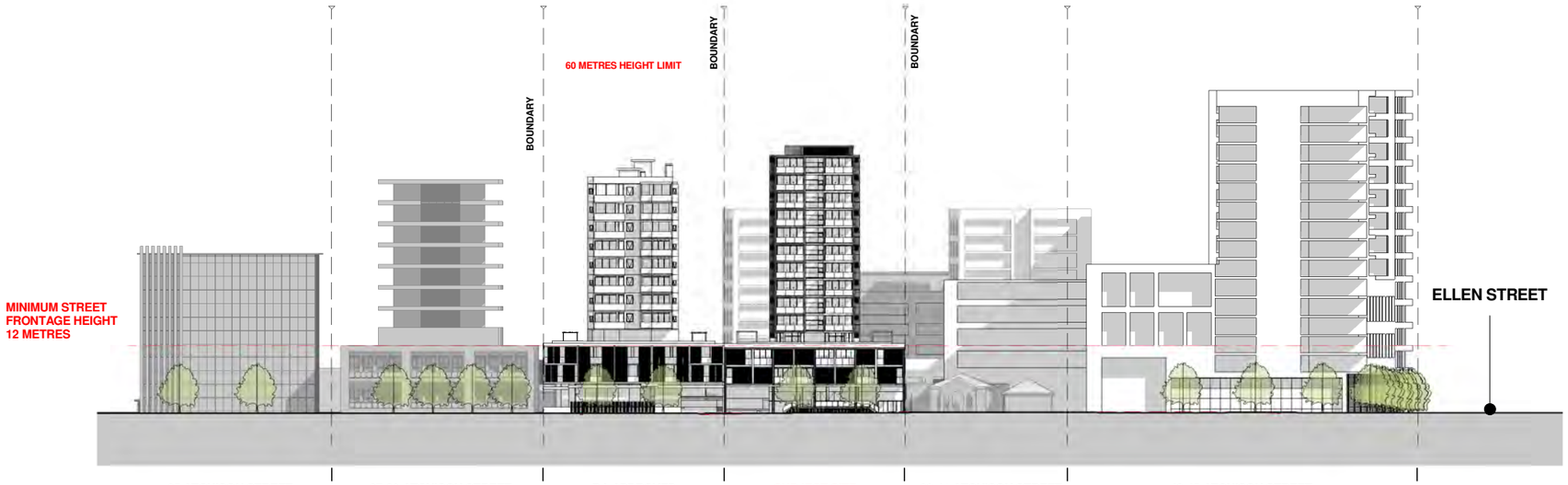
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	PRECEDENCE

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	
QA:	RG

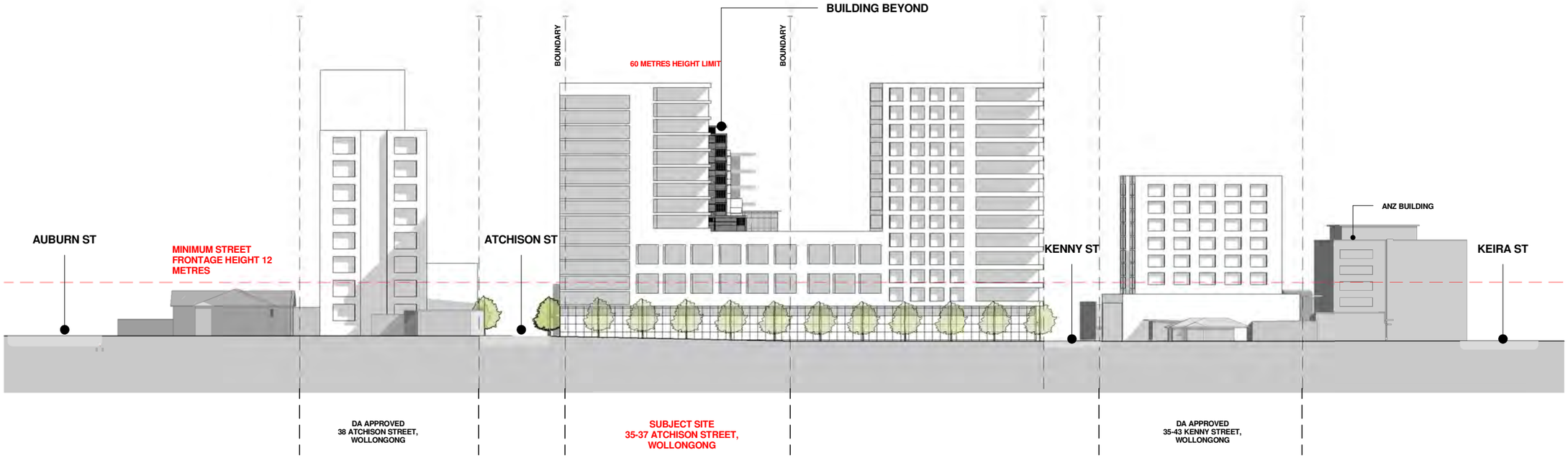
PROJECT No.	1800
DWG No.	09
Rev.	Q

A3



FUTURE ATCHISON STREET VIEW

1 : 1000



FUTURE ELLEN STREET VIEW

1 : 1000

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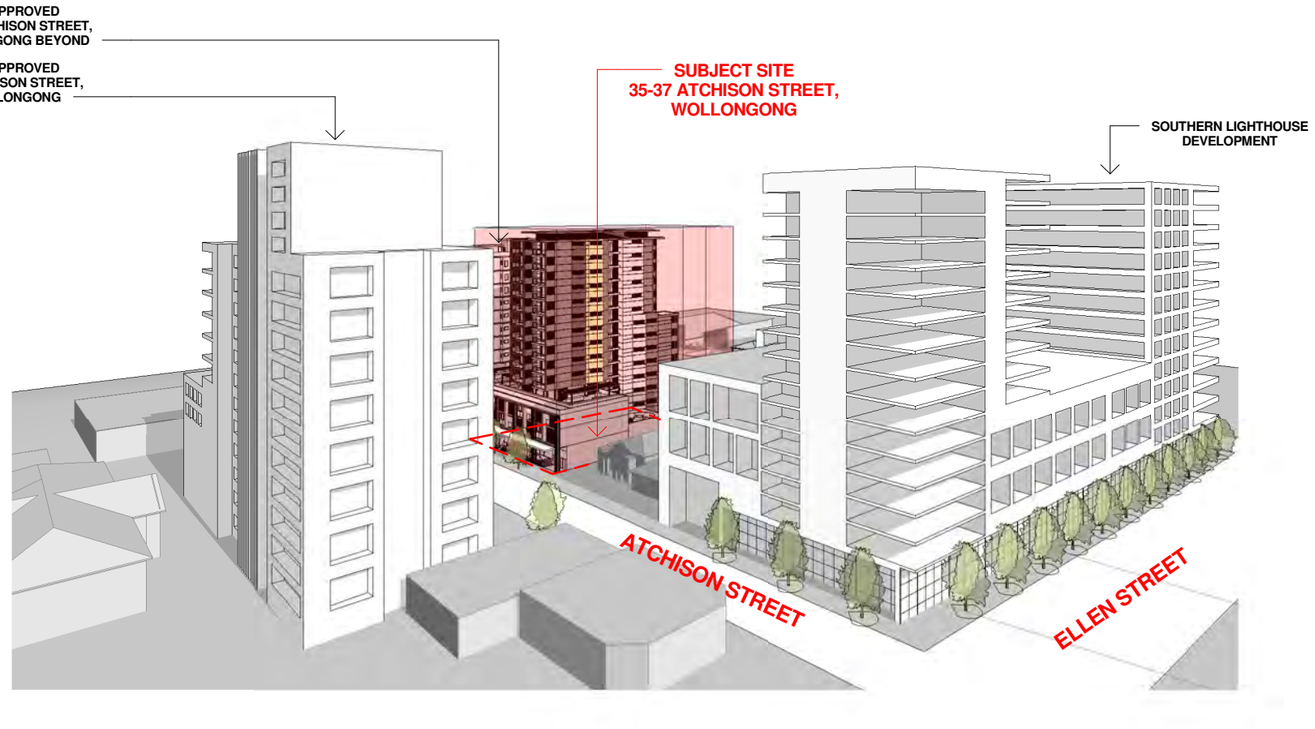
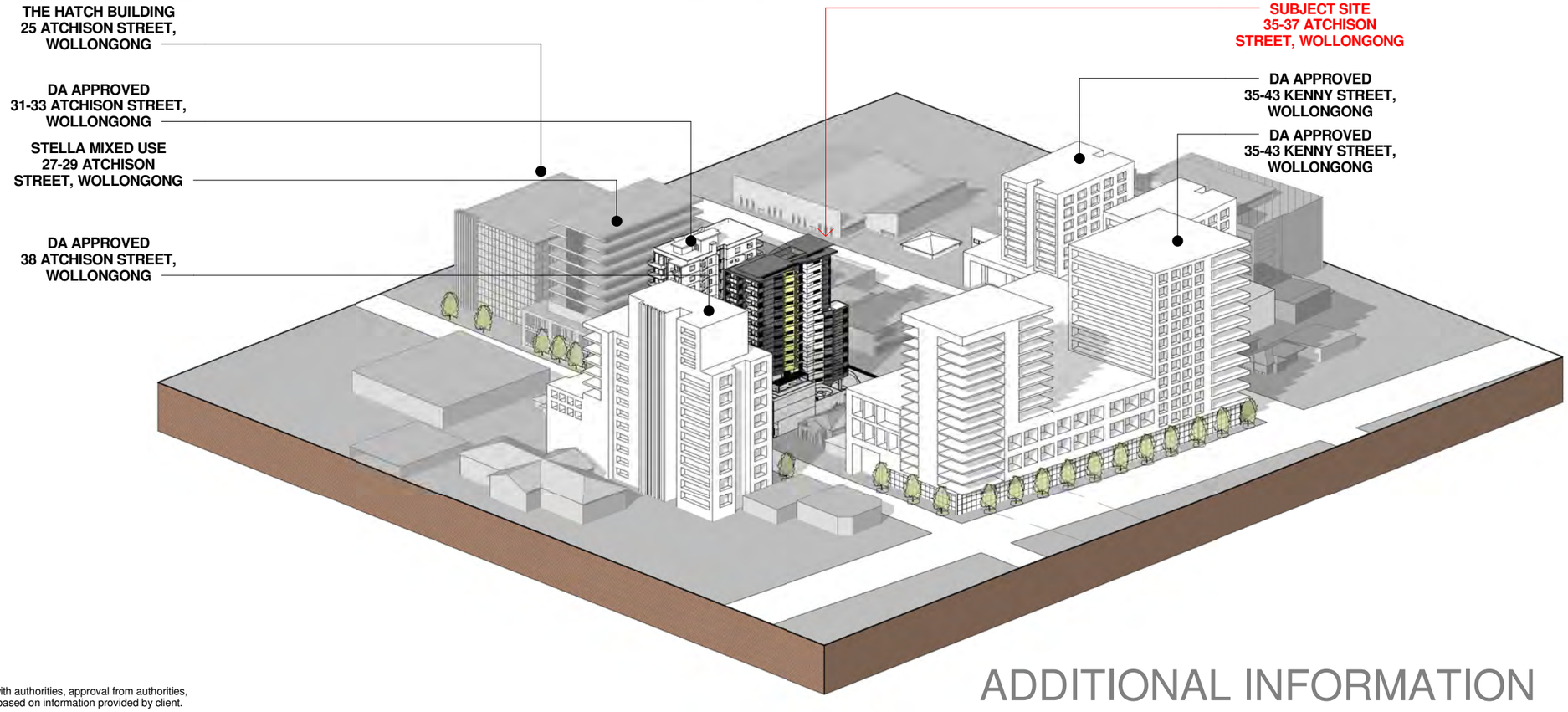
CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	FUTURE STREET VIEWS

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 1000
QA:	RG

PROJECT No.	1800
DWG No.	10
Rev.	Q

A3





ELLEN STREET VIEW

DISCLAIMER
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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDITIONAL INFORMATION

DISCLAIMER
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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

DESIGN WORKSHOP AUSTRALIA

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81a Princes Highway,
Fairy Meadow NSW 2519
Tel: (02) 4227 1661
Email: info@designworkshop.com.au
Web: http://www.designworkshop.com.au

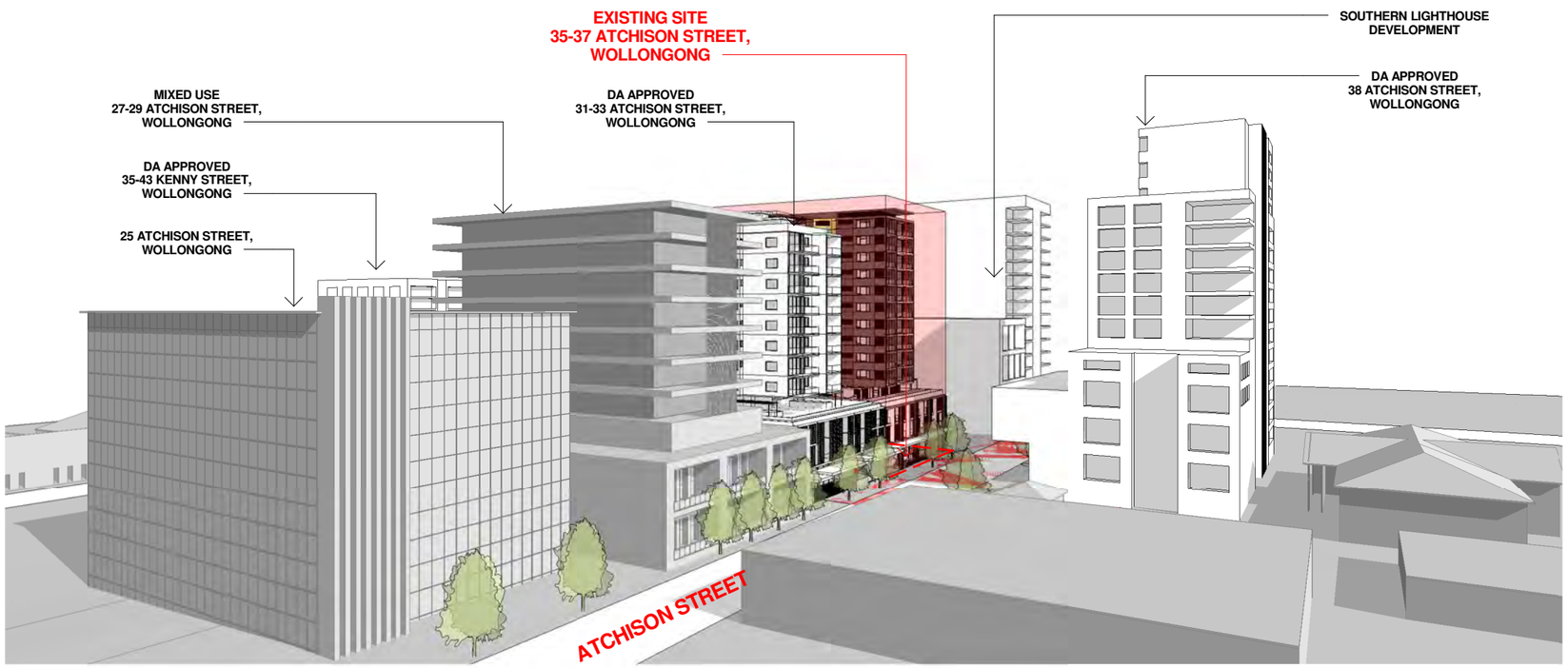
Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	FUTURE PERSPECTIVE VIEWS

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	
QA:	RG

PROJECT No.	1800
DWG No.	11
Rev.	Q

A3



ATCHISON STREET VIEW

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FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
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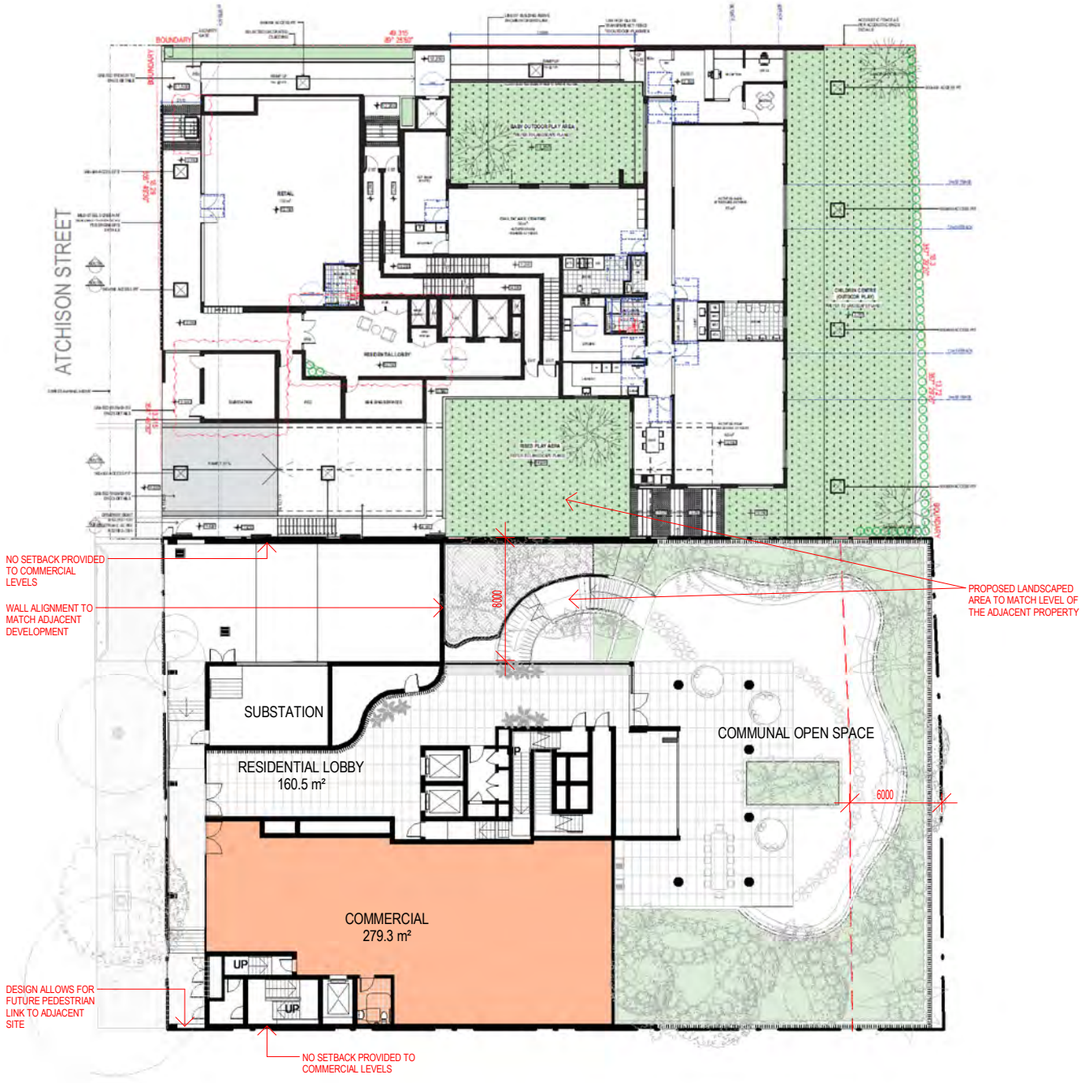
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	FUTURE PRESPECTIVE VIEWS

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	
QA:	RG

PROJECT No.	1800
DWG No.	12
Rev.	Q

A3



NEIGHBOURING BUILDING ANALYSIS - GROUND FLOOR

1 : 400

NEIGHBOURING BUILDING ANALYSIS - LEVEL 1

1 : 400

DISCLAIMER

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ADDITIONAL INFORMATION

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Sydney
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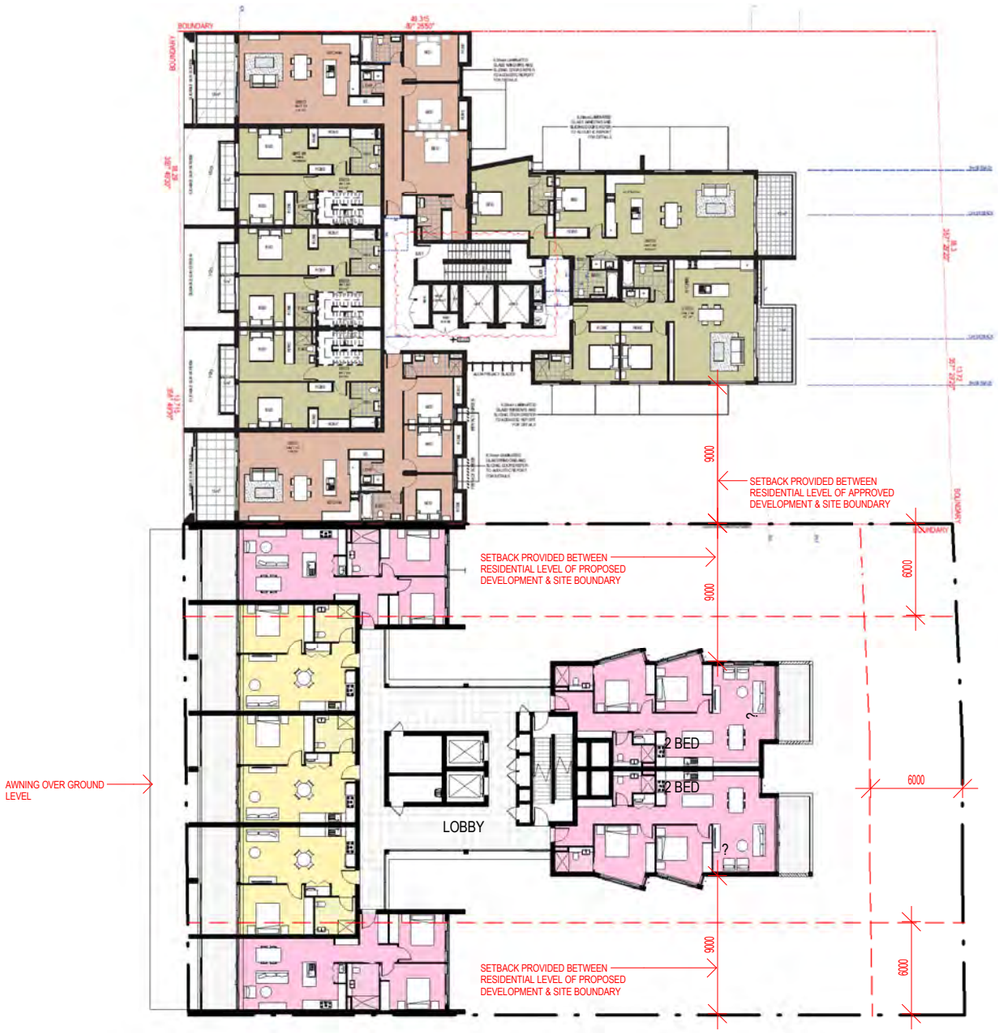
Olympus Boulevard,
Wolli Creek NSW 2205

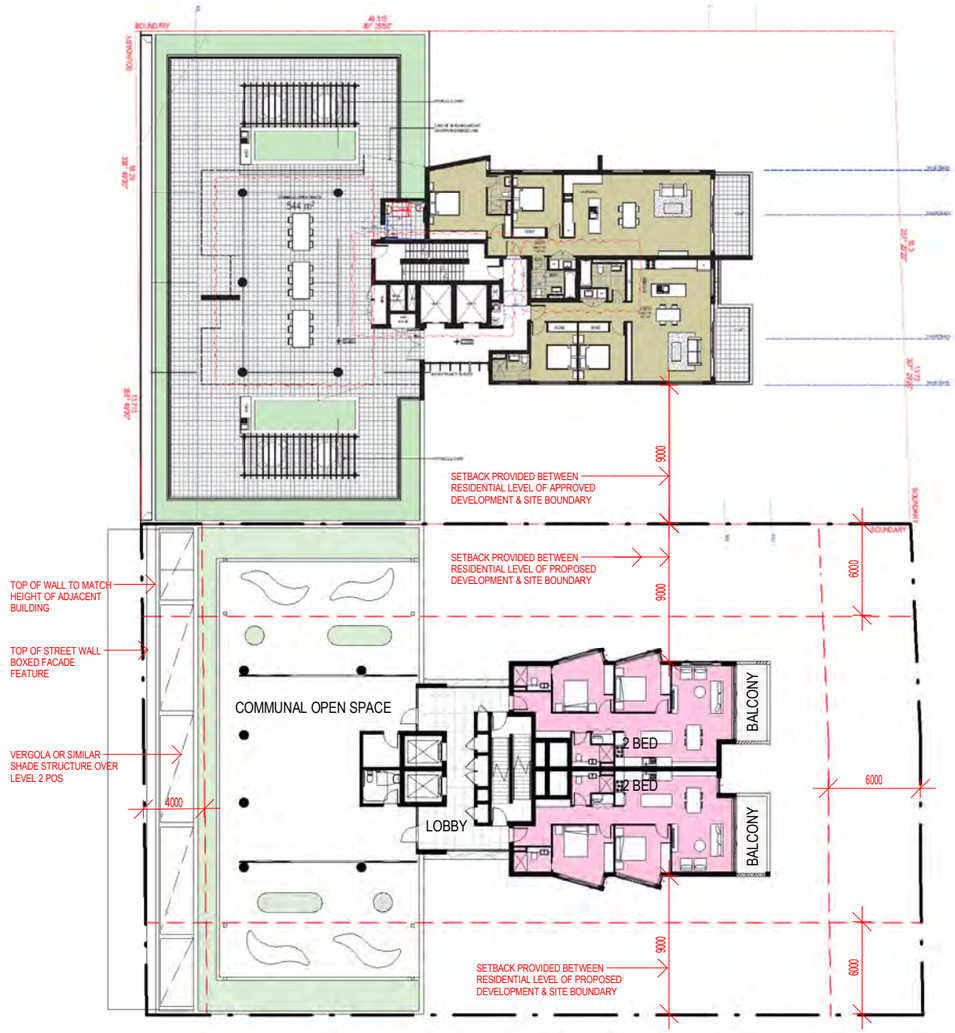
CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	NEIGHBOURING BUILDING ANALYSIS
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 400
QA:	RG
PROJECT No.	1800
DWG No.	15
Rev.	Q

A3



NEIGHBOURING BUILDING ANALYSIS - LEVEL 2

1 : 400



NEIGHBOURING BUILDING ANALYSIS - LEVEL 3

1 : 400

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ADDITIONAL INFORMATION

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FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
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RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

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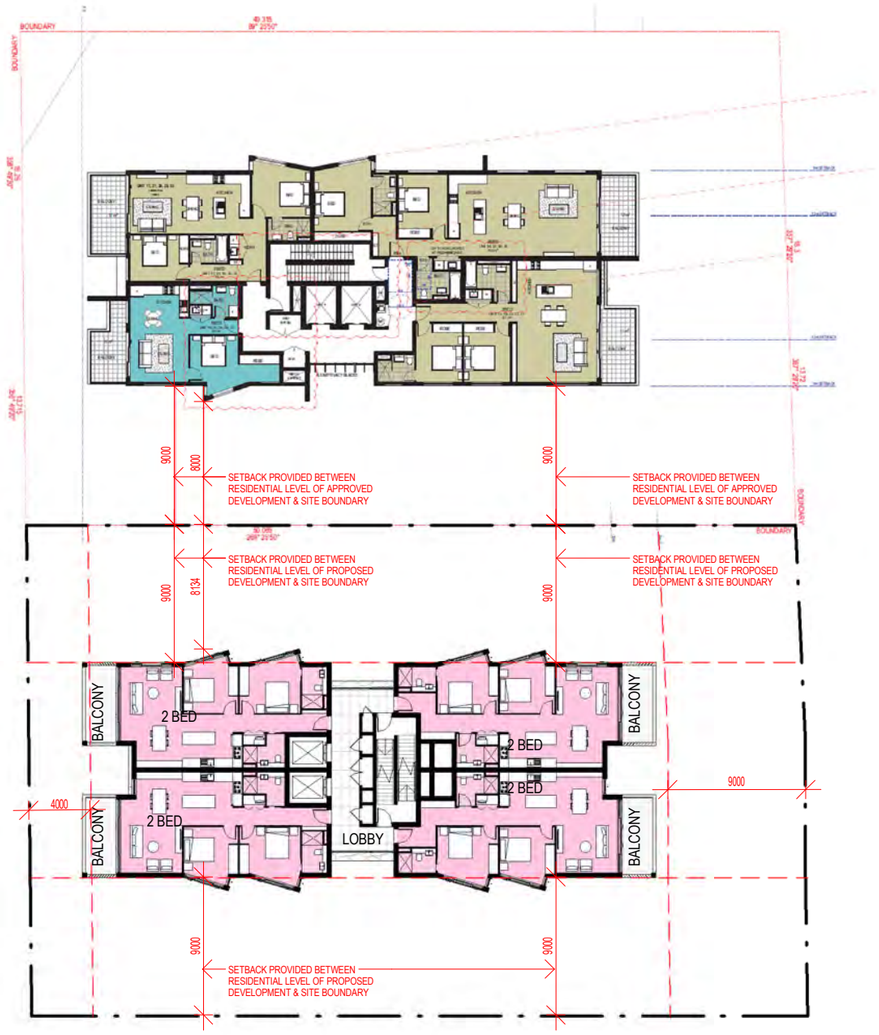
CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	NEIGHBOURING BUILDING ANALYSIS

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 400
QA:	RG

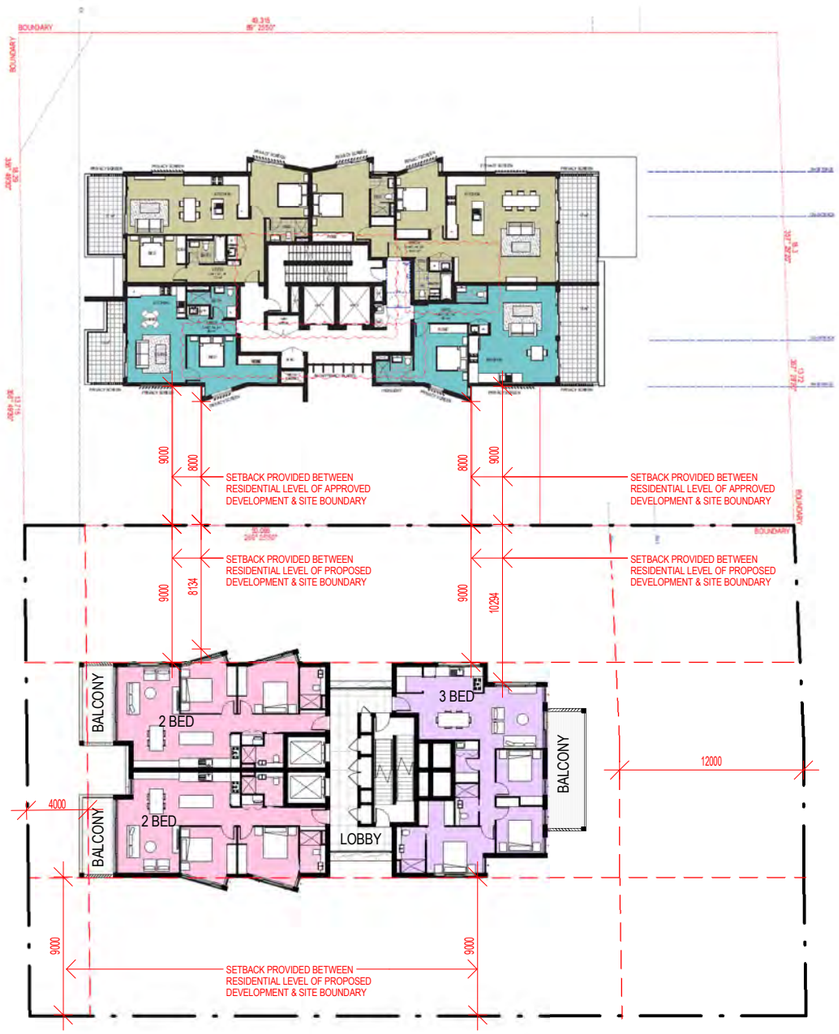
PROJECT No.	1800
DWG No.	16
Rev.	Q

A3



NEIGHBOURING BUILDING ANALYSIS - LEVEL 4

1 : 400



NEIGHBOURING BUILDING ANALYSIS - LEVEL 9

1 : 400

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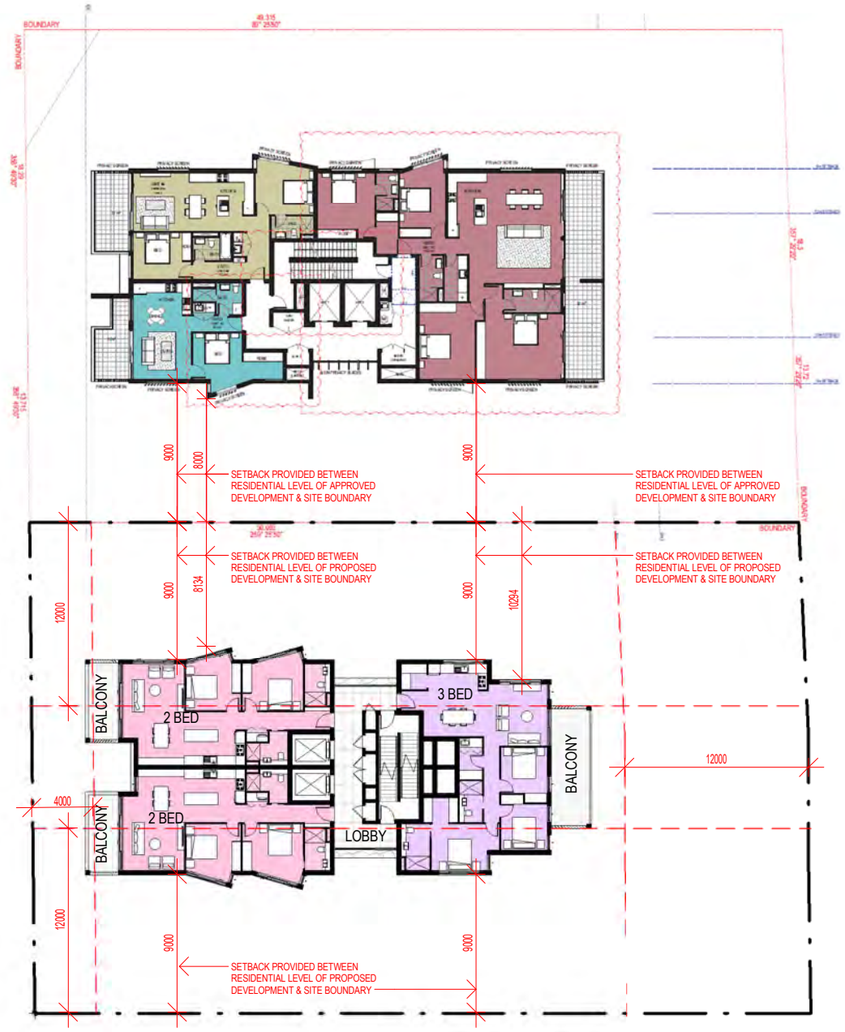
CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	NEIGHBOURING BUILDING ANALYSIS

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 400
QA:	RG

PROJECT No.	1800
DWG No.	17
Rev.	Q

A3



NEIGHBOURING BUILDING ANALYSIS - LEVEL 11

1 : 400

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FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
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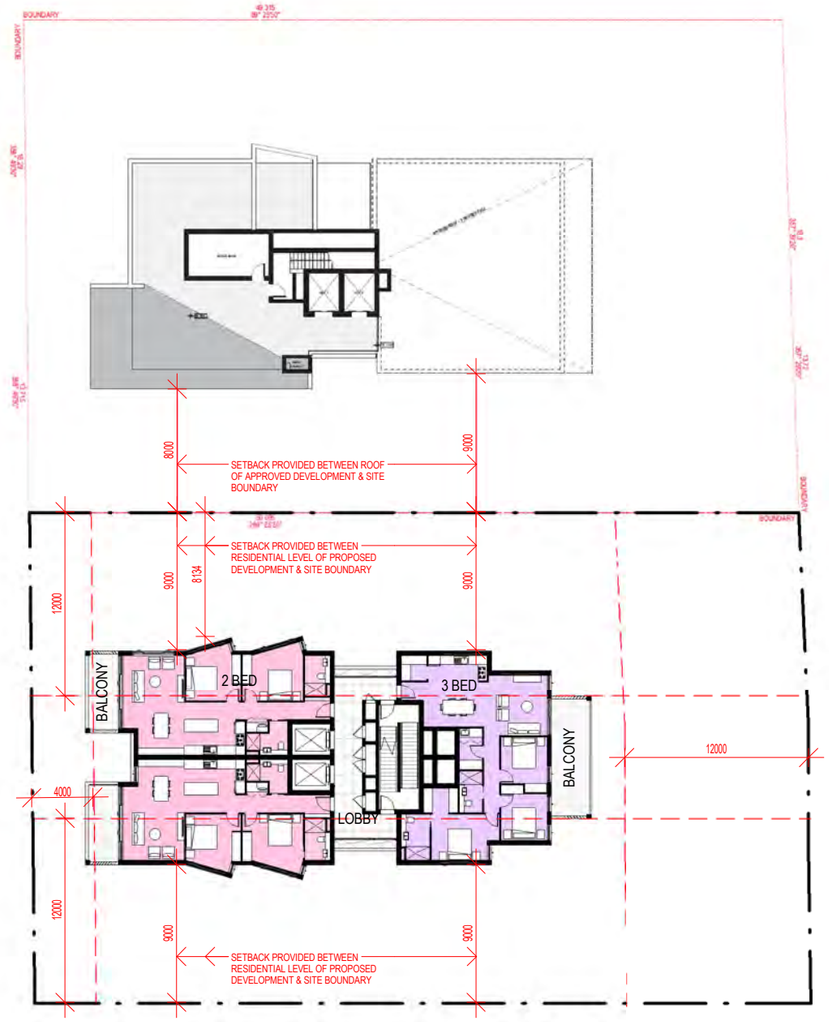
CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	NEIGHBOURING BUILDING ANALYSIS
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 400
QA:	RG
PROJECT No.	1800
DWG No.	18
Rev.	Q

A3



NEIGHBOURING BUILDING ANALYSIS - LEVEL 13

1 : 400

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
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FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

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Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	NEIGHBOURING BUILDING ANALYSIS

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 400
QA:	RG

PROJECT No.	1800
DWG No.	19
Rev.	Q

A3

SITE PLAN

1 : 500

REFER TO EXISTING SITE SURVEY BY
C. ROBSON & ASSOCIATES PTY LTD FOR ALL
EXISTING RLS AND SITE DIMENSIONS

BASIX Certificate Building Sustainability Index www.basix.nsw.gov.au	NatHERS
5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens	Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.
ABSA Australian Building Sustainability Association Accreditation Period 01/04/19-31/03/2020 Assessor Name Barry Cotten Assessor Number 20470	OSRVUZBMEF 26 May 2020 7.4 NATIONWIDE HOUSE ENERGY RATING SCHEME 32.5 MJ/m² Assessor Barry Cotten Accreditation No. 20470 Address 803, No 35-37 Atchison Street Wollongong NSW 2500 https://www.fr5.com.au/QRCodeLanding?PublicId=OSRVUZBMEF www.nathers.gov.au

ADDITIONAL INFORMATION

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Web: http://www.designworkshop.com.au

Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT: TQM
MIXED DEVELOPMENT

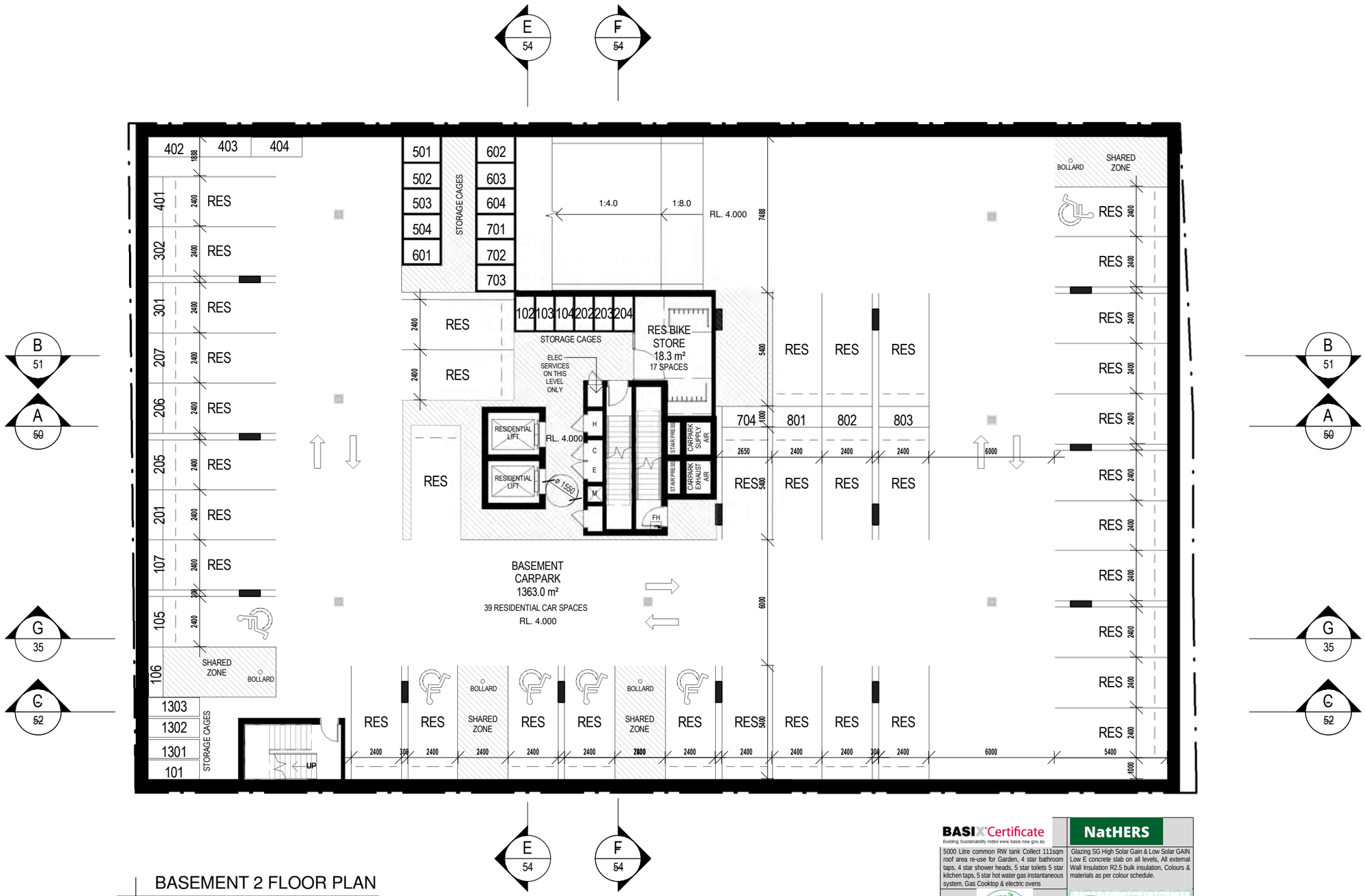
ADDRESS: 35-37 ATCHISON STREET, WOLLONGONG

DRAWING NAME: SITE PLAN

DATE: OCT 2018
DRAWN: NT, CS
SCALE: 1 : 500
QA: RG

PROJECT No. 1800
DWG No. 20
Rev. Q

A3



BASEMENT 2 FLOOR PLAN

1 : 200

BASIX® Certificate
Building Sustainability Index www.basix.nsw.gov.au

5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens

NatHERS

Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

OSRVUZBMEF 26 May 2020
Assessor: Barry Cotten
Accreditation No.: 20470
Address:
7.4 NATIONWIDE HOUSE ENERGY RATING 32.5 MJ/m²

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ADDITIONAL INFORMATION

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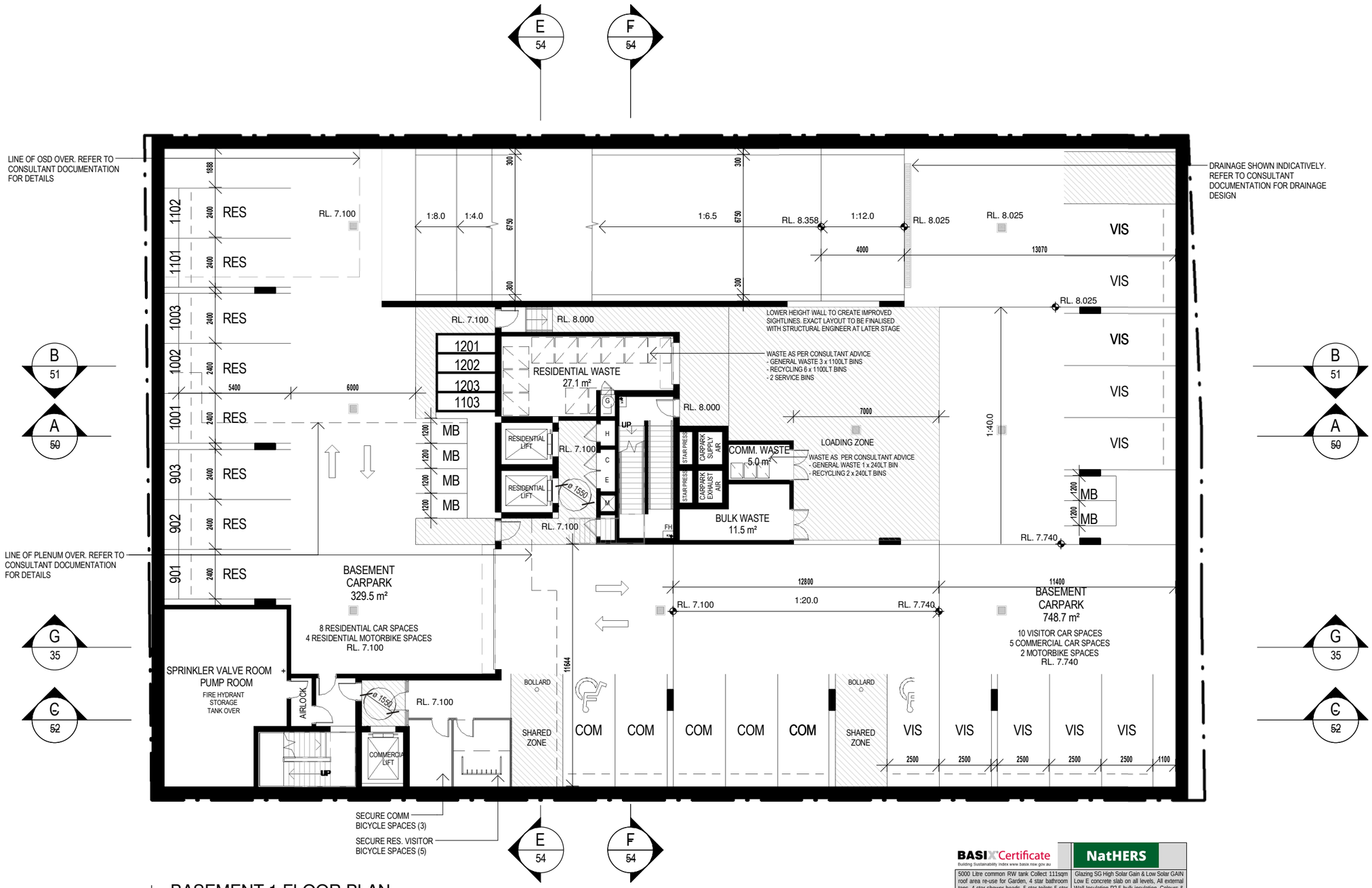
Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM
	MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	BASEMENT 2

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 200
QA:	RG

PROJECT No.	1800
DWG No.	21
Rev.	Q

A3



BASEMENT 1 FLOOR PLAN

1 : 200

BASIX Certificate
Building Sustainability Index www.basix.nsw.gov.au

5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens

NatHERS

Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

OSRVUZBMEF 26 May 2020
Assessor Barry Cottam
Accreditation No. 20470
7.4 STAR HOUSE
32.5 MJ/m²

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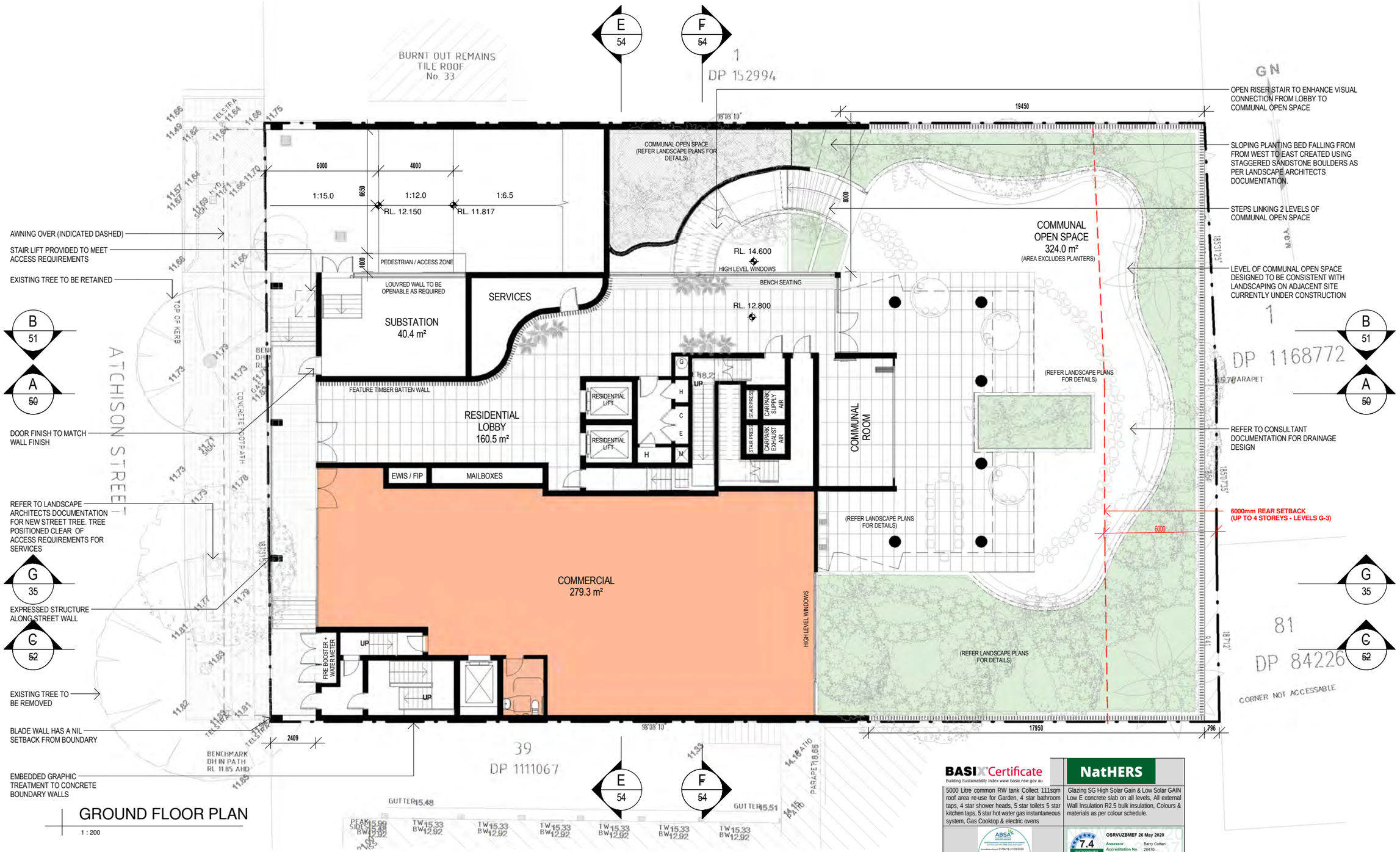
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	BASEMENT 1
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 200
QA:	RG
PROJECT No.	1800
DWG No.	22
Rev.	Q

A3



GROUND FLOOR PLAN

1 : 200

BASIX Certificate
Building Sustainability Index www.basix.nsw.gov.au

5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens

NatHERS

Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

OSRVUZBMEF 26 May 2020
Assessor Barry Cotten
Accreditation No. 20470
Address 903, No 35-37 Atchison Street Wollongong NSW 2000
7.4 NATIONWIDE HOUSE 32.5 MJ/m²
www.nathers.gov.au
https://www.hfs.com.au/QRCodeLanding?PublicId=OSRVUZBMEF

DISCLAIMER
Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client. All parking and ramps to traffic engineers details.

ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

DISCLAIMER
All dimensions are in millimeters. Verify all dimensions on site prior to commencement of any work. Copyright of DWA.

Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST		
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS		
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES		
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET		
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE		
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING		
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES				
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK				

DESIGN WORKSHOP AUSTRALIA

Wollongong
81a Princes Highway,
Fairy Meadow NSW 2519
Tel: (02) 4227 1661
Email: info@designworkshop.com.au
Web: http://www.designworkshop.com.au

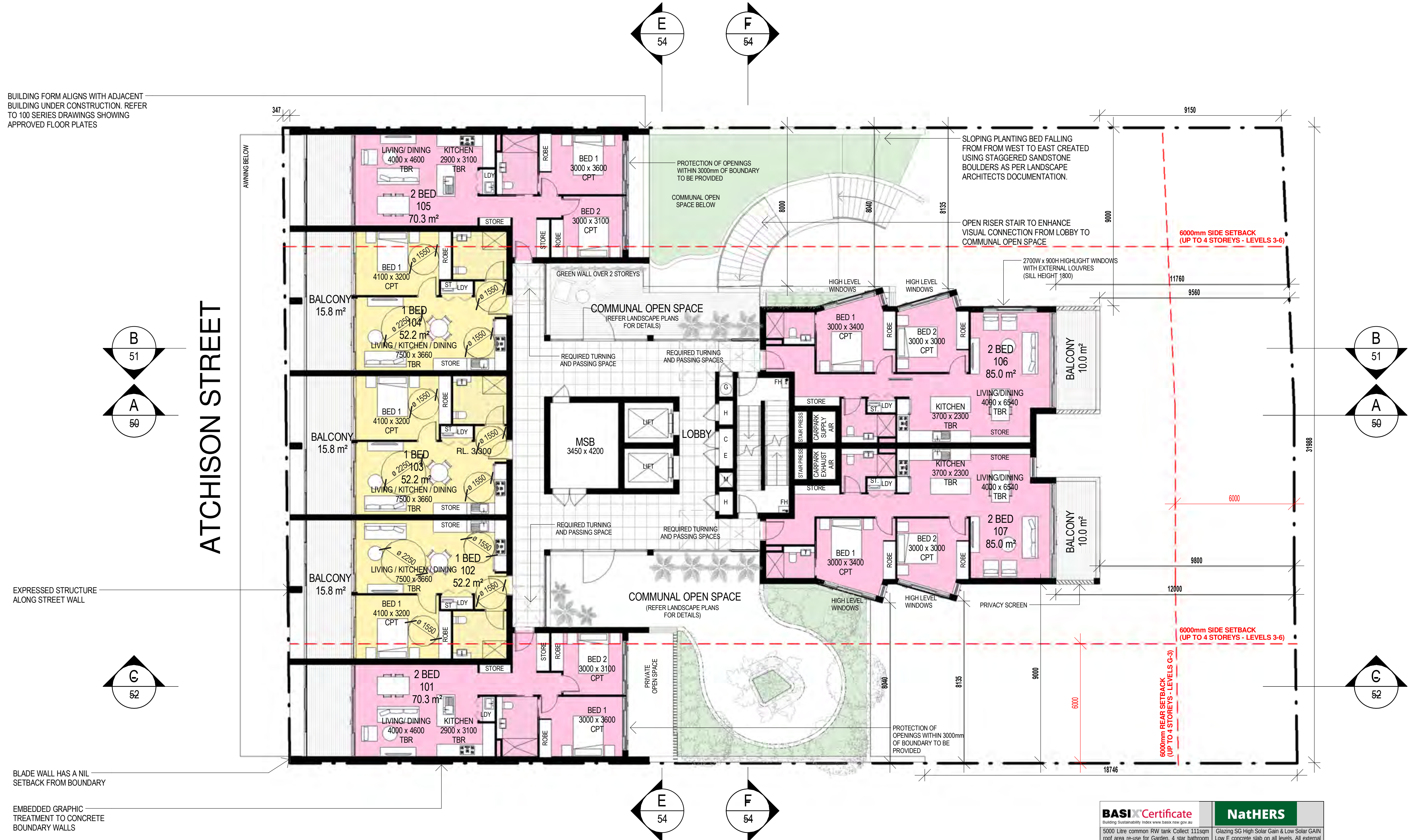
Sydney
Level 10, 6 Mount Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	GROUND FLOOR

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 200
QA:	RG

PROJECT No.	1800
DWG No.	23
Rev.	Q

A3



LEVEL 1 FLOOR PLAN

1 : 200

BASIX Certificate

5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens

NatHERS

Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

DISCLAIMER

Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client. All parking and ramps to traffic engineers details.

ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDITIONAL INFORMATION

DISCLAIMER
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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

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Web: http://www.designworkshop.com.au

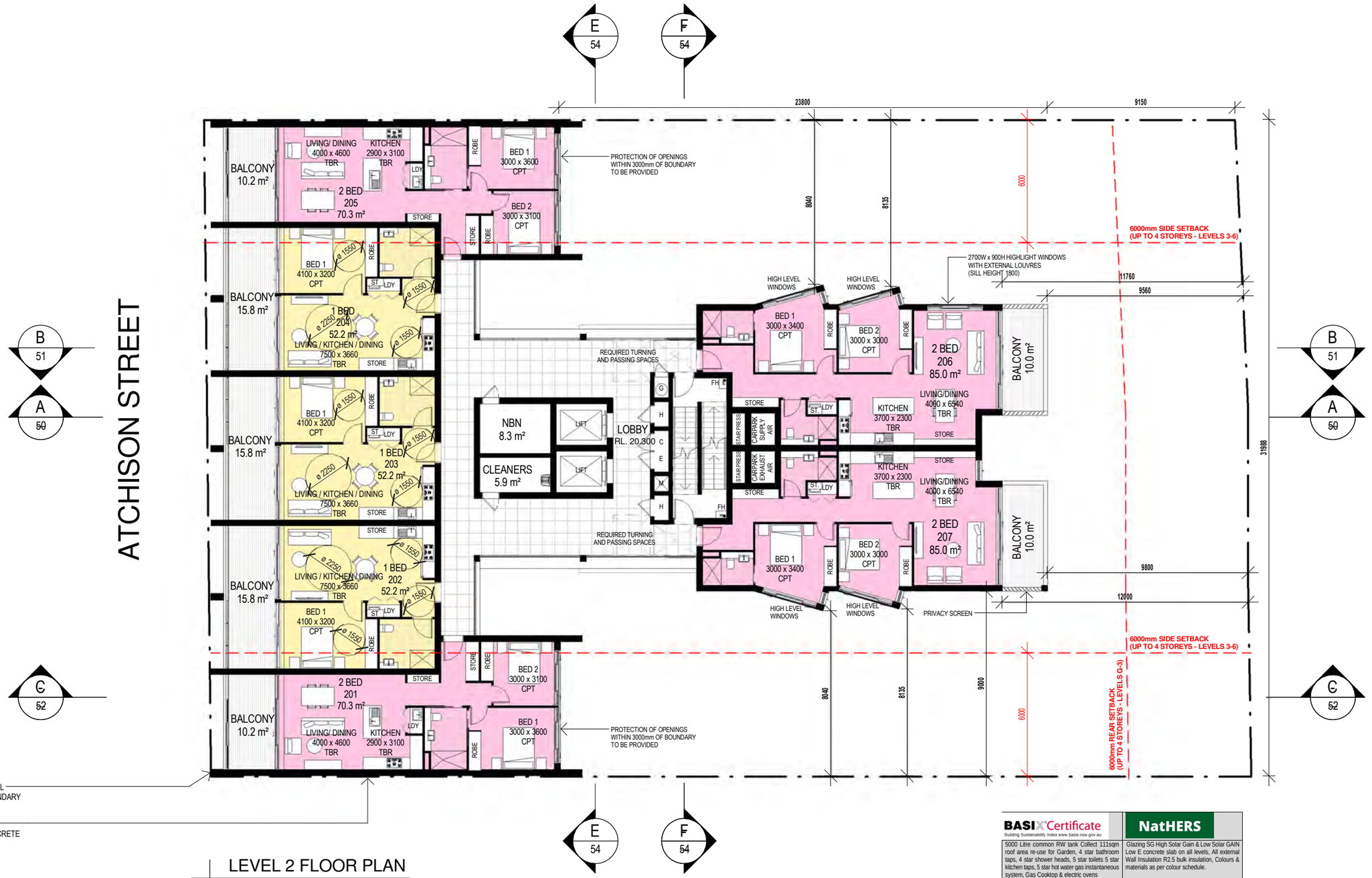
Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT: TQM MIXED DEVELOPMENT
ADDRESS: 35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME: LEVEL 1

DATE: OCT 2018
DRAWN: NT, CS
SCALE: 1 : 200
QA: RG

PROJECT No. 1800
DWG No. 24
Rev. Q

A3



LEVEL 2 FLOOR PLAN

1 : 200

BASIX® Certificate
Building Sustainability Index www.basix.nsw.gov.au

5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens

NatHERS

Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

OSRVUZBMEF 26 May 2020
Assessor: Barry Cotten
Accreditation No.: 25470
7.4 STAR HOUSE
32.5 MJ/m²

DISCLAIMER
Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client.
All parking and ramps to traffic engineers details.

ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

DISCLAIMER
All dimensions are in millimeters. Verify all dimensions on site prior to commencement of any work. Copyright of DWA.

Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

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Email: info@designworkshop.com.au
Web: http://www.designworkshop.com.au

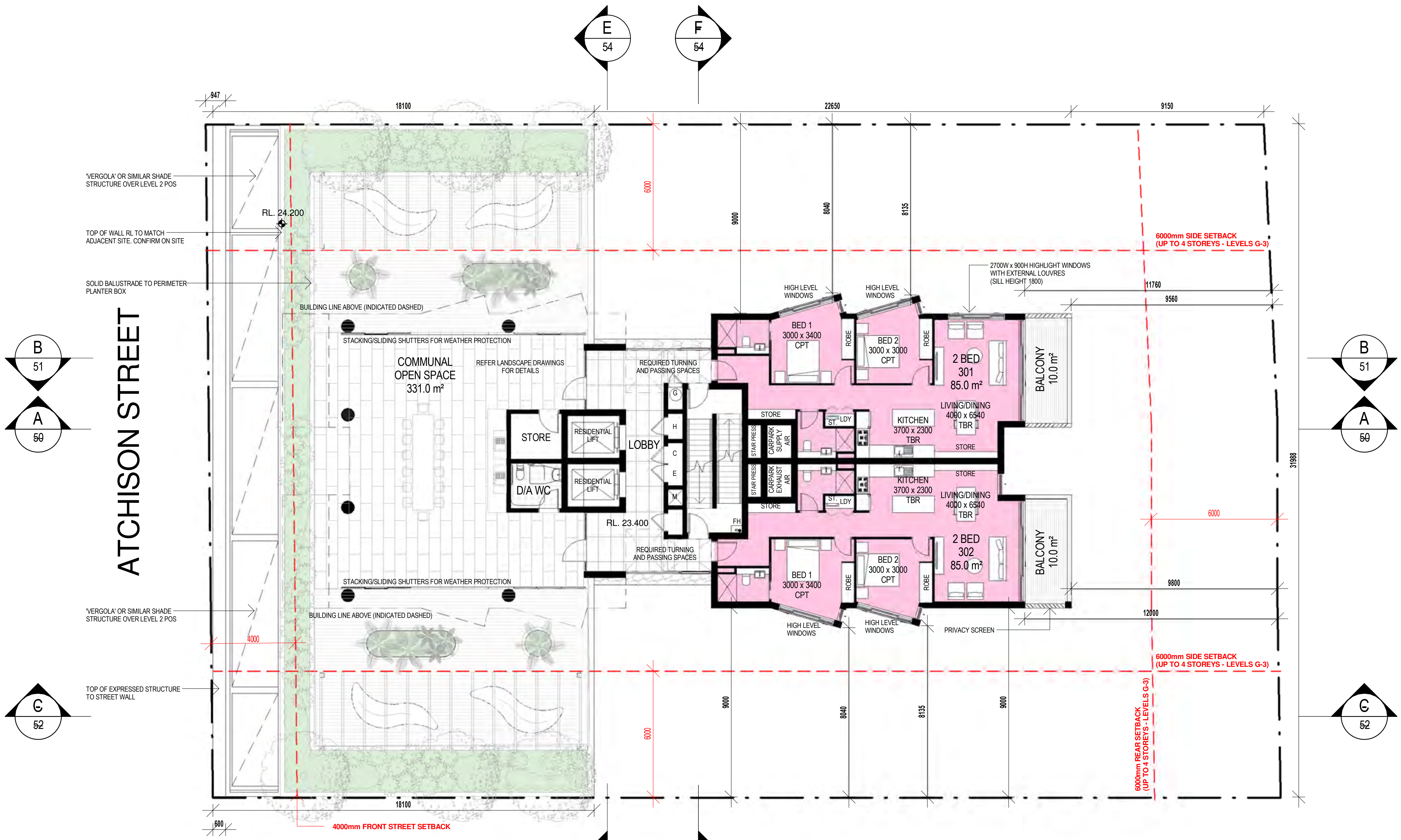
Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	LEVEL 2

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 200
QA:	RG

PROJECT No.	
1800	
DWG No.	Rev.
25	Q

A3



LEVEL 3 FLOOR PLAN

1 : 200

BASIX Certificate	NatHERS
5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens	Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

ADDITIONAL INFORMATION

DISCLAIMER
Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client. All parking and ramps to traffic engineers details.

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

DISCLAIMER
All dimensions are in millimeters. Verify all dimensions on site prior to commencement of any work. Copyright of DWA.

Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

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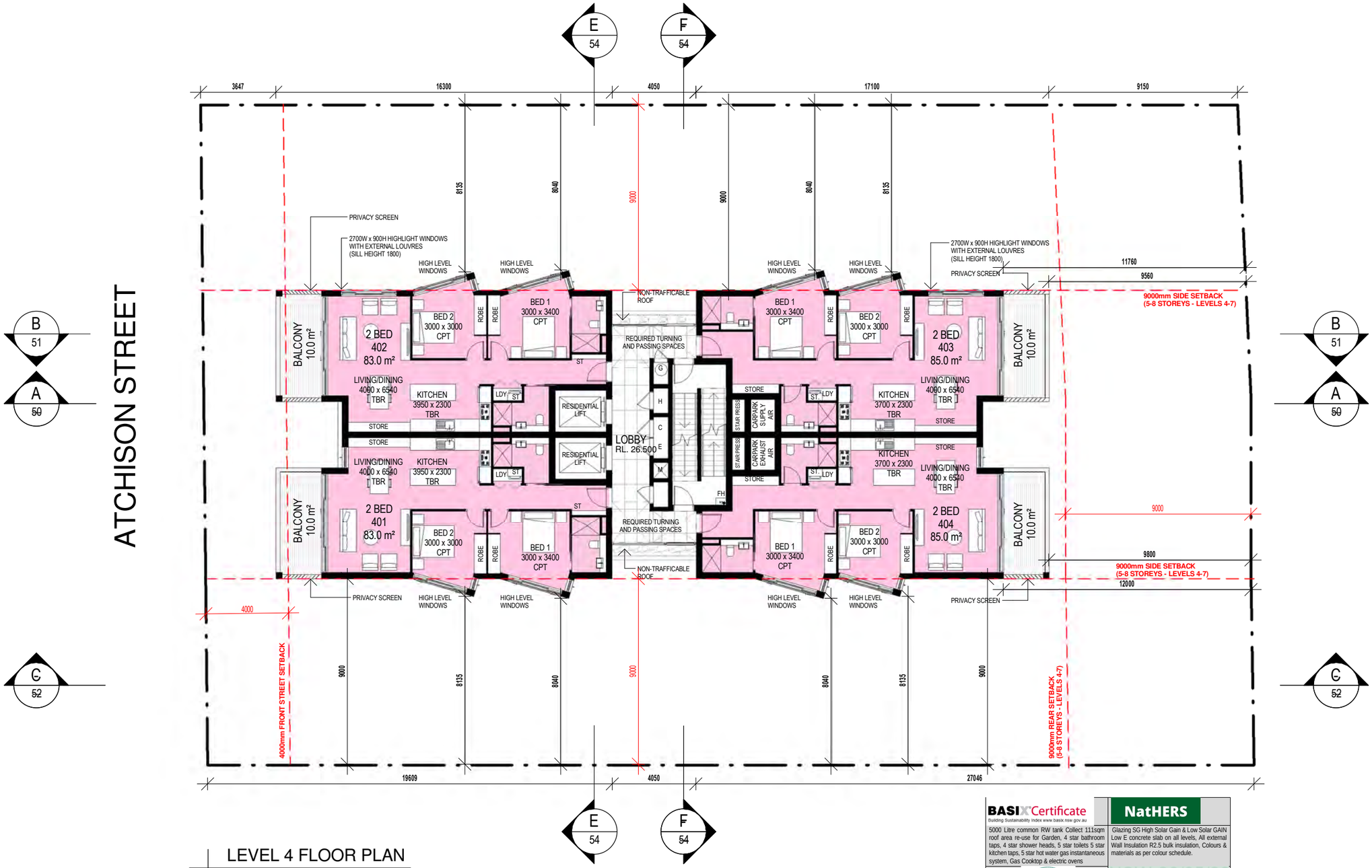
Email: info@designworkshop.com.au
Web: http://www.designworkshop.com.au

Sydney
Level 10, 6 Mount Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT: TQM MIXED DEVELOPMENT
ADDRESS: 35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME: LEVEL 3
DATE: OCT 2018
DRAWN: NT, CS
SCALE: 1 : 200
QA: RG
PROJECT No. 1800
DWG No. 26
Rev. Q

A3



LEVEL 4 FLOOR PLAN

1 : 200

BASIX® Certificate
Building Sustainability Index www.basix.nsw.gov.au

5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens

NatHERS

Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

OSRVUZBMEF 26 May 2020
Assessor Barry Cotten
Accreditation No. 20470
Address 3/23, No.32-37 Atchison Street Wollongong NSW 2500
7.4 NATIONWIDE HOUSE ENERGY RATING
32.5 MJ/m²
www.nathers.gov.au

DISCLAIMER
Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client. All parking and ramps to traffic engineers details.

ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

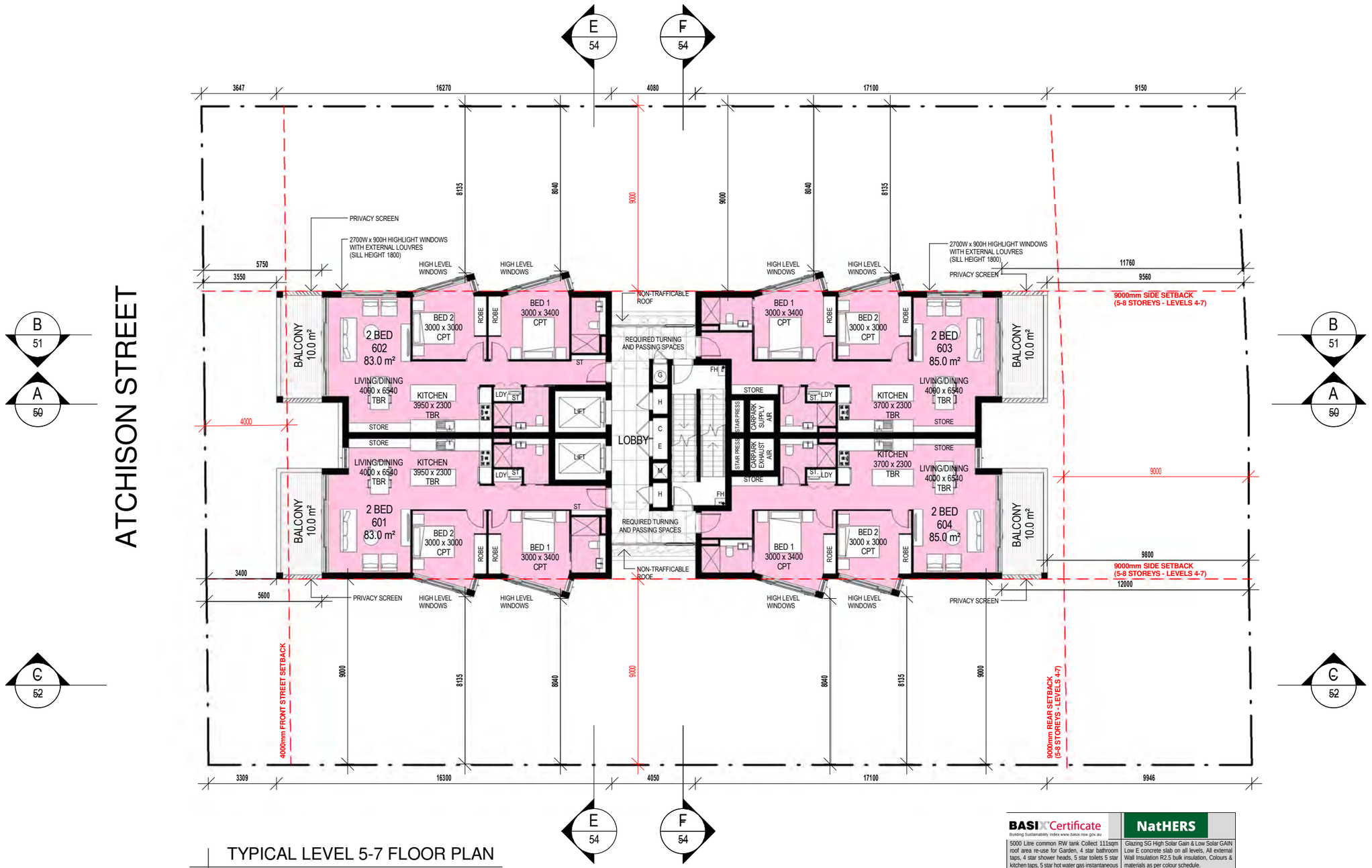
DESIGN WORKSHOP AUSTRALIA

Wollongong
81a Princes Highway,
Fairy Meadow NSW 2519
Tel: (02) 4227 1661
Email: info@designworkshop.com.au
Web: http://www.designworkshop.com.au

Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT	DATE: OCT 2018	PROJECT No. 1800
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG	DRAWN: NT, CS SCALE: 1 : 200	DWG No. 27 Rev. Q
DRAWING NAME:	LEVEL 4	QA: RG	

A3



TYPICAL LEVEL 5-7 FLOOR PLAN

1 : 200

BASIX Certificate
Building Sustainability Index www.basix.nsw.gov.au

5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens

NatHERS

Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

OSRVUZBMEF 26 May 2020
Assessor Barry Cottam
Accreditation No. 20470
Address 803, No 35-37 Atchison Street WOLLONGONG NSW 2500
7.4 STAR HOUSE
32.5

DISCLAIMER
Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client.
All parking and ramps to traffic engineers details.

ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

DISCLAIMER
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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST	
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS	
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES	
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET	
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE	
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING	
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES			
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK			

DESIGN WORKSHOP AUSTRALIA

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Fairy Meadow NSW 2519
Tel: (02) 4227 1661
Email: info@designworkshop.com.au
Web: http://www.designworkshop.com.au

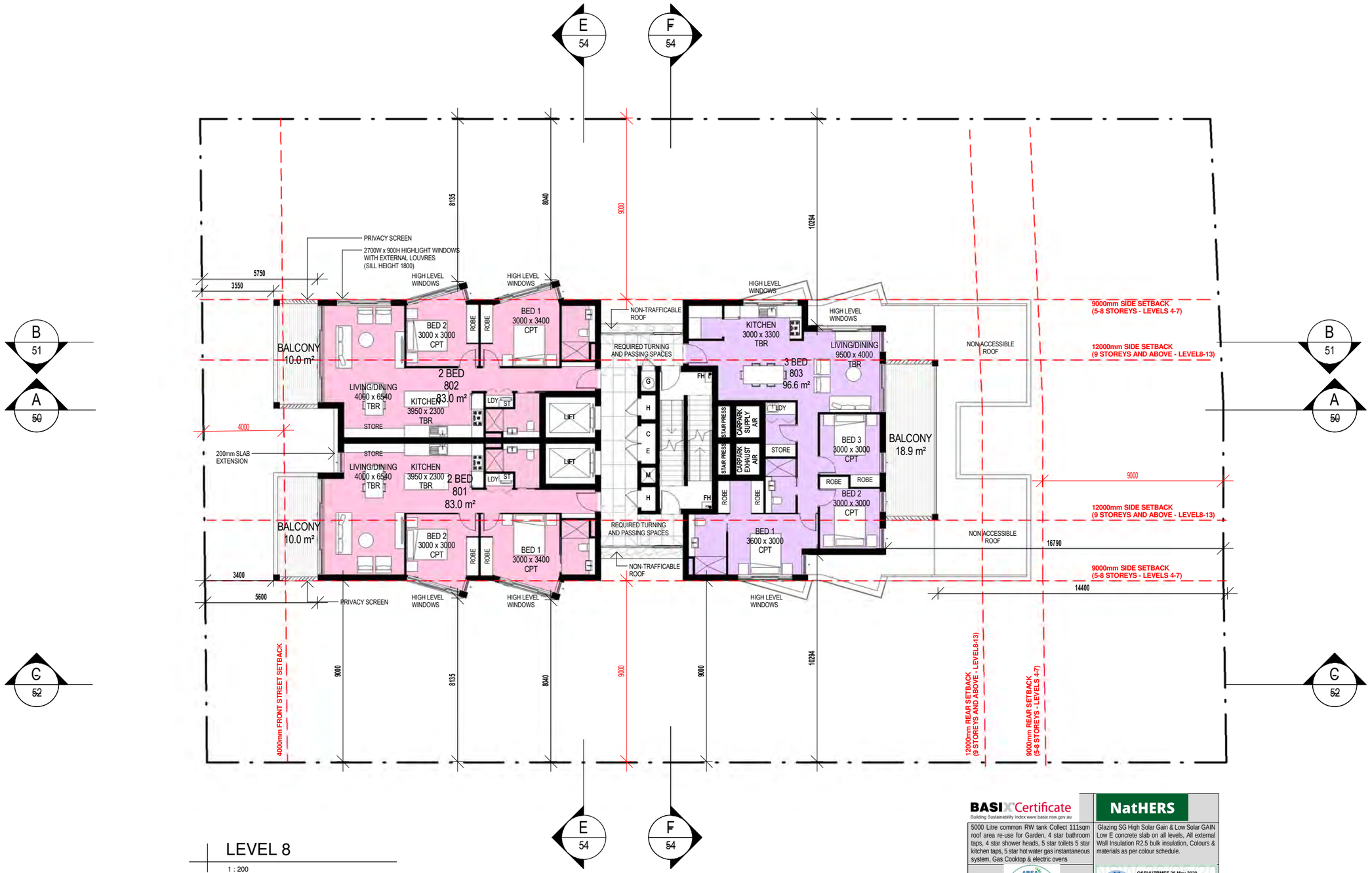
Sydney
Level 10, 6 Mount Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	TYPICAL LEVEL - LEVEL 5-7

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 200
QA:	RG

PROJECT No.	1800
DWG No.	28
Rev.	Q

A3



LEVEL 8

1 : 200

BASIX Certificate
Building Sustainability Index www.basix.nsw.gov.au

5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens

NatHERS

Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

OSRVUZBMEF 26 May 2020
Assessor: Barry Cotten
Accreditation No.: 20470
Address: 843, No 35-37 Atchison Street Wollongong NSW 2500
7.4 NATIONWIDE HOUSE ENERGY RATING
32.5
www.nathers.gov.au
https://www.frll.com.au/QRCode/Landing?PublicId=OSRVUZBMEF

DISCLAIMER
Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client.
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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

DISCLAIMER
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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
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CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

DWA
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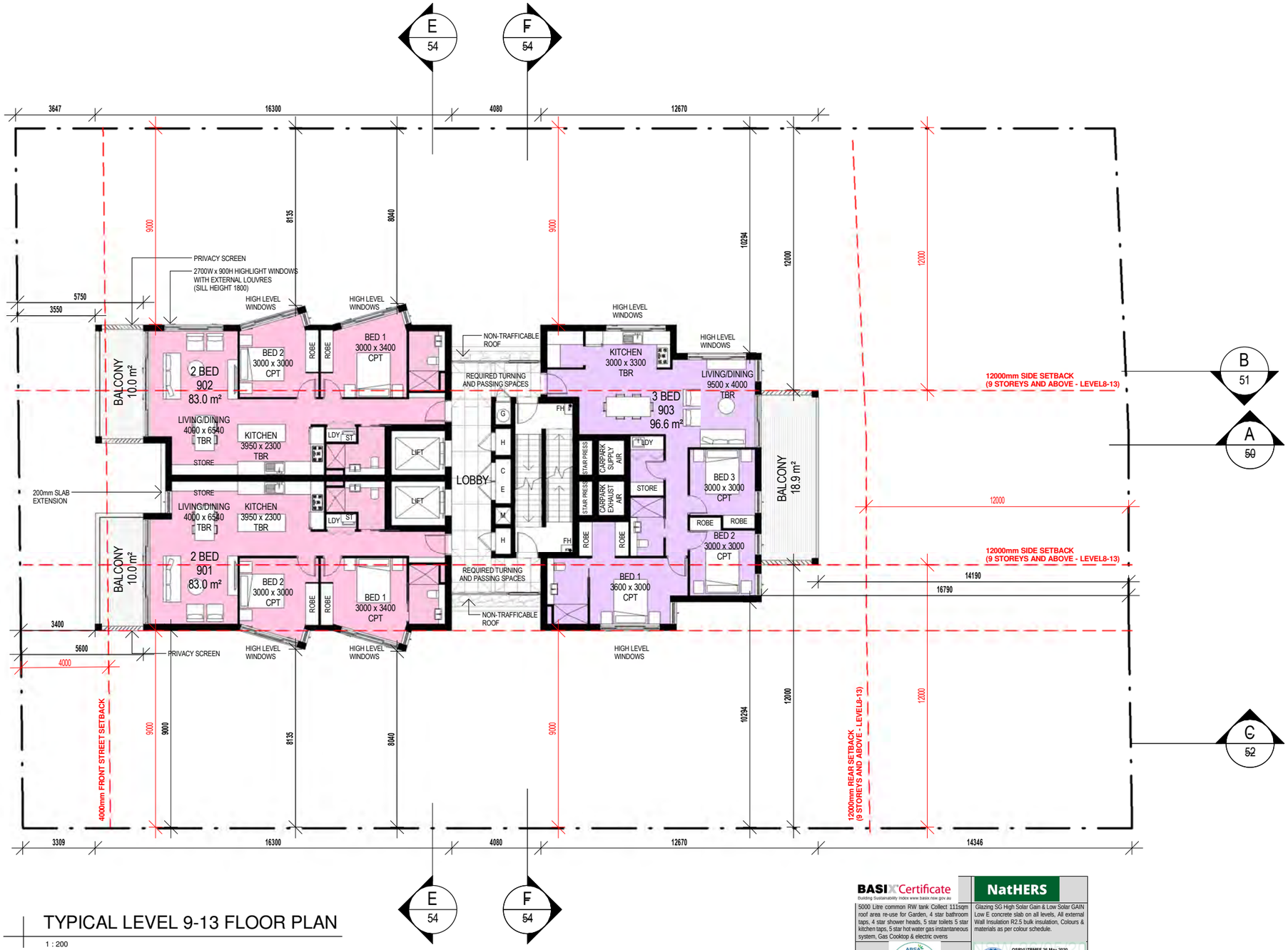
Tel: (02) 4227 1661
Email: info@designworkshop.com.au
Web: http://www.designworkshop.com.au

Sydney
Level 10, 6 Mount Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT	DATE: OCT 2018	PROJECT No. 1800
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG	DRAWN: Author	
		SCALE: 1 : 200	DWG No. 29 Rev. Q
DRAWING NAME:	LEVEL 8	QA: Checker	

A3

ATCHISON STREET



TYPICAL LEVEL 9-13 FLOOR PLAN

1 : 200

BASIX Certificate
Building Sustainability Index www.basix.nsw.gov.au

5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens

NatHERS

Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

OSRVUZBMEF 26 May 2020
Assessor Barry Cotten
Accreditation No. 20470
7.4 STAR HOUSE 32.5

DISCLAIMER
Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client.
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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
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FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

DWA
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Tel: (02) 4227 1661
Email: info@designworkshop.com.au
Web: http://www.designworkshop.com.au

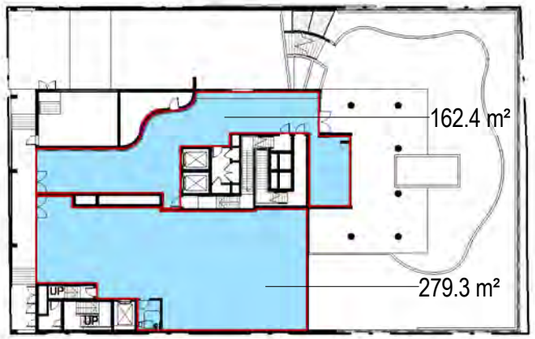
Sydney
Level 10, 6 Mount Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	TYPICAL LEVEL - LEVEL 9-13

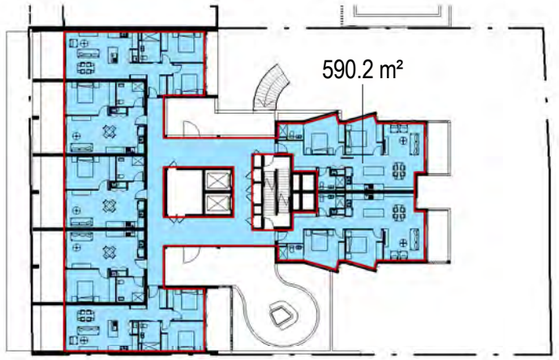
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 200
QA:	RG

PROJECT No.	1800
DWG No.	30
Rev.	Q

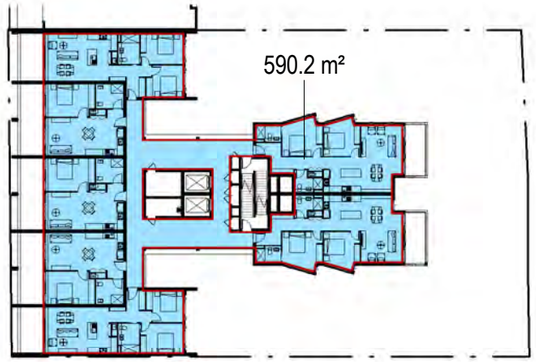
A3



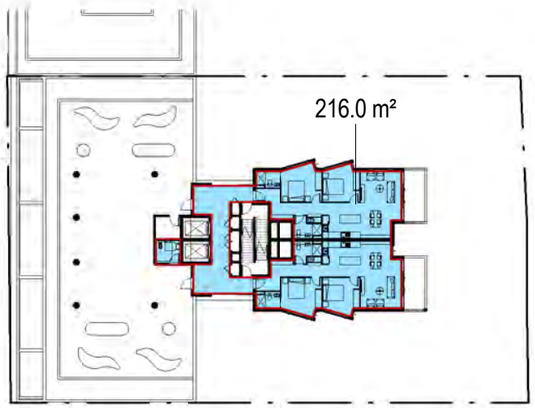
GROUND FLOOR
1 : 600



LEVEL 1
1 : 600



LEVEL 2
1 : 600



LEVEL 3
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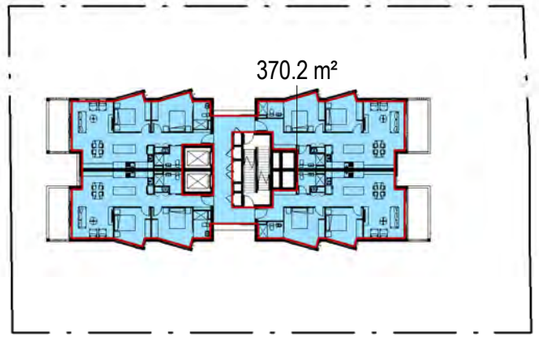
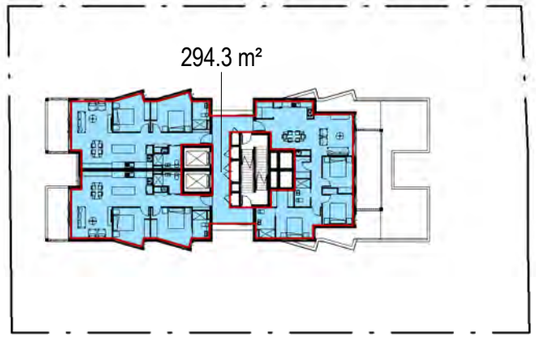
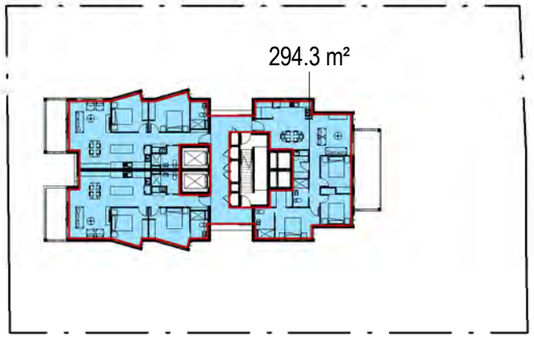


LEVEL 4
1 : 600

NOTE: LEVELS 4 - 7 TYPICAL



LEVEL 8
1 : 600



LEVEL 13
1 : 600

NOTE: LEVELS 9 - 13 TYPICAL

GFA SCHEDULE

LEVEL	AREA	FSR
GROUND FLOOR	279.3 m²	0.17
GROUND FLOOR	162.4 m²	0.10
LEVEL 1	590.2 m²	0.36
LEVEL 2	590.2 m²	0.36
LEVEL 3	216.0 m²	0.13
LEVEL 4	370.2 m²	0.23
LEVEL 5	370.2 m²	0.23
LEVEL 6	370.2 m²	0.23
LEVEL 7	370.2 m²	0.23
LEVEL 8	294.3 m²	0.18
LEVEL 9	294.3 m²	0.18
LEVEL 10	294.3 m²	0.18
LEVEL 11	294.3 m²	0.18
LEVEL 12	294.3 m²	0.18
LEVEL 13	294.3 m²	0.18
	5084.8 m²	3.14

DISCLAIMER
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All parking and ramps to traffic engineers details.

ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

DWA
DESIGN WORKSHOP AUSTRALIA

Wollongong
81a Princes Highway,
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Email: info@designworkshop.com.au
Web: http://www.designworkshop.com.au

Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT: TQM
MIXED DEVELOPMENT

ADDRESS: 35-37 ATCHISON STREET, WOLLONGONG

DRAWING NAME: GFA PLANS

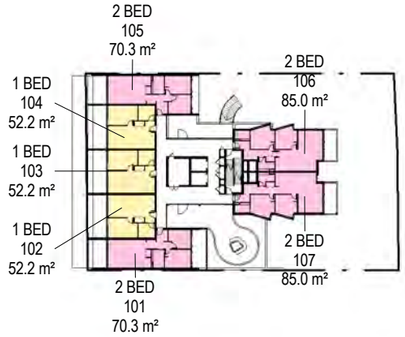
DATE: OCT 2018
DRAWN: NT, CS
SCALE: 1 : 600
QA: RG

PROJECT No. 1800
DWG No. 32
Rev. Q

A3

GROUND FLOOR KEY

1 : 1000



LEVEL 1 KEY

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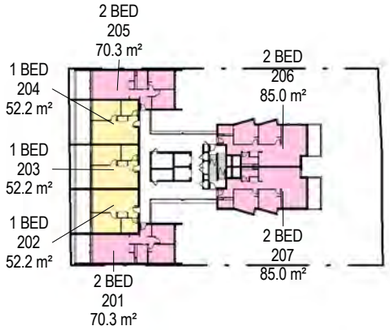

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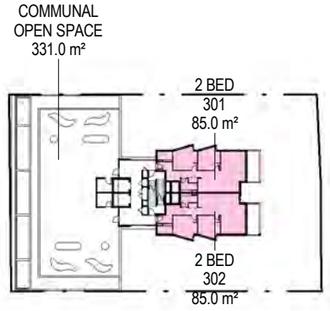

LEVEL 3 KEY

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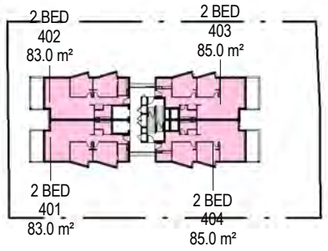

LEVEL 4 KEY

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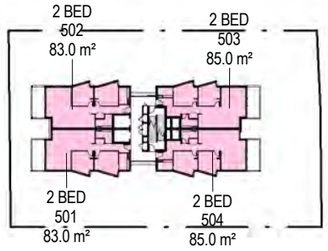
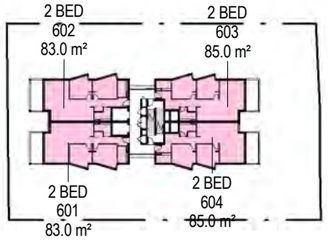


LEVEL 5 KEY

1 : 1000



LEVEL 6 KEY

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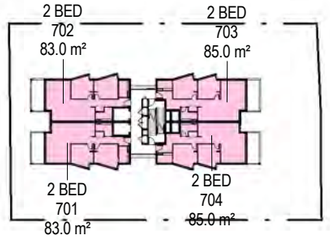
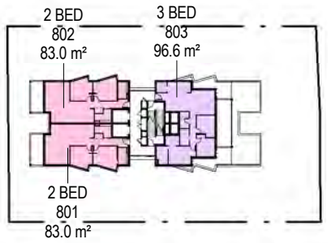


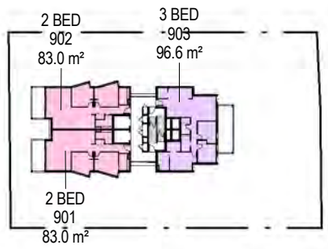
LEVEL 7 KEY

1 : 1000



LEVEL 8 KEY

1 : 1000



LEVEL 9 KEY

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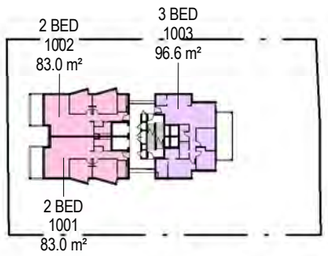
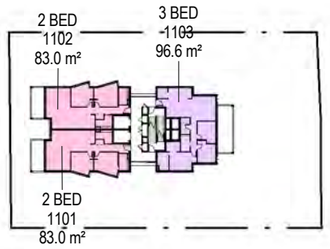


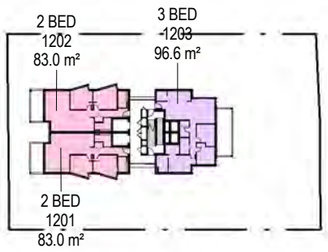
LEVEL 10 KEY

1 : 1000



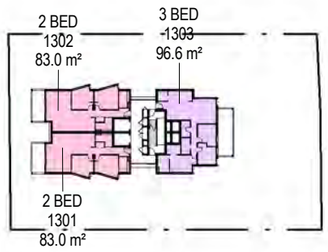
LEVEL 11 KEY

1 : 1000



LEVEL 12 KEY

1 : 1000



LEVEL 13 KEY

1 : 1000

ROOM SCHEDULE

LEVEL	NUMBER	NAME	AREA
LEVEL 1			
LEVEL 1	101	2 BED	70.3 m²
LEVEL 1	102	1 BED	52.2 m²
LEVEL 1	103	1 BED	52.2 m²
LEVEL 1	104	1 BED	52.2 m²
LEVEL 1	105	2 BED	70.3 m²
LEVEL 1	106	2 BED	85.0 m²
LEVEL 1	107	2 BED	85.0 m²
LEVEL 2			
LEVEL 2	201	2 BED	70.3 m²
LEVEL 2	202	1 BED	52.2 m²
LEVEL 2	203	1 BED	52.2 m²
LEVEL 2	204	1 BED	52.2 m²
LEVEL 2	205	2 BED	70.3 m²
LEVEL 2	206	2 BED	85.0 m²
LEVEL 2	207	2 BED	85.0 m²
LEVEL 3			
LEVEL 3	301	2 BED	85.0 m²
LEVEL 3	302	2 BED	85.0 m²
LEVEL 4			
LEVEL 4	401	2 BED	83.0 m²
LEVEL 4	402	2 BED	83.0 m²
LEVEL 4	403	2 BED	85.0 m²
LEVEL 4	404	2 BED	85.0 m²
LEVEL 5			
LEVEL 5	501	2 BED	83.0 m²
LEVEL 5	502	2 BED	83.0 m²
LEVEL 5	503	2 BED	85.0 m²
LEVEL 5	504	2 BED	85.0 m²
LEVEL 6			
LEVEL 6	601	2 BED	83.0 m²
LEVEL 6	602	2 BED	83.0 m²
LEVEL 6	603	2 BED	85.0 m²
LEVEL 6	604	2 BED	85.0 m²
LEVEL 7			
LEVEL 7	701	2 BED	83.0 m²
LEVEL 7	702	2 BED	83.0 m²
LEVEL 7	703	2 BED	85.0 m²
LEVEL 7	704	2 BED	85.0 m²
LEVEL 8			
LEVEL 8	801	2 BED	83.0 m²
LEVEL 8	802	2 BED	83.0 m²
LEVEL 8	803	3 BED	96.6 m²
LEVEL 9			
LEVEL 9	901	2 BED	83.0 m²
LEVEL 9	902	2 BED	83.0 m²
LEVEL 9	903	3 BED	96.6 m²
LEVEL 10			
LEVEL 10	1001	2 BED	83.0 m²
LEVEL 10	1002	2 BED	83.0 m²
LEVEL 10	1003	3 BED	96.6 m²
LEVEL 11			
LEVEL 11	1101	2 BED	83.0 m²
LEVEL 11	1102	2 BED	83.0 m²
LEVEL 11	1103	3 BED	96.6 m²
LEVEL 12			
LEVEL 12	1201	2 BED	83.0 m²
LEVEL 12	1202	2 BED	83.0 m²
LEVEL 12	1203	3 BED	96.6 m²
LEVEL 13			
LEVEL 13	1301	2 BED	83.0 m²
LEVEL 13	1302	2 BED	83.0 m²
LEVEL 13	1303	3 BED	96.6 m²
			4023.8 m²

UNIT TYPE SCHEDULE

UNIT TYPE	NO:
1 BED	6
2 BED	38
3 BED	6
TOTAL NUMBER OF UNITS	50

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

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Legend:

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RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

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Email: info@designworkshop.com.au
Web: http://www.designworkshop.com.au

Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT: TQM
MIXED DEVELOPMENT

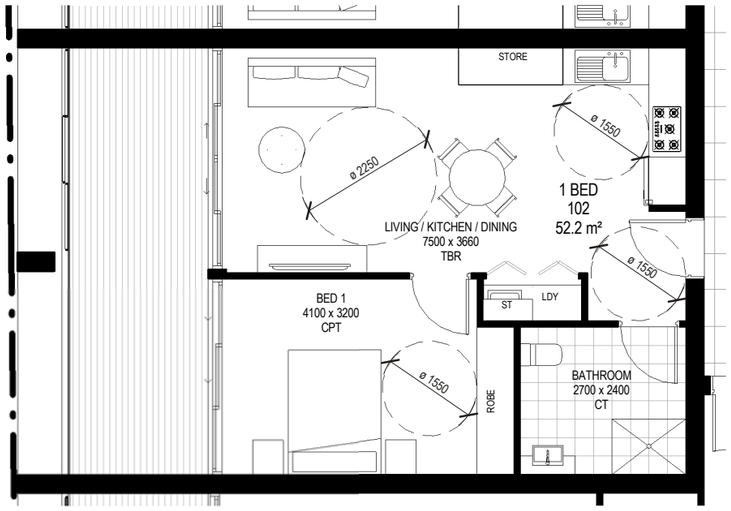
ADDRESS: 35-37 ATCHISON STREET, WOLLONGONG

DRAWING NAME: KEY PLANS

DATE: OCT 2018
DRAWN: NT, CS
SCALE: 1 : 1000
QA: RG

PROJECT No. 1800
DWG No. 33
Rev. Q

A3



1 ADAPTABLE UNIT (TYPICAL)

Scale 1 : 100

NOTE: UNITS 102, 103, 104, 202, 203, 204 TYPICAL

ADAPTABLE UNITS

TOTAL UNITS IN PROJECT - 50 UNITS
REQUIREMENTS - 10% OF UNITS (5 OUT OF 50) TO BE ADAPTABLE
6 ADAPTABLE UNITS PROVIDED
(102, 103, 104, 202, 203, 204)

GENERAL REQUIREMENTS:

- DOOR LEVEL HANDLES AND HARDWARE TO AS 1428.1
- DOOR HARDWARE AND SWITCHES TO BE LOCATED 1000mm ABOVE THE FFL AND NOT LESS THAN 500mm FROM INTERNAL CORNERS.
- 920mm WIDE DOOR LEAF TO ENTRY, BEDROOM 1 AND BATHROOM.
- 870mm WIDE DOOR LEAF TO ALL OTHER DOORS.
- LAUNDRY FACILITIES TO COMPLY WITH AS 4299-1995
- DOUBLE GPO ADJACENT TO LAUNDRY APPLIANCES 10000mm ABOVE FFL.
- BATHROOM TO COMPLY WITH AS 1428.1
- PROVIDE REINFORCEMENT IN WALLS OF ADAPTABLE BATHROOM FOR FUTURE GRAB RAIL INSTALLATION AROUND THE WC PAN AND SHOWER.
- SOAP HOLDER IN SHOWER TO BE RECESSED AND POSITIONED 1000mm ABOVE FFL.
- TAPS IN SHOWER RECESS TO BE POSITIONED 1000mm ABOVE FFL
- DOUBLE GPO BESIDE BATHROOM MIRROR TO BE LOCATED 1000mm FROM FFL AND MINIMUM 500mm FROM INTERNAL CORNERS.
- GPO'S AND ANCILLARY SOCKETS MUST BE LOCATED MINIMUM 500mm FROM INTERANL CORNERS UNLESS OTHERWISE SPECIFIED.
- PROVIDE TELEPHONE SOCKET ADJACENT TO GPO IN LIVING AREA.
- COOK TOP TO INCLUDE ISOLATING SWITCH
- PROVIDE AT LEAST ONE (1) DOUBLE GPO WITH 300mm OF THE FRONT OF A KITCHEN WORK SURFACE.
- GPO FOR THE REFRIDGERATOR TO BE LOCATED 1000mm ABOVE FFL AND WITHIN 300mm FROM THE FRONT OF THE REFRIDGERATOR WHEN IN ITS OPERATING POSITION.
- FLOOR TILES TO EXTEND UNDER ALL KITCHEN CARCASSES.
- REFRIDGERATOR, COOK TOP AND WALL OVEN LOCATED ADJACENT TO A WORK SURFACE MIINIMUM 800mm IN LENGTH. WALL OVEN WITH A RETRACTABLE DOOR OR SWINGING DOOR THAT OPENS OPPOSITE TO THE ADJAENT WORK SURFACE.
- SLIP RESISTANT FLOOR SURFACE TO KITCHEN AND BATHROOMS.

LIVABLE UNITS

TOTAL UNITS IN PROJECT - 24 UNITS
REQUIREMENTS - 10% OF UNITS (5 OUT OF 50) TO ACHIEVE SILVER LEVEL GUIDELINES.

UNITS ACHIEVE THE FOLLOWING REQUIREMENTS:

DWELLING ACCESS:	SILVER
DWELLING ENTRANCE:	SILVER
INTERNAL DOORS AND CORRIDORS:	SILVER
TOILET:	SILVER
SHOWER:	SILVER
BATHROOM WALLS:	SILVER
INTERNAL STAIRS:	N/A
KITCHEN SPACE:	SILVER
LAUNDRY SPACE:	SILVER
GROUND BEDROOM SPACE:	SILVER
SWITCHES AND POWERPOINTS:	GOLD
DOOR AND TAP HARDWARE:	GOLD
FAMILY/LIVING ROOM SPACE:	GOLD
WINDOW SILLS:	GOLD
FLOORING:	GOLD

THE FOLLOWING UNITS COMPLY TO SILVER CATERGORY IN THE LIVABLE HOUSING DESIGN GUIDELINE.
101, 105, 201, 205, 401, 402, 501, 502, 601, 606, 701, 702, 801, 802, 901, 902, 1001, 1002, 1101, 1102, 1201, 1202, 1301, 1302)

TOTAL NUMBER OF COMPLYING UNITS: 24 OUT OF 50 (48%)

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

DISCLAIMER

Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
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CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
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RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

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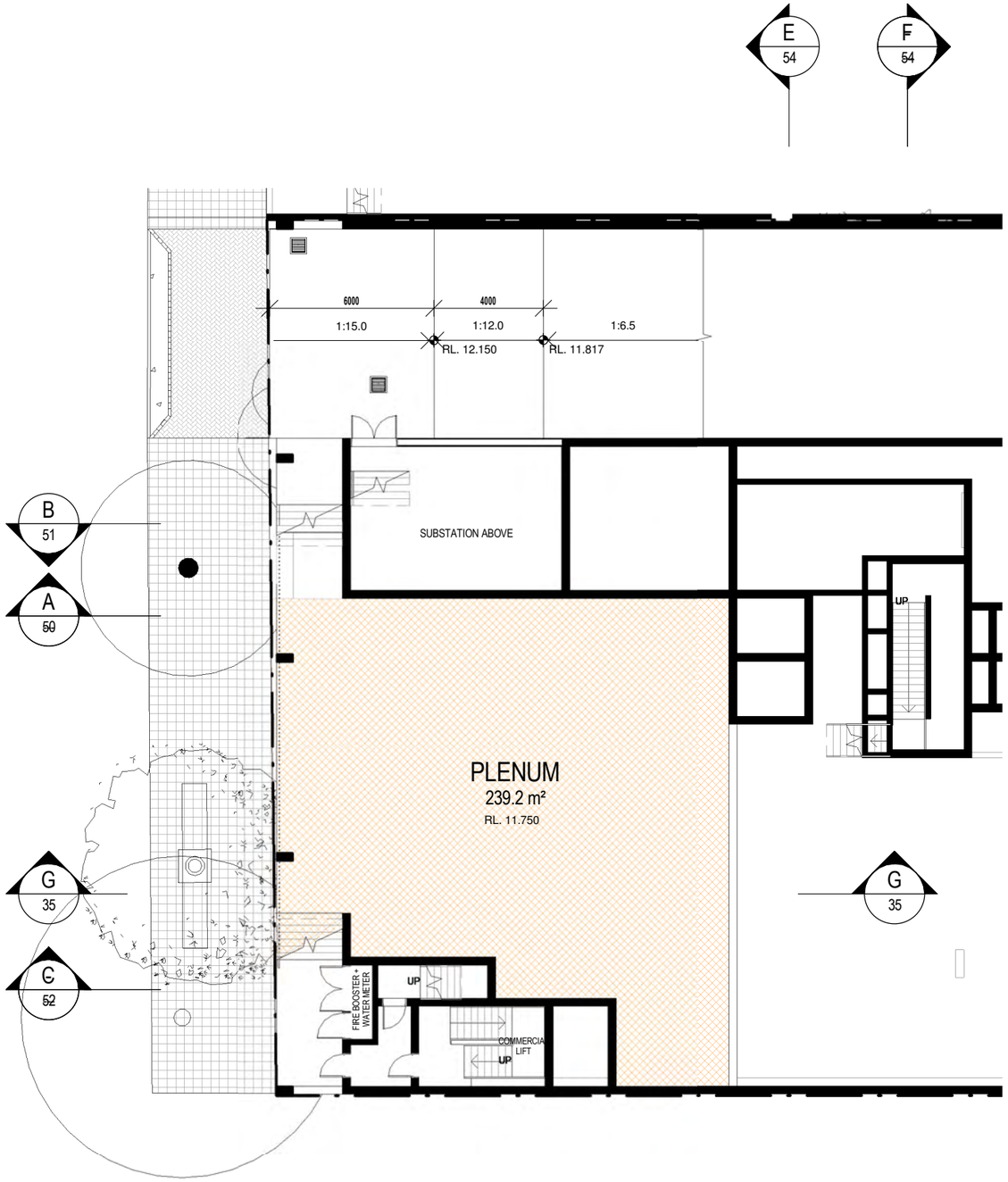
Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	ADAPTABLE AND LIVABLE UNITS

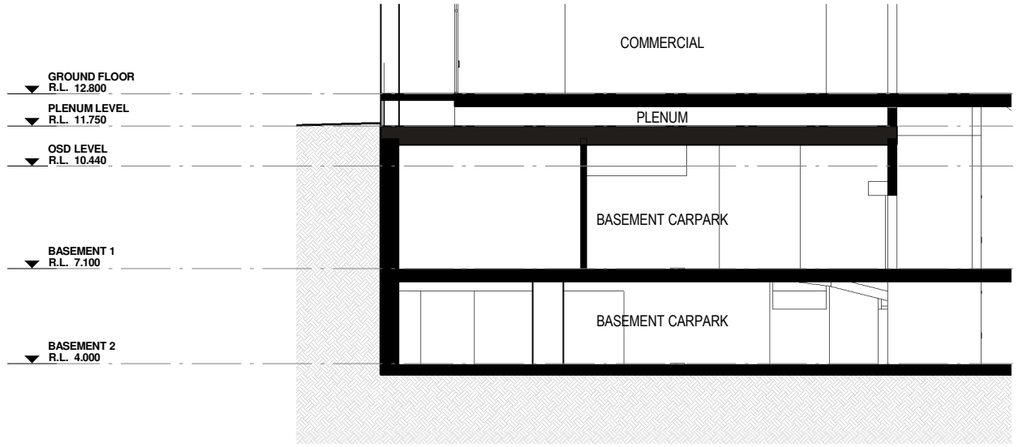
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 100
QA:	RG

PROJECT No.	1800
DWG No.	34
Rev.	Q



PLENUM FLOOR PLAN

1 : 200



SECTION G-G

1 : 200

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

Legend:

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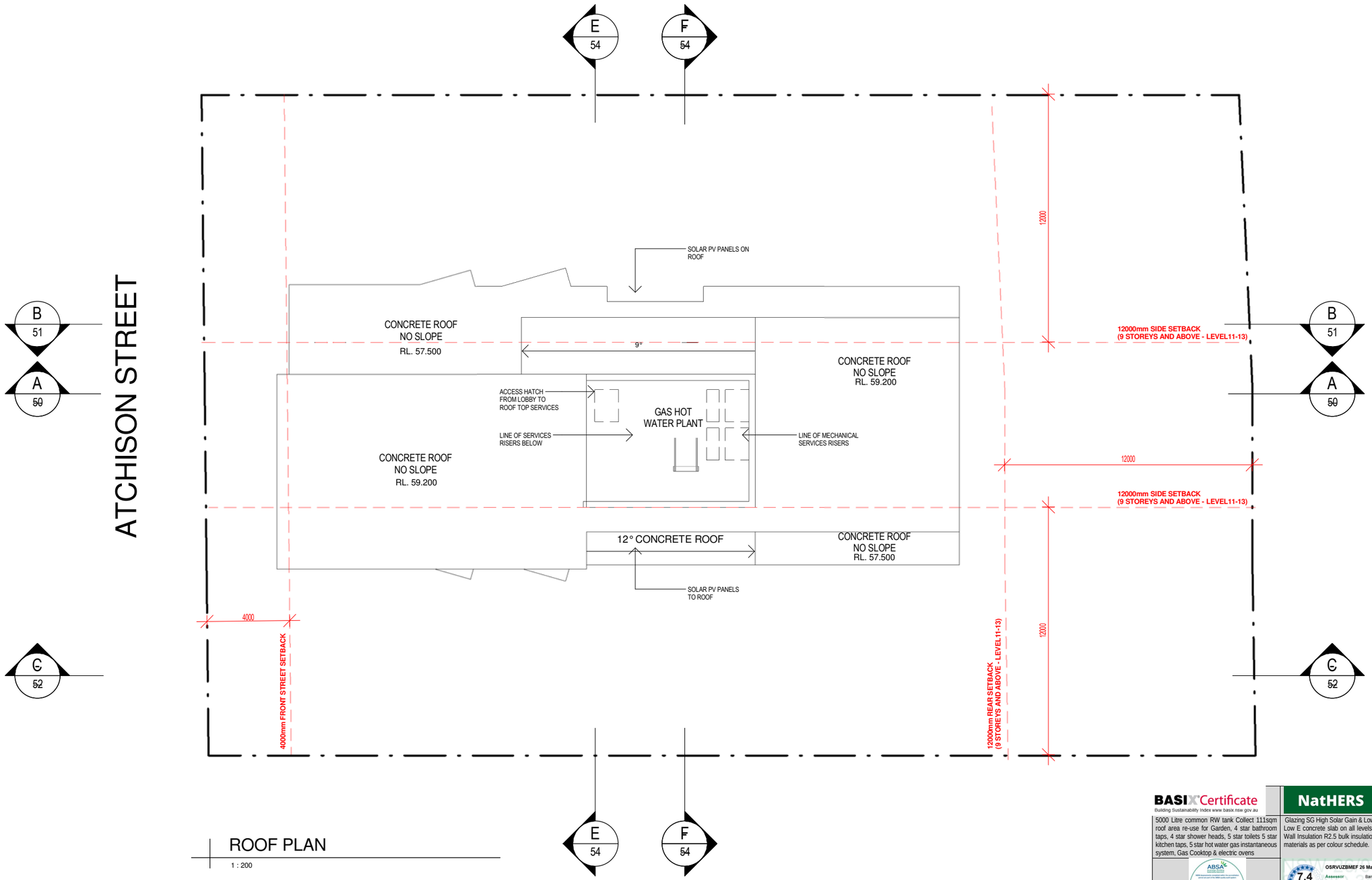
Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	PLENUM FLOOR PLAN & SECTION
DATE:	OCT 2018
DRAWN:	CS / AK
SCALE:	1 : 200
QA:	RG
PROJECT No.	1800
DWG No.	35
Rev.	Q

A3



ROOF PLAN

1 : 200

BASIX® Certificate
Building Sustainability Index www.basix.nsw.gov.au

5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens

NatHERS

Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

OSRVUZBMEF 26 May 2020
Assessor: Barry Cotten
Accreditation No.: 20470
Address: 35/1, No 33-37 Atchison Street Wollongong NSW 2500,
7.4 NATIONWIDE HOUSE ENERGY RATING
32.5 MJ/m²

DISCLAIMER
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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
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FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

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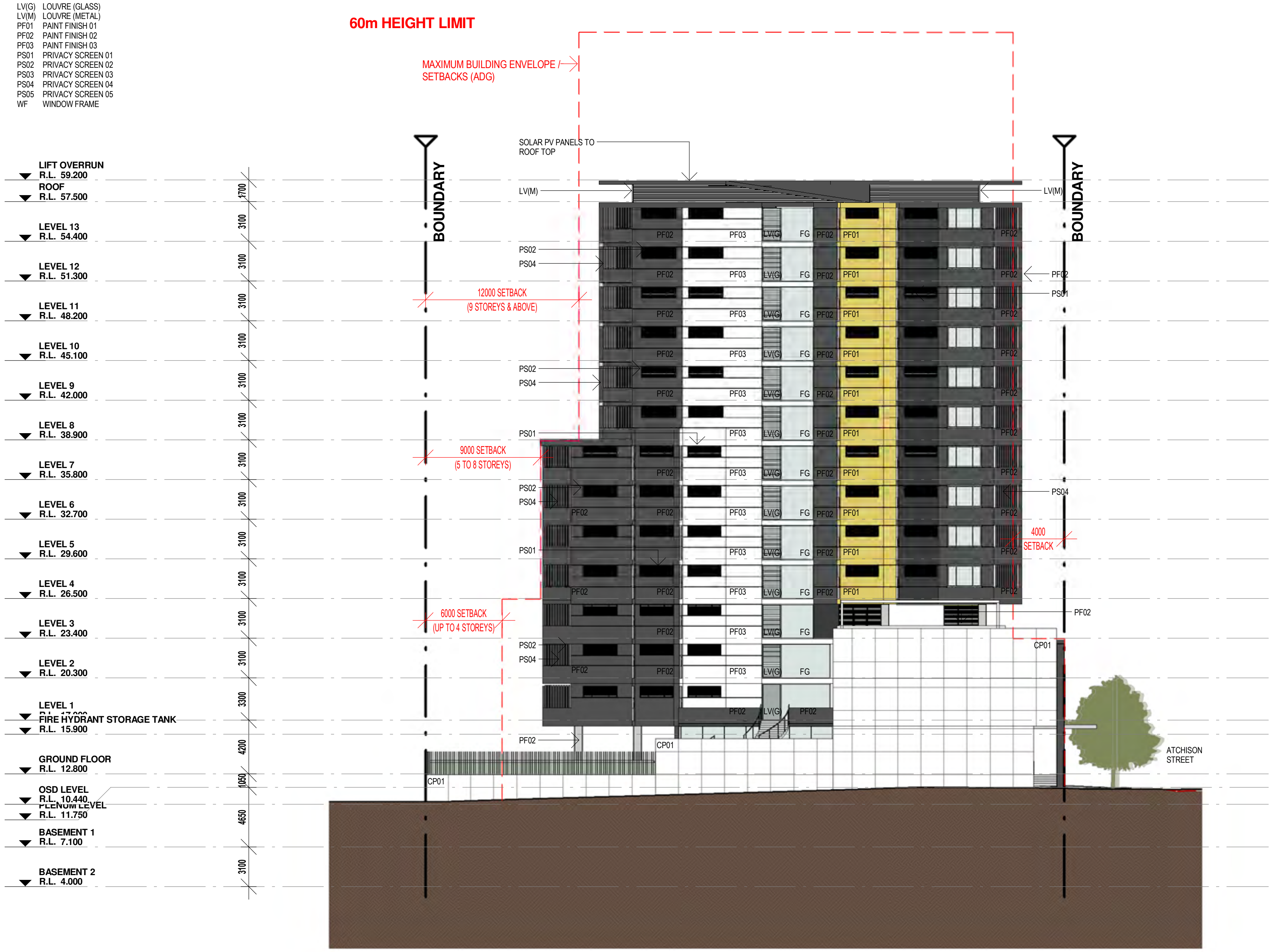
Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT	DATE: OCT 2018	PROJECT No. 1800
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG	DRAWN: NT, CS SCALE: 1 : 200	DWG No. 31 Rev. Q
DRAWING NAME:	ROOF PLAN	QA: RG	

A3

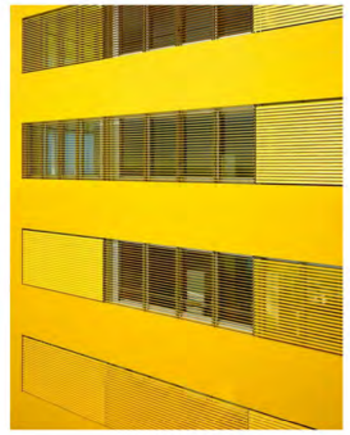
FINISHES LEGEND:

CP01	CONCRETE PANEL 01
FG	FIXED GLAZING (CLEAR)
GB	GLAZED BALUSTRADE
LV(G)	LOUVRE (GLASS)
LV(M)	LOUVRE (METAL)
PF01	PAINT FINISH 01
PF02	PAINT FINISH 02
PF03	PAINT FINISH 03
PS01	PRIVACY SCREEN 01
PS02	PRIVACY SCREEN 02
PS03	PRIVACY SCREEN 03
PS04	PRIVACY SCREEN 04
PS05	PRIVACY SCREEN 05
WF	WINDOW FRAME



NORTH ELEVATION

1 : 400



BASIX Certificate	NatHERS
5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens	Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

DWA
DESIGN WORKSHOP AUSTRALIA

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Web: http://www.designworkshop.com.au

Sydney
Level 10, 6 Mount Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT: TQM MIXED DEVELOPMENT
ADDRESS: 35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME: ELEVATIONS

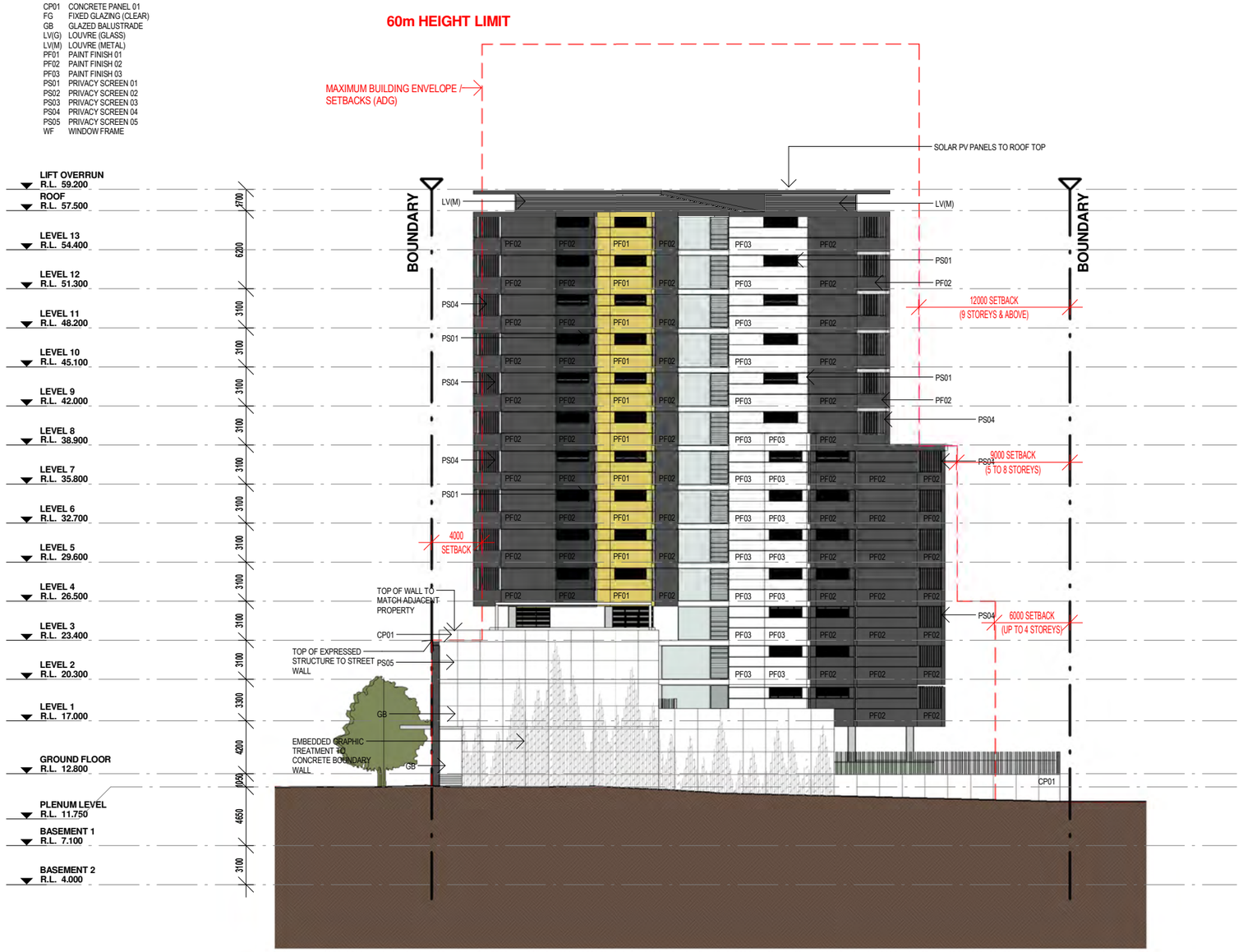
DATE: OCT 2018
DRAWN: NT, CS
SCALE: 1 : 400
QA: RG

PROJECT No. 1800
DWG No. 40
Rev. Q

A3

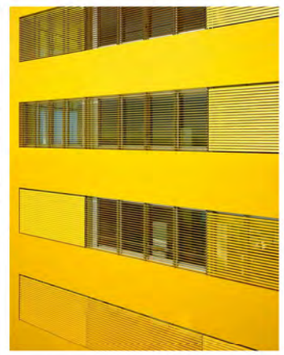
FINISHES LEGEND:

CP01	CONCRETE PANEL 01
FG	FIXED GLAZING (CLEAR)
GB	GLAZED BALUSTRADE
LV(G)	LOUVRE (GLASS)
LV(M)	LOUVRE (METAL)
PF01	PAINT FINISH 01
PF02	PAINT FINISH 02
PF03	PAINT FINISH 03
PS01	PRIVACY SCREEN 01
PS02	PRIVACY SCREEN 02
PS03	PRIVACY SCREEN 03
PS04	PRIVACY SCREEN 04
PS05	PRIVACY SCREEN 05
WF	WINDOW FRAME



SOUTH ELEVATION

1 : 400



EXAMPLE IMAGES OF GRAPHIC CONCRETE TREATMENT

BASIX® Certificate
Building Sustainability Index www.basix.nsw.gov.au

5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens

NatHERS

Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

OSRVUZBMEF 26 May 2020
Assessor: Barry Cotten
Accreditation No. 20470
Address: 3/21, No 33-37 Atchison Street Wollongong NSW 2500
7.4 STAR HOUSE 32.5 MJ/m²

DISCLAIMER
Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client. All parking and ramps to traffic engineers details.

ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

DISCLAIMER
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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST		
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS		
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES		
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET		
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE		
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING		
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES				
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK				

DESIGN WORKSHOP AUSTRALIA

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Web: http://www.designworkshop.com.au

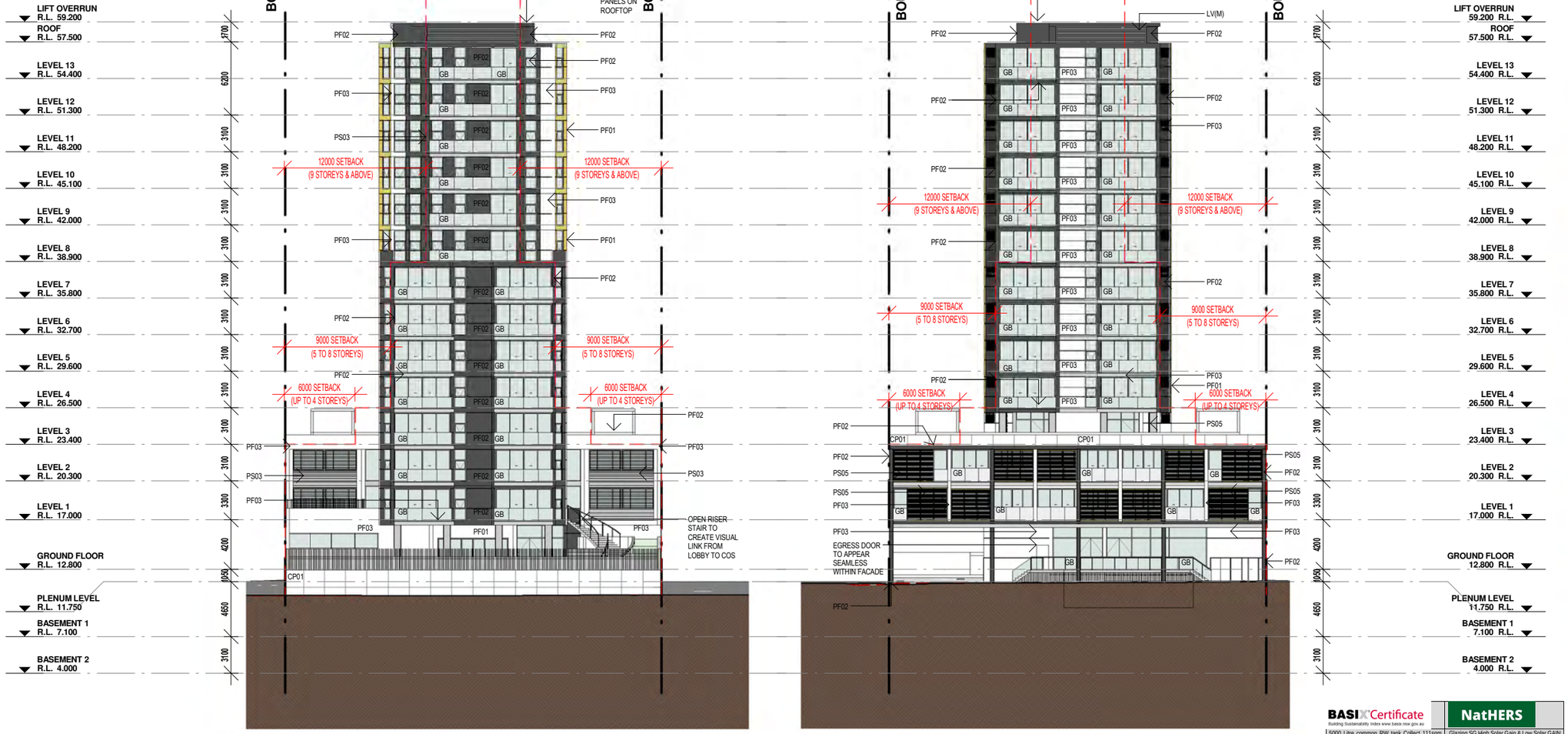
Sydney
Level 10, 6 Mount Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	ELEVATIONS
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 400
QA:	RG
PROJECT No.	1800
DWG No.	41
Rev.	Q

A3

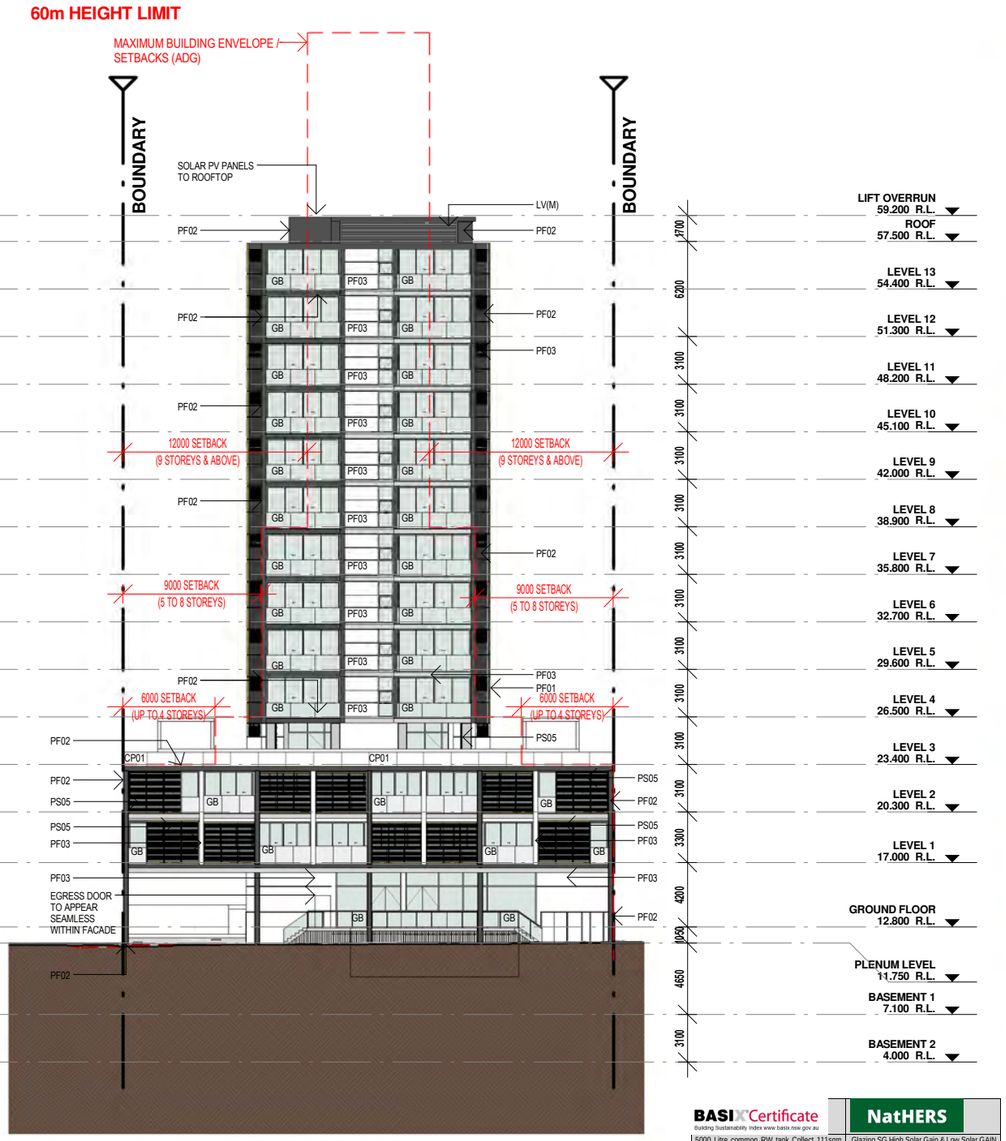
FINISHES LEGEND:

CP01	CONCRETE PANEL 01
FG	FIXED GLAZING (CLEAR)
GB	GLAZED BALUSTRADE
LV(G)	LOUVRE (GLASS)
LV(M)	LOUVRE (METAL)
PF01	PAINT FINISH 01
PF02	PAINT FINISH 02
PF03	PAINT FINISH 03
PS01	PRIVACY SCREEN 01
PS02	PRIVACY SCREEN 02
PS03	PRIVACY SCREEN 03
PS04	PRIVACY SCREEN 04
PS05	PRIVACY SCREEN 05
WF	WINDOW FRAME



EAST ELEVATION

1 : 400



WEST ELEVATION

1 : 400

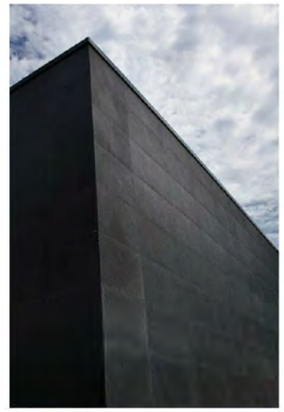
BASIX Certificate
Building Sustainability Index www.basix.nsw.gov.au

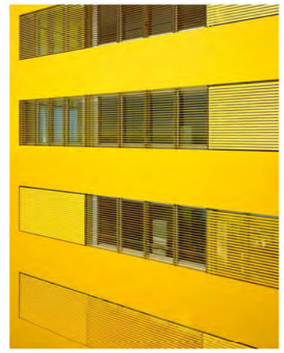
5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens

NatHERS

Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

OS/VUZBMEF 26 May 2020





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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

DESIGN WORKSHOP AUSTRALIA

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Web: http://www.designworkshop.com.au

Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	ELEVATIONS

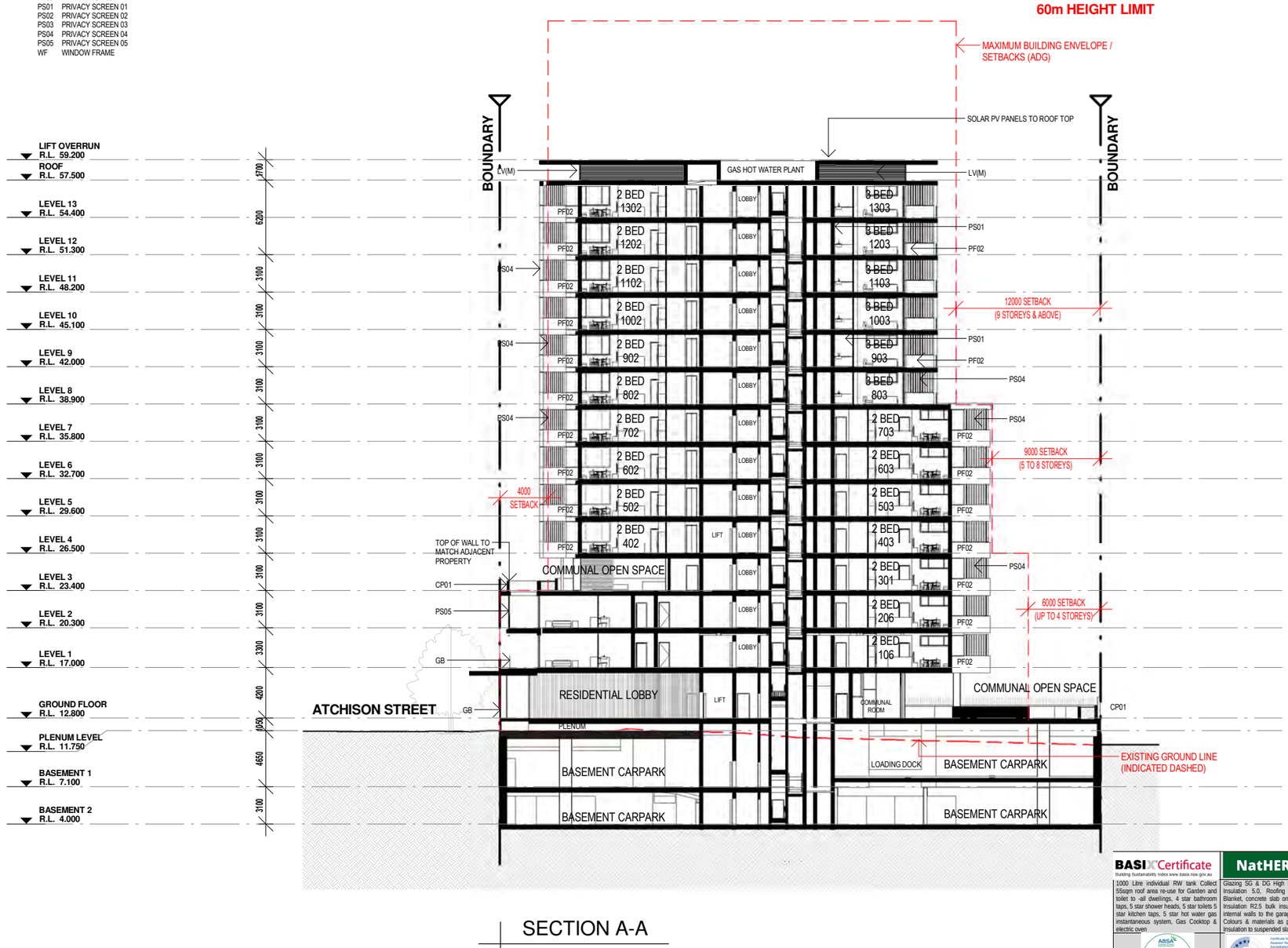
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 400
QA:	RG

PROJECT No.	1800
DWG No.	42
Rev.	Q

A3

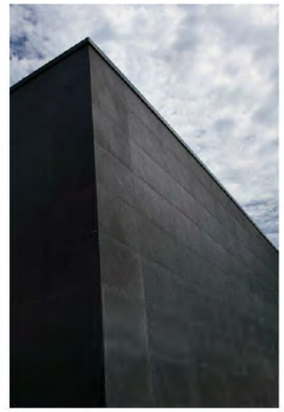
FINISHES LEGEND:

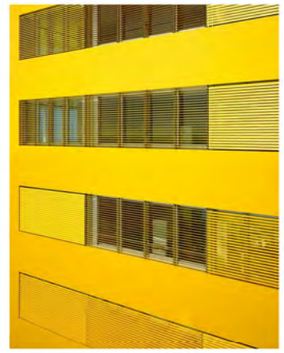
CP01	CONCRETE PANEL 01
FG	FIXED GLAZING (CLEAR)
GB	GLAZED BALUSTRADE
LV(G)	LOUVRE (GLASS)
LV(M)	LOUVRE (METAL)
PF01	PAINT FINISH 01
PF02	PAINT FINISH 02
PF03	PAINT FINISH 03
PS01	PRIVACY SCREEN 01
PS02	PRIVACY SCREEN 02
PS03	PRIVACY SCREEN 03
PS04	PRIVACY SCREEN 04
PS05	PRIVACY SCREEN 05
WF	WINDOW FRAME



SECTION A-A

1 : 400





BASIX Certificate
Building Sustainability Index www.basix.nsw.gov.au

1000 Litre individual RW tank Collect 55sqm roof area re-use for Garden and toilet to -all dwellings, 4 star bathroom taps, 5 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric oven

NatHERS

Glazing SG & DG High Solar Gain Low E Ceiling Insulation 5.0, Roofing Insulation R1.3 Anticon Blanket, concrete slab on ground, All external Wall Insulation R2.5 bulk insulation, R2.5 Insulation to internal walls to the garages, R4 to retaining walls, Colours & materials as per colour schedule. R4.0 Insulation to suspended slabs as noted.

DISCLAIMER
Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client.
All parking and ramps to traffic engineers details.

ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

DISCLAIMER
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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

DESIGN WORKSHOP AUSTRALIA

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Web: http://www.designworkshop.com.au

Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	SECTIONS

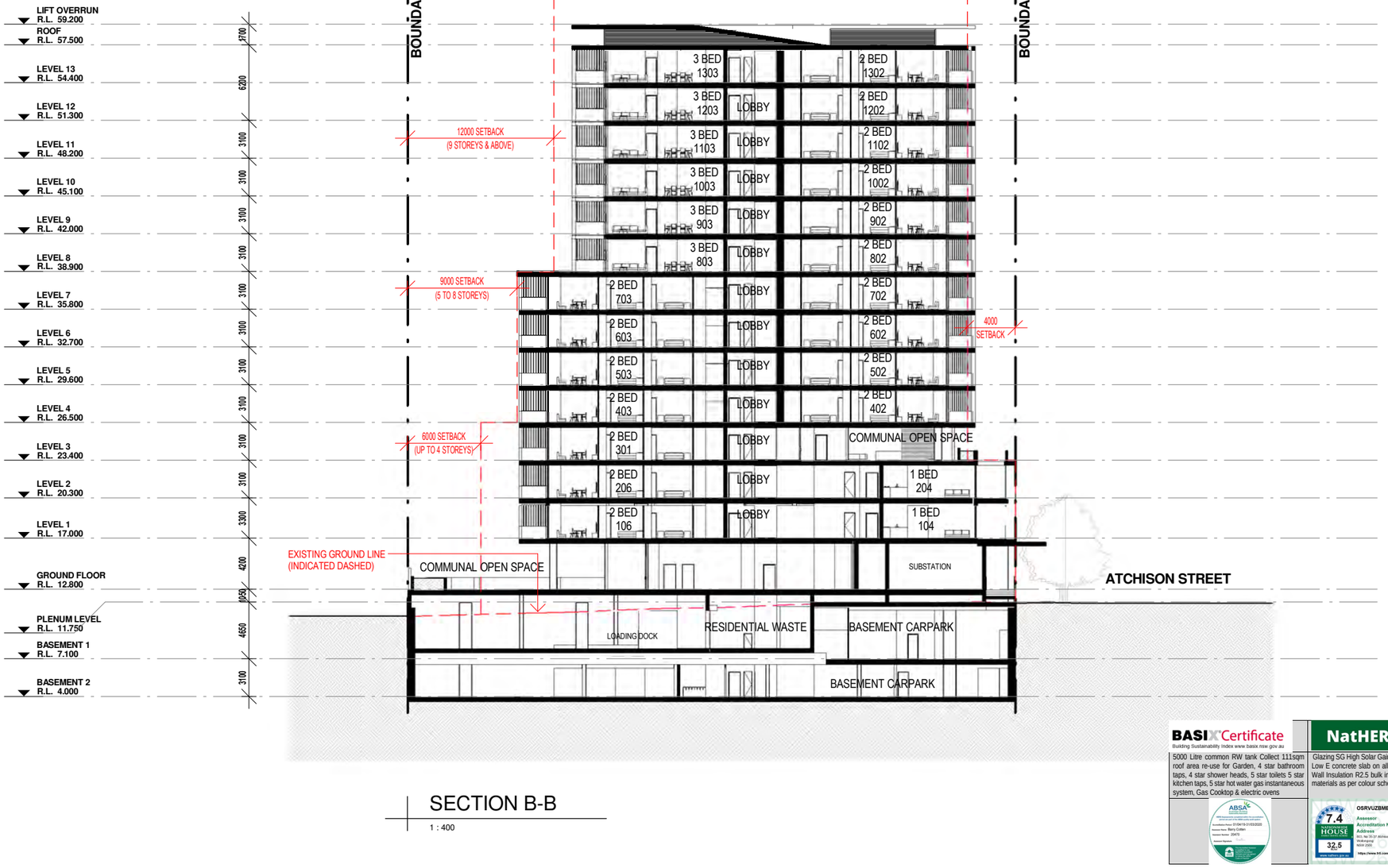
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 400
QA:	RG

PROJECT No.	1800
DWG No.	50
Rev.	Q

A3

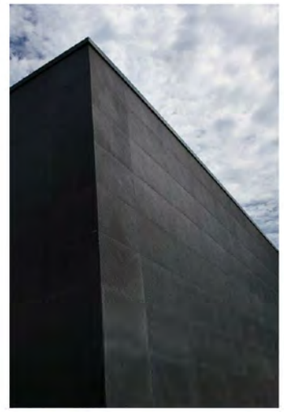
FINISHES LEGEND:

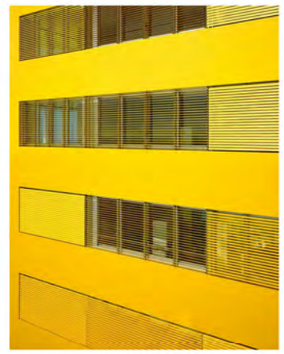
CP01	CONCRETE PANEL 01
FG	FIXED GLAZING (CLEAR)
GB	GLAZED BALUSTRADE
LV(G)	LOUVRE (GLASS)
LV(M)	LOUVRE (METAL)
PF01	PAINT FINISH 01
PF02	PAINT FINISH 02
PF03	PAINT FINISH 03
PS01	PRIVACY SCREEN 01
PS02	PRIVACY SCREEN 02
PS03	PRIVACY SCREEN 03
PS04	PRIVACY SCREEN 04
PS05	PRIVACY SCREEN 05
WF	WINDOW FRAME



SECTION B-B

1 : 400





BASIX Certificate
Building Sustainability Index www.basix.nsw.gov.au

5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens

NatHERS

Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

OSRVUZBMEF 26 May 2020
Assessor Barry Cotten
Accreditation No. 20470
Address 35-37 Atchison Street Wollongong NSW 2500
7.4 STAR HOUSE
32.5 MJ/m²

DISCLAIMER
Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client.
All parking and ramps to traffic engineers details.

ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

DISCLAIMER
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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

DESIGN WORKSHOP AUSTRALIA

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Web: http://www.designworkshop.com.au

Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	SECTIONS

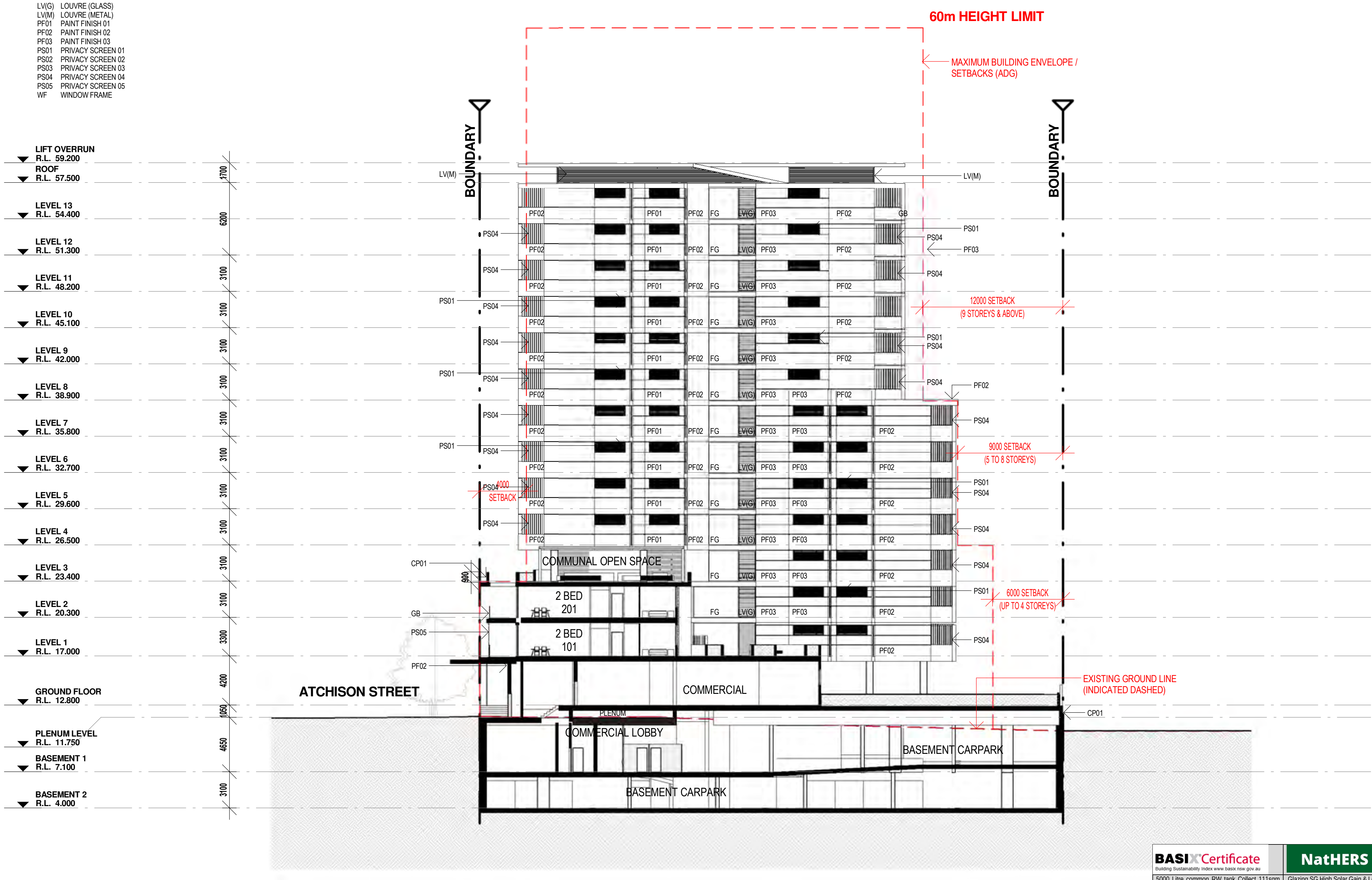
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 400
QA:	RG

PROJECT No.	1800
DWG No.	51
Rev.	Q

A3

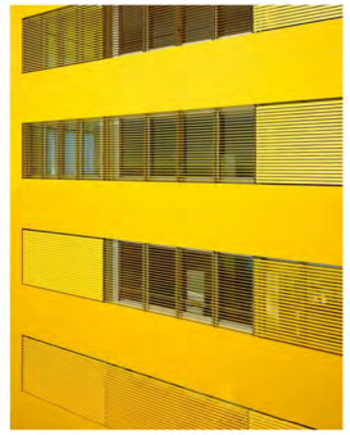
FINISHES LEGEND:

CP01	CONCRETE PANEL 01
FG	FIXED GLAZING (CLEAR)
GB	GLAZED BALUSTRADE
LV(G)	LOUVRE (GLASS)
LV(M)	LOUVRE (METAL)
PF01	PAINT FINISH 01
PF02	PAINT FINISH 02
PF03	PAINT FINISH 03
PS01	PRIVACY SCREEN 01
PS02	PRIVACY SCREEN 02
PS03	PRIVACY SCREEN 03
PS04	PRIVACY SCREEN 04
PS05	PRIVACY SCREEN 05
WF	WINDOW FRAME



SECTION C-C

1 : 400



BASIX Certificate
Building Sustainability Index www.basix.nsw.gov.au

5000 Litre common RW tank Collect 111sqm roof area re-use for Garden, 4 star bathroom taps, 4 star shower heads, 5 star toilets 5 star kitchen taps, 5 star hot water gas instantaneous system, Gas Cooktop & electric ovens

NatHERS

Glazing SG High Solar Gain & Low Solar GAIN Low E concrete slab on all levels, All external Wall Insulation R2.5 bulk insulation, Colours & materials as per colour schedule.

ADDITIONAL INFORMATION

DISCLAIMER
Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client. All parking and ramps to traffic engineers details.

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDITIONAL INFORMATION

DISCLAIMER
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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

DWA
DESIGN WORKSHOP AUSTRALIA

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Web: http://www.designworkshop.com.au

Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT: TQM MIXED DEVELOPMENT
ADDRESS: 35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME: SECTIONS

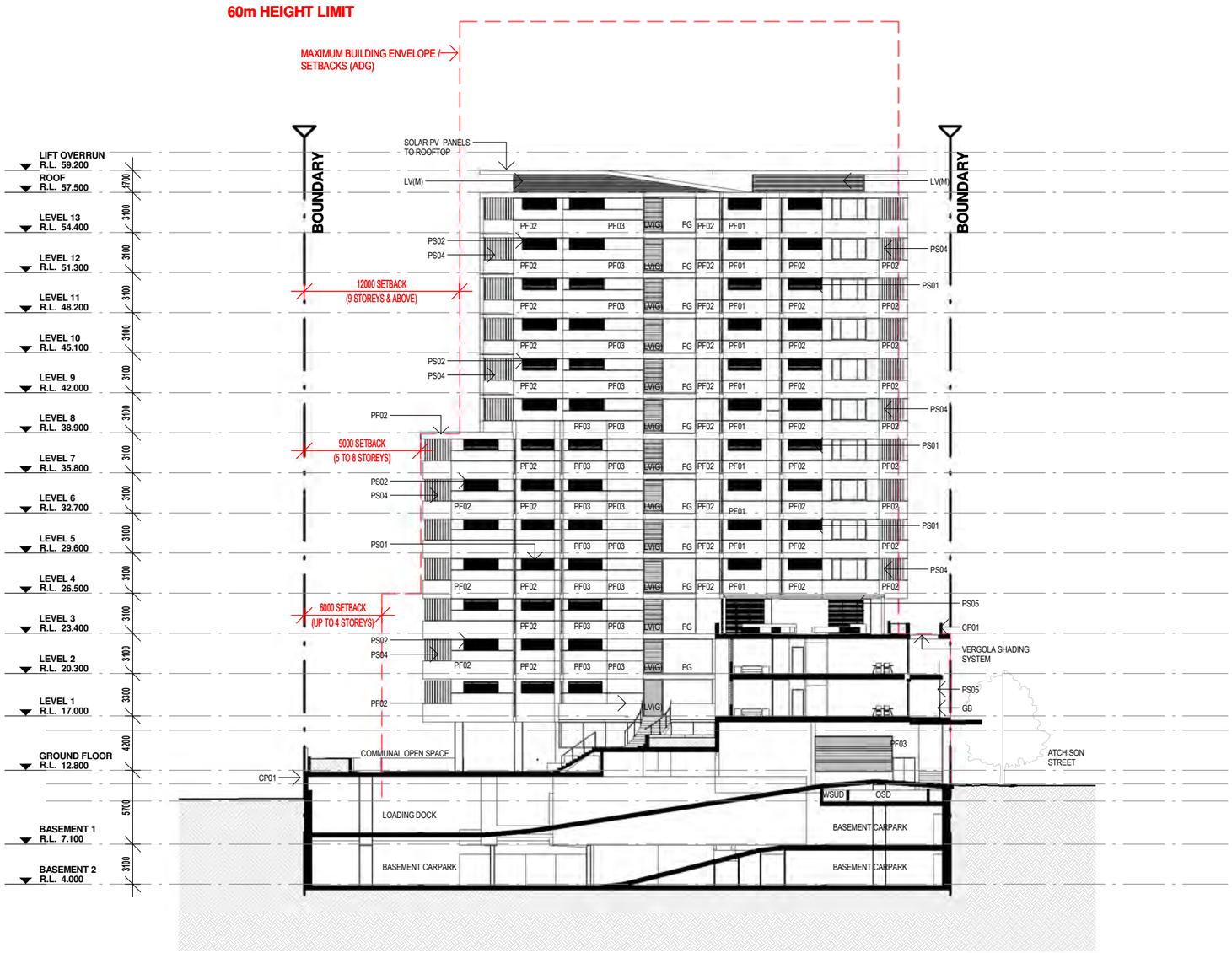
DATE: OCT 2018
DRAWN: NT, CS
SCALE: 1 : 400
QA: RG

PROJECT No. 1800
DWG No. 52
Rev. Q

A3

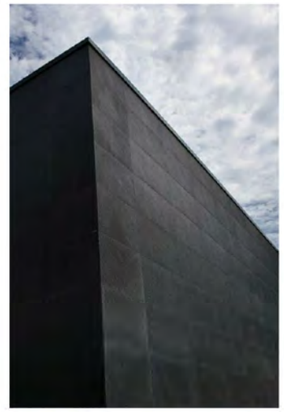
FINISHES LEGEND:

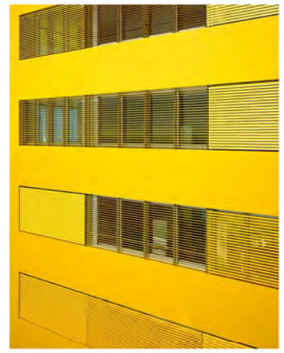
CP01	CONCRETE PANEL 01
FG	FIXED GLAZING (CLEAR)
GB	GLAZED BALUSTRADE
LV(G)	LOUVRE (GLASS)
LV(M)	LOUVRE (METAL)
PF01	PAINT FINISH 01
PF02	PAINT FINISH 02
PF03	PAINT FINISH 03
PS01	PRIVACY SCREEN 01
PS02	PRIVACY SCREEN 02
PS03	PRIVACY SCREEN 03
PS04	PRIVACY SCREEN 04
PS05	PRIVACY SCREEN 05
WF	WINDOW FRAME



SECTION D-D

1 : 400





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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

DESIGN WORKSHOP AUSTRALIA

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Email: info@designworkshop.com.au
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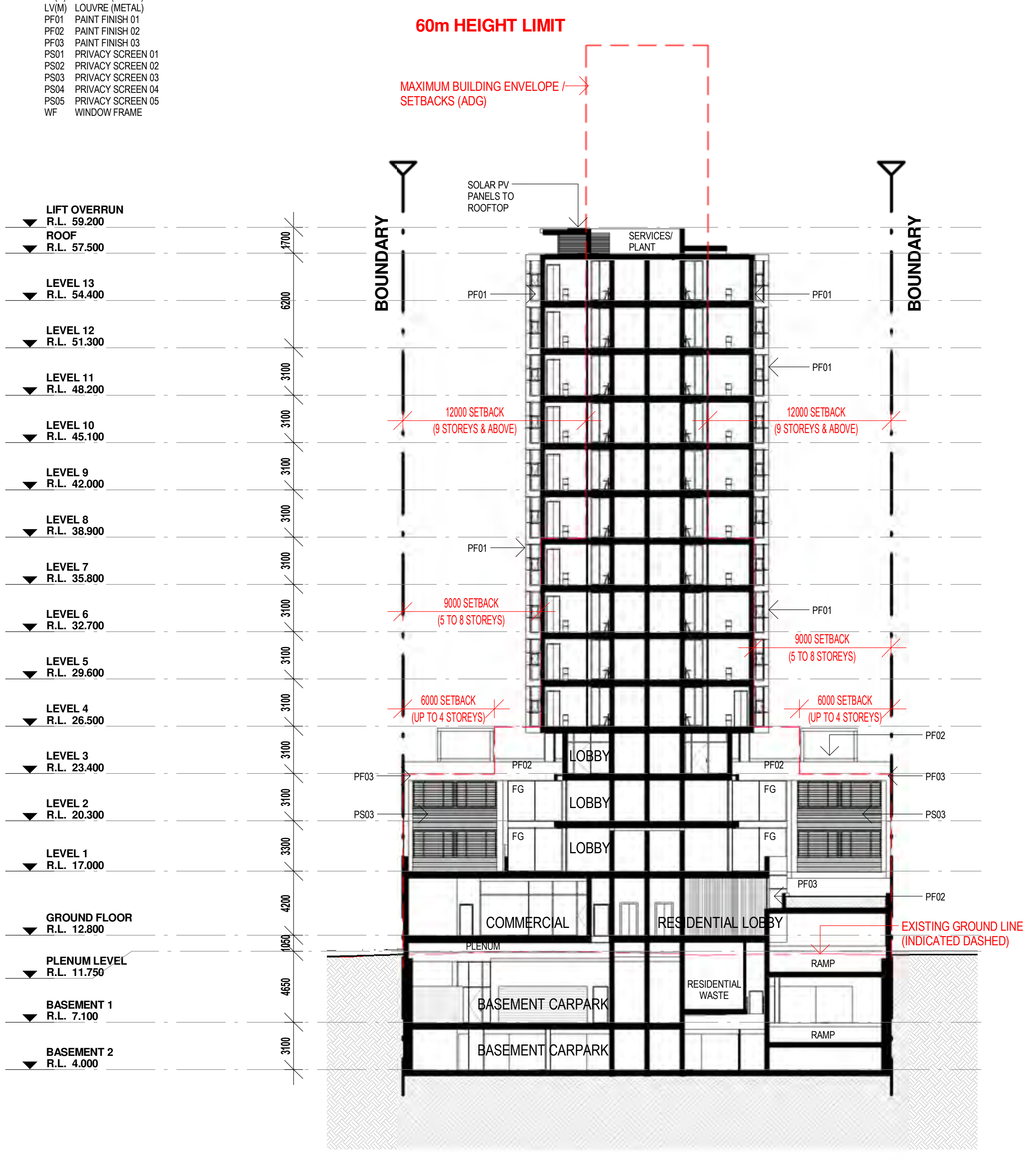
Sydney
Level 10, 6 Mount Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	SECTIONS
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 400
QA:	RG
PROJECT No.	1800
DWG No.	53
Rev.	Q

A3

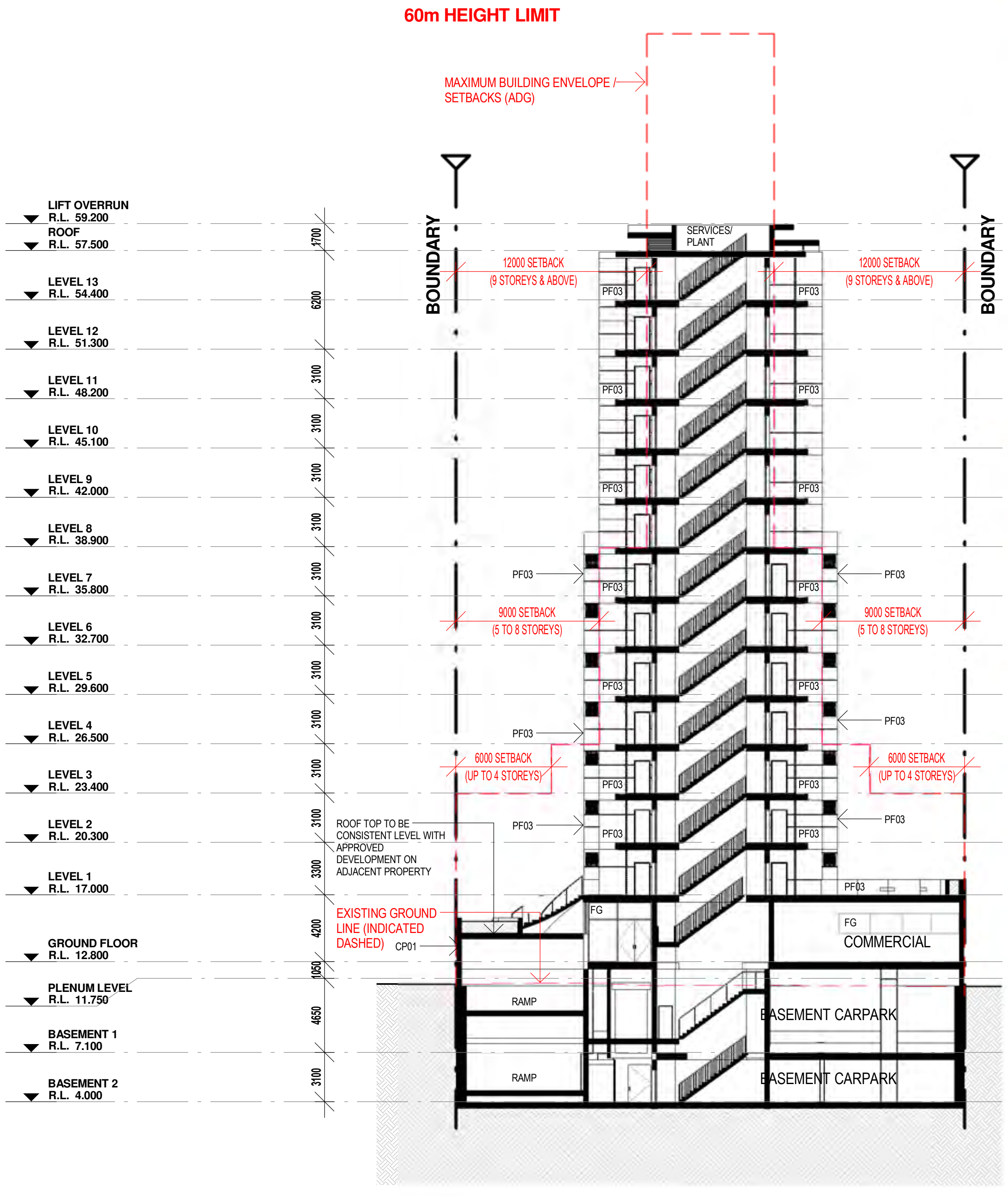
FINISHES LEGEND:

CP01	CONCRETE PANEL 01
FG	FIXED GLAZING (CLEAR)
GB	GLAZED BALUSTRADE
LV(G)	LOUVRE (GLASS)
LV(M)	LOUVRE (METAL)
PF01	PAINT FINISH 01
PF02	PAINT FINISH 02
PF03	PAINT FINISH 03
PS01	PRIVACY SCREEN 01
PS02	PRIVACY SCREEN 02
PS03	PRIVACY SCREEN 03
PS04	PRIVACY SCREEN 04
PS05	PRIVACY SCREEN 05
WF	WINDOW FRAME



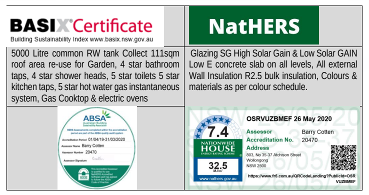
SECTION E-E

1 : 400



SECTION F-F

1 : 400



DISCLAIMER

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDITIONAL INFORMATION

DISCLAIMER

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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

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DESIGN WORKSHOP AUSTRALIA

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Web: http://www.designworkshop.com.au

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Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT: TQM MIXED DEVELOPMENT

ADDRESS: 35-37 ATCHISON STREET, WOLLONGONG

DRAWING NAME: SECTIONS

DATE: OCT 2018

DRAWN: NT, CS

SCALE: 1 : 400

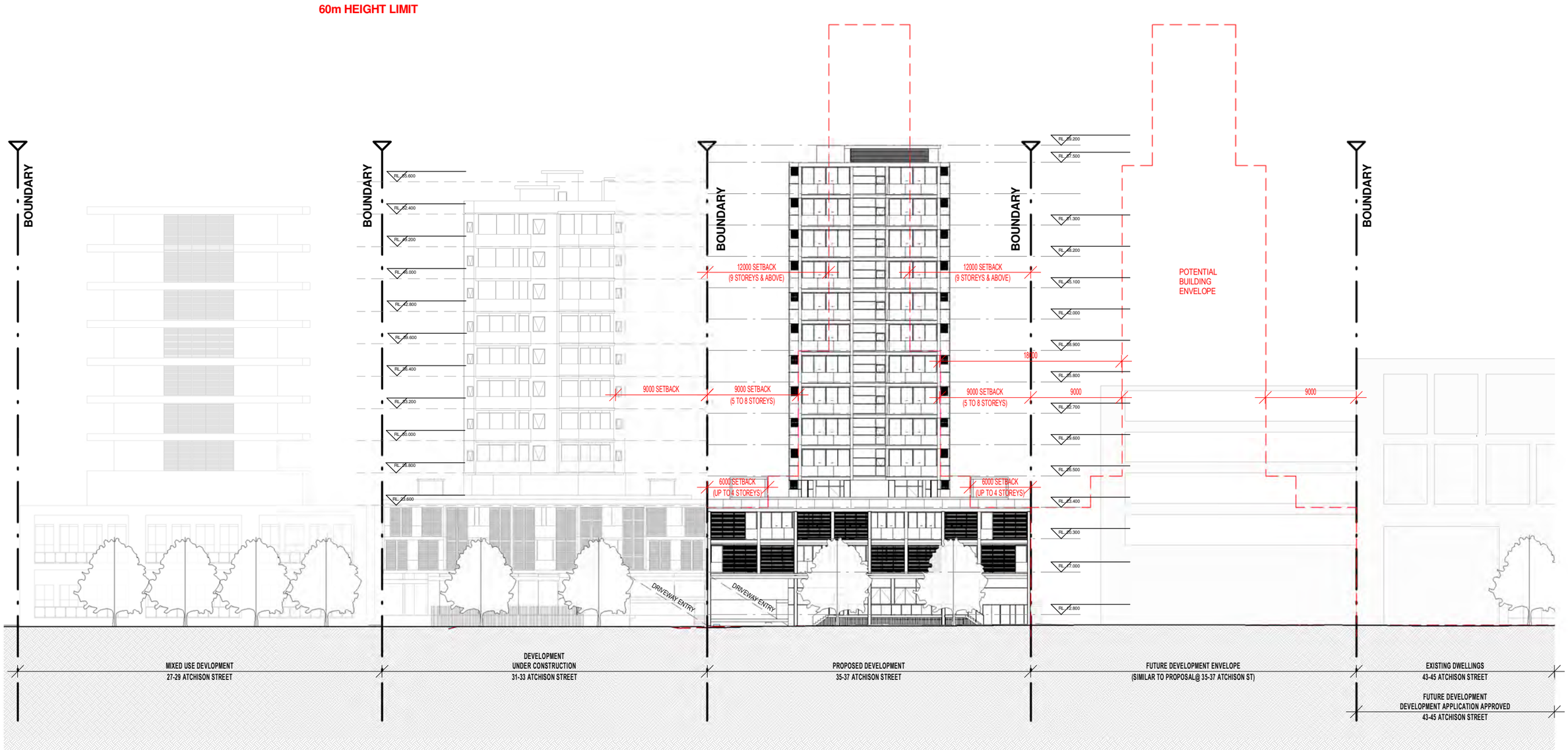
QA: RG

PROJECT No. 1800

DWG No. 54

Rev. Q

A3



CONTEXTUAL ELEVATION - WEST

1 : 400

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

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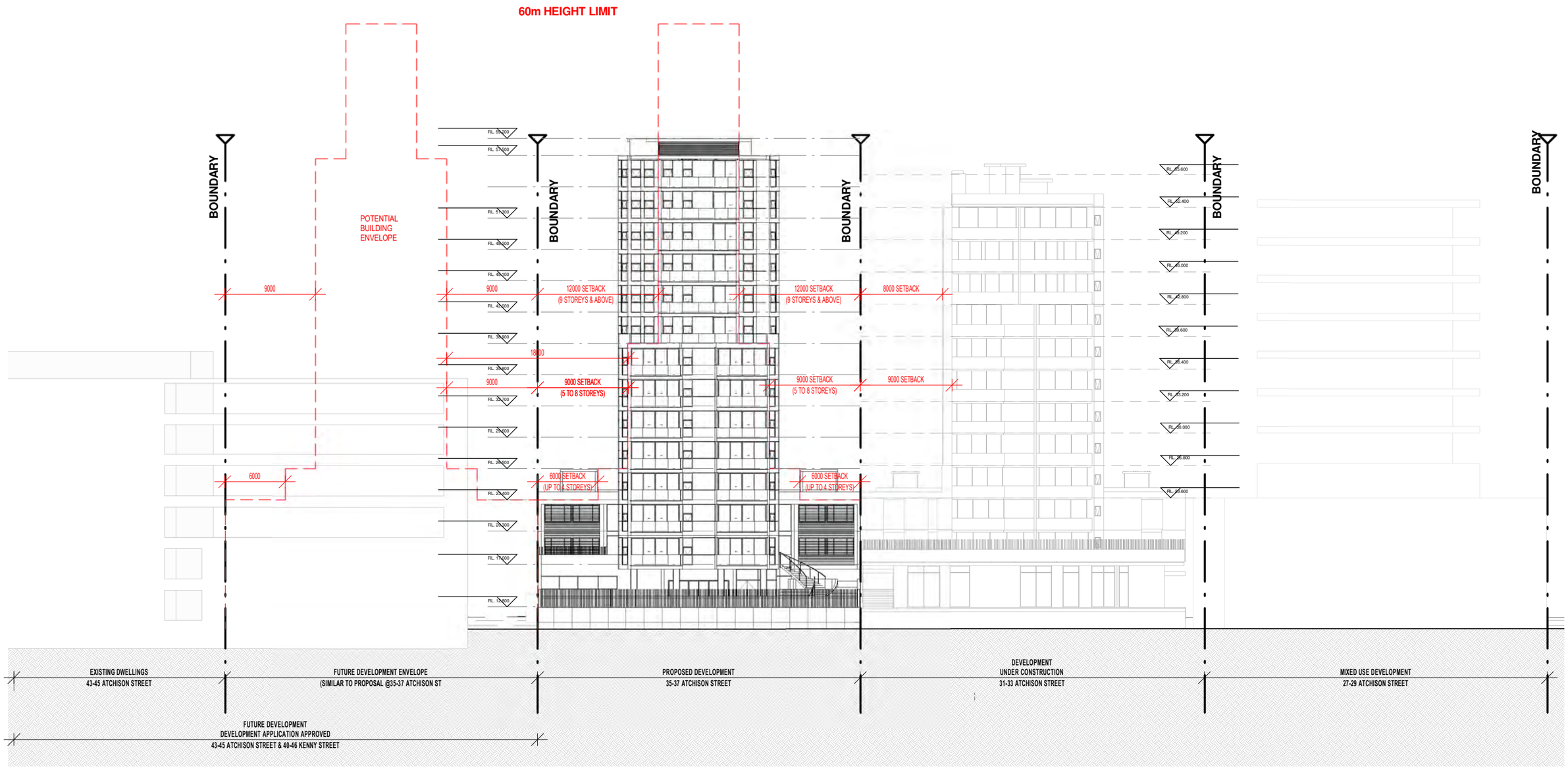
Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	CONTEXTUAL ELEVATION
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 400
QA:	RG
PROJECT No.	1800
DWG No.	43
Rev.	Q

A3



CONTEXTUAL ELEVATION - EAST

1 : 400

DISCLAIMER
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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

DISCLAIMER
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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
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RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

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Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	CONTEXTUAL ELEVATION

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 400
QA:	RG

PROJECT No.	1800
DWG No.	44
Rev.	Q

A3

DISCLAIMER

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
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DISCLAIMER
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Legend:

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FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
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BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
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Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT: TQM
MIXED DEVELOPMENT

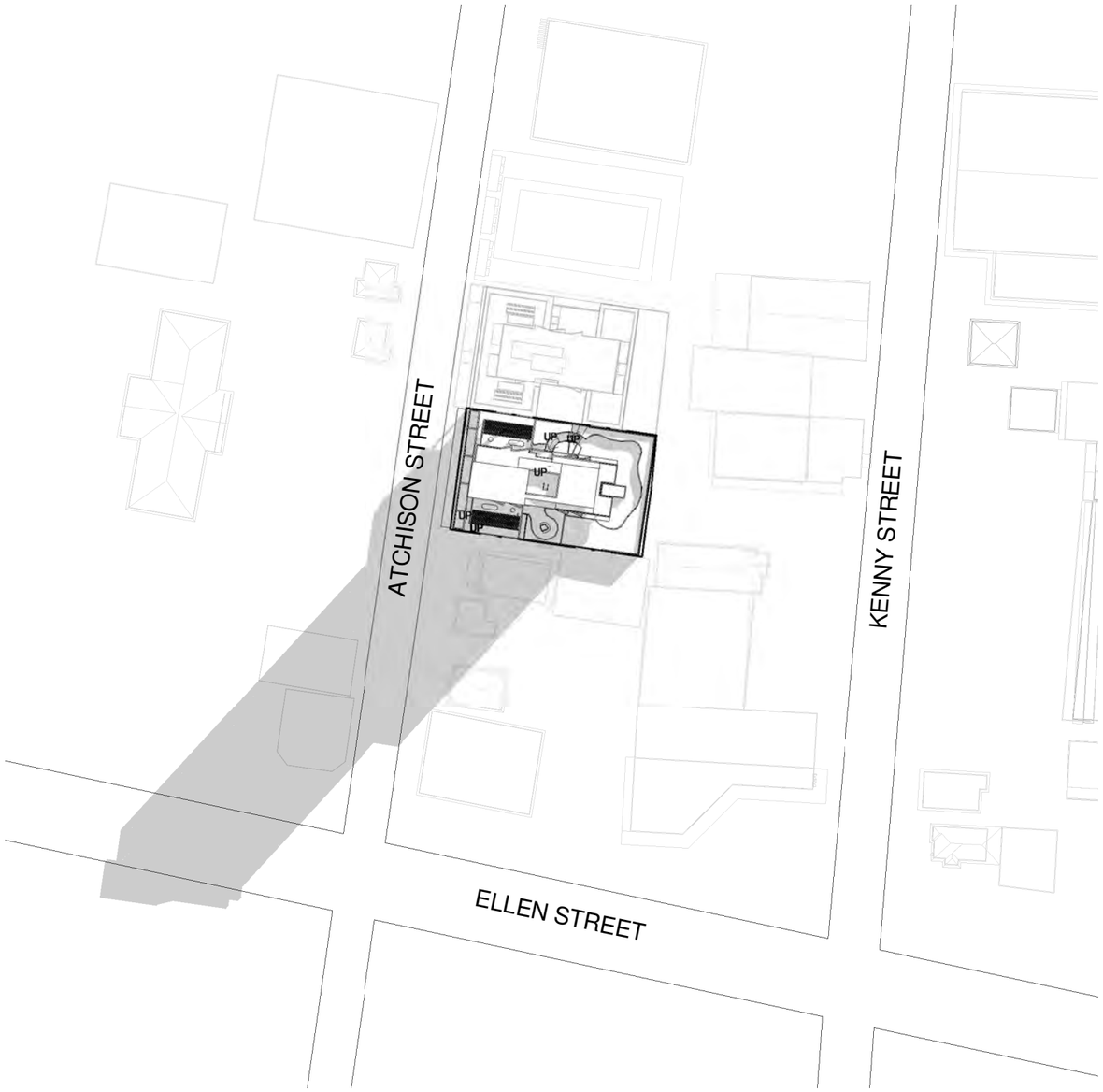
ADDRESS: 35-37 ATCHISON STREET, WOLLONGONG

DRAWING NAME: 3D VIEWS

DATE: OCT 2018
DRAWN: NT, CS
SCALE:
QA: RG

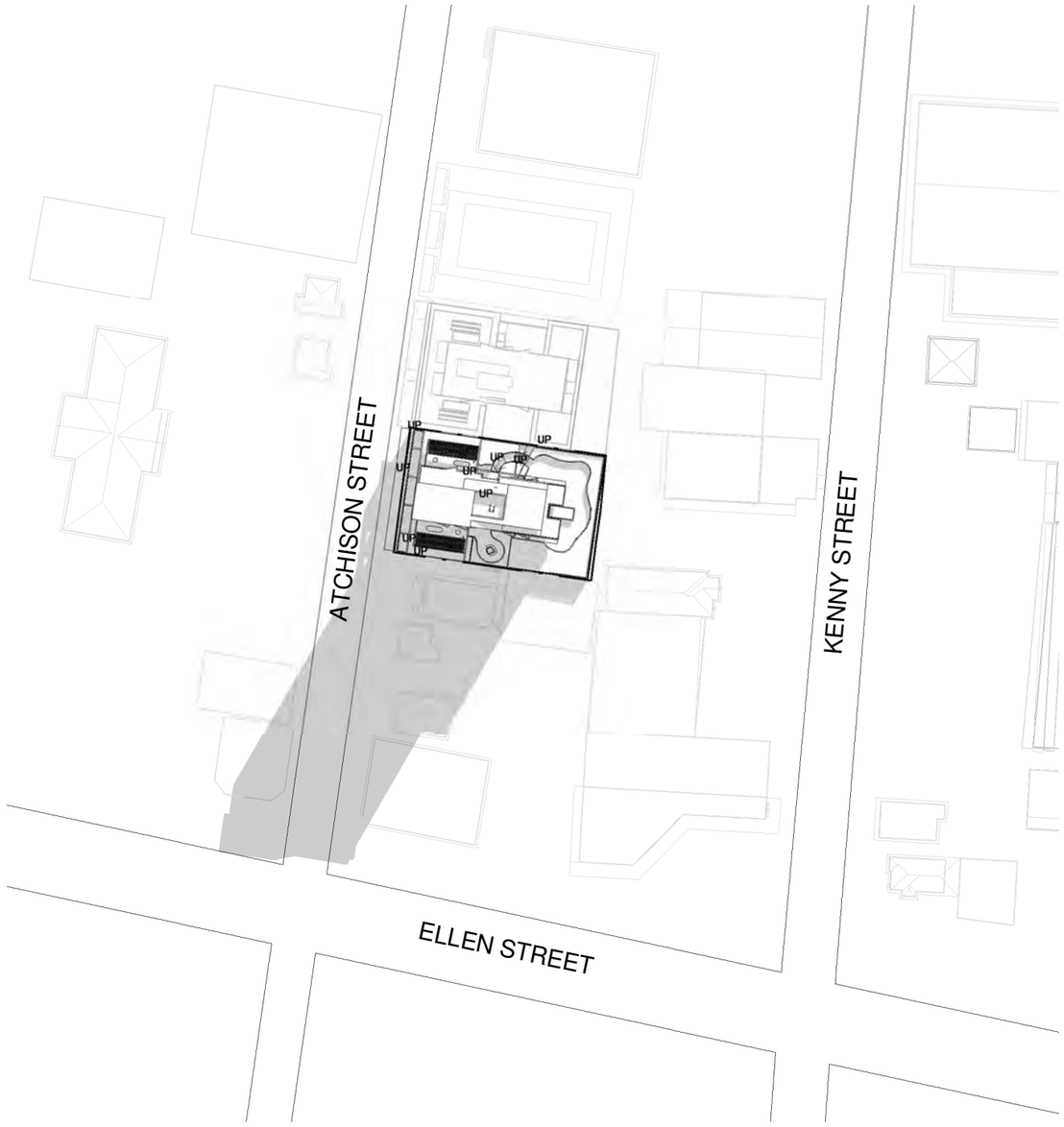
PROJECT No. 1800
DWG No. 60
Rev. Q

A3



S - JUN 9am

1 : 1500



S - JUN 10am

1 : 1500

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

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Level 10, 6 Mount
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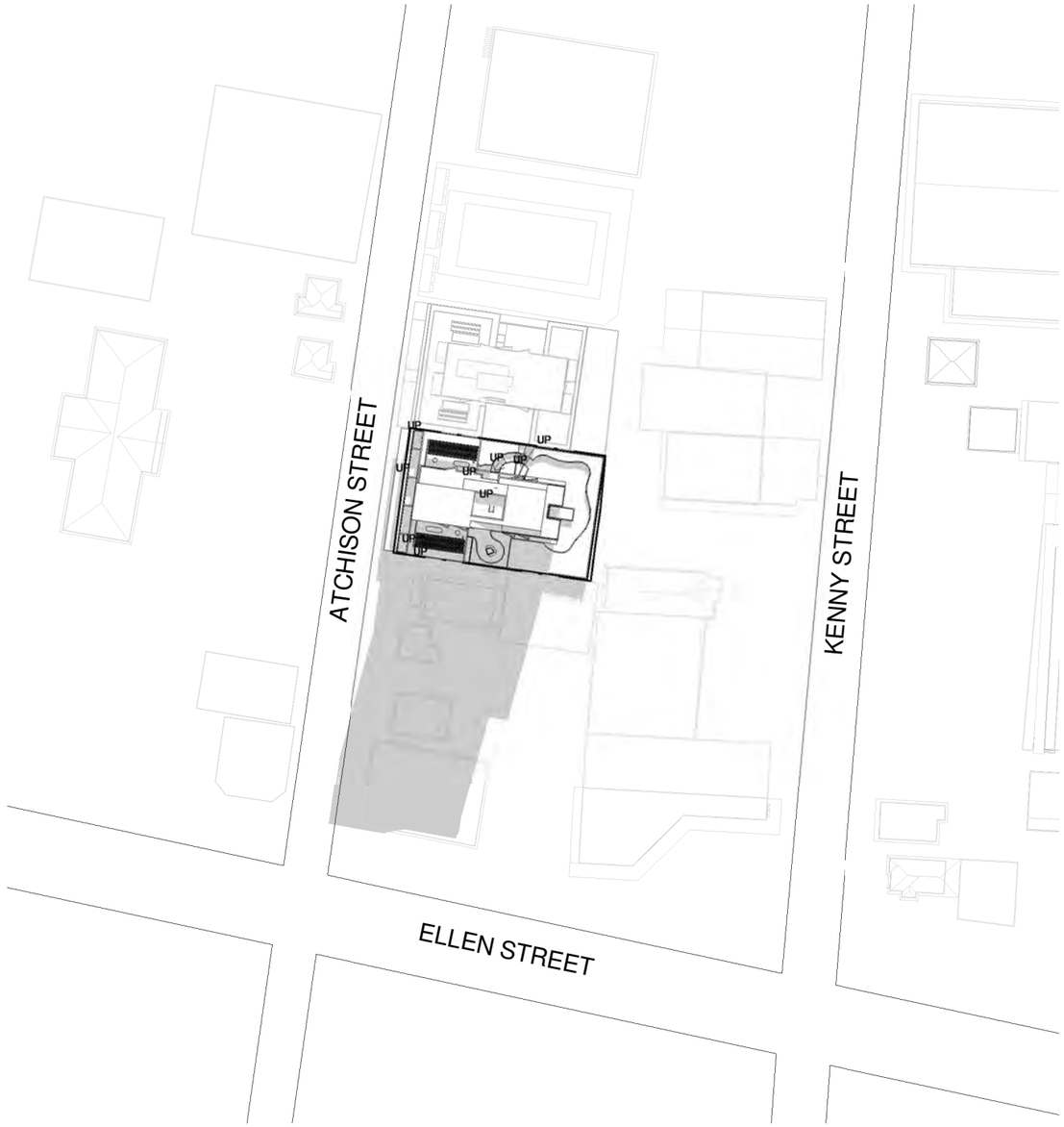
CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	SHADOW DIAGRAMS - JUNE

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 1500
QA:	RG

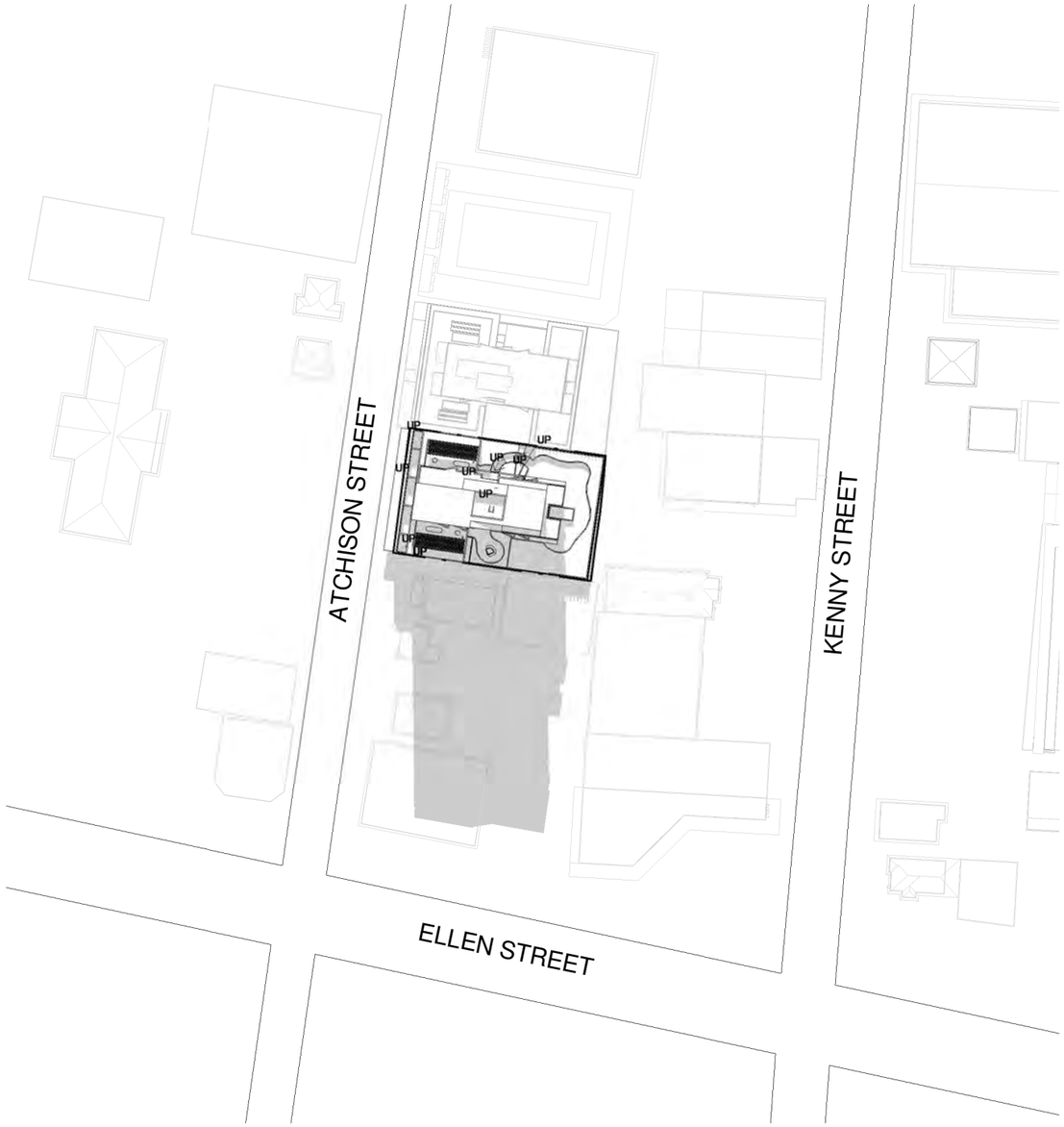
PROJECT No.	1800
DWG No.	70
Rev.	Q

A3



S - JUN 11am

1 : 1500



S - JUN 12noon

1 : 1500

DISCLAIMER

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

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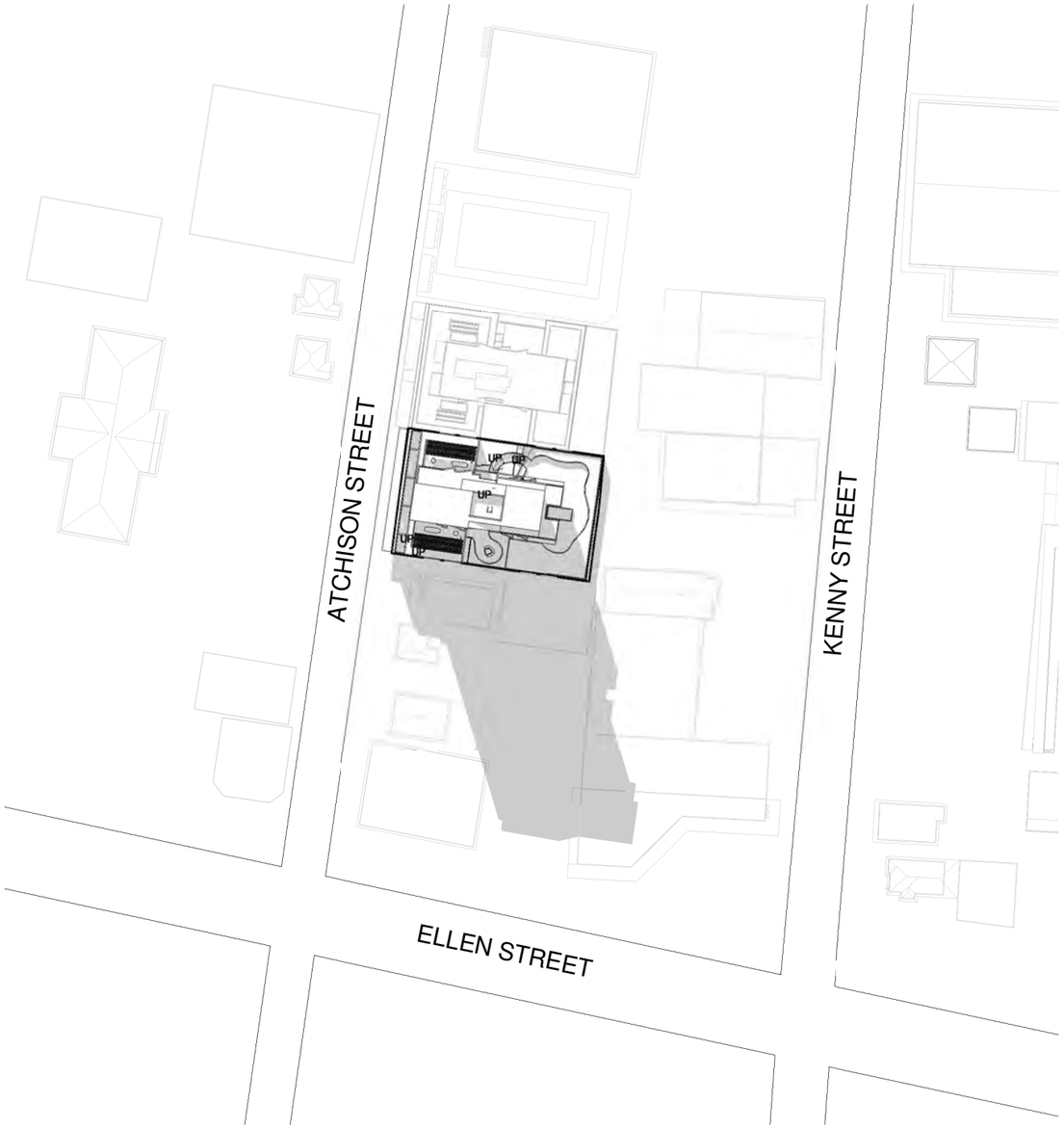
CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	SHADOW DIAGRAMS- JUNE
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 1500
QA:	RG
PROJECT No.	1800
DWG No.	71
Rev.	Q

A3



S - JUN 1pm

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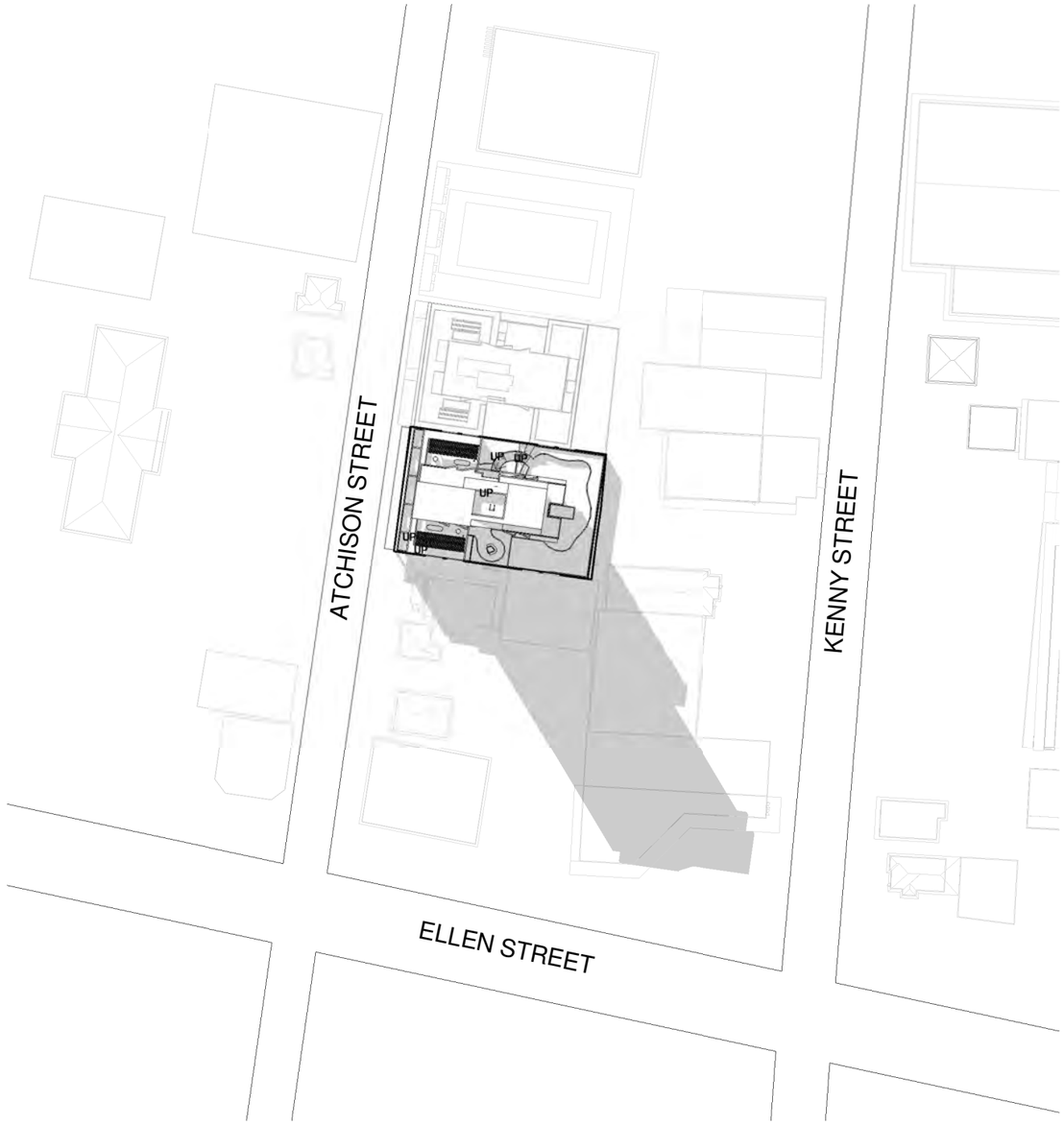

S - JUN 2pm

1 : 1500

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
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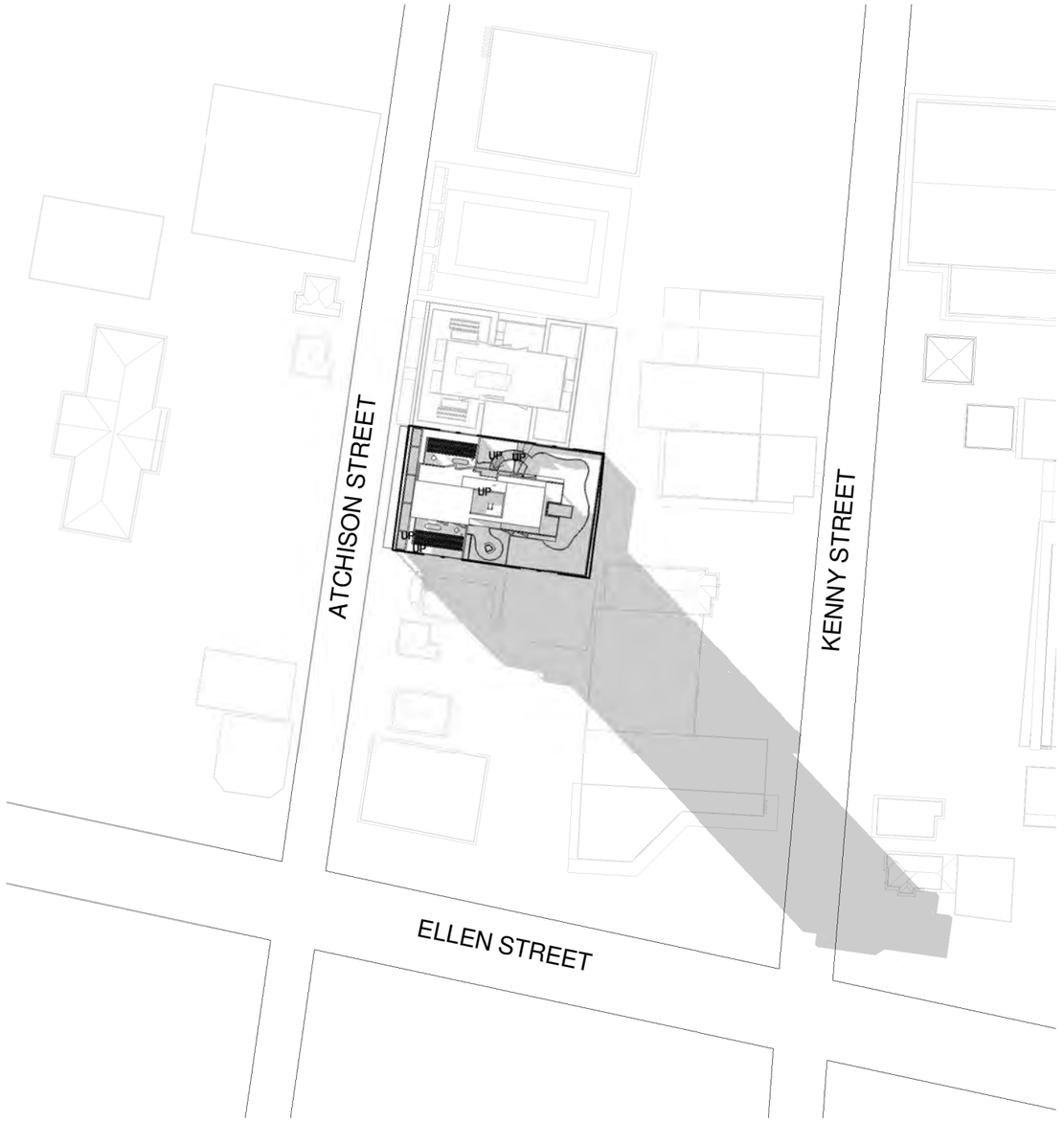
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	SHADOW DIAGRAMS - JUNE
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 1500
QA:	RG
PROJECT No.	1800
DWG No.	72
Rev.	Q

A3



S - JUN 3pm

1 : 1500

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
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Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT: TQM
MIXED DEVELOPMENT

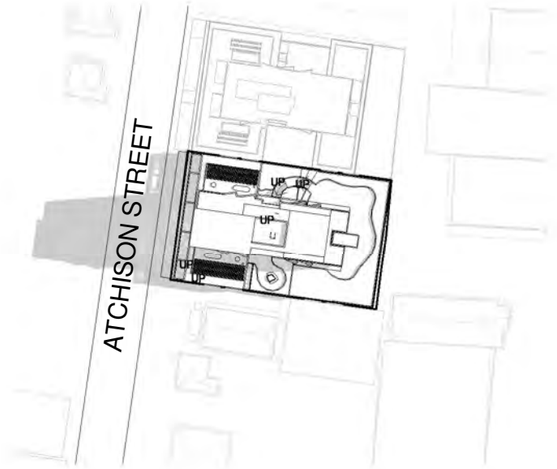
ADDRESS: 35-37 ATCHISON STREET, WOLLONGONG

DRAWING NAME: SHADOW DIAGRAMS - JUNE

DATE: OCT 2018
DRAWN: NT, CS
SCALE: 1 : 1500
QA: RG

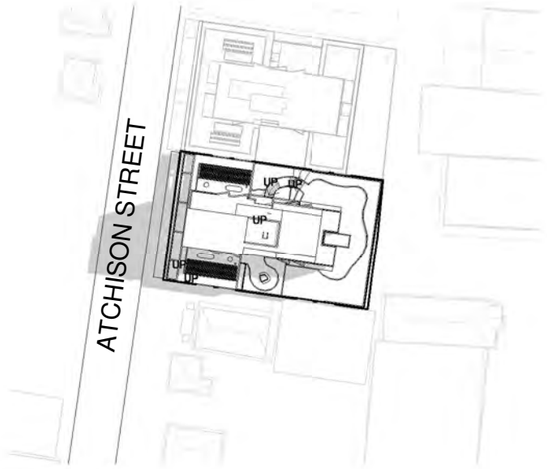
PROJECT No. 1800
DWG No. 73
Rev. Q

A3



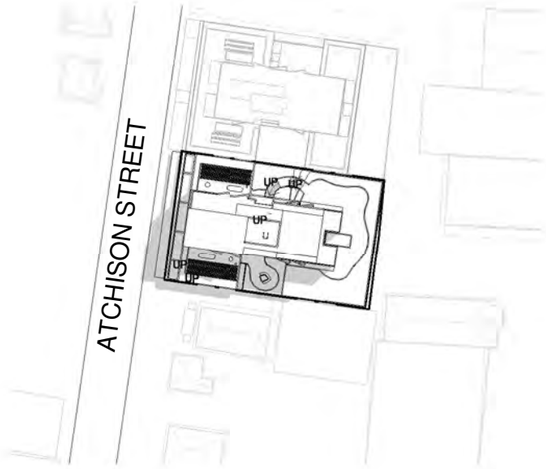
S - DEC 9am

1 : 1500



S - DEC 10am

1 : 1500



S - DEC 11am

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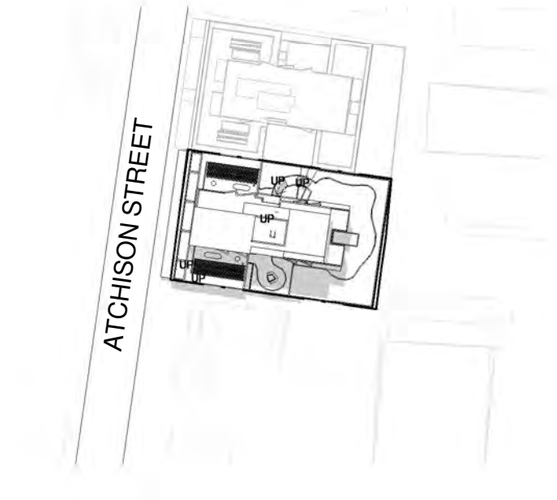
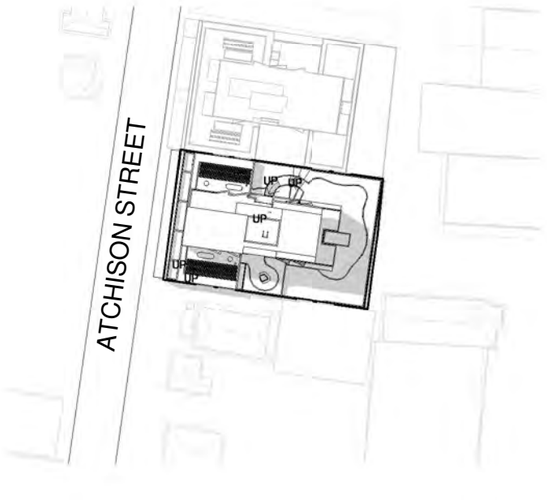


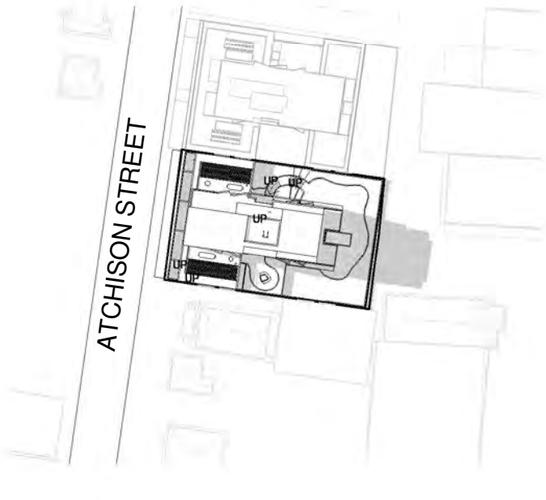
S - DEC 12noon

1 : 1500



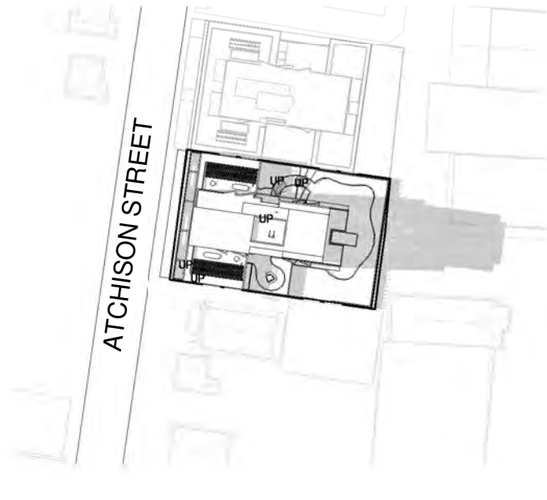
S - DEC 1pm

1 : 1500



S - DEC 2pm

1 : 1500



S - DEC 3pm

1 : 1500

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Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client. All parking and ramps to traffic engineers details.

ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
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BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

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Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	SHADOW DIAGRAMS - DECEMBER
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 1500
QA:	RG
PROJECT No.	1800
DWG No.	74
Rev.	Q

A3

SOLAR COMPLIANCE

UNIT NO.	UNIT TYPE	0900	0930	1000	1030	1100	1130	1200	1230	1300	1330	1400	1430	1500	TOTAL	2HRS	%	NIL HRS	% NIL HRS
101	2 BED	No	No	No	No	No	No	No	No	No	No	No	No	No	0.0	0	0.00%	0	0.00%
102	1 BED	No	No	No	No	No	No	No	No	No	No	No	Yes	No	0.0	0	0.00%	0	0.00%
103	1 BED	No	No	No	No	No	No	No	No	No	No	No	Yes	No	0.0	0	0.00%	0	0.00%
104	1 BED	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	0.5	0	0.00%	0	0.00%
105	2 BED	No	No	No	No	No	No	No	No	No	No	No	No	Yes	0.0	0	0.00%	0	0.00%
106	2 BED	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	2.0	1	2.00%	0	0.00%
107	2 BED	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	1.0	0	0.00%	0	0.00%
201	2 BED	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3.0	1	2.00%	0	0.00%
202	1 BED	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3.0	1	2.00%	0	0.00%
203	1 BED	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3.0	1	2.00%	0	0.00%
204	1 BED	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3.0	1	2.00%	0	0.00%
205	2 BED	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3.0	1	2.00%	0	0.00%
206	2 BED	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	2.0	1	2.00%	0	0.00%
207	2 BED	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	1.0	0	0.00%	0	0.00%
301	2 BED	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	2.0	1	2.00%	0	0.00%
302	2 BED	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	1.0	0	0.00%	0	0.00%
401	2 BED	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	2.5	1	2.00%	0	0.00%
402	2 BED	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3.0	1	2.00%	0	0.00%
403	2 BED	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	2.0	1	2.00%	0	0.00%
404	2 BED	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	1.0	0	0.00%	0	0.00%
501	2 BED	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	2.5	1	2.00%	0	0.00%
502	2 BED	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3.0	1	2.00%	0	0.00%
503	2 BED	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	2.0	1	2.00%	0	0.00%
504	2 BED	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	1.0	0	0.00%	0	0.00%
601	2 BED	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	2.5	1	2.00%	0	0.00%
602	2 BED	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3.0	1	2.00%	0	0.00%
603	2 BED	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	2.0	1	2.00%	0	0.00%
604	2 BED	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	No	1.0	0	0.00%	0	0.00%
701	2 BED	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	2.5	1	2.00%	0	0.00%
702	2 BED	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3.0	1	2.00%	0	0.00%
703	2 BED	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	2.0	1	2.00%	0	0.00%
704	2 BED	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	1.5	0	0.00%	0	0.00%
801	2 BED	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	2.5	1	2.00%	0	0.00%
802	2 BED	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3.0	1	2.00%	0	0.00%
803	3 BED	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No	1.5	0	0.00%	0	0.00%
901	2 BED	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	2.5	1	2.00%	0	0.00%
902	2 BED	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3.0	1	2.00%	0	0.00%
903	3 BED	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No	No	2.0	1	2.00%	0	0.00%
1001	2 BED	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	2.5	1	2.00%	0	0.00%
1002	2 BED	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	3.5	1	2.00%	0	0.00%
1003	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	6.0	1	2.00%	0	0.00%
1101	2 BED	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	2.5	1	2.00%	0	0.00%
1102	2 BED	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	4.0	1	2.00%	0	0.00%
1103	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	6.0	1	2.00%	0	0.00%
1201	2 BED	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	2.5	1	2.00%	0	0.00%
1202	2 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	6.0	1	2.00%	0	0.00%
1203	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	6.0	1	2.00%	0	0.00%
1301	2 BED	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	2.5	1	2.00%	0	0.00%
1302	2 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	6.0	1	2.00%	0	0.00%
1303	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	6.0	1	2.00%	0	0.00%
TOTAL: 50																37	74.00%	0	0.00%

NOTE: UNIT 101 GETS RECIEVES 15 MINUTES OF SUN. REFER TO CONSULTANT DOCUMENTATION FOR CONFIRMATION

DISCLAIMER
Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client. All parking and ramps to traffic engineers details.

ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

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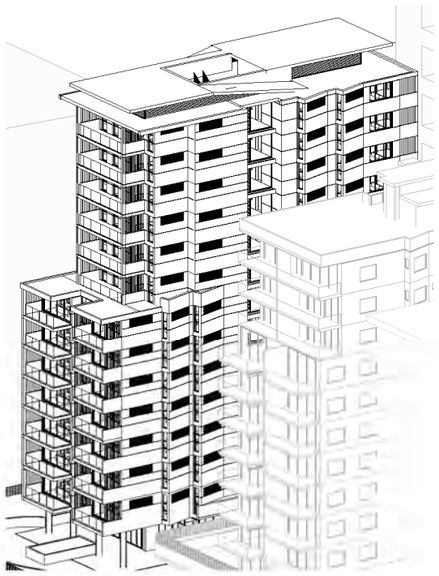
Email: info@designworkshop.com.au
Web: http://www.designworkshop.com.au

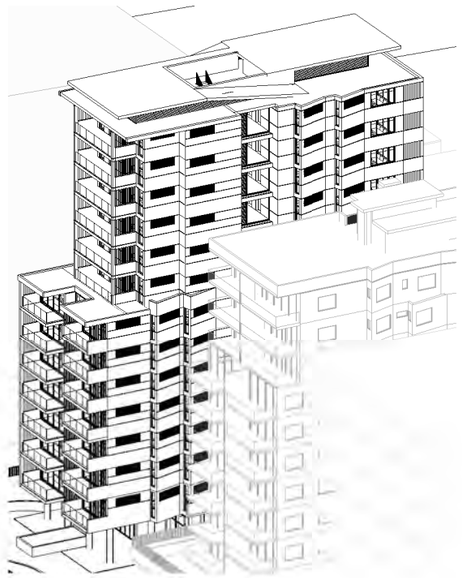
Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	SOLAR COMPLIANCE ANALYSIS - SHEET 1
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	
QA:	RG
PROJECT No.	1800
DWG No.	82
Rev.	Q

A3



SOLAR ACCESS - 21/06/2019-09.00



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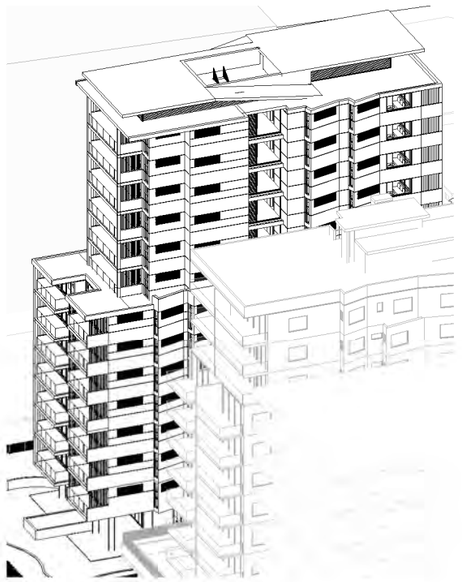

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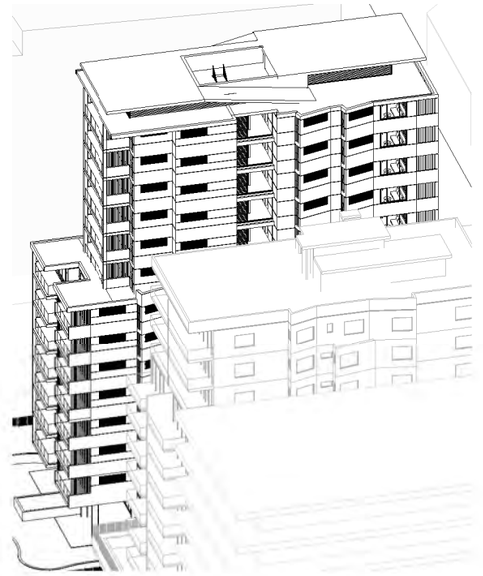

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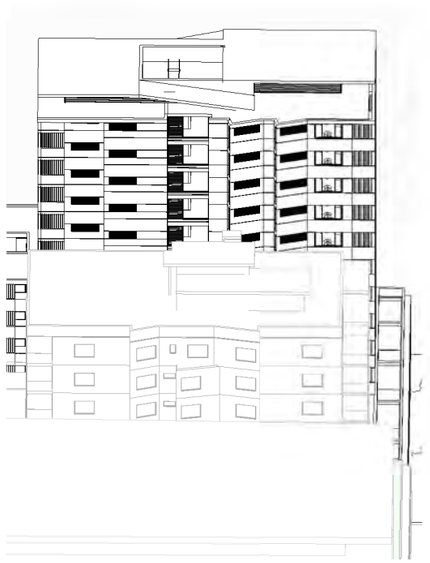
SOLAR ACCESS - 21/06/2019-11.00



SOLAR ACCESS - 21/06/2019-11.30

SOLAR ACCESS - 21/06/2019-12.00

SOLAR ACCESS - 21/06/2019-12.30

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

DISCLAIMER
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Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
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DESIGN WORKSHOP AUSTRALIA

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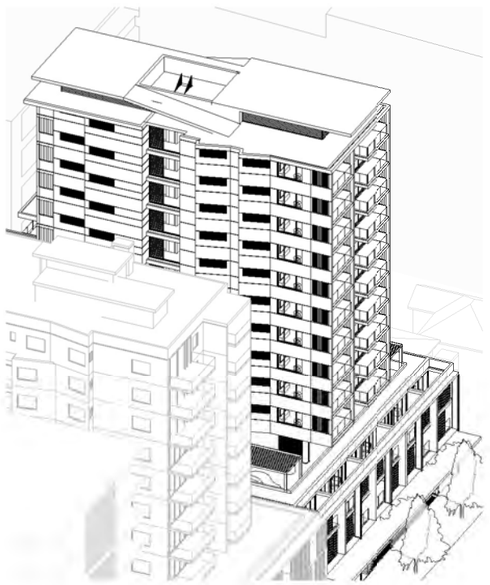
Web: http://www.designworkshop.com.au

Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	SOLAR COMPLIANCE ANALYSIS - SHEET 2
DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	
QA:	RG
PROJECT No.	1800
DWG No.	83
Rev.	Q

A3



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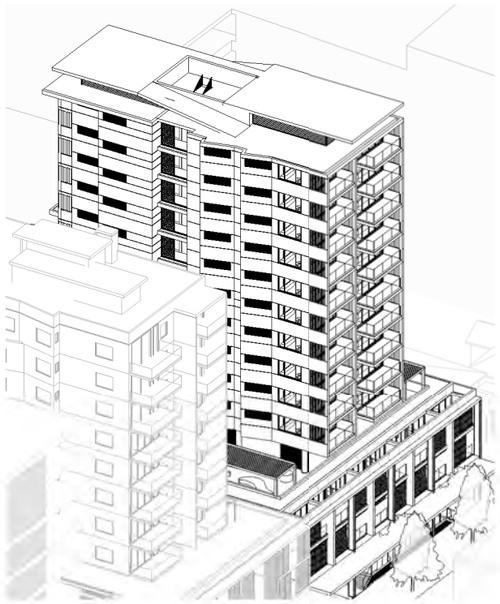

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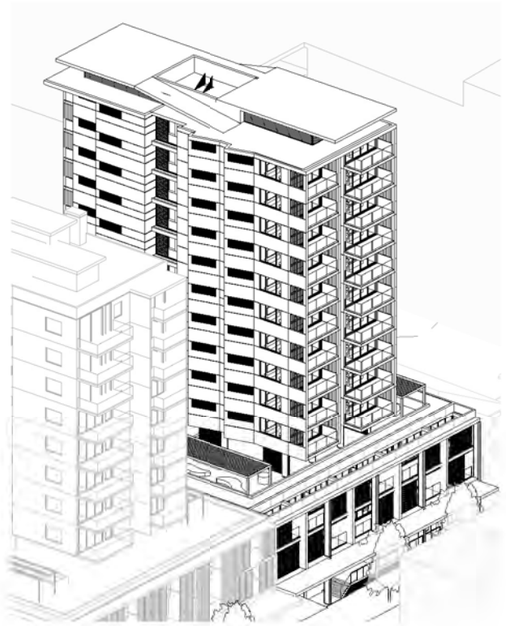

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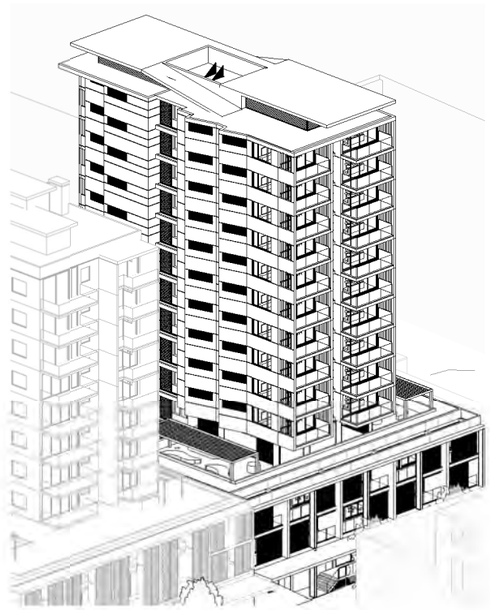

SOLAR ACCESS - 21/06/2019-14.30

SOLAR ACCESS - 21/06/2019-15.00

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
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FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
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RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

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Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	SOLAR COMPLIANCE ANALYSIS - SHEET 3

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	
QA:	RG

PROJECT No.	1800
DWG No.	84
Rev.	Q

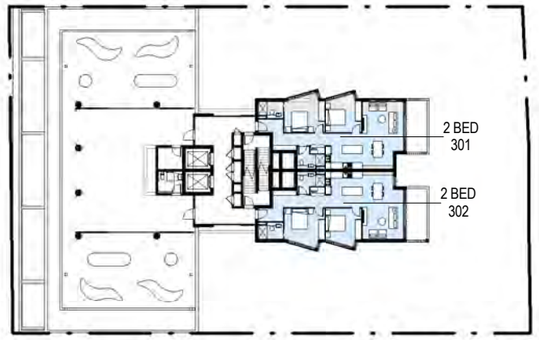
A3

LEVEL 1 FLOOR PLAN

1 : 600

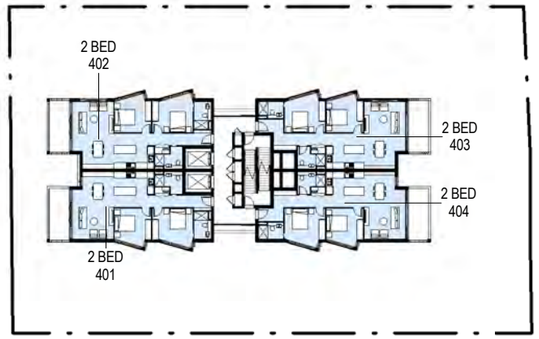
LEVEL 2 FLOOR PLAN

1 : 600



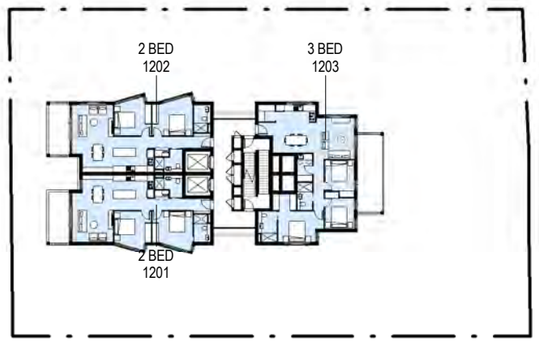
LEVEL 3 FLOOR PLAN

1 : 600



LEVEL 4-7 FLOOR PLAN

1 : 600



LEVEL 8-13 FLOOR PLAN

1 : 600

CROSS VENTILATION

UNIT NO:	UNIT TYPE	CROSS VENT (YES/NO)	QTY	%
101	2 BED	Yes	1	2.00%
102	1 BED	No	0	0.00%
103	1 BED	No	0	0.00%
104	1 BED	No	0	0.00%
105	2 BED	Yes	1	2.00%
106	2 BED	Yes	1	2.00%
107	2 BED	Yes	1	2.00%
201	2 BED	Yes	1	2.00%
202	1 BED	No	0	0.00%
203	1 BED	No	0	0.00%
204	1 BED	No	0	0.00%
205	2 BED	Yes	1	2.00%
206	2 BED	Yes	1	2.00%
207	2 BED	Yes	1	2.00%
301	2 BED	Yes	1	2.00%
302	2 BED	Yes	1	2.00%
401	2 BED	Yes	1	2.00%
402	2 BED	Yes	1	2.00%
403	2 BED	Yes	1	2.00%
404	2 BED	Yes	1	2.00%
501	2 BED	Yes	1	2.00%
502	2 BED	Yes	1	2.00%
503	2 BED	Yes	1	2.00%
504	2 BED	Yes	1	2.00%
601	2 BED	Yes	1	2.00%
602	2 BED	Yes	1	2.00%
603	2 BED	Yes	1	2.00%
604	2 BED	Yes	1	2.00%
701	2 BED	Yes	1	2.00%
702	2 BED	Yes	1	2.00%
703	2 BED	Yes	1	2.00%
704	2 BED	Yes	1	2.00%
801	2 BED	Yes	1	2.00%
802	2 BED	Yes	1	2.00%
803	3 BED	Yes	1	2.00%
901	2 BED	Yes	1	2.00%
902	2 BED	Yes	1	2.00%
903	3 BED	Yes	1	2.00%
1001	2 BED	Yes	1	2.00%
1002	2 BED	Yes	1	2.00%
1003	3 BED	Yes	1	2.00%
1101	2 BED	Yes	1	2.00%
1102	2 BED	Yes	1	2.00%
1103	3 BED	Yes	1	2.00%
1201	2 BED	Yes	1	2.00%
1202	2 BED	Yes	1	2.00%
1203	3 BED	Yes	1	2.00%
1301	2 BED	Yes	1	2.00%
1302	2 BED	Yes	1	2.00%
1303	3 BED	Yes	1	2.00%
TOTAL: 50			44	88.00%

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ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

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Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG
DRAWING NAME:	CROSS VENTILATION ANALYSIS

DATE:	OCT 2018
DRAWN:	NT, CS
SCALE:	1 : 600
QA:	RG

PROJECT No.	1800
DWG No.	81
Rev.	Q

A3

SITE PLAN/ GROUND FLOOR

PROPOSED DEVELOPMENT SHOWN FOR APPROVED DA AT 33 ATCHISON ST

ATCHINSON STREET

VEHICULAR ACCESS TO WOLLONGONG CITY COUNCIL SPECIFICATION

1:15.0 1:12.0 1:6.5

RL. 12.150 RL. 11.817

NON-CONFORMING TREES TO BE REMOVED

JUNGLEFY LIVE ROOF SYSTEM

SUBSTATION 38.7 m²

RESIDENTIAL LOBBY Not Enclosed

COMMUNAL ROOM

COMMUNAL OPEN SPACE 587.0 m²

COMMERCIAL 279.3 m²

PAVING AND TREE PIT TO WOLLONGONG CITY COUNCIL SPECIFICATION

EXTENT OF STRUCTURAL SOIL TRENCH SHOWN DASHED

TOW 15.600 RL14.600 TOW 14.600 TOW 14.00 TOW 13.400 TOW 18.000 RL14.600

RL 13.900 TOW 13.900 TOW 13.900

FGL 12.800 FGL 12.800

ROOF ABOVE TOW 13.900

DRAINAGE COORDINATION TBC BY CIVIL ENGINEER

01 SCULPTURAL PLANTER WALL

02 TURF AREA

03 PAVED SEATING AREA WITH BBQ

04 INFORMAL SANDSTONE STEPPERS

05 PEBBLE FINISH

06 1100H RAISED PLANTER WITH PLANTING AND TIMBER SCREEN

07 LARGE TIMBER BENCH TO LOBBY AREA

08 FLOATING CONCRETE STEPS LINKING GROUND FLOOR TO FIRST FLOOR

09 JUNGLFY LIVE ROOF SYSTEM

BRIGHT DECIDUOUS TREE PLANTING

FLOATING STAIRS

SCALE 1:100 @ A1

0 1 2 4 6m

LEGEND

SITE BOUNDARY
EXISTING TREE RETAINED
EXISTING TREE REMOVED
PROPOSED TREE
20.0 EXISTING CONTOUR
18.5 PROPOSED NEW CONTOUR
× EX 18.25 EXISTING SPOT LEVEL
+RL 20.0 PROPOSED SPOT LEVEL
+TW 21.0 TOP OF WALL LEVEL
+SL 24.00 TOP OF SLAB LEVEL
PROPOSED SHRUBS
PROPOSED GROUNDCOVERS
TURF
FENCE TYPE 1
BUILDING LINE OVER

project: 19-148s 35-37 Atchison St, Wollongong
client: TQM
date 16.03.2020
revision: P8
drawn: GT
checked: DMT

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LA01

PROPOSED DEVELOPMENT
SHOWN FOR APPROVED DA
AT 33 ATCHISON ST

STREET

ATCHINSON

PAVING AND TREE PIT
O WOLLONGONG CITY
UNCIL SPECIFICATION

EXTENT OF STRUCTURAL
TRENCH SHOWN DASHED

COMMUNAL
OPEN SPACE
587.0 m²

TOW 15.700
RL14.900
TOW 14.600
TOW 14.00
TOW 13.900
TOW 13.400
TOW 17.20
RL14.600
FGL 12.800
RL 13.900
TOW 13.900
FFL 17.000
TOW 18.300
ROOF ABOVE
TOW 13.900
DRAINAGE COORDINA
TBC BY CIVIL ENGINEE

01 02 03 04 05 06 08 09

11.33 14.16 18.65
15.48 15.51 14.15
15.99 15.33 15.33 15.33 15.33 15.33 15.33
15.38 12.92 12.92 12.92 12.92 12.92 12.92 12.92
21.00

LEVEL 1

01 TIMBER DECKING TO COMMUNAL SPACES

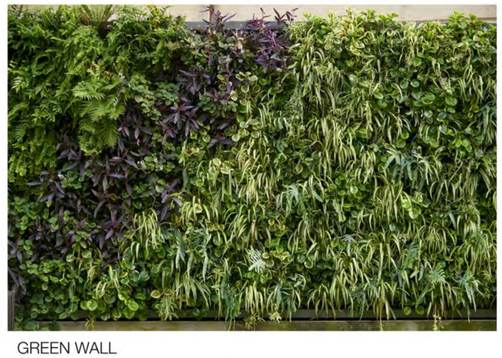
02 JUNGLEFY GREEN WALL

03 INFORMAL SEATING

04 CUSTOM PLANTER WITH SCULPTURAL SEATING

05 FLOATING CONCRETE STEPS LINKING GROUND FLOOR TO FIRST FLOOR

SCULPTURAL PLANTING



GREEN WALL

SCALE 1:100 @ A1
0 1 2 4 6m

LEGEND

SITE BOUNDARY
PROPOSED TREE
20.0 EXISTING CONTOUR
18.5 PROPOSED NEW CONTOUR
× EX 18.25 EXISTING SPOT LEVEL
+RL 20.0 PROPOSED SPOT LEVEL
+TW 21.0 TOP OF WALL LEVEL
+SL 24.00 TOP OF SLAB LEVEL
PROPOSED SHRUBS
PROPOSED GROUNDCOVERS
TIMBER DECKING
FENCE TYPE 1
BUILDING LINE OVER

project: 19-148s 35-37 Atchison St, Wollongong
client: TQM
date 12.03.2020
revision: P7
drawn: GT
checked: DMT

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PROPOSED DEVELOPMENT
SHOWN FOR APPROVED DA
AT 33 ATCHISON ST

ATCHINSON STREET

LEVEL 3

01 TIMBER DECK WITH SCULPTURAL BENCH SEATS

02 CUSTOM TILED PAVING

03 FEATURE PLANTING TO COMMUNAL SPACE

04 800H RAISED PLANTER WITH PLANTING

05 CUSTOM SHADE STRUCTURE

06 SEATING TO UNDERCROFT WITH BBQ FACILITIES

SCULPTURAL BENCH SEATS

PERGOLA WITH SEATING UNDER

PAVING AND TREE PIT
TO WOLLONGONG CITY
UNCIL SPECIFICATION

EXTENT OF STRUCTURAL
TRENCH SHOWN DASHED

SCALE 1:100 @ A1
0 1 2 4 6m

LEGEND

- SITE BOUNDARY
- PROPOSED TREE
- 20.0 EXISTING CONTOUR
- 18.5 PROPOSED NEW CONTOUR
- × EX 18.25 EXISTING SPOT LEVEL
- +RL 20.0 PROPOSED SPOT LEVEL
- +TW 21.0 TOP OF WALL LEVEL
- +SL 24.00 TOP OF SLAB LEVEL
- PROPOSED SHRUBS
- PROPOSED GROUNDCOVERS
- TIMBER DECKING
- BUILDING LINE OVER

project: 19-148s 35-37 Atchison St, Wollongong
client: TQM
date 12.03.2020
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LA03

NEW 375∅ PIPE CONNECTED TO EXISTING KERB INLET PIT LOCATED ON THE FRONTAGE OF 27 ATCHISON STREET
REFER TO PROPOSED ROAD DRAINAGE DRAWING SW15

100∅ SEWER GRADE PIPE, FROM TRENCH GRATE CONNECTED TO STREET AS PER WOLLONGONG CITY COUNCIL

JP1 – NEW 900 SQ. H.D PRE-CAST CONCRETE PIT (ROCLA OR SIMILAR.) WITH V-DRAIN LID COVER
RL 11.65, TO MATCH EXISTING PAVEMENT LEVEL
IL 10.30

225∅ SEWER GRADE PIPE, CONNECTED TO PROPOSED JUNCTION PIT AS PER WOLLONGONG CITY COUNCIL DETAILS AND SPECIFICATIONS
Q5 = 43.0L/S
IL TBC PRIOR CC STAGE.

100∅ PRESSURE PIPE RISING MAIN FROM BASEMENT INTO OSD SYSTEM

SUSPENDED OSD TANK UNDER RAMP

EXISTING BUILDING TO BE DEMOLISHED SHOWN DASHED

LANDSCAPING NOTE :
NOTE THE SCHEMATIC STORMWATER LAYOUT AND DETAILS HAVE BEEN DESIGNED IN CONJUNCTION WITH TAYLOR BRAMMER CONCEPT DRAWINGS AND ALL DETENTION BASIN LEVELS AND STRUCTURES ARE COMPATIBLE AT DEVELOPMENT APPLICATION STAGE ONLY.

ATCHISON STREET

CONCRETE
DRIVEWAY
DECK
COMMUNAL OPEN SPACE (REFER LANDSCAPE PLANS FOR DETAILS)
x 14.600
1:15.0
1:12.0
1:6.5
x12.215
x11.817
TG1
TOP OF KERB
CONCRETE FOOTPATH
SUBSTATION
SERVICES
GAS
WATER
SEWER
RESIDENTIAL LOBBY
RL 12.80
RESIDENTIAL LIFT
RESIDENTIAL LIFT
COMMUNAL ROOM
EWIS / FIP
MAILBOXES
COMMUNAL OPEN SPACE
RL 12.70
COMMERCIAL
RL 12.80
FIRE BOOSTER + WATER METER
BRICK WALL
10.23 PARAPET
BENCHMARK
DH IN PATH
RL 11.85 AHD
DP 100
PO
BO
150∅

EXISTING BUILDING TO BE DEMOLISHED SHOWN DASHED

PLAN: GROUND FLOOR CONCEPT STORMWATER LAYOUT
(SCALE 1:100 @ A1, 1:200 @ A3)

TRENCH GRATES
TG1 = 225w x 200d HEAVY DUTY CLASS

CONCEPT DESIGN
NOT TO BE USED FOR CONSTRUCTION PURPOSES

ISSUE	AMENDMENT	DATE
1	ISSUE FOR DISCUSSION	06/09/19
2	JUNCTION PIT IL ADDED	25/11/19
3	MINOR AMENDMENTS	10/03/20

PLANS 0 1000 2000 3000 4000 5000

DO NOT SCALE IF IN DOUBT ASK — A1

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH SPECIFICATIONS

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WOLLONGONG NSW 2500
TELEPHONE: 02 42 266 646
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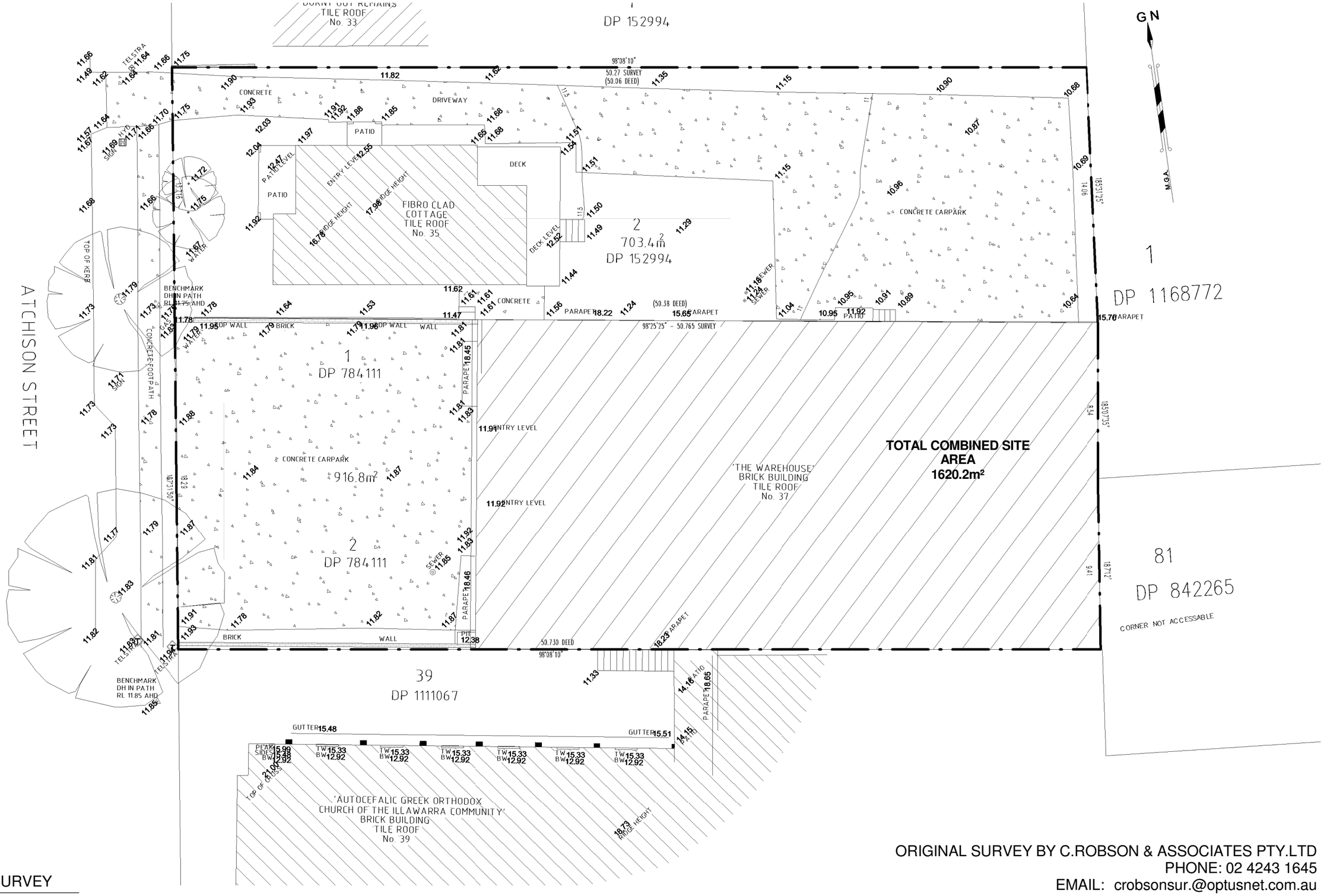
The Association of Consulting Engineers Australia

Title	PLAN:GROUND FLOOR CONCEPT STORMWATER LAYOUT
Project	PROPOSED MIXED USE DEVELOPMENT
At	35-37 ATCHISON STREET WOLLONGONG
Client	TQM

SCALES	AS SHOWN		DATE PLOTTED 02/09/19
DRAWN	D.K.		
DESIGNED	G.U.		DATUM A.H.D.
CHECKED	G.U.	DATE CHK'D __/09/19	
PROJECT No	DWG	REVISION	
18167	SW4	3	



SITE SURVEY

1 : 200

ORIGINAL SURVEY BY C.ROBSON & ASSOCIATES PTY.LTD
PHONE: 02 4243 1645
EMAIL: crobsonsur.@optusnet.com.au

DISCLAIMER
Subject to: full site survey, measurements are preliminary, discussions and meetings with authorities, approval from authorities, relevant consultant information as per council DA requirements. Feasibility completed based on information provided by client. All parking and ramps to traffic engineers details.

ADDITIONAL INFORMATION

REF.	DATE	AMENDMENT
Q	25.05.2020	ADDTIONAL INFORMATION

DISCLAIMER
All dimensions are in millimeters. Verify all dimensions on site prior to commencement of any work. Copyright of DWA.

Legend:

RB01	RENDERED BRICKWORK	S	STONEWORK	SLW	SLIDING WINDOW	P	POST
RB02	RENDERED BRICKWORK	R	ROOF	FW	FIXED WINDOW	T	TIMBER FLOORS
FB01	FACE BRICKWORK	DP	DOWNPIPES	OB	OBSCURE WINDOW	CT	CERAMIC TILES
FB02	FACE BRICKWORK	TB	TIMBER BATTENS	AW	AWNING WINDOW	CPT	CARPET
BL	BLOCKWORK	D	DOOR	SK	SKYLIGHT	PC	POLISHED CONCRETE
CL01	CLADDING	GD	GARAGE DOOR	WH	WINDOW HOOD	SP	FEATURE SCREENING
CL02	CLADDING	SLD	SLIDING DOOR	LV	LOUVRES		
RW	RETAINING WALL	BFD	BI-FOLD DOOR	RWT	RAINWATER TANK		

DESIGN WORKSHOP AUSTRALIA

Wollongong
81a Princes Highway,
Fairy Meadow NSW 2519
Tel: (02) 4227 1661
Email: info@designworkshop.com.au
Web: http://www.designworkshop.com.au

Sydney
Level 10, 6 Mount
Olympus Boulevard,
Wolli Creek NSW 2205

CLIENT:	TQM MIXED DEVELOPMENT	DATE:	OCT 2018	PROJECT No.	1800
ADDRESS:	35-37 ATCHISON STREET, WOLLONGONG	DRAWN:	NT, CS	DWG No.	06
DRAWING NAME:	SITE SURVEY	SCALE:	1 : 200	Rev.	Q
		QA:	RG		

A3

Attachment 3

MMJ Wollongong
6-8 Regent Street
Wollongong NSW 2500
Telephone: (02) 4229 5555
Facsimile: (02) 4226 5741

EXCEPTION TO DEVELOPMENT STANDARDS VARIATION STATEMENT

Building Separation - Wollongong City Centre

Address: **35 - 37 Atchison Street, Wollongong**
Proposal: **Mixed Use Development**
Date: **May 2020 (Revision A)**

1.0 Introduction

The purpose of this variation statement is to outline the justification for seeking an exception to the minimum building separation within Zone B3 Commercial Core (being a development standard) contained within the *Wollongong Local Environmental Plan 2009 (WLEP 2009)*. This variation statement has been prepared in consideration of Clause 4.6 and Clause 8.6 (Building Separation Criteria) in *WLEP 2009* and the NSW Department of Planning, Infrastructure and Environment's (DPIE) *"Varying development standards: a guide"* (August 2011).

The advice herein relates to an application for the proposed demolition of existing structures and construction of a multi-level mixed use commercial and residential development at 35-37 Atchison Street, Wollongong. In this regard, the proposed development will incorporate the construction of a new fourteen (14) storey building including ground floor commercial space containing one (1) commercial premises, two (2) levels of podium residential units supporting a residential tower above, to provide 50 residential apartments; communal space areas; and basement car parking over two (2) levels. The details of this proposal are shown within the Development Drawings prepared by Design Workshop Australia (DWA) (attached to the application), which identifies the proposed building separation in question.

The proposed development application seeks to provide an appropriate and balanced development/environmental outcome for the subject site, and the Wollongong City Centre area as a whole. In doing so, an exception to a development standard contained within *Wollongong Local Environmental Plan (LEP) 2009* has been adopted. In this regard, the proposed development

generally accords with all *LEP* controls, apart from a numerical variation being requested to the building separation development standards contained within *Clause 8.6 Building separation within Zone B3 Commercial Core or Zone B4 Mixed Use*. More specifically, the proposed development is deficient in achieving a 20 metre building separation from habitable parts of dwellings contained in the building under construction immediately north (refer DA-2016/1073/A). Additionally, whilst the proposed building setback allowances to the east and south will achieve compliance in a future context if these sites are developed for commercial purposes (only requiring 16 metres building separation), they are also deficient in achieving a 20 metre building separation to these edges if the adjoining sites are developed to include residential interfaces. Even though the adjoining properties to the east (34-38 Keira Street) and south (39-41 Atchison Street) are yet to be developed at such a height and scale, future allowances require due planning consideration. Hence the purpose of this statement.

The request is in writing to address the relevant provisions within *Clause 4.6*, to demonstrate that strict compliance with the development standard is unreasonable in the circumstances of the case, and that there are sufficient environmental planning grounds to justify the proposed variation sought.

This statement has been prepared in accordance with the NSW Department of Planning Infrastructure (DPI) guideline "*Varying Development Standards: A Guide*" dated August 2011. Applications to vary development standards should also address the 'five-part test' established by the NSW Land and Environment Court (LEC) to determine whether the objection is well founded. An assessment of this applicant against the 'five-part test' is included in this statement.

2.0 Overview of Clause 4.6 and Site

Clause 4.6 provides a framework for varying the applicable development standards under a Local Environmental Plan (LEP).

The objectives of this clause are as follows:-

> *(a) to provide an appropriate degree of flexibility in applying particular development standards to particular development;*
> *(b) to achieve better outcomes for and from development by allowing flexibility in particular circumstances.*

Sub *Clauses (3)(a)* and *(3)(b)* state that development consent must not be granted unless the consent authority has considered a written request from the applicant that seeks to justify the contravention by demonstrating:

(a) that compliance with the development standard is unreasonable or unnecessary in the circumstances of the case; and

(b) that there are sufficient environmental planning grounds to justify contravening the development standard.

This is Statement provides a written request seeking to demonstrate the development standard is unreasonable or unnecessary in the circumstances of the case and that there are sufficient environmental planning grounds to justify contravening the development standard based on the following rationale (summary):

- The development largely complies with the other required numerical development standards of the LEP and DCP.
- The size and constraints of the subject site make a fully compliant development of this nature unreasonable to achieve in order to realise its capabilities.
- The development is consistent with the objectives of the B3 Commercial Core Zone.
- Sufficient separation of buildings is still achieved for reasons of visual appearance, privacy and solar access.
- Through smart design treatments responding to habitable v non-habitable interfaces, the proposed building separation largely complies with the minimum required separation distances identified within the SEPP 65 Apartment Design Guide, to achieve reasonable levels of external and internal visual privacy.
- The proposed contravening the development standard will not limit the potential for the adjoining eastern and southern sites to be developed to its permitted capabilities in future.
- The development standard has been abandoned by Council's own actions in granting consents departing from the standard.

The zone objectives are as follows:

- *To provide a wide range of retail, business, office, entertainment, community and other suitable land uses that serve the needs of the local and wider community;*
- *To encourage appropriate employment opportunities in accessible locations;*
- *To maximise public transport patronage and encourage walking and cycling;*
- *To strengthen the role of the Wollongong city centre as the regional business, retail and cultural centre of the Illawarra region;*
- *To provide for high density residential development within a mixed use development if it:*
  - *(a) is in a location that is accessible to public transport, employment, retail, commercial and service facilities, and*
  - *(b) contributes to the vitality of the Wollongong city centre.*

The relevant zoning objectives outline a need to strengthen the role of the City Centre by providing for a range of land use activities that support employment and public transport patronage (as above). The proposed development is both permissible within the B3 zone as a shop top housing development, meeting the needs of the community by providing employment and housing opportunities within close proximity to the CBD precinct and, local bus routes and Wollongong train station. Such a proposal is in high demand for the immediate area (from a land use perspective) and the site itself is very accessible from a patronage and public transport viewpoint. Thus, the proposed development directly accords with the objectives of this zone.

An aerial view of the subject site is shown in *Figure 1*.

Figure 1: *Aerial View of the Site and Locality (*Source: NearMap)*

With regard to context and setting, in the immediate context, the property is located in at the southern end of Wollongong CBD, which is primarily characterised by a mixed-use business and residential development. This existing area is host to a range of retail, commercial, and residential uses, however, is undergoing significant change with increased residential high density living buildings either approved or under construction. It is noted that many of the existing properties within the immediate setting are ageing and will likely be the subject of future redevelopment opportunities in years to come. This is already starting to come to fruition with various developments under

construction immediately north at 31-33 Atchison Street (Onyx), the Aire development opposite to the west (36 Atchison Street), 35 Kenny Street over to the east, as well as the subject proposed development at hand. The proposed development has demonstrated that a functional shop top housing building can be provided, including appropriate carparking and access, landscaping and communal areas and facilities, without detrimentally impacting the surrounding properties.

In summary, it is concluded that the development standard is (3)(a) unreasonable or unnecessary in the circumstances of the case.

A (3)(b) assessment of the proposal under the applicable planning controls has determined that besides the proposed variation to building separation requirement and minor *WDCP 2009* variations, the development is largely compliant with the applicable controls. However, as demonstrated in this report, the proposed design mitigates any adverse impacts from the reduced building separation. In addition, solar access is not compromised to adjoining lots nor is the amenity (privacy, visual, acoustic etc.) and, as such, the surrounding properties will not be unreasonably impacted by the development.

The proposed building has been designed to respond appropriately to the limitations posed by the site and is considered to be a reasonable development outcome for the site. In summary it is considered that there are sufficient site-specific environmental planning grounds to justify contravening the development standard.

Furthermore sub *Clause 4(a)(i)* and (*ii)* provide that development consent must not be granted unless:-

> *(a) the consent authority is satisfied that:*
> *(i) the applicant's written request has adequately addressed the matters required to be demonstrated by subclause (3), and*
> *(ii) the proposed development will be in the public interest because it is consistent with the objectives of the particular standard and the objectives for development within the zone in which the development is proposed to be carried out, and*
> *(b) the concurrence of the secretary has been obtained.*

In deciding whether concurrence is to be granted or assumed, the following considerations are relevant:-

> *(a) whether contravention of the development standard raises any matter of significance for State or regional environmental planning; and*
> *(b) the public benefit of maintaining the development standard, and*

(c) any other matters required to be taken into consideration by the Secretary before granting concurrence.

It is noted that as of 21 May 2014 Council has assumed concurrence of the Secretary in relation to development applications that contravene development standards.

3.0 Details of the environmental planning instrument, the applicable development standard and proposed variation.

3.1 What is the applicable environmental planning instrument (EPI)?

The *Wollongong Local Environmental Pan 2009 (WLEP 2009).*

3.2 What is the development standard being varied?

The Building separation within Zone B3 Commercial Core or Zone B4 Mixed Use requirement contained in *Part 8 - Clause 8.6(3)(a)* of the *WLEP 2009* which states:

"(2) Buildings on land within Zone B3 Commercial Core or B4 Mixed Use must be erected so that—

(a) there is no separation between neighbouring buildings up to the street frontage height of the relevant building or up to 24 metres above ground level whichever is the lesser, and

(b) there is a distance of at least 12 metres from any other building above the street frontage height and less than 45 metres above ground level, and

(c) there is a distance of at least 28 metres from any other building at 45 metres or higher above ground level.

(3) Despite subclause (2), if a building contains a dwelling, all habitable parts of the dwelling including any balcony must not be less than—

*(a) **20 metres from any habitable part of a dwelling contained in any other building,** and*

(b) 16 metres from any other part of any other building.

(4) For the purposes of this clause, a separate tower or other raised part of the same building is taken to be a separate building.

(5) In this clause:
***street frontage height** means the height of that part of a building that is built to the street alignment."*

In this regard, where applying separation to buildings on adjoining sites, half the minimum separation distance measured to the boundary is applied. This distributes the building separation equally between sites. For example, in light of above, a 10 metre boundary setback should be applied where

a proposed residential development (habitable parts) will interface with another adjoining residential development (habitable parts), whilst an 8 metre boundary setback should be applied where a proposed residential development (habitable parts) will interface with another adjoining commercial development (non-habitable parts).

To this end, the proposed development incorporates the following building line setback and separation allowances:

Adjoining Properties	**Boundary Setback Proposed**	**Building Separation Allowances**	**Building Separation Compliance**
North (31-33 Atchison Street)	Levels 1-13 = between 8.04m and 9m	Levels 1-13 = between 16.04m and 18m (residential interface with Onyx under construction)	No
South (39-41 Atchison Street)	Levels 1-13 = between 8.04m and 9m	• Existing Conditions Not Applicable (no development above Level 1 existing) • Between 16.04m and 17.04m (8m allowance if adjoining developed for commercial purposes) • Between 18.04m and 19.04m (10m allowance if adjoining developed for residential purposes)	• N/A • Yes • No
East (34-38 Kenny Street	Levels 1-7 = between 9.56m and 9.8m Levels 8-13 = between 14.19m and 14.44m	• Existing Conditions Not Applicable (no development above Level 1 existing) • For Levels 1-7 between 17.56m and 17.8m (8m allowance if adjoining developed for commercial purposes) • For Levels 1-7 between 19.56m and 19.8m (10m allowance if adjoining developed for residential purposes) • For Levels 8-13 between 22.19m and 22.44m (8m allowance if adjoining developed for commercial purposes) • For Levels 8-13 between 24.19m and 24.44m (10m allowance if adjoining developed for residential purposes)	• N/A • Yes • No • Yes • Yes

The proposed floor plans against existing boundary conditions to the north, as well as future contextual elevations are shown in the extracted architectural plans by DWA.

Figure 1: *Proposed Site Plan (*Source: DWA)*

Figure 2*: Typical Level 2 and 3 Floor Plan Interface with Onyx (north) (*Source: DWA)*

Figure 3: *Typical Level 4 and 9 Floor Plan Interface with Onyx (north) (*Source: DWA)*

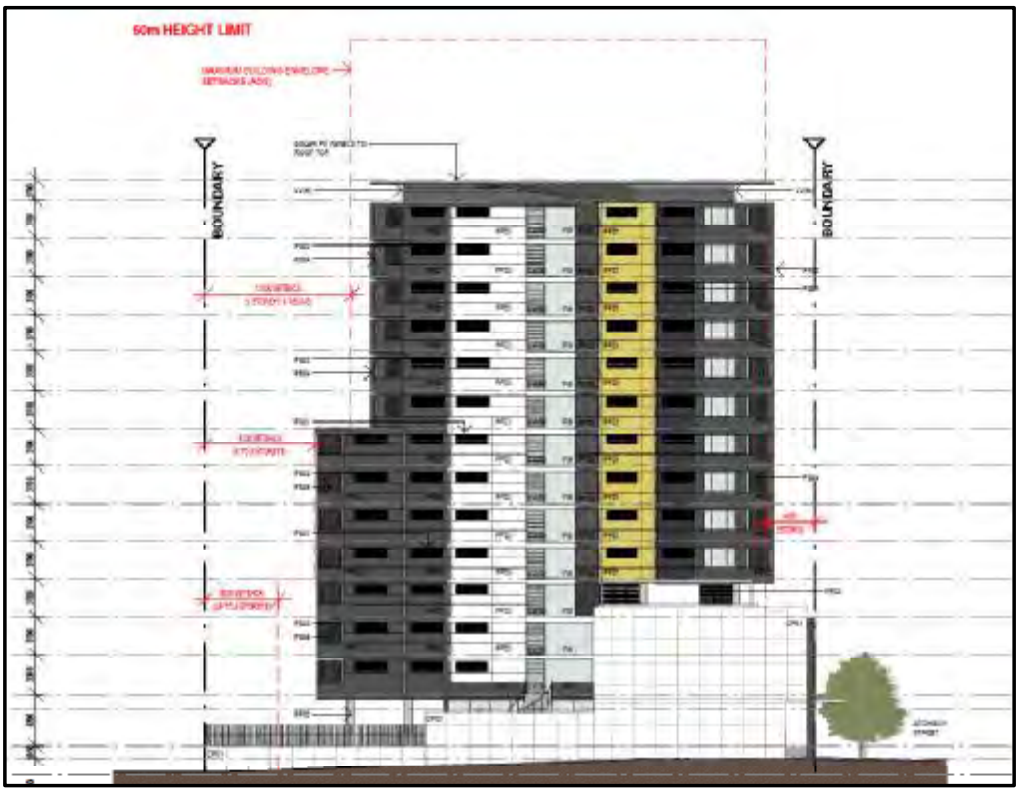


Figure 4: *North Elevation (*Source: DWA)*

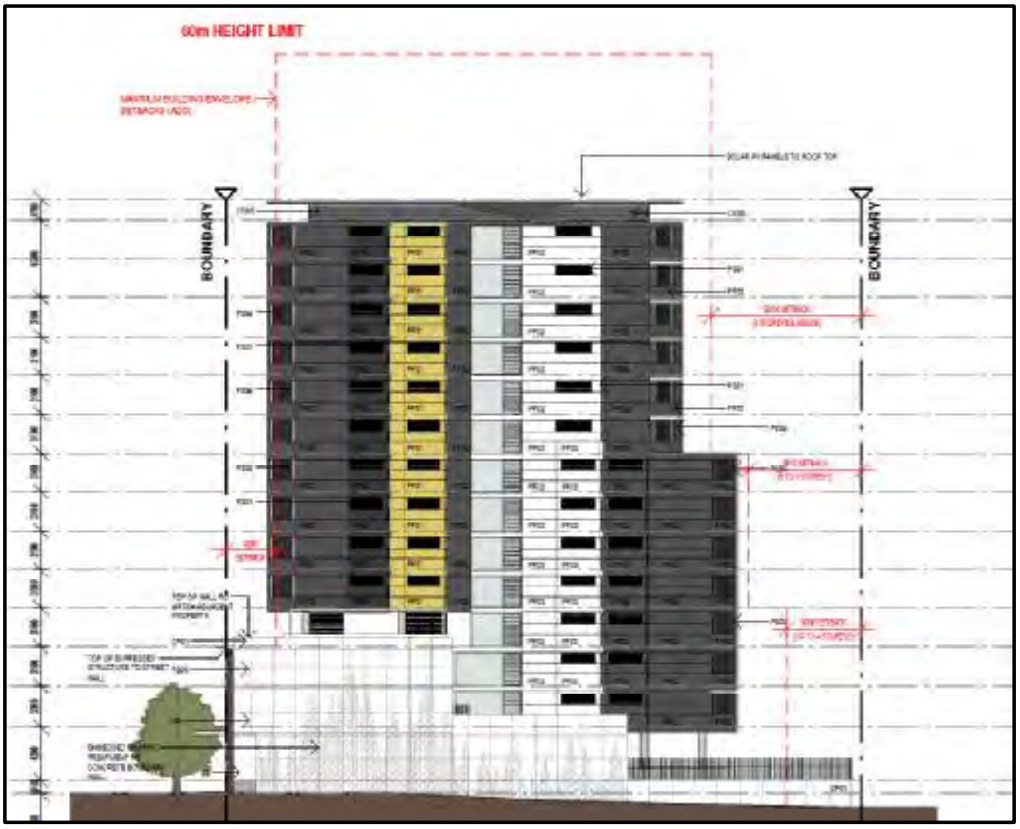


Figure 5: *South Elevation (*Source: DWA)*

Figure 6: *East and West Elevation Respectively (*Source: DWA)*

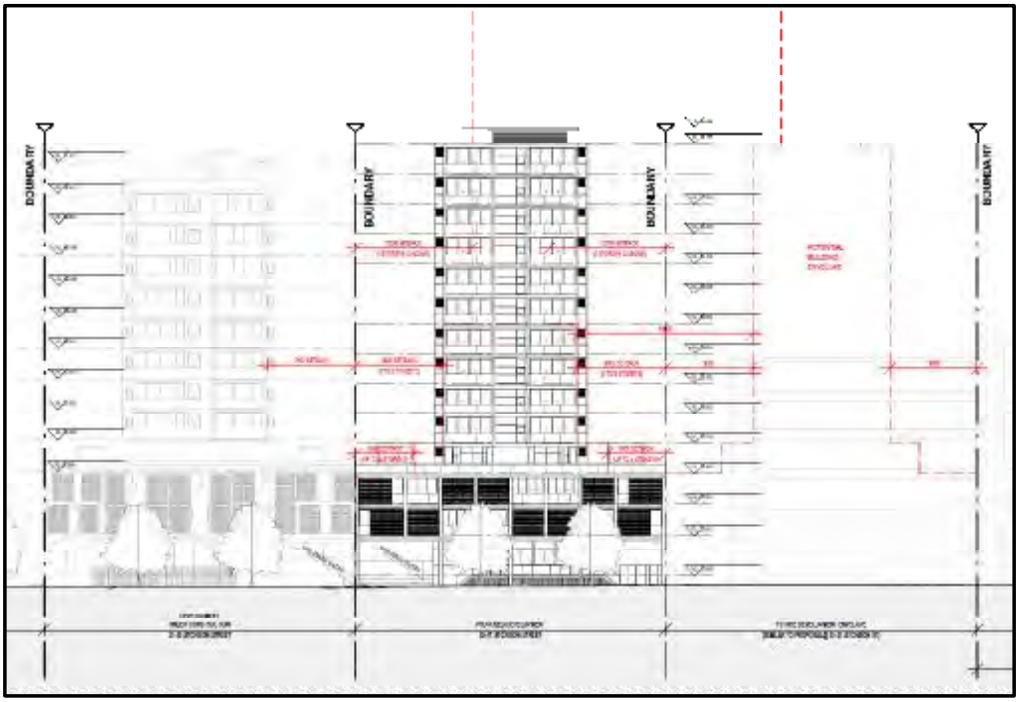


Figure 7: *Atchison Street future streetscape context (*Source: DWA)*

3.3 What are the objectives of the standard?

The objective of this clause is: *to ensure sufficient separation of buildings for reasons of visual appearance, privacy and solar access.*

Further consideration of this objective in relation to the proposed development is provided within the following sections below.

3.4 What is the percentage variation (between the proposal and the EPI)?

The proposed development seeks the following percentage variations to the corresponding elevations:

- **North:** Variable between 10% and 19.6% (all levels)
- **South:** Variable between 10% and 19.6% (all levels - assuming adjoining developed for residential purposes)
- **East:** Variable between 2% and 4.4% for Levels 1-7 only (assuming adjoining developed for residential purposes)

4.0 Assessment of Proposed Variation

4.1 Is compliance with the development standard unreasonable or unnecessary in the circumstances of the case?

Yes, compliance with the development standard is unreasonable in the circumstances.

In Wehbe v Pittwater Council [2007] NSWLEC827 (Wehbe), Preston CJ identified five (5) ways in which an applicant might establish that compliance with a development standard is unreasonable or unnecessary. While Wehbe related to objections pursuant to State Environmental Planning Policy No. 1 – Development Standards (SEPP 1), the analysis can be of assistance to variations made under clause 4.6 because subclause 4.6(3)(a) uses the same language as clause 6 of SEPP 1 (see Four2Five at [61] and [62]).

The five (5) ways outlined in Wehbe include:

1. The objectives of the standard are achieved notwithstanding noncompliance with the standard (First Way)

2. The underlying objective of purpose of the standard is not relevant to the development and therefore compliance is unnecessary (Second Way)

3. The underlying object or purpose would be defeated or thwarted if compliance was required and therefore compliance is unreasonable (Third Way)

4. The development standard has been virtually abandoned or destroyed by the Council's own actions in granting consents departing from the standard and hence compliance with the standard is unnecessary and unreasonable (Fourth Way)

5. The zoning of the particular land is unreasonable or inappropriate so that a development standard appropriate for that zoning is also unreasonable and unnecessary as it applies to the land and compliance with the standard would be unreasonable or unnecessary. That is, the particular parcel of land should not have been included in the particular zone (Fifth Way).

Additionally, of note, in the judgment in Randwick City Council v Micaul Holdings Pty Ltd [2016] NSWLEC 7 the Chief Judge upheld the Commissioner's approval of large variations to height and FSR controls on appeal. He noted that under Clause 4.6, the consent authority (in that case, the Court) did not have to be directly satisfied that compliance with the standard was unreasonable or unnecessary, rather that the applicant's written request adequately addresses the matters in Clause 4.6(3)(a) that compliance with each development standard is unreasonable or unnecessary.

In this regard, this written request establishes and adequately addresses the matters in Clause 4.6(3)(a) that compliance with each development standard is unreasonable or unnecessary because the objectives of the standard are achieved irrespective of the non-compliance with the building separation controls, and accordingly justifies the variation to the building separation control pursuant to the First Way outlined in Wehbe, as follows.

Objective of the Development Standard:

Under WLEP 2009, Clause 8.6 has the following objectives in relation to the building separation development standard:

"*to ensure sufficient separation of buildings for reasons of visual appearance, privacy and solar access.*"

Visual Appearance

The proposal incorporates attractive and well-considered architectural design, materials and details which reflect the proposed high-quality residential development inclusive of ground floor commercial use. The visual appearance of this proposed well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape, including consideration of the approved Onyx development to the north and future context considerations to the east and south. In fact, the development has not only considered this development, but also used it as a reference point for levels to ensure that the streetscape is seamless and presents a united public domain.

The building facade to Atchison Street emphasises and accentuate parts of the elevation through the use of a similar language to achieve a cohesive building outcome and understand the theory and principles behind the design. Changes in colour and façade materials help to articulate the podium and addresses street frontage with appropriate proportions.

The theory and principles to the aesthetics of the building design have arrived from a multiple of stimulants and ideas culminating in a focused and narrowed theory gathered from the development of the building and the surrounding context. Multiple discussions were held with design experts and inspiration taken from award winning buildings to create a functional aesthetic design.

Developing the constraints and opportunities of the site has allowed the building to move and transform from the active to a sense of the building's simplicity and nature. The language of the building's facades has been carried through responding to the site forces, orientation and constrains posed by the site. The use of materials and colours has also been carried through to help express this language.

The overall envelope is an appropriate design and scale which reflects the site's constraints and permissible yield in terms of GFA and building height enabled by WLEP 2009 (which is compliant). The breakdown of the podium and tower help to create an aesthetic quality which will sit comfortably in its surrounding scale and context, as well respond to the approved development to the north and the existing place of worship to the south and the expected future character of the east.

Consideration has been made to all façades where walls are articulated with texture and pattern to mitigate any blank walls. Pop-out and high level window elements have been used to the northern and southern elevations to create visual interest to these edges, particularly when viewed from various angles surrounding.

Selected quality, modern, durable and environmentally sustainable external finishes ensures the proposed development enhances the amenity of the local area. Carefully selected colours sympathetic to the visual composition of neighbouring developments maintains and responds appropriately to the current and desired future character of the precinct. The materials selected such as masonry render and paint in various shades, several of types of glazing, textured feature walls have provided the building with a high quality, low maintenance external façade that contributes positively to the visual presentation of the development.

Privacy

Privacy has been considered specifically in the design response shown in the architectural interface treatment to these corresponding side boundaries (almost as if they were non-habitable type facades). Elevational interface with the rear is more active in a habitable sense, but separation distances are greater and non-compliance with this setback is only minor (and for only a portion of the building).

The internal layout of the rooms attempt to minimise overlooking with the careful location of window and door openings, whilst the size of external balconies also help maintain such visual separation.

Acoustic privacy for future visitors and neighbouring land uses has also been taken into account, with the proposed development being designed to limit noise intrusion into adjoining properties through the use of appropriate building materials and associated noise control treatments. The proposed development has been supported by a Noise Assessment prepared by Harwood Acoustics, which provides a range of acoustic recommendations to ensure the proposed development will comply with the relative sections of the EPA and Council requirements/conditions, and will not create any offensive noise to the surrounding residents.

Through smart design treatments responding to habitable v non-habitable interfaces, the proposed building separation largely complies with the minimum required separation distances identified within the SEPP 65 Apartment Design Guide, to achieve reasonable levels of external and internal visual privacy. This Apartment Design Guide provides greater detail on how residential development proposals can meet these principles through good design and planning practice, which has reduced permitted building separation criteria up to 9 storeys above ground level compared to WLEP 2009. For the most part the proposed development is consistent with much of the ADG criteria, when considering non-habitable faced interface treatments proposed to ensure appropriate levels of all round privacy are achieved.

Solar access

The layout and panned design are a direct response to the site's orientation. The apartments aspects being used for primary living spaces are orientated east and west where possible to maximise the main solar collectors during morning and afternoon and main outlook for the development.

The layouts demonstrate grouping of the services and circulation space and living areas throughout. encompassing a northern edge that is treated architecturally with high-level and pop-out windows of smaller proportion to gain advantage of the solar access still (but at the same time limit privacy interface issues).

A Solar Access Assessment has been provided by SLR, and is attached to the DA submission package for Council's consideration. In conclusion, this assessment provides the below summarised results for direct sunlight to the residential apartments for June 21, between the hours of 9.00 am and 3.00 pm:-

- 74.00 % (37 of 50) of apartments will achieve 2 hours solar access across the assessment window.
- 0.00 % (0 of 50) of apartments will receive no solar access across the assessment window.

As a result, the design changes made now accord with how solar access is measured against the requirements of Part 4A of the ADG, with regards to living rooms and private open space areas (i.e. balconies). This also demonstrates that the at least 50% of the ground level COS area will receive direct sunlight throughout the morning period between 9am and 11:30am, whilst at least 50% of the Level 3 COS area will receive direct sunlight throughout the morning period between 1pm and 3pm. Thus, adequate area of COS is provided to enhance residential amenity and provide good opportunities for landscaping.

On this basis, the proposed development has been assessed against each objective contained in Clause 8.6 of WLEP 2009. Thus, deeming strict compliance with these building separation values is unwarranted in the circumstances of this particular case.

Development Standard Abandoned:

In relation to the Fourth Way "The development standard has been virtually abandoned or destroyed by the Council's own actions in granting consents departing from the standard and hence compliance

with the standard is unnecessary and unreasonable (Fourth Way)" it is noted that the following approvals have proposed the same variation and have been approved thereby abandoning the development standard:

DA-2016/969: 48 Bank Street WOLLONGONG
Demolition of existing structures and construction of shop top housing comprising ground floor commercial and six residential levels with basement parking

DA-2017/1462: 47 Burelli Street WOLLONGONG
Demolition of all structures, and the construction of a seven (7) storey office building for IMB bank with two basement car parking levels for 89 car parking spaces

DA-2017/493: Langs Building 95-109 Crown Street WOLLONGONG
Commercial - demolition of existing building and construction of new commercial premises comprising of offices and retail tenancies

DA-2017/730: 131-135 Keira Street WOLLONGONG
Demolition of existing buildings and ancillary structures and the construction of a mixed use development above basement parking

DA-2018/973: 28 Young Street WOLLONGONG
Residential - demolition of existing structures and construction of a 15 storey mixed use development comprising seven (7) commercial tenancies, 64 residential apartments and car parking for 90 vehicles

DA-2019/779: 80 Market Street WOLLONGONG
Commercial - demolition of existing structures and construction of a six (6) storey development

DA-2019/1122: 20-26 Young Street WOLLONGONG
Demolition of existing structures and construction of a 15 storey mixed use development comprising 60 residential units, six (6) commercial tenancies and parking for 89 vehicles

Thus, deeming strict compliance with the minimum building separation is unwarranted (Forth Way) in the circumstances of this particular case.

4.2 Are there sufficient environmental planning grounds to justify contravening the development standard?

"Environmental planning grounds" take their colour from the subject matter, scope and purpose of the Environmental Planning and Assessment Act 1979 (EPA Act), including its objects. The below provide a breakdown of the key environmental planning grounds which support the proposed variation request, including:

The unique circumstances at the site which warrant the provision of reduced setback:

Adopting building separation requirements to dwellings to the north and potential dwellings to the east and south of the remainder of the site would mean a large part of the subject site would be excluded from any built form. Precedence regarding this particular planning ground has recently been set by the approved Onyx development under construction to the north which sought to vary the same control and was subsequently approved.

Therefore logically, restricting a built form envelope by this amount is completely impractical for a City Centre B3 zoned site at this location and, therefore, totally unreasonable, given the precedence to consider in this instance.

The southern and eastern adjoining sites are still able to achieve their maximum permitted FSR building forms and at the same time still achieve reasonable building separation.

The proposed building form does not result in any significant adverse impacts and achieves a good urban development outcome for the site:

The building intrusions into the side and rear setbacks are a direct design response with the intent to allow the site to respond to the demand for housing in the area, whilst supporting Wollongong Councils objectives for built form within the B3 zoned City Centre area.

The proposed bulk and scale of this building is considered appropriate for this City Centre location, and will not detrimentally affect the visual appearance of the area (in fact it will substantially improve an aged part of the City, which is undergoing change with other similar scale redevelopments occurring nearby). The overall

height and form of the development is consistent with expected future desired character strategies for the area.

The proposal incorporates attractive and well-considered architectural design, materials and details which reflect the proposed high-quality residential development inclusive of ground floor commercial use. The proposal involves well-articulated façades with the incorporation of a single tower building envelope featuring defined building lines to minimise bulk (and avoid a 'wedding cake' look). The proposal will deliver good internal amenity for prospective residents and commercial occupants.

Again, the adjoining site is still able to achieve their maximum permitted FSR building forms and at the same time still achieve reasonable building separation.

The maintenance of design excellence through the proposed alternate strategy, which has been designed to be a core element of the delivery of the integrated station development outcome:

" In considering whether development to which this clause applies exhibits design excellence, the consent authority must have regard to the following matters:

(a) whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,

(b) whether the form and external appearance of the proposed development will improve the quality and amenity of the public domain,

(c) whether the proposed development detrimentally impacts on view corridors,

(d) whether the proposed development detrimentally overshadows an area shown distinctively coloured and numbered on the Sun Plane Protection Map,

(e) how the proposed development addresses the following matters:

(i) the suitability of the land for development,

(ii) existing and proposed uses and use mix,

(iii) heritage issues and streetscape constraints,

(iv) the location of any tower proposed, having regard to the need to achieve an acceptable relationship with other towers (existing or proposed) on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form,

(v) bulk, massing and modulation of buildings,

(vi) street frontage heights,

(vii) environmental impacts such as sustainable design, overshadowing, wind and reflectivity,

(viii) the achievement of the principles of ecologically sustainable development,

(ix) pedestrian, cycle, vehicular and service access, circulation and requirements,
(x) impact on, and any proposed improvements to, the public domain."

The urban design has been developed in accordance with the relevant design excellence provisions of the WLEP 2009, as well as other strategic and statutory considerations relevant to the proposed shop top housing development. 'Design Excellence' has been the cornerstone of the design process for the design team, and has been achieved through a rigorous design development process in collaboration with a team of specialist consultants.

The architectural design, materials and detailing are of a high standard that is appropriate to the building type and location. The external appearance and form of the development will improve the quality and amenity of the public domain in the immediate vicinity of the site.

The proposal will not unreasonably impact on view corridors given it is well below the maximum height limit of 60m, and provides for consistent building lines throughout the levels. The land is suitable for the proposed mixed use development and the allocated mix of commercial/residential floor space, given the location of the site on the edge of the City Centre.

The proposal is and will be compatible with future developments in the immediate vicinity of the site, including consideration of the approved DA to the north under construction in relation to built form and materials and finishes, and therefore will enhance the streetscape (which currently contains several older style buildings that are in need of refurbishment or repair, including those situated on the subject site that will be demolished as part of the DA).

The location of the tower and the proposed bulk, massing and modulation of the building is acceptable and does not result in any unreasonable loss of amenity to any of the adjoining properties. The proposed street frontage heights are considered appropriate having regard to the surrounding context and scale of development.

The proposal will have no significant adverse environmental impacts in terms of sustainability, overshadowing, wind and/or reflectivity. Relevant details have been

provided in this regard to enable a full assessment (i.e. shadow diagrams, wind report, BASIX certificates etc).

Access to the site has been carefully considered in a variety of forms (i.e. for pedestrians, motorists and cyclists alike), with suitable provisions to allow for service access and circulation. The proposed development will have a positive impact on the public domain and interface of Atchison Street.

This will significantly improve the amenity and character of the blocks/precinct surrounding the location. It will also allow for natural surveillance of the area with regards to the principles of Crime Prevention Through Environmental Design (CPTED).

The delivery of a development outcome which does not result in any adverse environmental impacts

Environmentally sustainable measures incorporated in the development include:

- Building orientates to maximise solar gain;
- Design solution provides effective benefices to cross flow ventilation;
- Maximised planting and deep soils areas within the communal open spaces;
- Ethically source long lifecycle products and materials;
- Dual flush toilets;
- Rainwater to be used for garden irrigation;
- Taps fitted with water efficient fittings;
- Insulation and sisalation under roof;
- Proposed visitor and residential bicycle parking in compliance with Wollongong Council's Development Control Plan

As above, we acknowledge the proposed development will bring some overshadowing impact upon the neighbouring properties to the south. Practically, due to site orientation it would be almost impossible to redevelop the subject site for anything greater than a few storeys without having any impact whatsoever. At this point in time, developments to the south include a place of worship and low residential dwellings, which means no unreasonable loss of residential amenity will be created as a result of the proposal.

The reduced building separation is deemed reasonable and acceptable due to the reduced impacts to privacy and overlooking, created specifically by responsive architectural interface treatment to these boundaries (almost as if they were non-habitable type facades).

The development has been specifically designed to provide a suitable environment for all future inhabitants of the dwellings, whilst respecting the considerations of adjoining land uses. The internal layout of the rooms attempt to minimise overlooking with the careful location of window and door openings, whilst the size of external balconies also help maintain such visual separation.

Acoustic privacy for future visitors and neighbouring land uses has also been taken into account, with the proposed development being designed to limit noise intrusion into adjoining properties through the use of appropriate building materials and associated noise control treatments. The proposed development has been supported by a Noise Assessment prepared by Harwood Acoustics, which provides a range of acoustic recommendations to ensure the proposed development will comply with the relative sections of the EPA and Council requirements/conditions, and will not create any offensive noise to the surrounding residents.

Overall, it is evident from the above commentary provided that there are sufficient planning grounds to justify contravening the building separation development standards identified. To this end, strict compliance with the numerical development standards are both unwarranted and unnecessary in this instance.

4.3 Does contravening the development standard raise any matters of significance for the State or regional environmental planning?

No, contravening the development standard in this case does not raise any maters of State or Regional planning significance.

4.4 Is the objection well founded?

Yes, for the reasons outlined in the previous sections above, the objection is considered to be well founded in this particular instance. Granting an exception to the development standard can therefore be supported in the circumstances of the case.

The proposed development will be consistent with the outcomes envisaged in the zoning and policy framework. The development is also compatible with the relevant objectives specified in *Section 1.3* of the *EPAA 1979.*

5.0 Conclusion

The proposed variation is based on the reasons contained within this request for an exception to the stated *Building separation within Zone B3 Commercial Core or Zone B4 Mixed Use* requirement, being a development standard contained within the *WLEP 2009*. The proposal will not result in any adverse impacts with regards to the amenity of the adjoining properties.

In conclusion, the objection is considered to be well founded and compliance with the standard in unreasonable in the circumstances of the case.

Yours faithfully,
MARTIN MORRIS & JONES PTY LTD

LUKE ROLLINSON BUrbRegPlan DipArchTech MPIA
DIRECTOR – TOWN PLANNER

Attachment 4 - Apartment Design Guide assessment

Relevant control	*Required*	*Comment*
Part 3 – Siting the development		
3A Site analysis	Site analysis to include the following: • Site location plan • Aerial photograph • Local context plan • Site context and survey plan • Streetscape elevations and sections • Analysis	Suitable site analysis of the site and surrounds has been provided
3B Orientation	*Objective 3B-1* Building types and layouts respond to the streetscape and site while optimizing solar access within the development *Objective 3B-2* Overshadowing of neighbouring properties is minimised during mid-winter	Satisfactory – units within the tower are oriented east and west to optimise solar access The adjoining development to the south is a church and will be overshadowed by the development given the lot orientation. Any future redevelopment of the sites to the south are likely to adopt a similar layout to orient apartments to gain solar access from the east and west.
3C Public domain interface	*Objective 3C-1* Transition between private and public domain is achieved without compromising safety and security *Objective 3C-2* Amenity of the public domain is retained and enhanced	The development is considered to provide an acceptable interface with the public domain as follows: The ground floor is elevated above street level to achieve minimum floor levels for the flood affected site. The design will not compromise safety or security as clear sight lines are available. The public domain will provide street tree planting and activation for commercial and residential use
3D Communal and public open space	*Objective 3D-1* An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping - Communal open space has a minimum area equal to 25% of the site.	Site area is 1620.2m^2 25% = 405m^2 required 521m^2 provided on podium (Ground level and Level 3), including DSZ = 32% of site East and west facing COS receive the required direct sunlight.

	Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid-winter) *Objective 3D-2* Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting *Objective 3D-3* Communal open space is designed to maximise safety *Objective 3D-4* Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood	The communal open space is adequate in size and proportions and provides seating and barbeque facilities as well as a common room. The range of functions and activities is limited and could be improved to provide more variety (eg pool/gym/play equipment etc) Passive surveillance of the communal open space is provided and suitably lit. NA
3E Deep soil zones	*Objective 3E-1* Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality - Greater than 1,500m² requires 6m - Deep soil zone (% of site area) 7%	Site is 1620.2m² No deep soil zone is provided however adequate soil depth on podium will provide for tree growth which is considered acceptable in the B3 Commercial Core zone. 115.7m² DSZ provided = 7% which achieves minimum requirements.
3F Visual privacy (separation distances from buildings to the side and rear boundaries)	*Objective 3F-1* Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy - Up to 12m (4 storeys) - 6m (habitable rooms & balconies) 3m (non – habitable rooms)	Suitable separation distances are provided between the building and adjoining development as detailed below: *L1 – L2* *Side boundaries* - Nil setback for podium units with blank walls. - East facing units exceed the 6m separation distance to habitable rooms and balconies (8.04m-9m). *Eastern (rear) boundary*

		6m rear setback to habitable/balcony exceeded (9.5m minimum)
	Up to 25m (5-8 storeys) – 9m (habitable rooms & balconies) 4.5m (non – habitable rooms)	*(Levels 3-6 – NB part of Level 7 over 25m)* *Side boundaries* 9m separation distance to main façade of building with splay windows encroaching (high level windows and rear facing windows to bedrooms) *Eastern (rear) boundary* 9.0m habitable separation distance achieved to rear boundary (minimum 9.5m to balcony)
	Over 25m (9+ storeys)	*(Level 7-13)* *Side boundaries* 9m separation distance continued for full height of tower which does not meet the minimum 12m for habitable rooms however defensive façade achieves reasonable levels of visual privacy. The east facing balconies achieve a 12m side setback from Level 8-13. *Eastern (rear) boundary* 9m rear setback to balconies at Level 7 whereas should be 12m Minimum 14m habitable separation distance achieved to rear boundary on Levels 8-13 which exceeds the minimum
	Objective 3F-2 Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space	Satisfactory The design of the 'pop out' bedroom windows provide privacy for occupants and adequate access to light and outlook.
3G Pedestrian access and entries	*Objective 3G-1* Building entries and pedestrian access connects to and addresses the public domain	Satisfactory
	Objective 3G-2 Access, entries and pathways are accessible and easy to identify	Accessible entrance into the building is provided via a chair lift.

	Objective 3G-3 Large sites provide pedestrian links for access to streets and connection to destinations	N/A
3H Vehicle access	*Objective 3H-1* *Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes*	The car park entry is suitably located, noting it is adjacent to the driveway for adjoining northern development however will minimise conflicts with the church to the south which is considered preferable. Clear sight lines are provided at the vehicle crossing as identified in the Traffic Report.
3J Bicycle and car parking (Nominated regional centres; Wollongong, Warrawong, Dapto)	*Objective 3J-1* *Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas* For development on land zoned B3 or B4, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre; the minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, *whichever is less*. *Objective 3J-2* Parking and facilities are provided for other modes of transport *Objective 3J-3* Car park design and access is safe and secure *Objective 3J-4* Visual and environmental impacts of underground car parking are minimised	**GTGD applies as it is less than Council requirements**. *Metropolitan Sub-Regional Centres:* *0.6 spaces per 1 bedroom unit.* *0.9 spaces per 2 bedroom unit.* *1.40 spaces per 3 bedroom unit.* *1 space per 5 units (visitor parking).* The development proposes 50 units: 1 Bed: 6 x 0.6 = 3.6 2 Bed: 38 x 0.9= 34.2 3 Bed: 6 x 1.4= 8.4 Total=46.2 = **47 resident spaces** 50/5 = **10 visitor spaces required** *Refer WDCP2009 assessment for commercial parking assessment* Motorbike and bicycle parking is provided within the basement (4 motorbike, 17 secure bicycle spaces for residents and 5 residential visitor bicycle spaces). Satisfactory Satisfactory

	Objective 3J-5 Visual and environmental impacts of on-grade car parking are minimised *Objective 3J-6* Visual and environmental impacts of above ground enclosed car parking are minimised	N/A N/A
4A Solar and daylight access	*Objective 4A-1* *To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space* - Living rooms and private open space, 2 hours direct sunlight in mid- winter to 70% of units. - Units receiving no direct sun light between 9am and 3pm mid-winter 15% maximum *Objective 4A-2* *Daylight access is maximised where sunlight is limited* *Objective 4A-3* Design incorporates shading and glare control, particularly for warmer months	Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter. No apartments receive no direct sunlight between 9 am and 3 pm at mid winter. Views from the sun diagrams have been provided demonstrating compliance in this regard. Adequate sunlight access (NB – skylights to Level 2 units have been removed) West facing units have the façade behind the balcony and operable awnings over the balcony
4B Natural ventilation	*Objective 4B-1* *All habitable rooms are naturally ventilated* *Objective 4B-2* *The layout and design of single aspect apartments maximises natural ventilation* *Objective 4B-3* *The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents*	Satisfactory Single aspect units limited to 6 x 1 bedroom units on podium levels which meet the maximum depth requirements. In the first 8 storeys (L1-10), 24 out of the 30 apartments achieve natural ventilation (80%) as the remaining units are dual aspect.

4C Ceiling heights	*Objective 4C-1* *Ceiling height achieves sufficient natural ventilation and daylight access* - Habitable rooms 2.7m - Non-habitable 2.4m *Objective 4C-2* *Ceiling height increases the sense of space in apartments and provides for well-proportioned rooms* *Objective 4C-3* *Ceiling heights contribute to the flexibility of building use over the life of the building*	2.7m floor to ceiling heights achieved. (NB - 3.1m floor to floor height proposed) Satisfactory Satisfactory – Level 1 has slightly higher ceiling levels (3.3m floor to floor height
4D Apartment size and layout	*Objective 4D-1* *The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity* Studio 35m² 1 bedroom 50m², 2 bedroom 70m² 3 bedroom 90m² *Objective 4D-2* *Environmental performance of the apartment is maximised* *Objective 4D-3* *Apartment layouts are designed to accommodate a variety of household activities and needs*	No studio apartments 6x 1 beds –52.2m² minimum 38 x 2 beds (with ensuite) –83m² minimum 6 x 3 beds (with ensuite) = 96.6m² minimum. Room sizes achieve minimum requirements (8m kitchen to window / bedroom sizes/ 4m living room width) Habitable room depths are limited to a maximum of 2.5 x the ceiling height . Maximum habitable room depth in open plan layouts is 8m from a window. Master bedrooms have a minimum area of 10m² and other bedrooms 9m² (excluding wardrobe space) Bedrooms have a minimum dimension of 3m (excluding wardrobe space) Living rooms or combined living/dining rooms have a minimum width of: • 3.6m for 1 bedroom apartments • 4m for 2 and 3 bedroom apartments Access to bedrooms, bathrooms and laundries is separated from living areas minimising

		direct openings between living and service areas The apartment layouts are considered acceptable in terms of flexibility over time.
4E Private open space and balconies	*Objective 4E-1* *Apartments provide appropriately sized private open space and balconies to enhance residential amenity* Studio apartments 4m² - 0 depth 1 bedroom apartments 8m² 2m depth 2 bedroom apartments 10m² 2m depth 3+ bedroom apartments 12m² 2.4m depth. Ground level apartments require15m²/3m depth *Objective 4E-2* *Primary private open space and balconies are appropriately located to enhance liveability for residents* *Objective 4E-3* *Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building* *Objective 4E-4* *Private open space and balcony design maximises safety*	N/A 10.2m² 10m² minimum 18.9m² minimum N/A Satisfactory Private open spaces and balconies oriented to maximise solar access and connected to living areas Satisfactory Satisfactory
4F common circulation spaces	*Objective 4F-1* *Common circulation spaces achieve good amenity and properly service the number of apartments* The maximum number of apartments off a circulation core on a single level is eight. *Objective 4F-2* *Common circulation spaces*	Maximum number of units off a core does not exceed 8. Number of apartments sharing a single lift does not exceed 40 Natural light is available to the lobby areas Common circulation is legible and avoids

	promote safety and provide for social interaction between residents	tight corners or concealment opportunities., seating provided at ground level
4G Storage	*Objective 4G-1* *Adequate, well designed storage is provided in each apartment* *Objective 4G-2* *Additional storage is conveniently located, accessible and nominated for individual apartments*	Suitable storage is provided within the units. Secure designated storage areas indicated within basement to meet minimum requirements
4H Acoustic privacy	*Objective 4H-1* *Noise transfer is minimised through the siting of buildings and building layout* *Objective 4H-2* *Noise impacts are mitigated within apartments through layout and acoustic treatments*	Unit layout does not lead to unacceptable noise impacts. Noisy areas are generally located next to or above each other and quieter areas next to or above quieter areas.
4J Noise and pollution	*Objective 4J-1* *In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings* *Objective 4J-2* *Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission*	Satisfactory. No significant external noise sources (rail corridor is approximately 130m to the west). Refer discussion on potential noise impacts from adjoining church in submissions section of main report.
4K Apartment Mix	*Objective 4K-1* *A range of apartment types and sizes is provided to cater for different household types now and into the future* *Objective 4K-2* *The apartment mix is distributed to suitable locations within the building*	A range of 1, 2 and 3 bedroom apartments and configurations is proposed. 6 apartments are designed as adaptable units and 24 livable units. Satisfactory, noting that 3 bedroom units could be provided at podium level to enhance access to communal open space areas.

4L Ground floor apartments	*Objective 4L-1* *Street frontage activity is maximised where ground floor apartments are located.* *Objective 4L-2* *Design of ground floor apartments delivers amenity and safety for residents*	N/A. N/A.
4M Facades	*Objective 4M-1* *Building facades provide visual interest along the street while respecting the character of the local area* *Objective 4M-2* *Building functions are expressed by the façade*	Building services are integrated into the building Building entry points are clearly defined, however further detail on the treatment of the painted façade (where the substation faces access driveway) would improve the visual interest and offers opportunities to provide quality building identification. The façade reflects the apartment layout.
4N Roof design	*Objective 4N-1* *Roof treatments are integrated into the building design and positively respond to the street* *Objective 4N-2* *Opportunities to use roof space for residential accommodation and open space are maximised* *Objective 4N-3* *Roof design incorporates sustainability features*	Satisfactory (noting roof form was redesigned to address DRP comments) COS provided at other levels and roof used to provide photovoltaic panels (NB a condition of consent to indicate the panels on construction certificate plans is recommended) As above.
4O Landscape Design	*Objective 4O-1* *Landscape design is viable and sustainable* *Objective 4O-2* *Landscape design contributes to the streetscape and amenity*	Acceptable landscaped areas have been provided. Council's Landscape Officer has reviewed the proposal in respect of the type and nature of the planting and has provided a satisfactory referral subject to conditions of consent. One street tree is to be removed and replaced with a suitable species. The northern street tree is proposed to be retained as part of the development.
4P Planting on structures	*Objective 4P-1* *Appropriate soil profiles are provided*	The planting on structure is considered to be of a type and scale which provides amenity to

	Objective 4P-2 *Plant growth is optimised with appropriate selection and maintenance* *Objective 4P-3* *Planting on structures contributes to the quality and amenity of communal and public open spaces*	residents of the building and the streetscape. Council's Landscape Officer has reviewed the proposal in respect of the type and nature of the planting and has provided conditions of consent. Satisfactory, conditions recommended for suitable species and Landscape referral found satisfactory.
4Q Universal design	*Objective 4Q-1* *Universal design features are included in apartment design to promote flexible housing for all community members* *Objective 4Q-2* *A variety of apartments with adaptable designs are provided* *Objective 4Q-3* *Apartment layouts are flexible and accommodate a range of lifestyle needs*	20% of the apartments incorporate Liveable Housing Guidelines silver level universal design features 6 adaptable units are proposed. Satisfactory
4R Adaptive reuse	*N/A*	N/A
4S Mixed use	*Objective 4S-1* *Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement* *Objective 4S-2* *Residential levels of the building are integrated within the development, and safety and amenity is maximise for residents*	The site is in a city centre location and allows for pedestrian movement along the site's frontage to the ground floor commercial tenancy. The site is constrained by flooding so is elevated above street level but provides adequate street activation Satisfactory - Separate residential and commercial entries, both accessible from the street - Commercial and residential servicing and car parking separated - Security measures including secure access to residential parking areas - No concealment opportunities
4T Awnings and signage	*Objective 4T -1* *Awnings are well located and complement and integrate with the building design* *Objective 4T-2* *Signage responds to the context and desired streetscape character*	Suitable awning provided along Atchison Street No signage envelopes shown however design allows for future signage on façade, window, under awning.

4U Energy efficiency	*Objective 4U-1* *Development incorporates passive environmental design*	Satisfactory natural light is provided to habitable rooms. Suitable areas for clothes drying provided.
	Objective 4U-2 *Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer*	A BASIX Certificate has been provided which outlines mechanisms to achieve the minimum thermal comfort targets. Balconies are recessed providing shade to adjacent living spaces during hotter periods of the day. The layout of units provides satisfactory orientation to achieve solar access in cooler months
	Objective 4U-3 Adequate natural ventilation minimises the need for mechanical ventilation	The development meets the minimum natural ventilation requirements
4V Water management and conservation	*Objective 4V-1* *Potable water use is minimised* *Objective 4V-2* Urban stormwater is treated on site before being discharged to receiving waters *Objective 4V-3* Flood management systems are integrated into site design	The development meets the BASIX targets for water use. Suitable WSUD has been incorporated into the development. A plenum is proposed for the purpose of flood storage which has been found satisfactory by Council's Stormwater Engineers. The plenum incorporates screening to the street frontage to minimise the visual impact of this system from the public domain.
4W Waste management	*Objective 4W-1* *Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents* *Objective 4W-2* Domestic waste is minimised by providing safe and convenient source separation and recycling	Waste storage is within the basement. The waste storage area is of a suitable size to accommodate expected waste generation for the development. It is noted that the DRP raised concern with the location of the waste storage area, however no concerns with the location or manoeuvrability have been raised by Council's Traffic Engineer. Satisfactory Garbage chutes to waste storage room are proposed at each level which incorporates diversion of recycling materials

4X Building maintenance	*Objective 4X-1* *Building design detail provides protection from weathering*	Satisfactory
	Objective 4X-2 Systems and access enable ease of maintenance	Satisfactory
	Objective 4X-3 Material selection reduces ongoing maintenance costs	Satisfactory

Attachment 5: Wollongong Development Control Plan 2009 assessment

CHAPTER A2 – ECOLOGICALLY SUSTAINABLE DEVELOPMENT

Development controls to improve the sustainability of development throughout Wollongong are integrated into the relevant chapters of this DCP.

Generally speaking, the proposal is considered to be consistent with the principles of Ecologically Sustainable Development

CHAPTER B4 – DEVELOPMENT IN BUSINESS ZONES

The development is located in a business zone and as such this chapter is applicable to the development. As the site is also in the Wollongong City Centre, the provisions of Chapter D13 prevail where there's an inconsistency.

An assessment against the relevant sections is outlined below.

9 General design requirements for retail and business premises developments

9.2 Development Controls

9.2.1 Floor Configuration

- An even transition between the building and the footpath in hindered due to the minimum floor level required to address the site's flooding constraint.
- The commercial tenancy on the ground floor has a depth of 26m however will achieve acceptable levels of natural light.
- Floor to ceiling height of the commercial tenancies on ground floor is greater than 3.3m with a floor to floor height of 4.2m.

9.2.2 Building Appearance

- The building is considered to be designed to provide character, visual legibility and human scale and to delineate the distinct uses.
- The façade is suitable broken into a base, with residential tower above
- Curtain wall glazing is not proposed
- Reflectivity from the proposal is not expected to be significant.

9.2.3 Building Alignment

The building is suitable aligned with the property boundary and footpath.

9.2.4 Active Street Frontages

Active uses are provided for both frontages at ground level with clear glazing addressing the street.

9.2.5 Urban Design / Streetscape Appearance

- Appropriate horizontal and vertical emphasis is provided to the building.
- High quality, durable finishes are proposed.
- A schedule of materials and finishes has been provided, some further design changes are required to the southern façade and the ground floor as discussed in the body of the report.

9.2.6 Pedestrian Access

The site is not identified as being one where a through site link is required.

Direct pedestrian access is provided to the frontage of the development.

9.2.7 Awnings

A suitable awning is provided (NB a condition is recommended to meet the requirements under Chapter D13).

9.2.8 Public Domain – Footpath Paving

New footpath and street tree planting is proposed to the site frontage.

9.2.9 Solar access and overshadowing

Shadow diagrams and view from the sun diagrams are provided indicating solar access to the site to the south will not be unreasonably compromised.

9.2.10 Shower and Change Facilities & Parenting Facilities in Large Business Premises / Commercial Office Buildings

N/A

9.2.11 Advertising Signage

N/A

9.2.12 Wind Impact Assessment

A wind impact has been provided - refer Chapter D13.

9.2.13 Access, Car parking and Servicing

See Chapter E3

9.2.14 Access for People with a Disability

See Chapter E1

9.2.15 Land Consolidation

The proposal is situated over three (3) separate parcels of land and it is a condition of consent that these be consolidated into a single parcel of land.

13 Works in the public domain

Upgrade of the footpath along the frontage is proposed.

CHAPTER D13 – WOLLONGONG CITY CENTRE

2 Building form

Objectives/controls	*Comment*	*Compliance*
2.2 Building to street alignment and street setbacks Build to street alignment 4m setback above street frontage height c) Balconies may project up to 600 mm into front building setbacks, provided the cumulative width of all balconies at that particular level totals no more than 50% of the horizontal width of the building façade, measured at that level. Balconies are not permitted to encroach above the public road reserve.	The tower is setback over 4m from the front boundary (minimum 5.6m), with the balconies encroaching into the setback by 350mm. The minimal encroachment into the front setback is considered acceptable noting that the cumulative width of the balconies exceeds 50% of the horizontal width of the building.	Yes Satisfactory
2.3 Street frontage heights in commercial core Commercial core requires 12m-24m	The street frontage height achieves the minimum 12m requirement to match the adjacent podium height of the adjoining northern site (31-33 Atchison Street).	Yes

Objectives/controls	*Comment*	*Compliance*
2.4 Building depth and bulk *NB - Table does not apply to building frontages up to street frontage height in commercial core* Above 24m in height: Maximum floorplate 900sqm Max. building depth 18m	*Above 24m = level 7 & above* Max. floorplate 370sqm Building depth 28m (excl. balconies) exceeds maximum building depth – however achieves natural ventilation requirements under ADG and achieves objectives under this part	Yes
2.5 Side and rear building setbacks and building separation • Nil setback to street frontage height (SFH) • 12m minimum side and rear setback to habitable rooms between SFH and 45m • 6m minimum side and rear setback (including non-habitable residential) • 14m minimum setback for all use above 45m	*Note – ADG outlines building separation requirements under Part 3F – Visual Privacy* Nil side setback to SFH 9m side setbacks (8.04m to splay windows) proposed above SFH, with rear balconies above L8 have 12m side setback. Defensive façade adopted to both side boundaries which results in a side setback between the 6m and 12m requirements. 9.5m – 14m rear setback to balconies 14m rear setback complies at Level 13, however 9m-12m side setbacks proposed	No – refer variation statement in body of report
2.6 Mixed used buildings		
a) Provide flexible building layouts which allow variable tenancies or uses on the first two floors of a building above the ground floor.	Ground floor commercial tenancy will allow a range of commercial uses.	Yes, subject to conditions
b) Minimum floor to ceiling heights are 3.3 metres for commercial office and 3.6 metres for active public uses, such as retail and restaurants in the B3 Commercial Core zone.	4.2m floor-floor height for ground floor commercial and 3.3m for Level 1– satisfactory	
c) Separate commercial service requirements, such as loading docks, from residential access, servicing needs and primary outlook.	Separate access, waste & servicing for commercial and residential components	
d) Locate clearly demarcated residential entries directly from the public street.	Identifiable residential entrance	
e) Clearly separate and distinguish commercial and residential entries and vertical circulation.	Satisfactory	
f) Provide security access controls to all entrances into private areas, including car parks and internal courtyards.	Yes, conditions included for secure access	
g) Provide safe pedestrian routes through the site, where required.	N/A	

Objectives/controls	*Comment*	*Compliance*
h) Front buildings onto major streets with active uses. i) Avoid the use of blank building walls at the ground level. j) For mixed use buildings that include food and drink premises uses, the location of kitchen ventilation systems shall be indicated on plans and situated to avoid amenity impacts to residents.	Yes, active commercial frontage Condition recommended for improved presentation to the street for blank substation wall that faces the street. Proposed commercial tenancy not identified for food and drink premises.	
2.7 Deep soil zone 15% DSZ	Podium level planting is proposed given the basements are permitted to extend to the boundaries. This scenario is acceptable given the city centre location. 7% deep soil planting proposed on podium	No, variation sought
2.8 Landscape design	Landscape design found satisfactory subject to conditions	Yes
2.9 Planting on structures	Communal areas provided on podium.	Yes
2.10 Sun access planes	N/A	N/A
2.11 Development on classified roads	N/A	N/A

3 Pedestrian amenity

Objectives/controls	*Comment*	*Compliance*
3.2 Permeability	The site is not identified as having existing or requiring pedestrian links or laneways under Fig. 3.1.	N/A
3.3 Active street frontages Same general level as footpath and accessed from the street	Active street frontage provided in the form of one ground floor commercial premises fronting Atchison St Elevated walkway is required for achieving the minimum floor levels to address flooding constraints which have been simplified based on DRP advice to improve the streetscape and pedestrian interface.	Yes
3.4 Safety and security	Satisfactory	Yes

3.5 Awnings		
a) Continuous street frontage awnings are to be provided for all new developments as indicated in Figure 3.6. b) Awning design must match building facades and be complementary to those of adjoining buildings. c) Wrap awnings around corners for a minimum six metres from where a building is sited on a street corner. d) Awnings dimensions should generally be: i) Minimum soffit height of 3.3 metres, ii) Low profile, with slim vertical facias or eaves (generally not to exceed 300mm height), iii) Setback a minimum of 1.2 metres from the kerb, and iv) Generally minimum 2.4 metres deep. e) To control sun access/protection, canvas blinds along the street edge may be permitted, subject to design merit and assessment. f) Signage on blinds is not permitted. g) Provide under awning lighting to facilitate night use and to improve public safety.	Continuous awning proposed in accordance with these requirements (a condition is recommended to satisfy dimensional requirements, lighting under awning - refer Attachment 7)	Yes, subject to conditions
3.6 Vehicular footpath crossings	6m wide driveway crossing proposed at northern end of site.	
3.7 Pedestrian overpasses, underpasses and encroachments	NA	
3.8 Building exteriors		
	A schedule of external finishes has been provided that shows a range of materials and finishes for the building. Overall, the façade is well articulated and a range of materials proposed to provide visual interest however a more detailed finish to the southern façade is required to minimise the visual bulk of the podium that faces the adjoining church to the south	Yes, subject to conditions

3.9 Advertising and signage	No signage proposed – subject to separate future approval if not Exempt	Yes, subject to conditions
3.10 Views and view corridors The objectives of this part are: *a) To maintain and enhance views from the city centre to the foreshore, escarpment and significant objects (such as the lighthouse) wherever possible.* *b) To enhance views along city streets.* *c) To protect silhouettes of the tops of major buildings or structures as seen against the sky or backdrop of the escarpment or foreshore.*		
a) Existing views shown in Figure 3.12 are to be protected to the extent that is practical in the planning and design of development. b) The redevelopment of sites with potential to open a blocked view shown in Figure 3.12 must take into account the restoration of that view. c) Align buildings to maximise view corridors between buildings. d) Remove or avoid installation of built elements that obstruct significant views. e) Carefully consider tree selection to provide views along streets in Figure 3.12 and keep under storey planting low where possible. f) Site analysis must address views with the planning and design of building forms taking into account existing topography, vegetation and surrounding development.  **Figure 3.12: Significant views**	The site is outside the distant panoramic views identified in Figure 3.12 and Athcison Street does not have a framed view along the street, as shown to the left (approximate location of site shown highlighted):	N/A

4 Access, parking and servicing

Objectives/controls	*Comment*	*Compliance*

4.2 Pedestrian access and mobility	The residential foyer and entries to commercial units are proposed to be accessible by all people. Accessible entrance and car parking is proposed.	Yes
4.3 Vehicular driveways and manoeuvring areas	A single driveway access is proposed on the northern side of the site. No objections to the driveway access and manoeuvrability on the ground level and basement levels have been raised by Council's Traffic division. Refer further discussion in Chapter E3.	Yes
4.4 On-site parking The objectives of this part are: *a) Facilitate an appropriate level of on-site parking provision in the city to cater for a mix of development types.* *b) Minimise the visual impact of on-site parking.* *c) Provide adequate space for parking and manoeuvring of vehicles (including service vehicles and bicycles).* *d) To promote Wollongong city centre as a more lively and vibrant place by providing parking incentives for certain developments in the city centre.* *e) To encourage economic growth in the city centre.* *f) To recognise the complementary use and benefit of public transport and non-motorised modes of transport such as bicycles and walking.*	Refer ADG and Chapter E3 assessment for car parking numbers. On-site parking provided for residents within the two basement levels in accordance with the RMS Guide to Traffic Generating Developments. Visitor parking and commercial parking at upper basement level. The parking is provided within two levels of basement parking which has limited visual impact. A geotechnical report was submitted in relation to the proposal which has been found satisfactory by Council's Geotechnical Engineer, subject to conditions Manouevring of vehicles within the site has been assessed as satisfactory by Council's Traffic Engineer, subject to conditions. Bicycle parking provided for residents, visitors and for the commercial use.	Yes

4.5 Site facilities and services		
a) To ensure that site facilities (such as clothes drying areas, mail boxes, recycling and garbage disposal units/areas, screens, lighting, storage areas, air conditioning units and communication structures) are effectively integrated into the development and are unobtrusive. *b) To ensure that site services and facilities are adequate for the nature and quantum of development.* *c) To establish appropriate access and location requirements for servicing.* *d) To ensure service requirements do not have adverse amenity impacts.*	Letterboxes in residential lobby Site services, including waste storage areas and collection are satisfactory. Waste – basement storage and collection by small rigid vehicle which has been found acceptable in this instance, noting pre-lodgement advice to this affect. Bulky waste room has been provided.	Yes

5 Environmental management

Objectives/controls	*Comment*	*Compliance*
5.2 Energy efficiency and conservation		
The proposal is not expected to result in significant energy consumption and there are no particular opportunities to require energy saving measures under this DA other than to require water saving devices, such as flow regulators, 3 stars rated shower heads, dual flush toilets and tap aerators. This is to be a condition of consent.	BASIX Certificate provided indicating targets are achieved.	Yes
5.3 Water conservation		
The proposal is not expected to result in significant water consumption and there are no particular opportunities to require water saving measures under this DA other than to require new water fixtures (shower heads, taps, toilets, urinals etc.) to be 3 stars or better rated. This is to be a condition of consent.	BASIX Certificate provided – also rainwater tanks for communal open space areas. BASIX Certificate provided	Yes
5.4 Reflectivity	Can condition for 20% reflectivity if approved.	Yes, subject to conditions
5.5 Wind mitigation	Satisfactory subject to recommendations of the Wind Effects Report being incorporated into the design.	Yes
5.6 Waste and recycling	Adequate provision for waste storage and collection proposed - Refer ADG and Chapter E7	Yes

6 Residential development standards

Objectives/controls	*Comment*	*Compliance*
6.1 SEPP 65 and apartment design code	Refer ADG assessment and compliance table	
6.2 Housing choice and mix		
Studio and 1 bed units – 10% of total mix	6 x 1 bed units = 12%	Yes
3+ units – 10% of total mix	38 x 2 bed units = 76%	
Adaptable dwellings – 10%	6 x 3 bed units = 12%	
	6 x adaptable units = 12%	
	All adaptable units accessible via lift	
	Access report submitted verifying compliance with BCA and AS 4299 Adaptable Housing is achievable	
6.6 Basement Carparks		
Objective		
a) Integrate the siting, scale and design of basement parking into the site and building design.	Basement carpark does not result in a visible bulky podium above ground level, with a maximum 2m height above existing ground level at the rear of the site.	Yes
6.7 Communal open space		
5sqm of COS required per dwelling for developments with over 10 dwellings	250sqm required (50 units x 5sqm) & 521sqm total provided at Ground Level and L2 and L3	Yes
6.8 Private open space	N/A - Refer ADG	ADG applies

Objectives/controls	*Comment*	*Compliance*
6.9 Overshadowing		
The objective of this part is: *a) Minimise the extent of loss of sunlight to living areas and private open space areas of adjacent dwellings*	The overall building envelope is considered appropriate for the site, however due to the east-west lot orientation, will lead to significant overshadowing impacts to the south and minor impacts to the east.	Yes
a) The design of the development must have regard to the existing and proposed level of sunlight which is received by living areas and private open space areas of adjacent dwellings. Sensitive design must aim to retain the maximum amount of sunlight for adjacent residents. Council will place greatest emphasis on the retention of sunlight within the lower density residential areas. b) Adjacent residential buildings and their public spaces must receive at least 3 hours of direct sunlight between 9.00am and 3.00pm on 21 June. c) In determining access to sunlight, overshadowing by fences, roof overhangs and changes in level must be taken into consideration. Overshadowing by vegetation should also be considered, where dense vegetation appears as a solid fence. Refer to Land and Environment Court Planning Principles – Parsonage vs Ku-Rin-Gai Council (2004). d) In areas undergoing change, the impact of overshadowing on development likely to be built on adjoining sites must be considered, in addition to the impacts on existing development.	There are no dwellings that directly adjoin the site to the south or east. The shadow diagrams indicate that the adjoining southern site (church at 39 Atchison St) will still receive some afternoon sunlight from 1pm to the front forecourt area. The immediate area is undergoing change, and in the event that the southern sites are redeveloped in a similar way to the proposed development, it is likely that the solar access to any residential units will be achieved through orienting the units to the east and west. To the east, the shadow diagrams show overshadowing to the existing child care centre at Kenny Street from 2pm. The proposed development does not lead to significant overshadowing impacts on the eastern sites.	
6.10 Solar access	NA - Refer ADG	NA
6.11 Natural ventilation	NA - Refer ADG	NA
6.12 Visual privacy	NA - Refer ADG	NA
6.13 Acoustic Privacy	Satisfactory	Yes
6.14 Storage	NA – refer ADG	NA

7 Planning controls for special areas

The site is not located within a special area.

8 Works in the public domain

Conditions recommended for works to comply with City Centre Public Domain Technical Manual in the event that consent is granted.

CHAPTER E1: ACCESS FOR PEOPLE WITH A DISABILITY

An Access Report has been provided indicating the development can achieve the requirements for equitable and dignified access to the building, adaptable units, liveable units in relation to the relevant standards, national Construction Code and ADG requirements.

CHAPTER E2: CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

The proposal is considered to be satisfactory with regard to the Principles of Crime Prevention Through Environmental Design.

There are not considered to be undesirable concealment or entrapment opportunities.

Access to residential car park area is secure.

Commercial and residential lobby areas and lifts are separated.

Passive surveillance of the street is provided.

CHAPTER E3: CAR PARKING, ACCESS, SERVICING/LOADING FACILITIES AND TRAFFIC MANAGEMENT

Council's Traffic Engineer has considered the proposal having regard to the provisions of this chapter and found it satisfactory subject to conditions.

6 Traffic impact assessment and public transport studies

6.1 Car Parking and Traffic Impact Assessment Study

A traffic impact assessment was not required for the development.

6.2 Preliminary Construction Traffic Management Plan

Conditions of consent are recommended with regards to traffic management during construction.

7 Parking demand and servicing requirements

Parking meets requirements under ADG and RMS guidelines as outlined below:

Use / component	Parking rate	Required	Proposed
Car parking			
Commercial	1 per 60m^2	279.3 /60 = 4.66	5 (incl 1 x adaptable)
Residential	RMS Guide 1 bed 0.6 2 bed 0.9 3 bed 1.4	 6 x 0.6 = 3.6 38 x 0.9 = 34.2 6 x 1.4 = 8.4 Total Res = 46.2 (47)	47 residential
Visitor	0.2 per unit	50 x 0.2 = 10	10 (including 1 adaptable)
Total car parking		**62**	**62**
Motorcycle			
Commercial	1 per 25 cars	1	1
Residential	1 per 15 units	50/15 = 3.3 (4)	4
Bicycle parking			
Commercial	1 per 200m^2	279/200 = 1.4(2)	2
Commercial visitor	1 per 750m^2	1	1
Residential	1 per 3 units	50/3 = 16.7 (17)	17
Residential visitor	1 per 12 units	50/12 = 4.16 (5)	5

8 Vehicular access

Driveway grades and sight distances comply.

9 Loading / unloading facilities and service vehicle manoeuvering

The development complies with AS 2890.1.

Waste servicing will occur on-site (refer further comments regarding waste servicing under Chapter E7)

10 Pedestrian access

The proposal is satisfactory regarding pedestrian access into the site and along the frontage.

11 Safety & security (Crime Prevention through Environmental Design) measures for car parking areas

The proposal is satisfactory regarding the principles of CPTED.

CHAPTER E6: LANDSCAPING

The revised proposal incorporates more resolved communal landscape areas which have been found satisfactory by Council's landscape officer.

CHAPTER E7: WASTE MANAGEMENT

A Site Waste Minimisation and Management Plan has been provided in accordance with this chapter.

The proposal involves demolition of all existing structures and a demolition plan and Hazardous Materials Survey have been provided.

The waste arrangements have been outlined in an operational waste management plan prepared by waste consultants Elephants Foot Recycling Solutions.

The proposal provides separate commercial and residential waste storage rooms and on-site servicing arrangements. It is noted that the development will be serviced by a small rigid vehicle, which is less than the required waste collection vehicle specified in Appendix 7 of this chapter. This arrangement has been discussed between Council's Waste Division and Development Engineers and found acceptable in this instance, noting that the design of the development was based on the servicing arrangements being supported as part of the pre-lodgement advice. Council's Waste Services were referred the application & found that the site could be serviced in the event that private waste contractors could no longer service the site.
Garbage chutes with diverters to separate recycling materials are proposed at each level.

CHAPTER E12 GEOTECHNICAL ASSESSMENT

The application has been reviewed by Council's Geotechnical Engineer in relation to site stability and the suitability of the site for the development. Appropriate conditions have been recommended.

CHAPTER E13 FLOODPLAIN MANAGEMENT

The site is flood affected and the proposal has been considered by Council's Stormwater Engineer and found satisfactory subject to amended conditions. The development incorporated a plenum for flood storage below the ground floor of the building.

CHAPTER E14 STORMWATER MANAGEMENT

Stormwater management and disposal has been assessed as satisfactory by Council's Stormwater Engineer is in accordance with this chapter.

CHAPTER E15 WATER SENSITIVE URBAN DESIGN

The proposal incorporates an OSD system which will filter stormwater to suitably levels prior to discharge to the stormwater network.

CHAPTER E17 PRESERVATION AND MANAGEMENT OF TREES AND VEGETATION

The proposal includes the removal of one (1) street tree (Willow Mrytle identified as 'Tree 1') and retention of the other street tree (Brush box identified as 'Tree 2'). An arborist report was submitted with the application and considered by Council's Landscape officer. No objections have been raised to the removal of Tree 1 subject to a replacement street tree being planted (another Brush box). The provision

of this chapter have been satisfied and suitable conditions are recommended requiring the protection of the street tree required to be retained.

CHAPTER E19 EARTHWORKS (LAND RESHAPING WORKS)

The earthworks are satisfactory with regard to this chapter subject to the imposition of suitable conditions.

CHAPTER E20 CONTAMINATED LAND MANAGEMENT

The proposal has been supported by a Detailed Site Investigation prepared by a suitably qualified consultant has been submitted. That report found that soil and groundwater were considered of suitable quality for the proposed use and that data gaps could be addressed following demolition and during the development phase. The recommendations of that report have been reviewed by Council's Environment Officer and conditions of consent are recommended.

CHAPTER E21 DEMOLITION AND HAZARDOUS BUILDING MATERIALS MANAGEMENT

Conditions of consent are recommended with respect to demolition of the existing structures.

CHAPTER E22 SOIL EROSION AND SEDIMENT CONTROL

Conditions of consent are recommended in regard to appropriate sediment and erosion control measures to be in place during works.

Wollongong Design Review Panel
Meeting minutes and recommendations

Date	28 November 2019
Meeting location	Wollongong City Council Administration Offices
Panel members	Brendan Randles
	Sue Hobley
	Tony Quinn
Apologies	Nil
Council staff	Mark Riordan – Manager City Planning Pier Panozzo – City Centre & Major Development Manager Rebecca Welsh – Senior Development Project Officer
Guests/ representatives of the applicant	Robert Gizzi – Design Workshop Australia Catherine Stevens - Design Workshop Australia Amanda Kostovski - Design Workshop Australia Luke Rollinson - MMJ Wollongong Goran Ugrinovski – ATB Consulting
Declarations of Interest	Nil
Item number	1
DA number	DA-2019/1123
Reasons for consideration by DRP	Clause, 28 SEPP65, Clause 7.18 WLEP 2009
Determination pathway	Wollongong Local Planning Panel
Property address	35-37 Atchison Street Wollongong 2500
Proposal	Demolition of existing structures and construction of a 14 storey mixed use development comprising 54 residential units, one (1) commercial tenancy and parking for 63 vehicles
Applicant or applicant's representative address to the design review panel	
Background	The applicant elected to have a pre-lodgement DRP on 14th May 2019 under DE-2019/56. The subject application and site was inspected by the panel on 28 November 2019.
Design quality principals SEPP 65	
Context and Neighbourhood Character	This proposal was seen by the Panel on 14th May 2019. At that time, the Panel advised the following : *The site is located in a B3 Commercial Core zone within a rapidly evolving context. It is reasonably close to the City Centre, the station and public and private amenities and is located within a flood prone section of a major north south street.* *The proposal comprises a three storey podium with street facing retail and duplexes above, with a tower above that, which is well below the height limit. Numerous elevations and views have been included in the material demonstrating the proponent's understanding of the context and the proposal's compatibility with existing scale and massing. While detail is scant at this pre DA stage, it is clear that the current layout requires the removal of a street tree (which is not supported by the Panel) and is still to address streetscape and address in a meaningful and considered fashion.* *To its north is a similarly scaled proposal recently approved via a lengthy Section 34 Conference. This proposal encountered major difficulties in the resolution of :* - *streetscape* - *flood measures* - *discrete commercial and residential entries* - *accessibility and access*

	- *incorporation of services* - *design quality generally* - *materials and expression* *Accordingly, the Panel strongly recommend that the above issues are very well considered as the proposal moves forward.* The proposal has now been substantially developed with much greater detail provided throughout. As directed by the Panel, the car park ramp has been relocated to the north of the site –– however the tree at the southern side of the site is proposed to be removed. While the new ramp location creates a pairing of two driveways (normally discouraged), the Panel support this new location as it increases the potential for a better relationship with the adjacent Church, which is strongly encouraged. It also increases solar access to the northern elevation of the new development. As suggested at the last DRP meeting, the proponent has included drawings of the development now in construction on the adjoining property to its north, which is commendable. However, the ground floor layout appears not to have been informed by the many design strategies used to address the complex streetscape and access issues endemic to infill sites in this location. Instead, the proposed ground floor frontage is dominated by services, including an access ramp, substation and other required infrastructure, resulting in extremely poor streetscape, pedestrian amenity and residential address. In addition, retail presence on the street is severely impacted by the substation location and poorly conceived steps – especially at the southern end of the frontage. Therefore, the ground floor - and perhaps the core and built form layout above – needs to be redesigned to : - reduce impacts of substation (turning it on its side for example may be a better solution, as it allows for elegant material and building signage to face the street, instead of required service louvres) - minimise width of driveway - better resolve walkway with more attention to the southern end of the frontage and potential relationship with Church - remove services cupboard circulation area from frontage - maximise commercial frontage - create a residential entry that is comfortably proportioned - allow for views from residential entry through to rear courtyard - relocate as many services as possible to the basement - minimise extent of egress corridors
Built Form and Scale	As noted above, the built form proposed results in poor streetscape and pedestrian amenity. Therefore, a revised layout is required to address street frontage as well as the following issues : - provide a direct physical and visual link from residential entry to the rear communal open space - remove services directly facing rear courtyard and provide appropriately conceived activation along its built form edge - redesign the ground floor lay-out to simplify access, egress and circulation - review the commercial layout – how flexible is it? access to, location/dimensions and role of its private outdoor space? how should its interface with COS be treated? - the commercial lift location appears to limit the use and flexibility of the commercial space

	the northern courtyard appears inaccessible and lacking in purpose– should it be a void over the ramp with views through to rear garden beyond? The Panel is of the opinion that the proposed lay-out of the building's core results in serious problems with internal functionality and spatial efficiency. It is recommended that the applicant consider the approach of the H shaped ground floor layout of the adjoining development, which appears to work successfully at ground floor and first floor levels. The following concerns need to be addressed: - Re-appraise the form and layout of the core to reduce circulation space and excessive egress at ground floor. Consider rotating the core to minimise egress issues. - Take into account the form of upper levels and overall built form when designing the ground floor. - At typical podium levels, the circulation provided is excessive and wasteful; this should be reduced. - The level one non-trafficable roof space to the south side of the building is excessive, wasteful and potentially unattractive. An H shaped layout could instead provide highly desirable terraces to east facing units. The courtyards created by this solution would also provide privacy between street facing and rear facing units and the potential to provide natural light and air to ground level uses. The current plan proposes unit layouts that give rise to problems with privacy, solar access, streetscape amenity and architectural quality. The proposed building separation contributes to this; if less than 9m is to be accepted it must address the problems. The following points/concerns are raised by the Panel (noting that a new core design may help resolve them): - There are privacy issues between bedroom 1 of eastern units and east facing bedrooms of street facing units at podium levels; if rear facing units were redesigned with a bedroom facing a corner balcony, the second bedroom only would require a side window and could face east (away from the street facing units). - There are privacy issues between rear bedrooms; the fin solution currently proposed is clumsy and not supported. - Balconies to south facing units are oriented to the south, which results in poor open space quality and outlook. - Skylights within garden beds are proposed to achieve solar access to west-facing units on level 2. They do not appear to have been sufficiently resolved; if they are not required, they should be removed. It is recommended that street-facing and rear-facing units are redesigned to achieve symmetrical arrangements, with balconies clearly facing east and west. To remove privacy issues between street and rear facing units, and meet the rear facing units' mid winter solar access requirements, it would be better to: - extend the built form further east, - locate a corner balcony on both east facing units - face one bedroom onto the balcony - extend living rooms closer to the façade and/ - have the second bedrooms' windows face east - consider adding a third bedroom/study or private open space to units on level 2 in place of the proposed pebble

	landscape. At level 3, more coordination is required between the common rooms and adjacent open space (see Landscape below). It may be better to relocate the WC to the space north of the elevators to increase flexibility and functionality of common rooms. It is noted that as the Church directly south of the site is liable to be there for some time. Therefore, the south facing podium wall should be treated with a well integrated richer material (such as brick for example), so as to improve the visual amenity of its front garden/ forecourt. It is also recommended that the walkway should be open at its southern end and that future connectivity to this site be considered in the current proposal.
Density	The last DRP notes state : *The density currently proposed appears acceptable. However, the unnecessary increase to visual and physical bulk - mainly due to oversized ducts and wasteful lobby spaces - is not supported by the Panel.* While the density remains acceptable, a much improved built form is required to address the issues listed in this report.
Sustainability	The last DRP notes state : *There is great scope on this site to achieve high levels of solar access and natural ventilation.* *Deep soil should be provided in the rear garden.* Deep soil has not been provided. The Panel is of the opinion that a 6 metre deep soil zone is highly desirable. It does not accept that on-slab garden beds provide the environmental functionality or sustainability of deep soil. *Given its scale, a raft of well-considered sustainability measures should be integrated into the proposal as it moves forward.* A raft of well-considered sustainability measures have not been provided.
Landscape	The following concerns were raised by the Panel: - No deep soil is proposed. This precludes the possibility of providing water infiltration or establishing low maintenance large tree plantings on the site. The Panel considers that deep soil should be provided, but recognises that precedents for not doing so in this zone have been previously approved by Council. - The proposed location of the driveway adjacent to the neighbouring driveway and the treatment of the north-western corner of the building raise serious concerns about streetscape amenity. The Panel considers that the width of the driveway should be as small as possible and that the layout of the building should be amended to improve and activate the podium at the NW corner. Materials and finishes must be high quality and sensitive to the visibility from the public domain and the neighbouring building. - The Panel supports the proposed retention of the existing *Lophostemon confertus* (Brush Box) street tree and the removal of the *Agonis flexuousa* (Peppermint Myrtle) street tree and its replacement with another substantial tree planting.

	- The Panel questions the proposed non-trafficable pebble and bamboo landscapes. They will be difficult to maintain free of litter and weeds and provide little benefit in terms of amenity or utility. It is recommended that the space on Ground Level be incorporated into the usable communal open space (COS). It is considered that the space on Level 2 will provide little amenity to the lobby area. It could be incorporated, at least in part, into the adjoining units as either floor space or private open space POS). - The design of the Ground Floor COS needs reconsideration with regard to its functional purposes, relationship to the building overhang, lay-out and amenity, and potential impacts by and on adjoining child care centre outdoor space. The applicant advised that it is anticipated that the building will serve young singles and couples. Will a children's playground be required? Will turf be needed (given its maintenance needs)? Who will bother to visit this space (could a lap-pool activate it)? Will the "water rill" draw people to it? - The location of service rooms adjacent to the Ground Floor COS reduces its amenity and opportunities to provide ablution and/or kitchen facilities to support use of the COS. - If the commercial space is divided to allow for more than one tenant, access to the POS for all users will be difficult. Further, it will have problematic solar access (heavy over-shadowing in winter) and privacy issues (it will be overlooked by the balconies of units and intrudes into a corner of the COS). - COS on Level 2 double-duplicates the BBQ function of the Ground Floor without providing any additional uses. Its curved lay-out does not relate well to the functions of the adjacent indoor spaces. A garden bed is proposed to contain the skylights to the lower units, raising concerns about maintenance and plantings to address their functionality. - The Common Rooms on Level 2 could be improved for flexibility of single or double use and access to toilets from all common areas. The size of the lobby could be reduced to increase common area space. - The Species List has not been developed to response suitably to the Panel's previous recommendation the predominantly locally indigenous species be used to support biodiversity and sustainability goals.
Amenity	The current proposal creates many amenity issues that require resolution, as follows : - location of basement level loading bay requires difficult manoeuvring in a tight space at the base of the access ramp – this could be very dangerous. The loading bay should be relocated - adverse impacts of substation on streetscape - commercial space adversely impacted by substation - unresolved street facing walkway, especially at the southern end of the frontage - services cupboard circulation area degrades frontage - access to rear courtyard very constrained - no activation of rear courtyard

	- extent of ground floor services and egress corridors excessive - commercial lift and stairs within commercial space may limit flexibility is use - privacy issues between bedrooms on podium levels - excessive circulation podium levels - excessively deep street facing podium level balconies prevent solar access to units - unresolved issues with skylights above level 2 units - poor relationship of common rooms with communal terrace landscape - privacy issues between bedrooms on tower levels (fin solution proposed is not acceptable) - south facing balconies on tower levels not acceptable - unresolved solar access issues to SE unit - non-compliant separation is only acceptable if a revised tower layout can demonstrate that there will be no adverse impacts on streetscape, privacy or architectural excellence.
Safety	See note above regarding the location of the loading bay and its difficult access (across the driveway).
Housing Diversity and Social Interaction	See notes above regarding : - unresolved street frontage and address - unresolved uses for and access to rear courtyard - inappropriate response to functionality needs of anticipated resident demographic for communal open spaces - poor relationship of common rooms with communal terrace landscape at level 3
Aesthetics	The building's expression shows great promise. The street facing terraces show a more consistent rhythm and the tower achieves elegance in its simple composition of materials. The ground floor however is not well resolved and needs a total redesign that may impact on upper levels. The building's expression could be significantly improved by : - providing south face of podium with well integrated material, (such as high quality dry pressed brick) - providing visual access to rear courtyard from entry - providing visual access to rear courtyard from car park ramp - providing a well-considered well-integrated solution to the required floodwater intake and balustrade frontage. A mere commercial glazed balustrade above standard louvres will not meet an acceptable standard. - re-orienting tower balconies to the east and west - redesigning tower units to be symmetrical In addition, the top roof expression appears to create double roofs which is wasteful and top heavy. Why not allow the top roof form to prevail so as to simplify and lessen apparent bulk?
Design Excellence WLEP2009	
Whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved	Not demonstrated as yet
Whether the form and	Promising but substantial modifications required.

external appearance of the proposed development will improve the quality and amenity of the public domain,	
Whether the proposed development detrimentally impacts on view corridors,	Acceptability of reduced separation will depend on the demonstrated urban design and amenity of the revised built form
Whether the proposed development detrimentally overshadows an area shown distinctively coloured and numbered on the Sun Plane Protection Map,	N/A
How the development addresses the following:	
the suitability of the land for development,	Yes
existing and proposed uses and use mix	Yes
heritage issues and streetscape constraints,	N/A
the location of any tower proposed, having regard to the need to achieve an acceptable relationship with other towers (existing or proposed) on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form,	Acceptability of tower - and in particular its reduced separation - will depend on the demonstrated urban design and amenity of the revised built form as well its demonstrated capacity not to adversely impact on privacy between neighbouring developments and streetscape.
bulk, massing and modulation of buildings	Yes, provided layout and building separation can be demonstrated to deliver design excellence
street frontage heights	Yes
environmental impacts such as sustainable design, overshadowing, wind and reflectivity	Yes
the achievement of the principles of ecologically sustainable development	Yes, provided layouts can be resolved and landscape recommendations adopted
pedestrian, cycle, vehicular and service access, circulation and requirements	No – see notes about loading bay location
impact on, and any proposed improvements to, the public domain	No – see notes about street frontage and interface with public domain

Attachment 7 – Recommended conditions

Approved Plans and Specifications

1 The development shall be implemented substantially in accordance with the details and specifications set out on:

Demolition Plan 07-Q dated 25 May 2020 prepared by Design Workshop Australia

Basement 2 Floor Plan 21-Q dated 25 May 2020 prepared by Design Workshop Australia

Basement 1 Floor Plan 22-Q dated 25 May 2020 prepared by Design Workshop Australia

Ground Floor Plan 23-Q dated 25 May 2020 prepared by Design Workshop Australia

Level 1 Floor Plan 24-Q dated 25 May 2020 prepared by Design Workshop Australia

Level 2 Floor Plan 25-Q dated 25 May 2020 prepared by Design Workshop Australia

Level 3 Floor Plan 26-Q dated 25 May 2020 prepared by Design Workshop Australia

Level 4 Floor Plan 27-Q 25 May 2020 prepared by Design Workshop Australia

Typical Level 5-7 Floor Plan 28-Q dated 25 May 2020 prepared by Design Workshop Australia

Level 8 Plan 29-Q 25 May 2020 prepared by Design Workshop Australia

Typical Level 9-13 Floor Plan 30-Q dated 25 May 2020 prepared by Design Workshop Australia

Roof Plan 31-Q dated 25 May 2020 prepared by Design Workshop Australia

Adaptable Unit (Typical) 34-Q dated 25 May 2020 prepared by Design Workshop Australia

Plenum Floor Plan and Section 35-Q dated 25 May 2020 prepared by Design Workshop Australia

North Elevation 40-Q dated 25 May 2020 prepared by Design Workshop Australia

South Elevation 41-Q dated 25 May 2020 prepared by Design Workshop Australia

East Elevation and West Elevation 42-Q dated 25 May 2020 prepared by Design Workshop Australia

Section A-A 50-Q dated 25 May 2020 prepared by Design Workshop Australia

Section B-B 51-Q dated 25 May 2020 prepared by Design Workshop Australia

Section C-C 52-Q dated 25 May 2020 prepared by Design Workshop Australia

Section D-D 53-Q dated 25 May 2020 prepared by Design Workshop Australia

Section E-E and Section F-F 54-Q dated 25 May 2020 prepared by Design Workshop Australia

and any details on the application form, and with any supporting information received, except as amended by the conditions specified and imposed hereunder.

General Matters

2 **Geotechnical**

a All work is to be in accordance with the geotechnical recommendations contained in the report dated 12 September 2019 by EI Australia.

b A dilapidation report is required for all structures located within the zone of influence of the proposed earthworks as determined by the geotechnical consultant.

c All excavations need to be supported during and after construction particularly to protect adjoining property with nearby existing development.

d Retaining wall design is not to include anchors extending on to adjoining property without the written consent of the adjoining property owner.

e No disturbance of ground is to occur beyond site boundaries. A minimum buffer between site boundaries and the construction of retaining structures is to be recommended by the geotechnical consultant to ensure adjoining property is not adversely impacted upon by this development.

f Hard bedrock where encountered will be difficult to excavate. Alternative excavation methods should be considered to minimise noise and vibration.

g All earthworks including drainage and retaining wall construction is to be subject to geotechnical supervision. Where necessary amendments are to be made to the designs during

construction based on supplementary geotechnical advice given during the supervision to ensure that the completed works accommodates all encountered geotechnical constraints.

3 **Stormwater Quality Management**

a The stormwater treatment system must achieve pollutants and nutrients removal minimum: GP – 90%, TSS – 80%, TP – 55% and TN – 40%.

b It is strata management responsibility to maintain the stormwater filtration system.

4 **Building Work - Compliance with the Building Code of Australia**

All building work must be carried out in compliance with the provisions of the Building Code of Australia.

5 **Construction Certificate**

A Construction Certificate must be obtained from Council or an Accredited Certifier prior to work commencing.

A Construction Certificate certifies that the provisions of Clauses 139-148 of the Environmental Planning and Assessment Amendment Regulations, 2000 have been satisfied, including compliance with all relevant conditions of Development Consent and the Building Code of Australia.

Note: The Certifier must cause notice of its determination to be given to the consent authority, and to the council, by forwarding to it, within two (2) days after the date of the determination, the plans and documentation referred to in clause 142 (2) of the Environmental Planning and Assessment Regulation 2000.

6 **Occupation Certificate**

An Occupation Certificate must be issued by the Principal Certifier prior to occupation or use of the development. In issuing an Occupation Certificate, the Principal Certifier must be satisfied that the requirements of section 6.9 of the Environmental Planning and Assessment Act 1979, have been complied with as well as all of the conditions of the Development Consent.

7 **Street Tree Retention**

The developer shall retain the existing street tree(s) indicated on the Landscape Plan- Trees to be removed and retained, Taylor Brammers, Revision P2, date 4 September 2019 consisting of tree(s) numbered T2 *Lophostemon confertus*.

Any branch pruning, which has been given approval, must be carried out by a qualified arborist in accordance with Australian Standard AS4373-2007.

All tree protection measures are to be installed in accordance with Australian standard AS4970-2009 Protection of Trees on development Sites.

8 **Street Tree Removal**

The developer shall remove existing the street tree(s) indicated on the Landscape Plan- Trees to be removed and retained, Taylor Brammers, Revision P2, date 4 September 2019 consisting of tree(s) numbered T1 *Agnois flexuosa*.

Tree removal costs are to be borne by developer. The removal of trees, including stumps, is to be carried out by suitably qualified tree contractor. This contractor must be appropriately insured to indemnify Council against any loss or damage incurred during the above works. They must also have appropriate WH&S policies and procedures (including traffic control) to ensure that works are carried out in a safe manner and in accordance in Council's own WH&S policies.

The developer must apply for (and be granted) permission under section 138 of the roads act to work within the road reserve. Tree removal must be carried out to the satisfaction of WCC Manager of Works.

9 **Separate Consent required for Advertising Signage**

This consent does not authorise the erection of any advertising signage. Any such advertising signage will require separate Council approval, in the event that such signage is not exempt development under an environmental planning instrument.

Prior to the Issue of the Construction Certificate

10 **Minimum Headroom**
A minimum of 3.5 metres headroom is to be provided above the loading dock and above the Basement 1 vehicle access ramp. A clear 3.5 metres of headroom must be provided along the entire vehicle path of travel from the street frontage to the Basement 1 loading dock to allow waste and removalist vehicles to access the site. This requirement shall be reflected on the Construction Certificate plans.

11 **Awning**
An awning is to be provided for the development in accordance with the dimensions and under awning lighting provisions outlined in Part 3.5 of Chapter D13 of Wollongong Development Control Plan 2009. Details of the awning demonstrating compliance with this requirement must be submitted with the Construction Certificate application.

12 **Stormwater Drainage Design**
The hydrological IFD data used for the stormwater drainage design is to be taken from AR&R87. Details are to be provided to the Certifier confirming that the data from AR&R87 was used for the hydrological and hydraulic model for the internal stormwater design of the site and the proposed upgraded street drainage system located within Atchison Street.

13 **Basement Waterproofing**
Full engineering details of the proposed wall around the basement car park shall be submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate. These shall include construction details indicating that no ingress of stormwater is possible into the basement levels. This applies to any proposed opening such as doors or ventilation louvres. The problem of backwater from the stormwater pipeline entering the basement car park level shall be addressed by a method such as a flap gate or one-way valve system.

14 **Pump System**
A pump system shall be provided in association with the detailed drainage design for the site to cater for stormwater from a prolonged/extreme storm event entering the basement. The pump system shall be designed by a suitably qualified and experienced civil engineer and reflected on the Construction Certificate plans and supporting documentation.

15 **Maintenance of Flood Conveyance**
The detailed design of the development shall be generally in accordance with the plans listed below, to ensure no reduction in the flood flow conveyance capacity of the site and no increase in flooding elsewhere as a result of the development. Details of the proposed subfloor flood conveyance area including invert/obvert levels, internal vertical clearance heights, maintenance access points, and proposed louvres fronting Atchison Street, shall be reflected on the Construction Certificate plans. Evidence that these requirements have been satisfied shall be submitted to the Certifier prior to the release of a Construction Certificate.

- Flood Impact Statement, ref. PN:18-167, rev A, prepared by ATB Consulting Engineers, dated 4 September 2019.
- Sections A-A, ref 1800 dwg 50, rev Q prepared by Design Workshop Australia, dated October 2018.

16 **Excavation and Retaining Structures adjacent to Public Roads**
The design of all permanent and temporary retaining structures within the zone of influence of any Council assets including the road pavement, stormwater pipes and pits, must be provided to Wollongong City Council and the Principal Certifying Authority prior to the issue of the Construction Certificate. The design must be prepared in accordance with the RMS Technical direction GTD 2012/001, by a qualified Civil Engineer, NPER 3 accreditation with the Institute of Engineers Australia and experienced in structural design. The plan must clearly show that all components of the retaining structure and associated drainage is wholly located within the subject site. The design must be supported by:

a A geotechnical report prepared in accordance with the requirements of the RMS Technical direction GTD 2012/001.
b A dilapidation survey of the existing Council infrastructure.
c Details of the proposed monitoring program for the excavation and retaining structures, and relevant threshold actions prepared in accordance with RMS Technical direction GTD 2012/001.

17 **Ground Anchors**
Permanent ground anchors are not permitted within the road. Temporary ground anchors can only be used where the Road Authority has provided written confirmation to the applicant for their use. Temporary anchors must be designed in accordance with RMS Technical Direction GTD 2012/001.

18 **Photovoltaic Panels**
Solar photovoltaic panels are to be installed at roof level and incorporate a battery storage system. Detail of this is to be shown on the Construction Certificate.

19 **Façade Treatment to Substation Wall**
The proposed painted finish of the west facing wall of the substation (identified as PF03 on Drawing 42) that faces Atchison Street must be replaced with a high quality material or treatment to provide visual interest to the ground floor elevation, which may also incorporate building signage. Details must be submitted to the Principal Certifying Authority's satisfaction prior to issue of a Construction Certificate.

20 **Dilapidation Report Prior to Construction**
A Dilapidation Report detailing the current structural condition of adjoining buildings, infrastructure and roads shall be prepared and endorsed by a qualified structural engineer. The report shall be submitted to the satisfaction of the certifying authority prior to issue of the Construction Certificate.

A copy of the report is to be forwarded to Council and the owners of adjoining properties prior to the issue of a Construction Certificate.

21 **Section 73 Compliance Certificate**
A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained from Sydney Water Corporation. Application must be made through an authorised Water Servicing Coordinator. Please refer to the "Builders and Developers" section of the web site www.sydneywater.com.au then search to "Find a Water Servicing Coordinator". Alternatively, telephone 13 20 92 for assistance.

Following application, a "Notice of Requirements" will advise of water and sewer infrastructure to be built and charges to be paid. Please make early contact with the Coordinator, since building of water/sewer infrastructure can be time consuming and may impact on other services and building, driveway or landscape design.

The Notice of Requirements must be submitted to the Principal Certifier prior to issue of the Construction Certificate.

22 **Endeavour Energy Requirements**
The submission of documentary evidence from Endeavour Energy to the Principal Certifier is required confirming that satisfactory arrangements have been made with Endeavour Energy for the provision of electricity supplies to the development, prior to the release of the Construction Certificate.

Note: Applications should be made to Customer Connections – South Coast, Endeavour Energy PO Box 811 Seven Hills NSW 1730.

23 **Telecommunications**
The submission of documentary evidence from an approved telecommunications carrier to the Principal Certifier confirming that underground telecommunication services are available for this development is required prior to the issue of the Construction Certificate.

24 **Car Parking and Access**
The development shall make provision for the following:

Residential

- 48 residential car parking spaces (including 6 spaces capable of adaption for people with disabilities)
- 11 residential visitor car parking spaces
- 4 residential motorcycle parking spaces
- 18 secure (Class B) residential bicycle spaces
- 5 residential visitor bicycle spaces (Class C)

Commercial

- 4 commercial car parking spaces (including 1 space for people with disabilities)
- 1 commercial motorcycle parking space
- 2 secure (Class B) employee bicycle spaces

This requirement shall be reflected on the Construction Certificate plans. Any change in above parking numbers shown on the approved DA plans shall be dealt with via a section 4.55 modification to the development. The approved car parking spaces shall be maintained to the satisfaction of Council, at all times.

25 The parking dimensions, internal circulation, aisle widths, kerb splay corners, head clearance heights, ramp widths and grades of the car parking areas are to be in conformity with the current relevant Australian Standard AS2890.1, except where amended by other conditions of this consent. Details of such compliance are to be reflected on the Construction Certificate plans.

26 Each disabled person's parking space must comply with the current relevant Australian Standard AS2890.6 – Off-street parking for people with disabilities. This requirement shall be reflected on the Construction Certificate plans.

27 **Designated Loading/Unloading Facility**
The designated loading/unloading facility must be clearly delineated with appropriate signage and or line marking to ensure the area is kept clear at all times. The designated loading/unloading facility shall be shown on the Construction Certificate plans.

28 The provision of suitable barriers, line-marking and painted signage delineating vehicular flow movements within the car parking areas. These details shall be reflected on the Construction Certificate plans.

29 **Gradients of Ramps and Driveways as per AS 2890.1**
All driveways shall be constructed with a maximum vertical alignment as shown in Council's standard drawings. This requirement shall be reflected on the Construction Certificate plans and any supporting documentation.

Gradients of ramps and access driveways within the site must be provided in accordance with the current relevant Australian Standard AS2890.1 - Off Street Car Parking. Details of the method of treatment of any fill/retaining wall which may be required in conjunction with the proposed driveway. This requirement must be reflected on the Construction Certificate plans.

30 **Security Roller Shutters for Basement Car Parking Areas**
The installation of any security roller shutter for the basement car parking area shall not restrict access to any designated visitor car parking space. In the event that the approved visitor car parking spaces are located behind any proposed security roller shutter, an intercom system is required to be installed to enable visitor access into the basement car parking area. This requirement is to be reflected on the Construction Certificate plans and any supporting documentation for the endorsement of the Principal Certifier prior to the release of the Construction Certificate.

31 A change in driveway paving is required at the entrance threshold within the property boundary to clearly show motorists they are crossing a pedestrian area. Between the property boundary and the kerb, the developer must construct the driveway pavement in accordance with the conditions,

technical specifications and levels to be obtained from Council's Manager Works. This requirement shall be reflected on the Construction Certificate plans and any supporting documentation.

32 **Structures Adjacent to Driveway**
Any proposed structures adjacent to the driveway shall comply with the requirements of the current relevant Australian Standard AS2890.1 (figure 3.2 and 3.3) to provide for adequate pedestrian and vehicle sight distance. This includes, but is not limited to, structures such as signs, letterboxes, retaining walls, dense planting etc. This requirement shall be reflected on the Construction Certificate plans.

33 Bicycle parking facilities must have adequate weather protection and provide the appropriate level of security as required by the current relevant Australian Standard AS2890.3 - Bicycle Parking Facilities. This requirement shall be reflected on the Construction Certificate plans.

34 The depth and location of all services (ie gas, water, sewer, electricity, telephone, traffic lights, etc) must be ascertained and reflected on the Construction Certificate plans and supporting documentation.

35 **Landscaping**
The submission of a final Landscape Plan to the Principal Certifying Authority, prior to the release of the Construction Certificate. The final Landscape Plan shall address the following requirements:

a a schedule of proposed planting, including botanic name, common name, expected mature height and staking requirements as well as number of plants and pot sizes.

The completion of the landscaping works as per the final approved Landscape Plan is required, prior to the issue of Occupation Certificate.

36 The submission of certification from a suitably qualified and experienced landscape designer and drainage consultant to the Principal Certifier prior to the release of the Construction Certificate, confirming that the landscape plan and the drainage plan are compatible.

37 The implementation of a landscape maintenance program in accordance with the approved Landscape Plan for a minimum period of 12 months to ensure that all landscape work becomes well established by regular maintenance. Details of the program must be submitted with the Landscape Plan to the Principal Certifier prior to release of the Construction Certificate.

38 **Engineering Plans and Specifications - Retaining Wall Structures Greater than One (1) Metre**
The submission of engineering plans and supporting documentation of all proposed retaining walls greater than 1m to the Principal Certifier for approval prior to the issue of the Construction Certificate. The retaining walls shall be designed by a suitably qualified and experienced civil and/or structural engineer. The required engineering plans and supporting documentation shall include the following:

a A plan of the wall showing location and proximity to property boundaries;
b An elevation of the wall showing ground levels, maximum height of the wall, materials to be used and details of the footing design and longitudinal steps that may be required along the length of the wall;
c Details of fencing or handrails to be erected on top of the wall;
d Sections of the wall showing wall and footing design, property boundaries, subsoil drainage and backfill material. Sections shall be provided at sufficient intervals to determine the impact of the wall on existing ground levels. The developer shall note that the retaining wall, subsoil drainage and footing structure must be contained wholly within the subject property;
e The proposed method of subsurface and surface drainage, including water disposal. This is to include subsoil drainage connections to an inter-allotment drainage line or junction pit that discharges to the appropriate receiving system;
f The assumed loading used by the engineer for the wall design.

g Flows from adjoining properties shall be accepted and catered for within the site. Finished ground and top of retaining wall levels on the boundary shall be no higher than the existing upslope adjacent ground levels.

39 **Property Addressing Policy Compliance**

Prior to the issue of any construction certificate, the developer must ensure that any site addressing complies with Council's **Property Addressing Policy** (as amended). Where appropriate, the developer must also lodge a written request to Council's **Infrastructure Systems & Support – Property Addressing (propertyaddressing@wollongong.nsw.gov.au),** for the site addressing prior to the issue of the construction certificate. Please allow up to 3-5 business days for a reply. Enquiries regarding property addressing may be made by calling 4227 8660.

40 **Footpath Paving City Centre**

The developer is responsible for the construction of footpath paving for the entire frontage of the development for the full width of the verge. The type of paving for this development shall be in accordance with the Wollongong City Council City Centre Public Domain Technical Manual.

A nominal two percent (2%) minimum one percent (1%), maximum two and a half percent (2.5%) cross fall to be provided from property line to back of kerb. Any changes of level, ramps or stairs and associated tactile markers and handrails are to be contained with the property boundary.

The driveway entry threshold from the property boundary line to the face of kerb is to match the footpath material and be designed to withstand predicted traffic loadings.

The driveway threshold finish within property boundary line is to contrast with driveway entry.

The footpath and driveway entry on the council property must be installed to the satisfaction of WCC Manager of Works.

A Landscape Plan is to be submitted to Council for approval prior to the issue of the Construction Certificate showing proposed paving, footpath design levels, street tree details and location of all services.

41 **Street Trees City Centre**

The developer must address the street frontage by installing street tree planting. The number and species for this development is one (1) *Lophostemon confertus* 200 litre container size in accordance with AS 2303:2018 Tree stock for landscape use. Tree pit detailing is to be in accordance with the Wollongong City Council Public Domain Technical Manual. Dial Before You Dig must be consulted prior to any excavation on site. Pot holing must be carried out to determine service location. Location of street tree plantings to be sited to ensure no conflict occurs with street light poles.

Tree pits must be adequately mulched, plants installed and tree guard/staking/tree grille/edging installed to the satisfaction of WCC Manager of Works.

These requirements shall be reflected on the Construction Certificate plans and any supporting documentation.

42 **Sizing of Drainage**

All roof gutters, downpipes, pits, and pipelines draining roof areas and other impervious surfaces with no deliberate overflow path to the on-site stormwater detention (OSD) facility, shall be designed to cater for a 1 in 100 year ARI storm event in accordance with AS 3500.3 – Plumbing and Drainage (Stormwater Drainage). Details of gutter/downpipe/pipeline sizes and locations shall be reflected on the Construction Certificate plans

43 **Stormwater Drainage Design**

A detailed drainage design for the development must be submitted to and approved by the Certifier prior to the release of the Construction Certificate. The detailed drainage design must satisfy the following requirements:

a Be prepared by a suitably qualified civil engineer in accordance with Chapter E14 of Wollongong City Council's Development Control Plan 2009, Subdivision Policy, conditions

listed under this consent, and generally in accordance with the concept plan/s lodged for development approval, prepared by ATB consulting engineers, project no. 18167, dwg SW4, rev 2, dated 25 November 2019.

b Include details of the method of stormwater disposal. Stormwater from the development must be piped to Council's existing stormwater drainage system.

c Engineering plans and supporting calculations for the stormwater drainage system are to be prepared by a suitably qualified engineer and be designed to ensure that stormwater runoff from upstream properties is conveyed through the site without adverse impact on the development or adjoining properties. The plan must indicate the method of disposal of all stormwater and must include rainwater tanks, existing ground levels, finished surface levels on all paved areas, estimated flow rates, invert levels and sizes of all pipelines.

d Overflow paths shall be provided to allow for flows of water in excess of the capacity of the pipe/drainage system draining the land, as well as from any detention storage on the land. Blocked pipe situations with 1 in 100 year ARI events shall be incorporated in the design. Overflow paths shall also be provided in low points and depressions. Each overflow path shall be designed to ensure no entry of surface water flows into any building and no concentration of surface water flows onto any adjoining property. Details of each overflow path shall be shown on the detailed drainage design.

44 **Flood Level Requirements**

The following requirements shall be reflected on the Construction Certificate plans, prior to the release of the Construction Certificate:

a Habitable floor levels must be constructed at a minimum of RL 12.45 metres AHD.

b Any portion of the building or structure below RL 12.45 metres AHD should be built from flood compatible materials. Where materials are proposed and not listed in Appendix B of Chapter E13 of the Wollongong DCP2009, relevant documentation from the manufacturer shall be provided demonstrating that the materials satisfy the definition of 'flood compatible materials' as stated in Chapter E13 of the Wollongong DCP2009.

c The proposed structures shall be designed to withstand the forces of floodwater, debris and buoyancy up to and including the PMF plus freeboard being RL 12.74 metres AHD or greater.

45 **On-Site Stormwater Detention (OSD) Design**

The developer must provide on-site stormwater detention (OSD) storage for stormwater runoff from the development. The design and details of the OSD system must be provided in conjunction with the detailed drainage design and approved by the Principal Certifier prior to the release of the Construction Certificate. The OSD design and details must satisfy the following requirements:

a Must be prepared by a suitable qualified engineer in accordance with Chapter E14 of the Wollongong DCP 2009.

b Must include details of the Site Storage Requirement (SSR) and Permissible Site Discharge (PSD) values for the site in accordance with Section 12.2.4 of Chapter E14 of the Wollongong DCP2009.

c The OSD facility must be designed to withstand the maximum loadings occurring from any combination of traffic (with consideration to residential and heavy vehicles), hydrostatic, earth, and buoyancy forces. Details must be provided demonstrating these requirements have been achieved.

d The OSD facility shall incorporate a minimum 900mm x 900mm square lockable grate for access and maintenance purposes, provision for safety, debris control screen, and a suitably graded invert to the outlet to prevent ponding.

e Must include discharge control calculations (i.e. orifice/weir calculations) generally in accordance with Section 12.2.6 and 12.5.4 of Chapter E14 of the Wollongong DCP2009.

f Details of the orifice plate including diameter of orifice and method of fixing shall be provided.

g Must include details of a corrosion resistant identification plaque for location on or close to the OSD facility. The plaque shall include the following information and shall be installed prior to the issue of the occupation certificate:

- The structure is an OSD facility, being part of the stormwater drainage network, and is not to be tampered with.
- Identification number DA-2019/1123;
- Any specialist maintenance requirements.

h Must include a maintenance schedule for the OSD system, generally in accordance with Chapter E14 of the Wollongong DCP2009.

46 **Council Footpath Reserve Works – Driveways and Crossings**

All redundant vehicular crossings and laybacks rendered unnecessary by this development must be reconstructed to normal kerb and gutter or existing edge of carriageway treatment to match the existing. The verge from the back of kerb to the boundary must be removed and the area appropriately graded, topsoiled and turfed in a manner that conforms with adjoining road reserve. The area forward of the front boundary must be kept smooth, even and free from any trip hazards. All alterations of public infrastructure where necessary are at the developer's expense.

All new driveway laybacks and driveway crossings must be designed in accordance with Wollongong City Council Standards. Details and locations are to be shown on the Construction Certificate Plans.

47 **Atchison Street – Detailed Civil Engineering Design – Council Land**

A detailed civil engineering design shall be provided for the proposed footpath and drainage works within the road reserve and/or Council Land. The details must be submitted to and approved by Councils Development Engineering Manager. The detailed civil engineering design shall be prepared by a suitably qualified practicing civil engineer in accordance with the relevant Council engineering standards. The design plans shall be generally in accordance with the Ground Floor Plan, project no. 1800, dwg 23, rev N, prepared by Design Workshop Australia, dated October 2018 and shall include:

a Levels and details of all existing and proposed infrastructure/services such as kerb and gutter, public utility, pits, poles, fencing, stormwater drainage, adjacent road carriageway crown, street signs (clearly identifying the type of sign) and footpath levels - and shall extend a minimum of 5 metres beyond the limit of works.

b Footpath longitudinal sections, and cross-sections at 10 metre intervals as well as including building entrance points and transitions to existing at the property boundary demonstrating compliance with the latest versions of AS 1428.1, AS/NZS 2890.1, the Disability Discrimination Act and the AUSTROAD road design standards.

c Engineering details of the proposed pit and pipe stormwater drainage system within Council's road reserve, including a hydraulic grade line analysis and longitudinal section of the proposed system showing calculated flows, velocity, pits, pipe size/class, grade, inverts and ground levels. Each proposed pit must be constructed generally in accordance with Wollongong City Council's Engineering Standard Drawings.

d Where any adjustments to public utilities are proposed the applicant shall submit documentary evidence that they have the consent of the owner of the public utility authority.

e All construction must be in accordance with the requirements of Council's Subdivision Code. Evidence that this requirement has been met must be detailed on the engineering drawings.

f Details are to be provided regarding the type of materials used for construction. They should conform to the adjacent road reserves. Pavement designs must be provided for road reconstruction works, the pavement must be designed by a suitably qualified engineer to the expected traffic loadings and type.

The detailed civil engineering design and supporting documentation shall be submitted to and approved by Wollongong City Council's Development Engineering Manager prior to the issue of a Construction Certificate.

48 **Drainage Works within Council Road Reserve**

A detailed design for the proposed drainage works within Council's road reserve and/or Council Land, including pit and pipeline connecting the inter-allotment drainage system to Council's existing underground drainage system in Atchison Street shall be prepared by a suitably qualified

civil engineer in accordance with the relevant Council engineering standards. The design plans shall be generally in accordance with the Road Stormwater Layout, dwg no. SW15, rev 2, prepared by ATB Consulting, dated 25 November 2019 and shall include the following:

a Levels and details of all existing and proposed infrastructure/services such as kerb and gutter, public utility, pits, poles, fencing, stormwater drainage, adjacent road carriageway and footpath levels, and shall extend a minimum of 5 metres beyond the limit of works.

b Engineering details of the proposed pit and pipe stormwater drainage system within Council's road reserve, including a hydraulic grade line analysis and longitudinal section of the proposed system showing calculated flows, velocity, pits, pipe size/class, grade, inverts and ground levels. Each proposed pit must be constructed generally in accordance with Wollongong City Council's Engineering Standard Drawings.

c All new drainage pits shall be in accordance with the current version of Wollongong City Council's Engineering Standard Drawings. The proposed pit in Council's road reserve must not conflict with any existing or proposed vehicular accessway.

d Where any adjustments to public utilities are proposed the applicant shall submit documentary evidence that they have the consent of the owner of the public utility authority.

e All construction must be in accordance with the requirements of Council's Subdivision Policy.

Evidence that the above requirements have been met must be detailed on the engineering drawings. The detailed design and supporting documentation shall be submitted to and approved by Wollongong City Council's Development Engineering Manager prior to the issue of the Construction Certificate.

49 **Development Contributions - City Centre**

Pursuant to Section 4.17 of the Environmental Planning and Assessment Act 1979 and the Wollongong City-Wide Development Contributions Plan, a monetary contribution of $260,000.00 (subject to indexation) must be paid to Council towards the provision of public amenities and services, prior to the release of any associated Construction Certificate.

This amount has been calculated based on the estimated cost of development and the applicable percentage rate as outlined in Clause 25K of the Environmental Planning and Assessment Regulation 2000.

The contribution amount will be subject to indexation until the date of payment. The formula for indexing the contribution is:

Contribution at time of payment = $C x (CP2/CP1)

Where:

$C is the original contribution as set out in the Consent

CP1 is the Consumer Price Index; All Groups CPI; Sydney at the time the consent was issued

CP2 is the Consumer Price Index; All Groups CPI; Sydney at the time of payment

Details of CP1 and CP2 can be found in the Australian Bureau of Statistics website – Catalogue No. 6401.0 - Consumer Price Index, Australia.

The following payment methods are available:

METHOD	HOW	PAYMENT TYPE
Online (Full payment only)	http://www.wollongong.nsw.gov.au/applicationpayments Your Payment Reference: 1166030	• Credit Card
In Person	Wollongong City Council Administration Building - Customer Service Centre Ground Floor 41 Burelli Street, WOLLONGONG	• Cash • Credit Card

		• Bank Cheque
PLEASE MAKE BANK CHEQUE PAYABLE TO: Wollongong City Council (Personal or company cheques are not accepted)		

A copy of the Wollongong City-Wide Development Contributions Plan and accompanying Fact Sheet may be inspected or obtained from the Wollongong City Council Administration Building, 41 Burelli Street, Wollongong during business hours or on Council's web site at www.wollongong.nsw.gov.au

Prior to the Commencement of Works

50 **Appointment of Principal Certifier**

Prior to commencement of work, the person having the benefit of the Development Consent and a Construction Certificate must:

a Appoint a Principal Certifier (PC) and notify Council in writing of the appointment irrespective of whether Council or an accredited private certifier is appointed; and

b notify Council in writing of their intention to commence work (at least two days notice is required).

The Principal Certifier must determine when inspections and compliance certificates are required.

51 **Sign – Supervisor Contact Details**

Before commencement of any work, a sign must be erected in a prominent, visible position:

a stating that unauthorised entry to the work site is not permitted;

b showing the name, address and telephone number of the Principal Certifier for the work; and

c showing the name and address of the principal contractor in charge of the work site and a telephone number at which that person can be contacted at any time for business purposes.

This sign shall be maintained while the work is being carried out and removed upon the completion of the construction works.

52 **Temporary Toilet/Closet Facilities**

Toilet facilities are to be provided at or in the vicinity of the work site on which work involved in the erection or demolition of a building is being carried out at the rate of one toilet for every 20 persons or part of 20 persons employed at the site.

Each toilet provided must be:

a a standard flushing toilet; and

b connected to either:

i the Sydney Water Corporation Ltd sewerage system or

ii an accredited sewage management facility or

iii an approved chemical closet.

The toilet facilities shall be provided on-site, prior to the commencement of any works.

53 **Enclosure of the Site**

The site must be enclosed with a suitable security fence to prohibit unauthorised access, to be approved by the Principal Certifier. No building work is to commence until the fence is erected.

54 **Demolition Works**

The demolition of the existing buildings and structures shall be carried out in accordance with Australian Standard AS2601 (2001): The Demolition of Structures or any other subsequent relevant Australian Standard and the requirements of the SafeWork NSW.

No demolition materials shall be burnt or buried on-site. The person responsible for the demolition works shall ensure that all vehicles leaving the site carrying demolition materials have their loads covered and do not track soil or waste materials onto the road. Any unforeseen hazardous and/or intractable wastes shall be disposed of to the satisfaction of the Principal

Certifier. In the event that the demolition works may involve the obstruction of any road reserve/footpath or other Council owned land, a separate application shall be made to Council to enclose the public place with a hoarding or fence over the footpath or other Council owned land.

55 **Demolition Notification to Surrounding Residents**
Demolition must not commence unless at least two (2) days written notice has been given to adjoining residents of the date on which demolition works will commence.

56 **Demolition of Masonry Wall adjacent to Church at 39 Atchison Street**
A minimum of seven (7) days written notice for demolition of the masonry wall adjacent to the Church at 39 Atchison Street must be given so that alternate arrangements can be made for the front gates during construction works.

57 **Consultation with SafeWork NSW – Prior to Asbestos Removal**
A licensed asbestos removalist must give written notice to SafeWork NSW at least five (5) days before licensed asbestos removal work is commenced.

58 **Contaminated Roof Dust**
Any existing accumulations of dust in ceiling voids and wall cavities must be removed prior to any demolition work commencing. Removal must take place by the use of an industrial vacuum fitted with a high efficiency particulate air (HEPA) filter.

59 **Support for Neighbouring Buildings**
This consent requires the preservation and protection of neighbouring buildings from any damage and if necessary, requires the underpinning and support of any neighbouring building in an approved manner. The applicant or the contractor carrying out the work must at least seven days in advance of any excavation works below the level of the base of the footings of a building on an adjoining allotment, including a public road or place, give written notice of intention to carry out such works to the property owner of the affected adjoining building and furnish specific written details and supporting plans or other documentation of the proposed work.

The adjoining property owner of land is not liable for any part of the cost of work carried out for the purposes of this condition, whether carried out on the allotment of land being excavated or on the adjoining allotment of land.

60 **Construction Environmental Management Plan**
A Construction Environment Management Plan (CEMP) is to be submitted to the Principal Certifying Authority and Council (in the event that Council is not the Principal Certifying Authority) prior to works commencing. The plan shall address as minimum the vehicle traffic, odour and vapour, dust, plant and machinery noise and vibration, water and sediment management, surface water, subsurface seepage and accumulated excavation water, sediment from equipment and cleaning operations, site security, working hours, contact information, incident response and contingency management.

All works on the site must be carried out in accordance with the approved Construction Environmental Management Plan for the full duration of works.

61 **Excavated Soil Material Disposal Plan**
Submit an excavated soil material disposal plan to the Principal Certifying Authority, with the batching, sampling and analysis procedures as per the DECCW (2009) *Waste Classification Guidelines*. The plan shall be prepared by a suitably qualified and experienced consultant. A copy of the plan shall be forwarded to Council.

62 **Certification from Arborist - Adequate Protection of Trees to be Retained**
A qualified arborist is required to be engaged for the supervision of all on-site excavation or land clearing works. The submission of appropriate certification from the appointed arborist to the Principal Certifier is required which confirms that all trees and other vegetation to be retained are protected by fencing and other measures, prior to the commencement of any such excavation or land clearing works.

63 **Works in Road Reserve – Major Works**

Any occupation, use, disturbance or work on the footpath or road reserve for construction purposes, which is likely to cause an interruption to existing pedestrian and/or vehicular traffic flows requires Council consent under Section 138 of the Roads Act 1993.

The application form for Works within the Road Reserve – Section 138 Roads Act can be found on Council's website. The form outlines the requirements to be submitted with the application, to give approval to commence works under the roads act. It is advised that all applications are submitted and fees paid, five (5) days prior to the works within the road reserve are intended to commence. An application must be submitted must be obtained from Wollongong City Council's Development Engineering Team prior to any works commencing where it is proposed to carry out activities such as, but not limited to, the following:

a Digging or disruption to footpath/road reserve surface;
b Loading or unloading machinery/equipment/deliveries;
c Installation of a fence or hoarding;
d Stand mobile crane/plant/concrete pump/materials/waste storage containers;
e Pumping stormwater from the site to Council's stormwater drains;
f Installation of services, including water, sewer, gas, stormwater, telecommunications and power;
g Construction of new vehicular crossings or footpaths;
h Removal of street trees;
i Carrying out demolition works.

Restoration must be in accordance with the following requirements:

a All restorations are at the cost of the Applicant and must be undertaken in accordance with Council's standard document, "Specification for work within Council's Road reserve".
b Any existing damage within the immediate work area or caused as a result of the work/occupation, must also be restored with the final works.

64 **Tree Protection**

Prior to commencement of any work on the site, including any demolition, all trees not approved for removal as part of this consent that may be subjected to impacts of this approved development must be protected in accordance with Section 4 of the Australian Standard Protection of Trees on Development Sites (AS 4970-2009).

Tree protection zones must be established prior to the commencement of any work associated with this approved development.

No excavation, construction activity, grade changes, storage of materials stockpiling, siting of works sheds, preparation of mixes or cleaning of tools is permitted within Tree Protection Zones.

During Demolition, Excavation or Construction

65 **Contamination – Further Investigation Following Demolition**

Following demolition of the existing structures on site, additional soil sampling is to be undertaken of the soil that was previously made inaccessible by the presence of these structures. The results and assessment are to be prepared as an addendum to the approved *Detailed Site Investigation Assessment and Report* (EI Australia, 12 September 2019) and submitted to the Principal Certifying Authority and Council (in the event that Council is not the Principal Certifying Authority) for approval prior to the commencement of excavation works.

66 **Implementation of all the Recommendation (Façades Glazing) of Acoustic Report**

Implement the façade glazing as per the acoustic report prepared by Harwood Acoustics (Reference 1905008B-R Revision A dated 12 March 2020) and the acoustic privacy requirements under Part 6.13 of Chapter D13 of Wollongong Development Control Plan 2009 so that the following LAeq levels are not exceeded:

- in any bedroom in the building 35dB(A) at any time between 10pm and 7am#.
- anywhere else in the building (other than a garage, kitchen, bathroom or hallway): 40dB(A) at any time between 10pm and 7am#.

With exception of once a year night time church bell ringing.

67 **Installation of Water Sensitive Urban Design (WSUD) Treatment Train**
The proponent shall install the WSUD infrastructure (water quality improvement devices) as stated in the stormwater quality management report prepared by ATB Engineering Consulting dated September 2019.

68 **Environmental Wind Control**
Implement all the mitigation measures stated in Table 2.0 of the Wind Assessment Report to minimise adverse wind effect.

69 **Survey Report for Floor Levels**
A Survey Report must be submitted to the Principal Certifier verifying that each floor level accords with the floor levels as per the approved plans under this consent. The survey shall be undertaken after the formwork has been completed and prior to the pouring of concrete for each respective level of the building (if the building involves more than one level). All levels shall relate to Australian Height Datum.

70 **No Adverse Run-off Impacts on Adjoining Properties**
The design and construction of the development shall ensure there are no adverse effects to adjoining properties, as a result of flood or stormwater run-off. Attention must be paid to ensure adequate protection for buildings against the ingress of surface run-off.

Allowance must be made for surface run-off from adjoining properties. Any redirection or treatment of that run-off must not adversely affect any other property.

71 **Copy of Consent to be in Possession of Person carrying out Tree Removal**
The Developer/Applicant must ensure that any person carrying out tree removal is in possession of this development consent and/or the approved landscape plan, in respect to the tree(s) which has/have been given approval to be removed in accordance with this consent.

72 **Notification Prior to Use of Rock Hammers**
At least two (2) days notice written notice shall be given to any residence or business within 50 metres of the site prior to the commencement of any work involving hydraulic rock hammers.

73 **Noise Control - Construction Works**
The construction works shall comply with the Australian Standard AS 2436- 2010 "*Guide to Noise Control on Construction, Maintenance & Demolition Sites*" and any other requirements outlined in the approved project *Construction Environmental Management Plan* or as specified by Council or the NSW Environment Protection Authority.

74 **New Information/Unexpected Finds**
In the event that demolition and/or construction works cause the generation of odours or uncovering of previously unidentified contaminants or hazardous materials, works must immediately cease and the Principal Certifying Authority and Council (in the event that Council is not the Principal Certifying Authority) must be notified in writing within seven (7) days and an appropriately qualified environmental consultant appointed to undertake an assessment of the potential contaminant and works required to make the site safe from potential human health and environmental harm.

75 **Waste Inventory Report**
A Waste Inventory report must be maintained on-site during demolition work. The waste inventory is a register of all materials and waste removed from the site during the demolition work. The register must record each load or movement of material and waste from the site and must include at a minimum the following information:

a The description of material (including identified hazardous material);
b an estimate of the quantity by volume and weight;
c the transporter and registration details of the relevant vehicle;
d the intended destination of the material;

e a copy of the National Association of Testing Authorities (NATA) accredited laboratory results for accumulated roof dust should be included with the Waste Inventory sent to Council.

76 **Restricted Hours of Construction Work**

The developer must not carry out any work, other than emergency procedures, to control dust or sediment laden runoff outside the normal working hours, namely, 7.00 am to 5.00 pm, Monday to Saturday, without the prior written consent of the Principal Certifier and Council. No work is permitted on public holidays or Sundays.

Any request to vary these hours shall be submitted to the **Council** in writing detailing:

a the variation in hours required (length of duration);
b the reason for that variation (scope of works);
c the type of work and machinery to be used;
d method of neighbour notification;
e supervisor contact number;
f any proposed measures required to mitigate the impacts of the works.

Note: The developer is advised that other legislation may control the activities for which Council has granted consent, including but not limited to, the Protection of the Environment Operations Act 1997.

77 **Dust Suppression Measures**

Activities occurring during the construction phase of the development must be carried out in a manner that will minimise the generation of dust.

All sealed surfaces intended to carry vehicular traffic must be managed with the aim of preventing windblown dust emissions.

78 **Asbestos Waste Collection, Transportation and Disposal**

Asbestos waste must be prepared, contained, transported and disposed of in accordance with SafeWork NSW and NSW Environment Protection Authority requirements. Asbestos waste must only be disposed of at a landfill site that can lawfully receive this this type of waste. A receipt must be retained and submitted to the Principal Certifier, and a copy submitted to Council (in the event that Council is not the Principal Certifier), prior to commencement of the construction works.

79 **Provision of Waste Receptacle**

The developer must provide an adequate receptacle to store all waste generated by the development, pending disposal. The receptacle must be regularly emptied and waste must not be allowed to lie or accumulate on the property other than in the receptacle. Consideration should be given to the source separation of recyclable and re-usable materials.

80 **Excess Excavated Material – Disposal**

Excess excavated material shall be classified according to the NSW Environment Protection Authority's Waste Classification Guidelines – Part 1: Classifying Waste (2014) prior to being transported from the site and shall be disposed of only at a location that may lawfully receive that waste.

81 **Provision of Taps/Irrigation System**

The provision of common taps and/or an irrigation system is required to guarantee that all landscape works are adequately watered. The location of common taps and/or irrigation system must be implemented in accordance with the approved Landscape Plan.

82 **Podium Planting**

All podium planting areas are to have a waterproofing membrane that can provide a minimum 10 year warranty on product. Protective boarding is to be installed to protect membrane from damage.

All podium planting areas to be provided with an adequate drainage system connected to the stormwater drainage system. The planter box is to be backfilled with free draining planter box soil mix.

If selected mulch is decorative pebbles/gravel, the maximum gravel pebble size is 10mm diameter

83 **Flood Compatible Materials – Electrical**

All power service (metering) equipment, power outlets, switches etc. shall be located above RL 12.45 metres AHD. All electrical wiring installed below this level should be suitable for continuous underwater immersion and should contain no fibrous components. Earth leakage circuit breakers shall also be installed. Any equipment installed below or partially below RL 12.45 metres AHD should be capable of disconnection by a single plug and socket assembly.

Prior to the Issue of the Occupation Certificate

84 **Acoustic Compliance Report**

The developer shall submit a noise compliance report prepared by an acoustic consultant who is a member of the Australian Acoustic Society (AAS) or the Association of Australian Acoustic Consultants (AAAC) in relation to the building compliance with the recommendations of the acoustic report by Harwood Acoustics (reference 1905008B-R Revision A dated 12 March 2020) and the acoustic privacy requirements under Part 6.13 of Chapter D13 of Wollongong Development Control Plan 2009. A copy of the acoustic compliance report must be submitted to the Principal Certifier and forward a copy to Council.

85 **Completion Report for Excavation adjacent to a Public Road**

A report be provided to Wollongong City Council and Principal Certifying Authority, prepared by a qualified Civil Engineer, NPER 3 accreditation with the Institute of Engineers Australia and experienced in structural design that:

a Certifies that all proposed retaining structures within the zone of influence of any Council assets including the road pavement, stormwater pipes and pits was constructed in accordance with the approved plans prepared in accordance to RMS Technical direction GTD 2012/001.

b Certifies that the monitoring of the site was carried out in accordance with the requirements of RMS Technical direction GTD 2012/001.

c Provides a post construction dilapidation survey.

86 **Lot Consolidation**

Lot 2 DP 152994 and Lots 1 and 2 of DP 784111 must be consolidated into a single parcel of land. Documentary evidence of the lot consolidation must be provided prior to issue of an Occupation Certificate.

87 **Dilapidation Report Post Construction**

A Dilapidation Report detailing the current structural condition of adjoining buildings, infrastructure and roads following construction of the development shall be prepared and endorsed by a qualified structural engineer. The report shall be submitted to the satisfaction of the certifying authority prior to issue of the final Occupation Certificate.

A copy of the report is to be forwarded to Council and the owners of adjoining properties prior to the issue of the final Occupation Certificate.

88 **Drainage**

The developer must obtain a certificate of Hydraulic Compliance (using Council's M19 form) from a suitably qualified civil engineer, to confirm that all stormwater drainage and on-site detention works have been constructed in accordance with the approved plans. In addition, full works-as-executed plans, prepared and signed by a Registered Surveyor must be submitted. These plans and certification must satisfy all the stormwater requirements stated in Chapter E14 of the Wollongong DCP2009. This information must be submitted to the Principal Certifier prior to the issue of the final Occupation Certificate.

89 **Restriction on Use – On-site Detention System**

The applicant must create a restriction on use under the Conveyancing Act 1919 over the on-site detention system. The following terms must be included in an appropriate instrument created under the Conveyancing Act 1919 for approval of Council:

"The registered proprietor of the lot burdened must not make or permit or suffer the making of any alterations to any on-site stormwater detention system on the lot(s) burdened without the prior

consent in writing of the authority benefited. The expression 'on-site stormwater detention system' shall include all ancillary gutters, pipes, drains, walls, kerbs, pits, grates, tanks, chambers, basins and surfaces designed to temporarily detain stormwater as well as all surfaces graded to direct stormwater to those structures.

Name of the authority having the power to release, vary or modify the restriction referred to is Wollongong City Council."

The instrument, showing the restriction, must be submitted to the Principal Certifier for endorsement prior to the issue of the Occupation Certificate and the use of the development.

90 **Retaining Wall Certification**
The submission of a certificate from a suitably qualified and experienced structural engineer or civil engineer to the Principal Certifier is required, prior to the issue of the Occupation Certificate or commencement of the use. This certification is required to verify the structural adequacy of the retaining walls and that the retaining walls have been constructed in accordance with plans approved by the Principal Certifier.

91 **Compensatory Planting**
The developer must make compensatory provision for the trees required to be removed as a result of the development. In this regard, six (6) 100 litre container mature plant stock shall be placed in appropriate location within the property boundary of the site. The suggested species are *Hibiscus tiliaceus 'Rubra' and Elaeocarpus reticulatus.*

92 **Positive Covenant – On-Site Detention Maintenance Schedule**
A positive covenant shall be created under the Conveyancing Act 1919, requiring the property owner(s) to undertake maintenance in accordance with the Construction Certificate approved On-Site Stormwater Detention System and Maintenance Schedule (application number to be referenced).

The instrument, showing the positive covenant must be submitted to the Principal Certifier for endorsement prior to the issue of the Occupation Certificate and the use of the development.

93 **On-Site Detention – Structural Certification**
The submission of a certificate from a suitably qualified practising civil and/or structural engineer to the Principal Certifier is required prior to the issue of the Occupation Certificate. This certification is required to verify the structural adequacy of the on-site detention facility and that the facility has been constructed in accordance with the approved Construction Certificate plans.

94 **Structural Soundness Certification**
The submission of a report from a suitably qualified and experienced structural engineer to the Principal Certifier is required, prior to the issue of the Occupation Certificate and commencement of use. This report is required to verify that the development can withstand the forces of floodwater, debris and buoyancy up to and including the Probable Maximum Flood (PMF) plus freeboard being RL 12.74 metres AHD or greater.

95 **Drainage WAE**
The developer shall obtain written verification from a suitably qualified civil engineer, stating that all stormwater drainage and related work has been constructed in accordance with the approved Construction Certificate plans. In addition, full works-as-executed plans, prepared and signed by a Registered Surveyor shall be submitted. These plans shall include levels and location for all drainage structures and works, buildings (including floor levels), and finished ground and pavement surface levels. This information shall be submitted to the Principal Certifier prior to the issue of the Occupation Certificate.

96 **Works-As-Executed Plans - Works within Council Land or Road Reserve**
The submission of a Works-As-Executed (WAE) plan for approved works in Council land and or road reserve must be submitted to and approved by Council's Development Engineering Manager, prior to the release of the Occupation Certificate. The Works-As-Executed plans shall be certified by a registered surveyor indicating that the survey is a true and accurate record of the works that have been constructed. The Works-As-Executed dimensions and levels must also be shown in red

on a copy of the approved Construction Certificate plans. The Works-As-Executed (WAE) plans must include:

a Final locations and levels for all works associated with the development within Council land.
b The plan(s) must include, but not be limited to, the requirements stated in Chapter E14 of the Wollongong DCP 2009.

97 **CCTV of Works in Existing Road**
All stormwater pipes within road reserves intended to be dedicated to Council must be inspected by CCTV. A copy of the CCTV inspection must be submitted to Councils Development Engineering Manager for assessment prior to the issue of the Occupation Certificate. Below standard work must either be replaced or repaired to Councils satisfaction prior to the issuing of the Occupation Certificate.

98 **Completion of Engineering Works**
The completion of all engineering works within Council's road reserve or other Council owned or controlled land in accordance with the conditions of this consent and any necessary work to make the construction effective must be to the satisfaction of Council's Manager Development Engineering. The total cost of all engineering works shall be fully borne by the applicant/developer and any damage to Council's assets shall be restored in a satisfactory manner, prior to the issue of the Occupation Certificate.

99 **On-Site Detention – Certificate of Hydraulic Compliance**
The developer shall obtain a certificate of Hydraulic Compliance (using Council's M19 form) from a suitably qualified civil engineer, to confirm that all stormwater drainage and on-site detention works have been constructed in accordance with the approved plans. The certificate must satisfy the requirements of hydraulic compliance as stated in the On-Site Stormwater Detention Code. This information must be submitted with the full works-as-executed plans to the Principal Certifier prior to the issue of the Subdivision Certificate.

Operational Phases of the Development/Use of the Site

100 **Servicing**
All servicing and waste collection is to be carried out by a vehicle no larger than a Small Rigid Vehicle (max 6.4 metres in length) from the designated loading/unloading facility enabling forward exit in no more than a 3-point turn.

101 All commercial servicing and deliveries are to be undertaken outside of normal retail trading hours to ensure that service and delivery vehicles reversing within car parking areas do not impact on the safety of the general public.

102 All waste collection must be carried out from within the site. Waste collection from the street is not permitted at any time.